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CITY COUNCIL AGENDA
MONDAY, JUNE 15, 2020
250 NORTH 5TH STREET
6:00 PM – SPECIAL MEETING – CITY HALL AUDITORIUM

To become the most livable community west of the Rockies by 2025

Call to Order, Pledge of Allegiance, Moment of Silence

REGULAR AGENDA

1. Public Hearings

a. Quasi-judicial

i. A Resolution Accepting the Petition for Annexation of 45.543-Acres of Land and Ordinances Annexing and Zoning the Magnus Court Annexation to PD (Planned Development) for Two (2) Properties and An Ordinance Rezoning Two (2) Properties from R-E (Residential Estate) and R-2 (Residential – 2 Dwelling Units Per Acre) to PD (Planned Development) with an Outline Development Plan Called Magnus Court to Develop 74 Single-Family Detached Lots with an R-2 (Residential – 2 du/ac) Default Zone District. The Properties Combined are 69.67 Acres and are Generally Located at the West End of Magnus Court and Include the Property Addressed as 2215 Magnus Court #A - Staff Presentation and Applicant Presentation

2. City Council Communication

a. An unstructured time for Councilmembers to discuss current matters, share ideas for possible future consideration by Council, and provide information from board & commission participation.

3. Adjournment

Grand Junction City Council

Regular Session

Item #1.a.i.

Meeting Date: June 15, 2020

Presented By: Scott D. Peterson, Senior Planner

Department: Community Development

Submitted By: Scott D. Peterson, Senior Planner

Information

SUBJECT:

A Resolution Accepting the Petition for Annexation of 45.543-Acres of Land and Ordinances Annexing and Zoning the Magnus Court Annexation to PD (Planned Development) for Two (2) Properties and An Ordinance Rezoning Two (2) Properties from R-E (Residential Estate) and R-2 (Residential – 2 Dwelling Units Per Acre) to PD (Planned Development) with an Outline Development Plan Called Magnus Court to Develop 74 Single-Family Detached Lots with an R-2 (Residential – 2 du/ac) Default Zone District. The Properties Combined are 69.67 Acres and are Generally Located at the West End of Magnus Court and Include the Property Addressed as 2215 Magnus Court #A - Staff Presentation and Applicant Presentation

RECOMMENDATION:

The Planning Commission heard this item at its May 26, 2020 meeting and voted (6-1) to recommend approval of the request.

EXECUTIVE SUMMARY:

The Applicant, CR Nevada Associates LLC, JLC Magnus LLC, and Bonds LLC represented by Mike Thomas, is requesting a Zone of Annexation for two (2) properties to Planned Development. The proposed request also includes the rezone of two (2) properties that are currently located within the City limits and zoned R-E (Residential Estate) and R-2 (Residential – 2 du/ac) and an Outline Development Plan (ODP) for all four (4) properties with a proposed zone of Planned Development (PD) with an R-2 (Residential – 2 du/ac) default zone district for Magnus Court ODP.

The proposed plan will develop 74 single-family detached lots with several areas being proposed to be dedicated to a homeowner's association or granted to the City as public

open space, on 69.67 acres. The Outline Development Plan establishes specific performance standards that the development will be required to meet and conform with throughout each development phase, consistent with Section 21.02.150 (b) of the Zoning and Development Code. The project is located at the west end of Magnus Court and includes the property addressed as 2215 Magnus Court #A.

The City accepted the petition for annexation through a resolution approved on February 19, 2020 and took land use authority concurrent with this action. The first reading of an ordinance to annex those two (2) properties (45.543-acres) was also completed on February 19, 2020.

The Planning Commission previously reviewed this application on February 25, 2020, however, after public comment, the Planning Commission voiced concerns regarding the proposed development, focusing largely on traffic impacts and the existing road infrastructure and pedestrian safety that the proposed development might bring to the area. Because of these and other concerns raised by the public, the Planning Commission recommended denial of the request. The Applicant has resubmitted in an effort to respond to a number of the concerns expressed in the February 25th public hearing. The Planning Commission reheard this item at its May 26th meeting and recommended approval of the request.

BACKGROUND OR DETAILED INFORMATION:

BACKGROUND

The Zoning and Development Code ("The Code") sets the purpose of a Planned Development (PD) zone and enables the PD to be used for unique projects where design flexibility is desired and is not available through application of the standards established in Chapter 21.03 GJMC. The Code provides Planned Development zoning should be used when long-term community benefits will be derived and the vision, goals and policies of the Comprehensive Plan can be achieved.

The four (4) subject properties are currently vacant, except for one (1) single-family detached house. Two (2) properties have been previously annexed into the City limits through the CR Nevada Annexation in 2006 and the Gummin Annexation in 2007. Current City zoning for the CR Nevada parcel is R-E (Residential – Estate) with the Gummin parcel zoned R-2 (Residential – 2 du/ac). The two (2) other properties requesting to be annexed with this proposal are currently zoned RSF-4 (Residential Single Family – 4 du/ac) in the County. The property owner wishes to consolidate the four (4) properties and establish a Planned Development zone district with a default zone of R-2 (Residential – 2 du/ac) to develop a total of 74-single-family detached residential units for a project density of 1.06 dwelling units per acre. The Comprehensive Plan Future Land Use Map identifies the four (4) properties as Residential Low (.5 – 2 du/ac) and Rural. No Comprehensive Plan Future Land Use Map Amendment would be necessary since the proposed default zone district of R-2 is

an allowed zoning district within both the Residential Low and Rural categories utilizing the Blended Land Use Map.

The proposed annexation includes 0.37-acres of the adjacent Magnus Court Right-of-Way (16,257-sq. ft.) which is currently not developed and contains no pavement, curb, gutter or sidewalk. As part of this annexation, the City would take ownership & maintenance responsibilities of this 16,257-square feet of right-of-way. Upon future subdivision development, the developer would be responsible for the cost and construction improvement cost of this right-of-way.

The properties are currently adjacent to existing city limits and are within the Persigo 201 boundary and is "Annexable Development" as defined in the Persigo Agreement. Under the 199 Persigo Agreement with Mesa County, all proposed development within the Persigo Wastewater Treatment Facility boundary requires annexation by the City. The property owners have signed a petition for annexation of the properties.

Staff has found, based on review of the petition and knowledge of applicable state law, including the Municipal Annexation Act Pursuant to C. R. S. 31-12-104, that the Magnus Court Annexation is eligible to be annexed because of compliance with the following:

a) A proper petition has been signed by more than 50% of the owners and more than 50% of the property described;

b) Not less than one-sixth of the perimeter of the area to be annexed is contiguous with the existing City limits;

c) A community of interest exists between the area to be annexed and the City. This is so in part because the Central Grand Valley is essentially a single demographic and economic unit and occupants of the area can be expected to, and regularly do, use City streets, parks and other urban facilities;

d) The area is or will be urbanized in the near future;

e) The area is capable of being integrated with the City;

f) No land held in identical ownership is being divided by the proposed annexation;

g) No land held in identical ownership comprising 20 contiguous acres or more with an assessed valuation of $200,000 or more for tax purposes is included without the owner's consent.

The property as a whole is challenging to develop due to the topography of the site with

slopes between 10 percent to 30 percent, and the presence of rock outcrops and rocky soil conditions. The site is bounded on the south by properties owned by the Museum of Western Colorado and is the location of Riggs Hill. To the north are currently undeveloped parcels of land that are located within Mesa County. The only access to the Applicant's property is via S. Broadway or 22 ¼ Road from the existing Magnus Court right-of-way, which is an unimproved right-of-way and is currently a gravel surface. Future subdivision development will require the developer to dedicate the applicable amount of right-of-way and construct Magnus Court to current City residential standards.

Establishment of Uses:
The Plan allows only single-family detached dwelling units and associated accessory land uses.

Density:
The proposed density for the ODP is 1.06 dwelling units per acre (74 dwelling units on 69.67-acres). The Comprehensive Plan Future Land Use Map designates these properties as Residential Low (.5 – 2 du/ac) and Rural. The Applicant is requesting a default zone of R-2, which has no minimum density and a maximum density of 2 dwelling units/acre.

Access:
With the ODP application, a Traffic Impact Study (TIS) was submitted. The TIS projected project traffic and added that to the existing background traffic. The main external access points are Highway 340 (Broadway) and Reed Mesa Drive and South Broadway and Redlands Parkway. According to the CDOT access code, a westbound left turn lane is currently warranted, albeit by only 1 trip (current threshold is 25 trips – proposed impact of the project would be 26 trips) on Broadway to turn south on Reed Mesa Drive. With project traffic the left turn lane need is greater. Under current City policy the required turn lane improvement (or "safety improvement') would not be the responsibility of the Applicant to construct. CDOT will require an access permit for this intersection based on their access code. Information received from CDOT indicates that a left hand turn lane will be required to be constructed, one existing access point on the south along Broadway will be required to be closed and the pedestrian signal will be required to be moved to the west of the Reed Mesa intersection.

The TIS also indicates, a southbound right turn lane on Redlands Parkway to turn north on South Broadway is warranted after 58 homes are built. Also, under current policy the Applicant would not be required to construct this improvement. The City's past approach for these improvements would be to monitor traffic and safety concerns and then budget and construct the improvement as they become necessary utilizing Transportation Impact Fees.

Level of service is a traffic engineering term used to define vehicle delay at an intersection. A is the best while F is the worst. Each grade is based on the amount of anticipated vehicle wait time in seconds. Existing traffic through the neighborhood is light and all intersections currently operate at a level of service A. The TIS projects all interior intersections including the intersections at 22 ¼ Road and Mowry Drive, Dixon Avenue, Mudgett Street and Reed Mesa Drive will continue to operate at a level of service A in 2040 after the full build-out of the project. The intersection of Mowry Drive and South Broadway is currently unsigned (stop signs). The TIS proposes installing stop signs at all intersections to improve driver awareness and safety. These intersections are in the County and the Applicant would be responsible to coordinate with the County and install the signs.

The industry standard for traffic volume on local residential streets is 1,000 Average Daily Trips (ADT). This volume equates to 500 round trips daily. The existing total daily traffic in the neighborhood was not counted but, based on peak hour counts, is estimated to be approximately 500 ADT on Reed Mesa Drive at Broadway and 300 ADT on South Broadway at Redlands Parkway. After project buildout the estimates are 700 and 800 respectively based on the traffic addendum discussed below.

The only public access available to this property is from Magnus Court. Three (3) separate Alternative Street Requests were reviewed and approved by the City's engineering team regarding the proposed ODP for this site. The first request considered was to develop the streets with 31.5 feet of right-of-way, sidewalk on one side only, 21 feet of asphalt width and parking only on one side. The second Alternative Street Request considered the allowance of 72 lots from a single point of access. To address the access, the Applicant created three (3) dedicated fire turn-around locations, a divided entrance (median) street with a 16-foot lane width on each side (50-foot ROW) to the first loop street, a widened street section (40-foot ROW) past the second intersection, and a structurally sufficient street section for all areas. Included in the approval of this alternative street request is the requirement for the homes to all provide sprinkler fire suppression systems. A third Alternative Street Request was considered and approved to allow street-lights only at street and shared driveway intersections in-lieu of City standard that requires placement every 250 feet.

During the February 25, 2020 Planning Commission hearing, concern was expressed by both Planning Commissioners and the public regarding the adequacy of infrastructure in the area. As included in the resubmittal and sent directly to the City, is a letter dated March 13, 2020 from the County's Deputy Public Works Director Scott Mai providing information regarding the condition of streets and discussing other issues, the County provided the following:

- "We encourage this infill project and subsequent annexation to the City of Grand Junction…"
- The County would not require street improvements be made to 22 ¼ Road since the

“current quality of the road would meet requirements of the County for this type of local road.”
- “the idea of a trail or sidewalk to carry pedestrian traffic out to Highway 340 would be something they would support. “The County would be willing to team with the City and developer to share in the cost of the trail or sidewalk improvements.”
- The County would also support the Magnus Court Planned Development as the project will reduce some existing drainage issues in the area….”

In the applicant’s revised submittal, an Addendum to the Traffic Impact Study was submitted that states the proposed site-generated traffic from the Magnus Court subdivision is anticipated to be 700 vehicles per day. This includes 56 vehicles per hour during the morning peak hour and 74 vehicles during the evening peak hour. The original study used a distribution of 35% to the north and 65% to the south. The revised analysis used 15% to the north and 85% to the south due to the long school zone at Reed Mesa and the likelihood travelers will favor South Broadway to Redlands Parkway over Reed Mesa to Broadway. However, the resulting Level of Service at both intersections was the same.

The Addendum also provides that the development anticipated traffic would compose of 19 – 33% of the total traffic on Reed Mesa Drive. More project traffic is anticipated to use South Broadway which is anticipated to compose 61 – 66% of the total traffic on South Broadway. The anticipated addition to total project traffic generated will occur over a period of a number of years as the development builds out, therefore, the additional traffic impacts will not be immediate.

Though not related to access, the County’s letter also indicated that the Magnus Court development will reduce some existing drainage issues in the area. Mesa County is currently in the “process of working on a feasibility study in an adjacent neighborhood to solve some of these issues and the Magnus Court development would intercept some of the drainage that is causing the problem.” Mesa County will provide the applicant with information regarding their feasibility study as it progresses and along with the developer’s Engineer, can provide solid numbers showing how the Magnus Court development would deal with drainage through the area.

Information was also submitted by the Applicant of a Walking and Bicycling Audit for Broadway Elementary School that was conducted in 2016 by the City of Grand Junction and Mesa County staff, that indicated that it was recognized that Broadway (Hwy. 340) has particular shortcomings, noting that there are no continuous sidewalks or curbing surrounding Broadway Elementary with the exception of a sidewalk on the northside of Broadway, however, there is no sidewalk to cross to the south side of Broadway, nor sidewalk anywhere on the southside of Broadway. The audit also stated that only 9 – 23% walked to school within a two-mile area as the majority of students were either driven to school or rode the bus. The Audit did not prioritize any

pedestrian improvements south of Broadway. The applicant did provide that they would be "willing to invest in" pedestrian improvements, in partnership with the City, County and/or CDOT on the south (improved) side of Broadway generally from Reed Mesa Drive to the signalized pedestrian crossing.

Open Space and Pedestrian Amenities:
The Applicant is proposing over 46-acres as open space or 65 percent of the project site. The Applicant intends to either grant the open space to the homeowner's association or to a public entity such as the City of Grand Junction or the Museum of Western Colorado, in full or in part. Final determination of any dedication will be made at time of Final Subdivision Plan review and any request for the City to accept dedication of open space would be a decision of City Council with a recommendation from the City's Parks and Recreation Board. The site currently contains numerous hiking trails that connect to the Riggs Hill trails. The trails on site have been created over the years that have been utilized by the public, but the trails are located on private property. As part of the ODP request, the Applicant is proposing to grant public access/trail easements through the project allowing approximately 8,600 feet of trail as part of the development. The alignment of the trails are consistent with a number of the existing trail alignments.

Currently no trails are identified on the City's Active Transportation Corridor Plan except for a future trail located adjacent to the Redlands First Lift Canal at the extreme northwest corner of the property. The applicant will also be granting an access/trail easement of 90 lineal feet in this area as required by the City's Active Transportation Corridor Plan.

In the revised submittal, the applicant has updated their site plan and illustrative drawings to include a total of 1.62 miles of trails within the subdivision, specifically adding a trail connection around the subdivision perimeter to the east from Lot 21 with a connection to Magnus Court and second trail section; a trail loop around the perimeter of lots adjacent to Bonds Court. The applicant's proposed trail system will also connect into the Riggs Hill area trail system which is presently owned and maintained by the Museum of Western Colorado.

Depending on who will be owning the subdivision's open space land, whether it will be the proposed homeowner's association, City of Grand Junction or Museum of Western Colorado, future maintenance responsibilities for the trails would fall onto the respective property owner.

Phasing:
The Applicant is proposing to develop the subdivision within a total of four (4) phases. Each phase is proposed to be developed within 2 -3 years to account for construction and full market absorption before commencement of the next filing. The following

phasing schedule is proposed (approval of final plat):

Filing One (20 Lots): By December 31, 2023
Filing Two (20 Lots): By December 31, 2026
Filing Three (17 Lots): By December 31, 2028
Filing Four (17 Lots): By December 31, 2030

Pursuant to Section 21.02.150 (B) (4) (iii) Validity, the effective period of the ODP/phasing schedule shall be determined concurrent with ODP approval. However, the phasing schedule is limited to a period of performance between one year but not more than 10 years in accordance with Section 21.02.080 (n) (2) (i). Therefore, the proposed phasing schedule is in compliance with the maximum 10-year phasing plan in accordance with this section of the Code.

In the revised submittal, the Applicant represented that though the proposal would be for approval of the four filings spread-out over a 10-year period, the applicant's internal plans would be to develop the site within two phases. As represented, the Applicant's intention is to complete the project in fewer phases and that all heavy mass grading and required heavy equipment would be mobilized on-site and remain in place until the earthwork is completed for that phase so there would not be daily traffic from heavy equipment. As reflected by the Applicant, this hope to complete the project with fewer phases would be driven by the overall market conditions. Also, the Applicant intends to construct and install the domestic water line for all phases during the first five months of on-site construction.

Lot Layout:
All proposed lots are single-family detached lots and range between 10,095 to 18,413 square feet in size; while some of the site terrain is over 10 percent grade, preliminary lot and grading plans have been prepared by the Applicant and reviewed and approved by a City Development Engineer to ensure that all lots will reasonably minimize impacts of development. That approval includes five lots ranging in slope from 20.9 to 24.6 percent that are neither the width nor size prescribed by 21.07.020; however, because the project is proposed as a Planned Development, project specific standards may be approved.

Similar to other developments with varied terrain, individual lot-specific grading and drainage plans, which will include designating building envelopes, are required for all lots within the development.

The Applicant is also proposing to utilize the Cluster Development standards as provided in Section 21.03.060 as the proposal includes preserving over 65 percent of the site as open space. With this percentage of open space, the proposal has the ability to include bulk standards from the R-8 (Residential – 8 du/ac) zone district

including such standards as lot sizes and building setbacks. The purpose of cluster developments is to encourage the preservation of environmentally sensitive areas, open space and agricultural lands, while encouraging and providing the ability to develop at a density range supported by the Comprehensive Plan and those densities that are consistent with the property's zoning designation.

Landscaping:
Landscaping per Code requirements with the use of xeric plant materials will be provided within proposed center medians and homeowners association tracts of land as appropriate.

Long-Term Community Benefit:
The intent and purpose of the PD zone is to provide flexibility not available through strict application and interpretation of the standards established in Section 21.03.040 of the Code. The Code also states that PD (Planned Development) zoning should be used only when long-term community benefits, which may be achieved through high quality planned development, will be derived. Long-term benefits include, but are not limited to:

1. More effective infrastructure;
2. Reduced traffic demands;
3. A greater quality and quantity of public and/or private open space;
4. Other recreational amenities;
5. Needed housing types and/or mix;
6. Innovative designs;
7. Protection and/or preservation of natural resources, habitat areas and natural features; and/or Public art.

The Applicant has submitted information that addresses the above listed long-term benefits and have indicated their belief that the project meets all seven of the listed long-term community benefits. However, in review of the project, City Staff found that three of the seven long-term community benefits, are being met with this proposed development application:

#3. Greater quality and quantity of public and/or private open space. The Applicant is proposing over 46-acres as open space or 65% of the project site. The minimum requirement in order to be considered as a cluster development would be 20%, the applicant is therefore providing an additional 45% of open space. The Applicant is proposing for the open space to either be granted to the homeowner's association or to be considered for acceptance as public open space by either the City of Grand Junction or the Museum of Western Colorado. The abutting open space is owned and maintained by the Museum of Western Colorado and is 43 acres in size.

#4. Other recreational amenities. The site currently contains numerous hiking trails that have been created over the years that have been utilized by the public but are located on private property. As part of the ODP request, the Applicant is proposing to grant public access to the existing trail network through the conveyance of easements or open space tracts throughout the project. Further, connections to the trail system will include both connections that are internal and external to the project. The project is proposing construction and dedication of 8,600 feet of public trail system.

#7. Protection and/or Preservation of natural resources, habitat areas and natural features. With over 46-acres remaining as open space intended to be open to the public the proposed development preserves environmentally sensitive areas, natural features and rock-outcroppings.

Default Zone & Zone District Standards:
The request includes establishing a default R-2 zone district. However, because the Applicant intends to utilize the Cluster Development provision and under this code section would apply the R-8 bulk standards based on the applicant providing over 65 percent open space (46-acres) within the proposed ODP. The ODP will meet or exceed all other Zoning Code requirements as identified.

NOTIFICATION REQUIREMENTS

Neighborhood Meeting:
A Neighborhood Meeting regarding the proposed, Zone of Annexation and Outline Development Plan (ODP) was held on October 18, 2018 in accordance with Section 21.02.080 (e) of the Zoning and Development Code. The Applicant, Applicant's representative and City staff were in attendance along with over 16 citizens. Comments and concerns expressed by the attendees centered on the proposed density, clustering of lots, increased traffic and drainage concerns, etc.

Notice was completed consistent with the provisions in Section 21.02.080 (g) of the Zoning and Development Code. The subject property was posted with an application sign on June 28, 2019. Mailed notice of the public hearings before Planning Commission and City Council in the form of notification cards was sent to surrounding property owners within 500 feet of the subject property on May 15, 2020. The notice of the May 26th Planning Commission public hearing was published May 19, 2020 in the Grand Junction Daily Sentinel.

ANALYSIS
Pursuant to Section 21.02.150 (b) of the Grand Junction Zoning and Development Code, requests for an Outline Development Plan (ODP) shall demonstrate conformance with all the following:

a) The Comprehensive Plan, Grand Valley Circulation Plan and other adopted plans (Redlands Area Plan) and policies;

The proposed Outline Development Plan complies with the Comprehensive Plan, specifically, Goals 3 and 5 as provided below. Regarding the Future Land Use Map, the proposed development of 1.06 dwelling units per acre is within the residential density range of the Residential Low (.5 – 2 du/ac) and Rural categories as identified on the Future Land Use Map, utilizing the Blended Land Use Map. This Outline Development Plan request is consistent with the following vision, goals and/or policies of the Comprehensive Plan:

Goal 3: The Comprehensive Plan will create ordered and balanced growth and spread future growth throughout the community.

Goal 5: To provide a broader mix of housing types in the community to meet the needs of a variety of incomes, family types and life stages.

Policy C: Increasing the capacity of housing developers to meet housing demand.

Redlands Area Plan was adopted in 2002 by both the City of Grand Junction and Mesa County and provides a guide to help achieve community goals for both existing and new development within the Redlands. The Plan discusses numerous goals and policies specifically, to provide an urban level of service for all utility, solid waste, drainage and emergency response with adequate capacity to serve future populations. Some of the key goals from the plan provide:

- All new development should follow the Hillside Development and Ridgeline regulations,
- Protect paleontological resources
- Keep with the darkness of the night sky.

As the Redlands Plan relates to the Magnus Court development, the proposed project has taken steps to mitigate the impacts of development such as clustering the development away from hillsides and ridgelines as necessary, limiting cuts and fill impacts. The applicant also received a TEDS exception to allow streetlights only at street and shared drive-way intersections, in keeping with the darkness of the night sky.

Additionally, a goal of the Redlands Plan is “To promote the cost-effective provision of services for businesses and residents by all service providers.” In the Plan, two policies follow that support this goal; 1) “Provide an urban level of services, all utility, solid waste, drainage and emergency response on the Redlands…” and 2) “Design and construct water and sanitary sewer systems with adequate capacity to serve future

populations." This goal and these two policies support infill development, developable land such as Magnus Court, that is ready to extend existing utility connections into their site, served by existing service providers already in the area. Adequate emergency services are available a short distance away from the Redlands Fire Station.

Therefore, staff has found the proposed Magnus Court development is in compliance with the adopted Redlands Area Plan.

As proposed, the application is in conformance with the Grand Valley Circulation Plan, Active Transportation Corridor Plan, and other applicable adopted plans and policies.

b) The rezoning criteria provided in Section 21.02.140 (a) of the Grand Junction Zoning and Development Code.

(1) Subsequent events have invalidated the original premises and findings; and/or

The property owner has petitioned for annexation into the City limits for two (2) of the four (4) properties and a rezone from City R-E (Residential – Estate) and R-2 (Residential – 2 du/ac) for the other two (2) properties with a requested zone for all four (4) properties to PD (Planned Development). Since two (2) of the properties are currently in the County, the annexation of the property will be a subsequent event that will invalidate the original premise which is a county zoning designation. Successful annexation will invalidate county zoning and will necessitate the City zoning the property consistent with the Comprehensive Plan

For the other two (2) properties that are currently located within the City limits and zoned R-E (Residential – Estate) and R-2 (Residential – 2 du/ac), the applicant is requesting, due to the complexity of the site because of the existing rock outcrops and rocky soil conditions, that the sites be looked at in a comprehensive manner. The existing two (2) zone districts of R-E and R-2 are in conformance with the Comprehensive Plan Future Land Use Map, however, the property owner wishes to look at all four (4) properties as a whole, which may be done best by utilizing the Planned Development provisions of the Code. Staff has found this criterion has been met for only two of the parcels, therefore the criteria has not been met.

(2) The character and/or condition of the area has changed such that the amendment is consistent with the Plan; and/or

The character and/or condition of the area has not changed in recent years because the adjacent residential subdivisions have been existing for many years with the exception of the Redlands Hollow Subdivision (6 lots) as developed in 2017, a short distance away to the north on 22 ¼ Road. The subject properties continue to be underutilized in terms of the residential development potential anticipated by the

Comprehensive Plan designation of Residential Low (.5 – 2 du/ac) and Rural for quite some time due to the challenges presented by the existing topography and rocky terrain located on the site, etc. The requested ODP and zoning of PD (with a R-2 default zone) is consistent with the existing character in the area and furthers the goals and policies of the Comprehensive Plan by providing for density in the mid-to low range of the Residential Low (.5 – 2 du/ac) land use classification. Because there has been no apparent change of character and/or condition, Staff finds that this criterion has not been met.

(3) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

Existing public and community facilities and services are available to the property and are sufficient to serve the single-family detached residential land use as allowed in the PD zone district. Ute Water and City sanitary sewer are both located within the Magnus Court right-of-way. The property can also be served by Xcel Energy electric and natural gas.

A combination of City, County and State owned/maintained roadways will serve the project directly or indirectly. The main external access points are Highway 340 (Broadway) and Reed Mesa Drive and South Broadway and Redlands Parkway. According to the CDOT access code, a westbound left turn lane is currently warranted (albeit by only 1 trip) on Broadway to turn south on Reed Mesa Drive. With project traffic the left turn lane warrant will increase. Under current City policy, this required turn lane improvement would not be the Applicant's responsibility to provide.

The TIS also indicates, a southbound right turn lane on Redlands Parkway to turn north on South Broadway is warranted after 58 homes are built. Also, under current policy this improvement would be a City capital project and not an improvement required to be completed by the developer. The City's past approach for these types of warranted improvements is to monitor traffic and safety concerns and then budget and construct the improvement as they become necessary.

Mesa County's Deputy Public Works Director Scott Mai provided that no improvements would need to be made to 22 ¼ Road since the "current quality of the road would meet requirements of the County for this type of local road." The County's letter also indicated that the Magnus Court development will reduce some existing drainage issues in the area. Mesa County is currently in the "process of working on a feasibility study in an adjacent neighborhood to solve some of these issues and the Magnus Court development would intercept some of the drainage that is causing the problem."

Information was also submitted by the Applicant of a Walking and Bicycling Audit for Broadway Elementary School that was conducted in 2016 by the City of Grand

Junction and Mesa County staff, that indicated that it was recognized that Broadway (Hwy. 340) has particular shortcomings, noting that there are no continuous sidewalks or curbing surrounding Broadway Elementary with the exception of a sidewalk on the northside of Broadway, however, there is no sidewalk to cross to the south side of Broadway, nor sidewalk anywhere on the southside of Broadway. The audit also provided that only 9 – 23% walked to school within a two-mile area as the majority of students were either driven to school or rode the bus. The Audit did not prioritize or acknowledge the need for pedestrian improvements south of Broadway.

The TIS projects all interior intersections will operate at level of service A in 2040 after the full build-out of the project. The intersection of Mowry Drive and South Broadway is currently unsigned (stop signs). The TIS proposes installing stop signs at all intersections to improve driver awareness and safety. These intersections are in the County and the Applicant would be responsible to coordinate with the County and install the signs.

Property is also located within a short drive (approximately 3 miles) of Mesa Mall and Patterson Road areas that includes retail stores, general offices, grocery store, banks, restaurants, etc. A short distance away is Broadway Elementary and Redlands Middle Schools.

Staff has found the public and community facilities are adequate to serve the type and scope of the residential land use proposed and has therefore found this criterion has been met.

(4) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

The Magnus ODP is a suburban infill development project access by an established street network and in close proximity to public facilities and services. The Applicant is requesting the approval of the planned development zone district to provide for a holistically designed project that addresses the presence of unique geological features and steep slopes while preserving significant open space. However, because the PD is a zone category based on specific design and is applied on a case-by-case basis, staff finds this criterion is not applicable to this request, and, therefore has not been met.

(5) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

The community will benefit from this development of properties that are substantially constrained and challenging to develop by providing both extensive open space (46-acres or 65% of the site) along with extensive public trail systems internal and external to the development. The proposed density is within the allowable range of the

Residential Low and Rural Future Land Use Map categories. In the revised submittal, the applicant has updated their site plan and illustrative drawings to include a total of 1.62 miles of trails within the subdivision, specifically adding a trail connection around the subdivision perimeter to the east from Lot 21 with a connection to Magnus Court and second trail section; a trail loop around the perimeter of lots adjacent to Bonds Court. The applicant's proposed trail system will also connect into the Riggs Hill area trail system which is presently owned and maintained by the Museum of Western Colorado. Staff has therefore found this criterion has been met.

c) The planned development requirements of Section 21.05.040 (f) of the Zoning and Development Code;

(1) Setback Standards. Principal structure setbacks shall not be less than the minimum setbacks for the default zone.

The ODP is seeking an R-2 default zone district. However, the future development is proposing to utilize the Cluster Development provisions of the Code that will allow reduction of building setbacks to those minimum standards established within the R-8 zone district. Staff has found this criterion has been met.

(2) Open Space. All residential planned developments shall comply with the minimum open space standards established in the open space requirements of the default zone.

In a traditional subdivision, the minimum open space requirement for a residential project is 10%, however the City regularly accepts an in-lieu fee payment for this 10%. For projects utilizing the Cluster Development provision, the minimum requirement for open space is 20%. The Applicant is proposing over 46-acres of open space with this development for a total of 65% of the total acreage of the property. The Applicant has exceeded this minimum standard and therefore has met this criterion. The Applicant intends to either grant the open space to a future homeowner's association or to consider dedication of all or portion of the open space to either the City of Grand Junction or Museum of Western Colorado. Final determination of the open space dedication will be made at the time of final subdivision plan review, should the project proceed.

The site currently contains numerous hiking trails that have been created over the years that have been utilized by the public, but these trails are located on private property. However, as part of the ODP request, the Applicant is proposing to grant public Pedestrian/Trail Easements as necessary within the open space areas. Therefore, staff has found the proposed open space areas and trail amenities exceeds the requirements of the Zoning and Development Code.

(3) Fencing/Screening. Fencing shall comply with GJMC 21.04.040(i).

No required project perimeter fencing is proposed for this development due to its location with the exception of what future property owners would install on their own private property. The project is not located on any major or minor arterial or collector streets. However, if fencing is installed by either the developer or private property owners, all fencing will comply with all applicable requirements of the Code.

(4) Landscaping. Landscaping shall meet or exceed the requirements of GJMC 21.06.040.

Landscaping per Code requirements with xeric plant materials will be provided within proposed center medians and homeowners association tracts of land as appropriate. All proposed landscaped areas will meet or exceed the requirements of the Zoning and Development Code.

(5) Parking. Off-street parking shall be provided in accordance with GJMC 21.06.050.

Off-street parking will be required to meet the Zoning and Development Code for single-family residential development. The ODP plans as submitted are consistent with the Code and staff has therefore found this criterion to have been met.

(6) Street Development Standards. Streets, alleys and easements shall be designed and constructed in accordance with TEDS (GJMC Title 29) and applicable portions of GJMC 21.06.060.

Due to topographic constraints, the only feasible access to the Magnus Court ODP is from Magnus Court itself. In review of the project both the Applicant and City Engineering staff has determined it to be impractical for the development of this property(ies) to provide interconnectivity in the northern, western or southerly directions. Alternative Street Requests were reviewed and approved by the City's engineering team which consisted of the approval to develop the streets with 31.5 feet of right-of-way, sidewalk on one side only, 21 feet of asphalt width and parking only on one side. Also, as a condition of the Alternative Street Request, the proposed trail system as identified on the plan behind the houses without street sidewalks, shall be constructed of concrete. The City has provided that this requirement may be reevaluated at time of future subdivision request due to new information that may become available regarding topography, drainage and soil conditions, etc.

The second Alternative Street Request will allow 72 lots from a single access. The Applicant created three (3) dedicated fire turn-around locations, a divided entrance (median) street with a 16' lane width on each side (50' ROW) to the first loop street, a widened street section (40' ROW) past the second intersection, and a structurally sufficient street section for all areas. The Applicant will also be required to sprinkler all

houses for fire suppression purposes.

With the approved Alternative street design, the streets as proposed in the ODP, will be constructed in accordance with TEDS and all applicable portions of the Code therefore staff has found this criterion to be met.

d) The applicable corridor guidelines and other overlay districts.

There are no corridor guidelines or overlay districts that are applicable for this development.

e) Adequate public services and facilities shall be provided concurrent with the projected impacts of the development.

Please see discussion in rezoning criteria (3). Staff has fond this criterion has been met.

f) Adequate circulation and access shall be provided to serve all development pods/areas to be developed.

Due to topographic constraints, the only feasible access to the Magus Court ODP is from Magnus Court itself. In review of the project both the Applicant and City Engineering staff have determined it to be impractical for the development of this property(ies) to provide interconnectivity in the northern, western or southerly directions. All necessary design standards have been incorporated into the Alternative Streets review that was administratively approved by the City. In addition to street circulation of traffic, the granting of public pedestrian/trails easements will also be made to provide the public area with an extensive network of hiking trails. Mesa County has indicated that access to the site via 22 ¼ Road meets the requirements of the County for this type of road. Subject to CDOT's permitting process, access improvements will be required at Reed Mesa Drive and Broadway.
Staff, in conjunction with the Fire Department, has therefore found this ODP provides adequate circulation and access to serve the development.

g) Appropriate screening and buffering of adjacent property and uses shall be provided;

No required perimeter fencing is proposed for this development due to its location except for what future property owners may install on their own private property. The project is not located on any major or minor arterial or collector streets. The Applicant proposes landscaping for the project consistent with a xeric plant palette and consistent with the City's landscaping Code. Generally, xeric plant materials will be provided within proposed center medians and homeowners association tracts of land. Staff has

therefore found the proposed screening and buffering to be appropriate for the proposed residential development.

h) An appropriate range of density for the entire property or for each development pod/area to be developed;

The proposed density for Magnus Court ODP is 1.06 dwelling units per acre (74 dwelling units on 69.67-acres), nearly equivalent to an R-1 zone district. The Comprehensive Plan Future Land Use Map designates this property as Residential Low (.5 – 2 du/ac) and Rural. The Applicant is requesting a default zone of R-2, which has no minimum density but a maximum density of 2 dwelling units/acre and is thus staff has found the ODP proposed an appropriate range of density for the proposed development.

i) An appropriate set of "default" or minimum standards for the entire property or for each development pod/area to be developed.

The R-2 zone district will be the default zone regarding overall density for the development, however because the Applicant intends to utilize the Cluster Development provision of the Code, the R-8 bulk standards will apply as the Applicant is providing over 65% open space (46-acres) within the proposed ODP. No deviations are being requested from the R-8 bulk standards by the Applicant as part of the ODP application. As submitted in the ODP, the proposed residential development will meet or exceed all other Zoning Code requirements as identified.

j) An appropriate phasing or development schedule for the entire property or for each development pod/area to be developed.

The Applicant is proposing to develop the ODP and associated future subdivision within a total of four (4) phases. Each phase is proposed to be developed within 2 -3 years to account for construction and full market absorption before the next filing will begin. Pursuant to Section 21.02.150 (B) (4) (iii) Validity, the effective period of the ODP/phasing schedule shall be determined concurrent with ODP approval. However, the phasing schedule is limited to a period of performance between one year but not more than 10 years in accordance with Section 21.02.080 (n) (2) (i). The proposed phasing schedule is in compliance with the maximum 10-year phasing plan in accordance with this section of the Code and staff has found this development schedule to be appropriate for the type and size of the proposed development.

RECOMMENDATION, AND FINDINGS OF FACT

After reviewing the applications for a Zone of Annexation for two (2) properties, a rezone of two properties and an Outline Development Plan (ODP) for four (4) properties for the Magnus Court ODP with a proposed zoning of Planned Development

(PD) with an R-2 (Residential – 2 du/ac) default zone district, the following findings of fact have been made:

1. In accordance with Section 21.02.140 (a) of the Zoning and Development Code, the application meets one or more of the rezone criteria.

2. The Planned Development is in accordance with all criteria in Section 21.02.150(b)(2) of the Grand Junction Zoning and Development Code.

3. Pursuant to Section 21.05.010, the Planned Development has been found to have long term community benefits including:

a. Greater quality and quantity of public and/or private open space,
b. Other Recreational Amenities; and
c. Protection and/or Preservation of natural resources, habitat areas and natural features.

Therefore, the Planning Commission recommends approval of the request.

FISCAL IMPACT:

Fire
The property is currently in the Grand Junction Rural Fire Protection District (Rural District) and Redlands Sub-District, both served by the Grand Junction Fire Department through a contract with the Rural District. The district collects mill levies of 5.223 and 4.904 generating a total of $1,256 per year in property taxes that are then passed on to the City of Grand Junction per the contract. If annexed, the Rural District mill levy will be removed, and the City's 8 mills will generate property tax revenue of $960 per year. Property tax will need to pay for not only fire and emergency medical services, but also other City services provided to the area.

No changes in fire protection and emergency medical response are expected due to this annexation. Primary response is from Fire Station 5 at 2155 Broadway and from that location response times are within National Fire Protection Association guidelines. Fire Station 5 has the capacity to handle the increase in calls for service resulting from this annexation and development. At buildout, an annual incident volume of 6-10 calls for service is predicted.

Utilities
Water and sewer services are available to this property.
This property is within the Ute Water District service area. An 8-inch water serves this property along Magnus Court.

The property is currently within the Persigo 201 Sewer Service Area. A 6-inch sewer

line is available on Magnus Ct, which ultimately connects to a 15-inch interceptor line at South Broadway. This sewer line should have sufficient capacity to serve an additional 74 sewer taps. The developer will be required to extend sewer to serve the development and the builder will be required to pay Plant Investment Fees. Therefore, there is not fiscal impact to the Persigo Sewer Enterprise Fund.

Police

In an effort to determine/anticipate what the impact may be to the GJPD in providing police services to this proposed annexation, calls for service during 2018 and 2019 were reviewed. A review of that data revealed that there were only 10 calls for service in 2018 and 5 calls for service in 2019 to that surrounding area which is lower in residential density. Based on that information, it is anticipated that any calls for service by GJPD for this location will equal to .8% of an officer. Considering this, the Police Department does not anticipate a need for an increase in personnel or equipment in order to provide law enforcement services to this proposed annexation. However, this annexation along with any future annexations/developments will have a cumulative impact that will eventually require an increase in law enforcement personnel and equipment in order to provide adequate services.

Public Works

Currently there are no public works improvements associated with this annexation. Future subdivision development would require the dedication of additional right-of-way and construction of at least 1500 feet of local road (Magnus Court) to 22 ¼ Road in order to serve the development. The future subdivision proposes a total of 74 single-family detached lots in conjunction with adjacent parcels. The single family homes will generate approximately 700 average daily trips (ADT) in vehicular traffic onto adjacent roadways.

A left turn lane from Broadway onto Reed Mesa Road is currently warranted. Broadway is State Highway 340 and under CDOT jurisdiction while Reed Mesa Road is predominately within Mesa County jurisdiction. CDOT has issued an access permit for the project that requires the construction of the left hand turn land that includes widening of the highway to accommodate the turn lane as well as relocation of the pedestrian signal to a point west of Reed Mesa Road. Total estimated cost for just the Broadway improvements based on preliminary design is $425,000.

A deceleration lane becomes warranted toward the end of the project buildout on South Broadway at the intersection of Redlands Parkway and is estimated at $100,000.

Current City policy does not require the developer to make safety improvements that would include both the left hand turn lane on Broadway and the deceleration lane on South Broadway. The policy is scheduled to change effective January 1, 2021 but would not impact this project due to it being submitted prior to the effective date.

However, the City's contribution to these safety improvements has historically been based on both availability of funding and prioritization of capital improvements. Transportation Impact Fees (or TCP) intended to be utilized on overall transportation system capacity improvements is estimated at $400,000 for the buildout of the project.

Internal to the subdivision, new roads would include Magnus Court, Magnus Loop and Bonds Court which will total approximately 129,000 square feet of asphalt and 9200 feet of curb and gutter. Three street lights are anticipated at the intersection with 22 ¼ Rd, Magnus Loop/Magnus Court and Magnus Court and Bonds Court. Future chip seal costs for the subdivision are estimated at $37,000 in 2026. As the roads are classified as "local" there would be no striping or snow removal. Total estimated cost of street sweeping, street lighting, and signage is estimated at $1,400/year.

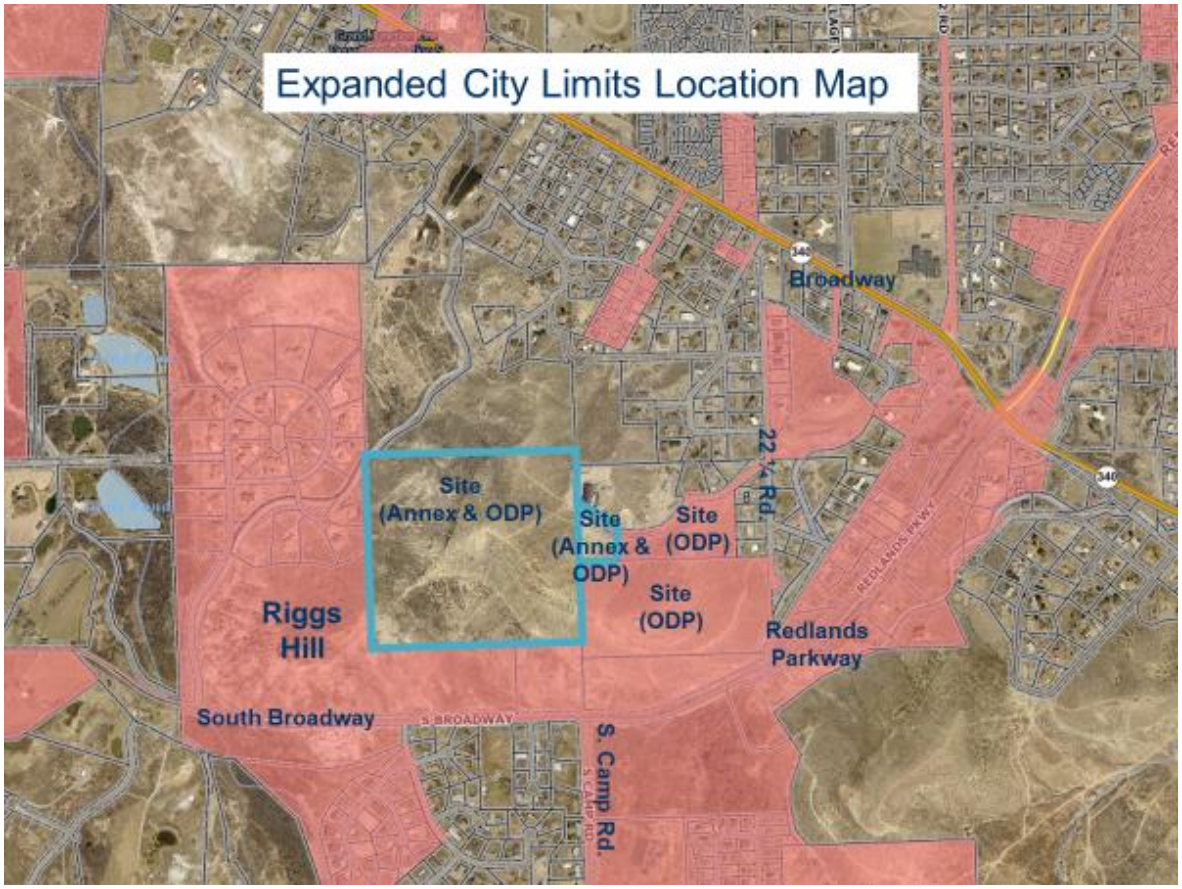
SUGGESTED MOTION:

I move to (adopt/deny) Resolution No. 33-20, a resolution accepting a petition for the annexation of lands to the City of Grand Junction, Colorado, making certain findings, and determining that property known as the Magnus Court Annexation, located at the west end of Magnus Court is eligible for annexation, Ordinance No. 4938, an ordinance annexing territory to the City of Grand Junction, Colorado, Magnus Court Annexation, approximately 45.543 acres, located at the west end of Magnus Court on final passage and order final publication in pamphlet form, Ordinance No. 4939, an ordinance zoning the Magnus Court Annexation to PD (Planned Development) with an R-2 (Residential – du/ac) default zone district, located at the west end of Magnus Court on final passage and order final publication in pamphlet form, and Ordinance No. 4940, an ordinance zoning the Magnus Court Subdivision to PD (Planned Development) with a Default Zone of R-2 (Residential – 2 du/ac) and an Outline Development Plan (ODP) for 74 residential units on 69.67 acres, located at Magnus Court and 2215 Magnus Court #A, on final passage and order final publication in pamphlet form.

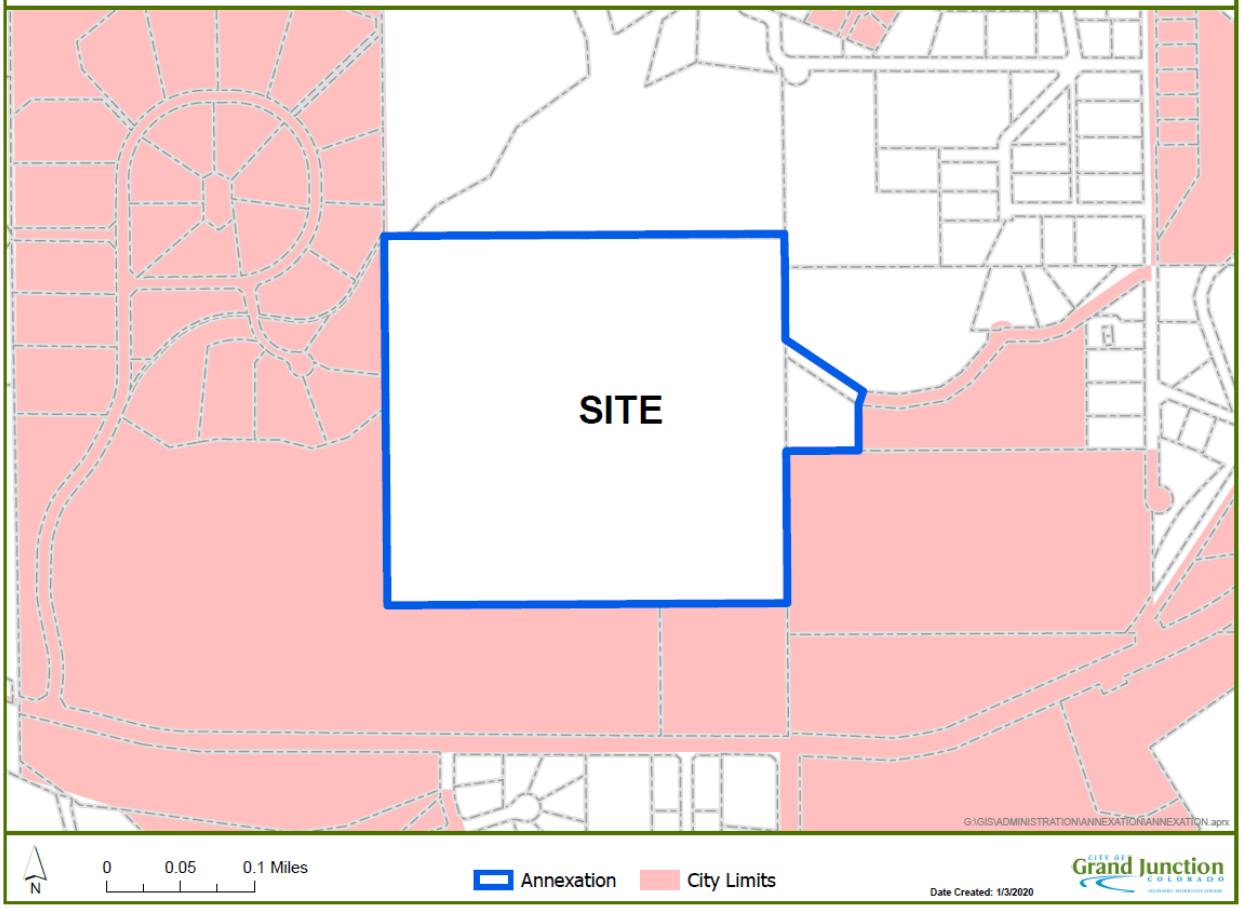
Attachments

1. ODP - Site Location, Aerial Photo, Zoning Maps, etc
2. Magnus Court Annexation Schedule & Summary
3. Ridgeline - Elevation View Section Sheets(3)
4. Development Application dated June 25, 2019
5. Mesa County Public Works Letter - Magnus Court Development(4)
6. JLC Magnus LLC - Commitment for Pedestrian Improvements
7. Post Planning Commission - Resubmittal Documents - April 2020
8. Public Correspondence Received - All Comments
9. Resolution Accepting Petition for Annexation
10. Annexation Ordinance - Magnus Court Annexation
11. Zone of Annexation Ordinance

12. ODP Ordinance
13. Magnus Court Annexation and Outline Development Plan - Planning Commission Minutes - 2020 - May 26


Expanded City Limits Location Map
Broadway
22 ¼ Rd.
Site
(Annex & ODP)
Site
(Annex & ODP)
Site
(ODP)
Site
(ODP)
Riggs
Hill
Redlands
Parkway
South Broadway
S. Camp Rd.

MAGNUS COURT ANNEXATION



N

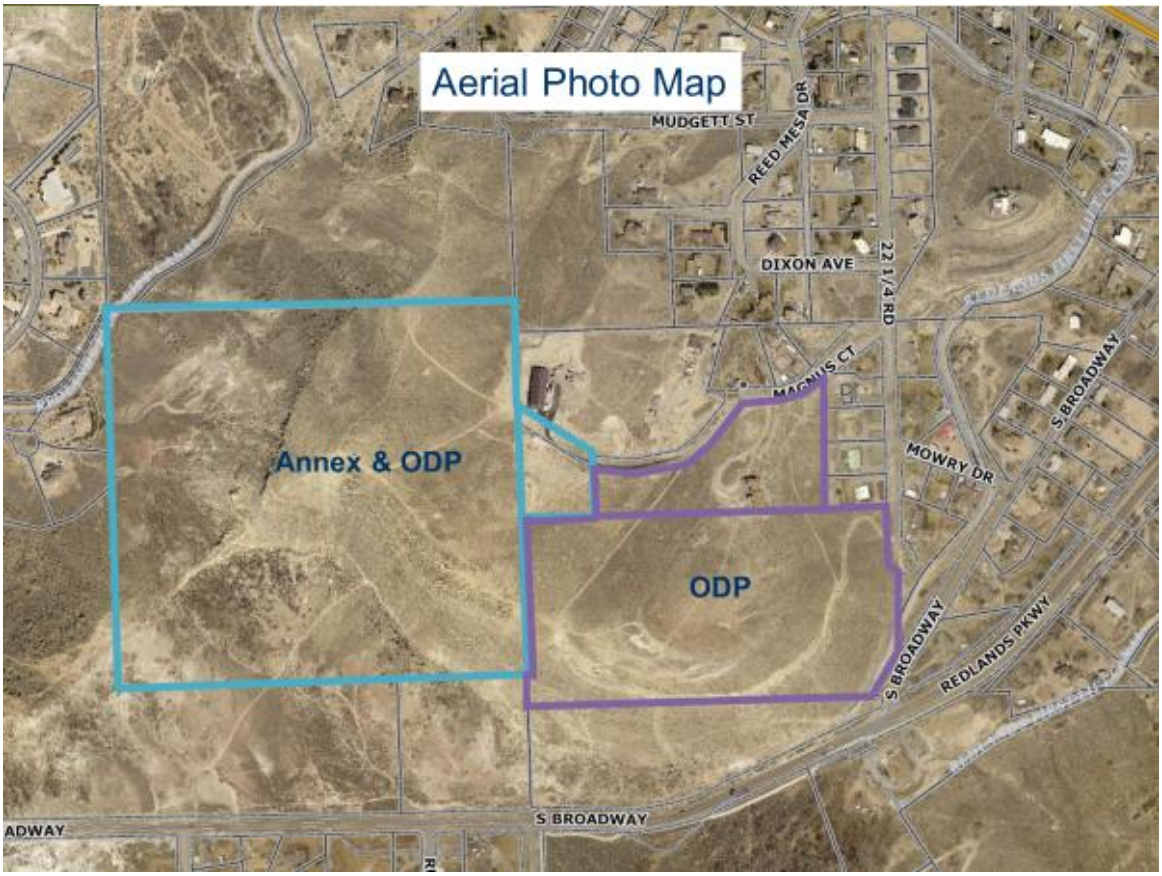
0 0.05 0.1 Miles

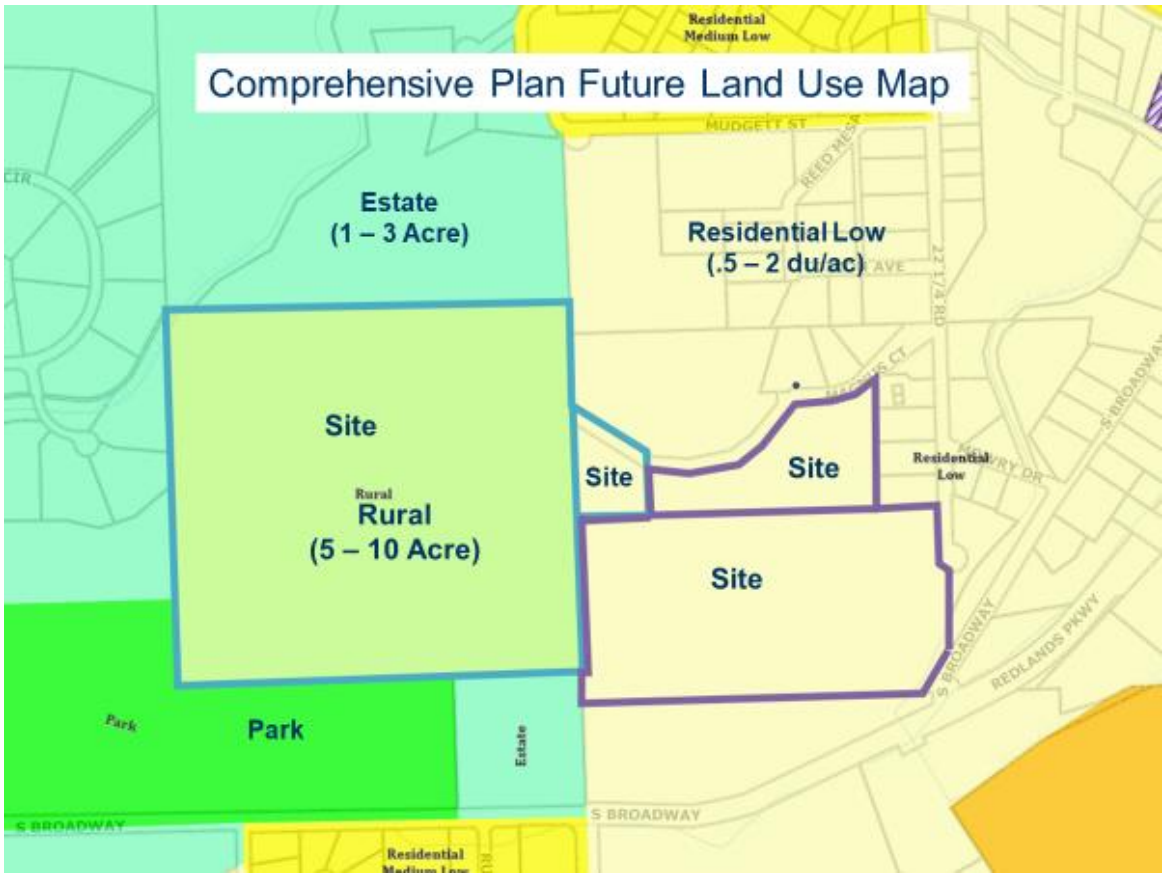
Annexation

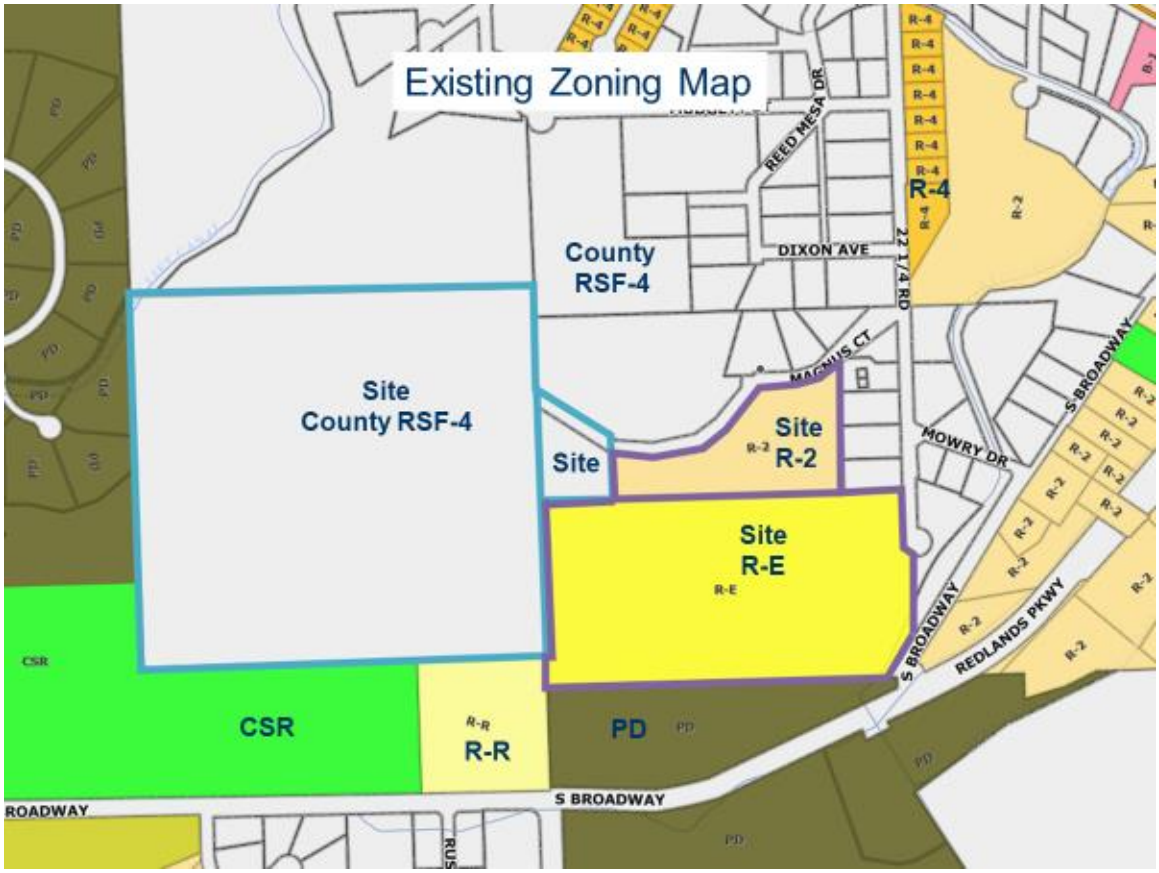
City Limits

Date Created: 1/3/2020

CITY OF Grand Junction COLORADO


Aerial Photo Map
MUDGETT ST
REED MESA DR
DIXON AVE
22 1/4 RD
MAGNUS CT
S BROADWAY
MOWRY DR
Annex & ODP
ODP
S BROADWAY
REDLANDS PKWY
S BROADWAY
ADWAY


Comprehensive Plan Future Land Use Map
Residential Medium Low
MUDGETT ST
Estate (1 – 3 Acre)
Residential Low (.5 – 2 du/ac)
Site
Rural
Rural (5 – 10 Acre)
Site
Site
Site
Residential Low
Park
Park
Estate
S BROADWAY
S BROADWAY
REDLANDS PKWY
Residential

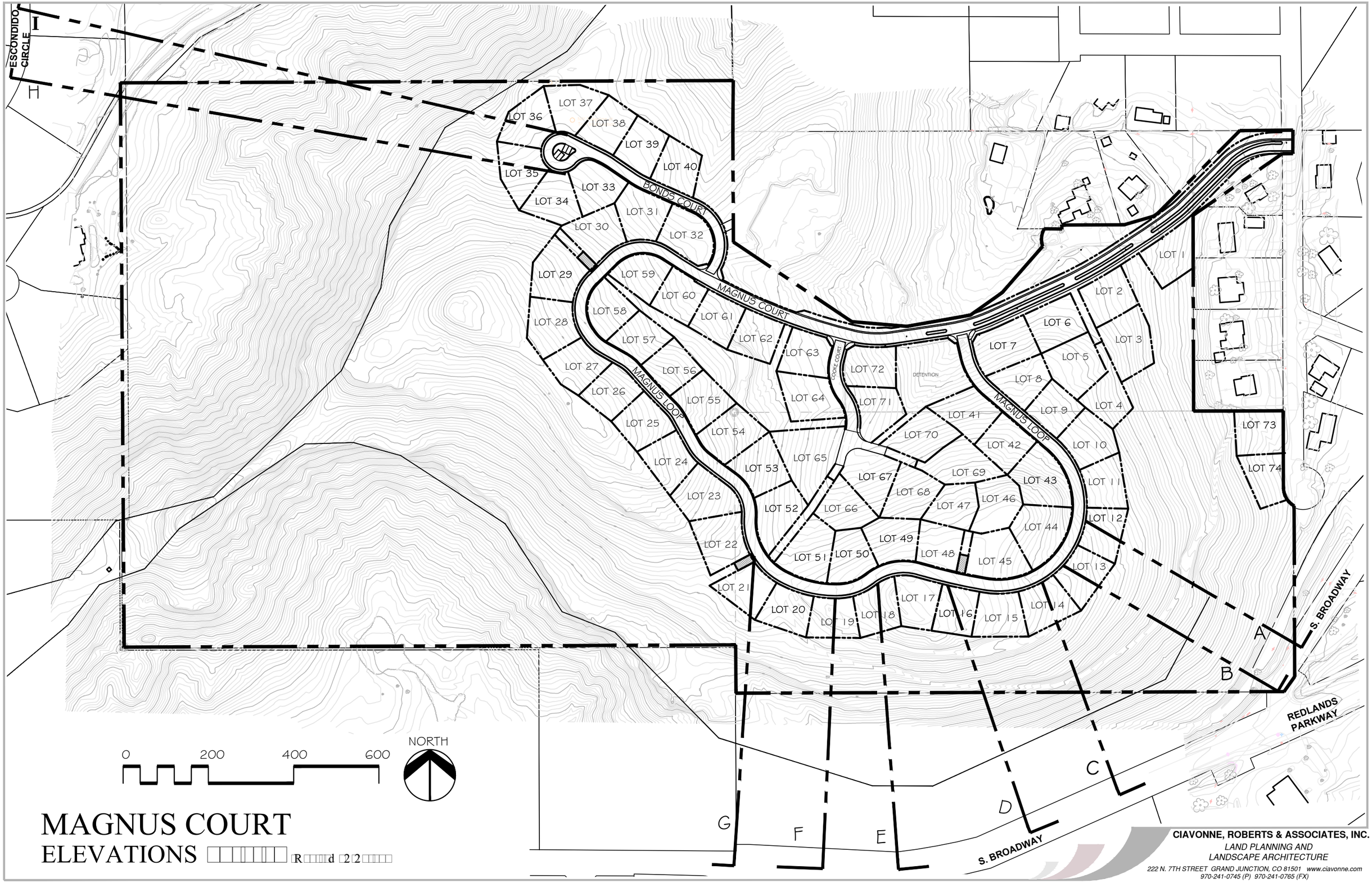

Existing Zoning Map
Site
County RSF-4
County
RSF-4
Site
R-2
Site
R-E
CSR
CSR
R-R
R-R
PD
S BROADWAY
REED MESA DR
DIXON AVE
22 1/4 RD
MAGNUS CT
MOWRY DR
S BROADWAY
REDLANDS PKWY
R-4
R-2

View of Magnus Court at the intersection with 22 ¼ Road

MAGNUS COURT ANNEXATION SCHEDULE	
February 19, 2020	Referral of Petition (30 Day Notice), Introduction of a Proposed Ordinance, Exercising Land Use
February 25, 2020 Reheard on May 26,2020	Planning Commission considers Zone of Annexation
June 3, 2020	Introduction of a Proposed Ordinance on Zoning by City Council
April 1, 2020 Continued Until June 15, 2020	Acceptance of Petition and Public Hearing on Annexation and Zoning by City Council
July 19, 2020	Effective date of Annexation

ANNEXATION SUMMARY		
File Number:		ANX-2019-137
Location:		West end of Magnus Court
Tax ID Numbers:		2945-182-00-046 & 2947-261-00-003
# of Parcels:		2
Existing Population:		0
# of Parcels (owner occupied):		0
# of Dwelling Units:		0
Acres land annexed:		45.543
Developable Acres Remaining:		45.173
Right-of-way in Annexation:		0.37
Previous County Zoning:		RSF-4 (Residential Single Family – 4 du/ac)
Proposed City Zoning:		PD (Planned Development)
Current Land Use:		Vacant land
Future Land Use:		Residential Low (.5 – 2 du/ac) & Rural
Values:	**Assessed:**	$123,980
	Actual:	$427,500
Address Ranges:		2217 – 2221 Magnus Court
Special Districts:	**Water:**	Ute Water Conservancy District
	Sewer:	City of Grand Junction
	Fire:	Grand Junction Rural Fire District
	Irrigation/Drainage:	Redlands Water & Power Company
	School:	Fruita Monument HS / Redlands Middle / Broadway Elementary

	Pest:	Grand River Mosquito Control District



MAGNUS COURT
ELEVATIONS

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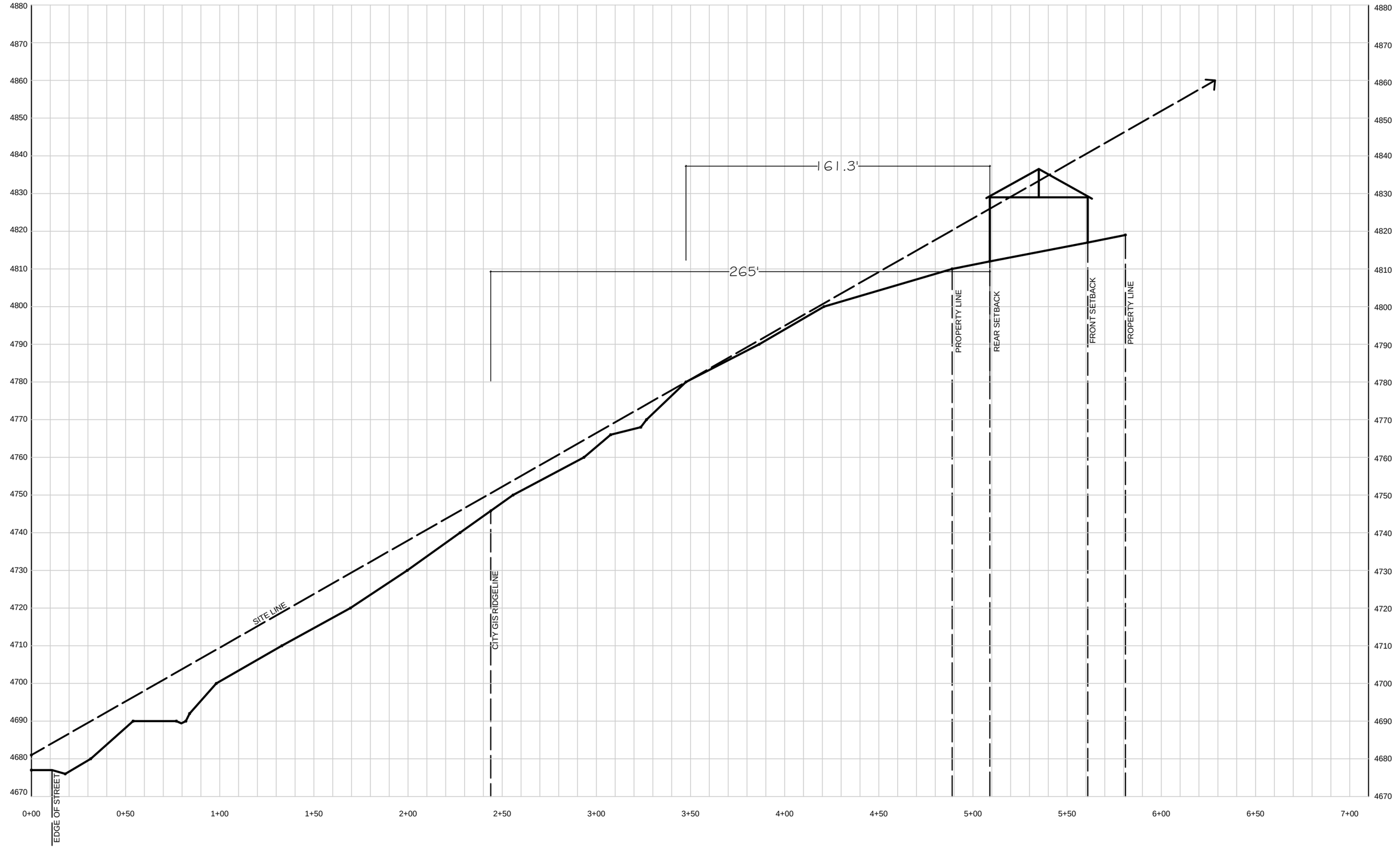

MAGNUS COURT □ELEVATIONS

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VERTICAL SCALE E□AGGERATED 2□

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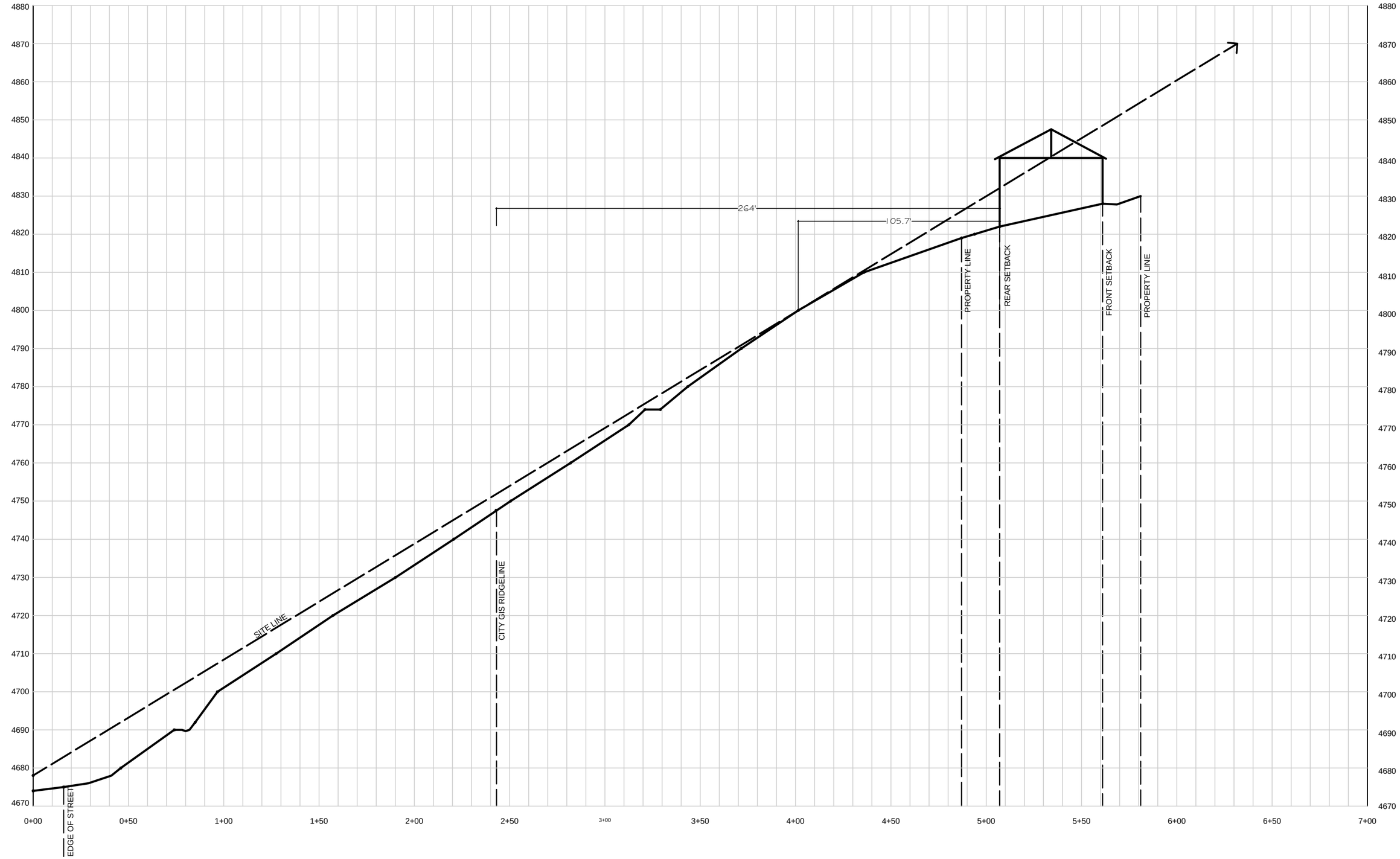

MAGNUS COURT □ELEVATIONS

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VERTICAL SCALE E□AGGERATED 2□

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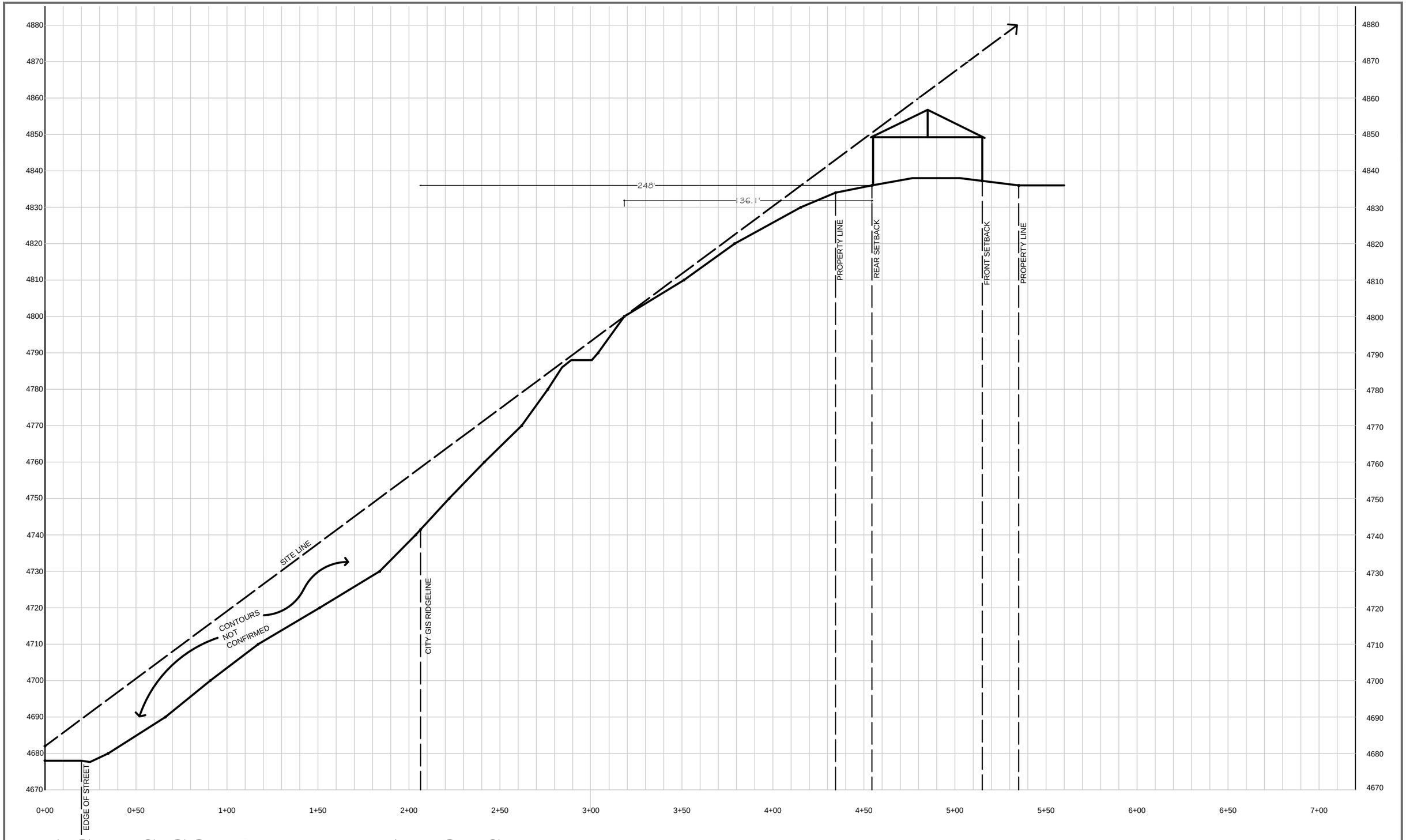

MAGNUS COURT □ELEVATIONS

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VERTICAL SCALE E□AGGERATED 2□

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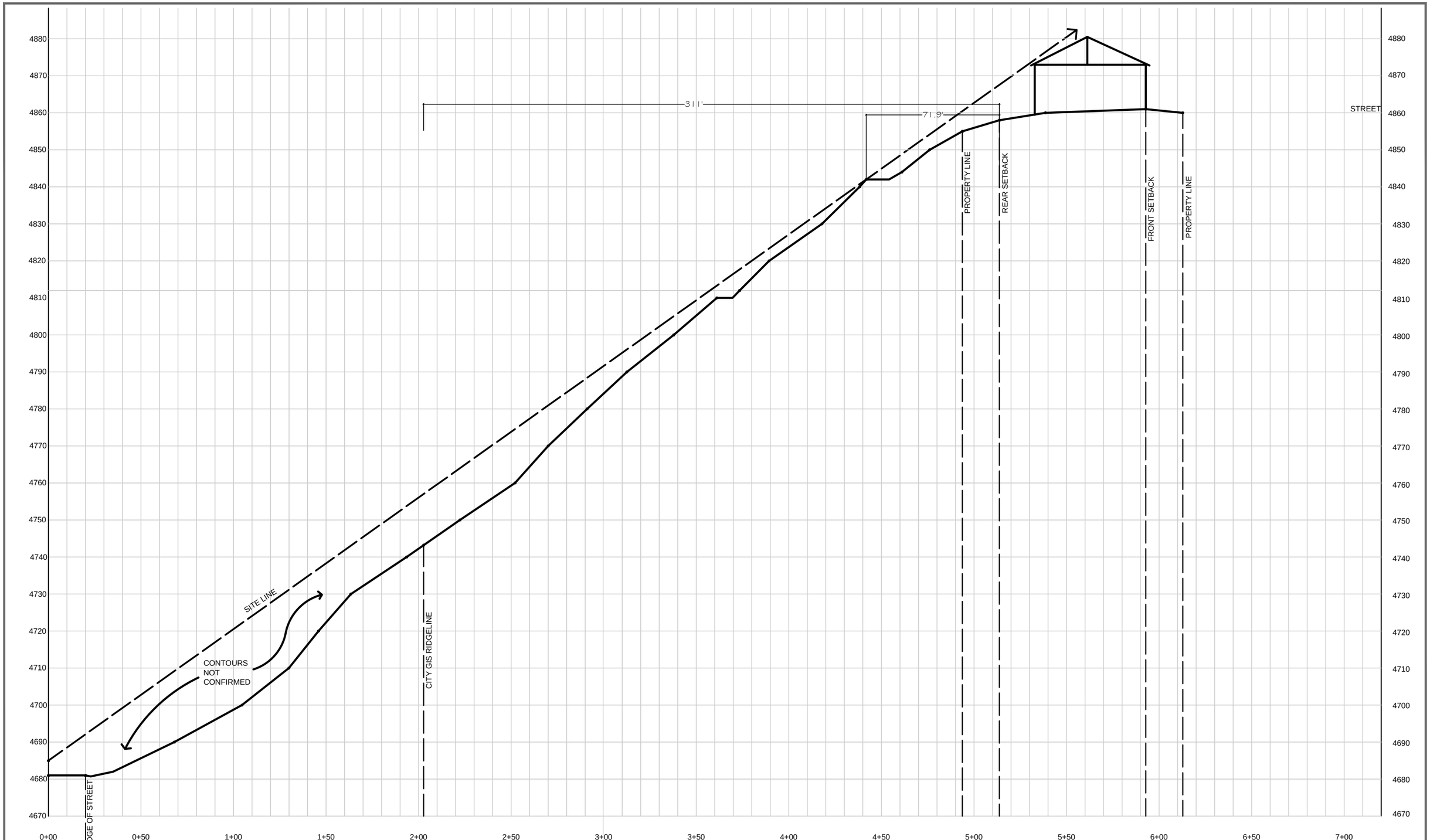

MAGNUS COURT □ELEVATIONS

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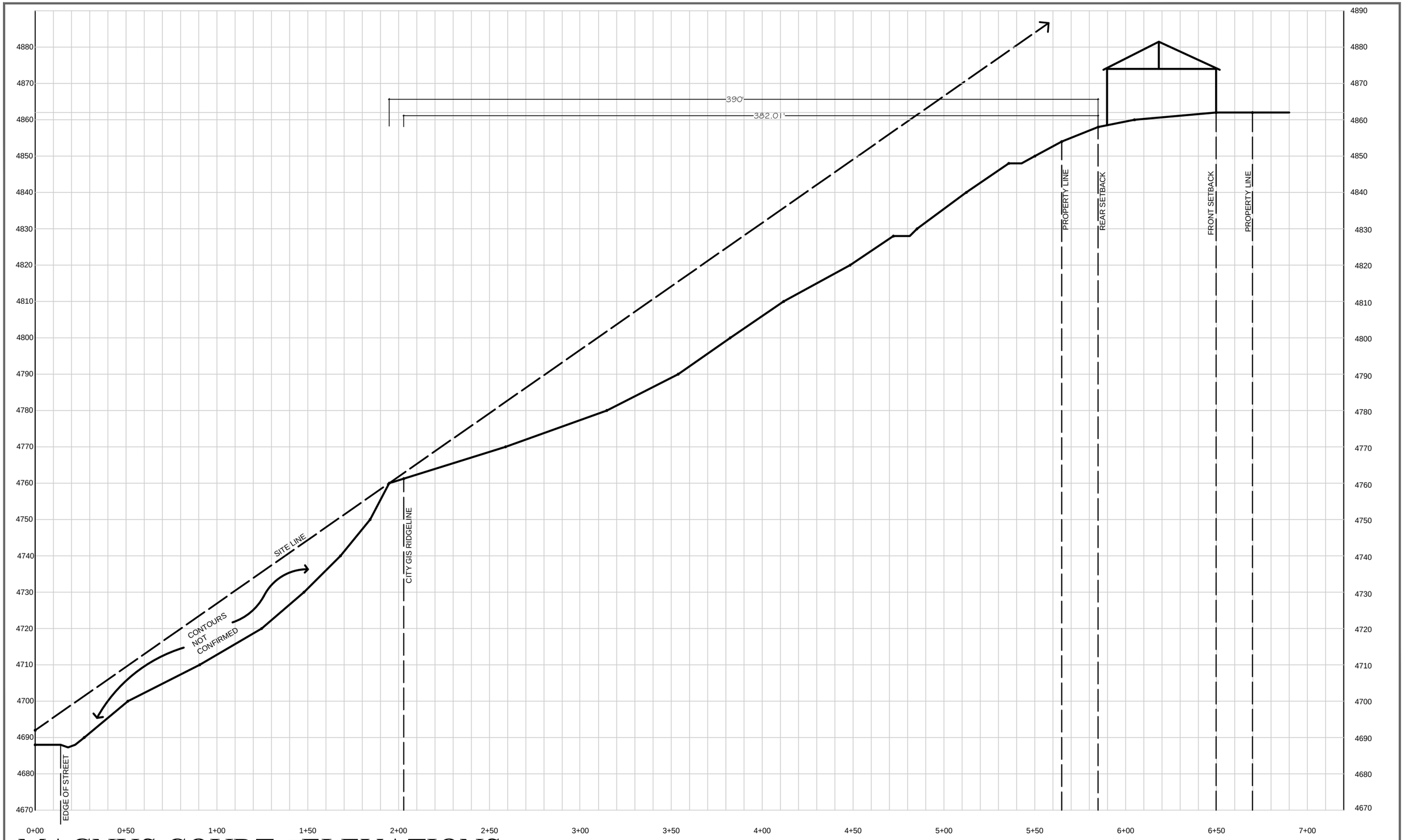

MAGNUS COURT □ELEVATIONS

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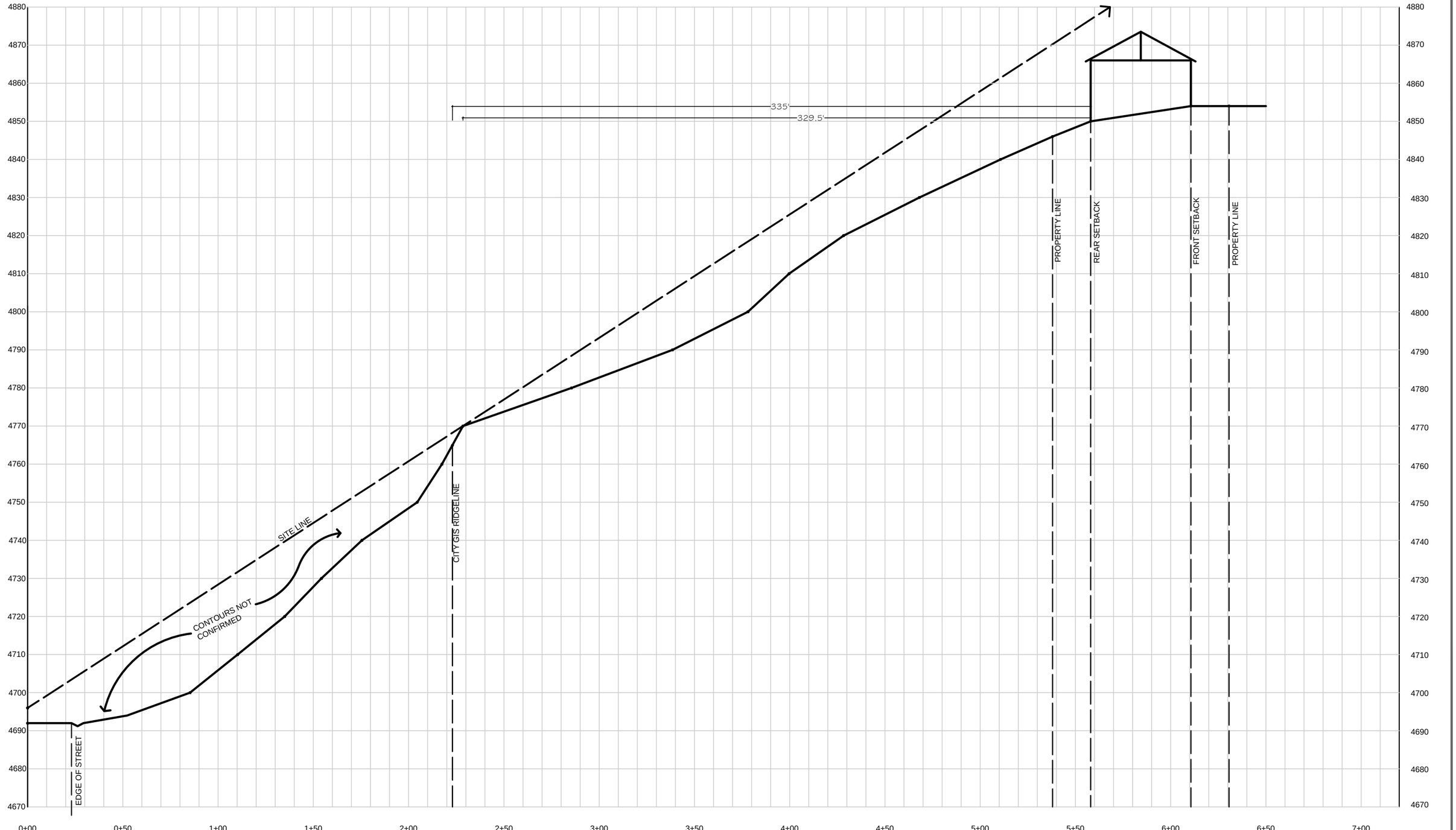

MAGNUS COURT □ELEVATIONS

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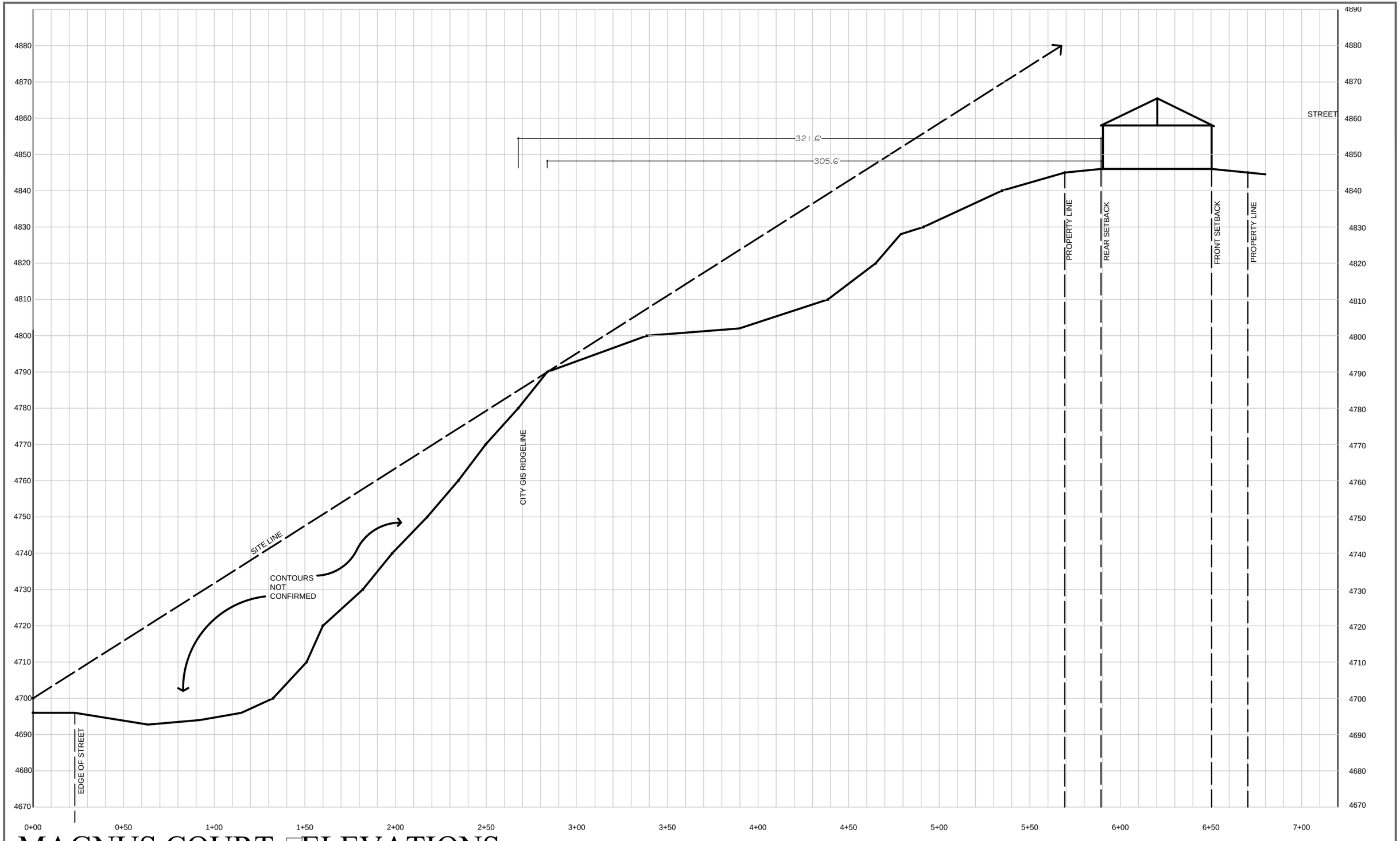

MAGNUS COURT □ELEVATIONS

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VERTICAL SCALE E□AGGERATED 2□

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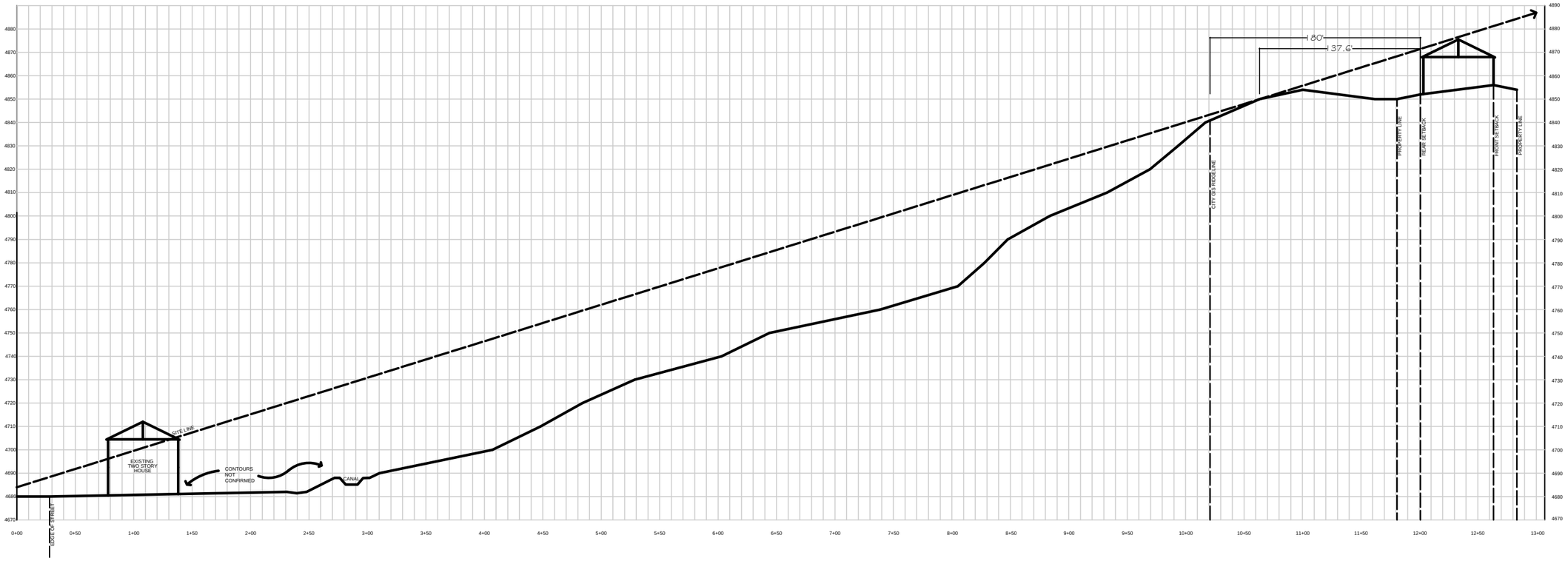

MAGNUS COURT □ELEVATIONS

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VERTICAL SCALE E□AGGERATED 2□

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222 N. 7TH STREET GRAND JUNCTION, CO 81501 www.ciavonne.com
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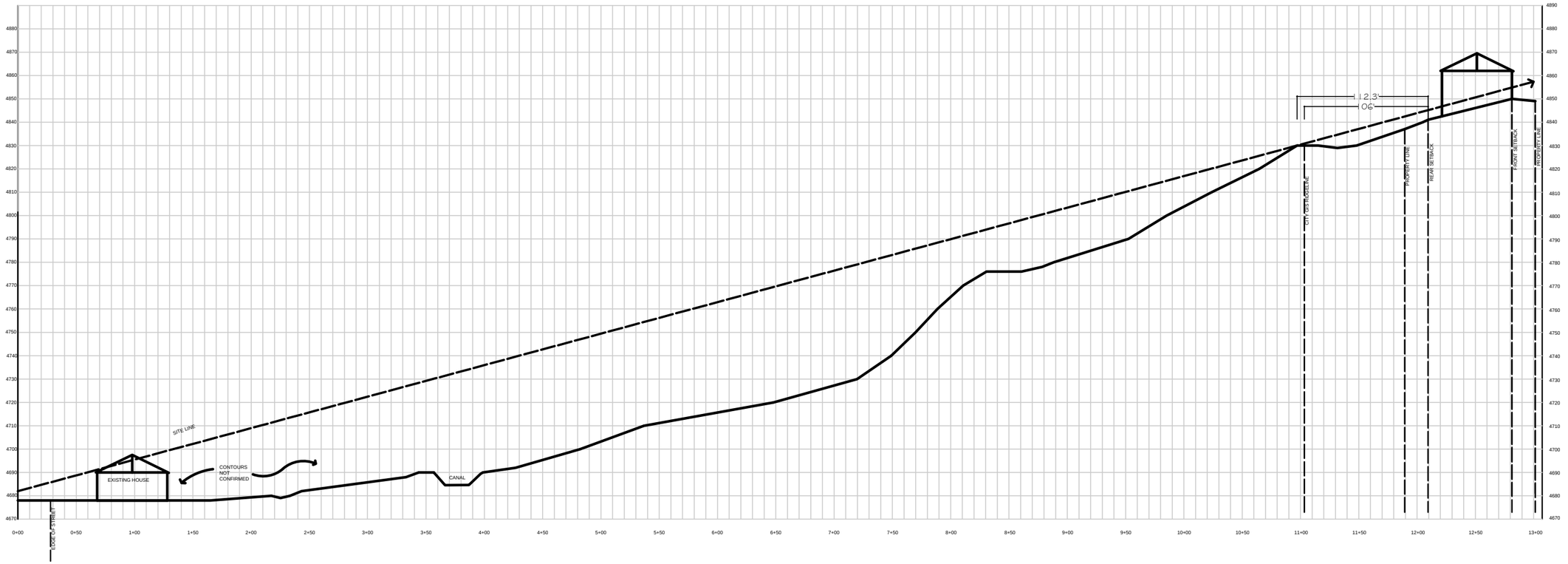


MAGNUS COURT □ELEVATIONS

ELEVATION I□□E□o□d□do C r□□□o Lo□3□

VERTICAL SCALE E□AGGERATED 2□

CIAVONNE, ROBERTS & ASSOCIATES, INC.
LAND PLANNING AND
LANDSCAPE ARCHITECTURE
222 N. 7TH STREET GRAND JUNCTION, CO 81501 www.ciavonne.com
970-241-0745 (P) 970-241-0765 (FX)

City of Grand Junction
COLORADO
PUBLIC WORKS & PLANNING

Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For: Planned Development - ODP

Please fill in blanks below only for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation	Vacant Land	Existing Zoning	RSF-4
Proposed Land Use Designation	Single Family Residential	Proposed Zoning	PD

Property Information

Site Location:		Site Acreage:	43.4
Site Tax No(s):	2947-261-00-003	Site Zoning:	RSF-4

Project Description: Annex/Rezone this property to a Planned Development

Property Owner Information		Applicant Information		Representative Information	
Name:	Bonds LLC	Name:	JLC Magnus LLC	Name:	Ciavonne, Roberts Assoc
Street Address:	PO Box 3915	Street Address:	1985 W Beaver Rd Ste-300 302	Street Address:	222 Nth 7th St
City/State/Zip:	G.J. CO 81502	City/State/Zip:	Troy, MI 48084	City/State/Zip:	GJ, CO 81501
Business Phone #:	248 568 6200	Business Phone #:	248 568 6200	Business Phone #:	241-0745
E-Mail:	thomco2008@aol.com	E-Mail:	thomco2008@aol.com	E-Mail:	ted@ciavonne.com
Fax #:	n/a	Fax #:	n/a	Fax #:	n/a
Contact Person:	Michael Thomas	Contact Person:	Michael Thomas	Contact Person:	Ted Ciavonne
Contact Phone #:	248 568 6200	Contact Phone #:	248 568 6200	Contact Phone #:	241-0745

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application: [signature] Date: 1/7/19

Signature of Legal Property Owner: [signature] Date: 1/7/19

CITY OF Grand Junction COLORADO

PUBLIC WORKS & PLANNING

Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For: Planned Development - ODP

Please fill in blanks below only for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation	Vacant Land	Existing Zoning	R-E
Proposed Land Use Designation	Single Family Residential	Proposed Zoning	PD

Property Information

Site Location:	2215 Magnus Ct #A Grand Junction, CO 81507	Site Acreage:	19.55
Site Tax No(s):	2945-182-00-026	Site Zoning:	R-E

Project Description: Rezone this property and three adjacent properties to a Planned Development

Property Owner Information		Applicant Information		Representative Information	
Name:	CR Nevada Associates LLC	Name:	CR Nevada Associates LLC	Name:	Ciavonne, Roberts Assoc
Street Address:	1985 W Beaver Rd Ste. 302	Street Address:	1985 W Beaver Rd Ste. 302	Street Address:	222 Nth 7th St
City/State/Zip:	Troy, MI 48084	City/State/Zip:	Troy, MI 48084	City/State/Zip:	GJ, CO 81501
Business Phone #:	248 568 6200	Business Phone #:	248 568 6200	Business Phone #:	241-0745
E-Mail:	thomco2008@aol.com	E-Mail:	thomco2008@aol.com	E-Mail:	ted@ciavonne.com
Fax #:	n/a	Fax #:	n/a	Fax #:	n/a
Contact Person:	Michael Thomas	Contact Person:	Michael Thomas	Contact Person:	Ted Ciavonne
Contact Phone #:	248 568 6200	Contact Phone #:	248 568 6200	Contact Phone #:	241-0745

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application: Jay L Thomas Date:

Signature of Legal Property Owner: Date:

City of Grand Junction COLORADO

PUBLIC WORKS & PLANNING

Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For: Planned Development - ODP

Please fill in blanks below only for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation	Vacant Land	Existing Zoning	RSF-4
Proposed Land Use Designation	Single Family Residential	Proposed Zoning	PD

Property Information

Site Location:		Site Acreage:	1.5
Site Tax No(s):	2945-182-00-046	Site Zoning:	RSF-4

Project Description: Annex/Rezone this property to a Planned Development

Property Owner Information		Applicant Information		Representative Information	
Name:	Don C Desrosiers	Name:	JLC Magnus LLC	Name:	Ciavonne, Roberts Assoc
Street Address:	455 Wildwood Dr	Street Address:	1985 W Beaver Road Ste 200	Street Address:	222 Nth 7th St
City/State/Zip:	G.J. CO 81507	City/State/Zip:	Troy, MI 48084	City/State/Zip:	GJ, CO 81501
Business Phone #:	248 568 6200	Business Phone #:	248 568 6200	Business Phone #:	241-0745
E-Mail:	thomco2008@aol.com	E-Mail:	thomco2008@aol.com	E-Mail:	ted@ciavonne.com
Fax #:	n/a	Fax #:	n/a	Fax #:	n/a
Contact Person:	Michael Thomas	Contact Person:	Michael Thomas	Contact Person:	Ted Ciavonne
Contact Phone #:	248 568 6200	Contact Phone #:	248 568 6200	Contact Phone #:	241-0745

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application  Date 1/21/19

Signature of Legal Property Owner  Date 21 Jan 19

CITY OF Grand Junction COLORADO

PUBLIC WORKS & PLANNING

Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For: Planned Development - ODP

Please fill in blanks below only for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation	Vacant Land	Existing Zoning	R-2
Proposed Land Use Designation	Single Family Residential	Proposed Zoning	PD

Property Information

Site Location:	2215 Magnus Ct #A Grand Junction, CO 81507	Site Acreage:	5.16
Site Tax No(s):	2945-182-00-018	Site Zoning:	R-2

Project Description: Rezone this property and three adjacent properties to a Planned Development

Property Owner Information		Applicant Information		Representative Information	
Name:	JLC Magnus LLC	Name:	JLC Magnus LLC	Name:	Ciavonne, Roberts Assoc
Street Address:	1985 W Beaver Rd Ste. 302	Street Address:	1985 W Beaver Road Ste. 302	Street Address:	222 Nth 7th St
City/State/Zip:	Troy, MI 48084	City/State/Zip:	Troy, MI 48084	City/State/Zip:	GJ, CO 81501
Business Phone #:	248 568 6200	Business Phone #:	248 568 6200	Business Phone #:	241-0745
E-Mail:	thomco2008@aol.com	E-Mail:	thomco2008@aol.com	E-Mail:	ted@ciavonne.com
Fax #:	n/a	Fax #:		Fax #:	n/a
Contact Person:	Michael Thomas	Contact Person:	Michael Thomas	Contact Person:	Ted Ciavonne
Contact Phone #:	248 568 6200	Contact Phone #:	248 568 6200	Contact Phone #:	241-0745

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application: Jay T. Coalson Date: 1/7/19

Signature of Legal Property Owner: Jay T. Coalson Date: 1/7/19

OWNERSHIP STATEMENT - CORPORATION OR LIMITED LIABILITY COMPANY

(a) Bonds LLC ("Entity") is the owner of the following property:

(b) 2947-261-00-003

A copy of the deed(s) evidencing the owner's interest in the property is attached. Any documents conveying any interest in the property to someone else by the owner are also attached.

I am the (c) Mgr. of Bonds LLC for the Entity. I have the legal authority to bind the Entity regarding obligations and this property. I have attached the most recent recorded Statement of Authority of the Entity.

☒ My legal authority to bind the Entity both financially and concerning this property is unlimited.

☐ My legal authority to bind the Entity financially and/or concerning this property is limited as follows:

☒ The Entity is the sole owner of the property.

☐ The Entity owns the property with other(s). The other owners of the property are:

On behalf of Entity, I have reviewed the application for the (d) Planned Development - ODP

I have the following knowledge or evidence of a possible boundary conflict affecting the property:

(e) none

I understand the continuing duty of the Entity to inform the City planner of any changes regarding my authority to bind the Entity and/or regarding ownership, easement, right-of-way, encroachment, lienholder and any other interest in the land.

I swear under penalty of perjury that the information in this Ownership Statement is true, complete and correct.

Signature of Entity representative: Ronald A Bonds

Printed name of person signing: Ronald L. Bonds

State of Colorado)

County of Mesa) ss.

Subscribed and sworn to before me on this 7th day of January, 20 19

by Ronald Bonds

Witness my hand and seal.

My Notary Commission expires on

ZACHARY T. REAMS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20134060860
My Commission Expires August 26, 2021

Notary Public Signature

OWNERSHIP STATEMENT - CORPORATION OR LIMITED LIABILITY COMPANY

(a) CR Nevada Associates LLC ("Entity") is the owner of the following property:

(b) 2945-182-00-026

A copy of the deed(s) evidencing the owner's interest in the property is attached. Any documents conveying any interest in the property to someone else by the owner are also attached.

I am the (c) Sole Member for the Entity. I have the legal authority to bind the Entity regarding obligations and this property. I have attached the most recent recorded Statement of Authority of the Entity.

◉ My legal authority to bind the Entity both financially and concerning this property is unlimited.

○ My legal authority to bind the Entity financially and/or concerning this property is limited as follows:

◉ The Entity is the sole owner of the property.

○ The Entity owns the property with other(s). The other owners of the property are:

On behalf of Entity, I have reviewed the application for the (d) Planned Development - ODP

I have the following knowledge or evidence of a possible boundary conflict affecting the property:

(e) none

I understand the continuing duty of the Entity to inform the City planner of any changes regarding my authority to bind the Entity and/or regarding ownership, easement, right-of-way, encroachment, lienholder and any other interest in the land.

I swear under penalty of perjury that the information in this Ownership Statement is true, complete and correct.

Signature of Entity representative: Jay L. Cooke

Printed name of person signing: Jay L Cooke

State of Michigan)

County of Oakland) ss.

Subscribed and sworn to before me on this 7th day of January, 2019

by Jay L Cooke

Witness my hand and seal.

My Notary Commission expires on 01/21/19

Shirley A Schenck

Notary Public, Signature SHIRLEY A SCHENCK

NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Jan 21, 2019
ACTING IN COUNTY OF Oakland

OWNERSHIP STATEMENT - NATURAL PERSON

I, (a) Don C Desrosiers , am the owner of the following real property:

(b) 2945-182-00-046

A copy of the deed evidencing my interest in the property is attached. All documents, if any, conveying any interest in the property to someone else by the owner, are also attached.

(•) I am the sole owner of the property.

( ) I own the property with other(s). The other owners of the property are (c):

I have reviewed the application for the (d) Planned Development - ODP pertaining to the property.

I have the following knowledge and evidence concerning possible boundary conflicts between my property and the abutting property(ies): (e) none

I understand that I have a continuing duty to inform the City planner of any changes in interest, including ownership, easement, right-of-way, encroachment, lienholder and any other interest in the property.

I swear under penalty of perjury that the information contained in this Ownership Statement is true, complete and correct.

Owner signature as it appears on deed: _____

Printed name of owner: Don C Desrosiers

State of Colorado)

County of Mesa) ss.

Subscribed and sworn to before me on this 21st day of January, 2019

by Don C. Desrosiers

Witness my hand and seal.

My Notary Commission expires on 05.25.2022

REBECKA TEMMER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20064020445
My Commission Expires May 25, 2022

County of Mesa

_____
Notary Public Signature

OWNERSHIP STATEMENT - CORPORATION OR LIMITED LIABILITY COMPANY

(a) JLC Magnus LLC ("Entity") is the owner of the following property:

(b) 2215 Magnus Ct. #A Grand Junction, CO 81507 (2945-182-00-018)

A copy of the deed(s) evidencing the owner's interest in the property is attached. Any documents conveying any interest in the property to someone else by the owner are also attached.

I am the (c) Sole Member for the Entity. I have the legal authority to bind the Entity regarding obligations and this property. I have attached the most recent recorded Statement of Authority of the Entity.

◉ My legal authority to bind the Entity both financially and concerning this property is unlimited.

○ My legal authority to bind the Entity financially and/or concerning this property is limited as follows:

◉ The Entity is the sole owner of the property.

○ The Entity owns the property with other(s). The other owners of the property are:

On behalf of Entity, I have reviewed the application for the (d) Planned Development - ODP

I have the following knowledge or evidence of a possible boundary conflict affecting the property:

(e) none

I understand the continuing duty of the Entity to inform the City planner of any changes regarding my authority to bind the Entity and/or regarding ownership, easement, right-of-way, encroachment, lienholder and any other interest in the land.

I swear under penalty of perjury that the information in this Ownership Statement is true, complete and correct.

Signature of Entity representative: Jay L. Cooke

Printed name of person signing: Jay L. Cooke

State of Michigan)

County of Oakland) ss.

Subscribed and sworn to before me on this 7th day of January, 2019

by Jay L Cooke

Witness my hand and seal.

My Notary Commission expires on 01/21/19

Shirley A Schenck

Notary Public Signature

SHIRLEY A. SCHENCK
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Jan 21, 2019
ACTING IN COUNTY OF Oakland

SPECIAL WARRANTY DEED

THIS DEED, made on this day of **December 11, 2012,** between **RONALD LEE BONDS and MARY SUE BONDS LIVING TRUST, dated april 15, 2009,** of the County of **Mesa** and State of **Colorado,** Grantor(s), and **BONDS, LLC** whose legal address is: **1998 South Broadway** of the **Grand Junction** County of **Mesa** and State of **Colorado,** Grantee(s): 81507

WITNESS, that the Grantor, for and in consideration of the sum of **($10)**
TEN and no/100 DOLLARS
the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm unto the Grantee(s), their heirs and successors and assigns forever, **Individual** all the real property, together with improvements, if any, situate, lying and being in the County of **Mesa** and State of Colorado, described as follows:

Lot 1 in Section 26, Township 11 South, RANGE 101 West, 6th P.M.

Also known by street and number

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining and the reversion and reversions, remainder and remainders, rents, issues and profits there of: and all the estate, right title interest, claim and demand whatsoever of the Grantor(s), either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances;

TO HAVE AND TO HOLD the said premises above bargained and described with appurtenances, unto the Grantee(s), his heirs, successors and assigns forever. The Grantor(s), for himself, his heirs, successors and assigns, does covenant, and agree that it shall and will WARRANT AND FOREVER DEFEND the above-bargained premises in the quiet and peaceable possession of the Grantee(s), his heirs, successors and assigns, against all and every person or persons claiming the whole or any part thereof, through or under the Grantor(s).
except subject to covenants, easements, rights of way and restrictions of record, and subject to general property takes for the year in which this deed was executed.

IN WITNESS WHEREOF the Grantor(s) have executed this deed on the date set forth above.

Grantor: Ronald Lee Bonds and
Mary Sue Bonds Living Trust dated April 15, 2009

Ronald Lee Bonds, Settlor and Trustee

Mary Sue Bonds, Settlor and Trustee

STATE OF **COLORADO**)
)ss.
COUNTY OF MESA)

The foregoing instrument was acknowledged before me on this day of December 12, 2012
By Ronald Lee Bonds as Settlor and Trustee and Mary Sue Bonds as Settlor and Trustee of the Ronald Lee Bonds and Mary Sue Bonds Living Trust dated April 15, 2009.
My commission expires _____
Witness my hand and official seal.

Notary Public

SUSAN J. OTTMAN
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 11/02/2013
County of Mesa

When Recorded Return to:

2265192 BK 3947 PG 217
07/21/2005 01:33 PM
Janice Ward CLK&REC Mesa County, CO
RecFee $5.00 SurChg $1.00
DocFee $44.00

44.co

WARRANTY DEED

Grantor(s):
Mesa State College Foundation

whose address is 450 N. 12th Street, Grand Junction, Colorado 81501

*County of Mesa , and State of Colorado , for the consideration of FOUR HUNDRED FORTY THOUSAND AND NO/100---------- dollars, in hand paid, hereby sell(s) and convey(s) to:

CR Nevada Associates, LLC

whose address is 1985 W. Big Beaver Road, #200, Troy, Michigan 48084

*County of , and State of Michigan , the following real property, in the *County of Mesa , and State of Colorado, to wit:

TAX SCHEDULE NUMBER: 2945-182-00-026

The S½ of Lot 1 in Section 18, Township 1 South, Range 1 West of the Ute Meridian, County of Mesa, State of Colorado, EXCEPTING THEREFROM that portion lying within the lines of South Broadway;
AND ALSO EXCEPT A parcel of land for road right-of-way and utility purposes situated in Lot 1, Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian, Mesa County, Colorado, being more particularly described as follows:
Beginning at the Mesa County Survey Monument for the Southeast Corner of said Lot 1, thence South 89°34'25" West, (Bearings based on North 00°08'18" West on the East line of said Lot 1) 24.79 feet along the South line of said Lot 1 to a point on the Easterly right-of-way line of South Broadway as constructed, being on a 705.00 foot radius non-tangent curve to the left, the radius point of which bears North 53°06'40" West, thence 42.75 feet along the arc of said curve, the chord of which bears North 35°09'06" East 42.74 feet through a central angle of 03°28'28" along said right-of-way line to a point on the East line of said Lot 1, thence South 00°08'18" East 34.77 feet to the Point of Beginning.

also known by the street and number as vacant land on Blevins Road, Grand Junction, Colorado 81503

with all its appurtenances, and warrant(s) the title to the same, subject to:
general taxes for the year and those specific Exceptions described by reference to recorded documents as reflected in the Title Documents accepted by Grantee(s) in accordance with Section 8a (Title Review) of the Contract to Buy & Sell Real Estate relating to the above described property; distribution utility easements (including cable TV); those specifically described rights of third parties not shown by the public records of which Grantee(s) has actual knowledge and which were accepted by Grantee(s) in accordance with Section 8b (Matters Not Shown by the Public Records) and Section 8c (Survey Review) of the Contract to Buy & Sell Real Estate relating to the above described real property; inclusion of the Property within any special tax district; and, the benefit and burdens of any declaration and party wall agreements, if any.

Signed this 11 th day of July , 2005 Gregg K. Kampf Diane C. Giglietti

as Authorized Agent
of Mesa State College Foundation

STATE OF COLORADO }
County of MESA } ss.

The foregoing instrument was acknowledged before me this 11 th day of July 2005 .

BY: Gregg K. Kampf as Authorized Agents of Mesa State College Foundation and Diane C. Giglietti

My Commission expires

SUSAN J. OTTMAN
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 11/02/05
County of Mesa

Witness my hand and official seal.

Notary Public

*If in Denver, insert "City and"

No. 897.Rev. 12-85. WARRANTY DEED (Short Form)

Meridian Land Title, LLC 75044

RECEPTION #: 2451023, BK 4706 PG 267 07/31/2008 at 11:49:18 AM, 1 OF 1, R $5.00
S $1.00 D $15.50 Doc Code: WD Janice Rich, Mesa County, CO CLERK AND RECORDER

922079

WARRANTY DEED

Grantor(s), **Dale A. Cochran and Sherry L. Cochran** whose address is **261 N 16 1/2 Road, Glade Park CO 81523,** County of **MESA**, State of **COLORADO**, for the consideration of **One Hundred Fifty-Five Thousand And 00/100** in hand paid, hereby sell(s) and convey(s) to **Don C. Desrosiers** whose legal address is **455 Wildwood Drive, Grand Junction CO 81507**, County of **MESA**, and State of **COLORADO**, the following real property in the **Said** County of **MESA**, and State of Colorado, to wit:

A parcel of land situated in the NW1/4 of the NW 1/4 of Section 18, Township 1 South, Range 1 West
of the Ute Meridian, being more particularly described as follows:
Beginning at the Southwest corner of the N1/2 of Lot 1 in said Section 18;
thence North 00°12' West 339.68 feet;
thence South 55°55' East 314.35 feet;
thence South 163.54 feet
thence West 259.1 feet to the point of beginning.

also known as street and number: **Vacant, Grand Junction, CO**

with all its appurtenances, and warrant(s) the title to the same, subject to taxes for 2008, payable in 2009 and all subsequent years, easements, rights of way, reservations and restrictions of record.

Signed this **30th** day of **July, 2008**.

Dale A. Cochran

Sherry L. Cochran

STATE OF COLORADO,
} ss.
County of **Mesa**

The foregoing instrument was acknowledged before me this **30th** day of **July, 2008** by **Dale A. Cochran and Sherry L. Cochran.**

My commission expires: 04/09/11

ARISSA DAVIS
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 04/09/2011

Witness my hand and official seal.

Notary Public

*If in Denver, insert "City and".

Name and Address of Person Creating Newly Created Legal Description (§ 38-35-106.5, C.R.S.)

RECEPTION#: 2772258, at 8/30/2016 8:35:51 AM, 1 of 2
Recording: $16.00, Doc Fee $42.50 Sheila Reiner, Mesa County, CO. CLERK AND RECORDER

Warranty Deed

(Pursuant to 38-30-113 C.R.S.)

State Documentary Fee
Date: August 24, 2016
$ 42.50

THIS DEED, made on **August 24, 2016** by **DANIEL L. GUMMIN AND TEDRA I. GUMMIN** Grantor(s), of the County of **MESA** and State of **COLORADO** for the consideration of **($425,000.00)** *** **Four Hundred Twenty Five Thousand and 00/100** *** dollars in hand paid, hereby sells and conveys to **JLC MAGNUS LLC** Grantee(s), whose street address is **1985 W. BIG BEAVER RD., STE #200 TROY, MI 48084**, County of **MESA**, and State of **MICHIGAN**, the following real property in the County of **Mesa**, and State of Colorado, to wit:

SEE ATTACHED "EXHIBIT A"

also known by street and number as: **2215 MAGNUS CT GRAND JUNCTION CO 81507**

with all its appurtenances and warrants the title to the same, subject to *general taxes for the year 2016 and those specific Exceptions described by reference to recorded documents as reflected in the Title Documents accepted by Grantee(s) in accordance with Record Title Matters (Section 8.2) of the Contract to Buy and Sell Real Estate relating to the above described real property; distribution utility easements, (including cable TV); those specifically described rights of third parties not shown by the public records of which Grantee(s) has actual knowledge and which were accepted by Grantee(s) in accordance with Off-Record Title Matters (Section 8.3) and Current Survey Review (Section 9) of the Contract to Buy and Sell Real Estate relating to the above described real property; inclusions of the Property within any special tax district; and other* **NONE**

DANIEL L. GUMMIN

TEDRA I. GUMMIN

State of **COLORADO**)
) ss.
County of **MESA**)

The foregoing instrument was acknowledged before me on this day of **August 24, 2016**
by **DANIEL L. GUMMIN AND TEDRA I. GUMMIN**

JULIANNA MCNEILL
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #19934017213
My Commission Expires November 15, 2017

Notary Public
My commission expires 11-15-17
County of Mesa

When Recorded Return to: **JLC MAGNUS LLC**
1985 W. BIG BEAVER RD., STE #200 TROY, MI 48084

Land Title

Exhibit A

THE FOLLOWING LEGAL DESCRIPTION OF THE SUBJECT PROPERTY APPEARS IN WARRANTY DEED RECORDED OCTOBER 17, 2003 IN BOOK 3509 AT PAGE 852 AT RECEPTION NO. 2154220:

A TRACT OF LAND LOCATED IN THE N½ OF LOT 1 IN SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT 25 FEET WEST AND 267.8 FEET SOUTH 51°38' WEST AND 31.9 FEET SOUTH OF THE NORTHEAST CORNER OF SAID LOT 1 OF SAID SECTION 18 AND RUNNING THENCE SOUTH 51°38' WEST 92.1 FEET;
THENCE SOUTH 73°53' WEST 88.9 FEET;
THENCE WEST 136.3 FEET;
THENCE SOUTH 41°00' WEST 181.7 FEET;
THENCE SOUTH 55°00' WEST 108.6 FEET;
THENCE SOUTH 80°00' WEST 168.8 FEET;
THENCE NORTH 85°00' WEST 149.1 FEET;
THENCE SOUTH TO THE SOUTH BOUNDARY LINE OF THE N½ OF SAID LOT 1;
THENCE EAST ALONG THE SAID SOUTH BOUNDARY OF LOT 1 TO A POINT DUE SOUTH OF THE POINT OF BEGINNING;
THENCE NORTH TO THE POINT OF BEGINNING,
COUNTY OF MESA, STATE OF COLORADO.

THE FOLLOWING LEGAL DESCRIPTION OF THE SUBJECT PROPERTY APPEARS IN CORRECTED QUIT CLAIM DEED RECORDED OCTOBER 30, 2006 IN BOOK 4281 AT PAGE 242 AT RECEPTION NO. 2346102:

A TRACT OF LAND SITUATED IN THE N ½ OF LOT 1, SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, MESA COUNTY, COLORADO, AS PREVIOUSLY RECORDED IN BOOK 3509 AT PAGE 852 AND 853, NOW BEING CORRECTED TO ADJOIN THE RIGHT-OF-WAY ON MAGNUS COURT, DESCRIBED AS FOLLOWS:

COMMENCING AT THE FOUND MESA COUNTY SURVEY MARKER FOR THE W 1/16 CORNER OF SAID SECTION 18, ALSO BEING THE NORTHEAST CORNER OF SAID LOT 1, THE BASIS OF BEARING BEING S89°50'20"W ALONG THE NORTH LINE OF SAID LOT 1 TO THE NORTHWEST CORNER OF SAID SECTION 18, ALSO BEING THE NORTHWEST CORNER OF SAID LOT 1, BEING A FOUND GENERAL LAND OFFICE BRASS CAP;
THENCE S89°50'20"W A DISTANCE OF 234.92 FEET ALONG SAID NORTH LINE;
THENCE S00°10'24"E A DISTANCE OF 199.65 FEET TO THE NORTHWEST CORNER OF MULLIS SUBDIVISION AND THE SOUTHERLY RIGHT-OF-WAY OF MAGNUS COURT AS RECORDED IN BOOK 794 AT PAGE 336 OF THE MESA COUNTY RECORDS AND THE POINT OF BEGINNING;
THENCE ALONG THE SOUTHERLY RIGHT-OF-WAY OF MAGNUS COURT THE FOLLOWING FOUR COURSES:
1.) S55°18'44"W A DISTANCE OF 82.75 FEET;
2.) S73°41'44"W A DISTANCE OF 87.18 FEET;
3.) S89°48'44"W A DISTANCE OF 104.44 FEET;
4.) ALONG THE ARC OF A NON-TANGENT CURVE TO THE RIGHT 60.79 FEET, HAVING A RADIUS OF 50.00' AND THE CENTRAL ANGLE OF 69°39'30", THE CHORD OF WHICH BEARS S64°38'29"W A DISTANCE OF 57.11 FEET TO THE EASTERLY RIGHT-OF-WAY OF MAGNUS COURT AS RECORDED IN BOOK 1378 AT PAGE 534 OF SAID RECORDS;
THENCE ALONG THE EASTERLY RIGHT-OF-WAY OF MAGNUS COURT THE FOLLOWING FOUR COURSES:
1.) S40°37'43"W A DISTANCE OF 161.00 FEET;
2.) S54°50'20"W A DISTANCE OF 108.60 FEET;
3.) S79°50'20"W A DISTANCE OF 168.80 FEET;
4.) N85°10'24" A DISTANCE OF 149.97 FEET;
THENCE S00°08'13"E A DISTANCE OF 163.43 FEET TO THE SOUTH LINE OF SAID N ½ OF LOT 1;
THENCE N89°50'21"E A DISTANCE OF 817.98 FEET TO THE SOUTHWEST CORNER OF SAID MULLIS SUBDIVISION;
THENCE N00°10'24"W A DISTANCE OF 459.40 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH THE LAND CONVEYED FROM DON C. DESROSIERS TO DANIEL L. GUMMIN AND TEDRA I. GUMMIN IN BOUNDARY LINE AGREEMENT RECORDED JANUARY 26, 2016 IN BOOK 5817 AT PAGE 596 UNDER RECEPTION NO. 2749525, AND RE-RECORDED APRIL 12, 2016 UNDER RECEPTION NO. 2756698;

AND EXCEPTING FROM ALL OF THE ABOVE DESCRIBED LAND, THE LAND CONVEYED FROM DANIEL L. GUMMIN AND TEDRA L GUMMIN TO DON C. DESROSIERS IN BOUNDARY LINE AGREEMENT RECORDED JANUARY 26, 2016 IN BOOK 5817 AT PAGE 596 UNDER RECEPTION NO. 2749525, AND RE-RECORDED APRIL 12, 2016 UNDER RECEPTION NO. 2756698.

Sheila Reiner, Mesa County Treasurer
544 Rood Ave - Grand Junction CO 81501
Dept. 5027 - PO Box 20,000 - Grand Junction CO 81502-5001
Phone Number: (970) 244-1824

Account Number R074564
Parcel 294726100003
Acres 40.000
Assessed To

BONDS LLC
PO BOX 3915
GRAND JUNCTION, CO 81502

Legal Description
LOT 1 SEC 26 11S 101W

Situs Address

Year	Tax	Interest	Fees	Payments	Balance
Tax Charge					
2018	$6,598.56	$0.00	$0.00	$0.00	$6,598.56
Total Tax Charge					$6,598.56
Grand Total Due as of 01/16/2019					**$6,598.56**

Tax Billed at 2018 Rates for Tax Area 11276 - 11276

Authority	Mill Levy	Amount
COLORADO RIVER WATER CONSER	0.2560000	$23.39
GRAND JUNCTION RURAL FIRE	5.9380000	$542.43
GRAND RIVER MOSQUITO CTRL	1.4520000	$132.64
LIBRARY DISTRICT	3.0590000	$279.44
COUNTY - DEVELOP DISABLED	0.2840000	$25.94
COUNTY GENERAL FUND	9.2680000*	$846.63
COUNTY ROAD & BRIDGE-FULL L	0.4430000	$40.47
SOCIAL SERVICES	2.3600000	$215.59
COUNTY TRANSLATOR TV FUND	0.0020000	$0.18
GJ RURAL FIRE REDLANDS SUB	4.9040000	$447.98
SCHOOL DIST# 51 GENERAL	24.3280000	$2,222.36
SCHOOL DIST# 51 BOND	10.3380000	$944.37
SCHOOL DIST# 51 OVERRIDE 96	2.8720000	$262.36
SCHOOL DIST# 51 2006 OVERID	2.3730000	$216.77
SCHOOL DIST# 51 2017 OVERRI	3.8570000	$352.34
UTE WATER CONSERVANCY	0.5000000	$45.67
Taxes Billed 2018	72.2340000	$6,598.56

* Credit Levy

Values	Actual	Assessed
35 AC NO MORE THAN 100 AC	$315,000	$91,350
Total	$315,000	$91,350

Sheila Reiner, Mesa County Treasurer
544 Rood Ave - Grand Junction CO 81501
Dept. 5027 - PO Box 20,000 - Grand Junction CO 81502-5001
Phone Number: (970) 244-1824

Account Number R066836 | Parcel 294518200026

Acres 19.990

Assessed To

CR NEVADA ASSOCIATES LLC
1985 W BIG BEAVER RD STE 200
TROY, MI 48084-3409

Legal Description | **Situs Address**

S2 LOT 1 SEC 18 1S 1W EXC ROW AS DESC IN B-1413 P-87

Year	Tax	Interest	Fees	Payments	Balance
Tax Charge					
2018	$5,613.12	$0.00	$0.00	$0.00	$5,613.12
Total Tax Charge					$5,613.12
Lien					
2017 Lien: 2017-08190	$5,831.29	$320.72	$0.00	$0.00	$6,152.01
2016 Lien: 2017-08190	$5,105.70	$702.03	$0.00	$0.00	$5,807.73
2016	$0.00	$0.00	$7.00	$0.00	$7.00
Total Lien					$11,966.74
GRAND TOTAL					**$17,579.86**
Grand Total Due as of 01/16/2019					**$17,579.86**

Tax Billed at 2018 Rates for Tax Area 14100 - 14100

Authority	Mill Levy	Amount
COLORADO RIVER WATER CONSER	0.2560000	$20.71
MESA CNTY ROAD & BRIDGE-GRA	0.2215000	$17.92
CITY OF GRAND JUNCTION	8.0000000	$647.12
GRAND RIVER MOSQUITO CTRL	1.4520000	$117.45
LIBRARY DISTRICT	3.0590000	$247.44
COUNTY - DEVELOP DISABLED	0.2840000	$22.97
COUNTY GENERAL FUND	9.2680000*	$749.69
COUNTY ROAD & BRIDGE-1/2 LE	0.2215000	$17.92
SOCIAL SERVICES	2.3600000	$190.90
COUNTY TRANSLATOR TV FUND	0.0020000	$0.16
SCHOOL DIST# 51 GENERAL	24.3280000	$1,967.89
SCHOOL DIST# 51 BOND	10.3380000	$836.24
SCHOOL DIST# 51 OVERRIDE 96	2.8720000	$232.32
SCHOOL DIST# 51 2006 OVERID	2.3730000	$191.95
SCHOOL DIST# 51 2017 OVERRI	3.8570000	$311.99
UTE WATER CONSERVANCY	0.5000000	$40.45
Taxes Billed 2018	69.3920000	$5,613.12

* Credit Levy

Values	Actual	Assessed
10 AC NO MORE THAN 35 AC	$278,940	$80,890
Total	$278,940	$80,890

Sheila Reiner, Mesa County Treasurer
544 Rood Ave - Grand Junction CO 81501
Dept. 5027 - PO Box 20,000 - Grand Junction CO 81502-5001
Phone Number: (970) 244-1824

Account Number R066844 | Parcel 294518200046

Acres 0.000

Assessed To | DESROSIERS DON C
455 WILDWOOD DR
GRAND JUNCTION, CO 81507-2505

Legal Description | **Situs Address**

BEG SW COR N2 LOT 1 SEC 18 1S 1W N 0DEG12' W 339.68FT S 55DEG55' E 314.35FT S 163.54FT W 259.1FT TO BEG BEG AND INCL THAT PTN LYG WESTERLY OF LINE DESC IN BNDRY LINE AGMT R-2756698 MESA CO RECDS

Year	Tax	Interest	Fees	Payments	Balance
Tax Charge					
2018	$1,990.04	$0.00	$0.00	$0.00	$1,990.04
Total Tax Charge					$1,990.04
Grand Total Due as of 01/16/2019					**$1,990.04**

Tax Billed at 2018 Rates for Tax Area 11276 - 11276

Authority	Mill Levy	Amount
COLORADO RIVER WATER CONSER	0.2560000	$7.05
GRAND JUNCTION RURAL FIRE	5.9380000	$163.59
GRAND RIVER MOSQUITO CTRL	1.4520000	$40.00
LIBRARY DISTRICT	3.0590000	$84.28
COUNTY - DEVELOP DISABLED	0.2840000	$7.82
COUNTY GENERAL FUND	9.2680000*	$255.35
COUNTY ROAD & BRIDGE-FULL L	0.4430000	$12.20
SOCIAL SERVICES	2.3600000	$65.02
COUNTY TRANSLATOR TV FUND	0.0020000	$0.06
GJ RURAL FIRE REDLANDS SUB	4.9040000	$135.10
SCHOOL DIST# 51 GENERAL	24.3280000	$670.23
SCHOOL DIST# 51 BOND	10.3380000	$284.81
SCHOOL DIST# 51 OVERRIDE 96	2.8720000	$79.12
SCHOOL DIST# 51 2006 OVERID	2.3730000	$65.38
SCHOOL DIST# 51 2017 OVERRI	3.8570000	$106.26
UTE WATER CONSERVANCY	0.5000000	$13.77
Taxes Billed 2018	72.2340000	$1,990.04

* Credit Levy

Values	Actual	Assessed
1 AC NO MORE THAN 5 AC	$95,000	$27,550
Total	$95,000	$27,550

Sheila Reiner, Mesa County Treasurer
544 Rood Ave - Grand Junction CO 81501
Dept. 5027 - PO Box 20,000 - Grand Junction CO 81502-5001
Phone Number: (970) 244-1824

Account Number R066833 | Parcel 294518200018

Acres 5.250

Assessed To | JLC MAGNUS LLC
1985 W BEAVER RD STE 200
TROY, MI 48084

Legal Description

FR NE COR LOT 1 SEC 18 1S 1W W 25FT S 51DEG38MIN W 267.8FT S 31.9FT FOR BEG S 51DEG38MIN W 92.1FT S 73DEG53MIN W 88.9FT W 136.3FT S 41DEG W 181.7FT S 55DEG W 108.6FT S 80DEG W 168.8FT N 85DEG W 149.1FT S TO S LI N2 LOT 1 E ALG S LI TO A PT S OF BEG N TO BEG INCL THAT PTN LYG EASTERLY OF LINE DESC IN... Additional Legal on File

Situs Address

2215 MAGNUS CT #A,2215 MAGNUS CT #B

Year	Tax	Interest	Fees	Payments	Balance
Tax Charge					
2018	$2,147.68	$0.00	$0.00	$0.00	$2,147.68
Total Tax Charge					$2,147.68
Grand Total Due as of 01/16/2019					**$2,147.68**

Tax Billed at 2018 Rates for Tax Area 14100 - 14100

Authority	Mill Levy	Amount
COLORADO RIVER WATER CONSER	0.2560000	$7.92
MESA CNTY ROAD & BRIDGE-GRA	0.2215000	$6.86
CITY OF GRAND JUNCTION	8.0000000	$247.60
GRAND RIVER MOSQUITO CTRL	1.4520000	$44.94
LIBRARY DISTRICT	3.0590000	$94.68
COUNTY - DEVELOP DISABLED	0.2840000	$8.79
COUNTY GENERAL FUND	9.2680000*	$286.85
COUNTY ROAD & BRIDGE-1/2 LE	0.2215000	$6.86
SOCIAL SERVICES	2.3600000	$73.04
COUNTY TRANSLATOR TV FUND	0.0020000	$0.06
SCHOOL DIST# 51 GENERAL	24.3280000	$752.95
SCHOOL DIST# 51 BOND	10.3380000	$319.96
SCHOOL DIST# 51 OVERRIDE 96	2.8720000	$88.89
SCHOOL DIST# 51 2006 OVERID	2.3730000	$73.44
SCHOOL DIST# 51 2017 OVERRI	3.8570000	$119.37
UTE WATER CONSERVANCY	0.5000000	$15.47
Taxes Billed 2018	69.3920000	$2,147.68

* Credit Levy

Values	Actual	Assessed
SINGLE FAMILY LAND	$211,500	$15,230
SINGLE FAMILY IMP	$218,270	$15,720
Total	$429,770	$30,950

Magnus Planned Development

General Project Report for:
Annexation, Zone of Annexation, Comprehensive Plan Amendment, Rezone, Outline Development Plan, and Vacation of Public ROW

Project Overview

The applicant, JLC Magnus LLC, is seeking a number of entitlements to allow the efficient assembly, planning, and zoning of multiple properties into a unified Residential Planned Development. This proposal is for a 74 lot Single Family Residential Community on approximately 70 acres of land that is currently comprised of four separate properties, two of which are annexed to the City and two of which are currently in the County.

The project location can be generally described as the northeast facing 'backside' of Riggs Hill, elevated with spectacular panoramic views of the valley. It is dry with a fair amount of rocky soil conditions and limited rock outcrops; there is a significant elevation change across the properties (+/- 170 feet), and proposed development is contained to slopes that respect the City Hillside Regulations. The property currently has a dirt road that is mostly within a platted ROW known as Magnus Court, and which is accessed via 22¼ Road from either Broadway or South Broadway. Three of the four properties that make up the project are vacant, with the forth having one single family residence on it. This existing residence is not incorporated into the future plans and is therefore not depicted in the graphics.

Although options exist to utilize a series of City Code processes for annexation, Comprehensive Plan Amendment (CPA), straight zoning, and rezoning, in conjunction with Hillside and Cluster provisions … to create the desired community … preliminary discussions with planning staff, along with a Formal Pre-Application review, supports creating an Overall Development Plan (ODP) with a Planned Development (PD) zone to better achieve this Residential Planned Community.

To restate and simplify the intent of the entitlement requests, we propose: amending the Growth Plan Designation over one of the four properties (Bonds LLC), annexing two properties under a PD Zone (Bonds LLC and Desrosiers), and rezoning two properties to a PD zone (CR Nevada Assocs. LLC and JLC Magnus LLC). The proposed Overall Development Plan shows a reduction of the currently allowed maximum density of the three existing zone districts (City RE, City R2, County RSF4) from 208 units which equals +/- 3 units per acre, to a proposed maximum PD zone density of 95 units which equals 1.36 units per acre. The current plan shows 74 units which equals +/- 1.06 units per acre, with over 60% of the property as designated open space surrounding the Residential Planned Community and respecting the natural conditions of the site.

This 70 acre project has a number of entitlement needs that are best addressed simultaneously. The current status, and intentions, are as follows:

- There are four properties involved with this project:
  - CR Nevada LLC – 19.55 acres, zoned RE in the City of Grand Junction
  - JLC Magnus LLC – 5.16 acres, zoned R2 in the City of Grand Junction
  - Desrosiers Property – 1.50 acres, zoned RSF-4 in Mesa County
  - Bonds LLC – 43.46 acres, zoned RSF-4 in Mesa County
- The two east lots, CR Nevada and JLC Magnus, are zoned and annexed in the City, but with differing zoning. The two remaining lots, Desrosiers and Bonds, are not annexed and are zoned RSF-4 in the County. All four lots have existing zoning that is not in compliance with the Future Land Use Plan (FLU). The desire is:
  - to annex Desrosiers and Bonds as Planned Development Zones;
  - to rezone CR Nevada and JLC Magnus to Planned Development Zones;
  - to amend the Bonds property Future Land Use designation to Estate (1 to 3 acre lots), but leaving the remaining three properties in their current FLU designation of Residential Low (.5 to 2 DU/Acre). Collectively this allows a maximum density of 95 units on the combined four properties (+/-70 acres);
  - to create an ODP with a PD Zone for Residential Use on 74 residential lots;

- to vacate appropriate portions of Magnus Court with respect to the new proposed alignment.

- The PD Zone on the entire 70 acre development will have one underlying default zone standard of R4. The R4 bulk standards are derived from the Cluster provisions of the Code where 50% Open Space is matrixed with an R1 density. This is discussed in Item E below, Section 21.02.150 – Outline Development Plan (ODP) and PD Zone.

The following Code Sections are addressed in this report and/or its attachments:

- Section 21.02.100 – Vacation of public right-of-way or easement (Magnus Court);
- Section 21.02.160 – Annexation (Desrosiers and Bonds);
- Section 21.02.140 – Zone of Annexation from County RSF-4 to City Planned Development (PD) for annexed properties;
- Section 21.02.130 – Comprehensive Plan Amendment (CPA) from Rural to Estate for Bonds property;
- Section 21.02.140 – Rezone of CR Nevada and JLC Magnus to Planned Development (PD);
- Section 21.02.150 – Planned Development (PD) and Outline Development Plan (ODP) for entire development area, with underlying zoning of R4.

A. Project Description

Location

- The project location can be generally described as the northeast facing 'backside' of Riggs Hill. The property has a dirt road that is mostly within a platted ROW known as Magnus Court, and which is accessed via 22¼ Road from either Broadway or South Broadway. The four properties that make up the project were described above.

Acreage

- All four properties are approximately 70 acres. As noted above, +/- 25 acres is currently annexed into the City; +/- 45 acres is in the County.

Proposed Use

- The proposed use is a 70 acre Residential Planned Development (see Illustrative):
  - Single Family Residential (+/- 20.5 acres)
    - Detached Residential
    - The objective is to create an upscale residential community with an average density of just over one dwelling unit per acre; however, with the clustering of lots to respect the natural terrain and to maximize undeveloped open space, the 74 single family lots are each approximately one quarter acre in size.
    - R4 Zone Uses and Standards with amendments noted;
  - Open Space (+ 46 acres),
    - Predominantly placed to protect natural slopes and view sheds
    - Greenbelt linkages and roadway aesthetics
    - Internal areas maintained by Homeowners Associations; desire to dedicate significant portions of the open space to the public (City or Museum).
  - Internal Road ROW (+/- 4.5 acres),
    - Proposed as standard and alternative road sections. An Alternative Road Section, a narrower road due to steeper slopes, is being submitted.

B. Public Benefit

The Magnus Residential Planned Development will create a residential neighborhood that meets the intent of the Growth Plan and the development requirements of the City of Grand Junction. Public benefits include:

- the development of properties within the City 201 boundary;
- the creation of a residential project meeting the intentions and densities of the Growth Plan;
- road and utility improvements that meet City standards, including drainage, pavement, walks;
- utility extensions, upgrades, and improvements;

- o ROW dedications and utility connections that will be available to existing adjacent properties;
- o Drainage improvements that reduce historic flows to the north drainages, and directs them towards Goat Wash.
- o lower density single family residential development, clustered to protect natural slopes, consolidate infrastructure, and maximize open space;
- o extensive on and off street pedestrian networks are proposed, some specific to the HOA but most legitimizing the numerous 'trespass trails' associated with the Museum owned Riggs Hill;
- o Significant open space dedication … approximately 64% of the entire project.

C. Neighborhood Meeting

A neighborhood meeting was held on October 18th, 2018 at the Redlands United Methodist Church. Sixty-two notices were mailed out, eleven Property Owners attended (16 including spouses/joint owners). The attending neighbors were concerned about density, additional traffic, drainage, new home values, etc. Some felt that 74 'clustered' lots was more dense than 74 one-acre lots; and upon further questioning this was clarified to mean that they preferred one-acre lots, over ¼ acre lots. Some realized the advantage to clustering the lots and preserving the hillsides. Notes from this meeting are included with this submittal.

D. Project Compliance, Compatibility, and Impact

Adopted Plans and Policies

As noted this property has a number of land planning issues that can be best addressed through a Planned Development, which provides an attractive alternative to straight zoning. The current County and City zoning of the four properties predate the adoption of the Future Land Use Plan, and are not compatible with FLU nor the residential land use pressures that exist today. The 'bundling' of the necessary entitlements addressed within this Planned Development zone will allow the Magnus Residential Planned Development to best address the intent of the Comprehensive Plan, with a well-planned, modern, and unique community.

Approval of this project will allow it to conform to the Future Land Use Plan, the City Zoning and Development Code, and known City regulations. Relevant Code provisions include Vacation of Public ROW, Annexation, Zone of Annexation, Comprehensive Plan Amendment, Rezone, and Outline Development Plan, and are addressed in detail in Item E below.

Surrounding Land Use

Properties to the south and partial west are owned by Redlands Water and Power (Vacant) or the Museum of Western Colorado (Riggs Hill); partial west is the Desert Hills Estates Subdivision; northwest is vacant and north east is Reed Mesa Subdivision; east is single family residential. The entire south and west boundaries are incorporated.

Site Access & Traffic Patterns

There will be one access into the site due to the terrain. Currently the property has a dirt road that is mostly within a platted ROW known as Magnus Court, and which is accessed via 22¼ Road from either Broadway or South Broadway. In order to improve the grades of the EXISTING Magnus Court we need to come off of its current alignment in many areas.

Access within the site is achieved primarily through a looped road; this project will need to utilize the maximum allowed hillside road grades. Preliminary grading plans indicate we can stay within the parameters of code which allows periodic sections reaching maximum grades of 12%. Concurrent with this application is the request for Alternative Street ROW's for narrower roads and for fire access concerns.

Expected vehicular traffic patterns remain as they are today: north to Broadway, or south to South Broadway / Redlands Parkway, both of which lead to the new Redlands roundabout.

A Traffic Study by McDowell Engineering, LLC is provided with this submittal.

Availability of Utilities

Utility providers are:

- Water – Ute Water District.
- Sewer – City of Grand Junction
- Drainage and Storm Sewer- Grand Valley Drainage District
- Irrigation water – NA
- Power – Xcel Energy
- Gas – Xcel Energy
- Communications – TBD

Special or Unusual Demands on Utilities
We have had initial meetings with Ute Water and understand that water pressure will need to be boosted for this development.

Effects on Public Facilities
The Magnus Residential Planned Development will have expected, but not unusual impacts on Public Facilities. Total residential units will be less than what current zoning allows.

Site Soils
NRCS soils information is provided with this submittal.

Impact on Geology and Geological Hazards
No known geological hazards exist on the development of the northern facing slopes of this property. Rock fall potential occurs on the south facing slopes which are not being developed.

Hours of Operation - NA

Number of Employees - NA

Signage Plans
Signage will be utilized at the project entry and will not exceed that allowed in the default zone.

E. Additional General Report Discussion Items

The following Code Sections, noted above, are addressed below:

- Section 21.02.100 – Vacation of public right-of-way or easement (Magnus Court);
- Section 21.02.160 – Annexation (Desrosiers and Bonds);
- Section 21.02.140 – Zone of Annexation from County RSF-4 to City Planned Development (PD) for annexed area (Desrosiers and Bonds);
- Section 21.02.130 – Comprehensive Plan Amendment (CPA) from Rural to Estate for Bonds property;
- Section 21.02.140 – Rezone of CR Nevada and JLC Magnus to Planned Development (PD);
- Section 21.02.150 – Planned Development (PD) and Outline Development Plan (ODP) for entire development area, with underlying zoning of R4.
- Section 21.07.020(f) – Hillside Development standards implementation.
- Section 21.07.020(f) – Ridgeline Development standards implementation.

21.02.100 Vacation of public right-of-way or easement.

Magnus Court appears to be a nonconforming dirt road mostly within a County ROW that serves four lots with single family homes (2215, 2216, 2218, 2220 Magnus Court), and three vacant lots (no addresses). The 2215 Magnus Court property and two vacant parcels (Desrosiers and Bonds) are all south of the Magnus Court alignment and are a part of the proposed Residential Planned Development; the four properties north of Magnus Court are not a part of this project, however changes to the ROW will affect them. Magnus Court does not currently meet any acceptable engineering standard for width, grade,

angle of access to 22¼ Road, surfacing, etc. This project proposes an alignment that corrects all the existing road design deficiencies and brings them to code; it is primarily the need to keep road grades under 12% that force the realignment.

We note that 'new' or 'additional' Magnus Court ROW can be realized and accepted without vacating the existing ROW, and this project can move forward with that approach if so instructed.

(c) ***Approval Criteria.*** *The vacation of the right-of-way or easement shall conform to the following:*

(1) The Comprehensive Plan, Grand Valley Circulation Plan, and other adopted plans and policies of the City;

- The vacation of portions of the Magnus Court ROW does not change the Comprehensive Plan;
- Magnus Court does not appear on the GV Circulation Plan;
- The vacation is not in conflict with any adopted plans nor policies of the City.

(2) No parcel shall be landlocked as a result of the vacation;

- The final design of a revised Magnus Court can show that no parcel will be landlocked as a result of the vacation; in fact, a current landlocked parcel is accessed with the proposed road network.

(3) Access to any parcel shall not be restricted to the point that access is unreasonable, economically prohibitive, and/or reduces or devalues any property affected by the proposed vacation;

- No parcel will be restricted to the point that access is unreasonable, economically prohibitive, and/or reduces or devalues any property affected by the proposed *vacation. We would expect an increase in property values with the improvements to this road.*

(4) There shall be no adverse impacts on the health, safety, and/or welfare of the general community, and the quality of public facilities and services provided to any parcel of land shall not be reduced (e.g., police/fire protection and utility services);

- There are no adverse impacts on the health, safety, and/or welfare of the general community, in fact, the quality of public facilities and services provided to any parcel of land will be improved;

(5) The provision of adequate public facilities and services to any property as required in Chapter 21.06 GJMC shall not be inhibited by the proposed vacation; and

- Adequate public facilities and services to other properties will not be inhibited by the proposed vacation;
- Existing services will be upgraded, new services will be available to all properties.

(6) The proposal shall provide benefits to the City such as reduced maintenance requirements, improved traffic circulation, etc.

- The existing dirt road does not meet current standards.
- The proposed paved roadway meeting City design standards requires the proposed new (and/or additional) ROW to do so.

21.02.160 Annexation.

Two properties, Desrosiers and Bonds, comprise approximately 45 acres of the 70 acre development; they are within the Persigo 201 and will need to be annexed into the City of Grand Junction.

(c) ***Approval Criteria.*** *The application shall meet all applicable statutory and City administrative requirements. A complete copy of these requirements is available from the Public Works and Planning Department.*

- We are submitting with this proposal a signed/executed annexation petition and believe that the property, since it is located contiguous to existing city limits, meets statutory requirements of contiguity, that the area is or can be urbanizing and we are 100% owners of the land. The annexation to the City of Grand Junction, Colorado is both necessary and desirable and the property is eligible for annexation in that the

provisions of the Municipal Annexation Act of 1965, Sections 31-12-104 and 31-12-105 CRS 1973 can be met.

- We also understand that the zone of annexation shall comply with the Comprehensive Plan. The proposed zoning of PD with the proposed density of one unit per acre, can conform to the Comprehensive Plan, as amended concurrent with this approval.

21.02.140 Code amendment and rezoning.

Two properties, Desrosiers and Bonds, will be annexed into the City with a PD Zone.

(a) ***Approval Criteria.*** *In order to maintain internal consistency between this code and the zoning maps, map amendments must only occur if:*

(1) Subsequent events have invalidated the original premises and findings; and/or

- The adoption of the Persigo 201 boundary, the creation of the Comprehensive Plan after the County RSF-4 zoning (having lower density ranges), the creation of the Hillside regulations, the annexation and zoning of CR Nevada and JLC Magnus as differing zone districts, are all events that invalidate the original premises and findings;

(2) The character and/or condition of the area has changed such that the amendment is consistent with the Plan; and/or

- The character of the area has changed with the annexation and development of adjacent residential subdivisions, as well as the Hillside regulations that support clustering of smaller lots on the more developable slopes.

(3) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

- Public facilities, currently lacking, will be improved and/or brought into the Planned Development and made available to properties along Magnus Court.

(4) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

- Residential growth pressure is high throughout the community, and few large parcels remain where a Planned Development can be successfully implemented.

(5) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

- As noted above, sewer and water will now be improved and available along Magnus Court;
- On and off-site drainage improvements will benefit the surrounding subdivisions.
- The ability to create a Residential Planned Community with over 60% dedicated open space.

21.02.130 Comprehensive Plan amendment (CPA).

One property, the 43.5 acre Bonds LLC parcel, is seeking a Comprehensive Plan amendment (CPA) from Rural to Estate to make it more compatible with adjacent properties, and to better match its County Zoning Density (RSF4) with an appropriate Comprehensive Plan density range. At present the County Zoning allows 172 units, which is not appropriate; on the other hand the Rural designation in the Comprehensive Plan allows a maximum of 8 units, which is likewise not appropriate. The requested Comprehensive Plan designation of Estate would allow a maximum density of 43 units, which is appropriate, and which will be further controlled by City code Hillside regulations.

(c) ***Criteria for Plan Amendments.***

(1) The City may amend the Comprehensive Plan, neighborhood plans, corridor plans and area plans if the proposed change is consistent with the vision (intent), goals and policies of the Comprehensive Plan and:

(i) Subsequent events have invalidated the original premises and findings; and/or

- The adoption of the Persigo 201 boundary, the creation of the Comprehensive Plan after the County RSF-4 zoning (having lower density ranges), the creation of Hillside regulations, the annexation and zoning of CR Nevada and JLC Magnus as differing zone districts, are all events that invalidate the original premises and findings;

(ii) The character and/or conditions of the area has changed such that the amendment is consistent with the Plan; and/or

- The character of the area has changed with the annexation and development of adjacent residential subdivisions, as well as the Hillside regulations that support clustering of smaller lots on the more developable slopes.

(iii) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

- Public facilities, currently lacking, will be brought into the Planned Development and made available to properties along Magnus Court.

(iv) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

- Residential growth pressure is high throughout the community, and few large parcels remain where a Planned Development can be successfully implemented. This project brings together four parcels of land that allow the cohesive planning of a singular 70 acre Residential Planned Community.

(v) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

- As noted above, sewer and water will now be improved and/or available along Magnus Road;
- On and off-site drainage improvements will benefit the surrounding subdivisions;
- The ability to create a Residential Planned Community with over 60% dedicated open space.

21.02.140 Code amendment and rezoning.

Two properties, CR Nevada and JLC Magnus, are currently in the City and zoned RE and R2 respectively, and will need to be rezoned to Planned Development.

*(a) **Approval Criteria.** In order to maintain internal consistency between this code and the zoning maps, map amendments must only occur if:*

(1) Subsequent events have invalidated the original premises and findings; and/or

- The adoption of the Persigo 201 boundary, the creation of the Comprehensive Plan after the County RSF-4 zoning (having lower density ranges), the creation of the Hillside regulations, the annexation and zoning of CR Nevada and JLC Magnus as differing zone districts, are all events that invalidate the original premises and findings;

(2) The character and/or condition of the area has changed such that the amendment is consistent with the Plan; and/or

- The character of the area has changed with the annexation and development of adjacent residential subdivisions, as well as the Hillside regulations that support clustering of smaller lots on the more developable slopes.

(3) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

- Public facilities, currently lacking, will be brought into the Planned Development and made available to properties along Magnus Court.

(4) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

- Residential growth pressure is high throughout the community, and few large parcels remain where a Planned Development can be successfully implemented.

(5) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

- As noted above, sewer and water will now be improved and/or available along Magnus Road
- On and off-site drainage improvements will benefit the surrounding subdivisions.
- The ability to create a Residential Planned Community with over 60% dedicated open space.

21.02.150 Planned Development (PD) and Outline Development Plan (ODP) (see Outline Development Plan)

The Planned Development (PD) / Outline Development Plan (ODP) is the culmination of the approval of the previous five processes: Section 21.02.100 – Vacation of public right-of-way or easement (Portions of Magnus Court); Section 21.02.160 – Annexation (Desrosiers and Bonds properties); Section 21.02.140 – Zone of Annexation from County RSF-4 to City Planned Development (PD) for annexed properties; Section 21.02.130 – Comprehensive Plan amendment (CPA) from Rural to Estate for the Bonds property; Section 21.02.140 – Rezone of the CR Nevada (zoned RE in the City) and JLC Magnus (zoned R2 in the City) properties to Planned Development.(PD). With this approval the entire +/- 70 acres is incorporated, uniformly zoned as PD, and with an overall Outline Development Plan (ODP) that respects the Comprehensive Plan.

The ODP has underlying zoning of R4. Rational for the R4 bulk standards are derived from the Cluster provisions within the Code that matrix density with open space:

- The proposed development clusters lots such that approximately 64% of the site is Open Space (including detention, pedestrian trails, and open space around and intermingled with the neighborhood). Not quite achieving 66%, we look to the 50% Open Space column in the matrix;
- With 74 lots being proposed on 70 acres (95 maximum), the density most closely mimics the R1 zone row;
- The matrix results in minimum allowable lot sizes of 7,500 SF, which most closely associates with the R4 zone bulk standards;
  Hillside regulations increase most of the individual lot sizes to +10,000 square feet, but this does not change the underlying zone bulk standards of an R4 zone.

With this document being the culmination of numerous approved processes, the Code Section in its entirety is included below, along with specific project responses.

*(a) **Purpose.** The planned development (PD) district is intended to apply to mixed use or unique single use projects to provide design flexibility not available through strict application and interpretation of the standards established in Chapter 21.05 GJMC. The PD zone district imposes any and all provisions applicable to the land as stated in the PD zoning ordinance. The purpose of the PD zone is to provide design flexibility as described in GJMC 21.05.010. Planned development rezoning should be used when long-term community benefits will be derived, and the vision, goals and policies of the Comprehensive Plan can be achieved. Long-term community benefits include:*

(1) More efficient infrastructure;
- The Magnus Residential Planned Development provides a minimal road network to a clustered development, as well as to four abutting properties;
- The Magnus Residential Planned Development provides new utilities to a clustered development, as well as to four abutting properties;

(2) Reduced traffic demands;
- If approved, the Comprehensive Plan Amendment recognizes a density range of 35 to 140 units; under various straight zone options the allowed density could be 75, 95, or 118 units. The Magnus Residential Planned Development is limiting itself to 74 lots, which is at the lower end of the noted parameters … which reduces traffic.

(3) More usable public and/or private open space;
- The Magnus Planned Development has approximately 46 acres of open space, +/- 64% of the property;
- includes on and off street pedestrian ways that interconnect the entire community to HOA open spaces and potential public open spaces;

(4) Recreational amenities; and/or

- Within the "public" open space noted above there are existing 'trespass' trail networks on Riggs Hill that can be legitimized via this ODP and PD.

(5) Needed housing choices.

- The Magnus Residential Planned Development is a unique site with outstanding views that promotes custom homes close to the City core.

(b) ***Outline Development Plan (ODP)***

(1) Applicability. An outline development plan is required. The purpose of an ODP is to demonstrate conformance with the Comprehensive Plan, and coordination of improvements within and among individually platted parcels, sections or phases of a development prior to the approval of a final plat. At ODP, zoning for the entire property or for each "pod" designated for development on the plan is established. This step is recommended for larger, more diverse projects that are expected to be developed over a long period of time. Through this process, the general pattern of development is established with a range of densities assigned to individual "pods" that will be the subject of future, more detailed planning.

(2) Approval Criteria. An ODP application shall demonstrate conformance with all of the following:

(i) The Comprehensive Plan, Grand Valley Circulation Plan and other adopted plans and policies;

- Approval of demonstrated conformance has been requested as part of this submittal;

(ii) The rezoning criteria provided in GJMC 21.02.140;

- Approval of demonstrated conformance has been requested as part of this submittal;

(iii) The planned development requirements of Chapter 21.05 GJMC;

- Approval of demonstrated conformance with Chapter 21.05 has been addressed above, or within the ODP drawing, and is requested as part of this submittal;

(iv) The applicable corridor guidelines and other overlay districts in GJMC Titles 23, 24 and 25;

- This is not applicable to this submittal;

(v) Adequate public services and facilities shall be provided concurrent with the projected impacts of the development;

- Adequate public services and facilities can be provided to this Planned Development, as described as part of this submittal;

(vi) Adequate circulation and access shall be provided to serve all development pods/areas to be developed;

- Approval of demonstrated conformance has been requested as part of this submittal;
- A TEDS Exception has been submitted concurrent that requests
  - Narrow streets to reduce the terracing of roads on hillsides;
  - Support from the Fire Department with regards to 78 homes (74 new and 4 existing) in a single access subdivision. At present the code addresses requirements for under 60 homes and over 100 homes, but it does not address density that falls between those two values.

(vii) Appropriate screening and buffering of adjacent property and uses shall be provided;

- As this project is residential, and it abuts residential, screening is not needed;

(viii) An appropriate range of density for the entire property or for each development pod/area to be developed;

- This ODP has on development pod with an average density of just over 1 unit per acre;

(ix) An appropriate set of "default" or minimum standards for the entire property or for each development pod/area to be developed;

- Approval of demonstrated conformance has been requested as part of this submittal;

(x) An appropriate phasing or development schedule for the entire property or for each development pod/area to be developed; and

- Approval of demonstrated conformance has been requested as part of this submittal, and is specifically addressed on the ODP drawing and related exhibits;

(3) Decision-Maker.

(i) The Director and Planning Commission shall make recommendations to City Council.
(ii) City Council shall approve, conditionally approve or deny all applications for an ODP and accompanying planned development rezoning.

(4) Additional Application and Review Procedures.
(i) Simultaneous Review of Other Plans. An applicant may file an ODP with a final development plan for all or a portion of the property, as determined by the Director at the preapplication conference.
(ii) Density/Intensity. Density/intensity may be transferred between development pods/areas to be developed unless explicitly prohibited by the ODP approval.
(iii) Validity. The effective period of the ODP/phasing schedule shall be determined concurrent with ODP approval.
(iv) Required Subsequent Approvals. Following approval of an ODP a subsequent final development plan approval shall be required before any development activity occurs.

Section 21.07.020(f) – Hillside Development Standards (see Slope Analysis)

The Hillside Development Standards have been integral in the planning and design of this development, and which can meet the provisions of this code section:

The provisions hereof are designed to accomplish the following:

(i) Prohibit development or uses which would likely result in a hazardous situation due to slope instability, rock falls, or stormwater runoff and excessive soil erosion;
- Development has been clustered within the flatter slopes on the site;

(ii) Minimize the threat and consequent damages resulting from hillside area fires by establishing fire protection measures and adequate emergency vehicle access;
- Roadways have been designed to meet City code; these roadways provide code access to emergency vehicles;

(iii) Preserve natural features, wildlife habitats, natural vegetation, trees and other natural plant formations;
- This development preserves over 60% of the site as dedicated open space;

(iv) Provide for safe vehicular circulation and access to recreation areas, natural drainage channels, paths and trails;
- In addition to safe vehicular circulation, this development acknowledges natural drainages and includes pedestrian circulation within the development and to the ope4n space areas;

(v) Encourage the location, design and development of building sites in a manner that will provide for greater aesthetic appeal, blend with the slopes and hillside terrain, minimize the scarring and erosion effects of cutting, filling and grading of hillsides and prohibit development of ridge lines as defined; and
- The homesites are clustered and placed on the flatter and most developable slopes, which while having excellent views to the Grand Valley, are themselves backdropped by the site. A very limited number of homes will be subject to the Ridgeline Regulations discussed below;

(vi) Encourage preservation of open space by encouraging clustering or other design techniques to preserve natural terrain, views and vistas.
- As discussed above, over 60% of the property is dedicated Open Space that is achieved by clustering the homesites on the flatter portions of the site.

In meeting the intent of these Hillside Regulations there are a couple of components that we want to specifically address:

- The Regulation states*:*

  Development on slopes of greater than 30 percent is not permitted … AND Streets, roads, driveways and other vehicular routes shall not traverse property having a slope greater than 30 percent … <u>unless</u>, after review by the Planning Commission and approval by the City Council, it is determined that:

  a. Appropriate engineering measures will be taken to minimize the impact of cuts, fills, erosion and stormwater runoff consistent with the purpose of this section; and

  b. The developer has taken reasonable steps to minimize the amount of hillside cuts and also has taken measures to mitigate the aesthetic impact of cuts through landscaping or other steps.

We believe that this entire submittal demonstrates "that appropriate and engineering measures and reasonable steps" have been displayed to allow Planning Commission and City Council to approve the MINIMAL (see next bullet point) areas where lots or roads cross 30% slopes.

- In closely reviewing the slope map with the development superimposed on it, minimal areas of +30% slopes are 'touched' by the roads and lots, AND where this does occur the majority of these mapped 30% areas are man-made. Clearly there are significant areas of natural +30% slopes that this development respects and avoids, but most of the areas within the proposed development are previous road cuts, or 'flattened' areas that were man caused. Very few 'natural' +30% areas are impacted by this development, and none of them approach the elevation change threshold of 20 feet noted in the code.
- Five lots have been identified that exceed a 20% slope, the worst being 24.6% (Lot 43). The current regulation states that lots between 10.01% and 20% must be a minimum of 100' wide and 10,000 SF in area, and lots between 20.01% and 30% must be a minimum of 200' wide and 15,000 SF in area. We find no logic in having a lot width double in size based on .1% in slope, however we fully embrace the intent of having lots that widen with respect to an increase in slope. Therefore, <u>as part of the PD Ordinance</u> we have widened any lot on slopes above 20% by a minimum of 10 feet and added a minimum of 500 SF <u>for each percentage in slope above 20%</u>. Subsequently, a lot on a 25% slope would need to be a minimum of 150 feet wide and have a minimum of 12,500 SF. Examining the five noted lots that are above 20%, the noted minimums are exceeded: using Lot 43 (on a 24.6% slope) as an example, we have increased its width to 165 feet and it's area to 14,621 SF. Note 1 in Table 3 on the ODP addresses this.

Section 21.07.020(f) – Ridgeline Development Standards (see Ridgeline Sections)

The Ridgeline Development Standards have been considered in the planning and design of this development. Of the proposed 74 Lots, 12 that appeared to have the potential to address the Ridgeline Standards (Lots 11 through 22) were examined, and three were chosen to run sections on using code established criteria. Within these six sections a variety of conditions were displayed. It is assumed that 'mitigation' will be required on a limited number of specific lots to enable them to meet the standards of this code section:

(1) *For all lots platted within the mapped ridgeline protection area shown on Exhibits 7.2.C1, 7.2.C2 and 7.2.C3, buildings, fences and walls shall be set back a minimum of 200 feet from the ridgeline.*
- See #2 below.

(2) *This setback shall not apply if the applicant produces adequate visual representation that a proposed new structure will not be visible on the skyline as viewed from the centerline of the mapped roads or that mitigation will be provided. Mitigation techniques might include:*
(i) Earth tone colors to blend with the surrounding area;
(ii) The use of nonreflective materials;
(iii) Vegetation to screen and soften the visual impact of the structure; and/or
(iv) A reduction of building height or the "stepping" of the building height; or
(v) Other means that minimize the appearance from the road corridor.
- Mitigation will be provided.

(3) *In no case shall the setback be less than 30 feet from the ridgeline. This regulation shall not apply to existing structures or lots platted prior to the effective date of this code or to fences constructed primarily of wire.*
- This project has areas where a 'ridgeline' is not well defined: see #6 below.

(4) *The required setback shall be measured to the building envelope, to be established at the time of platting.*
- It is understood that this will be determined at time of platting.

(5) *Line of sight shall be measured from the centerline of the road most parallel to the ridgeline at the point most perpendicular to the center of the lot.*
- Understood.

(6) *Ridgeline shall be determined on a site-specific basis and shall be that point at which the line of sight is tangent with the slope profile*

- It is our understanding that mitigation items (i) through (v) noted in #2 above can and will be used on a site by site basis.

F. Development Schedule and Phasing (see Phasing Plan)

The Magnus Residential Planned Development intends on completing this project in four phases, breaking ground for Phase 1, approximately 20 lots, in spring of 2020. It is anticipated that Phase 2, approximately 20 lots, will be constructed in 2022; Phase 3, 17 lots, will be constructed in 2024; Phase 4, 17 lots, will be constructed in 2026.

STATE OF COLORADO

SS **AFFIDAVIT**

COUNTY OF MESA

Ronald L. Bonds, of lawful age, being first duly sworn, upon oath, deposes and says:

That he is the circulator of the forgoing petition:

That each signature on the said petition is the signature of the person whose name it purports to be.

Ronald L. Bonds

Subscribed and sworn to before me this 1st day of January, 2019

Witness my hand and official seal.

ZACHARY T. REAMS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20134060860
My Commission Expires August 26, 2021

Notary Public

2224 N 7th St, GJ, CO 81501
Address

My commission expires: _____

MAGNUS COURT DEVELOPMENT ANNEXATION
PETITION FOR ANNEXATION

WE THE UNDERSIGNED do hereby petition the City Council of the City of Grand Junction, State of Colorado, to annex the following described parcels to the said City:

GENERAL LOCATION: east end of Magnus Ct.
Tax ID # 2947-261-00-03

That property located in Lot 1 in Section 26, Township 11 South, Range 101 West, 6th P.M.

Said parcel containing an area of 43.4 Acres, as herein described.

This foregoing description describes the parcel; the perimeter boundary description, for purposes of the Annexation Act, is shown on the attached "Perimeter Boundary Legal Description, Magnus Court Annexation."

As grounds therefore, the petitioner respectfully state that annexation to the City of Grand Junction, Colorado is both necessary and desirable and that the said territory is eligible for annexation in that the provisions of the Municipal Annexation Act of 1965, Sections 31-12-104 and 31-12-105 CRS 1973 have been met.

This petition is accompanied by four copies of a map or plat of the said territory, showing its boundary and its relation to established city limit lines, and said map is prepared upon a material suitable for filing.

Your petitioners further state that they are the owners of more than fifty percent of the area of such territory to be annexed, exclusive of streets and alleys; that the mailing address of the signer and the date of signature are set forth hereafter opposite the name of the signer, and that the legal description of the property owned by the signer of said petition is attached hereto.

WHEREFORE, these petitioners pray that this petition be accepted and that the said annexation be approved and accepted by ordinance. These petitioners by his/her/their signature(s) acknowledge, understand and agree that if any development application concerning the property which is the subject hereof is denied, discontinued or disapproved, in whole or in part, that the annexation of the property to the City of Grand Junction shall proceed.

Bonds LLC	PO Box 3915 Grand Junction, CO 81502
NAME	ADDRESS
Ronald P Bonds	1-7-19
SIGNATURE	DATE

STATE OF COLORADO

SS **AFFIDAVIT**

COUNTY OF MESA

Don Desrosiers, of lawful age, being first duly sworn, upon oath, deposes and says:

That he is the circulator of the forgoing petition:

That each signature on the said petition is the signature of the person whose name it purports to be.

Subscribed and sworn to before me this 21st day of January, 2019.

Witness my hand and official seal.

Notary Public

REBECKA TEMMER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID #20064020445
My Commission Expires May 25, 2022
County of Mesa

2454 Patterson Rd, #100, Grand Junction, CO 81505
Address

My commission expires: 05/25/2022

MAGNUS COURT ANNEXATION
PETITION FOR ANNEXATION

WE THE UNDERSIGNED do hereby petition the City Council of the City of Grand Junction, State of Colorado, to annex the following described parcels to the said City:

GENERAL LOCATION: East end of Magnus Court
Tax ID # 2945-182-00-046

PROPERTY DESCRIPTION

A parcel of land situated in the NW ¼ of the NW ¼ of Section 18, Township 1 South, Range 1 West of the Ute Meridian, being more particularly described as follows:

Beginning at the Southwest corner of the N ½ of Lot 1 in said Section 18;
Thence North 00°12' West 339.68 feet;
Thence South 55°55' East 314.35 feet;
Thence South 163.54 feet;
Thence West 259.1 feet to the point of beginning.

This foregoing description describes the parcel; the perimeter boundary description, for purposes of the Annexation Act, is shown on the attached "Perimeter Boundary Legal Description, Magnus Court Annexation."

As grounds therefore, the petitioner respectfully state that annexation to the City of Grand Junction, Colorado is both necessary and desirable and that the said territory is eligible for annexation in that the provisions of the Municipal Annexation Act of 1965, Sections 31-12-104 and 31-12-105 CRS 1973 have been met.

This petition is accompanied by four copies of a map or plat of the said territory, showing its boundary and its relation to established city limit lines, and said map is prepared upon a material suitable for filing.

Your petitioners further state that they are the owners of more than fifty percent of the area of such territory to be annexed, exclusive of streets and alleys; that the mailing address of the signer and the date of signature are set forth hereafter opposite the name of the signer, and that the legal description of the property owned by the signer of said petition is attached hereto.

WHEREFORE, these petitioners pray that this petition be accepted and that the said annexation be approved and accepted by ordinance. These petitioners by his/her/their signature(s) acknowledge, understand and agree that if any development application concerning the property which is the subject hereof is denied, discontinued or disapproved, in whole or in part, that the annexation of the property to the City of Grand Junction shall proceed.

Don C Desrosiers
NAME

455 Wildwood Drive Grand Junction, CO 81507
ADDRESS

SIGNATURE

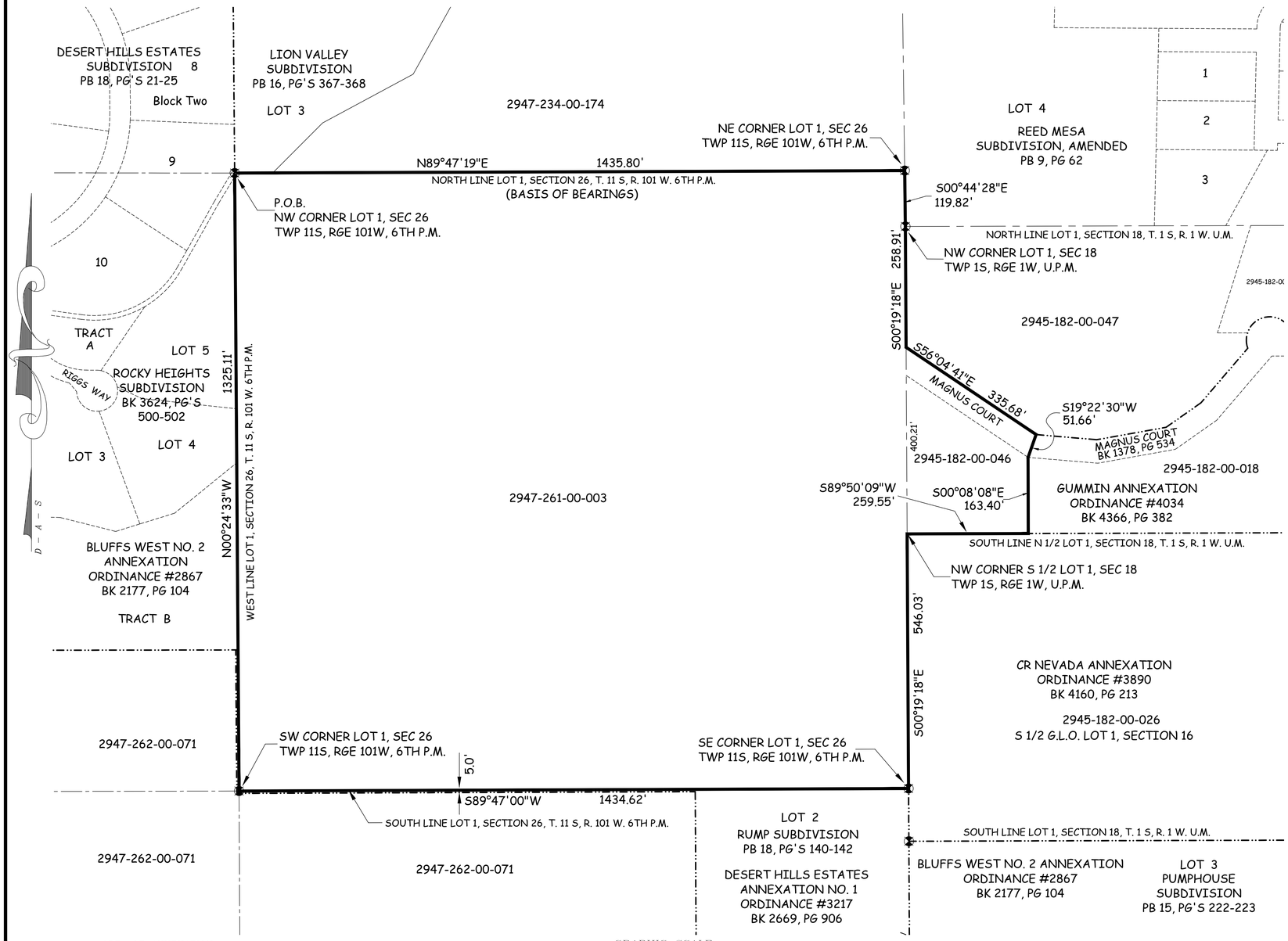
21 JAN 19
DATE

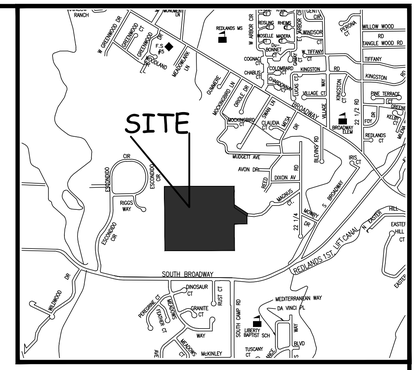
DON C DESROSIERS
Printed name of signatory

(Magnus Court Petition)

MAGNUS COURT ANNEXATION

LYING IN THE N 1/2 OF LOT 1 OF SECTION 18 , TWP 1 SOUTH, RGE 1 WEST, UTE PRINCIPAL MERIDIAN AND LOT 1 OF SECTION 26, TWP 11 SOUTH, RGE 101 WEST, 6TH PRINCIPAL MERIDIAN COUNTY OF MESA, STATE OF COLORADO





LOCATION MAP: NOT-TO-SCALE

DESCRIPTION

A certain parcel of land lying in the North Half (N-1/2) of Government Lot 1 of Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian and all of Government Lot 1 of Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado and being more particularly described by metes and bounds as follows:

BEGINNING at the Northwest corner of said Government Lot 1 of Section 26 and assuming the North line of said Government Lot 1 of Section 26 bears N 89°47'19" E with all other bearings contained herein being relative thereto; thence from said Point of Beginning, N 89°47'19" E, along the North line of said Government Lot 1, a distance of 1,435.80 feet to a point being the Northeast corner of said Government Lot 1; thence S 00°44'28" E, along the East line of said Government Lot 1, a distance of 119.82 feet, more or less, to a point being the Northwest corner of Government Lot 1 of said Section 18; thence S 00°19'18" E, along the West line of Government Lot 1 of said Section 18, a distance of 258.91 feet, more or less, to a point on the North right of way for Magnus Court, as same is recorded in Book 1378, Page 534, Public Records of Mesa County, Colorado; thence S 56°04'41" E, along the North right of way for said Magnus Court, a distance of 335.68 feet, more or less, to a point being the Northwest corner of Gummin Annexation, City of Grand Junction Ordinance No. 4034, as same is recorded in Book 4366, Page 382, Public Records of Mesa County, Colorado; thence S 19°22'30" W, along the West line of said Gummin Annexation, a distance of 51.66 feet; thence S 00°08'08" E, continuing along the West line of said Gummin Annexation, a distance of 163.40 feet to a point on the South line of the N-1/2 of said Government Lot 1 of Section 18; thence S 89°50'09" W, along said South line and the North line of the CR Nevada Annexation, City of Grand Junction Ordinance No. 3890, as same is recorded in Book 4160, Page 213, Public Records of Mesa County, Colorado, a distance of 259.55 feet to a point being on the East line of said Government Lot 1 of Section 26; thence S 00°19'18" E, along the East line of said Government Lot 1 of Section 26, a distance of 546.03 feet to a point being the Southeast corner of said Government Lot 1 of Section 26; thence S 89°47'00" W, along the South line of said Government Lot 1 of Section 26, a distance of 1,434.62 feet to a point being the Southwest corner of said Government Lot 1 of Section 26; thence N 00°24'33" W, along the West line of said Government Lot 1 of Section 26, a distance of 1,325.11 feet, more or less, to the Point of Beginning.

NOTE; The Gummin Annexation was prepared and became effective March 25th, 2007. A Boundary Line Agreement was re-recorded on 4/12/2016 with Reception Number 2756698, Public Records of Mesa County, Colorado. The Gummin Annexation was prepared using a line that differs from the later agreed upon Boundary Line Agreement.

ABBREVIATIONS

P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
R.O.W.	RIGHT OF WAY
SEC.	SECTION
TWP.	TOWNSHIP
RGE.	RANGE
U.P.M.	UTE PRINCIPAL MERIDIAN
NO.	NUMBER
SQ. FT.	SQUARE FEET
Δ=	CENTRAL ANGLE
RAD	RADIUS
AL	ARC LENGTH
CHL	CHORD LENGTH
CHB	CHORD BEARING
BLK	BLOCK
PB	PLAT BOOK
BK	BOOK
PG	PAGE

The Sketch and Description contained herein have been derived from subdivision plats and deed descriptions as they appear in the office of the Mesa County Clerk and Recorder. This plat does not constitute a legal survey, and is not intended to be used as a means for establishing or verifying property boundary lines.

AREA OF ANNEXATION

ANNEXATION PERIMETER	5,930.57 FT.
CONTIGUOUS PERIMETER	3,520.82 FT.
AREA IN SQUARE FEET	1,983,885***
AREA IN ACRES	45.543

***(16,257 SQ. FT OR 0.37 ACRES LIES IN MAGNUS COURT R/W)

LEGEND

ANNEXATION BOUNDARY
EXISTING CITY LIMITS

GRAPHIC SCALE

150' 0 75' 150' 300' 600'

(IN FEET)
1 inch = 150 ft.

LINEAL UNITS USED HEREIN = U.S. SURVEY FOOT, AS ESTABLISHED

ORDINANCE NO.
????

EFFECTIVE DATE
?????

THIS IS NOT A BOUNDARY SURVEY

PRELIMINARY

PETER T. KRICK, PLS No. 32824
Professional Land Surveyor for the City of Grand Junction

DATE: _____

COLORADO REGISTERED PETER T. KRICK No. 32824 PROFESSIONAL LAND SURVEYOR

Notice:
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

DRAWN BY	P.T.K.	DATE	06-20-2019
DESIGNED BY		DATE	
CHECKED BY	P.T.K.	DATE	
APPROVED BY		DATE	

SCALE
1" = 150'

CITY OF Grand Junction COLORADO

PUBLIC WORKS
ENGINEERING DIVISION
SURVEY DEPARTMENT

MAGNUS COURT ANNEXATION

1 OF 1

Ciavonne, Roberts & Associates, Inc
LAND PLANNING AND LANDSCAPE ARCHITECTURE
222 North 7th Street Grand Junction, CO 81501
PH 970-241-0745 FX 970-241-0765 www.ciavonne.com

Neighborhood Meeting Notice Letter

Mailing Date: October 3, 2018

RE: A Neighborhood Meeting concerning a Rezone, Development Plan and Subdivision at 2215 Magnus Court.

Dear Property Owner:

This letter is intended to notify you that on **October 18th (Thursday), between 5:30 pm and 6:30 pm,** a neighborhood meeting will be held to update you on a proposed **Rezone, Overall Development Plan, and Subdivision** on properties addressed as 2215 Magnus Court, Grand Junction, Colorado. This meeting will be held at, **Redlands United Methodist Church**, 527 Village Way, Grand Junction, CO 81507.

The neighborhood meeting is an opportunity for adjacent property owners to learn more about the project, ask questions to the project representative, Ciavonne, Roberts & Associates (Ted Ciavonne) or the developer/applicant JLC Magnus LLC (Mike Thomas, applicant representative). Although this is the developers meeting, the City of Grand Junction Planning staff will also be in attendance (Kathy Portner).

The applicant will be submitting a Rezone to Planned Development, an Overall Development Plan, and ultimately Subdivision Plans for this project to the City of Grand Junction. The proposal includes a total of 74 lots on approximately 72 acres of land. As a neighbor of these properties you are being notified of this pending development applications by mail.

The list of property owners being notified for this neighborhood meeting was supplied by the City of Grand Junction and derived from current records of the Mesa County Assessors. As those records are not always current, please feel free to notify your neighbors of this meeting date so all may have the opportunity to participate.

If you are not available to attend this meeting, you can provide written comment to ted@ciavonne.com or kathyp@gjcity.org

We look forward to seeing you at this meeting.

Sincerely,

Ted Ciavonne, PLA
Ciavonne, Roberts and Associates, Inc

MAGNUS CT. NEIGHBORHOOD MEETING
October 18, 2018 @ 5:30pm
NOTES

A Neighborhood Meeting was held on October 18, 2018 regarding a proposed rezone at 2215 Magnus Ct. Grand Junction, CO 81507.

In Attendance:
Representatives: Mike Thomas (JLC Magnus LLC)
Ted Ciavonne (Ciavonne, Roberts & Associates Inc.)
Kathy Portner (City of Grand Junction)

About 11 Neighbors (16 counting spouses) attended the meeting and had the following comments and concerns:

- A handful of neighbors that showed up did not receive a mailing notice. – we explained the city process of the 500' radius from property line.
- Will the drainage go to the natural creek on Broadway? It already floods sometimes. – Yes, but it is required that the water be released at the historic rate after being collected.
- Lot 73 & 74; how are they going to get in and out? What about the drainage of those two lots? (Neighbor of that area says he has paved that street, maintained it, and snow plow it in the winter) – Lots 73 & 74 will be drained to the south and hopefully reduce the existing runoff now that it will be controlled. If those two lots are built, the improvements would be the responsibility of the developer. Because it is a county owned road, one idea would be to have the city and county work together with the county remaining as the owner, but the city maintains it.
- This site plan seems denser than what was described. They were thinking 1 acre lots, if there are 75 homes on 75 acres– Had to explain the city process of "clustering" with the open space as part of the 75 acres that will be dedicated to the city or some public use.
- Concerned that the "cluster plan" changes the dynamic of the area and neighborhood. Doubling the population of Reeder Mesa community
- Magnus Ct. currently drains a lot of water already, how will this subdivision not make it worse?–the water will be controlled by the streets to inlets, which will be piped and led to the detention area. The detention pond can then let the water out at the historic rate.
- Can the city handle what's about to come? – That will be part of the analysis when this project is submitted. If improvements are needed, that's the responsibility of the developer. Developer also pays a TCP fee for city improvements.
- Was there any consideration for an alternate entrance? – Yes they were considered, but didn't work.
- One neighbor was very concerned with the additional 75 homes and causing traffic to increase as its already out of control – Explained that the city does look at traffic all of the time and that there will be a traffic study done on this project.

- What about construction traffic? – Too soon to know the details of that, as this is only for the rezone, but the city controls that + water quality, so it will be taken care of when the time comes.
- One neighbor was concerned because #1 wasn't invited to the meeting (outside 500') and #2 very concerned with traffic because cars already blow by and run stop signs
- Will 75 homes be the maximum? Hearing a wide range of what could be as far as the zoning. What prevents you from building more? – Yes that will be the maximum. The open space will be dedicated to the city or some public use. Also the PD zone is very strict and it wouldn't make it possible.
- One neighbor thought the Ridges had dedicated open space that eventually got built on and was worried – Kathy with the City of Grand Junction explained that The Ridges never had dedicated open space and that area was always planned for future development.
- *Positive Comment* - "As far as drainage goes, the city has done a good job on 22 ¼ Road"
- Will the surrounding homes remain in the county? – Yes.
- Does the city take other projects into account with this one? – Yes, and they also look at what could be potential development near surrounding areas.
- During the Redlands Hollow Subdivision meeting (22 ¼ Rd) they didn't mention this project. – No one knew this one was happening at the time. It was also difficult to look at it as a possibility with the multiple parcels/ownerships.
- Is it possible to have another meeting with more neighbors, employees from the city and county? – Unlikely, but if you have a problem with the county, you need to go down and meet with one of them. There will be hearings in the future that you are welcome to attend as well as invite more of your neighbors too. Anyone is welcome to come down to the city planning department to look at the project and submit comments/concerns.
-How is Riggs Hill going to be protected? – Aware of soil conditions and what it will cost the project to resolve.
- Reed Mesa to Broadway a problem. – Noted.
- Access to this subdivision? - Broadway or 22 ¼ Rd.
- No roads have sidewalks right now, no one has mentioned sidewalks– The city requires sidewalks (at least on one side). New development has to meet sidewalk requirements. There is not a requirement out there that new development must complete sidewalks from old development. County roads don't have sidewalks.
- So this neighborhood will drive through the neighborhood without sidewalks to theirs with sidewalks? They will make 22 ¼ Road their personal driveway and danger families and kids – Can't help that 22 ¼ doesn't have sidewalks as that is a county owned road. All we can tell you is that this subdivision will have sidewalks because it is a requirement by the city.
- How to get more neighbors involved? – Kathy from the city of Grand Junction explained the city process. They can come down to the city, submit comments. Also welcome to come to hearings to submit their statements. All comments are part of the process.
- How can we get the city and county together for a meeting? – Kathy can take these comments to the county to try and work something out.
- How come JLC Magnus LLC is only one parcel of the 75 acres? – Its all one association, just under different ownerships/partnerships.

- Worried about structural problems. The existing house up there has been condemned. Ridges has horrific problems, too. – Can't speak for how that house was built, or the homes in the Ridges.
- Time frame of project? – Hearings by April 2019.
- Construction? – It will be a miracle if construction starts by summer of 2019 (first phase).
- How long will the construction last? – Hard to say. Developers obviously want their development to go as fast as it can and sell lots immediately, but it will be a wait and see type thing.
– Kathy explained the school district has been notified, but lacking a response.
- Explained what an auto court was.
- 44' ROW likely at the entrance to Magnus Ct.

NEIGHBORHOOD MEETING SIGN-IN SHEET

Thursday October 18, 2018 @ 5:30pm

FOR: REZONE – 2215 Magnus Court

NAME	ADDRESS	PHONE # / EMAIL
Lisa Smith	2222 S. Broadway, GJ	lisarattansmith@yahoo.com
Naomi Rintoul	515 22¼ Road	romers_rintoul@hotmail.com
Nuala Whitcomb	284 22¼ Rd	
John Whitcomb	484 22¼ RD	JFWHITCOMB@GMAIL.COM
Christy Phinnell	2220 magnus ct 81507	
Campbell Stanton & Susan	503 Redlesa D	spgarden@aol.com
Lori & Jay Thompson	495 Escondido Cir.	lorithompson@gmai
Arlen Engbarth	518 22¼ Rd	je11313@msn.com
Joe Davis	2216 Magnus	JmnJoe@Aol.COM
Mike & Karen Mahoney	2226 Mowry Dr.	Coffeegirl1429@gmail.com
Eileen Gavin & Denis Guenther	2229 Mowry Dr.	eileen.gavin1210@gmail.com
5 Brock Curry	493 Escondido Cs.	970-216-3668

From:	Guenther, Denis GRJVAMC
To:	Ted
Cc:	kathyp@gjcity.org
Subject:	MAGNUS DEVELOPMENT
Date:	Wednesday, October 24, 2018 4:02:36 PM

Mr. Ciavonne,

We live at 2229 Mowry Drive and if the proposed MAGNUS development should happen(as it was presented to us at your 10/17/18 neighborhood meeting) it's going to put a lot more automobile traffic past our front door!

We almost have our home paid off (3/2020) and over the many years, each improvement was created with the idea of us remaining there into our senior years.

Never did we think a developer would allow a plan to go forward that would exit 75 homes of their traffic past our peaceful kitchen table view.

Here's an idea:

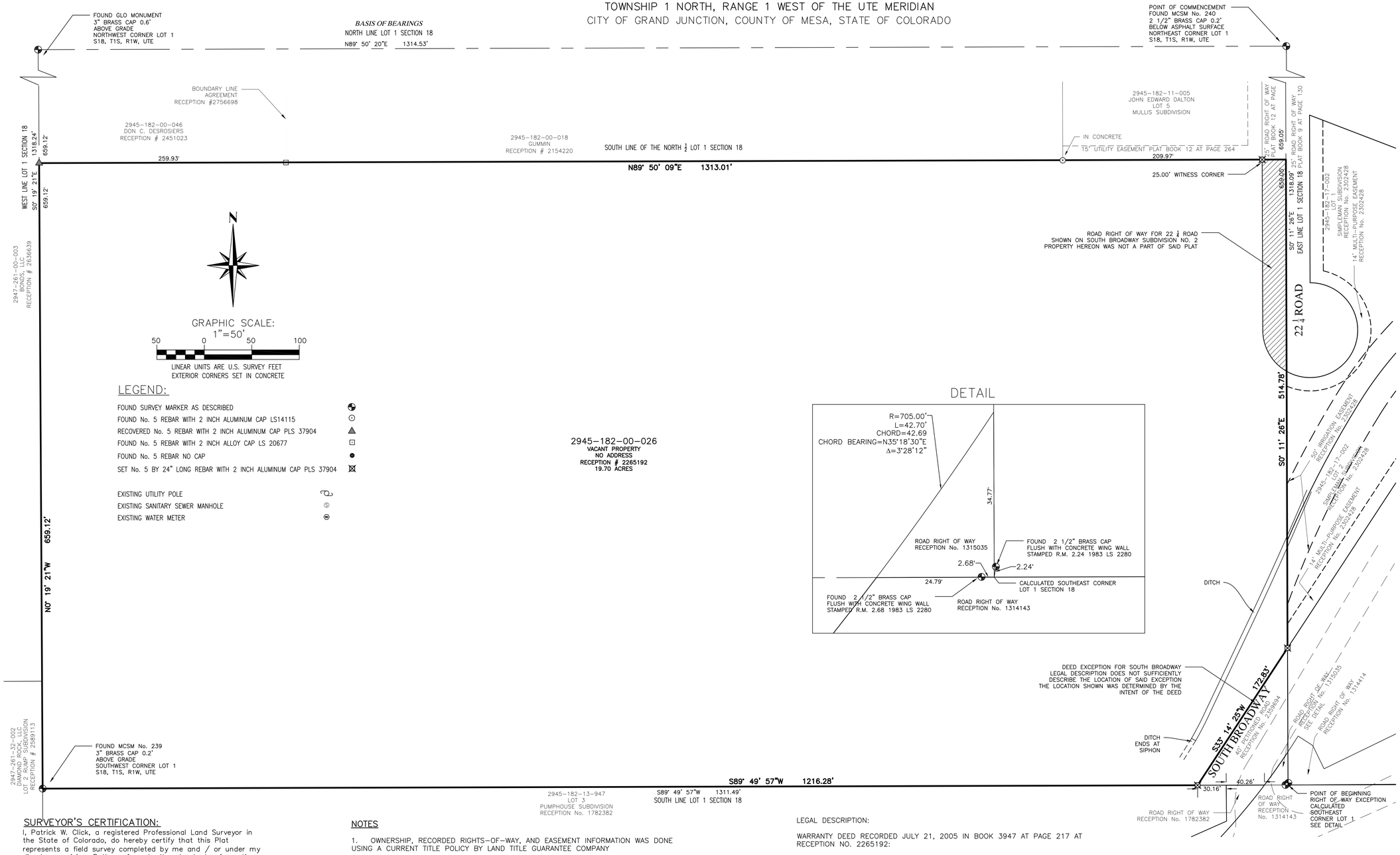
Please consider using some of the your development land and plan taking 22 1/4 Road to an intersection with Redlands Parkway. Your proposal already has two lots/homes along this route and, if, as you mentioned in your presentation, drainage is going to be needed along this route, why not go a bit extra and extend the road too? As we see it, the land that would be adjacent and needed for an extension like this would never be useful for anything better! MAKE THE OWNERS AN OFFER. Work with Redlands Irrigation. Work with the city and county. Develop some of your land into the most direct route to what is understood to be a busy road—The Redlands Parkway.

Respectfully,

Denis and Eileen Guenther
2229 Mowry Drive
Grand Junction, CO 81507

IMPROVEMENT SURVEY PLAT

SITUATED IN LOT 1 SECTION 18
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
CITY OF GRAND JUNCTION, COUNTY OF MESA, STATE OF COLORADO



SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, a registered Professional Land Surveyor in the State of Colorado, do hereby certify that this Plat represents a field survey completed by me and / or under my direct supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

COLORADO REGISTERED
PATRICK W. CLICK
37904
PROFESSIONAL LAND SURVEYOR
1/10/2019

COLORADO REGISTERED LAND SURVEYOR PLS #37904

NOTES

1. OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE POLICY BY LAND TITLE GUARANTEE COMPANY

2. BEARINGS ARE BASED ON THE NORTH LINE OF LOT 1, SECTION 18, TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN. THE VALUE USED S 89°50'20" W, WAS CALCULATED USING PUBLISHED DATA FOR THE MESA COUNTY SURVEY INFORMATION MANAGEMENT SYSTEM. FOUND IN PLACE WAS A MESA COUNTY SURVEY MARKER 2 ½ INCH BRASS CAP AT THE EAST END AND A GLO 3" BRASS CAP AT THE WEST END OF SAID LINE.

3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

4. THIS BOUNDARY SURVEY IS BASED ON THE DEED AS RECORDED AT RECEPTION NUMBER 2265192, OF THE MESA COUNTY RECORDS. ROTATED TO THE MESA COUNTY LOCAL COORDINATE SYSTEM.

LEGAL DESCRIPTION:

WARRANTY DEED RECORDED JULY 21, 2005 IN BOOK 3947 AT PAGE 217 AT RECEPTION NO. 2265192:

The S1/2. of Lot 1 in Section 18, Township 1 South, Range 1West of the Ute Meridian, County of Mesa, State of Colorado,
EXCEPTING THEREFROM that portion lying within the lines of South Broadway;
AND ALSO EXCEPT A parcel of land for road right-of-way and utility purposes situated in Lot 1, Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian, Mesa County, Colorado, being more particularly described as follows:
Beginning at the Mesa County Survey Monument for the Southeast Corner of said Lot 1, thence South 89°34'25' West, (Bearings based on North 00°08'18' West on the East line of said Lot 1) 24.79 feet along the South line of said Lot 1to a point on the Easterly right-of-way line of South Broadway as constructed, being on a 705.00 foot radius non-tangent curve to the left, the radius point of which bears North 53°06'40' West, thence 42.75 feet along the arc of said curve, the chord of which bears North 35°09'06" East 42.74 feet through a central angle of 03°28'28" along said right-of-way line to a point on the East line of said Lot 1, thence South 00°08'18" East 34.77 feet to the Point of Beginning.

IMPROVEMENT SURVEY PLAT

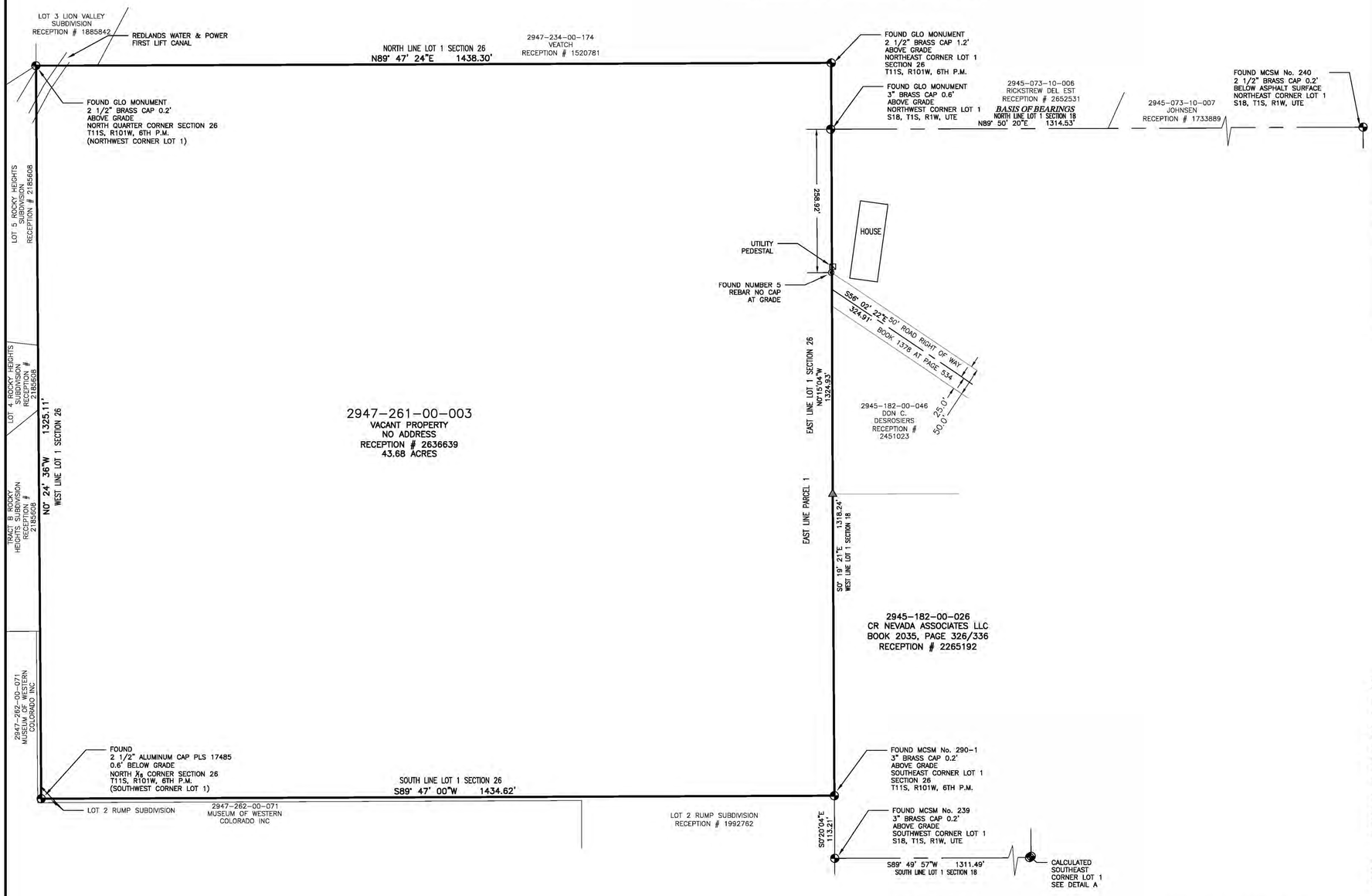
CR NEVADA ASSOCIATES LLC
SITUATED IN LOT 1 SECTION 18
TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE UTE MERIDIAN
CITY OF GRAND JUNCTION, COUNTY OF MESA, STATE OF COLORADO

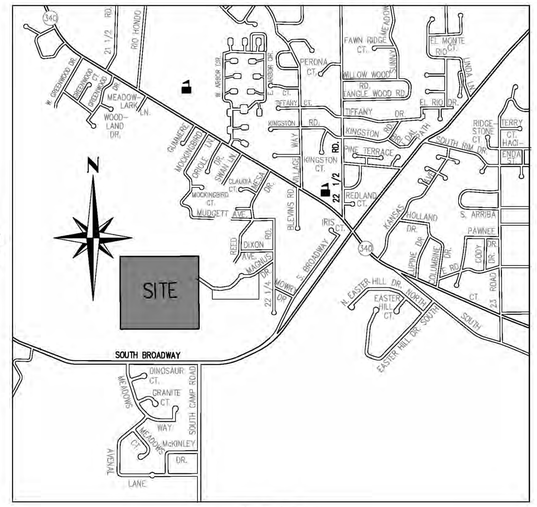
JOB #: 2015098 FIELD WORK: SL
DATE: 1/10/19 DRAWING NAME: GUMMIN SUB DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

IMPROVEMENT SURVEY PLAT

LOT 1 SECTION 26
TOWNSHIP 11 SOUTH, RANGE 101 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF MESA, STATE OF COLORADO





VICINITY MAP
NOT TO SCALE

N

GRAPHIC SCALE:
1"=100'

100 0 100 200

LINEAR UNITS ARE U.S. SURVEY FEET

LEGEND:

FOUND SURVEY MARKER AS DESCRIBED ●

RECOVERED No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904 ▲

NOTES

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3. ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

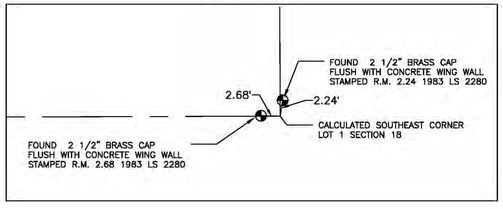
4. THIS SURVEY IS BASED ON THE DEED AS RECORDED AT RECEPTION NUMBER 2636639 OF THE MESA COUNTY RECORDS. ROTATED TO THE MESA COUNTY LOCAL COORDINATE SYSTEM.

LEGAL DESCRIPTION:

Lot 1 Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian

COUNTY OF MESA, STATE OF COLORADO.

DETAIL A



SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, a registered Professional Land Surveyor in the State of Colorado, do hereby certify that this Plat represents a field survey completed by me and / or under my direct supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR 37904

COLORADO REGISTERED LAND SURVEYOR PLS #37904

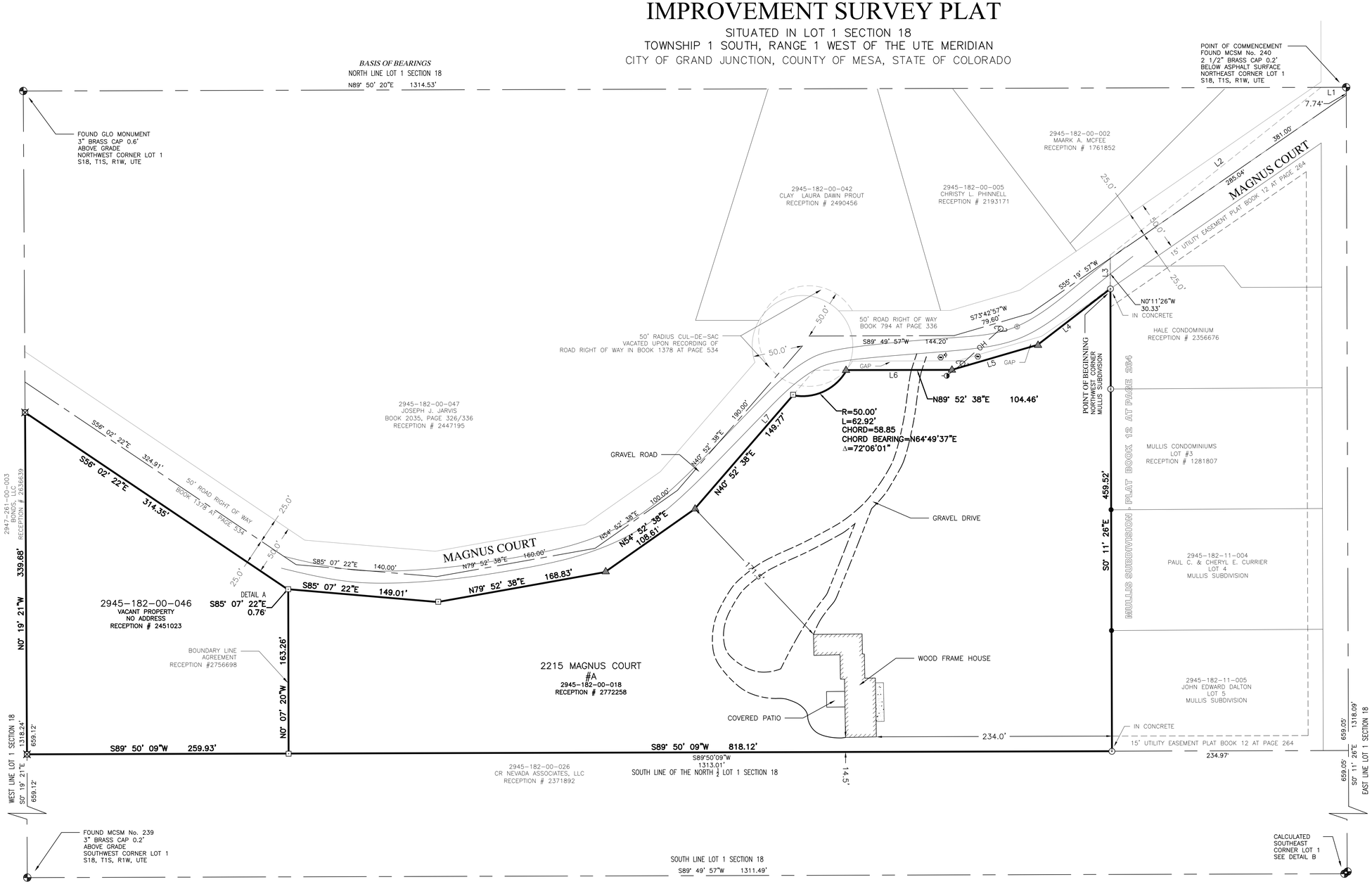
IMPROVEMENT SURVEY PLAT
BONDS LLC
LOT 1 SECTION 26
TOWNSHIP 11 SOUTH, RANGE 101 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF MESA, STATE OF COLORADO

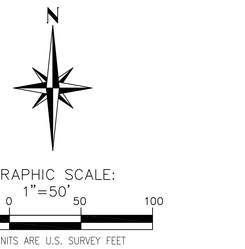
JOB #: 2015098 FIELD WORK: SL
DATE: 1/11/19 DRAWING NAME: 2016080BLA DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

IMPROVEMENT SURVEY PLAT

SITUATED IN LOT 1 SECTION 18
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
CITY OF GRAND JUNCTION, COUNTY OF MESA, STATE OF COLORADO





LEGEND:

- FOUND SURVEY MARKER AS DESCRIBED
- FOUND No. 5 REBAR WITH 2 INCH ALUMINUM CAP LS14115
- RECOVERED No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904
- FOUND No. 5 REBAR WITH 2 INCH ALLOY CAP LS 20677
- FOUND No. 5 REBAR NO CAP
- SET No. 5 BY 24" LONG REBAR WITH 2 INCH ALUMINUM CAP PLS 37904

- EXISTING UTILITY POLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT

LEGAL DESCRIPTIONS:

PARCEL 1

WARRANTY DEED RECORDED JULY 31, 2008 AT RECEPTION NO. 2451023:

A PARCEL OF LAND SITUATED IN THE NW1/4 OF THE NW 1/4 OF SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST
OF THE UTE MERIDIAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST COMER OF THE N1/2 OF LOT 1 IN SAID SECTION 18;
THENCE NORTH 00°12' WEST 339.68 FEET;
THENCE SOUTH 55'55' EAST 314.35 FEET;
THENCE SOUTH 163.54 FEET
THENCE WEST 259.1 FEET TO THE POINT OF BEGINNING.

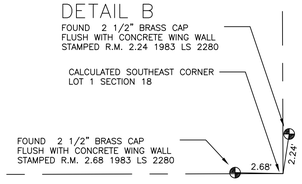
INCLUDING THE PORTION LYING WESTERLY OF LINE DESCRIBED IN BOUNDARY LINE AGREEMENT AS RECORDED AT RECEPTION NUMBER 2756698 OF THE MESA COUNTY RECORDS.
COUNTY OF MESA, STATE OF COLORADO.

PARCEL 2

WARRANTY DEED RECORDED AUGUST 30, 2016 AT RECEPTION NO. 2772258:

A TRACT OF LAND LOCATED IN THE N½ OF LOT 1 IN SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT 25 FEET WEST AND 267.8 FEET SOUTH 51 38' WEST AND 31.9 FEET SOUTH OF THE NORTHEAST CORNER OF SAID LOT 1 OF SAID SECTION 18 AND RUNNING THENCE SOUTH
51°38' WEST 92.1 FEET;
THENCE SOUTH 73°53' WEST 88.9 FEET;
THENCE WEST 136.3 FEET;
THENCE SOUTH 41°00' WEST 181.7 FEET;
THENCE SOUTH 55°00' WEST 108.6 FEET;
THENCE SOUTH 80°00' WEST 168.8 FEET;
THENCE NORTH 85°00' WEST 149.1 FEET;
THENCE SOUTH TO THE SOUTH BOUNDARY LINE OF THE N½ OF SAID LOT 1;
THENCE EAST ALONG THE SAID SOUTH BOUNDARY OF LOT 1 TO A POINT DUE SOUTH OF THE POINT OF BEGINNING;
THENCE NORTH TO THE POINT OF BEGINNING,

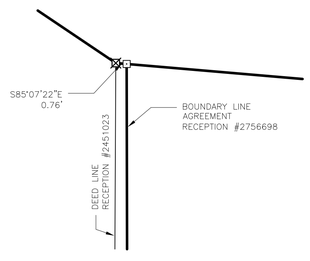
INCLUDING THE PORTION LYING EASTERLY OF LINE DESCRIBED IN BOUNDARY LINE AGREEMENT AS RECORDED AT RECEPTION NUMBER 2756698 OF THE MESA COUNTY RECORDS.
COUNTY OF MESA, STATE OF COLORADO.



RECORD DIMENSIONS FOR BOOK 3509 PAGE 852
ROTATED TO MESA COUNTY LOCAL COORDINATE SYSTEM

Line Table		
Line #	Direction	Length
L1	S89° 50' 20"W	25.00'
L2	S51° 30' 38"W	267.80'
L3	S00° 07' 22"E	31.90'
L4	S51° 30' 38"W	92.10'
L5	S73° 45' 38"W	88.90'
L6	S89° 52' 38"W	136.30'
L7	S40° 52' 38"W	181.70'

DETAIL A



NOTES

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4. THIS BOUNDARY SURVEY IS BASED ON THE DEEDS AS RECORDED AT RECEPTION NUMBERS 2451023 AND 2772258 OF THE MESA COUNTY RECORDS. ROTATED TO THE MESA COUNTY LOCAL COORDINATE SYSTEM.

SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, a registered Professional Land Surveyor in the State of Colorado, do hereby certify that this Plat represents a field survey completed by me and / or under my direct supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

COLORADO REGISTERED LAND SURVEYOR PLS #37904

IMPROVEMENT SURVEY PLAT
SITUATED IN LOT 1 SECTION 18
TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN
CITY OF GRAND JUNCTION, COUNTY OF MESA, STATE OF COLORADO

JOB #: 2015098 FIELD WORK: SL
DATE: 1/11/19 DRAWING NAME: GUMMIN SUB DRAWN BY: PC

POLARIS SURVEYING
PATRICK W. CLICK P.L.S.
3194 MESA AVE. #B
GRAND JUNCTION, CO 81504
PHONE/FAX (970)434-7038

City of Grand Junction
Fire Department New Development Fire Flow

Instructions: To process the application, the developer/applicant's engineer should first fill out all items in Section A, and then deliver/mail this form to the appropriate water purveyor.[1] Once the water supplier has signed and given the required information, deliver/mail the completed and fully signed form to the City or County Planning Department.[2]

SECTION A

Date: 9-13-17
Project Name: Magnus Subdivision
Project Street Address:
Assessor's Tax Parcel Number: 2945-182-00-046, 2947-261-00-0[illegible]
Project Owner Name: Bonds LLC & Don Desrosier
City or County project file #:

1. If the project includes one or more one or two-family dwelling(s):
   a. The maximum fire area [1] for each one or two family dwelling will be 3,600 SF square feet.
   b. All dwelling units will ☐ will not ☐ include an approved automatic sprinkler system.
   Comments:
   TBD
2. If the project includes a building other than one and two-family dwelling(s):
   a. List the fire area and type of construction for all buildings used to determine the minimum fire flow requirements:

   b. List each building that will be provided with an approved fire sprinkler system:

3. List the minimum fire flow required for this project (based on Appendix B and C):
   1,000 GPM - Residential Homes

   Comments:

Note: Fire Flow Rule: The City's Fire Code[3] sets minimum fire flows for all structures and new development. In general, for single family dwellings, at least 1000 g.p.m. at 20 p.s.i. residual pressure must be continuously available at each structure. Duplex, other residential and all non-residential uses must have more fire flows in order to fight fires. Inadequate fire flows are normally due to water supply pipes that are too small or too little water pressure, or a combination of both.

Note for the Applicant/Project engineer: Refer to Appendix B and C, IFC 2012, to determine the minimum fire flow required for this project, based on the Water Purveyor's information (*i.e.*, location, looping and size of water lines; water pressure at the site, *etc.*) and the type, density and location of all structures. Base your professional judgment on the City approved utility plans and Water Provider information shown on this Form. Each time the utility plans/other information relating to treated water changes, resubmit this form just as you did the first time.

[End of Section A. Section B continues on the reverse side of this page]

[1] Fire flow calculation area, 2012 IFC, B104.1 p 445.

City of Grand Junction
Fire Flow Form

SECTION B
[To be completed by the Water Supplier]

1. Circle the name of the water supplier: (Ute) Clifton Grand Junction

2. List the approximate location, type and size of supply lines for this project, or attach a map with the same information:
   See the attached map.

3. List the g.p.m. at 20 p.s.i. residual pressure at the point that the development/project will be connected to the existing water system:
   4,068 g.p.m. @ 20 p.s.i.

4. Attach fire flow test data for the fire hydrants nearest to the development/project that must be used to determine available fire flow: *See the attached flow test results.*
   [Or: **1.)** attach a map or diagram with the same information, or **2.)** attach a map/diagram with flow modeling information.]

5. If new lines are needed (or if existing lines must be looped) to supply the required fire flows, or if more information is needed to state the available minimum g.p.m. @ 20 p.s.i. residual pressure, please list what the applicant/developer must do or obtain: .....

Print Name and Title of Water Supplier Employee completing this Form:

Robert Yates - Fire Hydrants Division Date: *September 15, 2017*

****

Note: Based on the facts and circumstances, the Fire Chief may require the applicant/developer to engage an engineer[4] to verify/certify that the proposed water system improvements, as reflected in the approved utility plans submitted in support of the application/development, will provide the minimum fire flows to all structures in this project. If so, the engineer's signature below means that the City's Fire Flow requirements will be met by this development, if constructed as approved.

Print Name and License No. of P.E.: _____

Signature of P.E.: _____

Dated: _____

---

[1] There are three drinking water suppliers: Ute Water, Clifton Water and City water.
[2] Address: City – 333 West Ave, Bldg A, Grand Junction, CO 81501; County – PO Box 20000, Grand Junction, CO 81502
[3] International Fire Code, 2012 Edition
[4] City Code defines engineer as one who is licensed as a P.E. by the state of Colorado.

Fire Flow Hydrant Master
With Graph

Company Name: Ute Water Conservancy District
Address: 2190 H 1/4 Rd
City: Grand Junction
State: Colorado
Zip: 81505

Work Order: 618
Operator: Robert/Dusty

Test Date: 9/15/17 10:00 am

NFPA Classification:

Blue	AA
4068.10	

Test did not reach recommended drop of 25% per NFPA 291

Test Hydrant: 1869
Address: 509 22 1/4 RD
Cross Street:
Location:
District:
Sub-Division: REED MESA SUB

Latitude: 704101.881
Longitude: 4328193.7
Elevation: 4702.58
State X / Y: _____ / _____

Pumpers: **Nozzles:** **Open Dir:**

Manuf: Mueller
Model: Centurion 5 1/4

Installed: 01/01/1999
Main Size: 0.00

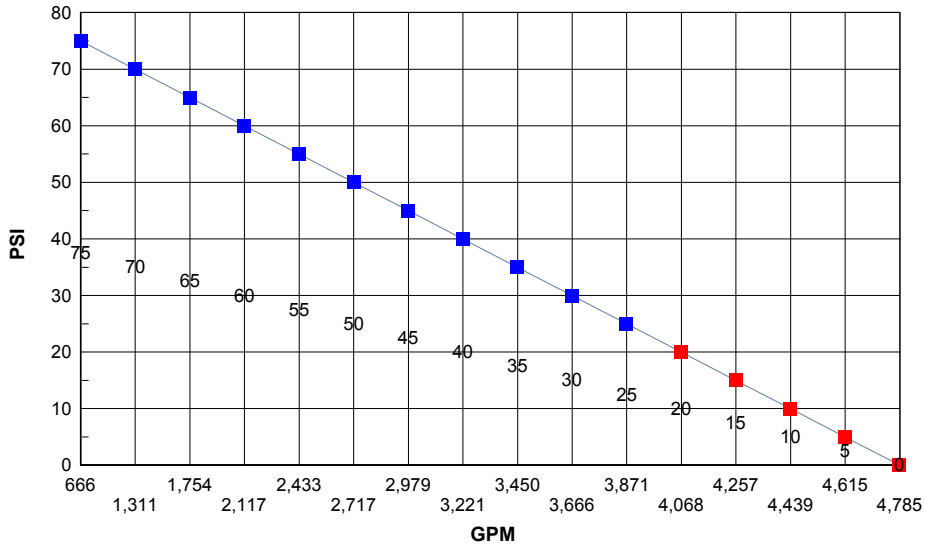
Vandal Proof:
Bury Depth: 0.00

	Flow Hydrant	Flow Device	Diameter	GPM	Gallon Used
1:	1871	2.5" Hose Monster	2.50	1093.11	5465.53
2:					
3:					
4:					
5:					

Pitot / Nozzle PSI: 42.00
Static PSI: 77.00
Residual PSI: 72.00
Percent Drop: 6.49

Total Gallons Used: 5465.53
Max GPM during test: 1,093.11
Elapsed Time Min:Sec: 5 : 0
Predicted GPM @ 20 PSI: 4068.10

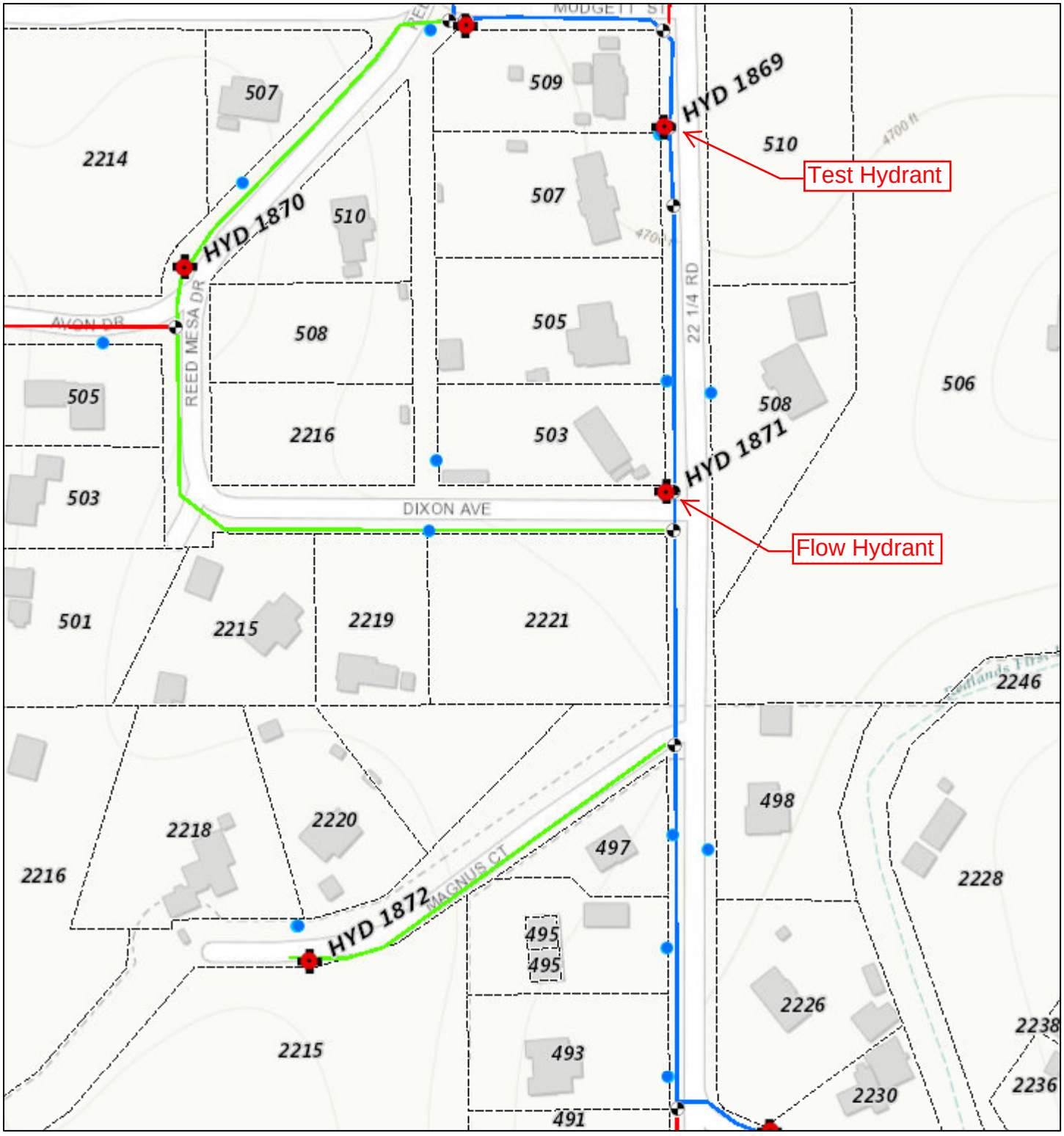
1869 Flow GPM



GPM rounded to nearest gallon

Values inside grid below flow line are PSI @ predicted flow

Magnus Sub



September 15, 2017

1:2,257

0 0.0175 0.035 0.07 mi

0 0.03 0.06 0.12 km

- Fire Hydrant
- Regulators
- Cathodic Station
- Curb Stop Valves
- Control Valves
- Meters
- Lateral Lines
- System Valves Maintenance
- Fill Station
- Sample Station
- Tanks
- USBR Pipeline
- Southside Canal

System Valves

- Gate Valve
- Ball Valve
- Butterfly Valve

Mains

- 12" Larger
- 6" thru 10"
- 1" thru 4"

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

TEST PIT NUMBER TP-1

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4896 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07697,-108.64617
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Gravel and Organics (TOPSOIL), tan, dry										
		Sandy CLAY with Gravel (cl), tan, dry, medium stiff	GB 1									
2.5												
		SHALE, Sandstone lenses, trace Bentonite, red to gray, soft, highly weathered										
5.0			GB 2									
7.5												
10.0		Bottom of test pit at 11.5 feet										

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970-255-6818

TEST PIT NUMBER TP-2

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4921 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07618,-108.64705
AFTER EXCAVATION --

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Organics (TOPSOIL), tan, dry										
		Sandy CLAY (cl), trace gravel, tan, dry, medium stiff										
		SHALE, trace Bentonite, red to gray, soft, highly weathered										
2.5		SANDSTONE, tan, soft to hard, highly to moderately weathered										
		Backhoe bucket refusal at 4.5 ft										
		Bottom of test pit at 4.5 feet.										

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970-255-6818

TEST PIT NUMBER TP-3

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4925 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07557,-108.64603
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Boulders and Organics (TOPSOIL), brown, dry										
		Sandy CLAY with Boulders (cl), brown, dry, medium stif to stiff										
2.5		SHALE, trace bentonite, red to gray, soft, highly weathered	GB 1									
5.0			GB 2									
7.5		**Backhoe bucket refusal at 8 0 ft**										

Bottom of test pit at 8 0 feet

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640 White Avenue, Unit B
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970-255-6818

TEST PIT NUMBER TP-4

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4848 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07635,-108.64513
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Organics (TOPSOIL), brown, dry										
		Sandy CLAY (cl), trace gravel and boulders, brown, dry, medium stiff to stiff										
2.5		SHALE, Sandstone lenses, trace Bentonite, red to gray, soft, highly weathered										
5.0		**Backhoe bucket refusal at 5.5 ft**										
		Bottom of test pit at 5.5 feet.										

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TEST PIT NUMBER TP-5

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4826 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07563,-108.64415
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Organics, Gravel, and Cobbles (TOPSOIL), brown, dry										
		SANDSTONE, tan, medium hard to hard, highly weathered										
2.5												
		SHALE, trace Bentonite, red to gray, soft, highly weathered										
5.0												
7.5												
10.0												
		Bottom of test pit at 10.5 feet.										

GEOTECH BH COLUMNS MAGNUS COURT.GPJ GINT US LAB.GDT 11/30/10

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Grand Junction, CO 81501
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970-255-6818

TEST PIT NUMBER TP-6

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4831 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07465,-108.64477
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Silty SAND with Organics (TOPSOIL), brown, dry										
		Sandy CLAY with Gravel (cl), brown, dry, medium stiff to stiff										
2.5			GB 1									
5.0		**Backhoe bucket refusal at 7.0 ft**										
		Bottom of test pit at 7.0 feet.										

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640 White Avenue, Unit B
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970-255-8005
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TEST PIT NUMBER TP-7

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4865 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07415,-108.64293
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Silty SAND with Organics (TOPSOIL), brown, dry										
2.5		SANDSTONE, white to tan, very soft to hard, highly to completely weathered										
		Backhoe bucket refusal at 3.5 ft										
		Bottom of test pit at 3.5 feet.										

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

TEST PIT NUMBER TP-8

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4863 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.074883,-108.642683
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy GRAVEL and COBBLES with Organics (TOPSOIL), brown, dry										
		Sandy GRAVEL and COBBLES (gw), brown, dry, dense										
2.5												
5.0												
7.5		SHALE, trace Bentonite, red to gray, soft, highly weathered										
		Bottom of test pit at 9.0 feet.										

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TEST PIT NUMBER TP-9

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4817 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07503,-108.64197
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Organics (TOPSOIL), brown, dry										
		Sandy CLAY (cl), trace gravel, brown, dry, medium stiff to stiff										
2.5		SANDSTONE, tan, medium hard to hard, highly to moderately weathered										
		Backhoe bucket refusal at 4.0 ft										
		Bottom of test pit at 4.0 feet.										

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TEST PIT NUMBER TP-10

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4804 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07573,-108.64265
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		SANDSTONE, tan to brown, medium hard to hard, highly weathered										
2.5		SHALE, trace Bentonite, red to gray, soft to medium hard, highly to moderately weathered	GB 1									
5.0			GB 2									
		Backhoe bucket refusal at 6.5 ft										
		Bottom of test pit at 6.5 feet.										

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TEST PIT NUMBER TP-11

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4772 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.076417,-108.6421
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Organics (TOPSOIL), brown, dry to moist										
		Sandy CLAY (cl), trace gravel, tan to brown, dry, medium stiff to stiff	GB 1									
2.5		SHALE, trace Bentonite, red to gray, soft, highly weathered										
5.0		**Backhoe bucket refusal at 6.0 ft**										
		Bottom of test pit at 6.0 feet.										

Huddleston-Berry Engineering & Testing, LLC
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970-255-8005
970-255-6818

TEST PIT NUMBER TP-12

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4793 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07593,-108.6434
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Cobbles, Boulders, and Organics (TOPSOIL), brown, dry										
2.5		Sandy CLAY (cl), trace gravel, brown, dry, medium stiff to stiff										
5.0		SHALE, Sandstone lenses, trace Bentonite, red to gray, soft to medium hard, highly weathered										
7.5		Bottom of test pit at 9.0 feet.										

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970-255-6818

TEST PIT NUMBER TP-13

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4857 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.075417,-108.645183
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		Sandy CLAY with Organics (TOPSOIL), brown, dry to moist										
1		SANDSTONE, Bentonite lenses, tan, medium hard to hard, moderately weathered										
2		**Backhoe bucket refusal at 2.0 ft**	GB 1									
		Bottom of test pit at 2.0 feet.										

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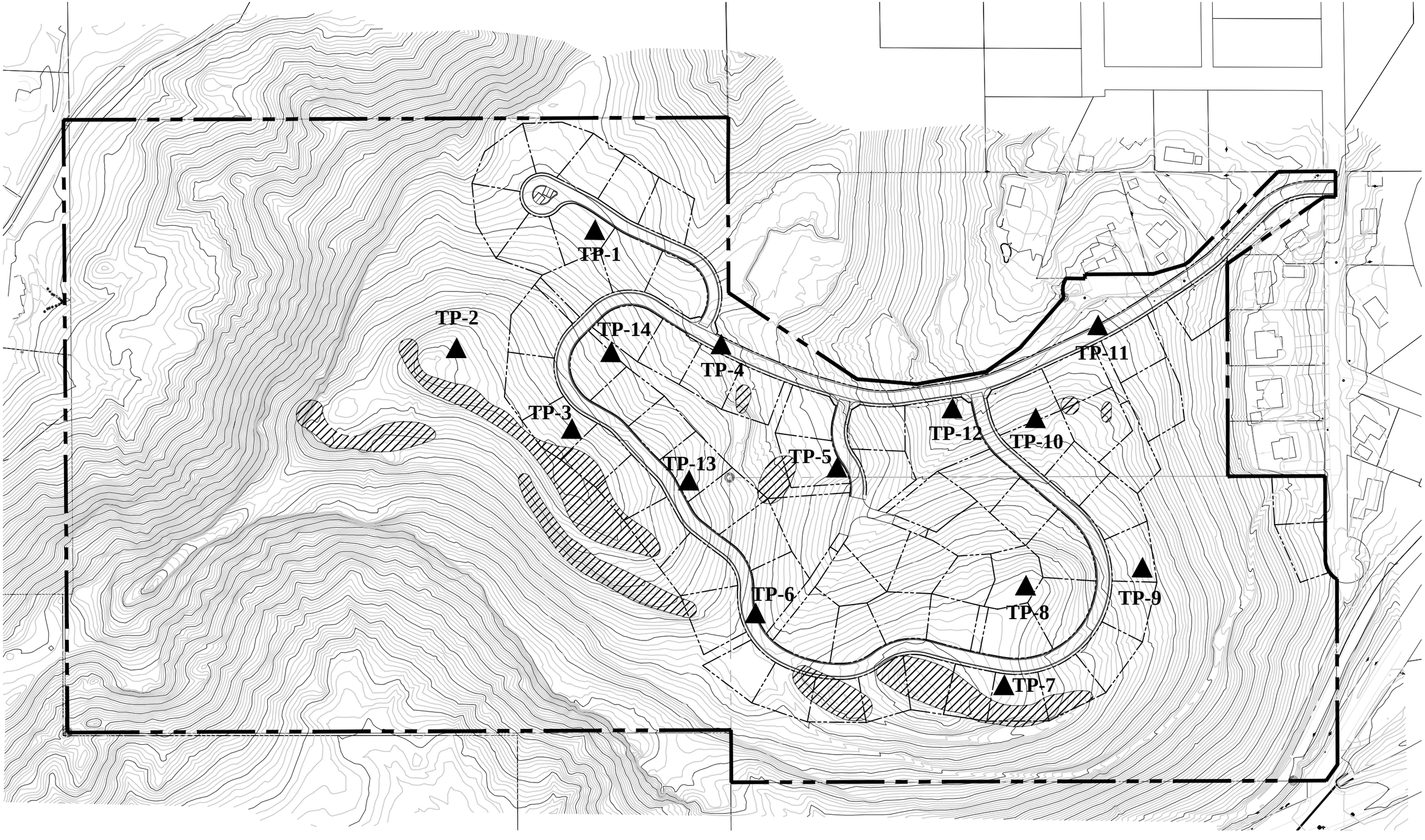
970-255-6818

TEST PIT NUMBER TP-14

CLIENT CRG Properties
PROJECT NAME Magnus Court
PROJECT NUMBER 01061-0001
PROJECT LOCATION Grand Junction, CO
DATE STARTED 11/30/10 COMPLETED 11/30/10
GROUND ELEVATION 4893 ft TEST PIT SIZE
EXCAVATION CONTRACTOR Hi-River
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY MAB CHECKED BY MAB
AT END OF EXCAVATION dry
NOTES 39.07615,-108.646217
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Sandy CLAY with Organics (TOPSOIL), trace gravel and cobbles, brown, dry										
2.5		Sandy CLAY with Gravel (cl), tan to brown, dry, medium stiff										
		SANDSTONE, tan, medium hard to hard, moderately weathered										
		Backhoe bucket refusal at 4.0 ft										
		Bottom of test pit at 4.0 feet.										



MAGNUS COURT
TEST PIT LOCATION MAP

- ROCK OUTCROP

0 200 400 600

NORTH

CIAVONNE, ROBERTS & ASSOCIATES, INC.
LAND PLANNING AND
LANDSCAPE ARCHITECTURE
222 N. 7TH STREET GRAND JUNCTION, CO 81501 www.ciavonne.com
970-241-0745 (P) 970-241-0765 (FX)

Preliminary Drainage Report
For
Magnus Subdivision

2215 Magnus Court
Grand Junction, Colorado

Prepared For:
JLC Magnus, LLC
1985 W. Big Beaver Rd, Ste 200
Troy, MI 48084

Prepared By:
Austin Civil Group, Inc.
123 North 7th Street, Ste 300
Grand Junction, Colorado 81501
(970) 242-7540

Date: February 22, 2019

I hereby certify that this PRELIMINARY Drainage Report (plan) for the Magnus Subdivision located at 2215 Magnus Court in Grand Junction, Colorado was prepared by me (or under my direct supervision) in accordance with the provisions of the Stormwater Management Manual for the owners thereof, I understand that the City of Grand Junction does not and will not assume liability for drainage facilities designed by others.

Mark Austin
Registered Professional Engineer
State of Colorado No. 29778

JLC Magnus, LLC hereby certifies that the drainage facilities for the Magnus Subdivision shall be constructed according to the design presented in this report. I understand that the City of Grand Junction does not and will not assume liability for the drainage facilities designed and/or certified by my engineer. I understand that the City of Grand Junction reviews drainage plans but cannot on behalf of JLC Magnus LLC., guarantee that final drainage design will absolve, JLC Magnus LLC. and/or their successor and/or assigns of the future liability for improper design. I further understand that approval of the Final Development Plan does not imply approval of my engineer's drainage design.

I further understand that as the owner of the property, I am responsible for the maintenance of the stormwater drainage pipes, inlets, detention and water quality facilities. These facilities will require routine maintenance in order to minimize damage that may result from flooding or ponding water.

JLC Magnus, LLC

NOT REQUIRED ON PRELIMINARY

Authorized Signature **Date**

Table of Contents

I. INTRODUCTION

A. Background

.....1. Identify report preparer and purpose.

This report is prepared by Austin Civil Group, Inc. and the purpose of the report is for the design of the drainage system for the Magnus Subdivision for the development of a 70-acre, 72 lot clustered residential subdivision.

The project disturbs approximately 27-acres and the remaining 45-acres will remain open space.

.....2. Identify date of letter with previous City comments.

The City provided preliminary comments on this project at a general meeting conducted on August 24, 2018, MTG-2018-429.

B. Project Location

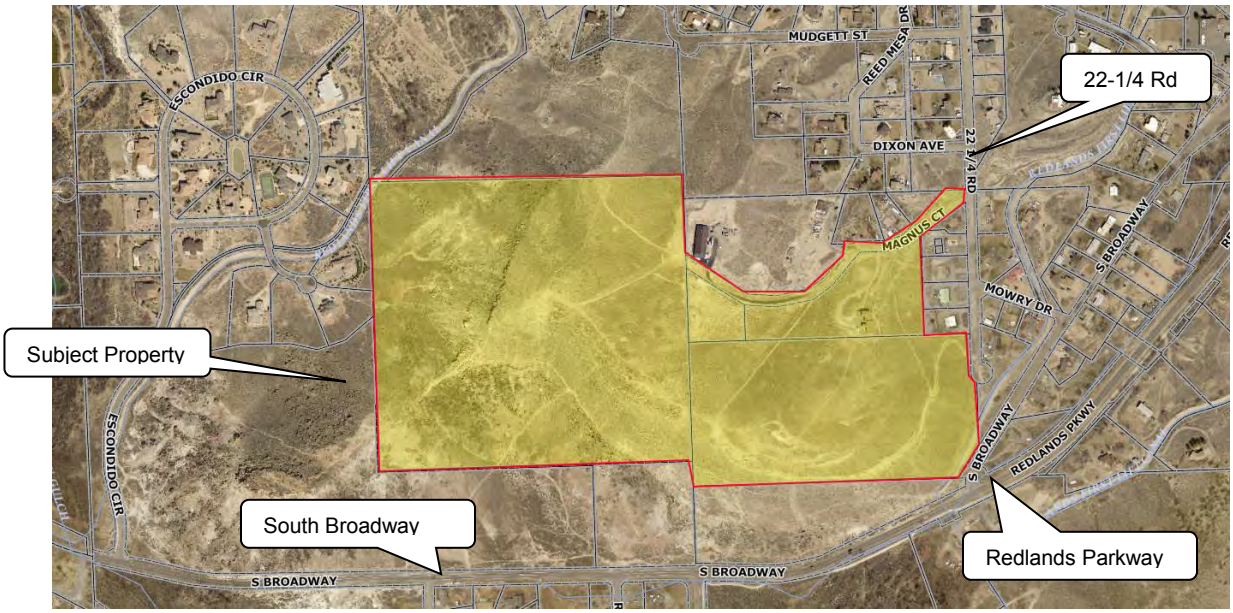
.....1. Identify Township, Range, and Section.

Section 18, Township 1 South, Range1 East of the Ute Meridian, City of Grand Junction, County of Mesa, State of Colorado.

.....2. Identify adjacent street.

The subject property is located at the end of the cul-de-sac of Magnus Court, west of the intersection of Magnus Court and 22-1/4 Road.

.....3. Reference to General Location Map.



Appendix A provides an additional location map.

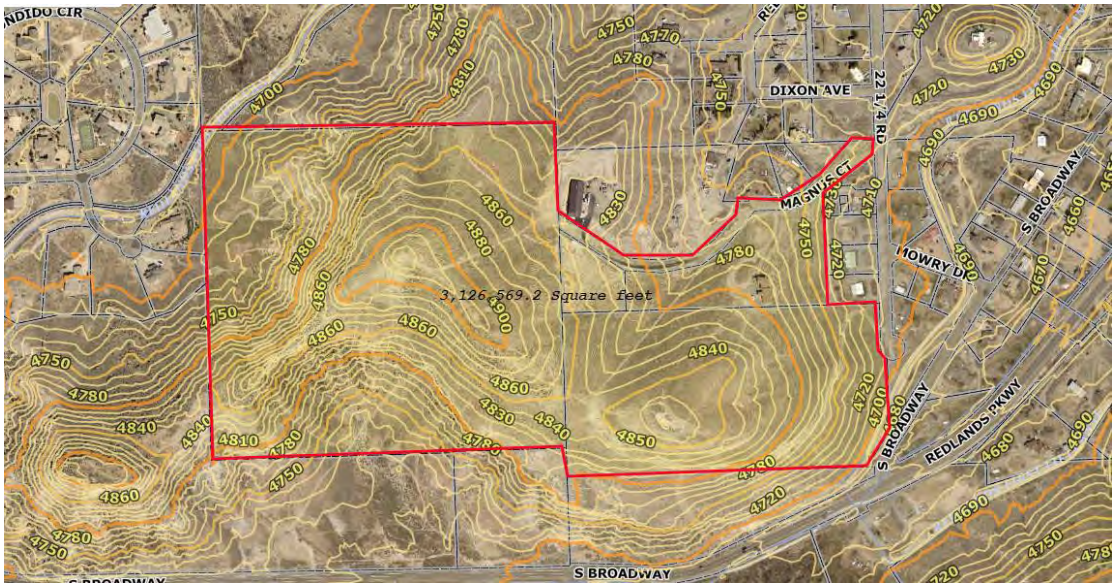
C. Property Description

.....1. Identify area in acres of entire contiguous ownership.

The 70-acre parcel is depicted in the photo above and consists of several property owners.

.....2. Describe existing ground cover, vegetation, soils, topography and slopes.

The 70-acre project site is located on a hilltop area which has significant topographic relief. The highest elevation within the project area is at an elevation of 4924 and the lowest elevation is at 4690, along the southeastern edge of the site.



City of Grand Junction 2016 GIS Contour Data

The north-central portions of the project site have been disturbed from previous subdivision work, but the majority of the property is covered with minimal vegetation and rock and boulder areas and rock outcroppings.

A large portion of the project site will remain undisturbed by the project.

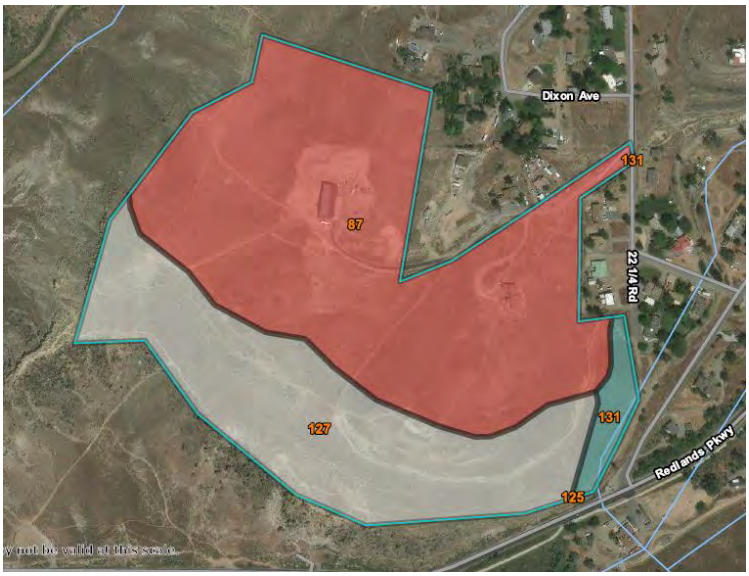

Southeastern Corner of the site looking west

Intersection of Magnus Court & 22-1/4 Rd Looking South

Northern Portion of Project Area Looking South

Southern Half of the Project Looking Northwest

Soils on within the 27-area project area have been classified by the US Department of Agriculture Soil Conservation Service, which consist primarily of Persayo-Blackston Complex, with 6 to 45 percent slopes. These soils have high runoff potentials when wet and are classified as a hydrologic soil type 'D'. Appendix C of this report provides more information from the NRCS report.



NRCS Soils Data Map Excerpt

According to the FEMA National Flood Hazard Mapping Service center, the project site does not have any FEMA special flood hazard areas. A copy of the FEMA Map panel is provided in Appendix B of this report. An excerpt of the FEMA GIS map for this area is depicted below:

FEMA Flood Mapping GIS Database

While FEMA does not formally recognize any special flood hazards with this site, it is ACG's option the site has the potential of flooding into the existing neighborhood areas north and east of the project site.

.....3. Describe existing drainage facilities, such as channels, detention areas, or structures.

The subject property does not have any drainage facilities, channels or detention facilities or structures.

The project site does include two drainages that begin within the project site and discharge north into existing residential neighborhood areas. The two drainages can be seen in the Google Earth photo below:

Existing Drainages Along North Edge of Project

.....4. Describe existing irrigation facilities, such as ditches, head-gates, or diversions.

The Redlands Water and Power Irrigation ditch runs along the southeastern corner of the project site, The trapezoidal concrete ditch is approximately 8-ft wide and three feet deep. A photo of the ditch is depicted in the google earth photo below:

Redlands Second Lift Canal

.....5. Identify proposed types of land use and encumbrances.

The project is proposing to develop 72-single family lots with an average lot size of approximately 10,000 square feet. The lots will be clustered in the north central portion of the project site in a 27-acre area.

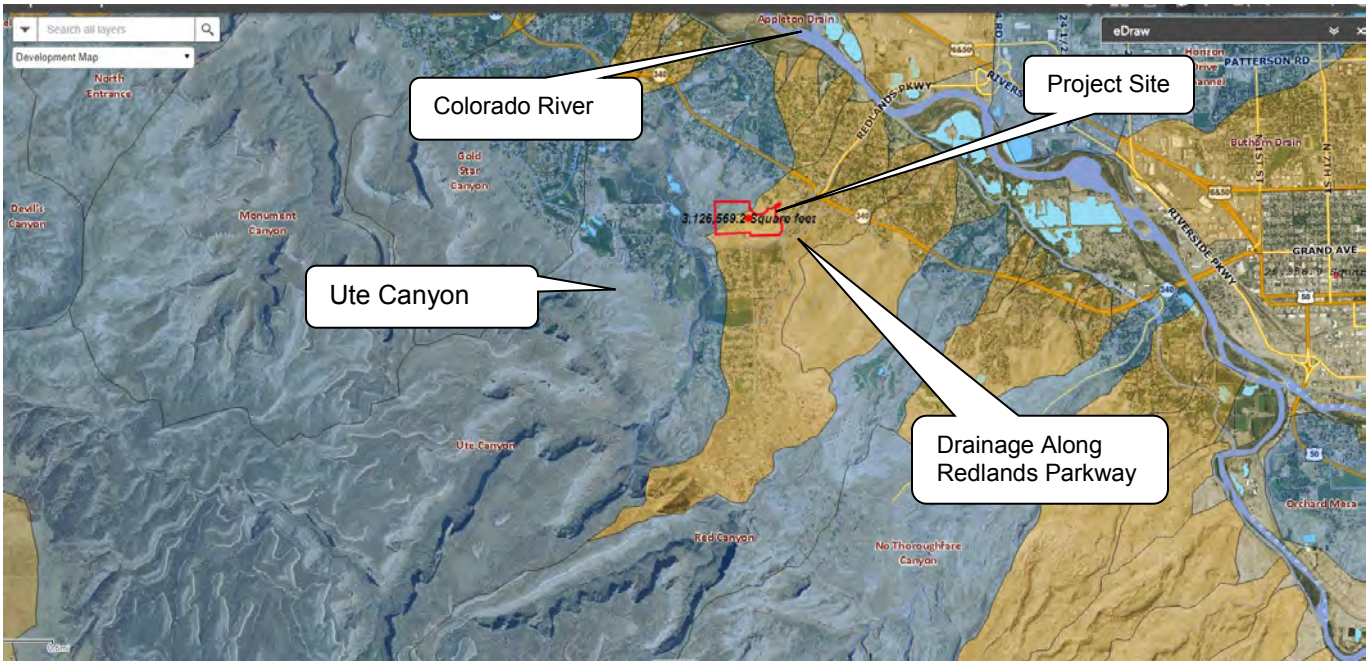
The topography and existing drainage channels within the project will be the biggest challenges to the project development.

D. Previous Investigations

.....1. Identify drainage master plans that include the project area, including floodplain studies.

The subject property is not located within any FEMA designated floodplain areas according to the Flood Insurance Rate Map Panel included in **Appendix B** of this report.

The subject property is located on the dividing line between two major drainage basins. The northwestern corner of the site is located within the Ute Canyon Drainage and the remaining portion of the site is located within an unnamed drainage basin which discharges along the Redlands Parkway. Both drainages ultimately discharge to the Colorado River, approximately two miles north of the project site. A copy of the basin areas and project location is depicted in the photo below:



City of Grand Junction GIS Major Drainage Basins

2. Identify drainage reports for adjacent development.

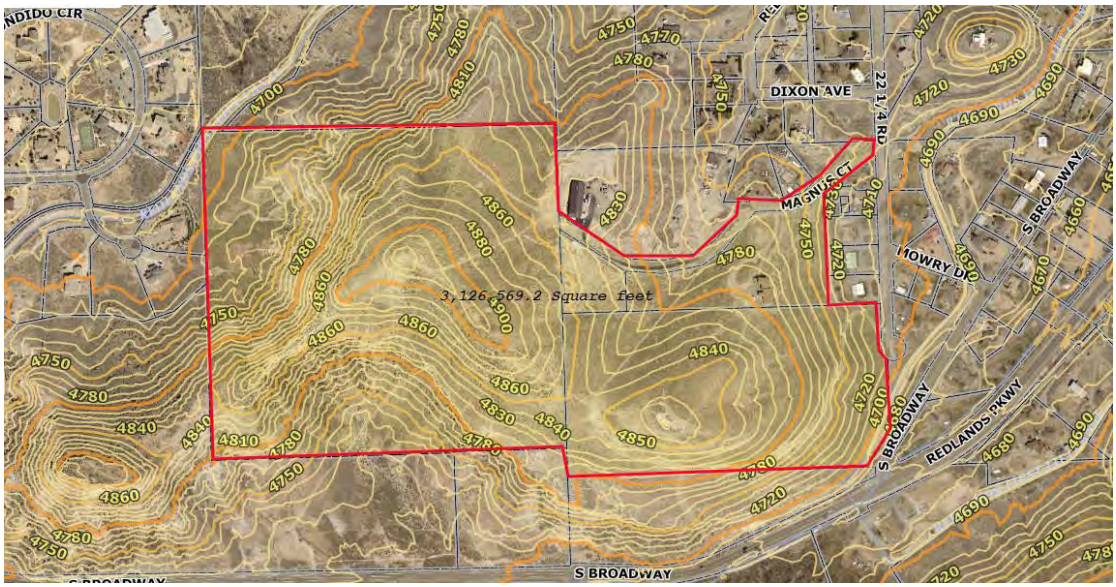
ACG is not aware of any drainage studies from the adjacent properties.

II. DRAINAGE SYSTEM DESCRIPTION

A. Existing Drainage Conditions

.....1. Describe existing topography and provide map with contours extending a minimum of 100 feet beyond property limits.

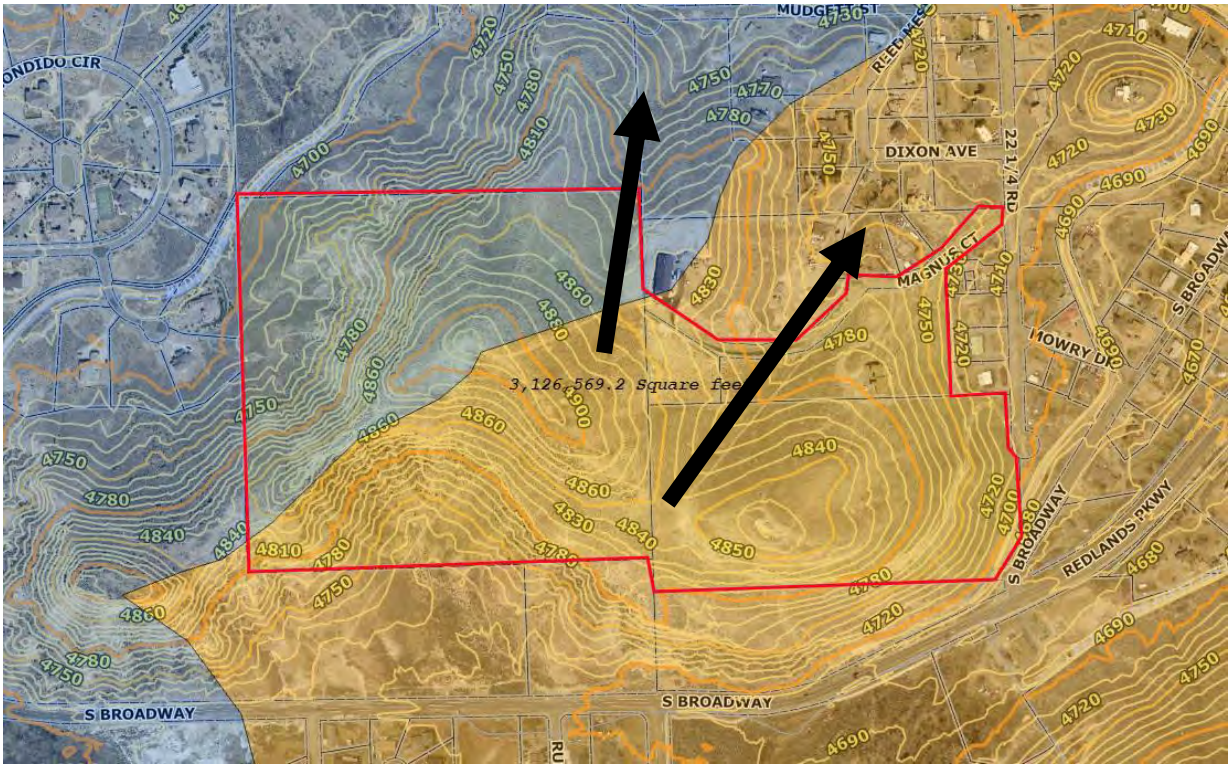
The 70-acre project site is located on a hilltop area which has significant topographic relief. The highest elevation within the project area is at an elevation of 4924 and the lowest elevation is at 4690, along the southeastern edge of the site.



City of Grand Junction 2016 GIS Contour Data

.....2. Identify major drainage way or outfall drainage way and describe map showing location of proposed development within the drainage ways.

The subject property has two primary drainage discharge locations along the northern end of the site and the remaining portions of the property primarily sheet flow onto adjacent property from all directions.



Two Primary Historic Concentrated Flow Drainage Discharge Locations

3. Identify pre-developed drainage patterns and describe map showing pre-developed sub-basins and concentrated discharge locations. Provide calculations of pre-developed peak flows entering and leaving the site.

There are six historic drainage basins for this site.

Historic basin area H-1, approximately 11.5-acres in size, consists of hillside area along the eastern portion of the project site. Drainage from this basin areas sheet flows east at a 30% grade and discharges to the adjacent residential lots along the east side of project. Drainage from this basin area flows to the unnamed drainage which flows along the Redlands Parkway and discharges to the Colorado River.

Historic basin area H-2, approximately 14.2-acres in size, consists of hillside area along the north eastern portion of the project site. Drainage from this basin areas sheet flows north east at a 20% grade and discharges east along Magnus Court to 22-1/4 Road. The runoff overtops 22-1/4 Road and discharges to the adjacent residential lots along the north east side of project. Drainage from this basin area flows to the unnamed drainage which flows along the Redlands Parkway and discharges to the Colorado River.

Historic basin area H-3, approximately 5.2-acres in size, consists of hillside drainage area along the north central portion of the project site. Drainage from this basin areas sheet flows north at a 16% grade and discharges to the adjacent residential property at 2205 Mudgett Street and into the Redlands Valley Subdivision and Mulli Subdivision.

Historic basin area H-3, approximately 5.2-acres in size, consists of hillside drainage area along the north central portion of the project site. Drainage from this basin areas sheet flows north at a 16% grade and discharges to the adjacent residential property at 2205 Mudgett Street and into the Redlands Valley Subdivision and Mulli Subdivision.

Historic basin area H-4, approximately 2.4-acres in size, consists of hillside drainage area along the north central portion of the project site. Drainage from this basin areas sheet flows northwest at a 16% grade and discharges to the adjacent undeveloped 20-acre residential property at 521 Mockingbird Lane.

Historic basin area H-5, approximately 15.6-acres in size, consists of hillside drainage area along the western portion of the project site. Drainage from this basin areas sheet flows west, across steep terrain and discharges to the Rocky Heights Subdivision located north of South Broadway and Escondido Circle, and ultimately into Limekiln Gulch drainage.

Historic basin area H-6, approximately 21.1-acres in size, consists of hillside drainage area along the southern portion of the project site. Drainage from this basin areas sheet flows west, across steep terrain and discharges to private property owned by the Museum of Western Colorado and Redlands Water and Power. The runoff continues to flow south across these private properties, across South Broadway, and into the unnamed drainage which flows south along the Redlands Parkway and discharge to the Colorado River.

See Appendix D of the report for maps and photos of the historic drainage conditions.

Pre-developed runoff calculations are summarized below, and detail information is provided in **Appendix G**.

Table 1: Historic / Pre-Development Runoff Calculations

Basin	Size (ac)	Storm Event	"C" Value	Runoff (cfs)
H-1	11.5	10-Yr	0.26	5
		100-Yr	0.51	19
H-2	14.2	10-Yr	0.29	6
		100-Yr	0.51	24
H-3	5.2	10-Yr	0.26	2
		100-Yr	0.51	8
H-4	2.4	10-Yr	0.27	1
		100-Yr	0.51	4
H-5	15.6	10-Yr	0.27	6
		100-Yr	0.51	26
H-6	21.1	10-Yr	0.26	9
		100-Yr	0.51	37

B. Master Drainage Plan

.....1. Describe location of the project relative to a previously prepared master drainage plan, including drainage plans prepared for adjacent development.

ACG is not aware of any previous master drainage plans or drainage reports for adjacent subdivisions.

C. Offsite Tributary Area

.....1. Identify all offsite drainage basins that are tributary to the project.

The project is located at the top of the hillside areas and does not have any offsite contributing flow.

.....2. Identify assumptions regarding existing and future land use and effects of offsite detention on peak flows.

The project is located at the top of drainage areas and future developments next to the project site will not contribute to any offsite flow.

D. Proposed Drainage System Description

.....1. Identify how offsite stormwater is collected and conveyed through the site and ultimately to the receiving water(s).

The project does not have any offsite stormwater flow.

.....2. Identify sub-basins and describe, in general terms, how onsite stormwater is collected and conveyed through the site for each location where stormwater is discharged from the site.

The project is proposing to construct approximately 72 homes on 24-acres within the 70-acre site. The remaining 46-acres will remain undisturbed and are not anticipated to be further developed.

The average density of 24-acres that will be developed will be approximately 3 units per acre and homes within this area will typically be two story style homes. The report assumes each level will have approximately 2,200 square feet.

The 24-acre developed area is primarily located in the center area of the 70-acre site, around Magnus Court. Development within this area will impact the two existing historic drainage basins which discharge to the north (H-3) and northeast (H-2).

The project anticipates construction of stormwater infrastructure to collect runoff from the project and convey flows to a stormwater detention / water quality facility located along Magnus Court. The detention facilities are anticipated to over-detain runoff to allow the

proposed residential home construction downstream of the pond to release undetained stormwater flow.

The proposed detention / water quality facility will pipe the outfall from the detention pond down Magnus Court to the eastern property line and the discharge will be piped south to the intersection area of South Broadway and Redlands Parkway. The outfall will discharge to the unnamed creek which flows south along the Redlands Parkway and discharges to the Colorado River.

The project anticipates the detention facility will be designed for a 32-acre basin area to account for over detaining stormwater. The detention facility is anticipated to require

REQUIRED DETENTION POND SIZING						
BASIN	STORM EVENT	A(1)	P(2)	X(3)	K(4)	V(5)
		acres	%			cubic feet
D-1	10 YEAR	32.00	22.00	0.26	0.0049	6,886
	100 YEAR	32.00	22.00	0.42	0.0162	22,528
(1) Area in acres (Basin D-0 + O-1)						
(2) Developed Basin Imperviousness (%)						
(3) Mesa County and the other local jurisdictions adjustment Factor -- per SWMM Table 1401						
(4) $K_{10} = ((0.95*P_{10}) - 1.90) * (X_{10}/1000)$; $K_{100} = ((1.78*P_{100}) - (0.002*P_{100}^2) - 3.56) * (X_{100}/900)$						
(5) Minimum Detention Volumes: $V_{cubic\ feet} = (K * A) * 43,560$						

Table 2: Magnus Subdivision Stormwater Detention Requirements

The anticipated Major Developed Drainage basins are summarized in the table below.

Table 3: Major Developed Drainage Basin Summary

Basin	Size (ac)	Storm Event	"C" Value	Runoff (cfs)
D-1	10.3	10-Yr	0.34	6
		100-Yr	0.55	22
D-2	20.2	10-Yr	0.35	10
		100-Yr	0.56	33
D-3	1.61	10-Yr	0.33	1
		100-Yr	0.54	4
D-4	1.26	10-Yr	0.26	1
		100-Yr	0.51	2
D-5	15.6	10-Yr	0.26	6
		100-Yr	0.51	27
D-6	21.1	10-Yr	0.27	9
		100-Yr	0.51	37

.....* 3. Describe detention volumes, release rates and pool elevations.

The detention facility anticipates releasing stormwater based on the 24-acre, disturbed project area, at the following rates:

ALLOWABLE STORM EVENT RELEASE RATE			
Control Frequency	Soil Group[1]	Area[2]	Release Rate[3]
		acres	cfs
10-year	D	24.00	2.88
100-year	D	24.00	12.00

(1) NRCS Hydrologic Soil Group
(2) Tributary watershed area in acres
(3) Allowable Release Rates for Detention Ponds (cfs) --- per SWMM Table 1402

Table 3: Magnus Subdivision Stormwater Detention Requirements

.....* 4. Identify the difference in elevation between pond invert and the groundwater table.

According to the geotechnical report prepared by Huddleston Berry Engineering and Testing, LLC, (11/30/201 for CRG Properties), no groundwater was detected at depths of 10-ft below the existing ground surface.

.....5. Describe how stormwater is discharged from the site, including both concentrated and dispersed discharges.

Stormwater from the project site will be routed to a detention / water quality pond located constructed by the project. The stormwater will be piped to the southeast corner of the project site and discharge to the unnamed stream which flows along the Redlands Parkway.

.....6. Describe stormwater quality facilities.

The project will provide a water quality pond using an extended basin design technique for the project.

.....* 7. Describe maintenance access aspects of design.

Stormwater management practices will be required for all onsite disturbed areas to minimize sediment migration into the detention / water quality pond facility.

The water quality pond has been designed assuming a 20% sedimentation build up in the bottom of the pond. It is anticipated that with routine care, sediment should not have to be removed for several years.

Routine maintenance of the pond's trash screens will be required. The screens should be checked after significant storm events or when it appears stagnate water is in the bottom of the pond.

Backyard area inlets should be checked after major storm events or if water is observed ponding above the inlets. In most cases, the grates will need to be cleaned to remove leaves and debris.

.....* 8. Describe easements and tracts for drainage purposes, including limitation on use.

The property owner's association will be responsible for operation and maintenance of all drainage facilities. As part of the 521 Drainage Authority permitting process, the project will sign a post construction operations and maintenance agreement with the 521 Drainage Authority that requires yearly inspections of the facilities and if maintenance is not addressed, the 521 Authority has the ability to address the deficiencies and asses the property owners the cost of the repairs.

E. Drainage Facility Maintenance

.....* 1. Identify responsible parties for maintenance of each drainage and water quality facility.

The ordinary maintenance of the drainage infrastructure and water quality pond facility shall be the responsibility of the Homeowners Association.

.....* 2. Identify general maintenance activities and schedules.

The stormwater detention pond facility and all its components will be constructed by the Landowner in accordance with the plans and specifications and described in this report and Final Construction Plans.

The water quality pond and its outlet structure will operate and be maintained in good working order as reasonably determined by the 521 Drainage Authority, the Qualified Erosion Control Specialist (QES) and this report.

The water quality pond and its outlet structure will be inspected quarterly and after any significant rainfall during the 1st year of operation by the QES. At any time during the inspections the QES finds a significant collection of sediment and/or debris that inhibits

the facility from functioning properly, appropriate means shall be selected by the QES to clean and maintain the facility to its original working order.

After the first year of operation, the QES has the option to reduce the interval of inspections based on the previous year(s) reports but should be inspected a minimum of 1 time per year. The Post-Construction Stormwater Control Operations and Maintenance Agreement entered into by the Landowner and the 521 Drainage Authority shall constitute a covenant running with the Property and shall be equitable servitude binding on present and subsequent owners of the Property in whole or in part, and their administrators, executors, assigns, heirs and successors in interest.

III. DRAINAGE ANALYSIS AND DESIGN CRITERIA

A. Regulations

.....1. Identify that analysis and design was prepared in accordance with the provisions of the Manual.

Analysis and design was prepared in accordance with the Stormwater Management Manual.

2. Identify other regulations or criteria which have been used to prepare analysis and design.

None.

B. Development Criteria

.....1. Identify drainage constraints placed on the project, such as by a major drainage study, floodplain study or other drainage reports relevant to the project.

There are no drainage constraints placed on the project.

.....2. Identify drainage constraints placed on the project, such as from major street alignments, utilities, existing structures, and other developments.

As stated in this report, the current drainage conditions are such that existing, adjacent residential properties have been allowed to develop without adequate measures to convey historic flows from this upgradient property.

To minimize stormwater flow to these existing residential areas, the project will need to pipe their stormwater flow to the unnamed drainage along the Redlands Parkway.

C. Hydrologic Criteria (If Manual was followed without deviation, then a statement to that effect is all that is required. Otherwise provide the following information where the criteria used deviates from the Manual.)

Analysis and design was prepared in accordance with the Stormwater Management Manual, which requires analysis for the 10-yr and 100-yr storm events using the rational method.

.....1. Identify how storm runoff peak flows and volumes were determined, including rainfall intensity or design storm.

The Manual was followed using the rational method for the 10-yr and 100-yr storm events.

.....2. Identify which storm events were used for minor and major flood analysis and design.

The Manual was followed which calls for analysis for the 10-yr and 100-yr storm events.

.....3. Identify how and why any other deviations from the Manual occurred.

A deviation from the manual will be required for Section 1407.3 Compensating Detention, which limits the tot un-detained are to no more than 5% or 5,000 square feet.

The terrain on this site is such that backyard areas on some of the residential lots my not be able to be effectively collected and routed to drainage facilities. There are also facilities downgradient of the detention facilities that because of steep terrain, cannot be routed to detention facilities.

D. Hydraulic Criteria (If Manual was followed without deviation, then a statement to that effect is all that is required. Otherwise provide the following information where the criteria used deviates from the Manual.)

Hydraulic analysis and design was prepared in accordance with the Stormwater Management Manual.

Hydraulic analysis will made using StormCAD version 1 software to size storm sewer infrastructure for the project.

.....* 1. Identify type(s) of streets within and adjacent to development and source for allowable street capacity.

Streets within the development will more than likely be an alternative street section. Site specific analysis will be required to contain flow within the street sections when the specific cross sections are defined.

.....* 2. Identify which type(s) of storm inlets were analyzed or designed and source for allowable capacity.

The inlets for the project will be analyzed at final design.

.....* 3. Identify which type of storm sewers which were analyzed or designed and Manning's n-values used.

The storm sewer system for the project will be analyzed at final design.

.....* 4. Identify which method was used to determine detention volume requirements and how allowable release rates were determined.

The SWMM was followed using the rational method analysis procedures. Discharge release rates per Table 1402 of SWMM, which are based on the NRCS hydrological soil classification group of "D" for this project site.

.....* 5. Identify how the capacity of open channels and culverts were determined.

Channel capacity will be determined at final design.

.....* 6. Identify any special analysis or design requirements not contained with the Manual.

None

.....7. Identify how and why any other deviations from the Manual occurred.

A deviation from the manual will be required for Section 1407.3 Compensating Detention, which limits the tot un-detained are to no more than 5% or 5,000 square feet.

The terrain on this site is such that backyard areas on some of the residential lots my not be able to be effectively collected and routed to drainage facilities. There are also facilities downgradient of the detention facilities that because of steep terrain, cannot be routed to detention facilities.

E. Variance from Criteria

.....1. Identify any provisions of the Manual for which a variance is requested.

A deviation from the manual will be required for Section 1407.3 Compensating Detention, which limits the tot un-detained are to no more than 5% or 5,000 square feet.

The terrain on this site is such that backyard areas on some of the residential lots my not be able to be effectively collected and routed to drainage facilities. There are also facilities downgradient of the detention facilities that because of steep terrain, cannot be routed to detention facilities.

.....2. Identify pre-existing conditions which cause the variance request.

See discussions above.

*IV. POST CONSTRUCTION STORMWATER MANAGEMENT.

See Manual Section 1600 for requirements. The Final Drainage Plan and the Construction SWMP (see SWMM Section 1500) meets the requirements of the MS4s Permit. In general, this section identifies permanent BMP practices to control the discharge of pollutants after construction is complete.

*A. Stormwater Quality Control Measures

.....* 1. Describe the post-construction BMPs to control discharge of pollutants from the project site.

Stormwater BMP's will be required for individual building lots. Site specific permits will be issued to each lot purchasers who will ultimately be responsible for interim construction on the building lots. The Homeowners association will be responsible for requiring lot owners to provide landscape treatments on the individual lots to minimize sedimentation transport.

The subdivision will have a water quality pond to provide water quality treatment of stormwater before being discharged off the project site.

.....* 2. If compensating detention is provided, discuss practices to address water quality from area not tributary to detention area.

This discussion will be provided at final design.

.....* 3. If underground detention is proposed, discuss how water quality facilities will be provided on the surface.

N/A

.....4. If proprietary BMPs are proposed, provide the justification and sizing requirements (see SWMM Section 1603.3).

N/A

*B. Calculations

.....1. Provide methods and calculations for WQCV, sediment storage, and water quality outlet structure.

Water quality requirements will be met by providing an extended detention stormwater pond. A proposed concrete outlet structure fitted with a perforated control plate that will control release the volume over a 40-hr drain period. WQCV calculations are summarized below:

Table 5: Water Quality Capture Volume (SWMM 1604.2)

Location	K	a	I	WQCV(in)	Area(ac)	Volume(cf)[1]
Pond 1	0.65	1.00	0.22	0.08	32	11,227

(1) Volume Includes 20% Increase for Sedimentation Build Up

……2. Drainage Impact Fee Determination

There will be no drainage fee required.

V. CONCLUSIONS

A. Compliance with Manual

.....Compliance with Manual and other approved documents, such as drainage plans and floodplain studies.

This report has been prepared in accordance with the SWMM Manual.

B. Design Effectiveness

.....Effectiveness of drainage design to control impacts of storm runoff.

The developed site has been provided with a detention and water quality pond facility that will control the release of runoff from the site for storm events for the 10-yr event, 100-yr and water quality events.

C. Areas in Flood Hazard Zone

.....Meet requirements of Floodplain Regulations: Mesa County Land Development Code, Section 7.13; City of Grand Junction Zoning and Development Code, Section 7.1.

The property is not located within any FEMA designed floodplain areas and no additional floodplain permitting work is needed.

D. Variances from Manual

.....Applicant shall identify any requested variances and provide basis for approving variance. If no variances are requested, applicant shall state that none are requested.

A deviation from the manual will be required for Section 1407.3 Compensating Detention, which limits the tot un-detained are to no more than 5% or 5,000 square feet.

The terrain on this site is such that backyard areas on some of the residential lots my not be able to be effectively collected and routed to drainage facilities. There are also facilities downgradient of the detention facilities that because of steep terrain, cannot be routed to detention facilities.

VII. REFERENCES

.....Provide a reference list of all criteria, master plans, drainage reports, and technical information used.

1. Stormwater Management Manual, (SWMM), Mesa County and the City of Grand Junction, December 31, 2007.

2. City of Grand Junction GIS Mapping System, FEMA Floodplain Mapping Information

3. United States Department of Agriculture – Natural Resources Conservation Service, http://websoilsurvey.nrcs.usda.gov/app/.

4. Huddleston-Berry Engineering & Testing, LLC, "_____.

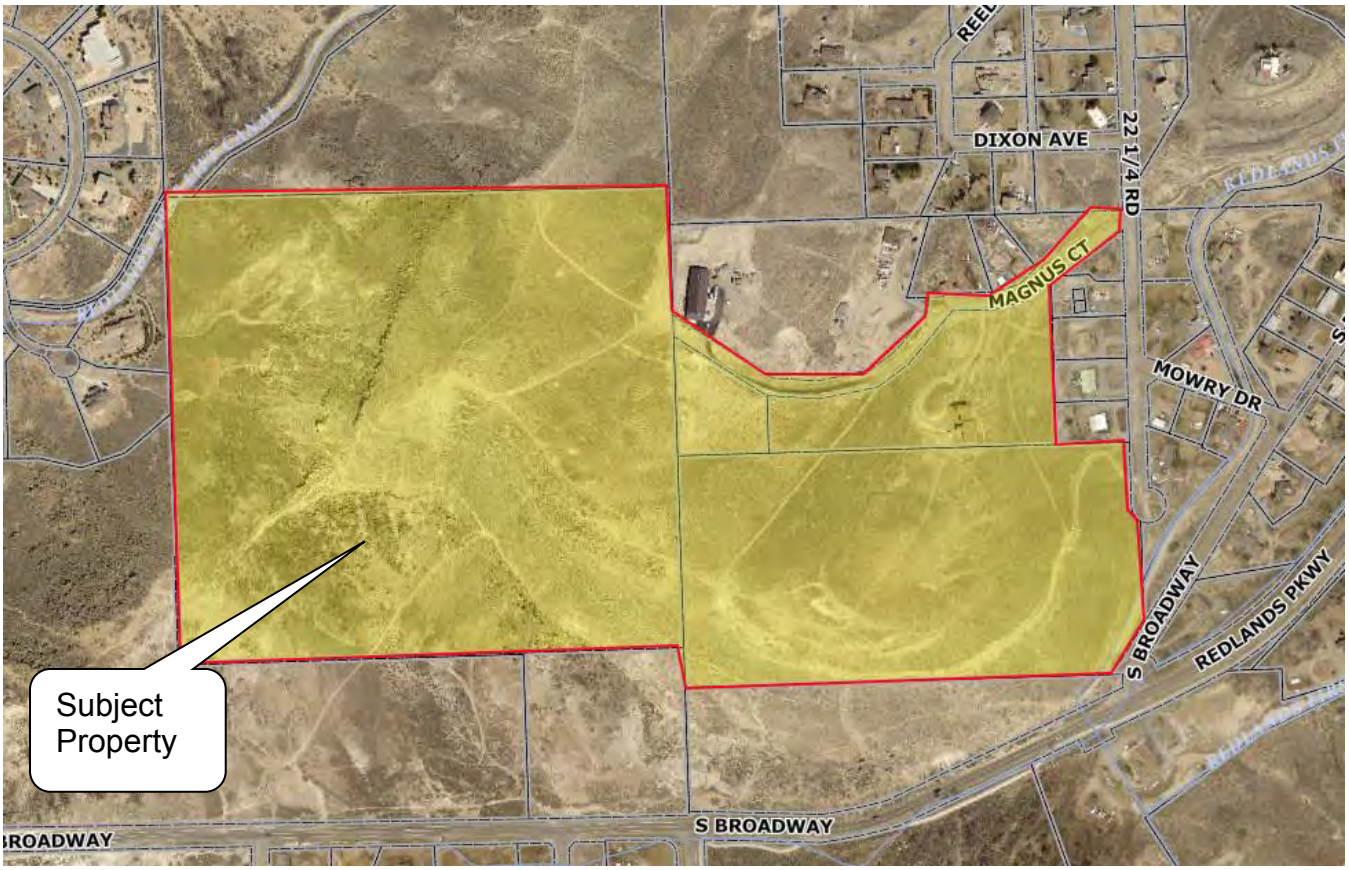
5. StormCAD V1.0, Haestad Methods, Inc., 37 Brookside Road, Waterbury, CT 06708

6. FlowMaster V5.13, Haestad Methods, Inc., 37 Brookside Road, Waterbury, CT 06708

7. Urban Storm Drainage Criteria Manual – Volume 3, best management practices, Urban Drainage and Flood Control District, Denver, Colorado September 1999 – Latest Revision: November 2007

APPENDIX A

Location Map



APPENDIX B

FEMA Floodplain Map Information

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
	Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Effective LOMRs
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	20.2 Cross Sections with 1% Annual Chance
	17.5 Water Surface Elevation
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
MAP PANELS	Digital Data Available
	No Digital Data Available
	Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

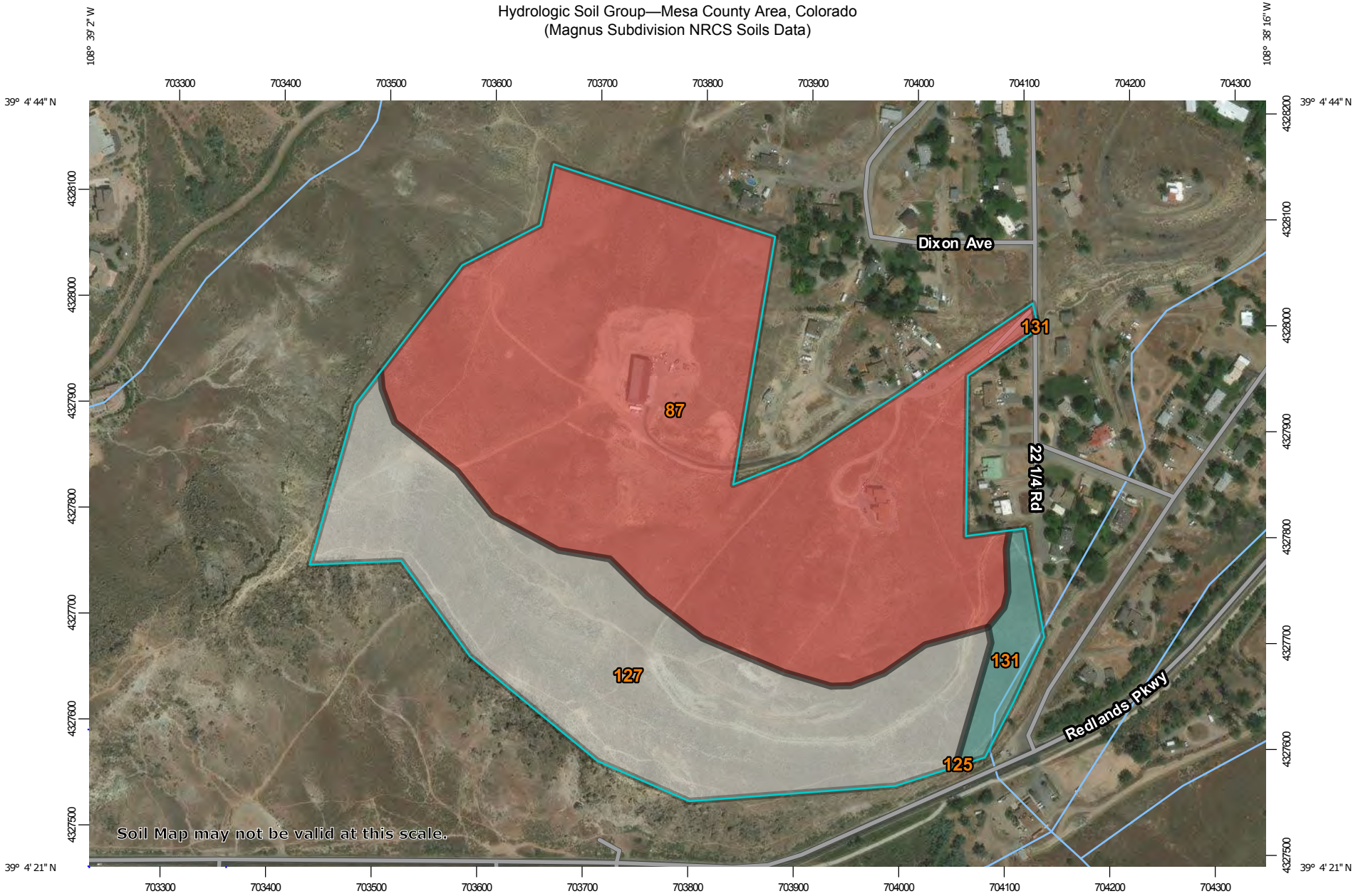
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/22/2019 at 9:54:05 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX C

NRCS Soil Information

Hydrologic Soil Group—Mesa County Area, Colorado
(Magnus Subdivision NRCS Soils Data)



Map Scale: 1:5,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Mesa County Area, Colorado
Survey Area Data: Version 7, Sep 30, 2016

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

Date(s) aerial images were photographed: Dec 31, 2009—Mar 2, 2017

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

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Mesa County Area, Colorado (CO680)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
87	Persayo-Blackston complex, 6 to 45 percent slopes — Draft	D	38.9	62.3%
125	Moffat sandy loam, 2 to 6 percent slopes	A	0.0	0.0%
127	Rock outcrop-Persayo-Hostage complex, 25 to 99 percent slopes, extremely stony — Draft		21.7	34.8%
131	Mack-Gyprockesa complex, 1 to 5 percent slopes	C	1.8	3.0%
Totals for Area of Interest			**62.5**	**100.0%**

Description

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

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

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

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

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

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

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

Rating Options

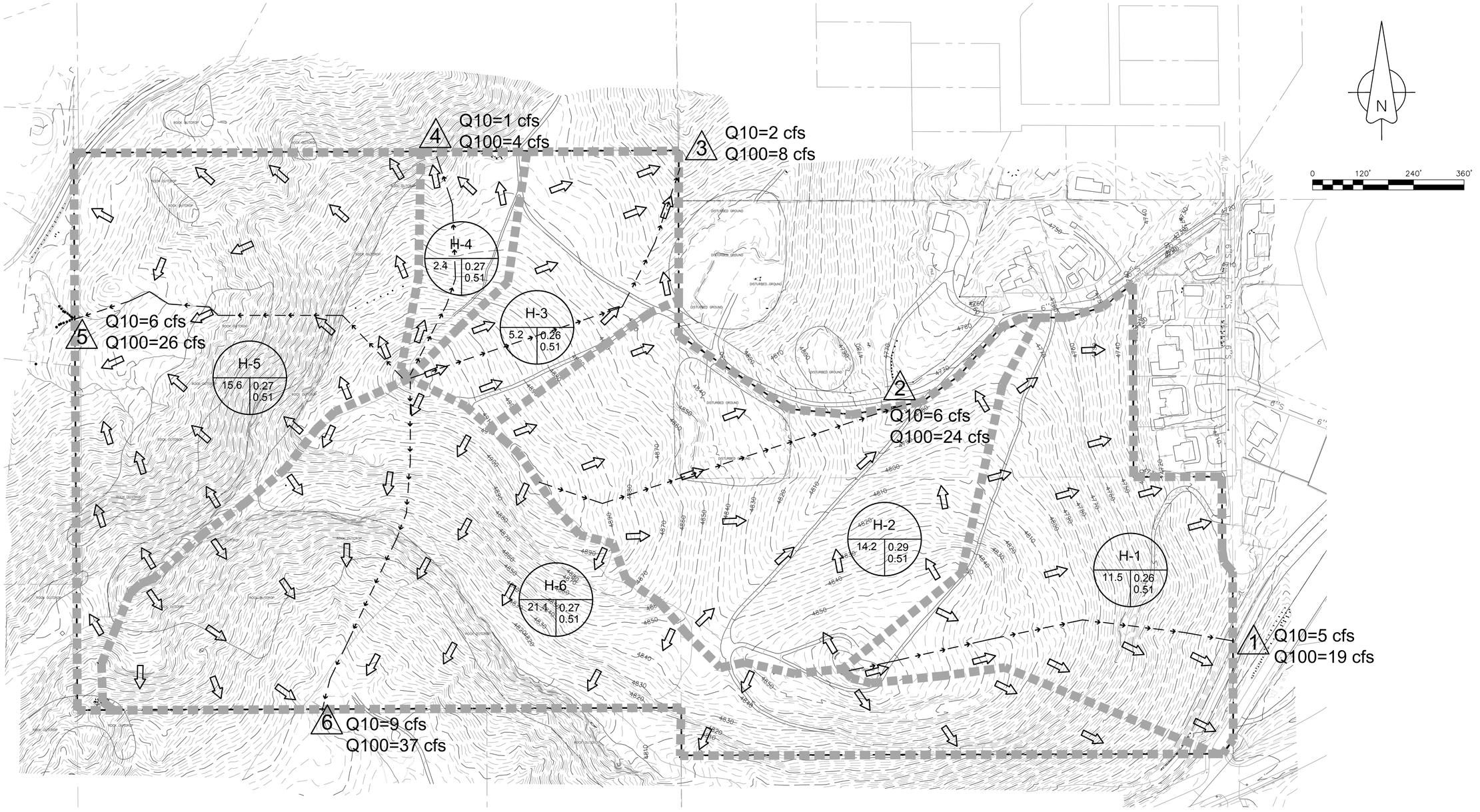
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX D

Historic Drainage Conditions / Maps



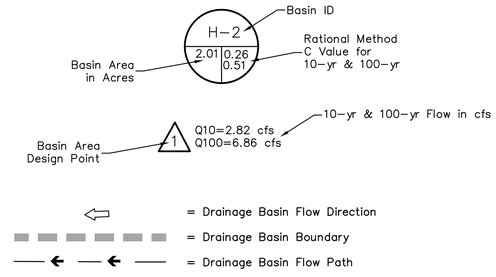
GENERAL NOTES:

1. No building, structure, or fill will be placed in the detention areas and no change or alterations affecting the hydraulic characteristics of the detention area will be made without the approval of the City.

2. Maintenance and operation of the detention and water quality areas is the responsibility of the property owner. If the owner fails in this responsibility, the City has the right to enter the property, maintain the detention areas, and be reimbursed for the costs incurred.

3. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawing shall be prepared by a registered professional engineer prior to the issuance of a certificate of occupancy for any structure within the development.

4. Permission to reproduce these plans is hereby given to City / County for purposes associated with plan review, approval, permitting, inspection and construction of the work.



Know what's **below.** **Call** before you dig. 811

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

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AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

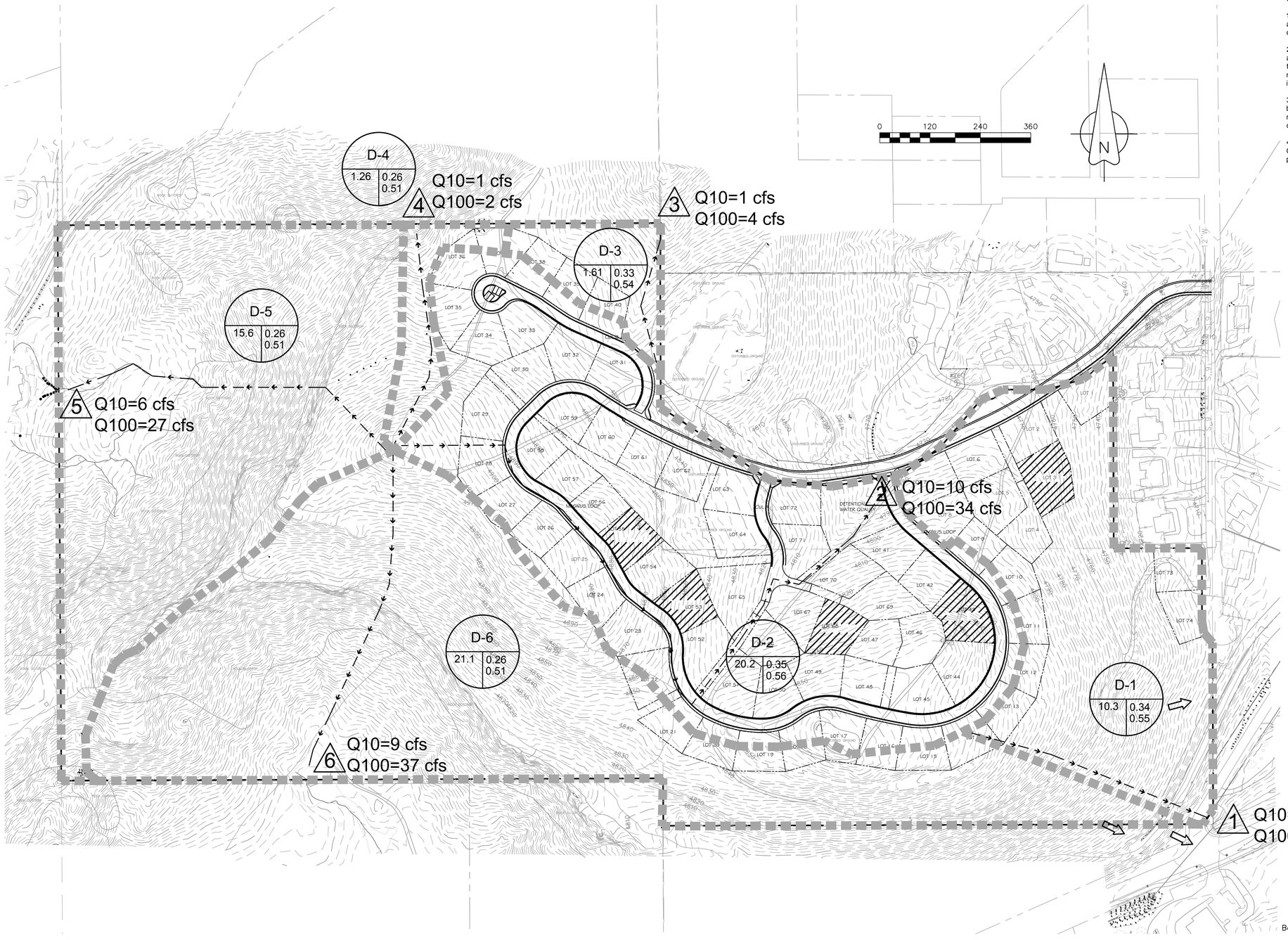
MAGNUS SUBDIVISION
description
HISTORIC DRAINAGE PLAN
ADDRESS
prepared for
Client Name

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
lms	lms		MRA

JOB NUMBER: 1304.0001
DATE: 02-22-19
SCALE: 1"=120'
SHEET NO:

APPENDIX E

Proposed Site Plan



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3. Detention pond volumes, all drainage appurtenances, and basin boundaries shall be verified. As-built drawing shall be prepared by a registered professional engineer prior to the issuance of a certificate of occupancy for any structure within the development.

4. Permission to reproduce these plans is hereby given to City / County for purposes associated with plan review, approval, permitting, inspection and construction of the work.

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REVISIONS

NO.	DESCRIPTION	DATE	BY
1	RESPONSE TO ROUND #1 COMMENTS	03-04-15	mra

A • C • G
AUSTIN CIVIL GROUP, INC.
Land Planning • Civil Engineering • Development Services
123 North 7th Street, Suite 300 • Grand Junction, Colorado 81501
(970) 242-7540

MAGNUS SUBDIVISION
description
DEVELOPED DRAINAGE PLAN
805 BOOKCLIFF AVENUE
prepared for
Grand Junction Housing Authority

DRAWN BY:	lms
DESIGNED BY:	lms
CHECKED BY:	
APPROVED BY:	MRA
JOB NUMBER:	1179.0003
DATE:	01-05-15
SCALE:	1"=30'
SHEET NO.	APPENDIX E

APPENDIX F

Rational Method Flow Analysis

MAGNUS SUBDIVISION
RATIONAL METHOD RUNOFF ANALYSIS

AREA + RUNOFF CURVE NUMBER CALCULATIONS																			TIME OF CONCENTRATION & RATE OF RUNOFF											
BASIN	STORM EVENT	SOIL	Total Basin Area (1)	Landscape / Ag		Roof		Gravel		Impervious		Undeveloped		R-3		Composite $i^{(3)}$	Composite $C^{(4)}$	Composite $CN^{(5)}$	$K^{(6)}$	Intitial Flow			Travel Time-Surface				Totals			
																				Length	Slope	t_i (7)	Length	S_w	Cv (8)	Vel (9)	t_t (10)	Average Slope (11)	T_c (12)	Intensity, I (13)	Runoff, $Q^{(14)}$
				$i^{(2)}$	$A^{(1)}$	$i^{(2)}$	$A^{(1)}$	$i^{(2)}$	$A^{(1)}$	$i^{(2)}$	$A^{(1)}$	$i^{(2)}$	$A^{(1)}$	$i^{(2)}$	$A^{(1)}$					feet	%	min.	feet	ft/ft		ft/sec	min.		min.	in./hr.	cfs
HISTORIC / PRE-DEVELOPMENT DRAINAGE BASINS																														
H-1	10-YEAR	D	11.50	0.02		0.9		0.40		1.00		0.02	11.50	0.42		0.02	0.26	80	0.16	300	10	11.67	650	0.300	10	5.5	1.98	23.68	13.64	1.52	4.56
	100-YEAR	D	11.50	0.02		0.9		0.40		1.00		0.02	11.50	0.42		0.02	0.51	80	0.16	300	10	11.67	650	0.300	10	5.5	1.98	23.68	13.64	3.22	18.81
H-2	10-YEAR	D	14.20	0.02		0.9	0.09	0.40	0.50	1.00	0.50	0.02	13.11	0.42		0.07	0.29	81	0.19	300	16	11.32	600	0.160	10	4.0	2.50	16.00	13.82	1.51	6.16
	100-YEAR	D	14.20	0.02		0.9	0.09	0.40	0.50	1.00		0.02	13.11	0.42		0.04	0.51	81	0.19	300	16	11.32	600	0.160	10	4.0	2.50	16.00	13.82	3.20	23.40
H-3	10-YEAR	D	5.20	0.02		0.9		0.40		1.00		0.02	5.20	0.42		0.02	0.26	80	0.16	300	16	11.67	550	0.160	10	4.0	2.29	16.00	13.96	1.50	2.04
	100-YEAR	D	5.20	0.02		0.9		0.40		1.00		0.02	5.20	0.42		0.02	0.51	80	0.16	300	16	11.67	550	0.160	10	4.0	2.29	16.00	13.96	3.19	8.42
H-4	10-YEAR	D	2.40	0.02		0.9		0.40		1.00		0.02	2.40	0.42		0.02	0.26	80	0.16	300	16	11.67	250	0.160	10	4.0	1.04	16.00	12.71	1.56	0.98
	100-YEAR	D	2.40	0.02		0.9		0.40		1.00		0.02	2.40	0.42		0.02	0.51	80	0.16	300	16	11.67	250	0.160	10	4.0	1.04	16.00	12.71	3.33	4.05
H-5	10-YEAR	D	15.60	0.02		0.9		0.40		1.00		0.02	15.60	0.42		0.02	0.26	80	0.16	200	16	9.55	850	0.250	10	5.0	2.83	23.29	12.39	1.58	6.45
	100-YEAR	D	15.60	0.02		0.9		0.40		1.00		0.02	15.60	0.42		0.02	0.51	80	0.16	200	16	9.55	850	0.250	10	5.0	2.83	23.29	12.39	3.36	26.63
H-6	10-YEAR	D	21.10	0.02		0.9		0.40		1.00		0.02	21.10	0.42		0.02	0.26	80	0.16	300	25	10.10	550	0.230	10	4.8	1.91	23.71	12.01	1.60	8.85
	100-YEAR	D	21.10	0.02		0.9		0.40		1.00		0.02	21.10	0.42		0.02	0.51	80	0.16	300	25	10.10	550	0.230	10	4.8	1.91	23.71	12.01	3.41	36.50
DEVELOPED DRAINAGE SITE DISTRUBANCE																														
D-1	10-YEAR	D	32.00	0.02		0.9		0.40		1.00		0.02	32.00	0.42	32.00	0.22	0.35	84	0.27									#DIV/0!		2.98	33.55
	100-YEAR	D	32.00	0.02		0.9		0.40		1.00		0.02	32.00	0.42	32.00	0.22	0.56	84	0.27									#DIV/0!		6.34	112.69
DEVELOPED DRAINAGE BASINS																														
D-1	10-YEAR	D	10.30	0.02		0.9		0.40		1.00		0.02	6.10	0.42	4.20	0.18	0.34	83	0.25	100	10	7.15	600	0.300	10	5.5	1.83	27.14	8.97	1.80	6.24
	100-YEAR	D	10.30	0.02		0.9		0.40		1.00		0.02	6.10	0.42	4.20	0.18	0.55	83	0.25	100	10	7.15	600	0.300	10	5.5	1.83	27.14	8.97	3.83	21.65
D-2	10-YEAR	D	20.20	0.02		0.9		0.40		1.00		0.02	20.20	0.42	20.20	0.22	0.35	84	0.27	300	16	10.37	1500	0.050	20	4.5	5.59	6.83	15.96	1.41	10.00
	100-YEAR	D	20.20	0.02		0.9		0.40		1.00		0.02	20.20	0.42	20.20	0.22	0.56	84	0.27	300	16	10.37	1500	0.050	20	4.5	5.59	6.83	15.96	2.99	33.61
D-3	10-YEAR	D	1.61	0.02		0.9		0.40		1.00		0.02	1.03	0.42	0.58	0.16	0.33	83	0.24	100	16	6.19	205	0.160	10	4.0	0.85	16.00	7.05	1.96	1.04
	100-YEAR	D	1.61	0.02		0.9		0.40		1.00		0.02	1.03	0.42	0.58	0.16	0.54	83	0.24	100	16	6.19	205	0.160	10	4.0	0.85	16.00	7.05	4.17	3.66
D-4	10-YEAR	D	1.26	0.02		0.9		0.40		1.00		0.02	1.26	0.42		0.02	0.26	80	0.16	300	16	11.67	250	0.160	10	4.0	1.04	16.00	12.71	1.56	0.52
	100-YEAR	D	1.26	0.02		0.9		0.40		1.00		0.02	1.26	0.42		0.02	0.51	80	0.16	300	16	11.67	250	0.160	10	4.0	1.04	16.00	12.71	3.33	2.13
D-5	10-YEAR	D	15.60	0.02		0.9		0.40		1.00		0.02	15.60	0.42		0.02	0.26	80	0.16	200	16	9.55	850	0.250	10	5.0	2.83	23.29	12.39	1.58	6.45
	100-YEAR	D	15.60	0.02		0.9		0.40		1.00		0.02	15.60	0.42		0.02	0.51	80	0.16	200	16	9.55	850	0.250	10	5.0	2.83	23.29	12.39	3.36	26.63
D-6	10-YEAR	D	21.10	0.02		0.9		0.40		1.00		0.02	19.95	0.42	1.15	0.04	0.27	81	0.18	300	25	9.96	550	0.230	10	4.8	1.91	23.71	11.87	1.61	9.26
	100-YEAR	D	21.10	0.02		0.9		0.40		1.00		0.02	19.95	0.42	1.15	0.04	0.51	81	0.18	300	25	9.96	550	0.230	10	4.8	1.91	23.71	11.87	3.43	37.17

(2) Imperviousness Value from Table 701 of SWMM as a decimal

(3) Composite Impervious Value as a decimal - ((i1*A1)+(i2*A2)+(i3*A3)+(i4*A4)+(i5*A5)+(i6*A6))/(A1+A2+A3+A4+A5+A6)

(4) Runoff Coefficient from Table 702 in SWMM

(5) SCS Curve Number (CN) - SWMM Equation 708

(6) Flow Resistance Coefficients = Table 702 of SWMM with $C_{5\text{-}yr}$ Value Based on Soil Type and Imperviousness Value in (4)

(7) Initial or Overland Flow Time (minutes): $t_i = (1.8 * (1.1\text{-}K) * L_o^{1/2}) / S^{1/3}$ - Limited to 300-ft max = Per SWMM, Equation 702; t_{imin} = 5 minutes; t_{imax} = (L/180) + 10 (urbanized watersheds) Equation 704

(8) Travel Time Conveyance Coefficient per Table 703 of SWMM

(9) $V = C_v * S_w^{1/2}$ -- per SWMM Equation 703

(10) Travel Time in Concentrated Flow: $t_t = L/(V*60)$

(11) Average Slope as a Percentage

(12) Total $T_c = t_i + t_t$

(13) Average Intensity (in./hr.); $I_{10yr} = (28.9 * 0.63)/(10 + T_c)^{0.786}$; $I_{100yr} = (28.9 * 1.34)/(10 + T_c)^{0.786}$ -- per SWMM 604

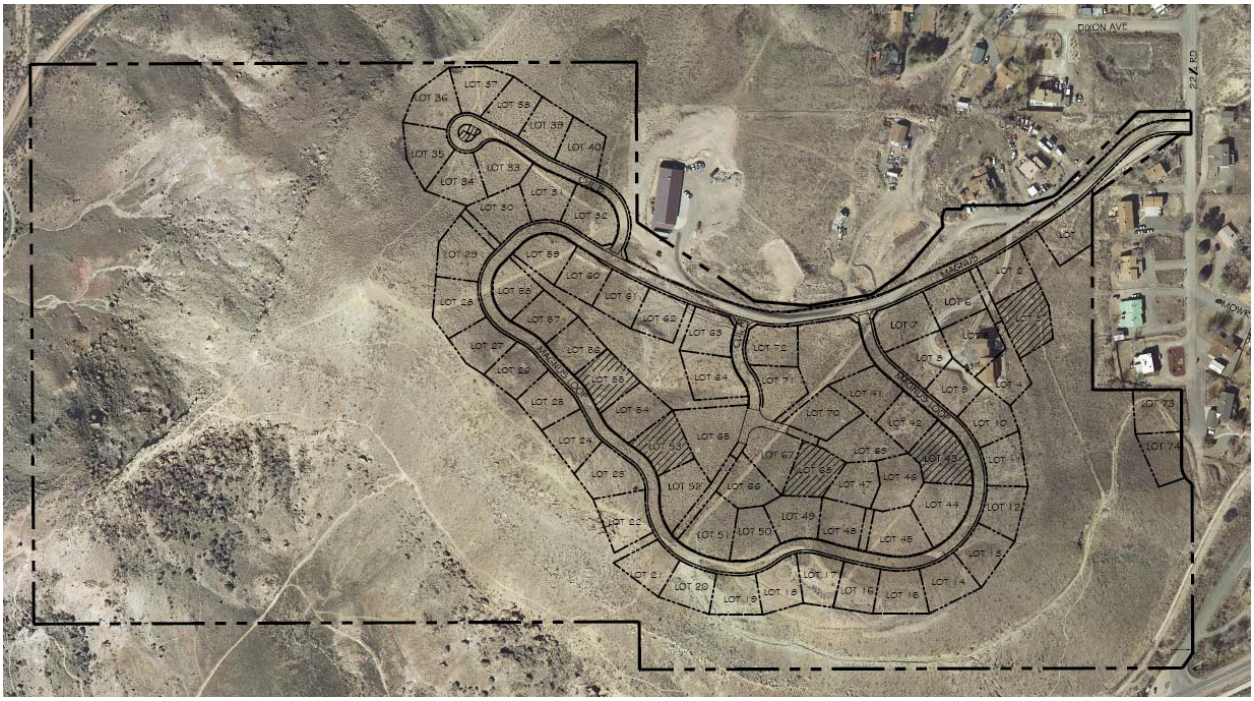
(14) Storm Runoff: $Q_{cfs} = C * I_{(in/hr)} * A_{(acres)}$ -- per SWMM Equation 710

Transportation Impact Study

for

Magnus Court Subdivision

Grand Junction, Colorado



February 25, 2019
Revised: July 10, 2019

PREPARED FOR:
Ciavonne, Roberts & Associates
222 North 7th Street
Grand Junction, CO 81501
Contact: Ted Ciavonne

PREPARED BY:
McDowell Engineering, LLC
PO Box 4259
Eagle, CO 81631
970.623.0788
Contact: Kari J. McDowell Schroeder, PE, PTOE
Project Number: M1388

Statement of Engineering Qualifications

Kari J. McDowell Schroeder, PE, PTOE is a Transportation and Traffic Engineer for McDowell Engineering, LLC. Ms. McDowell Schroeder has over twenty-two years of extensive traffic and transportation engineering experience. She has completed numerous transportation studies and roadway design projects throughout the State of Colorado. Ms. McDowell Schroeder is a licensed Professional Engineer in the State of Colorado and has her certification as a Professional Traffic Operations Engineer from the Institute of Transportation Engineers.

Traffic Impact Study for Magnus Court Subdivision

Table of Contents

Tables and Figures

1.0 Project Description

Magnus Court Subdivision is a proposed residential development with 74 proposed dwelling units within the city limits of Grand Junction. The property is located in the neighborhood southwest of the intersection of SH 340 (Broadway) and Redlands Parkway as shown in the vicinity map (*Figure 1*) and the area map (*Figure 2*).

Figure 1: Vicinity Map

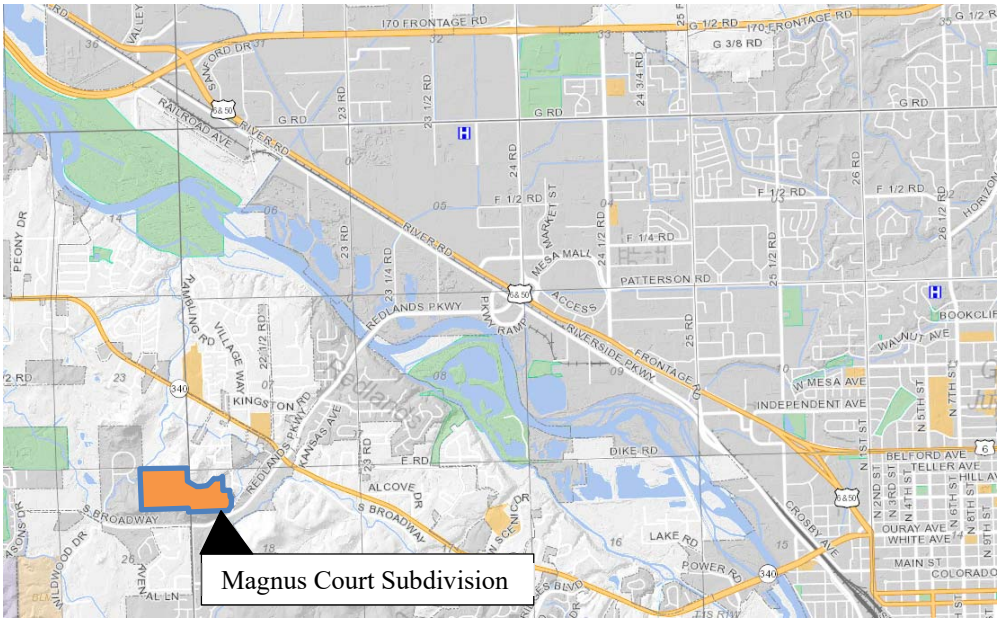
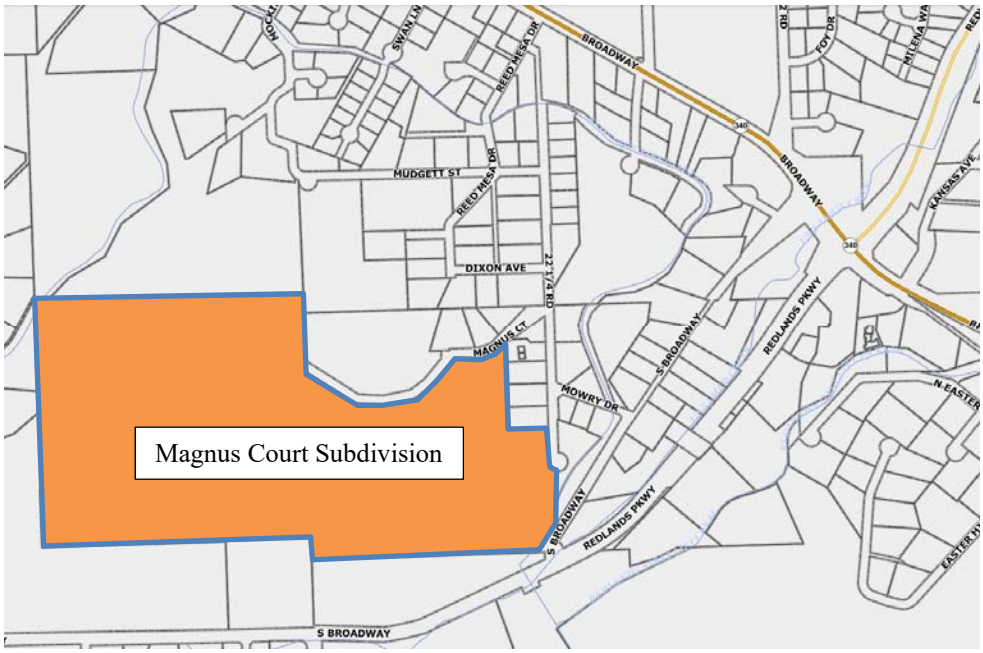


Figure 2: Area Map



This subdivision will have 74 single-family dwelling units. All but two of the lots will be accessed via Magnus Court, off 22¼ Road. The remaining two lots will have direct access onto 22¼ Road. The most recent available concept plan of the proposed development can be seen in *Figure 3*.

Construction of the subdivision is anticipated to begin in 2019. Although it may take a few years for the project to be fully built out, for the traffic analysis a conservative assumption of a 2019 build out will be used.

Figure 3: Site Plan

2.0 Existing Conditions

2.1 Description of Existing Transportation System

Magnus Court Subdivision is in the neighborhood southwest of the intersection of SH 340 (Broadway) and Redlands Parkway. Access to and from the subdivision to arterial roadways is via neighborhood streets. The neighborhood streets are two-lane, paved roadways without sidewalks. They are 22 feet wide. The gravel shoulders vary from nonexistent to approximately six feet wide.

From Magnus Court drivers can turn left onto 22¼ Road then go north on 22¼ Road, west on Mudgett Street and north on Reed Mesa Drive to get to SH 340. The intersection is at MM 9.12.

Drivers turning right from Magnus Court onto 22¼ Road can go south on 22¼ Road, east on Mowry Drive and southwest on South Broadway to get on Redlands Parkway. At this intersection the major east-west street has a name change; South Broadway to the west and Redlands Parkway to the east.

SH 340 (Broadway) a two-lane state highway with a 7-foot wide paved shoulder, curb and gutter, and an 8-foot wide concrete sidewalk along the north side. Along the south side there is a 3-foot wide paved shoulder and a gravel shoulder of varying widths. The speed limit is 40 mph in both directions. The highway has an access classification of NR-A: Non-Rural Principal Highway. The Grand Junction / Mesa County functional classification is Major Arterial.

Redlands Parkway/South Broadway is a 22-foot wide, 2-lane roadway with gravel shoulders. There is a 10-foot wide detached bike/ped trail along the south side of the road. The speed limit is 45 mph in both directions. The Grand Junction / Mesa County functional classification is Major Collector.

2.2 Existing Traffic Volumes

Existing traffic volumes were collected for the following intersections on Tuesday, January 29, 2019, for both the morning and evening peak hours.

1	Reed Mesa Drive & SH 340 (Broadway)
2	Mudgett Street & Reed Mesa Drive
3	Magnus Court & 22¼ Road
4	Mowry Drive & South Broadway
5	South Broadway & Redlands Parkway

Both Broadway Elementary School and Redlands Middle School were in session when the traffic counts were taken. The Reed Mesa Drive / SH 340 intersection is within the overlapping school zones for these schools.

Other than the proposed subdivision, there are five undeveloped lots within the neighborhood. The existing traffic count volumes have been increased to account for the potential buildout of these lots.

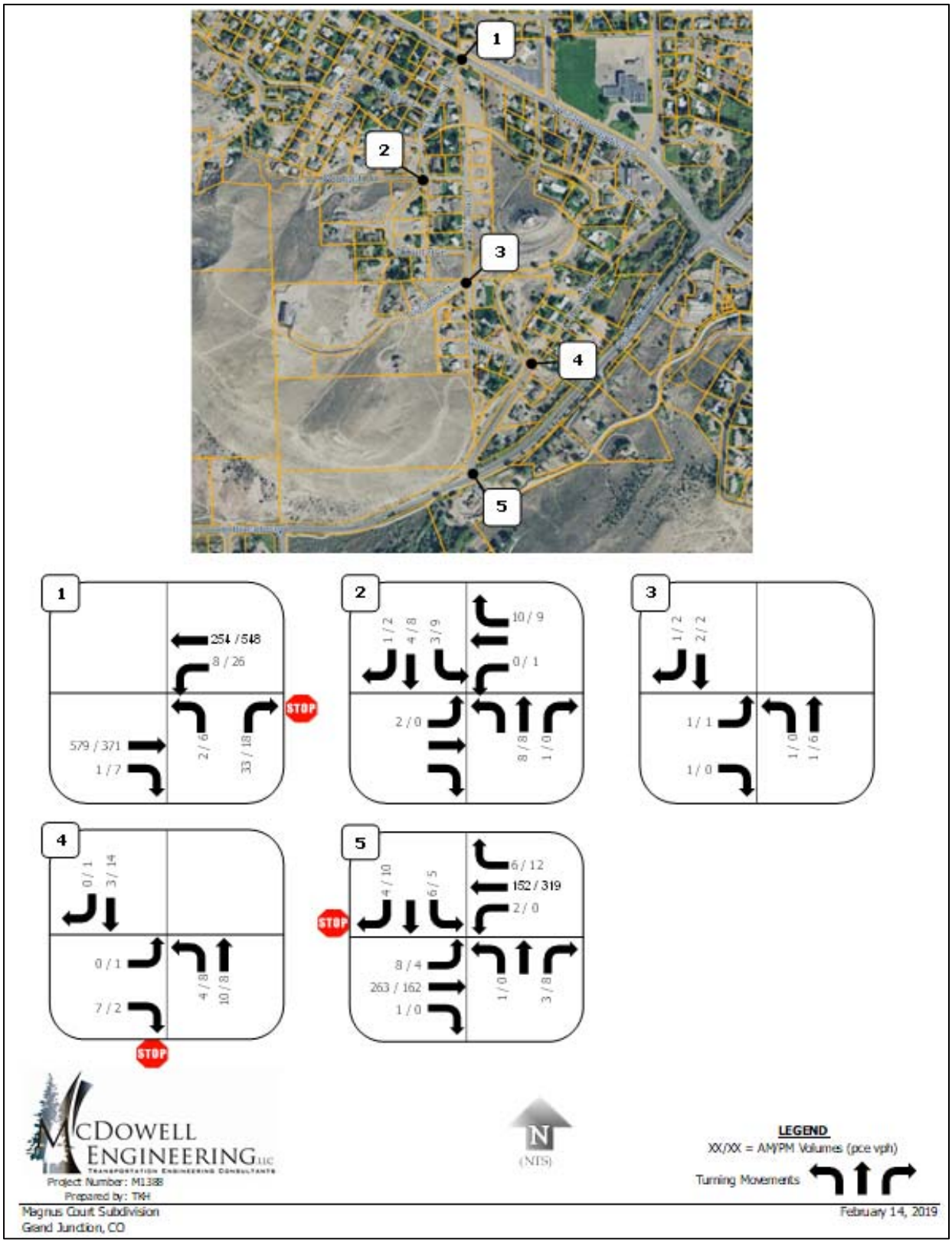
To be conservative, peak hours of the critical turning movements at intersections 1 and 5 were used for the traffic analysis, rather than the total traffic peak hour. The morning peak hour for turning movements at both intersections 1 and 5 was from 7:45 a.m. to 8:45 a.m. The evening peak hour for turning movements at Intersection 1 was from 3:45 p.m. to 4:45 p.m. The evening peak hour for turning movements at Intersection 5 was from 4:45 p.m. to 5:45 p.m. The resulting peak hour vehicular volumes at the intersections can be seen in *Figure 5*. All data collected during these periods can be seen in the **Appendix**.

2.3 Shortcut Route

Intersections 1 and 5 are the only accesses into the neighborhood via public rights of way. However, access is also available through the convenience store property at the north end of South Broadway, as shown in *Figure 4*. Some of the traffic from the proposed subdivision could use this shortcut as an alternate in or out of the neighborhood. This would reduce the turning volumes at intersections 1 and 5. However, since the owner of the convenience store property could close the use of the shortcut route, no reductions will be made.

Figure 4: Shortcut Route

Figure 5: Initial Background Volume (2019)



3.0 Future Traffic Projections

3.1 Existing & Committed Capital Improvement Projects

There are no known capital improvement projects planned by the City of Grand Junction, Mesa County or the Colorado Department of Transportation for SH 340, Redlands Parkway, South Broadway or any of the neighborhood streets.

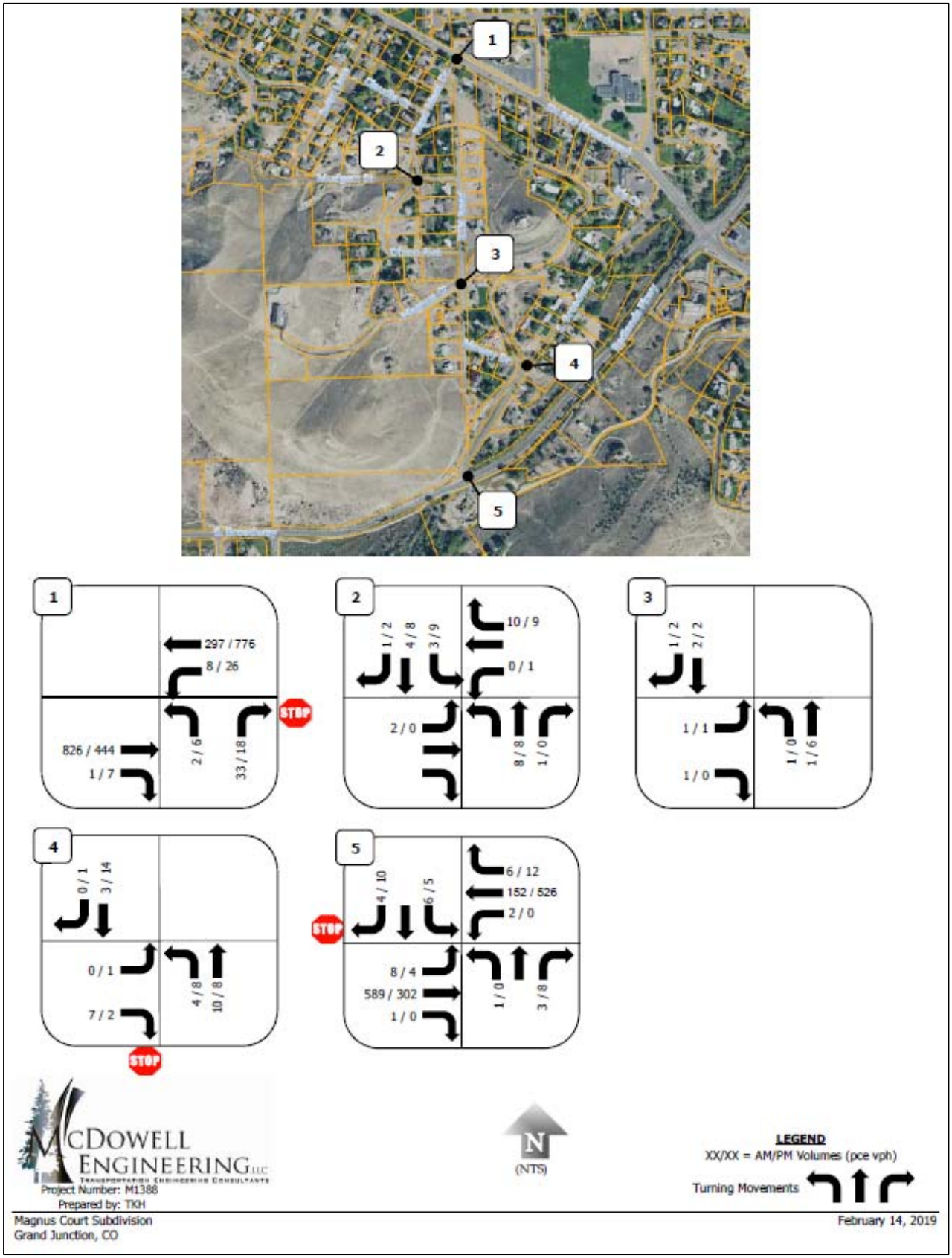
3.2 Planned or Existing Land Development Projects

All but five of the properties within the neighborhood that Magnus Court Subdivision will be part of have been fully built out. The traffic analysis assumed that the proposed subdivision and the five vacant residential lots will complete the full buildout of the neighborhood.

3.3 Background Traffic Growth

Excerpts from the Grand Valley Metropolitan Planning Organization's Year-2040 traffic model were obtained from Mesa County Regional Transportation Planning Office Staff and can be seen in the **Appendix**. According to County staff, this model was designed primarily for volume projections for collector and arterial roadways. Therefore, the projected traffic volumes for the segment of SH 340 at the Reed Mesa Drive intersection and the segment of Redlands Parkway at the South Broadway intersection were used to determine the 2040 background volumes for those respective roads. The 2019 background volumes for the neighborhood streets, including the adjustment for the undeveloped lots, was carried forward since there will be no additional growth. The Projected Year 2040 background traffic can be seen in *Figure 6.*

Figure 6: Design year background traffic (2040)



3.1 Background Quality of Service

Using *Highway Capacity Manual, 6th Edition* (HCM) methodology, Synchro 8.0 was used to determine the existing Level of Service (LOS) at the study area intersections. LOS for unsignalized intersections is defined by the following criteria:

Table 1: HCM Level of Service Criteria

LOS	Expected Delay to Minor Street Traffic	Average Signal Delay (seconds/vehicle)	Average Stop-Controlled Delay (seconds/vehicle)
A	Little or no delay.	0-10	0-10
B	Short traffic delays.	>10-20	>10-15
C	Average traffic delays.	>20-35	>15-25
D	Long traffic delays.	>35-55	>25-35
E	Very long traffic delays.	>55-80	>35-50
F	When volume exceeds the capacity of the lane extreme delays will be encountered with queuing that may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improving the intersection.	>80	>50

Table 2 shows the resulting LOS as determined by HCM analysis.

Table 2: 2019 Background Traffic Level of Service

#	Int.	Traffic Control	Approach	Year 2019 Level of Service (Delay in Seconds)		Year 2040 Level of Service (Delay in Seconds)	
				AM	PM	AM	PM
1	Broadway & Reed Mesa Dr.	NB Stop	WB	A (0.4)	A (0.7)	A (0.4)	A (0.7)
			NB	B (13.4)	B (13.4)	C (17.6)	C (16.4)
2	Mudgett Ave. & Reed Mesa Dr.	EB/WB Stop	EB	A (8.7)	A (0.0)	A (8.7)	A (0.0)
			WB	A (8.4)	A (8.4)	A (8.4)	A (8.4)
			NB	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SB	A (2.7)	A (3.5)	A (2.7)	A (3.5)
3	22 1/4 Rd & Magnus Dr.	EB Stop	EB	A (8.4)	A (8.6)	A (8.4)	A (8.6)
			NB	A (3.6)	A (0.0)	A (3.6)	A (0.0)
4	Mowry & S. Broadway	EB Stop	EB	A (8.4)	A (8.5)	A (8.4)	A (8.5)
			NB	A (2.1)	A (3.7)	A (2.1)	A (3.7)
5	S. Broadway & Redlands Pkwy	NB/SB Stop	EB	A (0.3)	A (0.2)	A (0.2)	A (0.2)
			WB	A (0.1)	A (0.0)	A (0.1)	A (0.0)
			NB	B (10.5)	A (9.2)	B (14.0)	B (10.1)
			SB	B (11.2)	B (11.4)	B (14.5)	C (15.0)

Reed Mesa Drive & SH 340: As can be seen in *Table 2*, the intersection of Reed Mesa Drive & SH 340 is anticipated to function at an acceptable LOS C or better through Year 2040.

Mudgett Avenue & Reed Mesa Drive: As can also be seen in *Table 2*, this intersection is anticipated to operate at an acceptable LOS of A through Year 2040.

22 ¼ Road & Magnus Drive: As can also be seen in *Table 2*, this intersection is anticipated to operate at an acceptable LOS of A through Year 2040.

Mowry & S. Broadway: As can also be seen in *Table 2*, this intersection is anticipated to operate at an acceptable LOS of A through Year 2040.

South Broadway & Redlands: As can be seen in *Table 2*, this intersection is anticipated to function at an acceptable LOS C or better through Year 2040.

4.0 Project Traffic

4.1 Trip Generation

The proposed Magnus Court Subdivision will have 72 single-family residential lots. Under the Institute of Transportation Engineers *Trip Generation Manual 10th Edition*, this development is categorized as Land Use Code #210, Single-Family Detached Housing. Upon full development, the subdivision is projected to generate a total of 710 trips over the course of an average weekday. Included within this would be a total of 57 morning peak hour trips and 75 evening peak hour trips. Refer to *Table 3* for all rates used and further breakdown of these trips.

4.2 Trip Distribution

Magnus Court Subdivision will be part of an existing neighborhood that the has two connections to the arterial roadway system: via Reed Mesa Drive onto SH 340 and via South Broadway onto Redlands Parkway to the northeast and South Broadway to the southwest. These are labeled as Intersection 1 and Intersection 5, respectively, on the figures 5 through 13.

The major traffic movement for the proposed residential subdivision will be to and from the city of Grand Junction via SH 340 or Redlands Parkway. From Magnus Court to the roundabout at the intersection or SH 340 and Redlands Parkway it is about the same distance via either Intersection 1 or Intersection 5. The travel distance balance point is about 50 feet north of the intersection of Magnus Court and 22¼ Road. The travel time balance point is about 100 feet south of the intersection, according to Google Maps. Because of this close balance it could be assumed that 50% of the traffic going toward the city will travel via Intersection 1 and 50% via Intersection 5. However, for analysis purposes both a 40% northbound/60% southbound and a 60% northbound/40% southbound split will be used.

For traffic traveling from the city to the subdivision using Intersection 1 will be more difficult because of the left turn from SH 340 onto Reed Mesa Drive. It will be assumed that 75% of the traffic from the city to the subdivision will use Intersection 5 and 25% will use Intersection 1.

For traffic traveling from the subdivision to westbound SH 340 the shortest route is via Intersection 1. However, because of the difficulty making the left turn out onto SH 340 during a peak hour, some drivers may opt to exit the neighborhood via Intersection 5, drive to the SH 340 and Redlands Parkway roundabout then head west on SH 340. To account for this, an additional 5% of the traffic will be routed via Intersection 5; making it a 35% northbound/65% southbound split for that scenario.

The AM and PM project traffic distribution for the 35% northbound/65% southbound scenario is shown in *Figure 7* and *Figure 8*.

The AM and PM project traffic volumes for the 35% northbound/65% southbound scenario are derived by multiplying project volumes from *Table 3* by the percentages in *Figure 7* and *Figure 8*, as shown in *Figure* 9.

The AM and PM project traffic distribution for the 60% northbound/40% southbound scenario is shown in *Figure 10* and *Figure 11*.

The AM and PM project traffic volumes for the 60% northbound/40% southbound scenario are derived by multiplying project volumes from *Table 3* by the percentages in *Figure 10* and *Figure 11*, as shown in *Figure 12.*

4.3 Trip Mode Split and Assignment

For the purposes of the traffic analyses, all trips to and from Magnus Court Subdivision are conservatively assumed to be vehicle trips. However, there is also a potential for bicycle and pedestrian travel to and from the subdivision.

All the lots within the subdivision will be less than 2 miles travel distance from Broadway Elementary School and less than 3 miles travel distance from Redlands Middle School, so elementary and middle school aged students living in the subdivision will not be eligible to ride the bus to school. Some of those students may walk or ride their bikes to school. There are not any sidewalks or trails within the neighborhood, so the students will need to walk and bike on the roads or gravel shoulders. Although having sidewalks is preferable, the low traffic volumes and low speeds on the neighborhood streets allows them to function as shared space with all users. Once students reach SH 340, they can safely cross the highway at the signalized crosswalk located 200 feet east of Reed Mesa Drive. Upon reaching the north side of SH 340 they will be on a sidewalk which they can take east to the elementary school or west to the middle school.

There is pedestrian and bicycle trail along the southeast side of Redlands Parkway. Commuters and recreational users from Magnus Court Subdivision will be able to easily access the trail via the neighborhood streets.

Public transit is not currently available in this area. For the purpose of the traffic analyses it is assumed that public transit will not become available prior to the 2040 design year.

4.4 Site Design and Traffic Circulation Evaluation

Due to the relatively small traffic volumes anticipated within the subdivision and the lack of projected congestion at the site accesses, no undue vehicular delay is expected within the Magnus Court Subdivision development. The site design shall conform to *Mesa County Standard Specifications for Road and Bridge Construction*, *1995* as well as the current edition of the *Manual on Uniform Traffic Control Devices*.

Table 3: Project Trip Generation

M1388
TKH
February 14, 2019

Table 3 - Project Trip Generation
Magnus Court Subdivision
Grand Junction, CO
Estimated Project-Generated Traffic

ITE Code	Units		AM Peak Hour	PM Peak Hour	Avg. Weekday	Avg. Saturday	Average Weekday Trips (vpd)	Morning Peak Hour Inbound % Trips	Morning Peak Hour Inbound Trips	Morning Peak Hour Outbound % Trips	Morning Peak Hour Outbound Trips	Evening Peak Hour Inbound % Trips	Evening Peak Hour Inbound Trips	Evening Peak Hour Outbound % Trips	Evening Peak Hour Outbound Trips
Existing Land Use															
#210 Single-Family Detached Housing[1]	1	Unit	0.77	1.02	9.52	9.91	10	26%	0	74%	1	64%	1	36%	0
Proposed Land Use															
#210 Single-Family Detached Housing[1]	74	Unit	0.77	1.02	9.52	9.91	710	26%	15	74%	42	64%	48	36%	27
Additional Traffic Generated by the Proposed Land Use							700		15		41		47		27

[1] Values obtained from *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017

Figure 7: AM Project Traffic Distribution (35% NB, 65% SB)

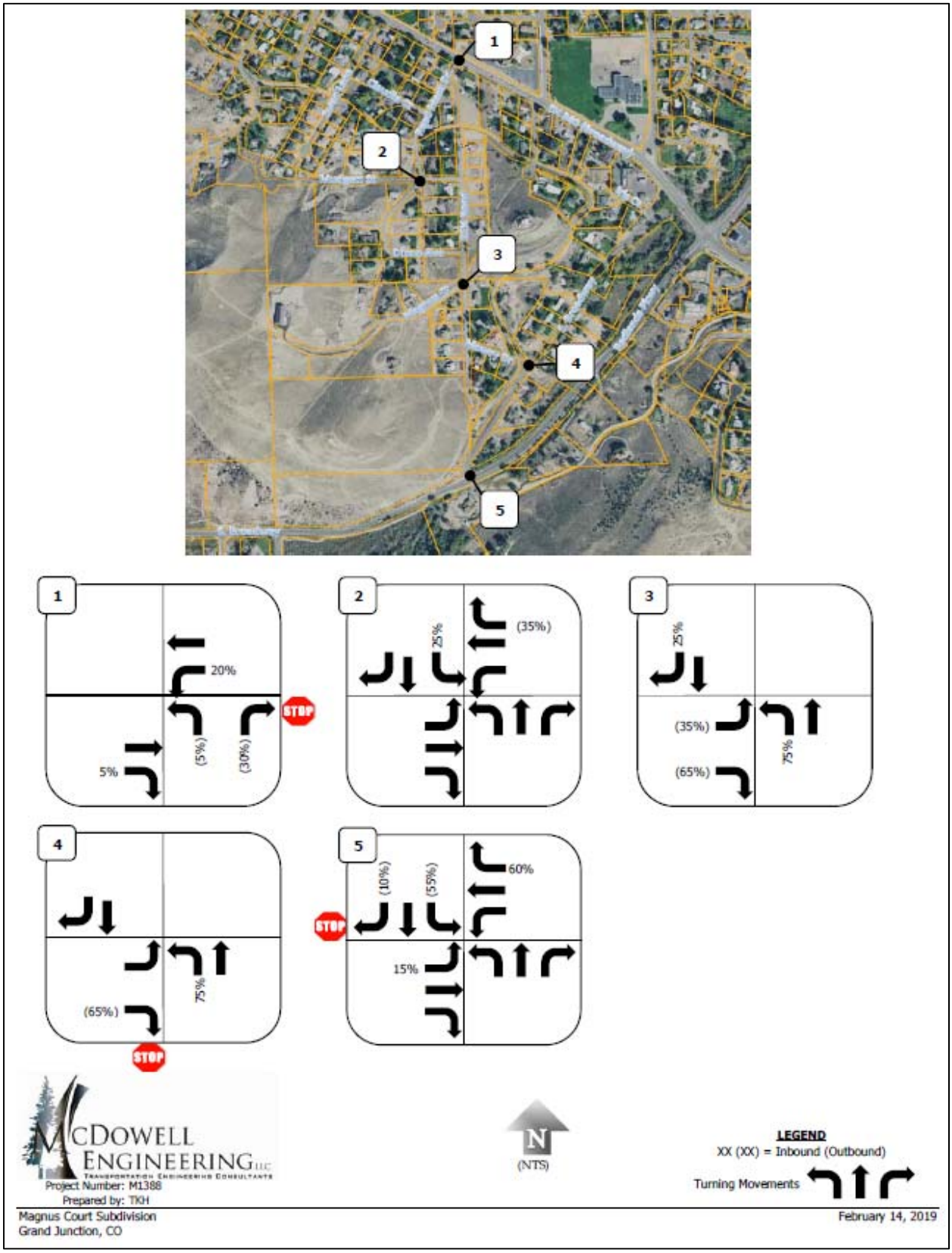


Figure 8: PM Project Traffic Distribution (35% NB, 65% SB)

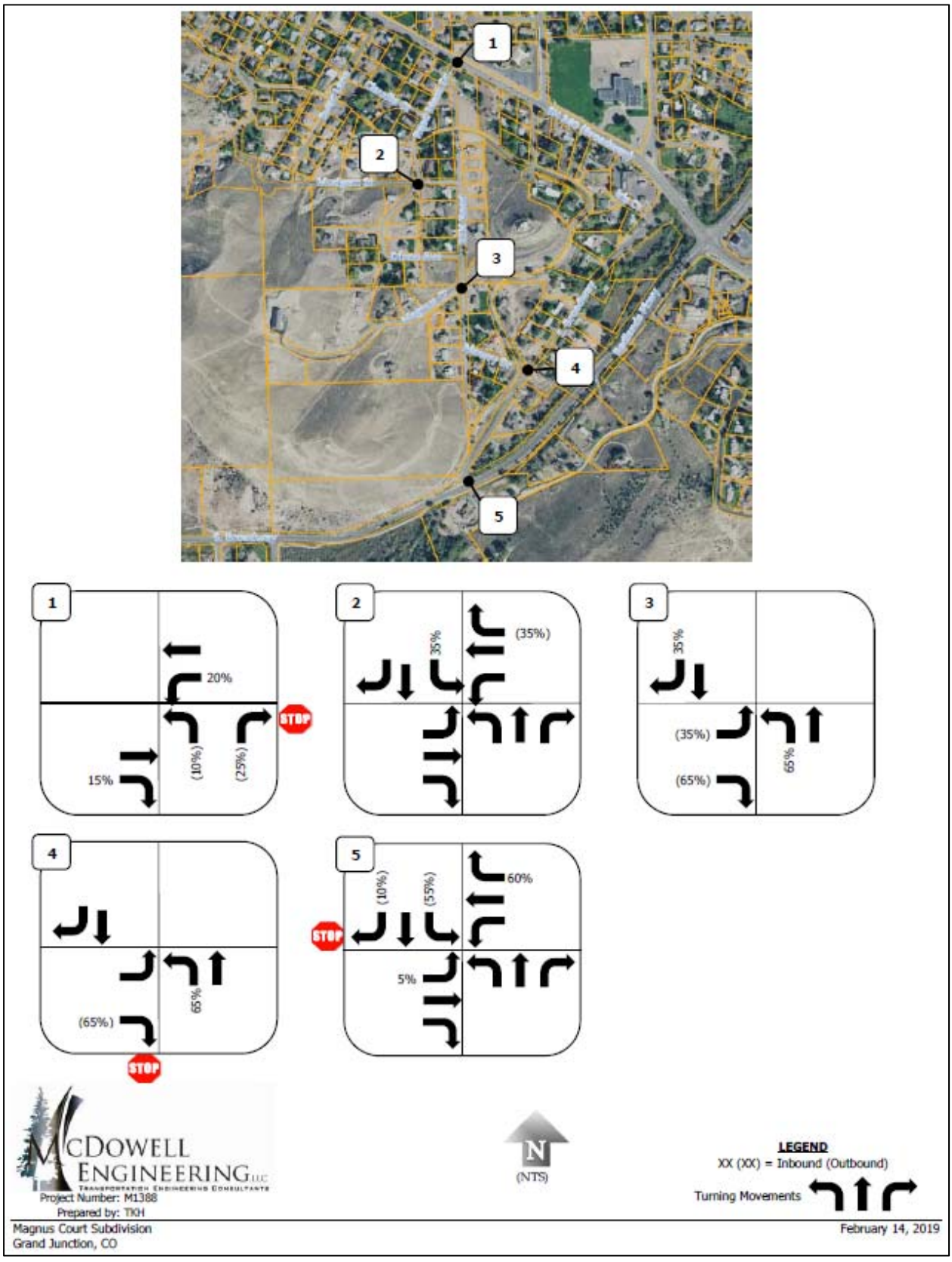


Figure 9: Project Traffic (35% NB, 65% SB)

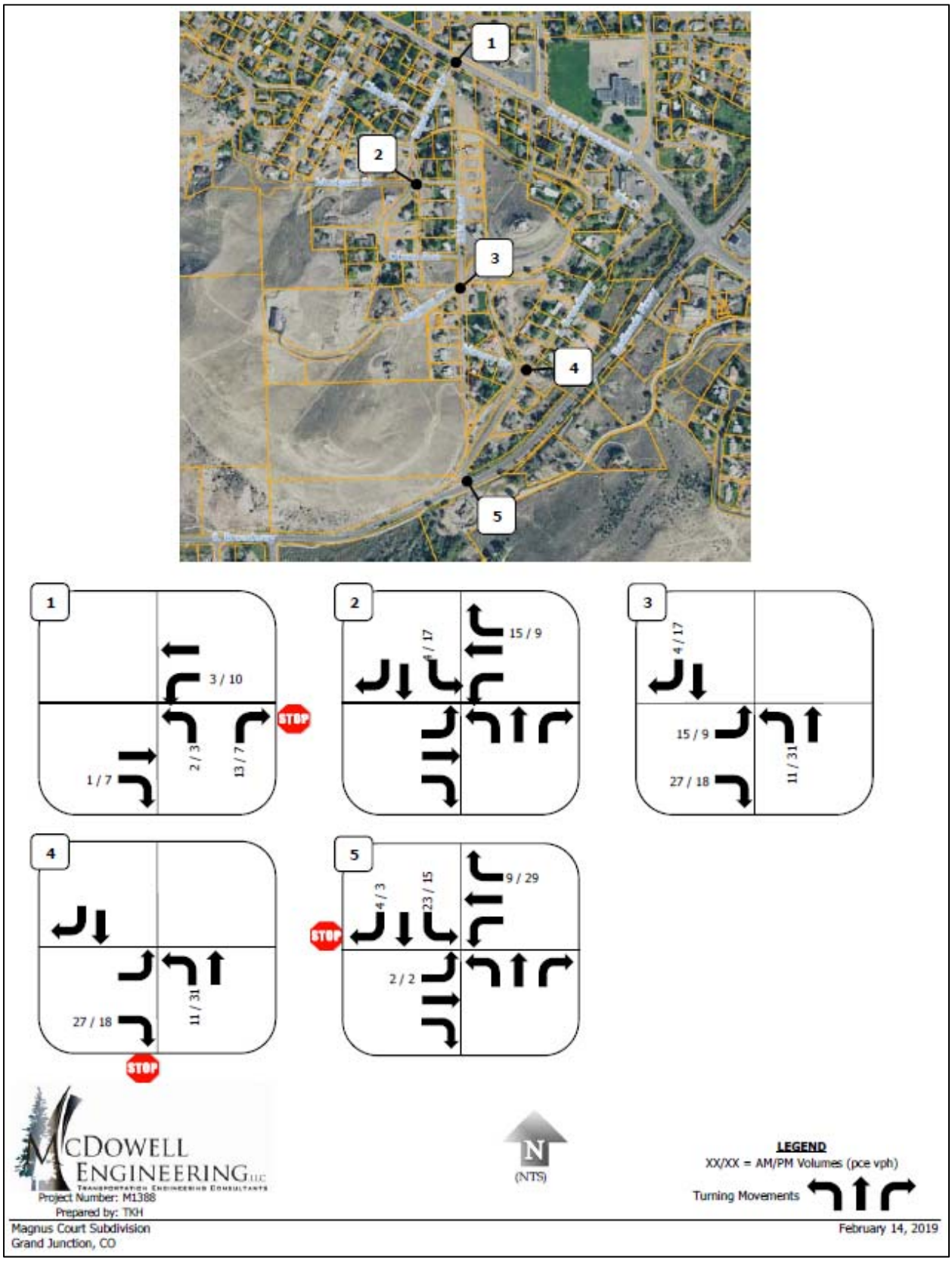


Figure 10: AM Project Traffic Distribution (60% NB, 40% SB)

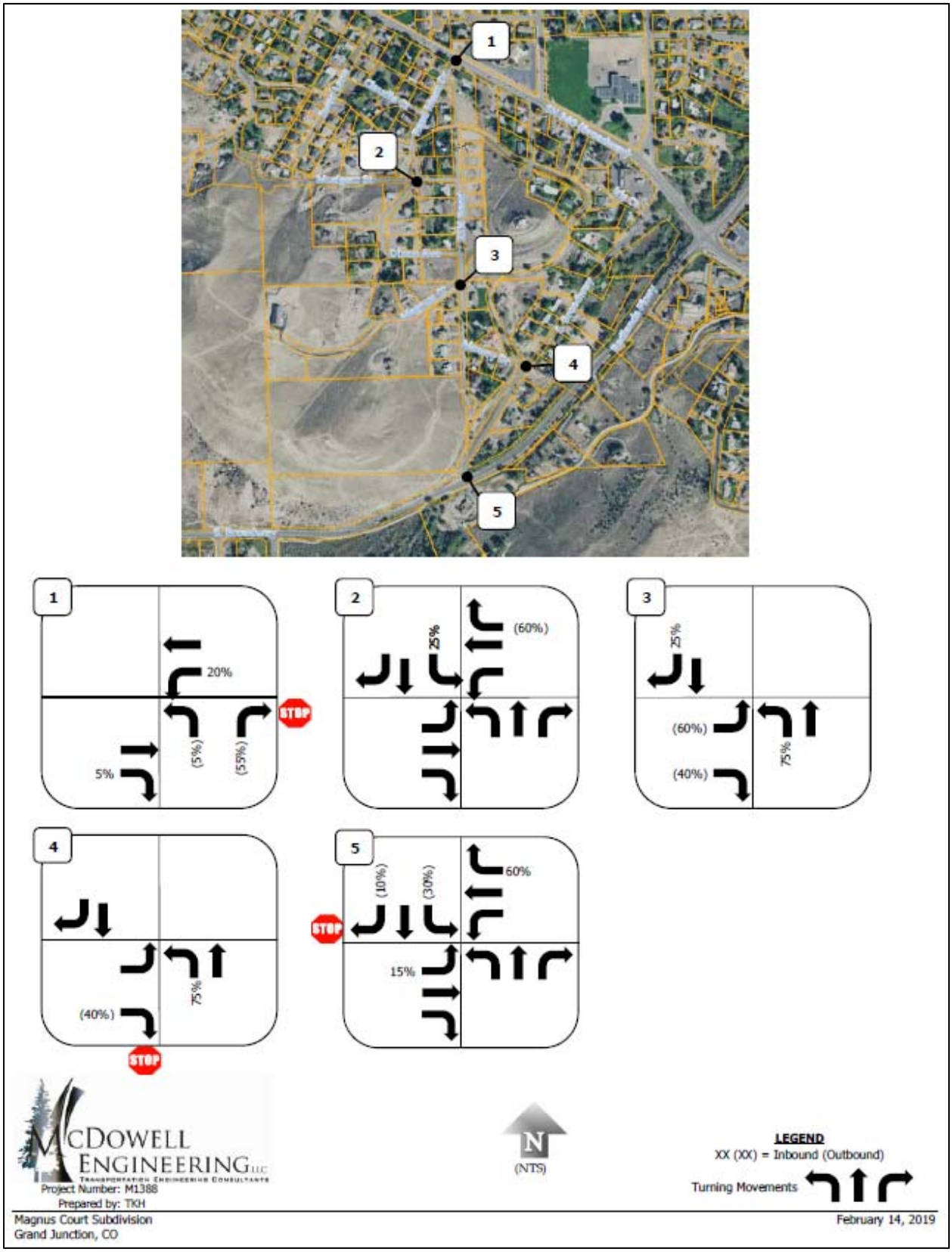


Figure 11: PM Project Traffic Distribution (60% NB, 40% SB)

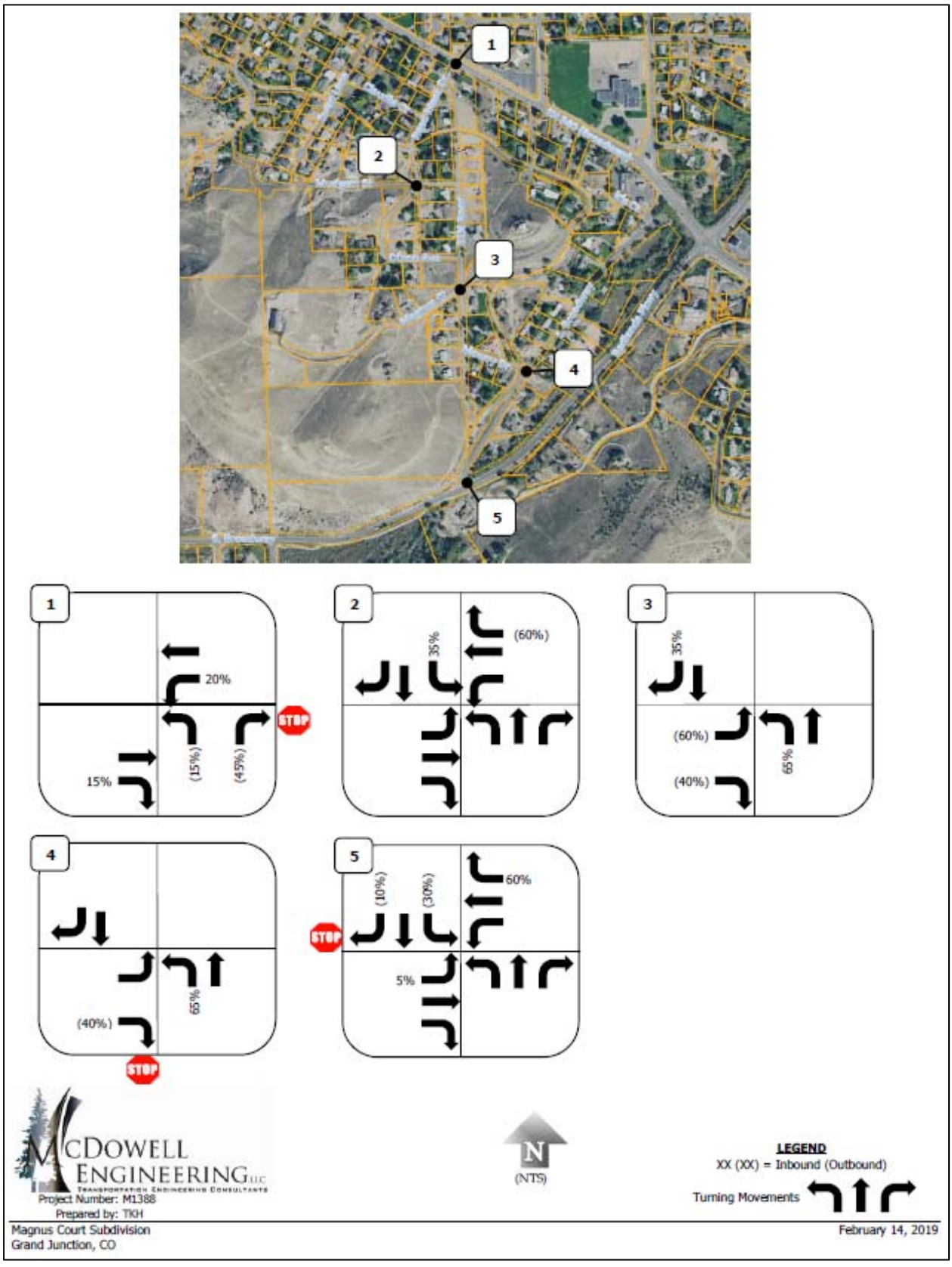
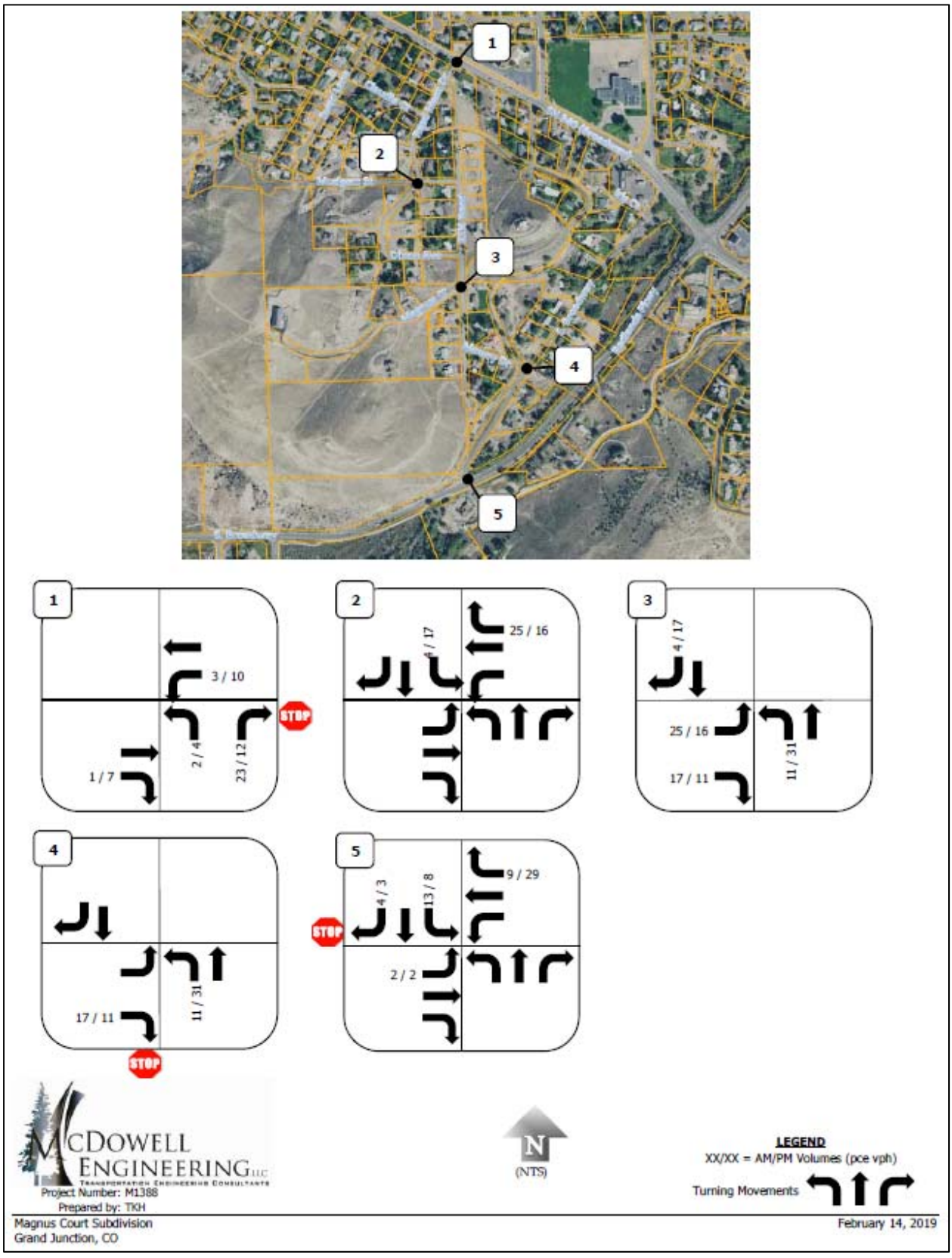


Figure 12: Project Traffic (60% NB, 40% SB)



4.5 Total Traffic

The total traffic through the studied intersections is the combination of the background traffic and the traffic generated by the new subdivision. Although it will probably take a few years for the subdivision to build out, for a conservative analysis it is assumed that the full development will occur within the initial year. The initial year total traffic volumes for the 35% northbound/65% southbound scenario shown in *Figure 13* are the sums of the volumes from *Figure 5* and *Figure 9*. The initial year total traffic volumes for the 60% northbound/40% southbound scenario shown in *Figure 14* are the sums of the volumes from *Figure 5* and *Figure 12.*

The 2040 design year total traffic volumes for the 35% northbound/65% southbound scenario shown in *Figure 15* are the sums of the volumes from *Figure 6* and *Figure 9*. The 2040 design year total traffic volumes for the 60% northbound/40% southbound scenario shown in *Figure 16* are the sums of the volumes from *Figure 6* and *Figure 12.*

Figure 13: Initial Year Total Traffic (2019) (35% NB, 65% SB)

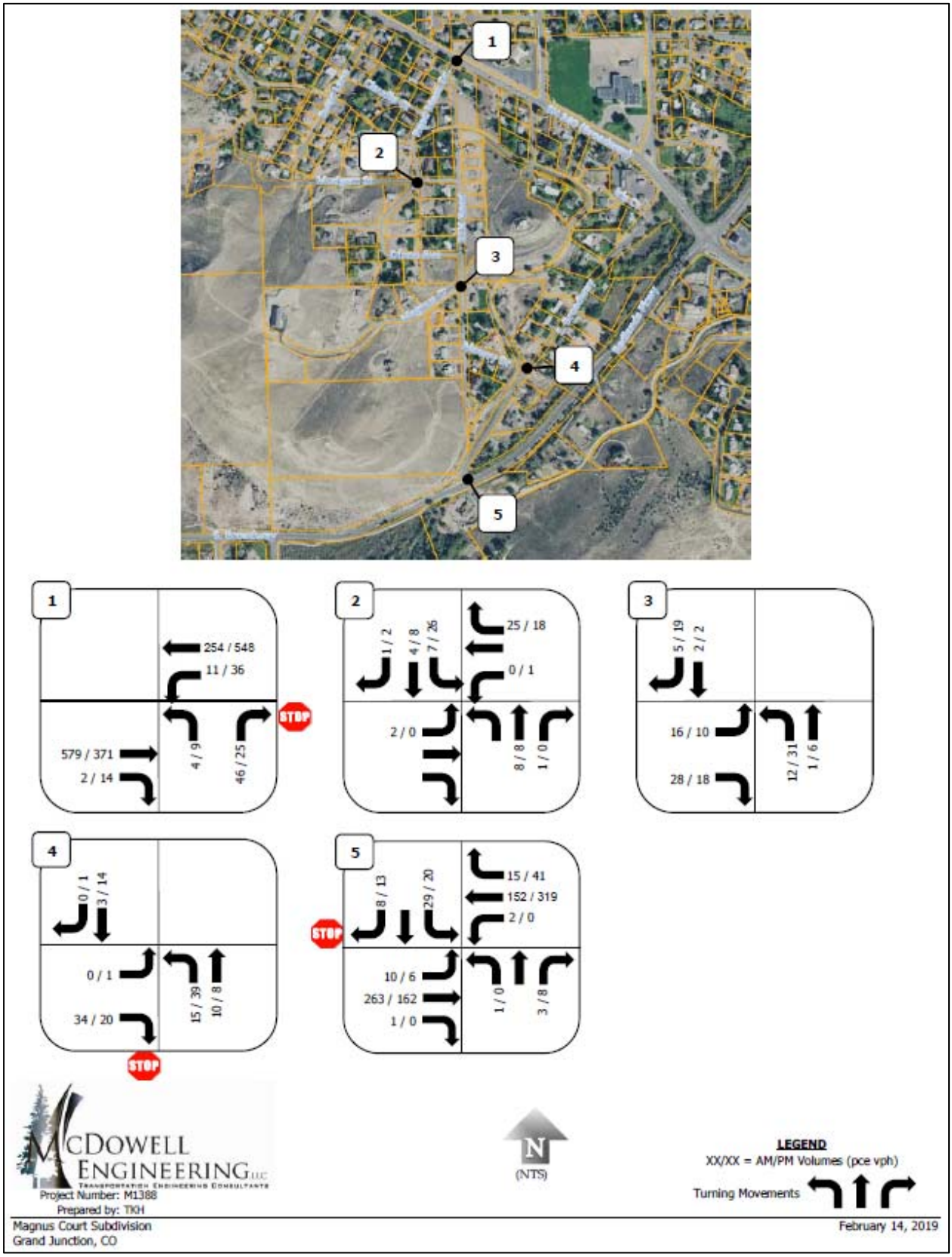


Figure 14: Initial Year Total Traffic (2019) (60% NB, 40% SB)

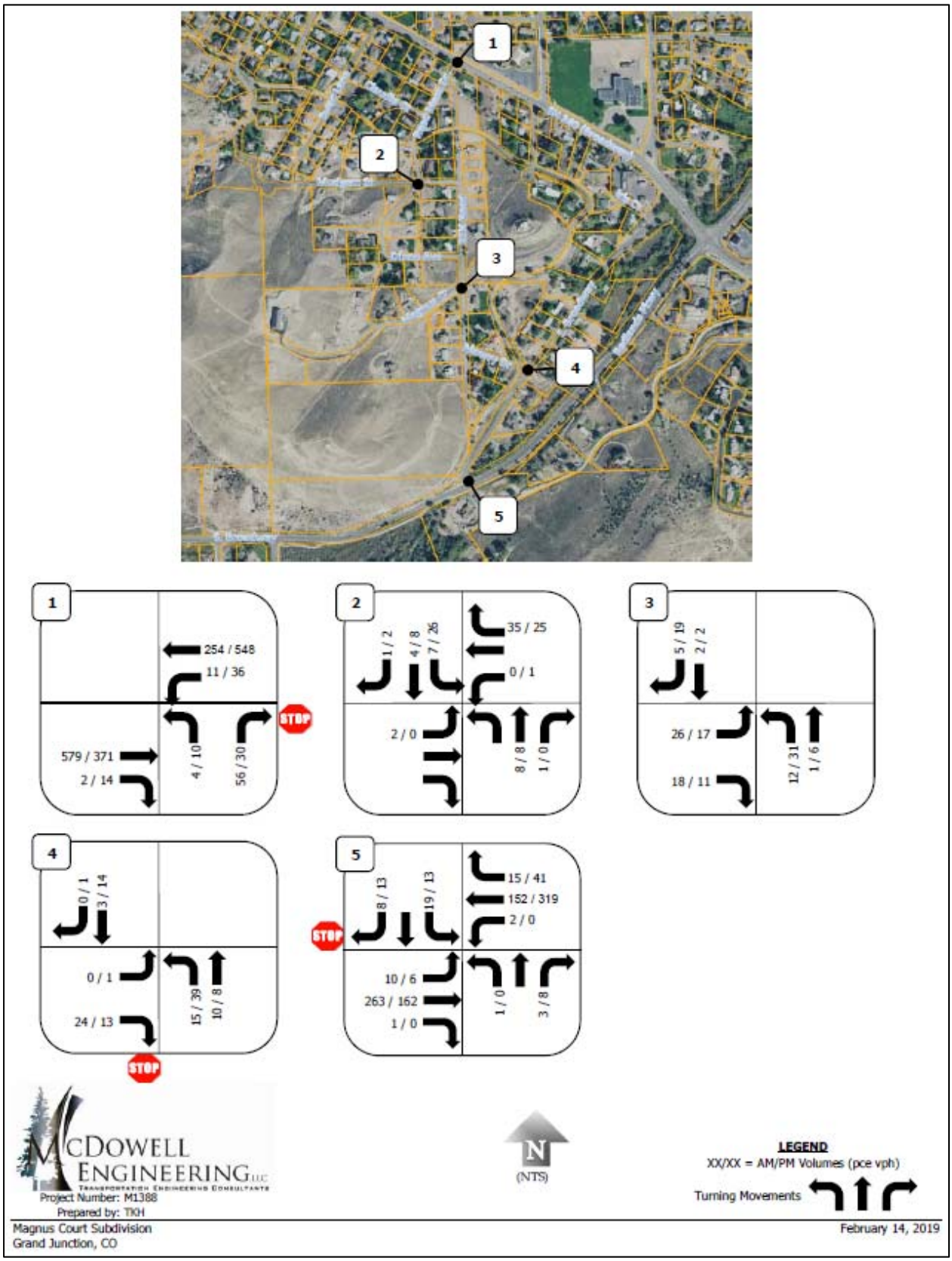


Figure 15: Design Year Total Traffic (2040) (35% NB, 65% SB)

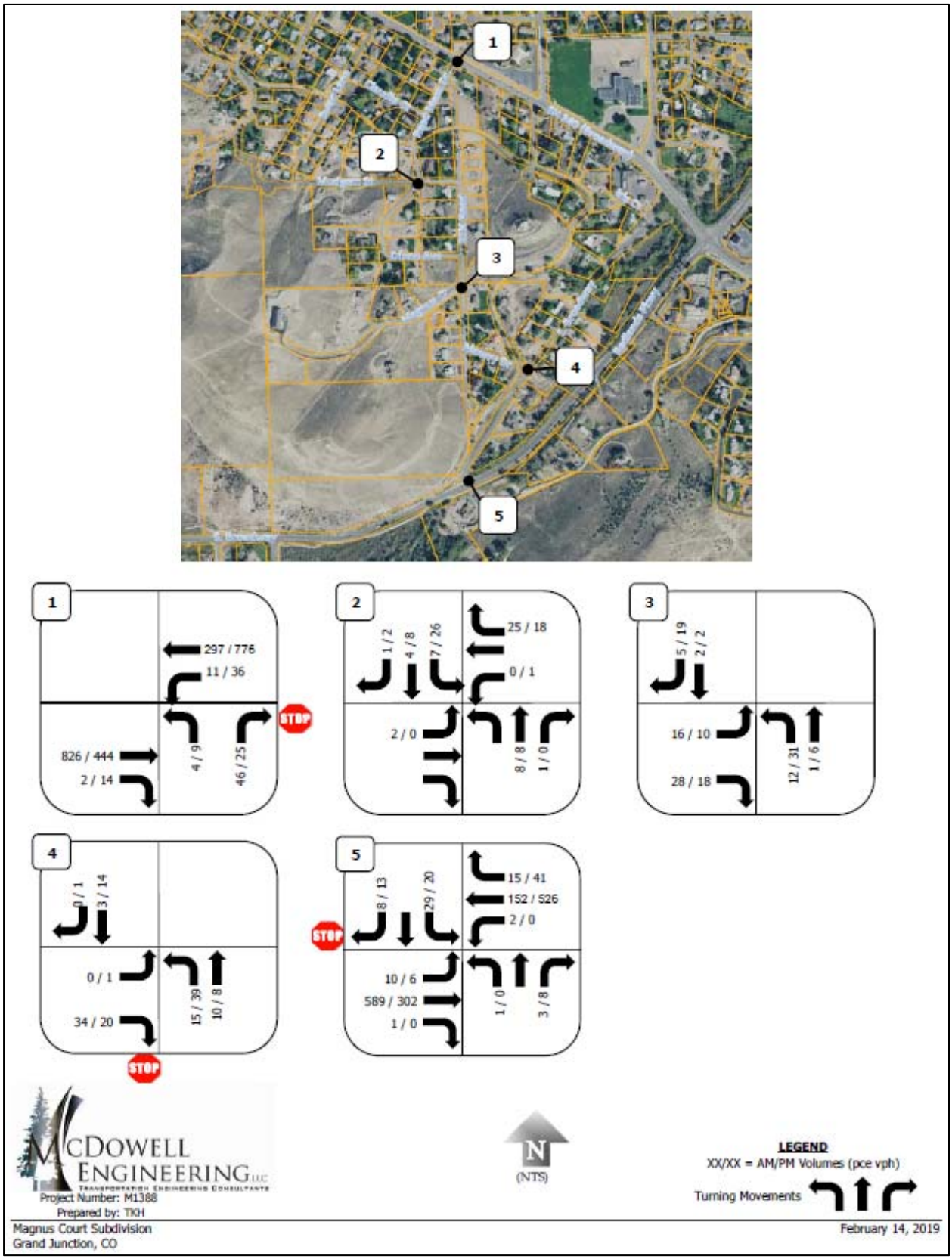
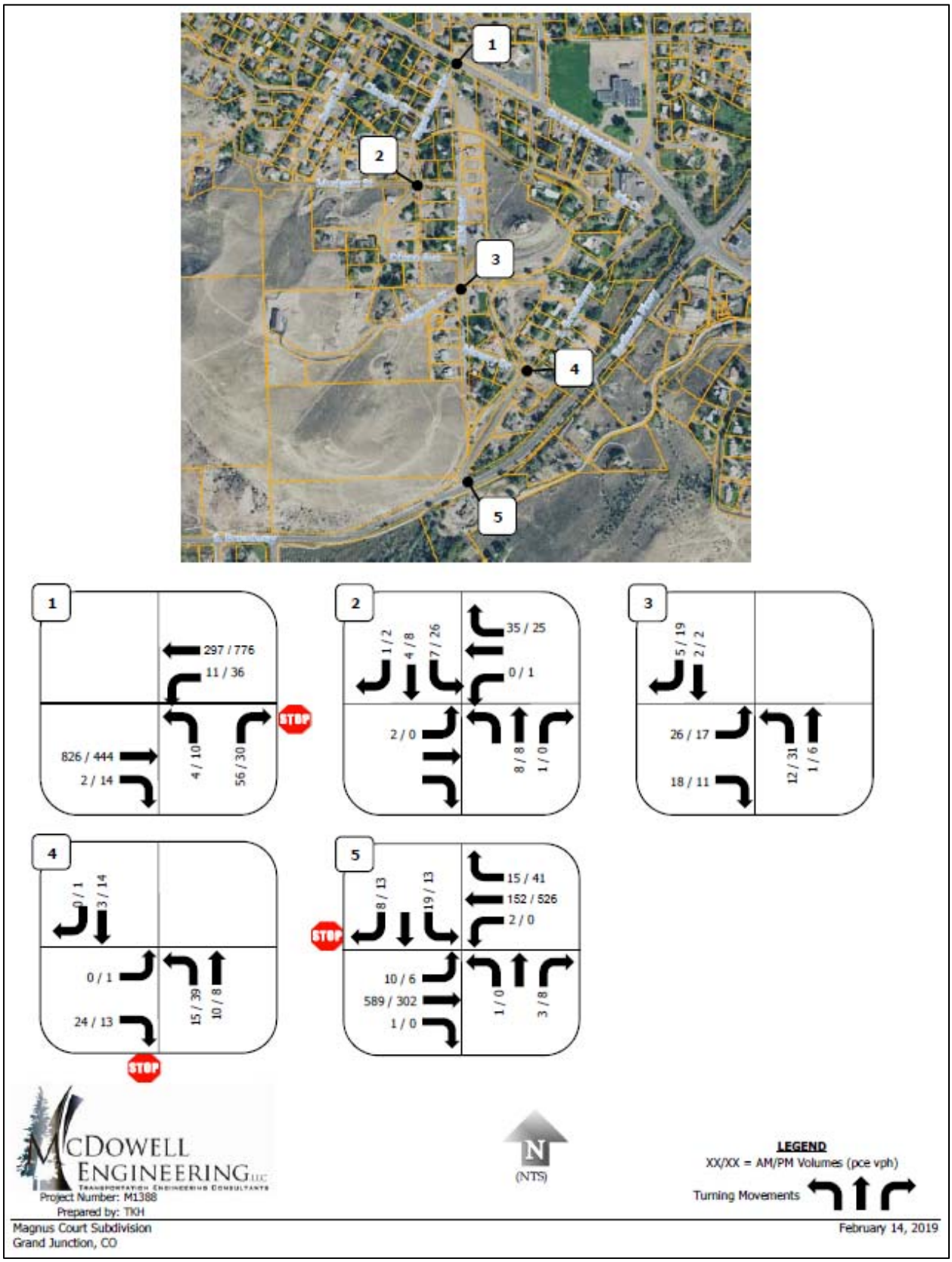


Figure 16: Design Year Total Traffic (2040) (60% NB, 40% SB)



5.0 Transportation Impact Analysis

5.1 Level of Service Analysis

An HCM analysis for total traffic conditions was performed for the two major intersections for Years 2019 and 2040. The results of this analysis can be seen in *Table 4:*

Table 4: Total Traffic Level of Service (LOS)

#	Int.	Traffic Control	Approach	(60% NB, 40% SB)				(35% NB, 65% SB)			
				Year 2019 Level of Service (Delay in Seconds)		Year 2040 Level of Service (Delay in Seconds)		Year 2019 Level of Service (Delay in Seconds)		Year 2040 Level of Service (Delay in Seconds)	
				AM	PM	AM	PM	AM	PM	AM	PM
1	Broadway & Reed Mesa Dr.	NB Stop	WB	A (0.4)	A (0.5)	A (0.4)	A (0.4)	A (0.4)	A (0.5)	A (0.4)	A (0.4)
			NB	B (14.1)	B (14.1)	C (19.1)	C (17.4)	B (13.9)	B (14.0)	C (18.7)	C (17.5)
2	Mudgett Ave. & Reed Mesa Dr.	EB/WB Stop	EB	A (8.8)	A (0.0)	A (8.8)	A (0.0)	A (8.8)	A (0.0)	A (8.8)	A (0.0)
			WB	A (8.5)	A (8.5)	A (8.5)	A (8.5)	A (8.4)	A (8.5)	A (8.4)	A (8.5)
			NB	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SB	A (4.2)	A (5.3)	A (4.2)	A (5.3)	A (4.2)	A (5.3)	A (4.2)	A (5.3)
3	22 1/4 Rd & Magnus Dr.	EB Stop	EB	A (8.7)	A (8.9)	A (8.7)	A (8.9)	A (8.6)	A (8.7)	A (8.6)	A (8.7)
			NB	A (6.7)	A (6.1)	A (6.7)	A (6.1)	A (6.7)	A (6.1)	A (6.7)	A (6.1)
4	Mowry & S. Broadway	EB Stop	EB	A (8.4)	A (8.5)	A (8.4)	A (8.5)	A (8.4)	A (8.5)	A (8.4)	A (8.5)
			NB	A (4.4)	A (6.1)	A (4.4)	A (6.1)	A (4.4)	A (6.1)	A (4.4)	A (6.1)
5	S. Broadway & Redlands Pkwy	NB/SB Stop	EB	A (0.3)	A (0.3)	A (0.2)	A (0.2)	A (0.3)	A (0.3)	A (0.2)	A (0.2)
			WB	A (0.1)	A (0.0)	A (0.1)	A (0.0)	A (0.1)	A (0.0)	A (0.1)	A (0.0)
			NB	B (10.5)	A (9.2)	B (14.0)	B (10.1)	B (10.5)	A (9.2)	B (14.0)	B (10.1)
			SB	B (11.7)	B (12.0)	C (16.1)	C (16.8)	B (12.2)	B (12.5)	C (17.4)	C (18.1)

Reed Mesa Drive & SH 340: As can be seen in *Table 4,* the intersection of Reed Mesa Drive & SH 340 is anticipated to function at an acceptable LOS C or better through Year 2040 with or without the addition of project-generated traffic.

Mudgett Avenue & Reed Mesa Drive: As can also be seen in *Table 4,* this intersection is anticipated to operate at an acceptable LOS of A through Year 2040 with or without the addition of project-generated traffic.

22 ¼ Road & Magnus Drive: As can also be seen in *Table 4*, this intersection is anticipated to operate at an acceptable LOS of A through Year 2040 with or without the addition of project-generated traffic.

Mowry & S. Broadway: As can also be seen in *Table 4*, this intersection is anticipated to operate at an acceptable LOS of A through Year 2040 with or without the addition of project-generated traffic.

South Broadway & Redlands: As can be seen in *Table 4*, this intersection is anticipated to function at an acceptable LOS C or better through Year 2040 with or without the addition of project-generated traffic.

5.2 Turn Lane Analysis

Reed Mesa Drive and SH 340: The turn lane analysis for the intersection of Reed Mesa Drive and SH 340 (Intersection 1) is based on the criteria in the *State of Colorado, State Highway Access Code* (SHAC). This section of SH 340 has an access classification of NR-B and a speed limit of 40 mph. According to SHAC §3.11(4) a left turn lane with storage length plus taper is required for any access with a projected peak hour left ingress turning volume greater than 25 vph and a right turn lane with storage length plus taper is required for any access with a projected peak hour right ingress turning volume greater than 50 vph. As shown in *Figure 16*, the projected peak hour turning volumes in 2040 are 36 left turns and 14 right turns. A left-turn deceleration lane is required. A right-turn deceleration lane is not required. Acceleration lanes are not required.

A westbound SH 340 to southbound Reed Mesa Drive left-turn deceleration lane is required. The deceleration lane shall be 410 feet long, which includes 370 feet for deceleration and 40 feet of storage.

By volume, the proposed Magnus Court project is anticipated to contribute 10 of 36 total vph to this movement. The traffic from the proposed development puts the volume over the 25 vph threshold for the westbound left turn lane construction.

South Broadway and Redlands Parkway: The turn lane analysis for the intersection of South Broadway and Redlands Parkway (Intersection 5) is based on the criteria in the *City of Grand Junction, Transportation Engineering Design Standards* (TEDS). Charts in TEDS §29.28.170 give the thresholds for left- and right-turn deceleration lanes based on a combination of the through volumes and turning volumes. According to the right-turn warrant chart a right-turn deceleration lane is required when the through traffic is 500 vph and the turning volume is 35 vph. As shown in *Figure 15* the projected 2040 peak hour volumes affecting the need for a right-turn lane are 526 vph westbound through and 41 vph right turns. Therefore, a westbound to northbound right-turn deceleration lane is required at this intersection.

A southwest bound Redland Parkway to northbound South Broadway right-turn deceleration lane is required. The deceleration lane shall be 435 feet long and shall be constructed with a bay taper at the entrance.

By volume, the proposed Magnus Court project is anticipated to contribute an average of a 66 percent of the total traffic using the westbound right turn lane. The traffic from the proposed development puts the volume over the threshold for the westbound right turn lane construction.

According to the left-turn warrant chart a left-turn deceleration lane is required when the through traffic is greater than 300 vph and the turning volume is 12 vph. As shown in *Figure 15* the projected 2040 peak hour volumes affecting the need for a left-turn lane are 589 vph eastbound through and 10 vph left turns. Therefore, an eastbound to northbound left-turn deceleration lane is not required at the intersection of South Broadway and Redlands Parkway.

5.3 State Highway Access Permit

Reed Mesa Drive and SH 340: According to SHAC §2.6(3) a new State Highway Access Permit is required when the proposed land use will increase traffic at the highway access by 20% or more. *Table 5* identifies the anticipated percent increase in traffic on the south leg of the Reed Mesa Drive and SH 340 intersection.

Table 5: Percent Traffic Increase on Reed Mesa Drive at SH 340

#	Int.	Alternative	Year 2019 Background Traffic		Project Traffic (vph)		Total Traffic (Year 2019) (vph)		Percent Traffic Increase		Average % Impact
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Broadway & Reed Mesa Dr.	35% NB, 65% SB Distribution	44	57	19	27	63	84	43.2%	47.4%	45.3%
		60% NB, 40% SB Distribution	44	57	29	33	73	90	65.9%	57.9%	61.9%

The proposed Magnus Court project is anticipated to increase traffic volumes on the south leg of the Reed Mesa Drive and SH 340 intersection by 45 to 62 percent, dependent upon the assumed project distribution. Therefore, a new State Highway Access Permit will be required for this intersection.

5.4 Sight Distance

5.4.1 Reed Mesa Drive and SH 340

Adequate sight distance is available in both directions at the intersection of Reed Mesa Drive and SH 340. According to SHAC Table 4-1, the design sight distance for vehicles approaching an intersection on a 40-mph highway is 325 feet. For vehicles entering a 40-mph highway from a side street a sight distance of 400 feet is required for passenger vehicles and 520 feet for single unit trucks, according to SHAC Table 4-2. All the required sight distances are exceeded at this intersection. Views from the intersection are shown below. The trees on the south side of SH 340, west of the intersection, will need to be routinely trimmed to maintain the open sight triangle in that direction.

Looking west from Reed Mesa Drive

Looking east from Reed Mesa Drive

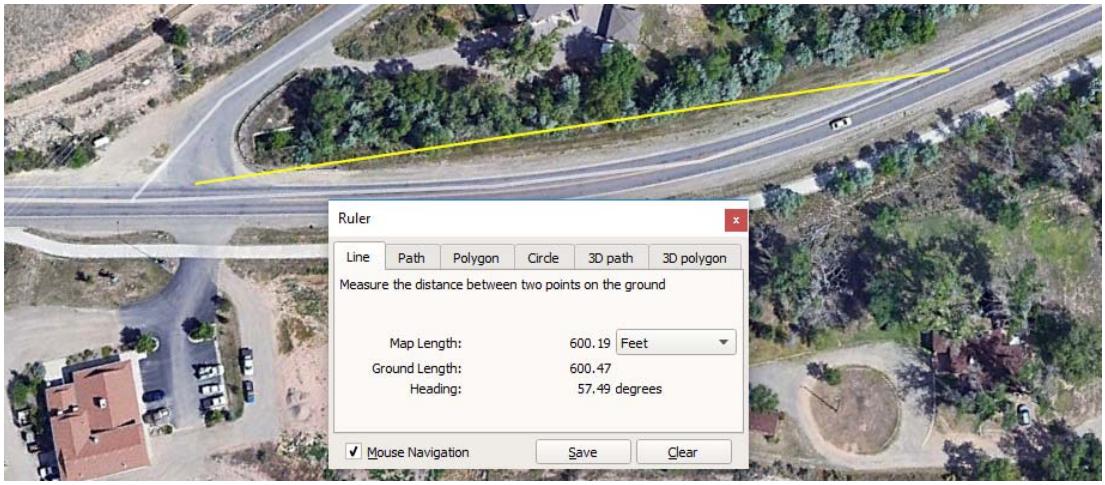
5.4.2 South Broadway and Redlands Parkway

The sight distance at the intersection of South Broadway and Redlands Parkway will need to be improved. There is existing vegetation blocking the view to the northeast. The interfering bushes and trees will need to be trimmed and/or removed. Grading may also be required. The minimum sight distance for a 45-mph road is 550 feet according to TEDS §24.28.140.

Looking NE from S. Broadway

Looking SW from S, Broadway

As shown below, it appears a sight distance of 600 feet to the northeast can be achieved with vegetation removal along the northwest side of the Redland Parkway. Grading may also be required.



Potential sight distance with vegetation removal NE of S. Broadway

The sight distance to the southwest from the intersection of South Broadway and Redlands Parkway is greater than 800 feet.

5.4.3 Magnus Court and 22¼ Road

Magnus Court connects to 22¼ Road 100 feet south of the crest of a vertical curve on 22¼ Road. The rise in grade may be enough to block the line of sight for either or both eastbound vehicles on Magnus Court entering 22¼ Road and southbound vehicles on 22¼ Road approaching the intersection. The sight distance needed is 275 feet, assuming a design speed of 25 mph. The actual sight distance will need to be determined. If it is not adequate the crest on 22¼ Road will need to be lowered and/or the elevation of the Magnus Court intersection will need to be raised.

Looking north at the intersection of Magnus Court and 22¼ Road

5.4.4 Other Local Intersections

Additional stop signs and stop bar markings would increase the driver awareness of the intended stop-control at each intersection. It is also anticipated to improve driver compliance and reduce future crashes.[6]

6.0 Recommendations and Conclusions

6.1 Reed Mesa Drive and SH 340

A westbound SH 340 to southbound Reed Mesa Drive left-turn deceleration lane is required. The deceleration lane shall be 410 feet long, which includes 370 feet for deceleration and 40 feet of storage.

By volume, the proposed Magnus Court project is anticipated to contribute 10 of 36 total vph to this movement. The traffic from the proposed development puts the volume over the 25 vph threshold for the westbound left turn lane construction.

A new State Highway Access Permit will be required for this intersection.

The existing signalized pedestrian crosswalk is within the area of the recommended left-turn lane. It is recommended that the signalized crosswalk be relocated to the west side of the Reed Mesa Drive and SH 340 intersection. To accommodate this recommended that the driveway onto SH 340 from 2219 Broadway be closed. The closure would need to be done with the issuance of CDOT Form 138 by CDOT.

According to SHAC §4.4(1) accesses should not be permitted within an auxiliary lane or taper. The existing driveways to 2225 Broadway, 2227 Broadway and 2229 Broadway are within the area of the recommended left-turn lane. 2225 Broadway is a corner lot with access onto Reed Mesa Drive. In concurrence with CDOT and the City of Grand Junction it is recommended that the driveway from 2225 Broadway onto SH 340 be closed. The closure would need to be done with the issuance of CDOT Form 138 by CDOT. It is recommended that no modifications be made to the driveways for 2227 Broadway and 2229 Broadway since they do not have access to any local street.

The left-turn lane shall be designed in accordance with the information and criteria in *Table 6***.**

6.2 Magnus Court and 22¼ Road

Magnus Court and the intersection of Magnus Court and 22¼ Road will be reconstructed to current City of Grand Junction standards. The current alignment of Magnus Court intersects 22¼ Road at a skew. It is recommended that the new alignment of the reconstructed street be squared up as much as possible.

Because of a vertical curve in 22¼ Road, the sight distance to the north at the Magnus Court and 22¼ Road intersection might not be adequate. The actual sight distance will need to be determined during the design process. If it is not adequate the crest on 22¼ Road will need to be lowered and/or the elevation of the intersection will need to be raised.

6.3 South Broadway and Redlands Parkway

A southwest bound Redland Parkway to northbound South Broadway right-turn deceleration lane is required. The deceleration lane shall be 435 feet long and shall be constructed with a bay taper at the entrance.

By volume, the proposed Magnus Court project is anticipated to contribute an average of a 66 percent of the total traffic using the westbound right turn lane. The traffic from the proposed development puts the volume over the threshold for the westbound right turn lane construction.

Vegetation along the northwest side of Redlands Parkway shall be trimmed and/or removed to provide at least 550 feet of sight distance. Grading may also be required.

6.4 Other Local Intersections

Additional stop signs and stop bar markings would increase the driver awareness of the intended stop-control at each intersection. It is also anticipated to improve driver compliance and reduce future crashes.[6]

Table 6: Auxiliary Lane Design

Intersection location	SH 340 A, MM 9.12
Intersection description	Reed Mesa Drive & Broadway (SH 340)
Highway Access Category	NR-A
Posted Speed Limit(s)	40 mph both directions
Existing highway lane width(s)	12' both directions
Intersection control	Side street stop
Auxiliary Lane Type	Left-turn deceleration
Travel directions	WB SH 340 to SB Reed Mesa Drive
Auxiliary Lane Component(s) - SHAC Table 4-5	deceleration length + storage
Taper length included within stated acceleration or deceleration length?	Yes
Deceleration length - SHAC Table 4-6	370'
Transition Taper Ratio - SHAC Table 4-6	12:1
Straight transition taper or bay taper? SHAC §4.6(5)	Straight
Auxiliary lane width - SHAC §4.8(3)	12'
Auxiliary lane separator width - SHAC §4.8(6)	0' [1]
Highway grade	< 3%
Upgrade or downgrade in direction of travel	Downgrade
Grade adjustment factor - SHAC Table 4-7	No adjustment
Turning Vehicles Per Peak Hour	36 pce-vph
Required storage length - SHAC Table 4-8	40'
Total auxiliary lane length	410'
Highway approach to intersection on straight alignment or curve?	Straight alignment
Use straight ratio redirect taper?	Yes
Use non-concentric curve design?	No
Straight redirect taper ratio - SHAC Table 4-9	30:1
Use redirect taper / transition taper overlap - CDOT Roadway Design Guide Fig. 9-10A	Yes
Widen highway equally on both sides? SHAC §4.8(6)(c)	No [2]

[1] SHAC §4.8(6)(a) requires a 16' wide median consisting of a 12' lane and a 4' painted separator. The painted separator allows opposing left-turning vehicles to be offset from each other, giving the drivers greater sight distance to make safer turns. Since this is a T intersection there will be no opposing left turns. Therefore, the 4' separator is not needed. It is recommended that a *State Highway Access Code - Design Waiver* (Form 112) be submitted requesting the turn lane be constructed without the separator.

[2] SHAC §4.8(6)(c) states that the highway should be widened equally on both sides. However, the north side of the highway is constrained with the existing curb, gutter and sidewalk adjacent to the edge of the right of way. There is room within the existing right of way along south side of the highway for the required widening. It may be possible to narrow the paved shoulder along the north side of the highway to 3' from the edge of gutter to the edge line, consistent with the existing striping on SH 340 to the west.

7.0 Appendix

Reference Documents:

1. *10th Edition Trip Generation Manual*. Institute of Transportation Engineers, 2017.
2. *Highway Capacity Manual.* Transportation Research Board, 2010.
3. *Mesa County Standard Specifications for Road and Bridge Construction*. Mesa County, 1995.
4. *Manual of Uniform Traffic Control Devices.* US Department of Transportation Federal Highway Administration, 2009.
5. *Trip Generation Handbook, An ITE Recommended Practice*. Institute of Transportation Engineers, 2001.
6. *Stop Sign-Controlled Intersections: Enhanced Signs and Markings*. United States Department of Transportation Federal Highway Administration, June 2009.

Included Documents:

1. *Transportation Impact Study Base Assumptions – City of Grand Junction*
2. *Mesa County Traffic Model Projections*
3. *Traffic Counts*
4. *HCM 2010 Level of Service Calculations*

Transportation Impact Study
Base Assumptions

Project Information

Project Name:	Magnus Court Subdivision
Project Location:	Northwest of S. Broadway and Redlands Parkway: Parcels: 2945-182-00-018 (2215 Manus Court), 2947-261-00-003, 2945-182-00-046, 2945-182-00-026

TIS Assumptions

Study Area Boundaries:	North: SH 340 (Broadway) South: S. Broadway
	East: Redlands Parkway West: Magnus Court
Study Years:	2019, 2040
Future Traffic Growth Rate:	SH 340 - 20-yr factor = 1.22 (CDOT OTIS)
	S. Broadway at Redlands Pkwy
	No growth will be assumed for the neighborhood accessed via Reed Mesa Drive at Broadway (Intersection 1) and S Broadway at Riverside Parkway (Intersection 6)
Study Intersections:	1. Reed Mesa Drive & SH 340 (Broadway)
	2. Mudgett Street & Reed Mesa Drive
	3. Dixon Avenue & 22¼ Road
	4. Magnus Court & 22¼ Road
	5. Mowry Drive & S. Broadway
	6. S. Broadway & Redlands Parkway
Time Period For Study:	_X_ AM _X_ PM ___ Sat. noon ___
Trip Generation Rates:	ITE Land Use: 210 Single Family Home
Trip Adjustment Factors:	Pass by: none Captive Market: none
Overall Trip Distribution:	See attached page.
Mode Split Assumptions:	100% vehicle; 0% bike, ped or transit

Committed Roadway Improvements: ?

Other Traffic Studies: ?

Areas Requiring Special Study: Trail improvement options to be discussed.

Prepared by: McDowell Engineering
Date: January 15, 2019

Magnus Court Subdivision - Traffic Impact Study

N

0 0.15 0.3 mi

Printed: 1/10/2019

1 inch = 500 feet

CITY OF Grand Junction COLORADO GEOGRAPHIC INFORMATION SYSTEM

Magnus Court Subdivision traffic directional distribution

Magnus Court Subdivision will be part of a neighborhood that the has two connections to the arterial roadway system: via Reed Mesa Drive onto SH 340 and via South Broadway onto Redlands Parkway to the northeast and South Broadway to the southwest. These are labeled as Intersection 1 and Intersection 6, respectively, on the Area Map.

The major traffic movement for the proposed residential subdivision will be to and from the city of Grand Junction via SH 340 or Redlands Parkway. From Magnus Court to the roundabout at the intersection or SH 340 and Redlands Parkway it is about the same distance via either Intersection 1 or Intersection 6. The travel distance balance point is about 50 feet north of the intersection of Magnus Court and 22¼ Road. The travel time balance point is about 100 feet south of the intersection, according to Google Maps. Because of this close balance it could be assumed that 50% of the traffic going toward the city will travel via Intersection 1 and 50% via Intersection 6. However, for analysis purposes both a 40/60 and a 60/40 split will be used.

For traffic traveling from the city to the subdivision using Intersection 1 will be more difficult because of the left turn from SH 340 onto Reed Mesa Drive. It will be assumed that 75% of the traffic from the city to the subdivision will use Intersection 6 and 25% will use Intersection 1.

For traffic traveling from the subdivision to westbound SH 340 the shortest route is via Intersection 1. However, because of the difficulty making the left turn out onto SH 340 during a peak hour, some drivers may opt to exit the neighborhood via Intersection 6, drive to the SH 340 and Redlands Parkway roundabout then head west on SH 340. It will be assumed that 80% of the traffic from the subdivision to westbound SH 340 will go via Intersection 1 and 20% via Intersection 6.

All the eastbound traffic coming from west of Reed Mesa Drive on SH 340 to the subdivision will be assumed to enter the neighborhood via Intersection 1.

All the subdivision traffic to and from South Broadway west of the Intersection 6 will be assumed to enter and exit the neighborhood via Intersection 6.

After the traffic counts have been made, the percentages of vehicles turning left and right, in and out of Intersection 1 and Intersection 6 will be determined. The same directional splits will be used for the buildout condition.

Magnus Court Subdivision - Neighborhood

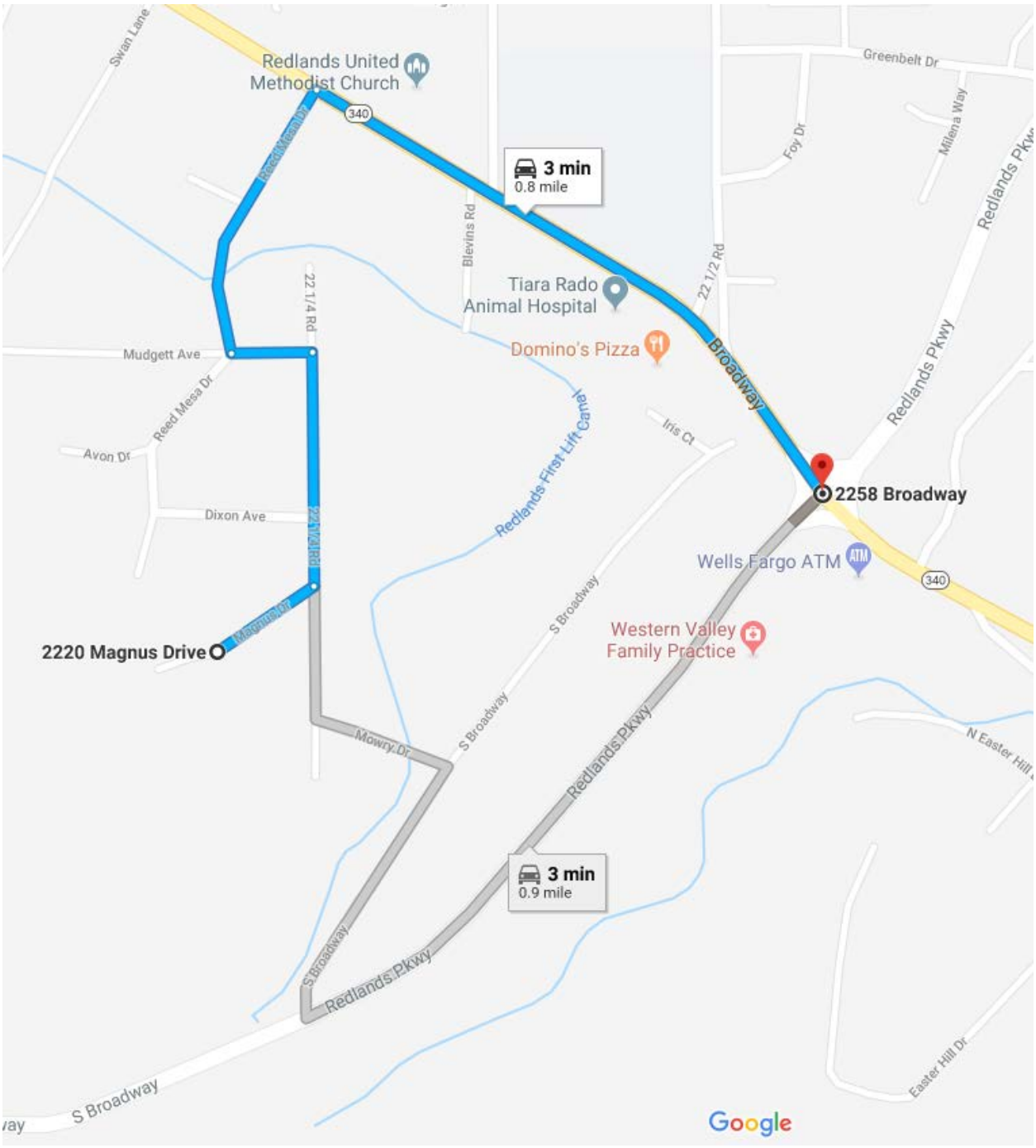
N

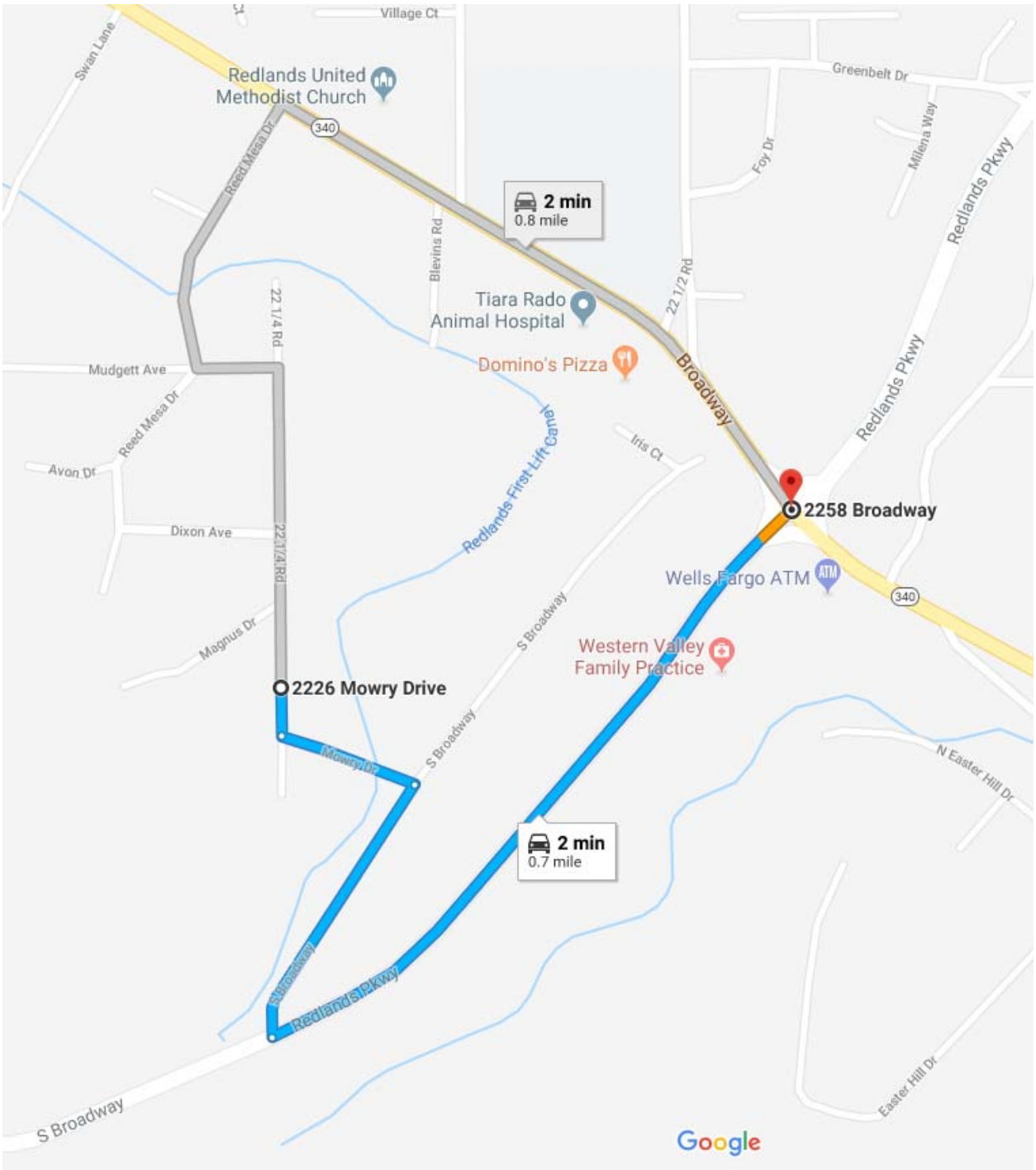
0 0.125 0.25 mi

Printed: 1/10/2019

1 inch = 400 feet

CITY OF Grand Junction COLORADO
GEOGRAPHIC INFORMATION SYSTEM


Redlands United Methodist Church
340
3 min
0.8 mile
Greenbelt Dr
Foy Dr
Milena Way
Redlands Pkwy
Blevins Rd
22 1/2 Rd
Tiara Rado Animal Hospital
Domino's Pizza
Broadway
Rocci Mesa Dr
22 1/4 Rd
Mudgett Ave
Reed Mesa Dr
Avon Dr
Redlands First Lift Canal
Iris Ct
2258 Broadway
Dixon Ave
Wells Fargo ATM
Magnus Dr
2220 Magnus Drive
S Broadway
Western Valley Family Practice
Mowry Dr
N Easter Hill
Redlands Pkwy
3 min
0.9 mile
Easter Hill Dr
Google


Village Ct
Swan Lane
Redlands United Methodist Church
340
Reed Mesa Dr
Greenbelt Dr
Foy Dr
Milena Way
Redlands Pkwy
2 min
0.8 mile
Blevins Rd
22 1/2 Rd
Tiara Rado Animal Hospital
Domino's Pizza
Broadway
22 1/4 Rd
Mudgett Ave
Reed Mesa Dr
Redlands First Lift Canal
Iris Ct
Avon Dr
2258 Broadway
Dixon Ave
Wells Fargo ATM
ATM
340
Magnus Dr
S Broadway
Western Valley Family Practice
2226 Mowry Drive
Mowry Dr
S Broadway
N Easter Hill Dr
2 min
0.7 mile
S Broadway
Redlands Pkwy
Easter Hill Dr
S Broadway
Google

McDOWELL ENGINEERING LLC
TRANSPORTATION ENGINEERING CONSULTANTS

Table 1 - Project Trip Generation

Magnus Subdivision - check on traffic shortcut through gas station property

Mesa County, Colorado

Estimated Project-Generated Traffic

						Morning Peak Hour				Evening Peak Hour			
						Inbound		Outbound		Inbound		Outbound	
ITE Code	Land Use Description	Units		AM Peak Hour (vph/unit)	PM Peak Hour (vph/unit)	% Trips	Trips	% Trips	Trips	% Trips	Trips	% Trips	14
	Existing Land Use												
944	Gasoline/Service Station [1]	4	Fueling Positions	10.53	14.41	50%	21	50%	21	51%	29	49%	28
933	Fast-Food Restaurant without Drive Through [1, 2]	2	ksf	13.00	21.00	50%	13	50%	13	50%	21	50%	21
	Totals						34		34		50		49
	20% allowable increase						7		7		10		10
210	Single-Family Detached Housing [1]	11	Dwelling Unit	0.76	1.00	26%	2	74%	6	54%	6	46%	5
		12	"	0.76	1.00	26%	2	74%	7	54%	6	46%	6
		13	"	0.76	1.00	26%	3	74%	7	54%	7	46%	6
		14	"	0.76	1.00	26%	3	74%	8	54%	8	46%	6
		15	"	0.76	1.00	26%	3	74%	8	54%	8	46%	7
		16	"	0.76	1.00	26%	3	74%	9	54%	9	46%	7
		17	"	0.76	1.00	26%	3	74%	10	54%	9	46%	8
		18	"	0.76	1.00	26%	4	74%	10	54%	10	46%	8
		19	"	0.76	1.00	26%	4	74%	11	54%	10	46%	9
		20	"	0.76	1.00	26%	4	74%	11	54%	11	46%	9
		21	"	0.76	1.00	26%	4	74%	12	54%	11	46%	10
		22	"	0.76	1.00	26%	4	74%	12	54%	12	46%	10

[1] Values obtained from *Trip Generation, 10th Edition,* Institute of Transportation Engineers, 2017.

[2] Used the lowest instead of the average rates

Kari McDowell Schroeder

From: Kent Harbert
Sent: Thursday, January 17, 2019 9:26 AM
To: Rick Dorris
Cc: Paul Jagim; Dana Brosig; daniel.roussin@state.co.us; Kari McDowell Schroeder
Subject: Re: Magnus Subdivision, base assumptions

Thanks, Rick.

The numbers on the neighborhood map are the existing uses, split into a north and a south group. The proposed development will add 72 lots on Magnus Court and 2 lots on the south end of 22¼ Road.

On Thu, Jan 17, 2019 at 9:08 AM Rick Dorris <rickdo@gjcity.org> wrote:

> Kent,
>
> The methodology sounds fine. I agree with Mark about the cut through but I expect it will be very small.
>
> The design team needs to address the sight distance issue where Magnus joins 22 ¼ Road and possibly other intersections. Can be you or another team member.
>
> You summary counts 35 lots on the 2215 Magnus court parcel and parcel to the south. Their pre-application proposal was for 72 lots and also included parcel 2947-261-00-003 to the west. Regardless of whether this parcel is included with the project, the trip gen needs to account for its development.
>
> Thanks,
>
> Rick Dorris, PE, CFM
>
> Development Engineer
>
> City of Grand Junction
>
> 250 N. 5th Street
>
> Grand Junction, CO 81501

work: 970-256-4034

email: rickdo@gjcity.org

From: Kent Harbert [mailto:kent@mcdowelleng.com]
Sent: Tuesday, January 15, 2019 5:02 PM
To: Rick Dorris <rickdo@gjcity.org>; Paul Jagim <paulj@gjcity.org>; Dana Brosig <dana.brosig@mesacounty.us>; daniel.roussin@state.co.us
Cc: Kari McDowell Schroeder <kari@mcdowelleng.com>
Subject: Magnus Subdivision, base assumptions

All,

Please review the attached base assumptions for the proposed Magnus Subdivision.

--

Thanks, Kent

T. Kent Harbert, PE, PTOE

Transportation / Traffic Engineer

970.812.6768

kent@mcdowelleng.com

In cooperation with:

Eagle ● Broomfield ● Grand Junction

www.mcdowelleng.com

Kari McDowell Schroeder

From: Kent Harbert
Sent: Friday, January 25, 2019 12:05 PM
To: Rick Dorris; Paul Jagim; Dana Brosig; Roussin - CDOT, Daniel; mark.bunnell@state.co.us
Cc: Kari McDowell Schroeder
Subject: Re: Magnus Subdivision, base assumptions
Attachments: Magnus Ct - Area Map, intersections v2.pdf

All,
In a discussion with Paul Jagim, we decided that it was not necessary to count both the intersection of Dixon Avenue and 22¼ Road and the intersection of Magnus Court and 22¼ Road because of their close proximity to each other and the anticipated low volumes. The intersection of Dixon Avenue and 22¼ Road will not be counted.

On Tue, Jan 15, 2019 at 5:01 PM Kent Harbert <kent@mcdowelleng.com> wrote:

> All,
> Please review the attached base assumptions for the proposed Magnus Subdivision.
>
> --
>
> Thanks, Kent
>
> T. Kent Harbert, PE, PTOE
>
> Transportation / Traffic Engineer
>
> 970.812.6768
>
> kent@mcdowelleng.com
>
> In cooperation with:
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> www.mcdowelleng.com

--

Thanks, Kent

Kari McDowell Schroeder

From: Kent Harbert
Sent: Friday, February 1, 2019 4:35 PM
To: Dana Brosig
Cc: Rick Dorris; Paul Jagim; Roussin - CDOT, Daniel; mark.bunnell@state.co.us; Kari McDowell Schroeder
Subject: Re: Magnus Subdivision, base assumptions

Ok, thanks.

On Fri, Feb 1, 2019 at 3:23 PM Dana Brosig <dana.brosig@mesacounty.us> wrote:

> Kent-
> I looked into it more. You are right that the City did annex the end of the road but Mesa County continues to maintain it as it is such a small section. We would like the City to annex 22 1/4 Rd to Magnus Ct and Mowry Dr and start maintaining those sections as part of this subdivision.
>
> We won't require a PAL for access off of 22 1/4 Rd.
>
> Thanks,

Dana Brosig P.E.
Development Engineer
Mesa County Planning Department
(970) 255-5035

On Fri, Jan 25, 2019 at 12:04 PM Kent Harbert <kent@mcdowelleng.com> wrote:

> All,
> In a discussion with Paul Jagim, we decided that it was not necessary to count both the intersection of Dixon Avenue and 22¼ Road and the intersection of Magnus Court and 22¼ Road because of their close proximity to each other and the anticipated low volumes. The intersection of Dixon Avenue and 22¼ Road will not be counted.
>
> On Tue, Jan 15, 2019 at 5:01 PM Kent Harbert <kent@mcdowelleng.com> wrote:
>
> > All,
> > Please review the attached base assumptions for the proposed Magnus Subdivision.
> >
> > --
> >
> > Thanks, Kent
> >
> > T. Kent Harbert, PE, PTOE
> >
> > Transportation / Traffic Engineer
> >
> > 970.812.6768
> >
> > kent@mcdowelleng.com

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--

Thanks, Kent

T. Kent Harbert, PE, PTOE

Transportation / Traffic Engineer

970.812.6768

kent@mcdowelleng.com

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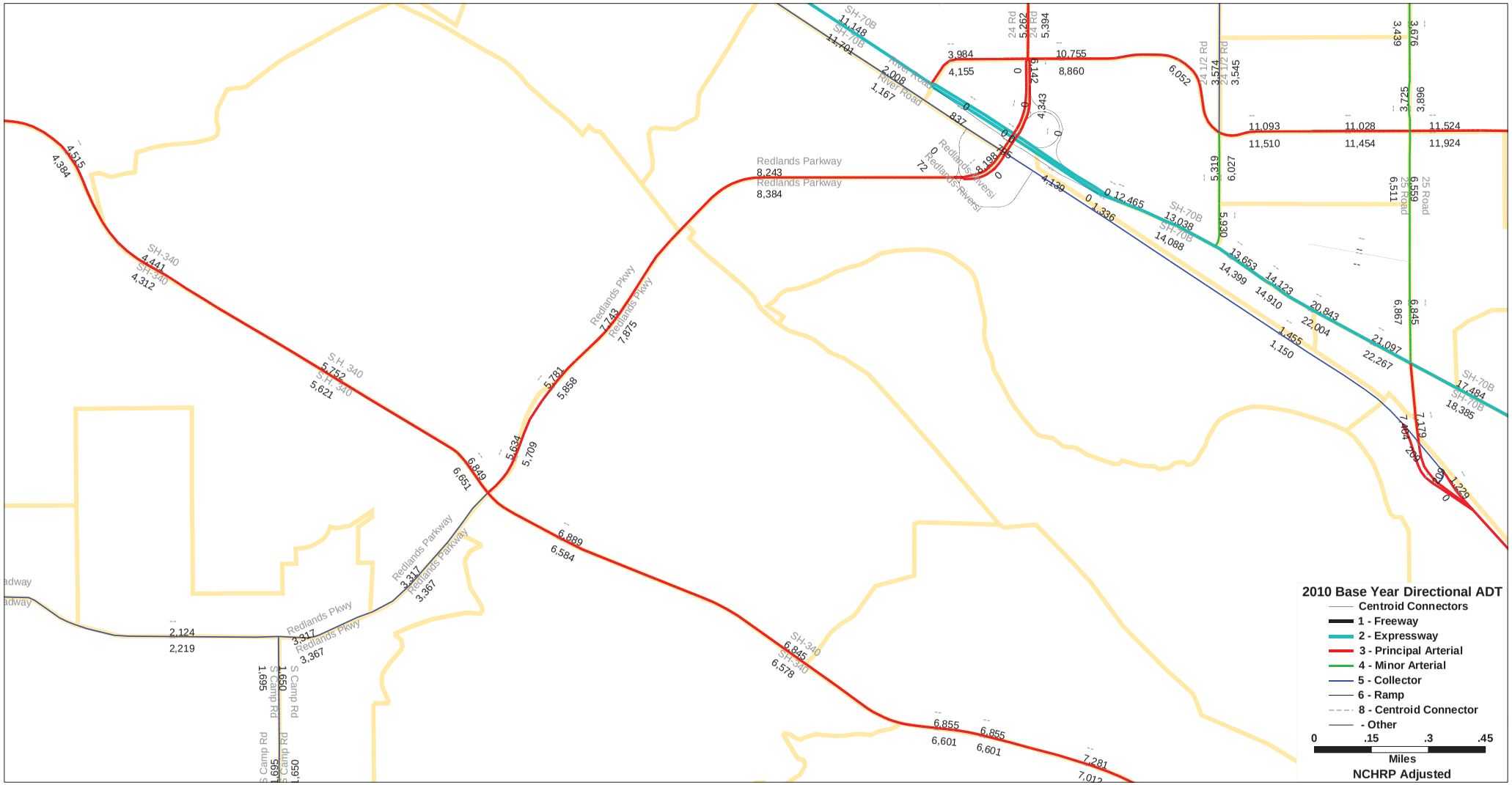
--

Thanks, Kent

T. Kent Harbert, PE, PTOE

Transportation / Traffic Engineer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2 - Expressway
3 - Principal Arterial
4 - Minor Arterial
5 - Collector
6 - Ramp
8 - Centroid Connector
- Other
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Miles
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SH-70B
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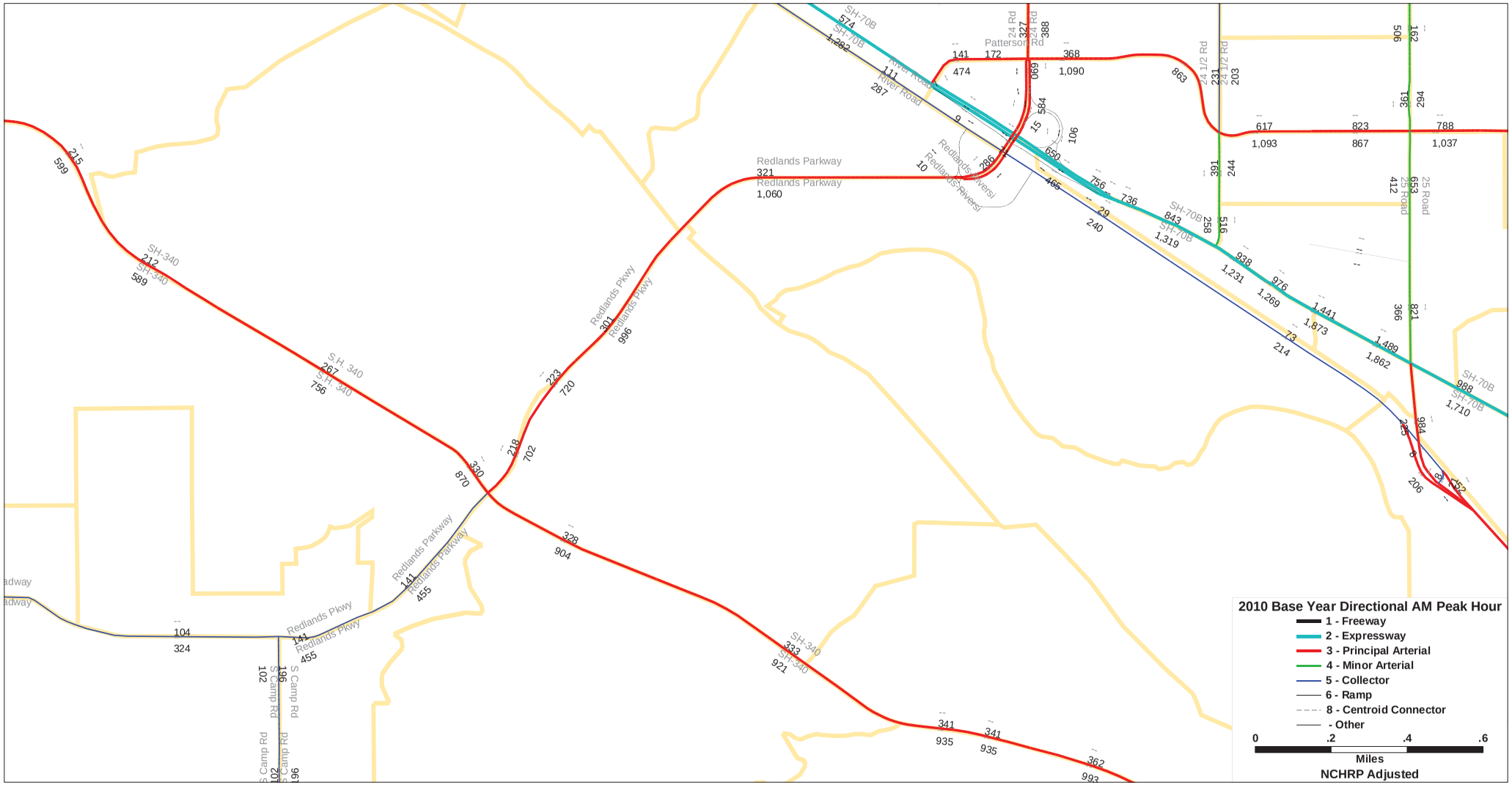
Redlands Parkway
Redlands Pkwy
River Road
24 Rd
24 1/2 Rd
25 Road
S Camp Rd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River Road
Redlands Parkway
Redlands Pkwy
SH-340
S.H. 340
S Camp Rd
24 Rd
24 1/2 Rd
Patterson Rd
25 Road
2010 Base Year Directional AM Peak Hour
1 - Freeway
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3 - Principal Arterial
4 - Minor Arterial
5 - Collector
6 - Ramp
8 - Centroid Connector
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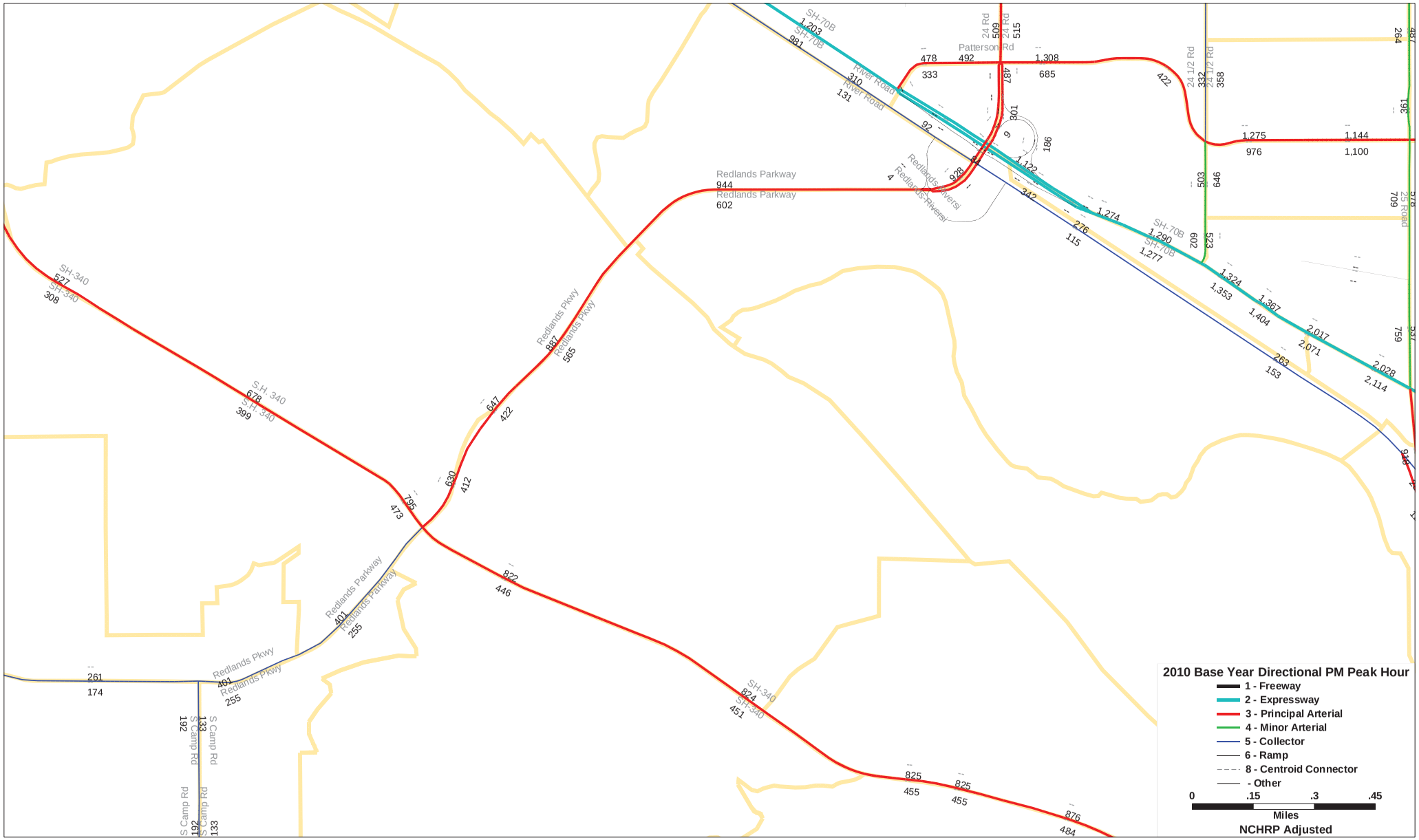
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River Road
Patterson Rd
24 Rd
24 1/2 Rd
25 Road
Redlands Parkway
Redlands Pkwy
S.H. 340
SH-340
S Camp Rd
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1 - Freeway
2 - Expressway
3 - Principal Arterial
4 - Minor Arterial
5 - Collector
6 - Ramp
8 - Centroid Connector
- Other
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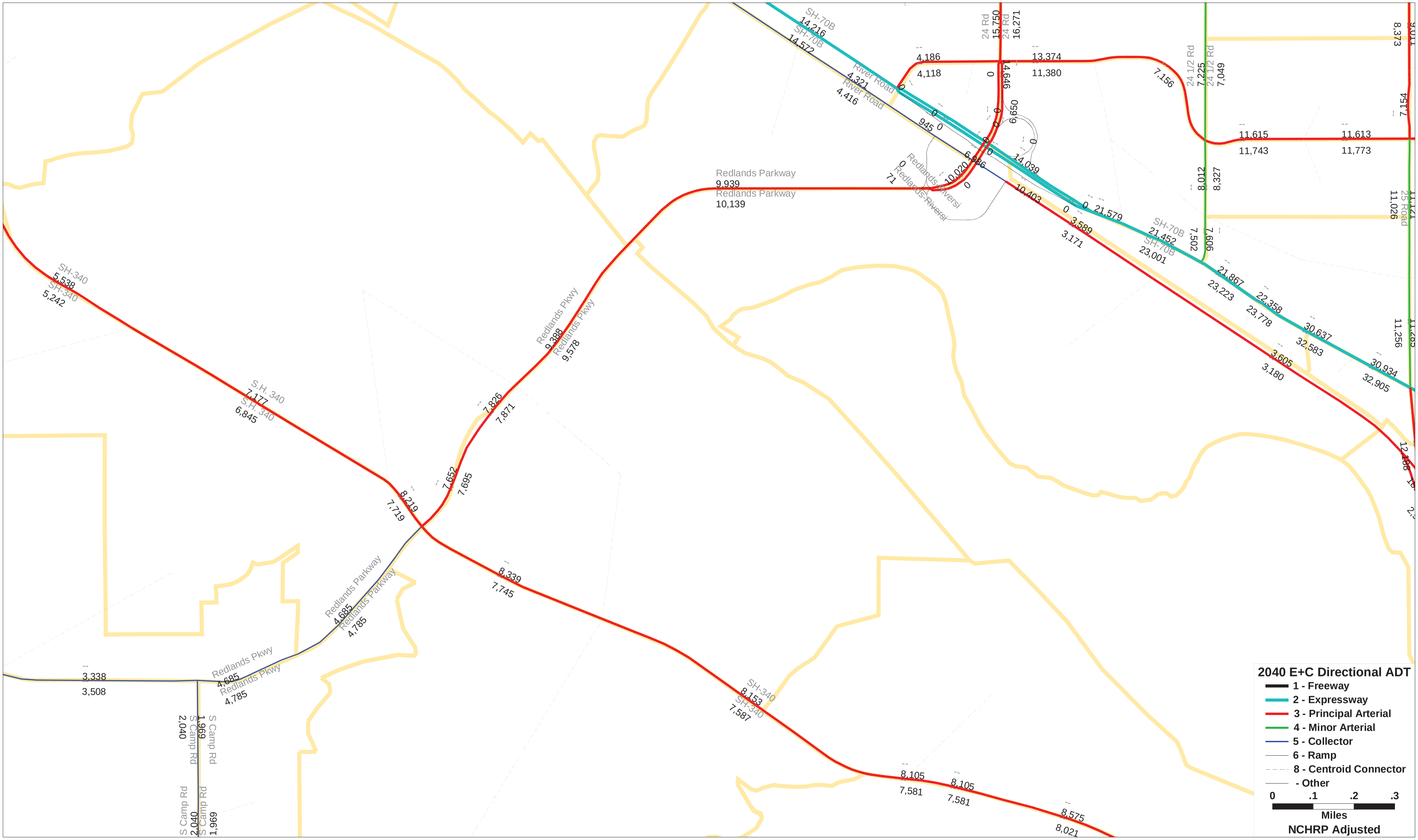
Miles
NCHRP Adjusted


2040 E+C Directional ADT
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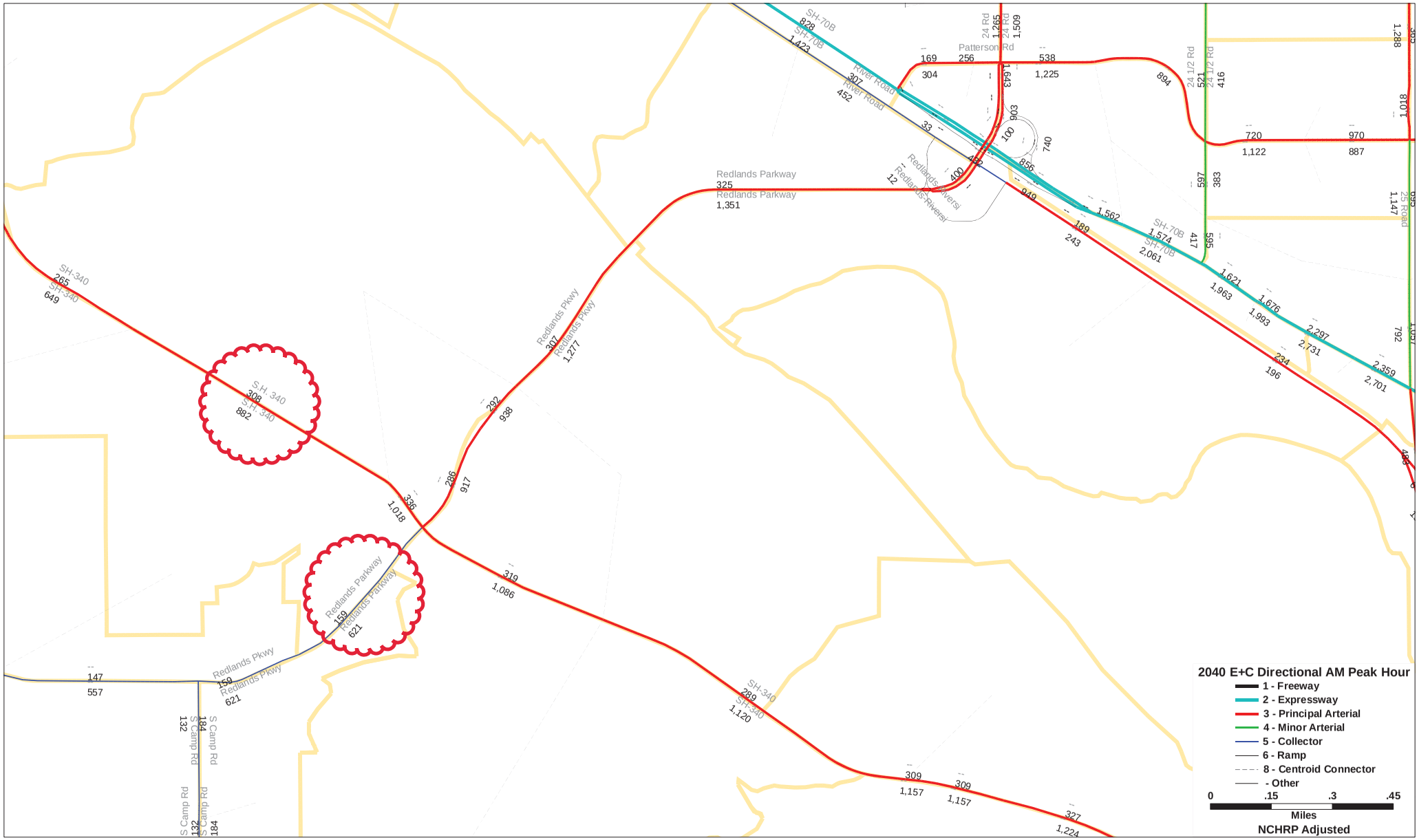
3 - Principal Arterial
4 - Minor Arterial
5 - Collector
6 - Ramp
8 - Centroid Connector
- Other
0 .1 .2 .3
Miles
NCHRP Adjusted
25 Road
24 1/2 Rd
24 Rd
SH-70B
River Road
Redlands Parkway
Redlands Pkwy
SH-340
S.H. 340
S Camp Rd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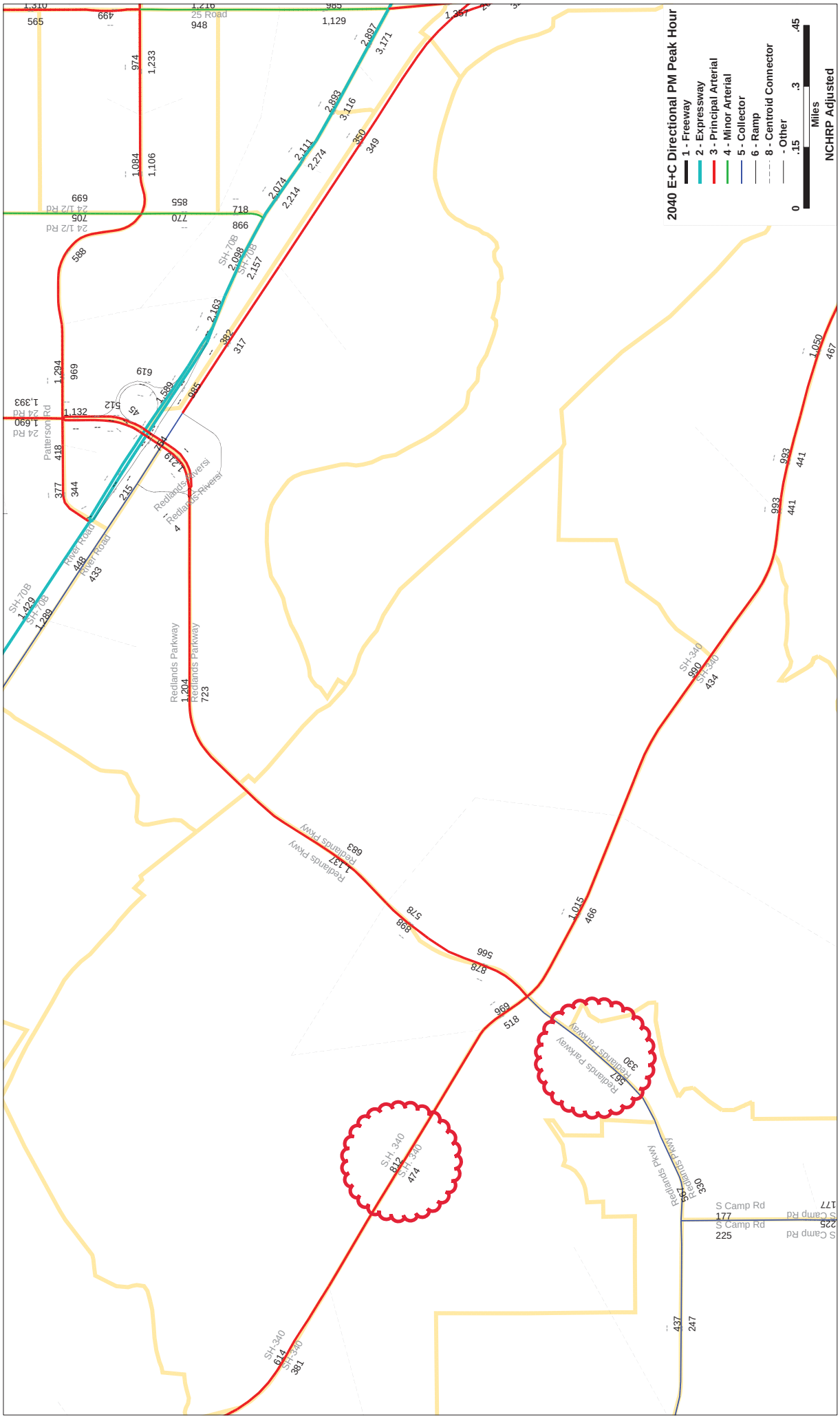
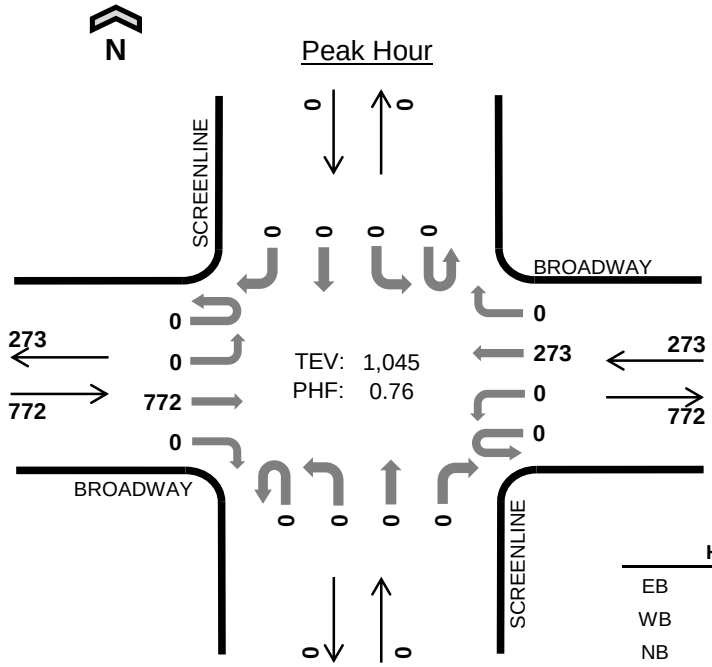
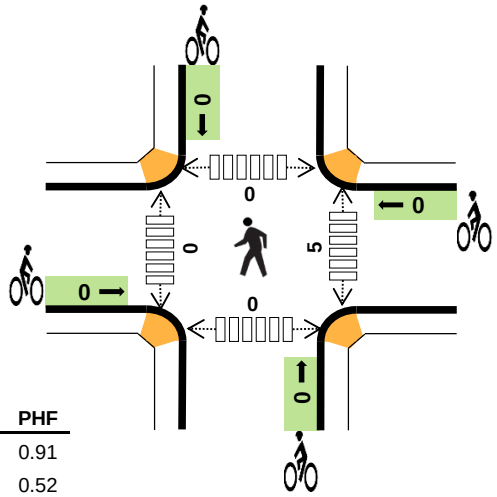
S Camp Rd


2040 E+C Directional PM Peak Hour
1 - Freeway
2 - Expressway
3 - Principal Arterial
4 - Minor Arterial
5 - Collector
6 - Ramp
8 - Centroid Connector
- Other
0 .15 .3 .45
Miles
NCHRP Adjusted
25 Road
24 Rd
24 1/2 Rd
Patterson Rd
SH-70B
River Road
Redlands Parkway
SH-340
S Camp Rd

SCREENLINE
BROADWAY

Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	0.9%	0.91
WB	2.9%	0.52
NB	-	-
SB	-	-
TOTAL	1.4%	0.76

Two-Hour Count Summaries

Interval Start	BROADWAY Eastbound				BROADWAY Westbound				SCREENLINE Northbound				SCREENLINE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**212**	**0**	**0**	**0**	**132**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**344**	0
7:15 AM	**0**	**0**	**203**	**0**	**0**	**0**	**41**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**244**	0
7:30 AM	**0**	**0**	**186**	**0**	**0**	**0**	**38**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**224**	0
7:45 AM	**0**	**0**	**171**	**0**	**0**	**0**	**62**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**233**	**1,045**
8:00 AM	0	0	126	0	0	0	51	0	0	0	0	0	0	0	0	0	177	878
8:15 AM	0	0	131	0	0	0	67	0	0	0	0	0	0	0	0	0	198	832
8:30 AM	0	0	179	0	0	0	82	0	0	0	0	0	0	0	0	0	261	869
8:45 AM	0	0	137	0	0	0	94	0	0	0	0	0	0	0	0	0	231	867
Count Total	0	0	1,345	0	0	0	567	0	0	0	0	0	0	0	0	0	1,912	0
Peak Hour	**0**	**0**	**772**	**0**	**0**	**0**	**273**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,045**	**0**

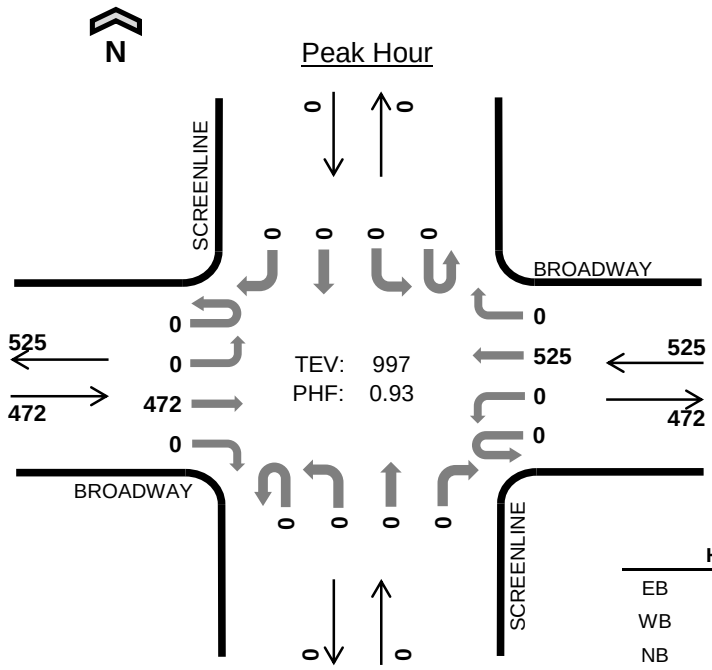
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

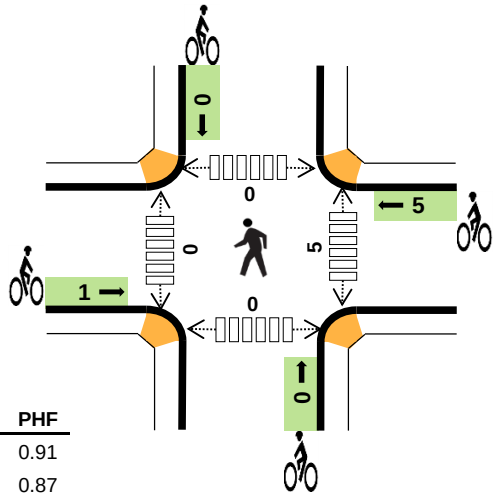
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**4**	**5**	**0**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	*4*
7:15 AM	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:30 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	3	1	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	3	2	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	14	12	0	0	*26*	0	0	0	0	*0*	5	0	0	0	*5*
Peak Hour	**7**	**8**	**0**	**0**	***15***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**0**	***5***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

SCREENLINE
BROADWAY

Date: Tue, Jan 29, 2019
Count Period: 2:00 PM to 5:00 PM
Peak Hour: 3:00 PM to 4:00 PM





	HV %:	PHF
EB	1.7%	0.91
WB	1.0%	0.87
NB	-	-
SB	-	-
TOTAL	1.3%	0.93

Three-Hour Count Summaries

Interval Start	BROADWAY Eastbound				BROADWAY Westbound				SCREENLINE Northbound				SCREENLINE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	126	0	0	0	120	0	0	0	0	0	0	0	0	0	246	0
3:15 PM	0	0	101	0	0	0	135	0	0	0	0	0	0	0	0	0	236	0
3:30 PM	0	0	129	0	0	0	119	0	0	0	0	0	0	0	0	0	248	0
3:45 PM	0	0	116	0	0	0	151	0	0	0	0	0	0	0	0	0	267	997
Peak Hour	0	0	472	0	0	0	525	0	0	0	0	0	0	0	0	0	997	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	1	1	0	0	*2*	0	0	0	0	*0*	1	0	0	0	*1*
3:15 PM	3	2	0	0	*5*	0	0	0	0	*0*	1	0	0	0	*1*
3:30 PM	4	0	0	0	*4*	0	4	0	0	*4*	0	0	0	0	*0*
3:45 PM	0	2	0	0	*2*	1	1	0	0	*2*	3	0	0	0	*3*
Peak Hour	8	5	0	0	*13*	1	5	0	0	*6*	5	0	0	0	*5*

Three-Hour Count Summaries

Interval Start	BROADWAY Eastbound				BROADWAY Westbound				SCREENLINE Northbound				SCREENLINE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	88	0	0	0	96	0	0	0	0	0	0	0	0	0	184	0
2:15 PM	0	0	81	0	0	0	123	0	0	0	0	0	0	0	0	0	204	0
2:30 PM	0	0	88	0	0	0	128	0	0	0	0	0	0	0	0	0	216	0
2:45 PM	0	0	146	0	0	0	113	0	0	0	0	0	0	0	0	0	259	863
3:00 PM	**0**	**0**	**126**	**0**	**0**	**0**	**120**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**246**	925
3:15 PM	**0**	**0**	**101**	**0**	**0**	**0**	**135**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**236**	957
3:30 PM	**0**	**0**	**129**	**0**	**0**	**0**	**119**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**248**	989
3:45 PM	**0**	**0**	**116**	**0**	**0**	**0**	**151**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**267**	**997**
4:00 PM	0	0	83	0	0	0	139	0	0	0	0	0	0	0	0	0	222	973
4:15 PM	0	0	90	0	0	0	134	0	0	0	0	0	0	0	0	0	224	961
4:30 PM	0	0	97	0	0	0	149	0	0	0	0	0	0	0	0	0	246	959
4:45 PM	0	0	103	0	0	0	161	0	0	0	0	0	0	0	0	0	264	956
Count Total	0	0	1,248	0	0	0	1,568	0	0	0	0	0	0	0	0	0	2,816	0
Peak Hour	**0**	**0**	**472**	**0**	**0**	**0**	**525**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**997**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	1	3	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	1	4	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	7	1	0	0	*8*	0	0	0	0	*0*	5	0	0	0	*5*
3:00 PM	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
3:15 PM	**3**	**2**	**0**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
3:30 PM	**4**	**0**	**0**	**0**	***4***	**0**	**4**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	*0*
3:45 PM	**0**	**2**	**0**	**0**	***2***	**1**	**1**	**0**	**0**	***2***	**3**	**0**	**0**	**0**	***3***
4:00 PM	1	3	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	3	0	0	0	*3*	1	0	0	0	*1*	0	0	0	0	*0*
4:30 PM	2	2	0	0	*4*	1	0	0	0	*1*	0	0	0	0	*0*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	23	18	0	0	*41*	3	5	0	0	*8*	10	0	0	0	*10*
Peak Hour	**8**	**5**	**0**	**0**	***13***	**1**	**5**	**0**	**0**	***6***	**5**	**0**	**0**	**0**	***5***

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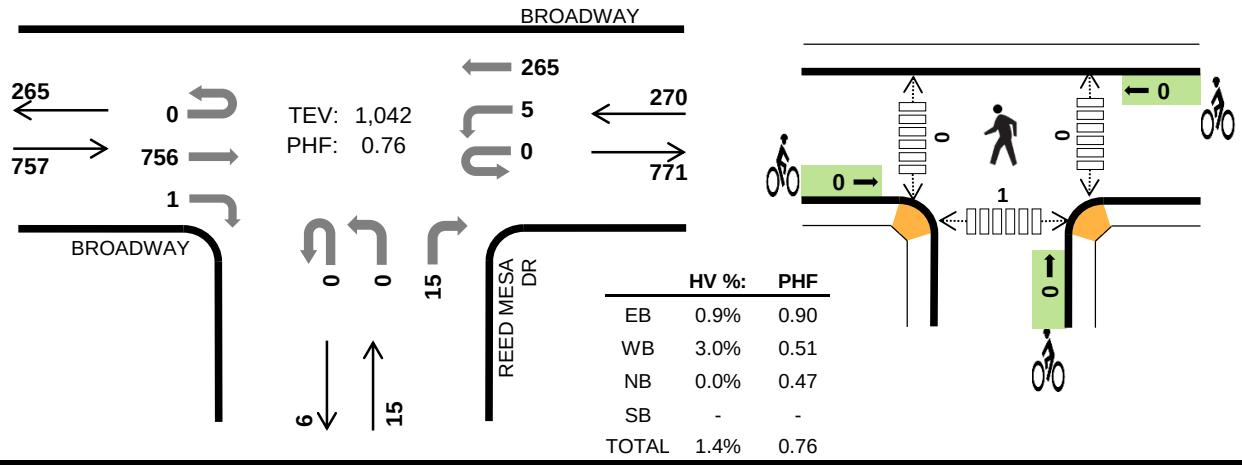
REED MESA DR
BROADWAY

N

Peak Hour

Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



Two-Hour Count Summaries

Interval Start	BROADWAY Eastbound				BROADWAY Westbound				REED MESA DR Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**210**	**1**	**0**	**1**	**131**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**344**	0
7:15 AM	**0**	**0**	**198**	**0**	**0**	**1**	**39**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**243**	0
7:30 AM	**0**	**0**	**185**	**0**	**0**	**0**	**39**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**225**	0
7:45 AM	**0**	**0**	**163**	**0**	**0**	**3**	**56**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**230**	**1,042**
8:00 AM	0	0	119	0	0	0	54	0	0	0	0	6	0	0	0	0	179	877
8:15 AM	0	0	129	0	0	0	67	0	0	2	0	3	0	0	0	0	201	835
8:30 AM	0	0	168	0	0	4	77	0	0	0	0	13	0	0	0	0	262	872
8:45 AM	0	0	130	1	0	6	90	0	0	0	0	4	0	0	0	0	231	873
Count Total	0	0	1,302	2	0	15	553	0	0	2	0	41	0	0	0	0	1,915	0
Peak Hour	**0**	**0**	**756**	**1**	**0**	**5**	**265**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**0**	**1,042**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**4**	**5**	**0**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**5**	**1**	*6*
7:15 AM	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	3	1	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	3	3	0	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	14	13	0	0	*27*	0	0	0	0	*0*	0	0	5	1	*6*
Peak Hr	**7**	**8**	**0**	**0**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**5**	**1**	***6***

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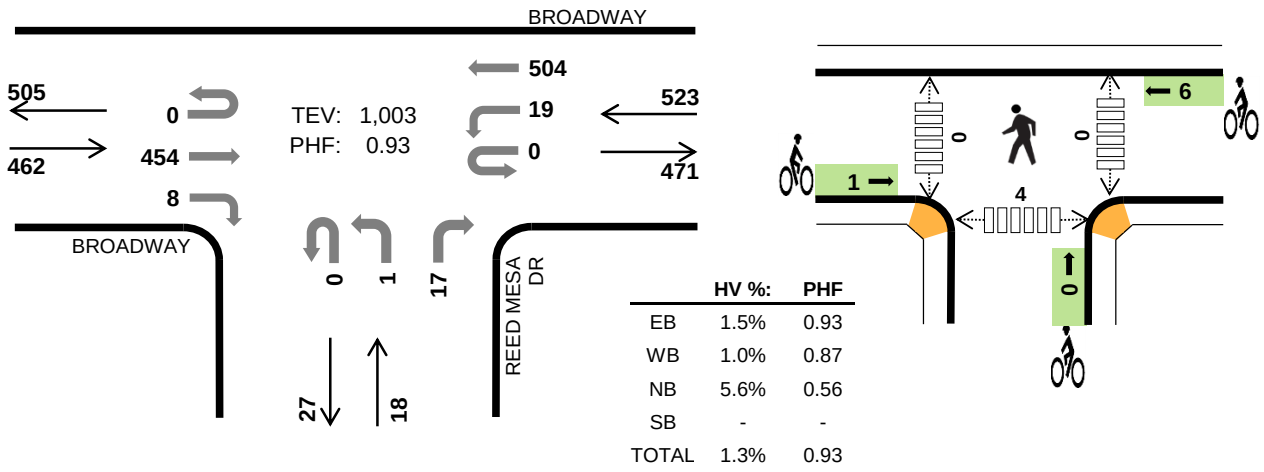
REED MESA DR
BROADWAY

N

Peak Hour

Date: Tue, Jan 29, 2019
Count Period: 2:00 PM to 5:00 PM
Peak Hour: 3:00 PM to 4:00 PM



	HV %:	PHF
EB	1.5%	0.93
WB	1.0%	0.87
NB	5.6%	0.56
SB	-	-
TOTAL	1.3%	0.93

Three-Hour Count Summaries

Interval Start	BROADWAY Eastbound				BROADWAY Westbound				REED MESA DR Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	123	1	0	3	117	0	0	1	0	2	0	0	0	0	247	0
3:15 PM	0	0	98	1	0	2	129	0	0	0	0	3	0	0	0	0	233	0
3:30 PM	0	0	121	2	0	2	119	0	0	0	0	8	0	0	0	0	252	0
3:45 PM	0	0	112	4	0	12	139	0	0	0	0	4	0	0	0	0	271	1,003
Peak Hour	0	0	454	8	0	19	504	0	0	1	0	17	0	0	0	0	1,003	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	1	1	0	0	*2*	0	1	0	0	*1*	0	0	5	0	*5*
3:15 PM	2	2	1	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	4	0	0	0	*4*	0	4	0	0	*4*	0	0	1	1	*2*
3:45 PM	0	2	0	0	*2*	1	1	0	0	*2*	0	0	4	3	*7*
Peak Hour	7	5	1	0	*13*	1	6	0	0	*7*	0	0	10	4	*14*

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Three-Hour Count Summaries

Interval Start	BROADWAY Eastbound				BROADWAY Westbound				REED MESA DR Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	84	1	1	1	94	0	0	0	0	3	0	0	0	0	184	0
2:15 PM	0	0	77	2	0	1	120	0	0	1	0	4	0	0	0	0	205	0
2:30 PM	0	0	85	0	0	3	126	0	0	1	0	3	0	0	0	0	218	0
2:45 PM	1	0	145	1	0	5	109	0	0	0	0	2	0	0	0	0	263	870
3:00 PM	**0**	**0**	**123**	**1**	**0**	**3**	**117**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**247**	933
3:15 PM	**0**	**0**	**98**	**1**	**0**	**2**	**129**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**233**	961
3:30 PM	**0**	**0**	**121**	**2**	**0**	**2**	**119**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**252**	995
3:45 PM	**0**	**0**	**112**	**4**	**0**	**12**	**139**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**271**	**1,003**
4:00 PM	0	0	79	0	0	3	135	0	0	1	0	4	0	0	0	0	222	978
4:15 PM	0	0	88	2	0	3	133	0	0	3	0	2	0	0	0	0	231	976
4:30 PM	0	0	92	0	0	6	141	0	0	1	0	6	0	0	0	0	246	970
4:45 PM	0	0	100	1	0	3	156	0	0	0	0	2	0	0	0	0	262	961
Count Total	1	0	1,204	15	1	44	1,518	0	0	8	0	43	0	0	0	0	2,834	0
Peak Hour	**0**	**0**	**454**	**8**	**0**	**19**	**504**	**0**	**0**	**1**	**0**	**17**	**0**	**0**	**0**	**0**	**1,003**	**0**

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	2	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	1	5	0	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	7	1	0	0	*8*	0	0	0	0	*0*	0	0	13	1	*14*
3:00 PM	**1**	**1**	**0**	**0**	***2***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**5**	**0**	*5*
3:15 PM	**2**	**2**	**1**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
3:30 PM	**4**	**0**	**0**	**0**	***4***	**0**	**4**	**0**	**0**	***4***	**0**	**0**	**1**	**1**	*2*
3:45 PM	**0**	**2**	**0**	**0**	***2***	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**4**	**3**	***7***
4:00 PM	1	3	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	3	0	0	0	*3*	1	0	0	0	*1*	0	0	1	0	*1*
4:30 PM	2	2	0	0	*4*	1	0	0	0	*1*	0	0	0	0	*0*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	22	18	2	0	*42*	3	6	0	0	*9*	0	0	25	5	*30*
Peak Hr	**7**	**5**	**1**	**0**	***13***	**1**	**6**	**0**	**0**	***7***	**0**	**0**	**10**	**4**	***14***

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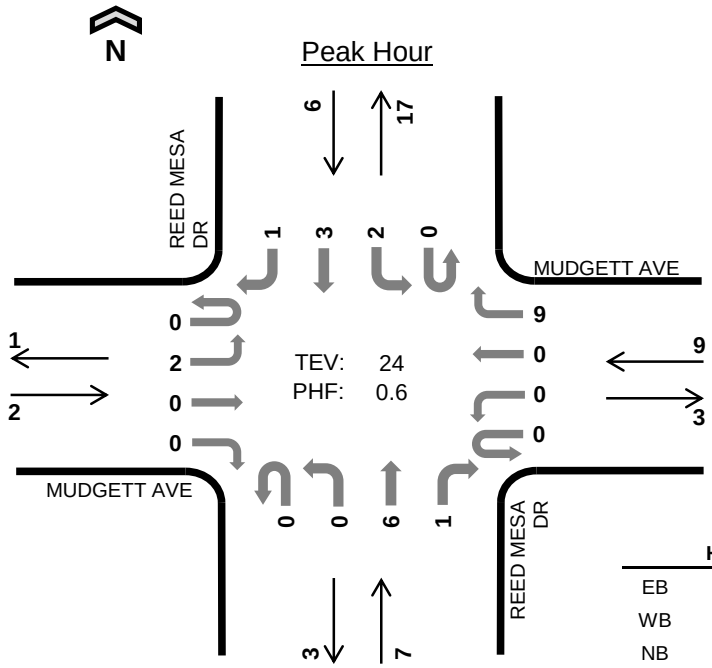
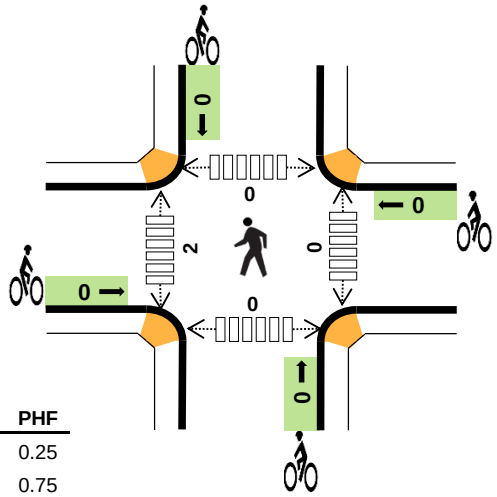
REED MESA DR
MUDGETT AVE



Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	0.0%	0.25
WB	0.0%	0.75
NB	0.0%	0.58
SB	0.0%	0.38
TOTAL	0.0%	0.60

Two-Hour Count Summaries

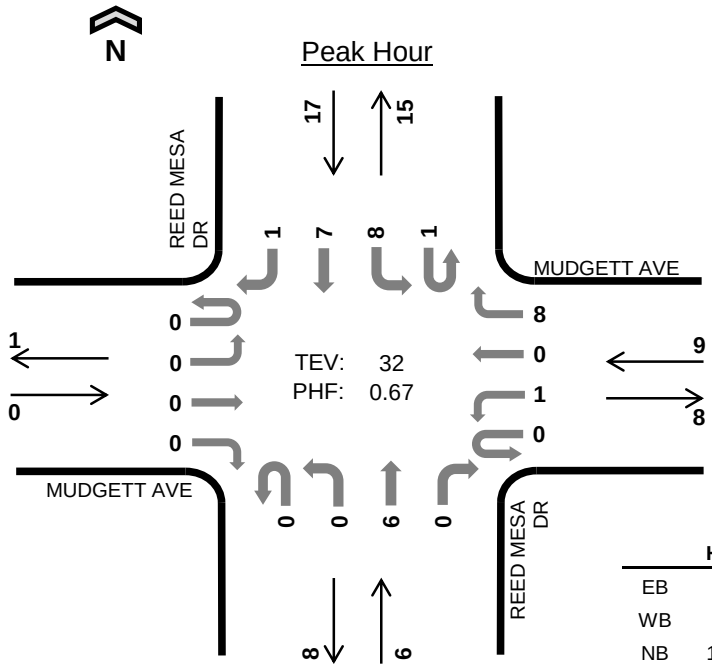
Interval Start	MUDGETT AVE Eastbound				MUDGETT AVE Westbound				REED MESA DR Northbound				REED MESA DR Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	1	0	0	2	0	0	6	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**1**	**7**	15
8:00 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	17
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	14
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**2**	**1**	**0**	**1**	**3**	**0**	**10**	**24**
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	1	6	23
Count Total	0	2	0	0	0	1	0	12	0	0	10	1	0	5	5	2	38	0
Peak Hour	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**6**	**1**	**0**	**2**	**3**	**1**	**24**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

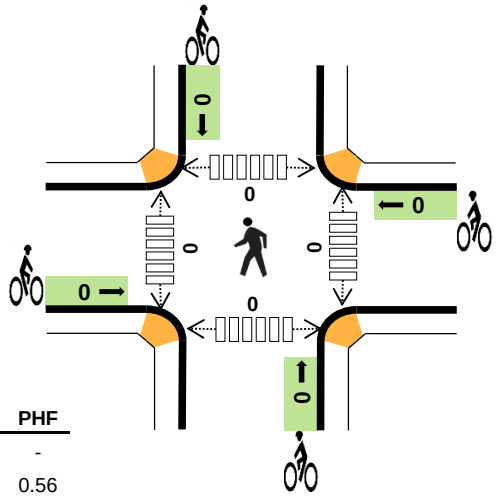
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	1	0	0	*1*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	***2***
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	0	0	*0*	0	1	0	0	*1*	0	2	0	0	*2*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	***2***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

REED MESA DR
MUDGETT AVE



Date: Tue, Jan 29, 2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.56
NB	16.7%	0.75
SB	5.9%	0.71
TOTAL	6.3%	0.67

Two-Hour Count Summaries

Interval Start	MUDGETT AVE Eastbound				MUDGETT AVE Westbound				REED MESA DR Northbound				REED MESA DR Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	5	0	0	1	0	0	7	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	1	0	0	1	0	0	1	1	0	5	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**4**	17
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**1**	**8**	18
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**2**	**0**	**1**	**3**	**2**	**0**	**12**	29
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**4**	**1**	**0**	**8**	**32**
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	3	31
Count Total	0	1	0	0	0	2	0	11	0	0	13	0	1	10	9	1	48	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**0**	**0**	**6**	**0**	**1**	**8**	**7**	**1**	**32**	**0**

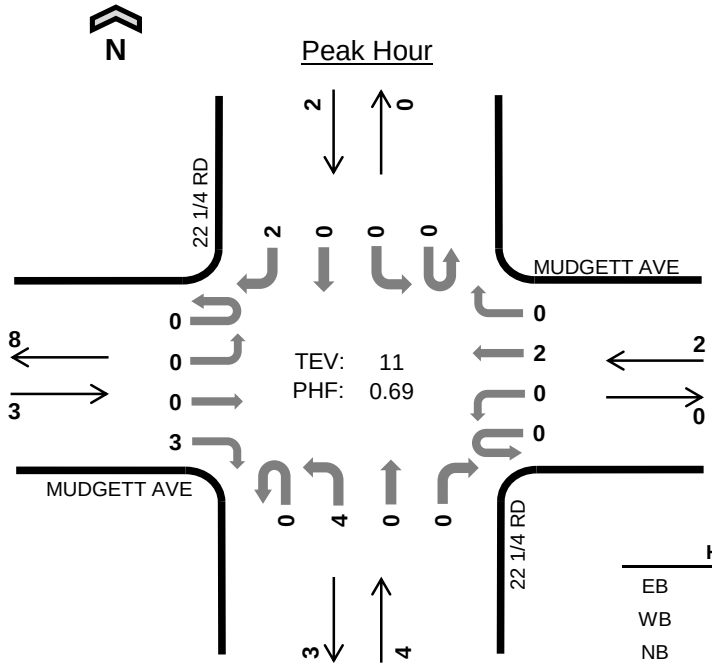
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

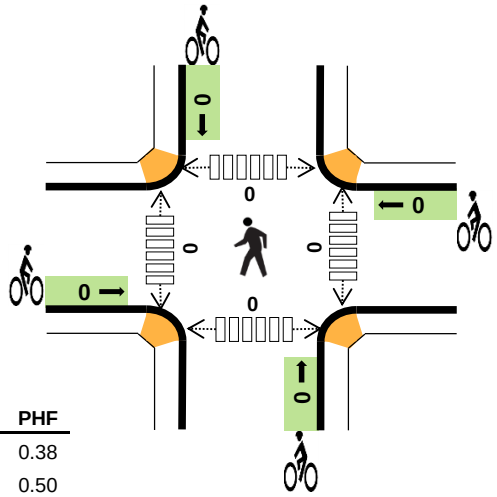
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

22 1/4 RD
MUDGETT AVE

Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	0.0%	0.38
WB	0.0%	0.50
NB	0.0%	0.50
SB	0.0%	0.50
TOTAL	0.0%	0.69

Two-Hour Count Summaries

Interval Start	MUDGETT AVE Eastbound				MUDGETT AVE Westbound				22 1/4 RD Northbound				22 1/4 RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0
7:15 AM	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	1	5	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	10
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	10
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	7
8:30 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**11**
8:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9
Count Total	0	0	0	6	0	0	2	0	0	6	1	0	0	0	0	4	19	0
Peak Hour	**0**	**0**	**0**	**3**	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**2**	**11**	**0**

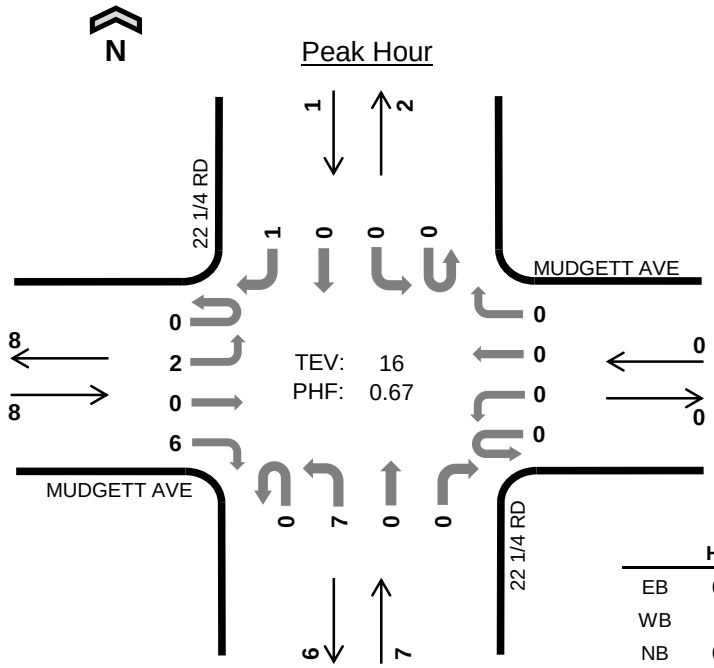
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

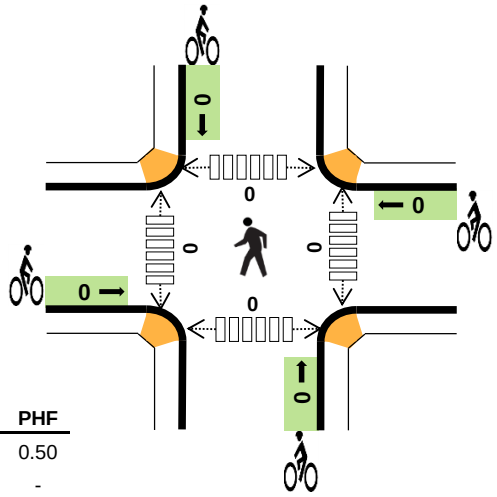
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

22 1/4 RD
MUDGETT AVE

Date: Tue, Jan 29, 2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.0%	0.50
WB	-	-
NB	0.0%	0.88
SB	0.0%	0.25
TOTAL	0.0%	0.67

Two-Hour Count Summaries

Interval Start	MUDGETT AVE Eastbound				MUDGETT AVE Westbound				22 1/4 RD Northbound				22 1/4 RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	0
4:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	9
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	8
5:15 PM	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**6**	13
5:30 PM	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**16**
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	14
Count Total	0	2	0	8	0	0	0	0	0	10	1	0	0	0	0	2	23	0
Peak Hour	**0**	**2**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**1**	**16**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

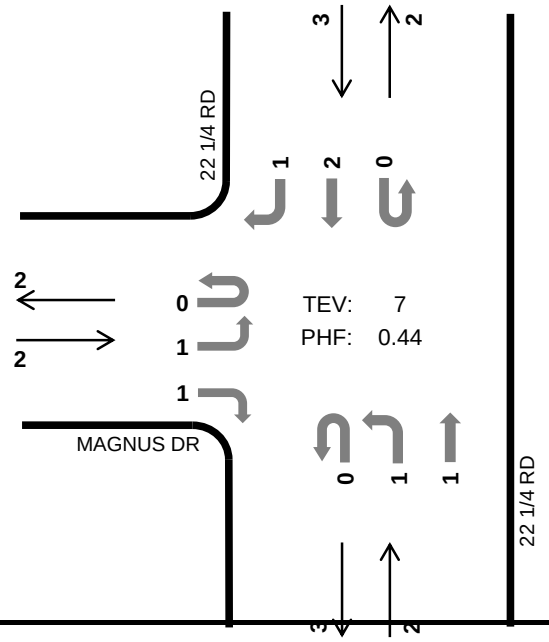
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

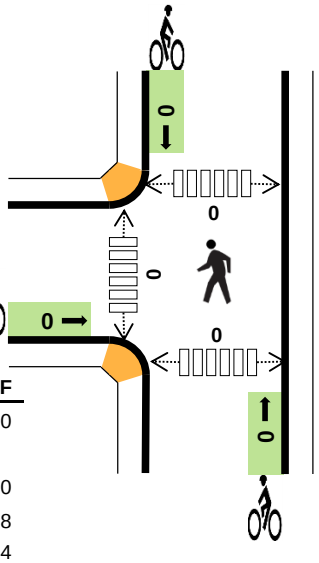
Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

22 1/4 RD
MAGNUS DR

Peak Hour

Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	0.0%	0.50
WB	-	-
NB	0.0%	0.50
SB	0.0%	0.38
TOTAL	0.0%	0.44

Two-Hour Count Summaries

Interval Start	MAGNUS DR Eastbound				0 Westbound				22 1/4 RD Northbound				22 1/4 RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	3
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	2
8:30 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	6
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**7**
Count Total	0	1	0	2	0	0	0	0	0	1	2	0	0	0	3	1	10	0
Peak Hour	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**2**	**1**	**7**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

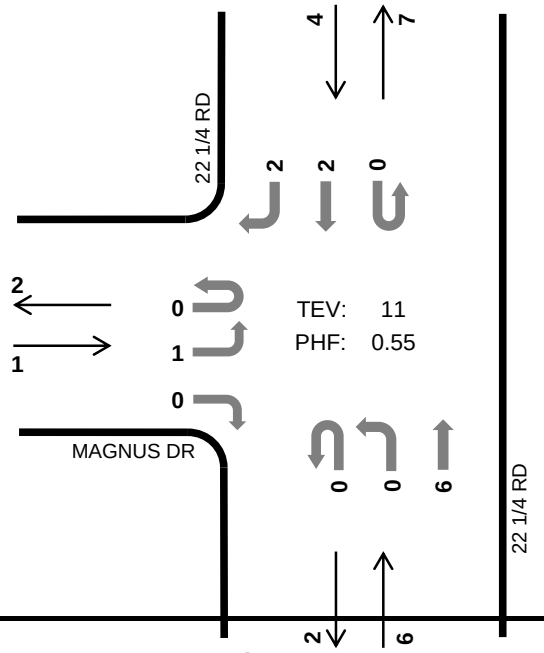
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	0	0	0	*0*	0	0	1	0	*1*	2	0	0	0	*2*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	***2***

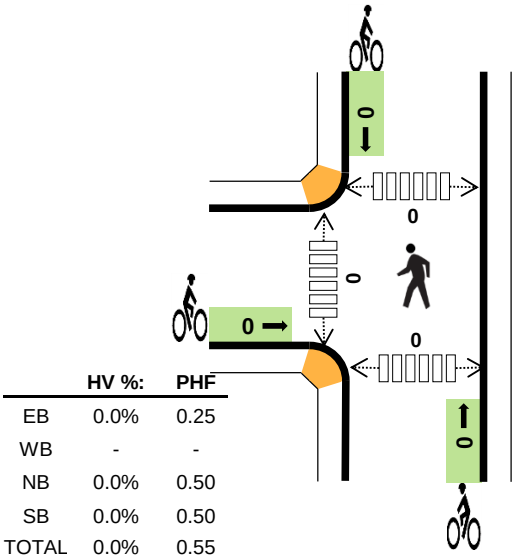
Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

22 1/4 RD
MAGNUS DR

Peak Hour

Date: Tue, Jan 29, 2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.0%	0.25
WB	-	-
NB	0.0%	0.50
SB	0.0%	0.50
TOTAL	0.0%	0.55

Two-Hour Count Summaries

Interval Start	MAGNUS DR Eastbound				0 Westbound				22 1/4 RD Northbound				22 1/4 RD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**5**	9
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	9
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	8
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**4**	**11**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Count Total	0	2	0	0	0	0	0	0	0	0	9	0	0	0	2	2	15	0
Peak Hour	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**2**	**2**	**11**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

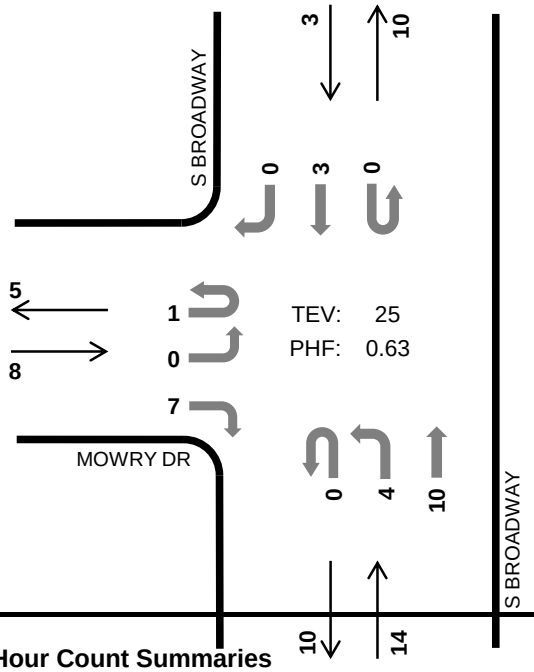
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

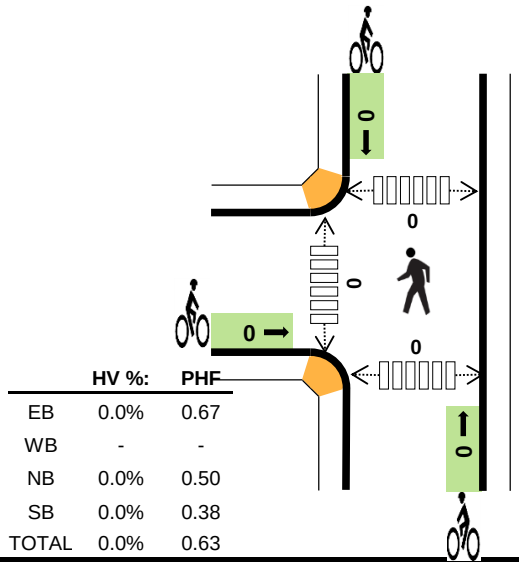
Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

S BROADWAY
MOWRY DR

Peak Hour

Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	0.0%	0.67
WB	-	-
NB	0.0%	0.50
SB	0.0%	0.38
TOTAL	0.0%	0.63

Two-Hour Count Summaries

Interval Start	MOWRY DR Eastbound				0 Westbound				S BROADWAY Northbound				S BROADWAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3	0
7:15 AM	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	5	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
7:45 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**6**	17
8:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	17
8:15 AM	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**6**	18
8:30 AM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**2**	**5**	**0**	**0**	**0**	**0**	**0**	**10**	**25**
8:45 AM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	2	0	6	25
Count Total	1	0	0	13	0	0	0	0	0	6	16	0	0	0	6	0	42	0
Peak Hour	**1**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**4**	**10**	**0**	**0**	**0**	**3**	**0**	**25**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

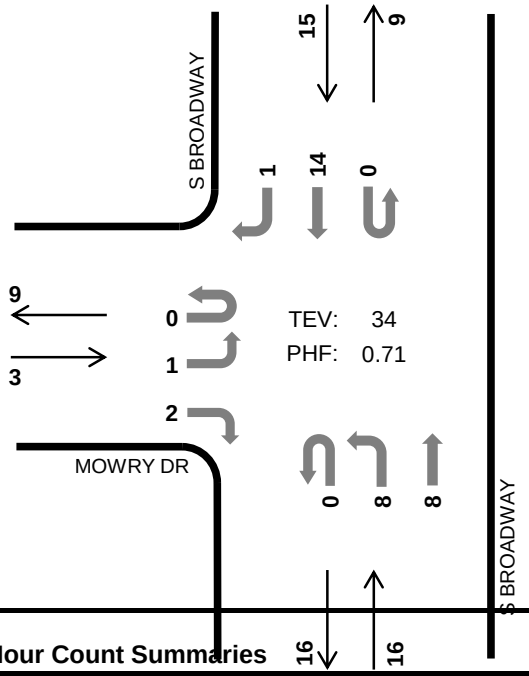
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

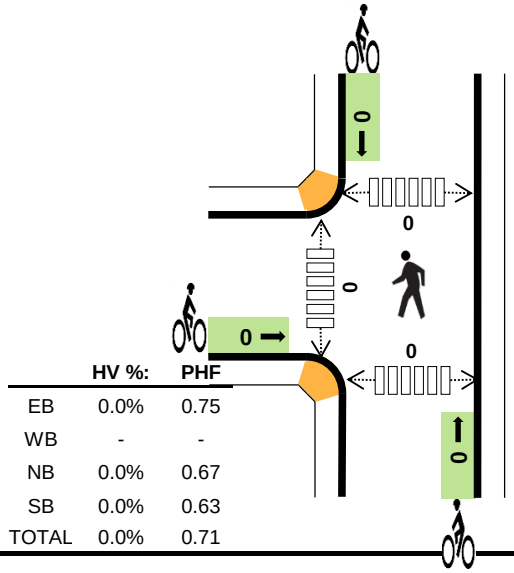
Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

S BROADWAY
MOWRY DR

Peak Hour

Date: Tue, Jan 29, 2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.0%	0.75
WB	-	-
NB	0.0%	0.67
SB	0.0%	0.63
TOTAL	0.0%	0.71

Two-Hour Count Summaries

Interval Start	MOWRY DR Eastbound				0 Westbound				S BROADWAY Northbound				S BROADWAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	0	0	0	0	2	1	0	0	0	1	1	6	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	3	0	6	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0
4:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**5**	**1**	**12**	28
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	24
5:15 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**0**	**5**	**0**	**12**	30
5:30 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**4**	**0**	**8**	**34**
5:45 PM	0	1	0	1	0	0	0	0	0	3	2	0	0	0	3	0	10	32
Count Total	0	2	0	5	0	0	0	0	0	13	13	0	0	0	25	2	60	0
Peak Hour	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**8**	**8**	**0**	**0**	**0**	**14**	**1**	**34**	**0**

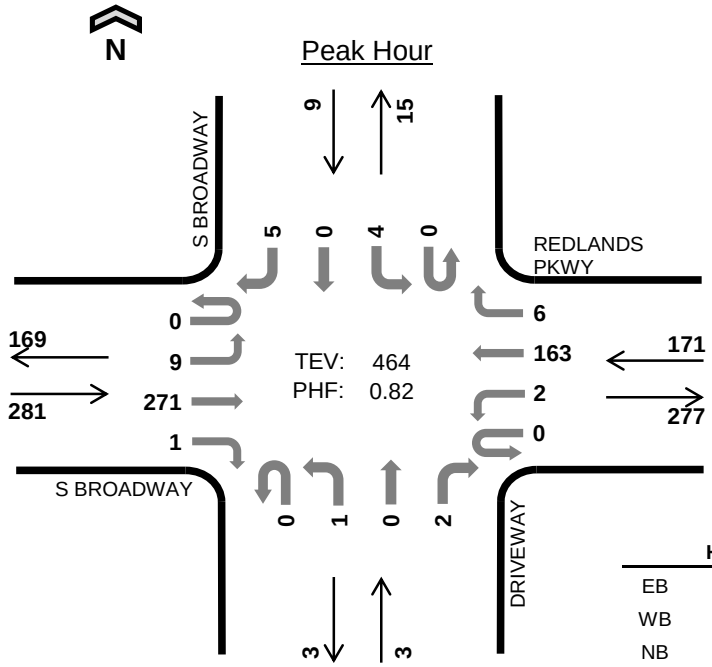
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

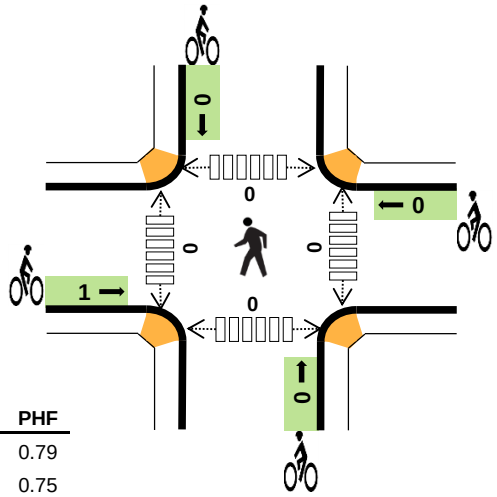
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

S BROADWAY
REDLANDS PKWY

Date: Tue, Jan 29, 2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	0.4%	0.79
WB	3.5%	0.75
NB	0.0%	0.38
SB	0.0%	0.75
TOTAL	1.5%	0.82

Two-Hour Count Summaries

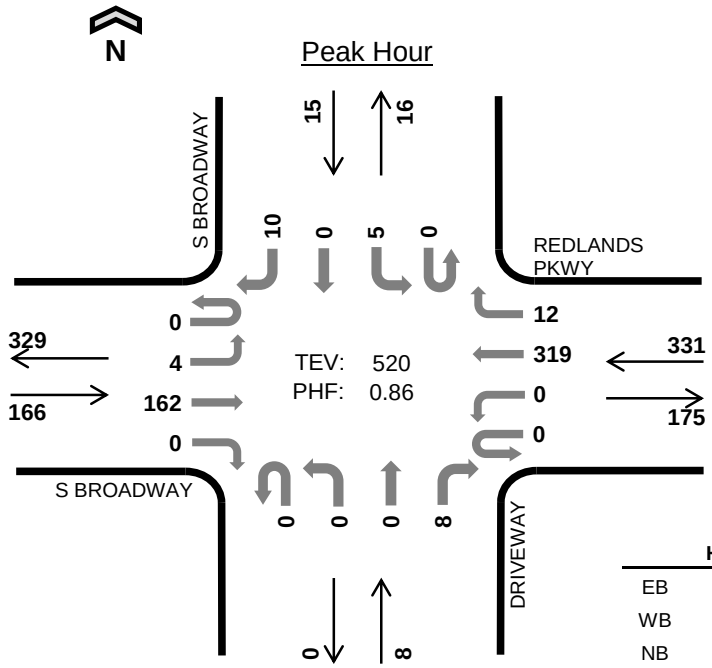
Interval Start	S BROADWAY Eastbound				REDLANDS PKWY Westbound				DRIVEWAY Northbound				S BROADWAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	82	0	0	1	16	0	0	0	0	0	0	3	0	0	102	0
7:15 AM	0	1	69	0	0	0	25	0	0	0	0	0	0	3	0	0	98	0
7:30 AM	0	1	108	0	1	0	27	0	0	0	1	1	0	2	0	1	142	0
7:45 AM	0	2	78	0	0	1	27	1	0	0	0	1	0	2	0	1	113	455
8:00 AM	**0**	**1**	**55**	**0**	**0**	**1**	**25**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**86**	439
8:15 AM	**0**	**2**	**51**	**1**	**0**	**0**	**47**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**2**	**105**	446
8:30 AM	**0**	**3**	**79**	**0**	**0**	**0**	**53**	**4**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**142**	446
8:45 AM	**0**	**3**	**86**	**0**	**0**	**1**	**38**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**131**	**464**
Count Total	0	13	608	1	1	4	258	7	0	1	1	4	0	14	0	7	919	0
Peak Hour	**0**	**9**	**271**	**1**	**0**	**2**	**163**	**6**	**0**	**1**	**0**	**2**	**0**	**4**	**0**	**5**	**464**	**0**

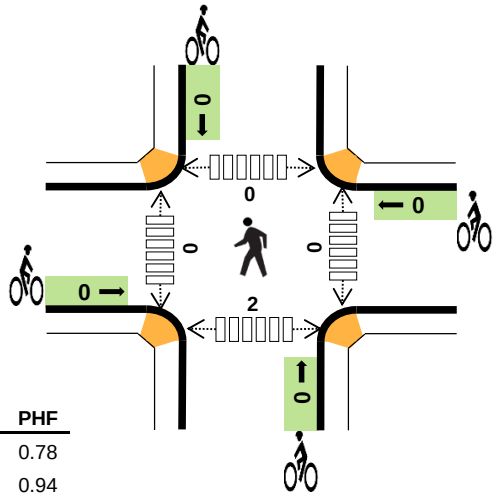
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	1	0	0	*3*	0	0	0	0	*0*	0	1	0	0	*1*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**3**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**3**	**0**	**0**	***3***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
8:45 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	6	9	0	0	*15*	1	0	0	0	*1*	0	1	0	0	*1*
Peak Hour	**1**	**6**	**0**	**0**	***7***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

S BROADWAY
REDLANDS PKWY

Date: Tue, Jan 29, 2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.6%	0.78
WB	0.0%	0.94
NB	0.0%	0.33
SB	0.0%	0.63
TOTAL	0.2%	0.86

Two-Hour Count Summaries

Interval Start	S BROADWAY Eastbound				REDLANDS PKWY Westbound				DRIVEWAY Northbound				S BROADWAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	3	59	0	0	0	64	0	0	0	0	0	0	2	0	0	128	0
4:15 PM	0	0	39	0	0	0	62	1	0	0	0	2	0	1	0	2	107	0
4:30 PM	0	0	44	1	0	0	60	0	0	0	0	0	0	1	0	3	109	0
4:45 PM	**0**	**0**	**34**	**0**	**0**	**0**	**78**	**5**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**4**	**125**	469
5:00 PM	**0**	**0**	**50**	**0**	**0**	**0**	**79**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**131**	472
5:15 PM	**0**	**3**	**50**	**0**	**0**	**0**	**85**	**3**	**0**	**0**	**0**	**6**	**0**	**2**	**0**	**3**	**152**	517
5:30 PM	**0**	**1**	**28**	**0**	**0**	**0**	**77**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**112**	**520**
5:45 PM	0	0	25	0	0	0	66	5	0	0	0	0	0	1	0	3	100	495
Count Total	0	7	329	1	0	0	571	18	0	0	0	10	0	10	0	18	964	0
Peak Hour	**0**	**4**	**162**	**0**	**0**	**0**	**319**	**12**	**0**	**0**	**0**	**8**	**0**	**5**	**0**	**10**	**520**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	1	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	***2***
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	6	4	0	0	*10*	0	0	0	0	*0*	0	0	0	2	*2*
Peak Hour	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	***2***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	579	1	8	254	2	33
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	629	1	9	276	2	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			630		923	630
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			630		923	630
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	93
cM capacity (veh/h)			952		297	482

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	630	285	38
Volume Left	0	9	2
Volume Right	1	0	36
cSH	1700	952	465
Volume to Capacity	0.37	0.01	0.08
Queue Length 95th (ft)	0	1	7
Control Delay (s)	0.0	0.4	13.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.4	13.4
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	371	7	26	548	6	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	403	8	28	596	7	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			411		1059	407
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			411		1059	407
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		97	97
cM capacity (veh/h)			1148		242	644

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	411	624	26
Volume Left	0	28	7
Volume Right	8	0	20
cSH	1700	1148	455
Volume to Capacity	0.24	0.02	0.06
Queue Length 95th (ft)	0	2	5
Control Delay (s)	0.0	0.7	13.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	13.4
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	826	1	8	297	2	33
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	898	1	9	323	2	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			899		1239	898
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			899		1239	898
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	89
cM capacity (veh/h)			756		192	338

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	899	332	38
Volume Left	0	9	2
Volume Right	1	0	36
cSH	1700	756	324
Volume to Capacity	0.53	0.01	0.12
Queue Length 95th (ft)	0	1	10
Control Delay (s)	0.0	0.4	17.6
Lane LOS		A	C
Approach Delay (s)	0.0	0.4	17.6
Approach LOS			C

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	444	7	26	776	6	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	483	8	28	843	7	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			490		1386	486
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			490		1386	486
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		96	97
cM capacity (veh/h)			1073		154	581

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	490	872	26
Volume Left	0	28	7
Volume Right	8	0	20
cSH	1700	1073	343
Volume to Capacity	0.29	0.03	0.08
Queue Length 95th (ft)	0	2	6
Control Delay (s)	0.0	0.7	16.4
Lane LOS		A	C
Approach Delay (s)	0.0	0.7	16.4
Approach LOS			C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	579	2	11	254	4	56
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	629	2	12	276	4	61
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			632		930	630
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			632		930	630
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	87
cM capacity (veh/h)			951		293	481

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	632	12	276	65
Volume Left	0	12	0	4
Volume Right	2	0	0	61
cSH	1700	951	1700	462
Volume to Capacity	0.37	0.01	0.16	0.14
Queue Length 95th (ft)	0	1	0	12
Control Delay (s)	0.0	8.8	0.0	14.1
Lane LOS		A		B
Approach Delay (s)	0.0	0.4		14.1
Approach LOS				B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	379	14	36	548	10	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	412	15	39	596	11	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			427		1093	420
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			427		1093	420
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		95	95
cM capacity (veh/h)			1132		229	634

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	427	39	596	43
Volume Left	0	39	0	11
Volume Right	15	0	0	33
cSH	1700	1132	1700	439
Volume to Capacity	0.25	0.03	0.35	0.10
Queue Length 95th (ft)	0	3	0	8
Control Delay (s)	0.0	8.3	0.0	14.1
Lane LOS		A		B
Approach Delay (s)	0.0	0.5		14.1
Approach LOS				B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	579	2	11	254	4	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	629	2	12	276	4	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			632		930	630
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			632		930	630
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	90
cM capacity (veh/h)			951		293	481

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	632	12	276	54
Volume Left	0	12	0	4
Volume Right	2	0	0	50
cSH	1700	951	1700	458
Volume to Capacity	0.37	0.01	0.16	0.12
Queue Length 95th (ft)	0	1	0	10
Control Delay (s)	0.0	8.8	0.0	13.9
Lane LOS		A		B
Approach Delay (s)	0.0	0.4		13.9
Approach LOS				B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	371	14	36	548	9	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	403	15	39	596	10	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			418		1085	411
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			418		1085	411
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		96	96
cM capacity (veh/h)			1141		232	641

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	418	39	596	37
Volume Left	0	39	0	10
Volume Right	15	0	0	27
cSH	1700	1141	1700	437
Volume to Capacity	0.25	0.03	0.35	0.08
Queue Length 95th (ft)	0	3	0	7
Control Delay (s)	0.0	8.3	0.0	14.0
Lane LOS		A		B
Approach Delay (s)	0.0	0.5		14.0
Approach LOS				B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	826	2	11	297	4	56
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	898	2	12	323	4	61
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			900		1246	899
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			900		1246	899
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		98	82
cM capacity (veh/h)			755		189	338

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	900	12	323	65
Volume Left	0	12	0	4
Volume Right	2	0	0	61
cSH	1700	755	1700	321
Volume to Capacity	0.53	0.02	0.19	0.20
Queue Length 95th (ft)	0	1	0	19
Control Delay (s)	0.0	9.8	0.0	19.1
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		19.1
Approach LOS				C

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	444	14	36	776	10	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	483	15	39	843	11	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			498		1412	490
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			498		1412	490
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		93	94
cM capacity (veh/h)			1066		147	578

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	498	39	843	43
Volume Left	0	39	0	11
Volume Right	15	0	0	33
cSH	1700	1066	1700	333
Volume to Capacity	0.29	0.04	0.50	0.13
Queue Length 95th (ft)	0	3	0	11
Control Delay (s)	0.0	8.5	0.0	17.4
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		17.4
Approach LOS				C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	826	2	11	297	4	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	898	2	12	323	4	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			900		1246	899
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			900		1246	899
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		98	85
cM capacity (veh/h)			755		189	338

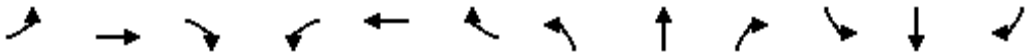
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	900	12	323	54
Volume Left	0	12	0	4
Volume Right	2	0	0	50
cSH	1700	755	1700	318
Volume to Capacity	0.53	0.02	0.19	0.17
Queue Length 95th (ft)	0	1	0	15
Control Delay (s)	0.0	9.8	0.0	18.7
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		18.7
Approach LOS				C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	444	14	36	776	9	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	483	15	39	843	10	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			498		1412	490
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			498		1412	490
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		93	95
cM capacity (veh/h)			1066		147	578

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	498	39	843	37
Volume Left	0	39	0	10
Volume Right	15	0	0	27
cSH	1700	1066	1700	325
Volume to Capacity	0.29	0.04	0.50	0.11
Queue Length 95th (ft)	0	3	0	10
Control Delay (s)	0.0	8.5	0.0	17.5
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		17.5
Approach LOS				C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	0	0	0	10	0	8	1	3	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	0	0	11	0	9	1	3	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	21	21	5	21	21	9	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21	21	5	21	21	9	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	99	100			100		
cM capacity (veh/h)	981	871	1078	991	871	1072	1616			1610		

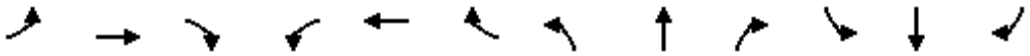
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	11	10	9
Volume Left	2	0	0	3
Volume Right	0	11	1	1
cSH	981	1072	1616	1610
Volume to Capacity	0.00	0.01	0.00	0.00
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	8.7	8.4	0.0	2.7
Lane LOS	A	A		A
Approach Delay (s)	8.7	8.4	0.0	2.7
Approach LOS	A	A		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1	0	9	0	8	0	9	8	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	10	0	9	0	10	9	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	38	38	10	38	39	9	11			9		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	38	38	10	38	39	9	11			9		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	99	100			99		
cM capacity (veh/h)	954	849	1072	962	848	1073	1608			1611		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	11	9	21
Volume Left	0	1	0	10
Volume Right	0	10	0	2
cSH	1700	1061	1608	1611
Volume to Capacity	0.00	0.01	0.00	0.01
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	0.0	8.4	0.0	3.5
Lane LOS	A	A		A
Approach Delay (s)	0.0	8.4	0.0	3.5
Approach LOS	A	A		

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	17.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	0	0	0	10	0	8	1	3	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	0	0	11	0	9	1	3	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	21	21	5	21	21	9	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21	21	5	21	21	9	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	99	100			100		
cM capacity (veh/h)	981	871	1078	991	871	1072	1616			1610		

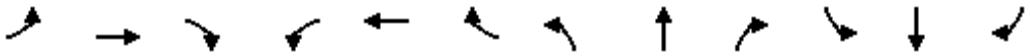
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	11	10	9
Volume Left	2	0	0	3
Volume Right	0	11	1	1
cSH	981	1072	1616	1610
Volume to Capacity	0.00	0.01	0.00	0.00
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	8.7	8.4	0.0	2.7
Lane LOS	A	A		A
Approach Delay (s)	8.7	8.4	0.0	2.7
Approach LOS	A	A		

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1	0	9	0	8	0	9	8	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	10	0	9	0	10	9	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	38	38	10	38	39	9	11			9		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	38	38	10	38	39	9	11			9		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	99	100			99		
cM capacity (veh/h)	954	849	1072	962	848	1073	1608			1611		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	11	9	21
Volume Left	0	1	0	10
Volume Right	0	10	0	2
cSH	1700	1061	1608	1611
Volume to Capacity	0.00	0.01	0.00	0.01
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	0.0	8.4	0.0	3.5
Lane LOS	A	A		A
Approach Delay (s)	0.0	8.4	0.0	3.5
Approach LOS	A	A		

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	0	0	0	35	0	8	1	7	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	0	0	38	0	9	1	8	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	29	30	5	29	30	9	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	29	30	5	29	30	9	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	96	100			100		
cM capacity (veh/h)	941	859	1078	976	859	1072	1616			1610		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	38	10	13
Volume Left	2	0	0	8
Volume Right	0	38	1	1
cSH	941	1072	1616	1610
Volume to Capacity	0.00	0.04	0.00	0.00
Queue Length 95th (ft)	0	3	0	0
Control Delay (s)	8.8	8.5	0.0	4.2
Lane LOS	A	A		A
Approach Delay (s)	8.8	8.5	0.0	4.2
Approach LOS	A	A		

Intersection Summary			
Average Delay	6.3		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1	0	25	0	8	0	26	8	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	27	0	9	0	28	9	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	75	75	10	75	76	9	11			9		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75	75	10	75	76	9	11			9		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	97	100			98		
cM capacity (veh/h)	880	801	1072	903	800	1073	1608			1611		

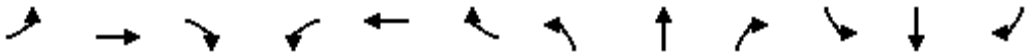
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	28	9	39
Volume Left	0	1	0	28
Volume Right	0	27	0	2
cSH	1700	1065	1608	1611
Volume to Capacity	0.00	0.03	0.00	0.02
Queue Length 95th (ft)	0	2	0	1
Control Delay (s)	0.0	8.5	0.0	5.3
Lane LOS	A	A		A
Approach Delay (s)	0.0	8.5	0.0	5.3
Approach LOS	A	A		

Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	0	0	0	25	0	8	1	7	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	0	0	27	0	9	1	8	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	29	30	5	29	30	9	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	29	30	5	29	30	9	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	97	100			100		
cM capacity (veh/h)	951	859	1078	976	859	1072	1616			1610		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	27	10	13
Volume Left	2	0	0	8
Volume Right	0	27	1	1
cSH	951	1072	1616	1610
Volume to Capacity	0.00	0.03	0.00	0.00
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	8.8	8.4	0.0	4.2
Lane LOS	A	A		A
Approach Delay (s)	8.8	8.4	0.0	4.2
Approach LOS	A	A		

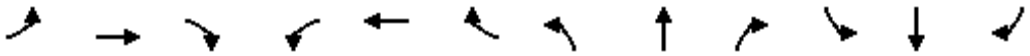
Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1	0	18	0	8	0	26	8	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	20	0	9	0	28	9	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	75	75	10	75	76	9	11			9		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75	75	10	75	76	9	11			9		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	98	100			98		
cM capacity (veh/h)	886	801	1072	903	800	1073	1608			1611		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	21	9	39
Volume Left	0	1	0	28
Volume Right	0	20	0	2
cSH	1700	1063	1608	1611
Volume to Capacity	0.00	0.02	0.00	0.02
Queue Length 95th (ft)	0	1	0	1
Control Delay (s)	0.0	8.5	0.0	5.3
Lane LOS	A	A		A
Approach Delay (s)	0.0	8.5	0.0	5.3
Approach LOS	A	A		

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	0	0	0	35	0	8	1	7	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	0	0	38	0	9	1	8	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	29	30	5	29	30	9	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	29	30	5	29	30	9	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	96	100			100		
cM capacity (veh/h)	941	859	1078	976	859	1072	1616			1610		

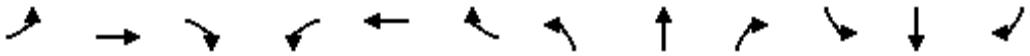
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	38	10	13
Volume Left	2	0	0	8
Volume Right	0	38	1	1
cSH	941	1072	1616	1610
Volume to Capacity	0.00	0.04	0.00	0.00
Queue Length 95th (ft)	0	3	0	0
Control Delay (s)	8.8	8.5	0.0	4.2
Lane LOS	A	A		A
Approach Delay (s)	8.8	8.5	0.0	4.2
Approach LOS	A	A		

Intersection Summary			
Average Delay	6.3		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1	0	25	0	8	0	26	8	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	27	0	9	0	28	9	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	75	75	10	75	76	9	11			9		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75	75	10	75	76	9	11			9		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	97	100			98		
cM capacity (veh/h)	880	801	1072	903	800	1073	1608			1611		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	28	9	39
Volume Left	0	1	0	28
Volume Right	0	27	0	2
cSH	1700	1065	1608	1611
Volume to Capacity	0.00	0.03	0.00	0.02
Queue Length 95th (ft)	0	2	0	1
Control Delay (s)	0.0	8.5	0.0	5.3
Lane LOS	A	A		A
Approach Delay (s)	0.0	8.5	0.0	5.3
Approach LOS	A	A		

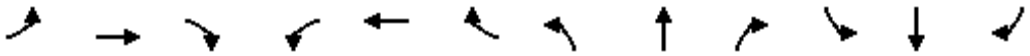
Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	0	0	0	25	0	8	1	7	4	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	0	0	0	27	0	9	1	8	4	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	29	30	5	29	30	9	5			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	29	30	5	29	30	9	5			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	97	100			100		
cM capacity (veh/h)	951	859	1078	976	859	1072	1616			1610		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	27	10	13
Volume Left	2	0	0	8
Volume Right	0	27	1	1
cSH	951	1072	1616	1610
Volume to Capacity	0.00	0.03	0.00	0.00
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	8.8	8.4	0.0	4.2
Lane LOS	A	A		A
Approach Delay (s)	8.8	8.4	0.0	4.2
Approach LOS	A	A		

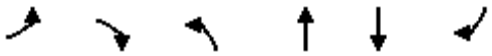
Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1	0	18	0	8	0	26	8	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	20	0	9	0	28	9	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	75	75	10	75	76	9	11			9		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75	75	10	75	76	9	11			9		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	98	100			98		
cM capacity (veh/h)	886	801	1072	903	800	1073	1608			1611		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	21	9	39
Volume Left	0	1	0	28
Volume Right	0	20	0	2
cSH	1700	1063	1608	1611
Volume to Capacity	0.00	0.02	0.00	0.02
Queue Length 95th (ft)	0	1	0	1
Control Delay (s)	0.0	8.5	0.0	5.3
Lane LOS	A	A		A
Approach Delay (s)	0.0	8.5	0.0	5.3
Approach LOS	A	A		

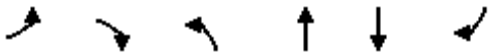
Intersection Summary				
Average Delay	5.6			
Intersection Capacity Utilization	18.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	1	1	1	2	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	1	1	2	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	6	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	6	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1015	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	2	2	3
Volume Left	1	1	0
Volume Right	1	0	1
cSH	1047	1619	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.4	3.6	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	3.6	0.0
Approach LOS	A		

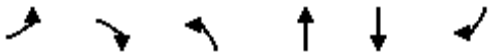
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	0	0	6	2	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	0	0	7	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	10	3	4			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	10	3	4			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1010	1081	1617			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	1	7	4
Volume Left	1	0	0
Volume Right	0	0	2
cSH	1010	1617	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.6	0.0	0.0
Approach LOS	A		

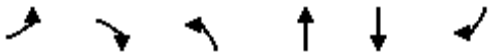
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	1	1	1	2	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	1	1	2	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	6	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	6	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1015	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	2	2	3
Volume Left	1	1	0
Volume Right	1	0	1
cSH	1047	1619	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.4	3.6	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	3.6	0.0
Approach LOS	A		

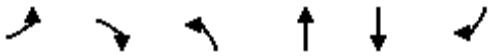
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	0	0	6	2	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	0	0	7	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	10	3	4			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	10	3	4			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	1010	1081	1617			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	1	7	4
Volume Left	1	0	0
Volume Right	0	0	2
cSH	1010	1617	1700
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.6	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.6	0.0	0.0
Approach LOS	A		

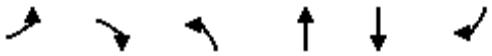
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	26	18	12	1	2	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	20	13	1	2	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	5	8			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	5	8			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	99			
cM capacity (veh/h)	974	1078	1613			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	48	14	8
Volume Left	28	13	0
Volume Right	20	0	5
cSH	1014	1613	1700
Volume to Capacity	0.05	0.01	0.00
Queue Length 95th (ft)	4	1	0
Control Delay (s)	8.7	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	6.7	0.0
Approach LOS	A		

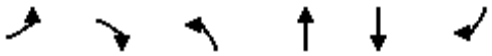
Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	17	11	31	6	2	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	12	34	7	2	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86	12	23			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86	12	23			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	98			
cM capacity (veh/h)	895	1068	1592			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	30	40	23
Volume Left	18	34	0
Volume Right	12	0	21
cSH	956	1592	1700
Volume to Capacity	0.03	0.02	0.01
Queue Length 95th (ft)	2	2	0
Control Delay (s)	8.9	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.9	6.1	0.0
Approach LOS	A		

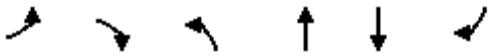
Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	16	28	12	1	2	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	30	13	1	2	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	5	8			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	5	8			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	97	99			
cM capacity (veh/h)	974	1078	1613			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	48	14	8
Volume Left	17	13	0
Volume Right	30	0	5
cSH	1038	1613	1700
Volume to Capacity	0.05	0.01	0.00
Queue Length 95th (ft)	4	1	0
Control Delay (s)	8.6	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	8.6	6.7	0.0
Approach LOS	A		

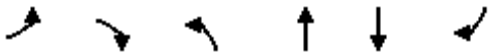
Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	18	31	6	2	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	20	34	7	2	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86	12	23			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86	12	23			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	98			
cM capacity (veh/h)	895	1068	1592			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	30	40	23
Volume Left	11	34	0
Volume Right	20	0	21
cSH	999	1592	1700
Volume to Capacity	0.03	0.02	0.01
Queue Length 95th (ft)	2	2	0
Control Delay (s)	8.7	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	6.1	0.0
Approach LOS	A		

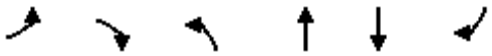
Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	26	18	12	1	2	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	20	13	1	2	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	5	8			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	5	8			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	99			
cM capacity (veh/h)	974	1078	1613			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	48	14	8
Volume Left	28	13	0
Volume Right	20	0	5
cSH	1014	1613	1700
Volume to Capacity	0.05	0.01	0.00
Queue Length 95th (ft)	4	1	0
Control Delay (s)	8.7	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	6.7	0.0
Approach LOS	A		

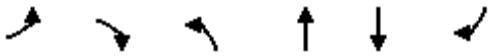
Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	17	11	31	6	2	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	12	34	7	2	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86	12	23			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86	12	23			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	98			
cM capacity (veh/h)	895	1068	1592			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	30	40	23
Volume Left	18	34	0
Volume Right	12	0	21
cSH	956	1592	1700
Volume to Capacity	0.03	0.02	0.01
Queue Length 95th (ft)	2	2	0
Control Delay (s)	8.9	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.9	6.1	0.0
Approach LOS	A		

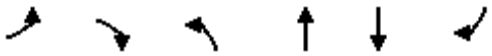
Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	16	28	12	1	2	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	30	13	1	2	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	5	8			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	5	8			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	97	99			
cM capacity (veh/h)	974	1078	1613			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	48	14	8
Volume Left	17	13	0
Volume Right	30	0	5
cSH	1038	1613	1700
Volume to Capacity	0.05	0.01	0.00
Queue Length 95th (ft)	4	1	0
Control Delay (s)	8.6	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	8.6	6.7	0.0
Approach LOS	A		

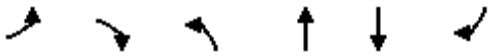
Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	18	31	6	2	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	20	34	7	2	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86	12	23			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86	12	23			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	98			
cM capacity (veh/h)	895	1068	1592			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	30	40	23
Volume Left	11	34	0
Volume Right	20	0	21
cSH	999	1592	1700
Volume to Capacity	0.03	0.02	0.01
Queue Length 95th (ft)	2	2	0
Control Delay (s)	8.7	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	6.1	0.0
Approach LOS	A		

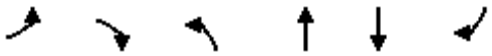
Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	7	4	10	3	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	8	4	11	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	23	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	23	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	991	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	8	15	3
Volume Left	0	4	0
Volume Right	8	0	0
cSH	1081	1619	1700
Volume to Capacity	0.01	0.00	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.4	2.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	2.1	0.0
Approach LOS	A		

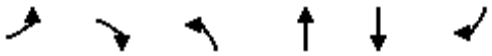
Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	14.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	2	8	8	14	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	9	9	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	42	16	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	42	16	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	964	1064	1601			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	3	17	16
Volume Left	1	9	0
Volume Right	2	0	1
cSH	1028	1601	1700
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.5	3.7	0.0
Lane LOS	A	A	
Approach Delay (s)	8.5	3.7	0.0
Approach LOS	A		

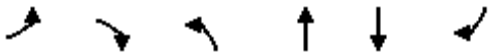
Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	7	4	10	3	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	8	4	11	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	23	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	23	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	991	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	8	15	3
Volume Left	0	4	0
Volume Right	8	0	0
cSH	1081	1619	1700
Volume to Capacity	0.01	0.00	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.4	2.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	2.1	0.0
Approach LOS	A		

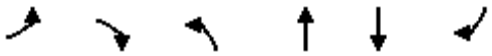
Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	14.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	2	8	8	14	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	9	9	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	42	16	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	42	16	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	964	1064	1601			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	3	17	16
Volume Left	1	9	0
Volume Right	2	0	1
cSH	1028	1601	1700
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	8.5	3.7	0.0
Lane LOS	A	A	
Approach Delay (s)	8.5	3.7	0.0
Approach LOS	A		

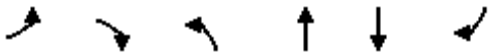
Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	24	15	10	3	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	26	16	11	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	47	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	47	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	99			
cM capacity (veh/h)	953	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	26	27	3
Volume Left	0	16	0
Volume Right	26	0	0
cSH	1081	1619	1700
Volume to Capacity	0.02	0.01	0.00
Queue Length 95th (ft)	2	1	0
Control Delay (s)	8.4	4.4	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	4.4	0.0
Approach LOS	A		

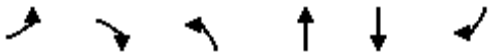
Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	13	39	8	14	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	14	42	9	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	109	16	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	109	16	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	97			
cM capacity (veh/h)	864	1064	1601			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	15	51	16
Volume Left	1	42	0
Volume Right	14	0	1
cSH	1046	1601	1700
Volume to Capacity	0.01	0.03	0.01
Queue Length 95th (ft)	1	2	0
Control Delay (s)	8.5	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.5	6.1	0.0
Approach LOS	A		

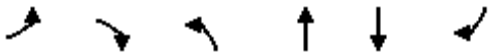
Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	34	15	10	3	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	37	16	11	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	47	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	47	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	99			
cM capacity (veh/h)	953	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	37	27	3
Volume Left	0	16	0
Volume Right	37	0	0
cSH	1081	1619	1700
Volume to Capacity	0.03	0.01	0.00
Queue Length 95th (ft)	3	1	0
Control Delay (s)	8.4	4.4	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	4.4	0.0
Approach LOS	A		

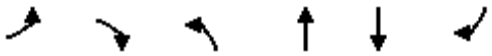
Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	20	39	8	14	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	22	42	9	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	109	16	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	109	16	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	97			
cM capacity (veh/h)	864	1064	1601			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	23	51	16
Volume Left	1	42	0
Volume Right	22	0	1
cSH	1052	1601	1700
Volume to Capacity	0.02	0.03	0.01
Queue Length 95th (ft)	2	2	0
Control Delay (s)	8.5	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.5	6.1	0.0
Approach LOS	A		

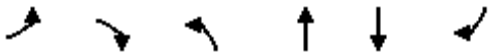
Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	24	15	10	3	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	26	16	11	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	47	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	47	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	99			
cM capacity (veh/h)	953	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	26	27	3
Volume Left	0	16	0
Volume Right	26	0	0
cSH	1081	1619	1700
Volume to Capacity	0.02	0.01	0.00
Queue Length 95th (ft)	2	1	0
Control Delay (s)	8.4	4.4	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	4.4	0.0
Approach LOS	A		

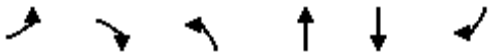
Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	13	39	8	14	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	14	42	9	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	109	16	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	109	16	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	97			
cM capacity (veh/h)	864	1064	1601			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	15	51	16
Volume Left	1	42	0
Volume Right	14	0	1
cSH	1046	1601	1700
Volume to Capacity	0.01	0.03	0.01
Queue Length 95th (ft)	1	2	0
Control Delay (s)	8.5	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.5	6.1	0.0
Approach LOS	A		

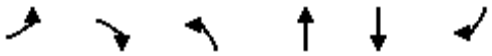
Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	34	15	10	3	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	37	16	11	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	47	3	3			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	47	3	3			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	99			
cM capacity (veh/h)	953	1081	1619			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	37	27	3
Volume Left	0	16	0
Volume Right	37	0	0
cSH	1081	1619	1700
Volume to Capacity	0.03	0.01	0.00
Queue Length 95th (ft)	3	1	0
Control Delay (s)	8.4	4.4	0.0
Lane LOS	A	A	
Approach Delay (s)	8.4	4.4	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	20	39	8	14	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	22	42	9	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	109	16	16			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	109	16	16			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	97			
cM capacity (veh/h)	864	1064	1601			

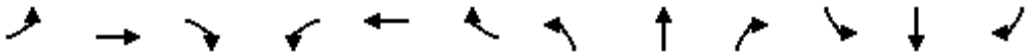
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	23	51	16
Volume Left	1	42	0
Volume Right	22	0	1
cSH	1052	1601	1700
Volume to Capacity	0.02	0.03	0.01
Queue Length 95th (ft)	2	2	0
Control Delay (s)	8.5	6.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.5	6.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	263	1	2	152	6	1	0	3	6	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	286	1	2	165	7	1	0	3	7	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	172			287			481	480	286	480	477	168
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	172			287			481	480	286	480	477	168
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	99	100	100
cM capacity (veh/h)	1405			1275			490	481	753	491	483	876

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	296	174	4	11
Volume Left	9	2	1	7
Volume Right	1	7	3	4
cSH	1405	1275	664	596
Volume to Capacity	0.01	0.00	0.01	0.02
Queue Length 95th (ft)	0	0	0	1
Control Delay (s)	0.3	0.1	10.5	11.2
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.1	10.5	11.2
Approach LOS			B	B

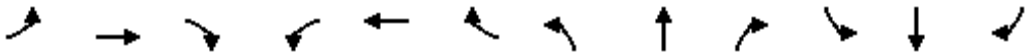
Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	162	0	0	319	12	0	0	8	5	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	176	0	0	347	13	0	0	9	5	0	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	360			176			549	545	176	547	538	353
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	360			176			549	545	176	547	538	353
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	99	100	98
cM capacity (veh/h)	1199			1400			438	444	867	442	448	690

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	180	360	9	16
Volume Left	4	0	0	5
Volume Right	0	13	9	11
cSH	1199	1400	867	582
Volume to Capacity	0.00	0.00	0.01	0.03
Queue Length 95th (ft)	0	0	1	2
Control Delay (s)	0.2	0.0	9.2	11.4
Lane LOS	A		A	B
Approach Delay (s)	0.2	0.0	9.2	11.4
Approach LOS			A	B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	29.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	589	1	2	152	6	1	0	3	6	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	640	1	2	165	7	1	0	3	7	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	172			641			835	834	641	834	832	168
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	172			641			835	834	641	834	832	168
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	98	100	100
cM capacity (veh/h)	1405			943			284	301	475	284	302	876

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	650	174	4	11
Volume Left	9	2	1	7
Volume Right	1	7	3	4
cSH	1405	943	406	389
Volume to Capacity	0.01	0.00	0.01	0.03
Queue Length 95th (ft)	0	0	1	2
Control Delay (s)	0.2	0.1	14.0	14.5
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	0.1	14.0	14.5
Approach LOS			B	B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	302	0	0	526	12	0	0	8	5	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	328	0	0	572	13	0	0	9	5	0	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	585			328			926	922	328	924	915	578
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	585			328			926	922	328	924	915	578
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	98	100	98
cM capacity (veh/h)	990			1231			243	269	713	246	271	515

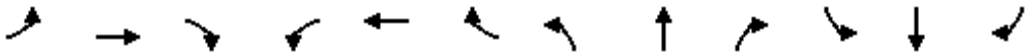
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	333	585	9	16
Volume Left	4	0	0	5
Volume Right	0	13	9	11
cSH	990	1231	713	378
Volume to Capacity	0.00	0.00	0.01	0.04
Queue Length 95th (ft)	0	0	1	3
Control Delay (s)	0.2	0.0	10.1	15.0
Lane LOS	A		B	B
Approach Delay (s)	0.2	0.0	10.1	15.0
Approach LOS			B	B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	263	1	2	152	15	1	0	3	19	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	286	1	2	165	16	1	0	3	21	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	182			287			486	494	286	481	478	165
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	182			287			486	494	286	481	478	165
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	96	100	99
cM capacity (veh/h)	1394			1275			483	472	753	490	482	879

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	298	167	16	4	29
Volume Left	11	2	0	1	21
Volume Right	1	0	16	3	9
cSH	1394	1275	1700	660	564
Volume to Capacity	0.01	0.00	0.01	0.01	0.05
Queue Length 95th (ft)	1	0	0	0	4
Control Delay (s)	0.3	0.1	0.0	10.5	11.7
Lane LOS	A	A		B	B
Approach Delay (s)	0.3	0.1		10.5	11.7
Approach LOS				B	B

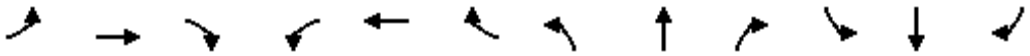
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	162	0	0	319	41	0	0	8	13	0	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	176	0	0	347	45	0	0	9	14	0	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	391			176			550	580	176	545	536	347
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	391			176			550	580	176	545	536	347
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	97	100	98
cM capacity (veh/h)	1167			1400			435	423	867	443	449	696

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	183	347	45	9	28
Volume Left	7	0	0	0	14
Volume Right	0	0	45	9	14
cSH	1167	1400	1700	867	542
Volume to Capacity	0.01	0.00	0.03	0.01	0.05
Queue Length 95th (ft)	0	0	0	1	4
Control Delay (s)	0.3	0.0	0.0	9.2	12.0
Lane LOS	A			A	B
Approach Delay (s)	0.3	0.0		9.2	12.0
Approach LOS				A	B

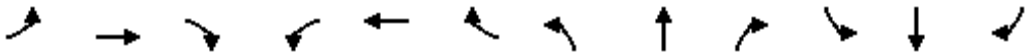
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	263	1	2	152	15	1	0	3	29	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	286	1	2	165	16	1	0	3	32	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	182			287			486	494	286	481	478	165
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	182			287			486	494	286	481	478	165
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	94	100	99
cM capacity (veh/h)	1394			1275			483	472	753	490	482	879

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	298	167	16	4	40
Volume Left	11	2	0	1	32
Volume Right	1	0	16	3	9
cSH	1394	1275	1700	660	542
Volume to Capacity	0.01	0.00	0.01	0.01	0.07
Queue Length 95th (ft)	1	0	0	0	6
Control Delay (s)	0.3	0.1	0.0	10.5	12.2
Lane LOS	A	A		B	B
Approach Delay (s)	0.3	0.1		10.5	12.2
Approach LOS				B	B

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	34.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	162	0	0	319	41	0	0	8	20	0	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	176	0	0	347	45	0	0	9	22	0	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	391			176			550	580	176	545	536	347
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	391			176			550	580	176	545	536	347
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	95	100	98
cM capacity (veh/h)	1167			1400			435	423	867	443	449	696

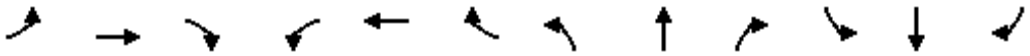
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	183	347	45	9	36
Volume Left	7	0	0	0	22
Volume Right	0	0	45	9	14
cSH	1167	1400	1700	867	517
Volume to Capacity	0.01	0.00	0.03	0.01	0.07
Queue Length 95th (ft)	0	0	0	1	6
Control Delay (s)	0.3	0.0	0.0	9.2	12.5
Lane LOS	A			A	B
Approach Delay (s)	0.3	0.0		9.2	12.5
Approach LOS				A	B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	589	1	2	152	15	1	0	3	19	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	640	1	2	165	16	1	0	3	21	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	182			641			841	848	641	835	833	165
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	182			641			841	848	641	835	833	165
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	93	100	99
cM capacity (veh/h)	1394			943			280	295	475	283	301	879

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	652	167	16	4	29
Volume Left	11	2	0	1	21
Volume Right	1	0	16	3	9
cSH	1394	943	1700	404	354
Volume to Capacity	0.01	0.00	0.01	0.01	0.08
Queue Length 95th (ft)	1	0	0	1	7
Control Delay (s)	0.2	0.1	0.0	14.0	16.1
Lane LOS	A	A		B	C
Approach Delay (s)	0.2	0.1		14.0	16.1
Approach LOS				B	C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	302	0	0	526	41	0	0	8	13	0	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	328	0	0	572	45	0	0	9	14	0	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	616			328			927	958	328	922	913	572
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	616			328			927	958	328	922	913	572
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	94	100	97
cM capacity (veh/h)	964			1231			241	256	713	246	272	520

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	335	572	45	9	28
Volume Left	7	0	0	0	14
Volume Right	0	0	45	9	14
cSH	964	1231	1700	713	334
Volume to Capacity	0.01	0.00	0.03	0.01	0.08
Queue Length 95th (ft)	1	0	0	1	7
Control Delay (s)	0.2	0.0	0.0	10.1	16.8
Lane LOS	A			B	C
Approach Delay (s)	0.2	0.0		10.1	16.8
Approach LOS				B	C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	589	1	2	152	15	1	0	3	29	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	640	1	2	165	16	1	0	3	32	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	182			641			841	848	641	835	833	165
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	182			641			841	848	641	835	833	165
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	89	100	99
cM capacity (veh/h)	1394			943			280	295	475	283	301	879

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	652	167	16	4	40
Volume Left	11	2	0	1	32
Volume Right	1	0	16	3	9
cSH	1394	943	1700	404	331
Volume to Capacity	0.01	0.00	0.01	0.01	0.12
Queue Length 95th (ft)	1	0	0	1	10
Control Delay (s)	0.2	0.1	0.0	14.0	17.4
Lane LOS	A	A		B	C
Approach Delay (s)	0.2	0.1		14.0	17.4
Approach LOS				B	C

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	302	0	0	526	41	0	0	8	20	0	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	328	0	0	572	45	0	0	9	22	0	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	616			328			927	958	328	922	913	572
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	616			328			927	958	328	922	913	572
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	99	91	100	97
cM capacity (veh/h)	964			1231			241	256	713	246	272	520

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	335	572	45	9	36
Volume Left	7	0	0	0	22
Volume Right	0	0	45	9	14
cSH	964	1231	1700	713	311
Volume to Capacity	0.01	0.00	0.03	0.01	0.12
Queue Length 95th (ft)	1	0	0	1	10
Control Delay (s)	0.2	0.0	0.0	10.1	18.1
Lane LOS	A			B	C
Approach Delay (s)	0.2	0.0		10.1	18.1
Approach LOS				B	C

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	42.9%	ICU Level of Service		A
Analysis Period (min)	15			

Scott Peterson

From: Scott Peterson
Sent: Friday, November 1, 2019 9:49 AM
To: Ted
Subject: Extension Request - Magnus Court Subdivision - Annexation - ODP

Ted,

Your request for a 90-day extension to respond to the Round 1 Review Comments for City file #'s ANX-2019-137 & PLD-2019-374 has been approved in accordance with Section 21.02.070 (a) (4) (iv) of the Zoning & Development. Therefore, please respond to Round 1 Review Comments by no later than February 2, 2020 for these two applications.

Thank you.

Scott Peterson
Senior Planner
City of Grand Junction
scottp@gjcity.org
(970) 244-1447

City of Grand Junction
Response to Review Comments

Date: Nov. 1, 2019 **Comment Round No.** 1 **Page No.** 1 of 13
ANX-2019-137
Project Name: Magnus Court Subd. (Annexation – ODP) **File No:** PLD-2019-374
Project Location: Magnus Court

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s): JLC Magnus LLC – Attn: Mike Thomas
[ ] **Mailing Address:** 1985 W. Beaver Road, Suite 200, Troy MI 48084
[X] **Email:** Thomco2008@aol.com **Telephone:** (248) 568-6200
[ ] **Date Picked Up:** _____ **Signature:** _____

Representative(s): Ciavonne Roberts & Associates – Attn: Ted Ciavonne
[ ] **Mailing Address:** 222 N. 7th Street, Grand Junction, CO 81501
[X] **Email:** ted@ciavonne.com **Telephone:** (970) 241-0745
[ ] **Date Picked Up:** _____ **Signature:** _____

Developer(s):
[ ] **Mailing Address:**
[ ] **Email:** **Telephone:**
[ ] **Date Picked Up:** _____ **Signature:** _____

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner
Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Rick Dorris
Email: rickdo@gjcity.org **Telephone:** (970) 256-4034

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING

1. Proposal is for approval of an Outline Development Plan (ODP – Rezone to PD, Planned Development) with a default zone district of R-2 (Residential – 2 du/ac) in order to develop up to 74 single-family detached lots and also to set specific Performance Standards for the residential development all on 69.67 +/- acres (Unplatted). Total proposed residential density would be 1.06 dwelling units/acre. Existing zoning for the properties are County RSF-4 (Residential Single Family – 4 du/ac), City R-E (Residential Estate) and City R-2 (Residential Single Family – 2 du/ac). Comprehensive Plan Future Land Use Map identifies the properties as Residential Low (.5 – 2 du/ac) and Rural. Proposed Annexation will need to be reviewed by the City Council (Public Hearing). Outline Development Plan application will need to be reviewed by Planning Commission and City Council to approve a new PD Ordinance for the property (Public Hearing). FYI. No Comprehensive Plan Future Land Use Map Amendment would be necessary for this application since the proposed

default zone district of R-2 is an allowed zoning district within both the Residential Low (.5 – 2 du/ac) and Rural categories utilizing the Blended Land Use Map. No additional response required.
Code Reference: Section 21.02.150 (b) of the Zoning and Development Code.
Applicant's Response: We are acknowledging the R-2 zone as our default zone, however, since we have over 65% Open Space the R-8 zone district standards will be implemented per the Cluster Development provisions of the Zoning and Development Code.
Document Reference: Code Section 21.03.060 (5)

2. Outline Development Plan – Aerial Photo drawing (Sheet 1-1):
a. Incorporate proposed lot and right-of-way layout on this sheet. Complete. This includes the current representations of changes approved via TEDS exceptions.
b. Show slopes greater than 30% on this sheet. We have shown slopes greater than 30% in 'red'.
c. Label existing street names on all applicable sheets. Complete.
d. Active Transportation Corridor Plan indicates a "Canal Path" adjacent to the Redlands Canal located at the northwest corner of the property. At time of final development of the area included within this filing, applicant will need to construct and dedicate a minimum of a 15' wide Trail Easement located within an HOA tract and construct a 10' wide concrete trail within this area. We have no issue with creating the trail easement, but the construction of approximately 50 linear feet of concrete trail, in the middle of a 4000' foot long Redlands Canal service road … when no other concrete trail exists either side of this for thousands of feet … and when it is likely 'trespass' to even get to this location makes constructing this trail unacceptable.
Please label trail easement on ODP drawing. Complete.
e. Since the existing off-street trail system will be a community benefit as part of the Planned Development Zone District, on ODP drawing, clearly identify location of trails within the development that will remain and the type of surface proposed, such as gravel. As indicated on the Illustrative drawing (Revised 11-1-19), some trails are HOA owned and maintained trails that will reside within HOA open space tracts, and some will be public trails that make current 'trespass' trails legitimate. Due to the terrain, the slopes, equipment access to the tails, etc. we are proposing only soft surface trails – no pavement. At time of the Final Subdivision Plan, a minimum 15' wide public Pedestrian/Trail Easement will also be required to be dedicated over the trails within the subdivision in support of the community benefit for the proposed PD zone district. Proposed Public Benefit recognized legitimizing the existing trespass trails for the public, but not the new trails internal to private HOA tracts. There are two locations where the fire department requested turnarounds (hammerheads) and these two locations will provide access from the proposed public streets to the existing but legitimized public trail network.
f. Since the applicant is proposing to utilize the Planned Development zone district, applicant may propose to utilize the deviations from the development default bulk standards for building setbacks, etc., rather than utilizing the Cluster Development provisions as identified in Section 21.03.060 of the Zoning and Development Code (Section 21.05.040 (g) of the Zoning & Development Code). Applicant is proposing over 45.7 +/- acres of open space under this proposal which would equate to 65% of open space within the development. Since the applicant is proposing over 45 acres of open space, the applicant could request to utilize the R-8 bulk standards as far as building setbacks, etc. Please address further with City Project Manager and clarify what bulk standards the applicant intends to utilize. We agree with this approach, and have tried to indicate we have an R-2 Default Zone, but are using the R-8 bulk standards per the Cluster Provisions. There may be specific lots where we will have setbacks that are stricter than the R-8 bulk standards, which we can note on the Final Plat.
g. Label proposed Shared Drive-Ways and open space areas as separate Tracts. We have noted on the submitted Illustrative, but these will technically be determined and noted on the Final Plat.
h. Revise drawings as applicable to reflect TEDS Approval, City file number TED-2019-59. Complete.

i. Sheet 1-1 indicates Pods, A, B & C, however, no pods appear on drawing. Revise as necessary. Reference to Pods omitted.
j. Revise Table 1 and other text on Sheet 1-1 to the correct Default Zone District of R-2 (or discuss further with City Project Manager proposed default zone options). We have incorporate R-2 as the Default Zone, but are using the R-8 bulk standards per the Cluster Provisions of the code.
k. Revise Table 2 on Sheet 1-1 to identify land uses that would be allowed for the subdivision, such as single-family detached, etc. Table revised to only allow detached single family.
l. Revise Phasing Schedule on Sheet 1-1 to the correct date of completion. City Manager suggests that the year 2020 be utilized for Phase 1 and so on.
Code Reference: V-14 of the SSIDS Manual.
Applicant's Response: Table Revised
Document Reference: ODP – Sheet 1-1

3. Slope Analysis Sheet:
a. Proposed streets and roads shall not have a slope greater than 30% unless the Planning Commission and City Council approve (Section 21.07.020 (f) (7) (i) of the Zoning and Development Code). Please address further if this is proposed. Slope Analysis Sheet identifies a portion of Magnus right-of-way as having a 30% slope. (1) virtually ALL of the 30% slopes in all of the ROW 's are man-made; (2) there are very few of these slopes; (3) Code clearly states that PC and CC must approve crossing 30% slopes IF THESE ARE DEEMED AS CRITICAL. We do not view these as 'critical', however we will be prepared to make such a request if they are deemed as such.
Specifically (Section 21.07.020 (f) (7) (i) states:

(i) Streets, roads, driveways and other vehicular routes shall not traverse property having a slope greater than 30 percent unless, after review by the Planning Commission and approval by the City Council, it is determined that:

(A) Appropriate engineering measures will be taken to minimize the impact of cuts, fills, erosion and stormwater runoff consistent with the purposes of this section; and

- We have already invested the design time into the proposed roads, and maintain that appropriate engineering measures have been taken to minimize cuts and fills and to appropriately handle storm water runoff;

(B) The developer has taken reasonable steps to minimize the amount of hillside cuts and taken measures to mitigate the aesthetic impact of cuts through the use of landscaping and other mitigation measures acceptable to the Director.

- Cuts and Fills have been minimized. Specific mitigation will be addressed at time of Final Plan.

a. Existing vegetation, where streets are to be located, shall be preserved to the greatest extent possible. As much as possible street alignment should follow the natural terrain.

- The proposed road alignment follows natural terrain "as much as possible";

b. Upon the favorable recommendation of the Director sidewalk construction may be waived by the Planning Commission when the Planning Commission finds that sidewalk construction would result in excessive grading and/or cut/fill of slopes.

- A TEDS Exception has been secured that reduces street width and removes sidewalk on one side;

c. Vertical or drive-over, curb and gutter, as determined by the Director, shall be installed along all public streets.

- Curb and gutter is proposed.

b. Provide a Legend Block for the purpose of explaining why are some lots are crosshatched? Example: Lots 3, 43, 53, 55, 68. Reason is that these lots exceed 20.01% slope. The five lots noted do exceed 20.01%, as follows: Lot 3 = 23.3%; Lot 43 = 24.6%; Lot 53 = 20.5%; Lot 55 = 20.9%, and Lot 68 = 22.2%.

c. What would be the building envelope for proposed Lot 43? Section 21.07.020 (f) (5) of the Zoning & Development Code allows the Director to allow some incursion hillside disturbance when the incursions do not exceed 20 feet. In the case of Lot 43, the existing slope averages 24.6% due to a manmade slope greater than 30% but less than 20 feet in grade difference. For this reason, the building envelope would be no different than any other lot. See 'd.' below for additional information.

d. Proposed Lots 3, 43, 53, 55, 68 do not meet with either the minimum lot size of 15,000 sq. ft. or the minimum lot width of 200' at the front setback line (Section 21.07.020 (f) (3) of the Zoning & Development Code). Revise as applicable. We are seeking support for common sense on these five lots. Code allows both Planning Commission and City Council input and approval for development of lots on slopes greater than 30% (which these are not) … and specifically addresses lots that are less than 20.01% … but remains ambiguous on lots that are between 20.01% and 30%.

We believe that the doubling of lot frontage from 100' to 200' when the average slope goes from 20% to 20.1% is baseless. We are prepared to ask both Planning Commission and City Council to interpret this code to allow them to approve a 10' increase in lot width commensurate with each additional degree in slope between 20% and 30%. Thus and average slope of 20.01 to 21% would require a minimum lot width of 110 feet; 21.01% to 22% would be a minimum lot width of 120 feet … etc. up to 29.01% to 30 % being the minimum lot width of 200 feet.

e. Proposed Lots 34, 35, 36 do not meet with the minimum lot width of 100' at the front setback line (Section 21.07.020 (f) (3) of the Zoning & Development Code). Revise as applicable. Section 21.03.030 (b) (2) allows the Director to approve irregularly shaped lots; this has been applied to wedge shaped lots on cul-de-sacs fairly consistently for years. For this reason we request such a determination, which then allows the lots to remain as currently drawn.

Code Reference: Section 21.07.020 (f) of the Zoning & Development Code.

Applicant's Response: See above.

Document Reference:

4. Elevations Sheet:

a. Proposed subdivision area is located within a mapped ridgeline protection area as identified within Section 21.07.020 (g) of the Zoning & Development Code. Please label existing ridgeline area and the location of the required 200' building and fence setback from the ridgeline for clarity on the plan (Sheet 1). However, the 200' setback shall not apply if the applicant can provide adequate visual representation that any new structure, fence, etc., will not be visible from the centerline of Redlands Parkway/S. Broadway and/or Escondido Circle. See Section 21.07.020 (g) (2) of the Zoning and Development Code for mitigation techniques (in no case shall the setback be less than 30' from the ridgeline). Please describe further and depict the ridgeline location on the Elevation Sheets. Section 21.07.020 (g) (2) states that structures will not be visible **OR** that mitigation will be provided … specifically:

> (2) This setback shall not apply if the applicant produces adequate visual representation that a proposed new structure will not be visible on the skyline as viewed from the centerline of the mapped roads **or that mitigation will be provided**. Mitigation techniques might include:
>
> (i) Earth tone colors to blend with the surrounding area;
>
> (ii) The use of nonreflective materials;
>
> (iii) Vegetation to screen and soften the visual impact of the structure; and/or
>
> (iv) A reduction of building height or the "stepping" of the building height; or
>
> (v) Other means that minimize the appearance from the road corridor.

The above noted mitigation techniques will be applied to any structures that fall within the ridgeline criteria. Based on our visual analysis the following lots are subject to this mitigation criteria:

- (Section A) Lot 12 – partial roof
- (Section B) Lot 13 – partial 2nd floor

It is important to note a number of points concerning the specific 'visible' lots noted above:

- The 'boxes' representing the homes are 60' deep and set on the front setback. It is unlikely that any home will be this deep;
- The 'boxes' representing the homes are a minimum 12' tall at the front wall at the front setback. Most residential homes will have 10' ceilings;
- The roofs on the 'boxes' representing the homes are at a 3:1 pitch. We expect flatter roofs on most homes;
- The 'boxes' representing the homes are set 'on-grade'. Driveway access will likely dictate the FFE on all homes, which will in many cases result in retaining walls that allow the home's FFE to be lower than existing grade.

In Summary – the criteria used for the visual analysis of homes is basically 'worst' case'. All concerns can be dealt with architecturally.

b. Elevation B drawing is cause for concern on how this property will be properly mitigated. Please address further.
Code Reference: Section 21.07.020 (g) of the Zoning and Development Code.
Applicant's Response: Utilizing the mitigation techniques noted above, this particular lot may require height restrictions (restricted to a single story on the back portion of the structure), however it may also be sunk into the existing grade enough that this will not be necessary. Additional tools include utilizing earth tone colors, and non-reflective materials.
Document Reference: Provided Sections

5. Illustrative Sheet:
Add to Legend Block what the blue shading represents. Proposed right-of-way vacation? Yes. See #6 below.
Applicant's Response: The blue shading represents existing Magnus Court ROW that can be disposed of with the redesign / relocation of what we are calling Magnus Loop. A small section, maintaining the name Magnus Court, will remain as access to existing lots and structures.
Document Reference: Illustrative Sheet

6. Magnus Court Right-of-Way Vacation (Portion of):
Applicant is requesting that portions of Magnus Court be vacated as part of the proposed subdivision development. Further review and discussion will be made prior to Final Subdivision Plan application. Proposed vacation request will require both Planning Commission and City Council review and approval.
Code Reference: Section 21.02.100 of the Zoning & Development Code.
Applicant's Response: Understood.
Document Reference: NA

7. General Project Report:
As part of the Planned Development request, does applicant wish to have a phasing schedule that would be within 10 years, rather than 6 as currently proposed (Section 21.02.080 (n) (2) (i) of the Zoning and Development Code)? Please revise if necessary. Any remaining development after 10 years, the applicant would need to come back to the Planning Commission and City Council to request a new phasing schedule in accordance with this section of the Code at the time. In the meantime, I would suggest that the first few phases be approved as a 3-year interval per filing.

Proposed phasing schedule will be included within the proposed PD Ordinance so that each phase will have a specified timeframe so the project can be tracked over time.
Applicant's Response: Understood. The Phasing Plan has been adjusted.
Document Reference: Phasing Plan and General Project Report

8. Planning Commission/City Council Public Hearings (ODP):
Once ODP and other review items have been completed and addressed by the applicant from the respective review agencies, Project Manager will schedule Annexation & Outline Development Plan applications for the next available Planning Commission and City Council meetings.
Code Reference: Section 21.02.150 of the Zoning and Development Code.
Applicant's Response: Understood.

9. Public Correspondence Received:
As of this date, City Project Manager has not received any other email or letter from the public concerning the proposed development, other than the email that was previously submitted by the Guenther's dated October 24, 2018.
Applicant's Response: Understood.

CITY DEVELOPMENT ENGINEER

This project was previously issued an alternative street and TEDS exception. See letter dated June 4, 2019 to Mr. Ted Ciavonne. This submittal is to create a PLD which also acts as a preliminary plan. No construction will occur. It does not contain many engineering documents; consequently, specific engineering comments are limited. The submittal does contain a TIS which was evaluated and comments are provided. There are some engineering issues that must be answered now because this is also a preliminary plan, see comments herein. There are many challenges with this project that will be evaluated with future submittals when further engineering has been performed.

FEES

Review Comment: Transportation Capacity Payment (TCP) – To be determined and collected at the time of planning clearance for individual building permits.

Storm Drainage Fee (in lieu of detention) – None, detention provided.

Inspection Fee – Current fee is $110 per unit.

Fee in Lieu of Utility Undergrounding – The overhead utilities on Magnus Court will need to be installed underground to make the street construction work.

Applicant's Response: Understood.
Document Reference:

Review Comment: This project is part of the Reed Mesa sewer improvement district. It should have sunset by now but check with Debi Overholt at 244-1520 to confirm.
Applicant's Response: It has sunset.
Document Reference:

GENERAL

Review Comment: The streets are expected to be steep and at the limits of the TEDS. The City doesn't remove snow on local streets. It may be necessary for the HOA to provide for private snow removal.

Applicant's Response: Snow removal will be addressed in the CCR's.
Document Reference:

Review Comment: Water pressures will likely need to be boosted with a pump. The project needs to demonstrate, with this submittal, adequate fire flow can be created.
Applicant's Response: Boosting water pressure with a pump has been discussed with Ute Water by our Civil Engineer, Mark Austin, and it is NOT a technical issue. We request that this $8K-$10k report be required at the time of Final Plan Submittals, and not prior to approval of the ODP and PD zone. We want to first know we have an approved Planned Development.
Document Reference:

Review Comment: The engineer will need to determine if the existing 6" sanitary can handle the additional 74 lots. This needs to be answered now since the PLD is also a preliminary plan.
Applicant's Response: The City designed this sewer line in-house, and installed it in 2007. At minimum it should have been designed to handle flows for densities associated with the Future Land Use Plan, and more reasonably should have been designed for the zoning that was in place at the time. We ask the City to research their design criteria for this line.
Document Reference:

Review Comment: This project will impact the neighborhood and/or the traveling public. The Developer's team needs to create a notification and coordination plan up front to minimize impact to the neighborhood. Items to include are (but not limited to) the traveling public/neighbors, school buses and children, mail carriers, and how far the notification is sent. Advanced warning signs similar to those used by CDOT may be required on busy streets.
Applicant's Response: Understood
Document Reference:

Review Comment: The plans need to be revised to show the street and turnaround configuration required by the TEDS exception.
Applicant's Response: Completed
Document Reference:

PLANS

Review Comment: Drainage at Magnus and 22 ¼ Road is currently an issue. This project will need to resolve it.
Applicant's Response: This project can display strategies to take care of its drainage, potentially reducing the existing problems on 22¼ Road, however, this project should not be held accountable for existing off-site drainage problems.
Document Reference:

Review Comment: Because the PLD is also considered a preliminary plan, the City needs to be comfortable the streets can meet TEDS and the project grading will work. Provide a grading plan demonstrating this.
Applicant's Response: This project has already proven the above and secured the appropriate TEDS Exceptions.
Document Reference:

DRAINAGE REPORT

Review Comment: The drainage report describes collecting runoff in a WQ and detention basin. The outfall would be piped to Goat Wash near South Broadway and 22 ¼

Road. If I understand correctly, this will significantly reduce flooding problems for the existing parcels north of the project. The capacity of Goat Wash must be evaluated but this is expected to be inconsequential in the big picture.

Applicant's Response: We agree that our "improvements" will significantly reduce flooding problems occurring offsite. We will look at the Goat Wash capacity at final design. We want to first know we have an approved Planned Development.

Document Reference:

STORMWATER

Review Comment: All normal stormwater reports, permits, and agreements are required.

Applicant's Response: Understood

Document Reference:

GEOTECHNICAL REPORT

Review Comment: The test pit report was only a series of pit logs with no lab analysis or geotechnical recommendations. It identifies many areas of bentonite. The report will be evaluated when complete. Given the soil types and topography, non-standard street and earthwork methods are anticipated.

Applicant's Response: A more significant Geotechnical Report has been completed, and is provided with these responses.

Document Reference:

TRANSACTION SCREEN ANALYSIS

Review Comment: A TSA will be needed.

Applicant's Response: Understood. This will be provided at Final Plan.

TRAFFIC IMPACT STUDY

Review Comment: The conclusions in the TIS seem reasonable and appropriate.

Applicant's Response: Noted

Review Comment: What phase of the project triggers the right turn lane on Redlands Parkway?

Applicant's Response: The westbound right deceleration lane at the intersection of South Broadway and Redlands Parkway will likely be triggered by the final construction phase of the project. Per TEDS 29.28.170, the auxiliary lane is required with the addition of 79% of the project traffic, or approximately 58 homes.

Review Comment: Sight distance at 22 ¼ Road and Magnus must be evaluated and is likely too short. 22 ¼ Road may need to be lowered. This will be the developer's responsibility.

Applicant's Response: The necessary sight distance mitigation was acknowledged in the traffic report. The existing crest curve on 22¼ Road will likely need to be lowered 4' to 5' to accommodate an acceptable 155' sight distance for a 25 mph roadway. The civil engineer shall use a K-value of 12 for a design speed on 22¼ Road of 25 mph per Table 3-34 of the AASHTO *Green Book*.

Review Comment: The report mentions stop signs and stop bars within the existing neighborhood to increase driver awareness. Identify what and where.

Applicant's Response: Stop Signs are recommended at the following locations.

Intersection	Stop Sign & Bar Location
Reed Mesa Drive & SH 340 (Broadway)	Reed Mesa NB
Mudgett Street & Reed Mesa Drive	4-way stop
Mudgett Drive & 22¼ Road	22¼ Road SB
Dixon Avenue & 22¼ Road	Dixon Avenue EB
Magnus Court & 22¼ Road	Magnus Court EB
Mowry Drive & 22¼ Road	22¼ Road NB
Mowry Drive & South Broadway	Mowry Drive EB
South Broadway & Redlands Parkway	South Broadway SB

Review Comment: Please have McDowell Engineering present at the public hearings to present the TIS methodology and conclusions.
Applicant's Response: McDowell Engineering will attend the hearings.
Document Reference:

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

The Improvement Survey for 2215 Magnus Court indicates and identifies a "gap" between Magnus Court right of way and the North line of the surveyed parcel. How will this gap be rectified and corrected?
Applicant's Response: The developer has had a survey and metes and bounds description of the gap prepared by a registered surveyor; has researched the chain of successor heirs and secured the names and contact information for each; has caused to have Quit Claim Deeds prepared for the signature of each extant heir; and is distributing the Quit Claim Deeds to each extant heir for signature. Once the signed Quit Claim Deeds have been returned to the developer by the total of extant heirs, an attorney will be retained to satisfy Mesa County protocols required to eliminate the gap.
Document Reference:

CITY FIRE DEPARTMENT – Steve Kollar – stevenk@gjcity.org (970) 549-5852

GJFD has no objects to the general outline of the development. The ODP documents appear to reflect previous conceptual designs and do not take into account the recent TEDS exception and Alternative Streets design. The next phase of review should include the following information:

Fire Flow. Fire flow form has been submitted for this project indicating fire flows off site. This project is located on significant slopes/grades and preliminary plans show a proposed water pressure booster station. In order to assess fire flow requirements, the petitioner will need to submit a water supply/fire flow analysis prepared by a qualified engineer indicating minimum fire flows have been achieved at the most remote location in the subdivision. All homes will have a fire sprinkler system installed and water supplies must also be able to meet minimum design calculations. The engineer of record must submit supportive design documents and a signed statement (stamped) indicating that adequate water supplies are present to properly support the sprinkler systems of each home in the subdivision. This may involve contacting a state certified fire sprinkler designer.

Fire Hydrants and Water Mains.
All residential lots must be located within 250 feet of a fire hydrant served by an 8-inch water main minimum. Magnus Loop should be reviewed to determine if the 250 foot criteria have been met. Please adjust accordingly if needed.

Fire Apparatus Access.
The subdivision layout and all apparatus roads should be designed and submitted for review in accordance with the approved TEDs Exception and Alternative Streets Plans to include the fire mitigation plan discussed as a part of the TEDS Review. Please submit a Fire Department Site Plan identified in SIDDS to include GJFD TRUCK 1 apparatus turning radius illustrations and the location of parked vehicles on the streets. Locations of no parking signs should also be included on all applicable streets, fire apparatus turnarounds, entry road median areas and shared driveway locations.

Please contact Steve Kollar at the Grand Junction Fire Department at 970-549-5800 should there be any questions.
Applicant's Response: Although some of the above comments have been addressed, all of these comments must be addressed at time of Final Plan.
Document Reference:

CITY ADDRESSING – Pat Dunlap – patd@gjcity.org (970) 256-4030

1. Magnus Court Subdivision is an acceptable subdivision name.
2. The northern part of the road must remain Magnus Court. Lots 1-7, 61-63, and 72 will be addressed on Magnus Court.
3. Magnus Loop is an acceptable road name for the part of the road that circles around to the south from Magnus Court on the east and back to Magnus Court on the west. Lots 8-32 and Lots 41-60 will be addressed on Magnus Loop.
4. Alternate addresses will be available for Lots 7, 31, 32, 63, and 72.
5. Please provide names for Cul A and Cul B to address off of.
6. Addresses will be available after the subdivision is approved.

Applicant's Response: We will determine names by the time of Final Plan.
Document Reference:

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Mesa County Building Department
Contact Name: Darrell Bay
Email / Telephone Number: Darrell.bay@mesacounty.us (970) 244-1651

MCBD has no objections to this project.
The following must be provided to our office in paper form;
The city approved Soil report, Drainage plan & TOF tabulation sheet
Applicant's Response: This information will be determined and available at time of Final Plan.

Review Agency: Xcel Energy
Contact Name: Brenda Boes
Email / Telephone Number: Brenda.k.boes@xcelenergy.com (970) 244-2698

Xcel has no objections, however, Developer does need to be aware that depending on added load, a gas main reinforcement may be needed at Developers expense.

Completion of this City/County review approval process does not constitute an application with Xcel Energy for utility installation. Applicant will need to contact Xcel Energy's Builder's Call Line/Engineering Department to request a formal design for the project. A full set of plans, contractor, and legal owner information is required prior to starting any part of the construction. Failure to provide required information prior to construction start will result in delays providing utility services to your project. Acceptable meter and/or equipment locations will be determined by Xcel Energy as a part of the design process. Additional easements may be required depending on final utility design and layout. Engineering and Construction lead times will vary depending on workloads and material availability. Relocation and/or removal of existing facilities will be made at the applicant's expense and are also subject to lead times referred to above. All Current and future Xcel Energy facilities' must be granted easement.
Applicant's Response: Understood

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

• With regard to the proposed pump station facilities, please provide for review: hydraulic design (fire flow and domestic service), mechanical equipment, electrical and backup power considerations, instrumentation and controls, building concept (structural, hvac), yard piping, and etc. Are you planning to dedicate a lot to the District for proposed facilities?

• Show the crossing for the water main transition at lots 27 & 26.

• Street B, ends in a cul-de-sac on one drawing and a differing configuration on another sheet. If the proposed water main is not in ROW shorten its length to be so.

• Water main in the existing Magnus ROW is 8-inch, correct labeling on drawing(s).

• ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.
• If you have any questions concerning any of this, please feel free to contact Ute Water.
Applicant's Response: These comments will be addressed at time of Final Plan.

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

This project will require both state CDPHE and 5-2-1 Construction Stormwater permits, to include the original O&M agreement in 4 pages, not double-sided; a Construction Stormwater Management Plan, and a completed 5-2-1 permit application with fees, payable by check, based on the area of disturbance on page 4. All appropriate forms and templates can be found on the 5-2-1 Drainage Authority website.
Applicant's Response: Understood

Review Agency: Urban Trails Committee
Contact Name: Kris Ashbeck
Email / Telephone Number: kristena@gjcity.org (970) 244-1491

1. For purposes of identifying the location of this development, adjacent street names on ODP and Utility Composite would be helpful.
2. Also - show the entire property on the Utility Composite. Standard required drawing scales does not allow this.
3. Per SSID, the ODP is to include proposed circulation concept - streets, roads, walkways as well as land use areas of open space versus residential and major environmental features such as slopes. All of this information was addressed in the original submittal, and has been re-addressed above. The information cannot be legibly portrayed on a single drawing, and has therefore been separated into understandable drawings.
4. While there are no active transportation corridors that are indicated within the property, there are several characteristics of the area, adjacent properties and an adjacent active transportation corridor that should be acknowledged and indicated on the initial planning documents: The submitted Traffic Impact Study provides numerous graphics and significant narrative about the transportation network.
a) There appear to be two tracts that may be used as pedestrian access to the undeveloped areas but not certain - between lots 21 and 22 and 29 and 30. Clarify on the plan. This is mostly correct. The two areas you note will be part of ROW, as they will also be constructed for fire apparatus turn-around. The remainder of them are part of the huge overall open space tract.
b) Suggest a third access at the end of the cul-de-sac, perhaps between lots 35 and 36 since this is the direction of the adjacent active transportation corridor that crosses the northwest corner of the site. We believe the proposed public access between Lots 29 and 30 is sufficient.
c) Contact the Museums of the West to coordinate where best to locate trails (or keep existing trails) that would tie into their trails that exist on the adjacent Museum properties. We have acknowledged the existing trail connections, which at present are trespass trails, and have no intentions of altering them nor further scaring the hillside.
d) Show a connection to the active transportation corridor at the northwest corner of the site. This suggested connection has close to 200 vertical feet in elevation difference, with cliffs, +40% slopes, rockfall areas, and drainages. We suggest utilizing the exiting trespass trails for his connection. In absence of this we will leave such design to 'others'
5. Similar to other nearby developments (e.g. Redlands Mesa) and other areas (e.g. Spyglass), any trails on undeveloped areas will be expected to be available for public use.
Applicant's Response: We have attempted to be clear about those trails that are 'Public' and those that are HOA / Private. The trespass trails being legitimized by this project will be Public.

Review Agency: Colorado Department of Transportation (CDOT)
Contact Name: Dan Roussin
Email / Telephone Number: Daniel.roussin@state.co.us (970) 683-6284

Thanks for the opportunity review the Magnus Court Subdivision in the Redlands. This development plan to have 74 single family residence in the subdivision. The access to the development will be off 22 1/4 Road and then to Reed Mesa Road. This development does increase the traffic by 20% at Reed Mesa Road and SH 340; therefore, a new access permit will be required at Reed Mesa Road.

CDOT also reviewed the traffic study and has the following comments on the study:

1. The recommended left turn lane off of Highway 340 appears to be in conflict with the existing pedestrian crosswalk and signal. Consultant needs to provide suggestions with regard to the

operations and location of the crosswalk. Additional language has been added to Section 6.1
2. The study needs to address the existing single family home access off of 340 just east of the Reed Mesa Drive intersection with respect to possible safety issues caused by the addition of a left turn lane. Additional language has been added to Section 6.1
3. It appears that the numbers used in the 2040 BG AM analysis don't match those shown in Figure 15. The numbers used in the 2040 BG AM analysis should be from Figure 6.

Once CDOT receives the access application, CDOT will do a more thorough review of the application. If you have any questions, please let me know.
Applicant's Response: Comments noted above.

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have responded with "No Comment."

1. Bureau of Reclamation

The following Review Agencies have not responded as of the comment due date.

1. Mesa County Engineering
2. Regional Transportation Planning Office (RTPO)
3. Colorado Geological Survey
4. Redlands Water & Power
5. Mesa County Valley School District #51
6. City Transportation Engineer

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

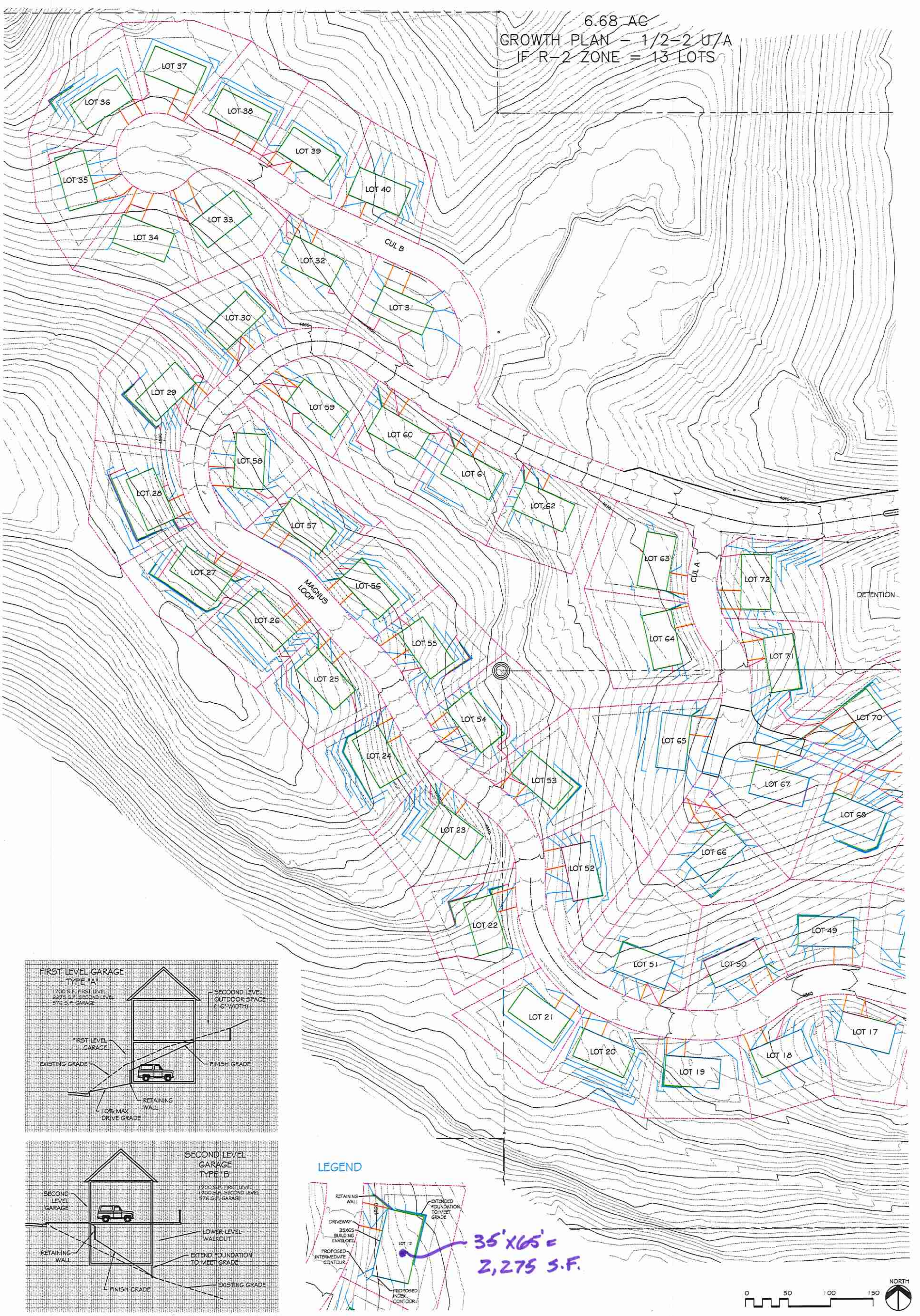
1. **City Planning**
2. **City Development Engineer**
3. **City Fire Department**
4. **City Addressing**
5. **Urban Trails Committee**
6. **Colorado Geological Survey**
7. **5-2-1 Drainage Authority**
8. **Ute Water Conservancy District**
9. **Colorado Department of Transportation (CDOT)**

Date due: **November 2, 2019 (Extended to 2/2/20)**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Applicant's Signature — **Date** 11/1/19



MAGNUS COURT
GRAND JUNCTION

DRAWN BY XX
CHECKED XX
JOB NO. 0000
DATE 00-00-2011
REVISIONS

CIAVONNE, ROBERTS & ASSOCIATES, INC.
LAND PLANNING AND LANDSCAPE ARCHITECTURE
222 N. 7TH STREET
GRAND JUNCTION, CO 81501
970-241-0745 P
970-241-0765 F
www.ciavonne.com

MAGNUS COURT

PRELIMINARY

LOT GRADING WEST

SHEET NO.
1

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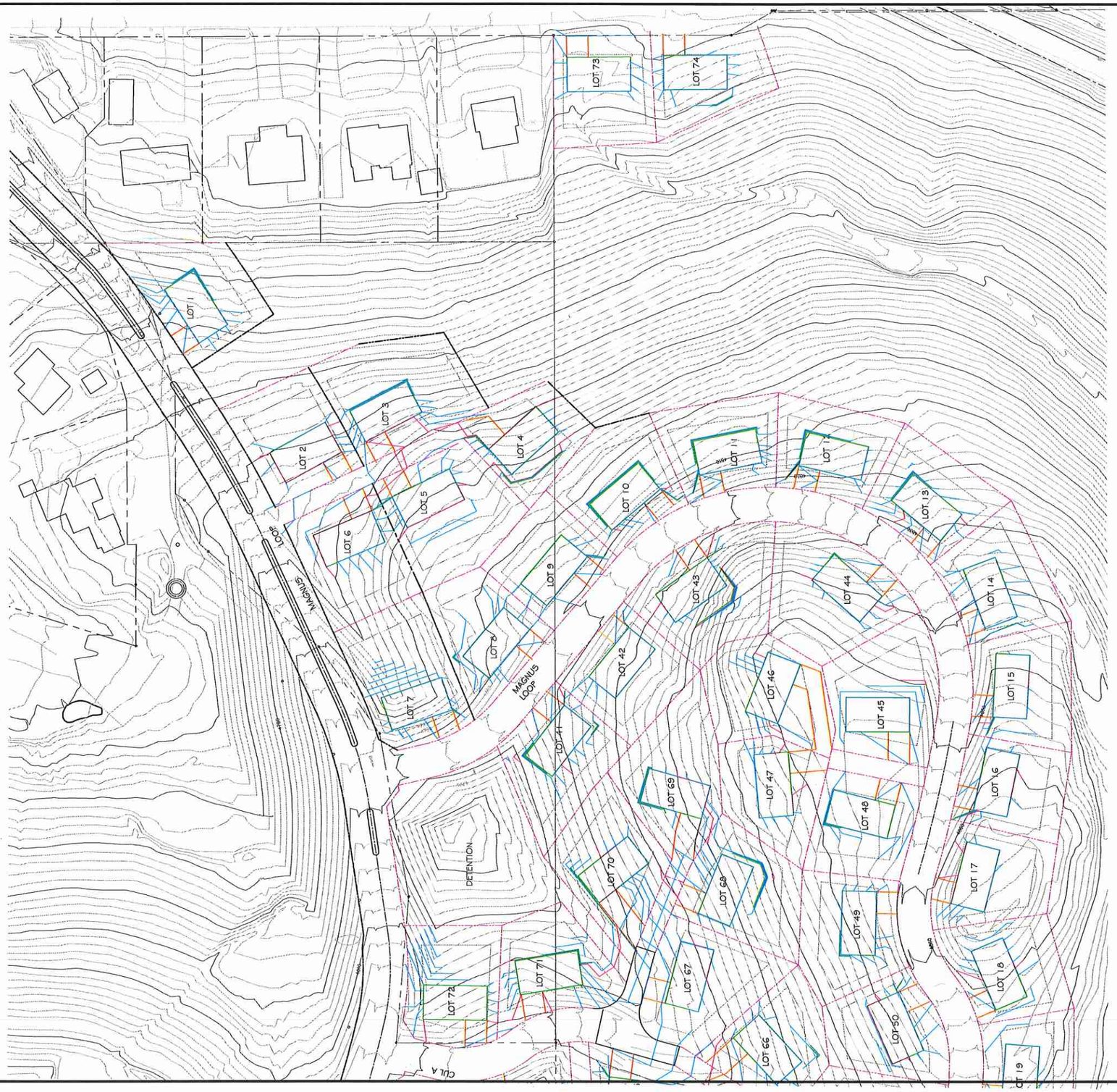

NORTH

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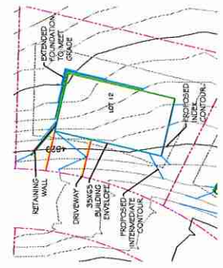
LEGEND



DRAWN BY	XX
CHECKED	XX
JOB NO.	0000
DATE	00-00-2011
REVISIONS	

MAGNUS COURT
GRAND JUNCTION

CIAVONNE, ROBERTS & ASSOCIATES, INC.
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MAGNUS COURT

PRELIMINARY

LOT GRADING EAST

SHEET NO.
2

S:\Projects\2017 Job numbers\1744 - Magnus Court Development\1744 11-13-19 lot grades.dwg, 11/18/2019 11:47:06 AM

Response to City of Grand Junction Review Comments

Date: December 21, 2019 **Comment Round No.** 2 **Page No.** 1 of 9
ANX-2019-137
Project Name: Magnus Court Subd. (Annexation – ODP) **File No:** PLD-2019-374
Project Location: Magnus Court

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s): JLC Magnus LLC – Attn: Mike Thomas
[ ] **Mailing Address:** 1985 W. Beaver Road, Suite 200, Troy MI 48084
[X] **Email:** Thomco2008@aol.com **Telephone:** (248) 568-6200
[ ] **Date Picked Up:** _____ **Signature:** _____

Representative(s): Ciavonne Roberts & Associates – Attn: Ted Ciavonne
[ ] **Mailing Address:** 222 N. 7th Street, Grand Junction, CO 81501
[X] **Email:** ted@ciavonne.com **Telephone:** (970) 241-0745
[ ] **Date Picked Up:** _____ **Signature:** _____

Developer(s):
[ ] **Mailing Address:**
[ ] **Email:** **Telephone:**
[ ] **Date Picked Up:** _____ **Signature:** _____

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner
Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Rick Dorris
Email: rickdo@gjcity.org **Telephone:** (970) 256-4034

City of Grand Junction REQUIREMENTS

(with appropriate Code citations)

CITY PLANNING

1. Outline Development Plan – Aerial Photo drawing (Sheet 1-1):

a. Label proposed street names on all applicable sheets. See City Addressing comments for additional information.

Applicant's Response: See City Addressing Responses below

b. Active Transportation Corridor Plan indicates a "Canal Path" adjacent to the Redlands Canal located at the northwest corner of the property. At time of final subdivision development, applicant will need to dedicate a minimum of a 15' wide Trail Easement located within an HOA tract. Label Trail Easement on Illustrative drawing. Applicant would not have to construct the required 10' wide concrete trail at time of final subdivision development, however, a cost estimate would need to be provided at time of final subdivision development and the applicant would be required to pay a cash-

in-lieu to the City and the City would construct on the required trail at a later date once other adjoining properties are further developed and public trail connections provided.
Applicant's Response: This 15' Trail Easement was, and is, noted on the ODP Document, but we have now included it on the Illustrative. I suspect that this Trail Easement Tract will make far more sense to be dedicated to the City rather than the HOA when the time comes.

c. Revise Phasing Schedule on Sheet 1-1 to the correct date of completion. See Review Comment #5 for additional information.
Code Reference: V-14 of the SSIDS Manual.
Applicant's Response: Complete
Document Reference: Sheet 1-1

2. Slope Analysis Sheet:
a. Slope Analysis Sheet identifies a portion of Magnus right-of-way as having a 30% slope. Proposed streets and roads shall not have a slope greater than 30% unless the Planning Commission and City Council approve (Section 21.07.020 (f) (7) (i) of the Zoning and Development Code). Please address further if this is proposed, however, it is assumed that at Final Subdivision Plan Development, that these grades would be eliminated so that the street would not be at 30% grade. Please verify if this is a valid statement.
Applicant's Response: The grading of the street system has been previously submitted to support the plan, to receive TEDS exceptions, and to confirm all roads meet City and Fire grading acceptance … and so "no" the roads will not be at 30%. The very limited areas where you see proposed road ROW crossing a 30% slope, these are man-made slopes and not natural grades. AS we understand the code, there are no roads that require PC or CC approval within this project.

b. Proposed Lots 3, 43, 53, 55, 68 do not meet with either the minimum lot size of 15,000 sq. ft. or the minimum lot width of 200' at the front setback line (Section 21.07.020 (f) (3) of the Zoning & Development Code). Revise as applicable or provide an asterisk or footnote that these five (5) lots will be combined into a larger lot if proposed Zoning Code Amendment to modify this section of the Code would not be approved.
Applicant's Response: We choose to go with the asterisk and note.

c. Proposed Lots 34, 35, 36, & 37 do not meet with the minimum lot width of 100' at the front setback line (Section 21.07.020 (f) (3) of the Zoning & Development Code), however, Community Development Director has classified these four (4) lots as irregular shaped lots per Section 21.03.030 (b) (2) of the Zoning & Development Code). No further response required.
Code Reference: Section 21.07.020 (f) of the Zoning & Development Code.
Applicant's Response: Understood
Document Reference: Slope Sheet

3. Elevations Sheets:
a. Label existing ridgeline area and the location of the required 200' building setback from the ridgeline for clarity on all Elevation Sheets. In no case shall the setback be less than 30' from the ridgeline. Also label Rear Yard Setback on all drawings. *This comment is a carry-over from the 1st Round of Review Comments and was not adequately addressed.*
Applicant's Response: We have gone in and labeled the sections per your descriptions above. We note that the Rear Setback of the pertinent lots was noted in the previous responses.

b. Please provide an Elevation Drawing from Escondido Circle.
Applicant's Response: The existing homes on lots within Escondido Circle BLOCK the 90 degree perpendicular view that the Ridgeline Code requires.

c. On Elevation Drawings A & B, provide a footnote that Lots 12 & 13 will need to be mitigated in accordance with Section 21.07.020 (g) (2) of the Zoning and Development Code since they can be seen from the centerline of the mapped road.
Code Reference: Section 21.07.020 (g) of the Zoning and Development Code.
Applicant's Response: Notes provided
Document Reference: Elevation Drawings

4. Illustrative Sheet:
a. In the Legend Block, what is the difference between Dedicated HOA Open Space (yellow) and Dedicated Open Space (green)? Shouldn't it be all HOA Open Space or is the applicant requesting proposed Tract D be granted to another entity such as the City or Museum of Western Colorado? Please differentiate.
Applicant's Response: Yes, the applicant is requesting that proposed Tract D be granted to another entity such as the City or Museum of Western Colorado. The differentiation is in the color: HOA is yellow; the remainder would not be HOA unless no one else wants it.

b. In the Legend Block, add the icon for the Fire Department Turn-Around since the turn-arounds are shown on the drawing.
Applicant's Response: Complete

c. Aerial photos of the site indicate an existing pedestrian (trespass) trail that links to the property to the north. In keeping with the proposed community benefit of the Planned Development zoning, can a new trail be developed around Lots 34 through 36 within Tract D to keep or relocate this pedestrian link? If so, please add trail to be located within Tract D.
Applicant's Response: That particular trespass trail is 'from' and 'to' private property, and we will not be responsible for encouraging trespass to neighboring properties. Its current alignment is significantly destroyed by the proposed plan.

d. Since the existing off-street trail system will be a community benefit as part of the Planned Development Zone District, on Illustrative Sheet, clearly identify trails within the development that will remain and the type of surface proposed, such as gravel, etc. As an example, approved TEDS exception required the construction of concrete trails. Please label these locations for clarity. At time of Final Subdivision Plan, a minimum 15' wide public Pedestrian/Trail Easement will also be required to be dedicated over the trails within the subdivision in support of the community benefit for the proposed PD zone district.
Applicant's Response: In Round 1 Review Comments we indicated that all trails will be soft surface. We acknowledge that the TEDS Exception for going to a narrower ROW had to do with lessening the terrace on a hillside and alternative pedestrian trails. At the time I do not believe anyone realized the terrain and slopes that the alternative trails are negotiating. These, in most cases, will be (or remain) hiking trails. We ask for significant consideration from the TEDS Committee for soft surface trails.
Document Reference:

5. Phasing Plan (Sheet 1-1):
Since application will not proceed to public hearings until first quarter 2020, City Project Manager suggests the phasing schedule be adjusted to the following schedule in order to give the applicant enough time to complete each phase of development and complete the project within a 10-year timeframe as the Zoning Code allows.
Phase 1 (Reviewed and approved by): December 31, 2023
Phase 2 (Reviewed and approved by): December 31, 2026
Phase 3 (Reviewed and approved by): December 31, 2028
Phase 4 (Reviewed and approved by): December 31, 2030
Code Reference: Section 21.02.080 (n) (2) (i) of the Zoning and Development Code.

Applicant's Response: Complete
Document Reference: Phasing Plan

6. Planning Commission/City Council Public Hearings (ODP):
Once ODP and other review items have been completed and addressed by the applicant from the respective review agencies, Project Manager will schedule Annexation & Outline Development Plan applications for the next available Planning Commission and City Council meetings. Tentative dates would be Planning Commission on February 25, 2020 and City Council on April 1, 2020.
Code Reference: Section 21.02.150 of the Zoning and Development Code.
Applicant's Response: Understood
Document Reference:

CITY DEVELOPMENT ENGINEER

GENERAL

Review Comment: The City is agreeable to delaying the water system design report until final design.
Applicant's Response: Comment Noted
Document Reference:

Review Comment: The response is correct that sewer lines should have been designed for the future land use plan in place at the time, but this needs to be verified by the design team to ensure capacity is present.
Applicant's Response: This report will be provided once the final zoning is determined on the property. However, the Future Land Use Plan map allows for the density being proposed by this application and typically the Comprehensive Plan looks to place density where existing infrastructure can support it.

The capacity of the 8-inch sewer main at the project area clearly will have the capacity to support 80 additional homes as this line currently services approximately 8 homes.

We would have expected a comments from City / Persigo Sewer if capacity issues in this area are a problem as they would be in a better position to respond and generally the CDPHE requires sanitation districts to begin looking at additional capacity studies once lines start get to these levels.

Document Reference: NA

Review Comment: The ODP is the official approved document, a Preliminary Plan, and the record for the future. It needs to be more complete showing everything agreed to with the TEDS exception, and prior communication, so the details are on one or more concise drawings in case we get run over by a bus. Items that need to be shown and called out include, but are not limited to, those listed below.

- Street sections and locations. – Beyond what was provided for the TEDS Exception Approval, how would we further 'commit' to this?
- Sidewalk locations – This is being worked out in Final Design, forthcoming when we receive approval of the annexation, ODP, and PD Zone.

- Trails behind lots, the TEDS exception requires they be concrete. See 4d above.
- Identify where parking is not allowed and that the HOA shall enforce it. - Beyond what was provided for the TEDS Exception Approval, how can we further 'commit' to this? This is being worked out in Final Design, forthcoming when we receive approval of the annexation, ODP, and PD Zone.
- Fire Department turn-arounds. This has been shown and labeled on all pertinent drawings, and is noted in the legend on the ODP.
- A note that states all houses will be sprinkled. This was a commitment to the TEDS Exception Approval. The ODP is not the appropriate place to restate it; Final Plan, Plat and CCR's are appropriate.
- Storm sewer alignment from the detention basin to Goat Wash. The ODP is not the appropriate place to restate it; Final Plan, Plat and CCR's are appropriate.
- A note stating engineered foundations are required on all lots. The ODP is not the appropriate place to restate it; Final Plan, Plat and CCR's are appropriate.
- A note stating lot specific grading and drainage plans are required on all lots. The ODP is not the appropriate place to restate it; Final Plan, Plat and CCR's are appropriate.
- A note stating the HOA will be required to provide snow removal on streets within the subdivision. The ODP is not the appropriate place to restate it; Final Plan, Plat and CCR's are appropriate.
- A note stating street lights are required only at intersections and the entrance to shared driveways. This was a commitment to the TEDS Exception Approval. The ODP is not the appropriate place to restate it; Final Plan, Plat and CCR's are appropriate.

Applicant's Response: I ask City Staff to review recent PD's including, Mosaic, Halndras / Merkel Pod 5, and Dos Rios, and see if any of the above detail was required at this time in the process. Similar to the Geotechnical Comments below, we ask for a statement "The comments ABOVE are for documentation purposes. They can be addressed at final design.

Document Reference:

PLANS

Review Comment: At this time, it is unclear whether runoff at the 22 ¼ Road and Magnus intersection will be increased or decreased but regardless the neighbors will perceive the project made drainage worse. According to the response regarding sight distance, 22 ¼ Road will need to be lowered 4' to 5' which further changes drainage. The project will need to improve drainage at this intersection.

Applicant's Response: The current application is for zoning and this intersection work is something that can be addressed in the design phase of the application process.

Document Reference:

GEOTECHNICAL REPORT

The comments below are for documentation purposes. They can be addressed at final design.

Review Comment: The report states: "HBET recommends that slope stability evaluation and analyses, if necessary, be conducted on individual lots as part of site-specific geotechnical investigations." On which lots should these investigations be performed?
Applicant's Response: Will be addressed at final design.
Document Reference:

Review Comment: Engineered foundations and lot specific grading and drainage plans will be required on all lots. Address up front lot grading they have performed.
Applicant's Response: Will be addressed at final design.
Document Reference:

Review Comment: The report states: "it may be necessary to use detached sidewalks, underdrains, or other mechanisms to limit the potential for excess moisture to infiltrate into the subgrade." This will need to be addressed at final design.
Applicant's Response: Will be addressed at final design.
Document Reference:

Review Comment: The report recommends substantial engineering oversight during all phases of site development. The City agrees and will require such.
Applicant's Response: Will be addressed at final design.
Document Reference:

TRAFFIC IMPACT STUDY

Review Comment: Have McDowell Engineering present the traffic analysis (not just attend the hearing) as part of the Developer's presentation at Planning Commission and City Council. This needs to be done in the hearing prior to public comment to answer as many questions up front as possible.
Applicant's Response: They have made this commitment.
Document Reference:

Review Comment: The City will be responsible for construction of the turn lanes at Reed Mesa on Broadway and at South Redlands at on Redlands Parkway.
Applicant's Response: Understood
Document Reference:

Review Comment: The stop signs described in the study involve several in the County. The Developer will need to coordinate this with Mesa County.
Applicant's Response: Understood
Document Reference:

CITY SURVEYOR – Peter Krick – peterk@gjcity.org (970) 256-4003

No additional comments or suggestions.
Applicant's Response: No Response Necessary
Document Reference:

CITY FIRE DEPARTMENT – Steve Kollar – stevenk@gjcity.org (970) 549-5852

GJFD has no objects to the general outline of the development (ODP). Please see previous comments for final site plan review.

Please contact Steve Kollar at the Grand Junction Fire Department at 970-549-5800 should there be any questions.
Applicant's Response: No Response Necessary
Document Reference:

CITY ADDRESSING – Pat Dunlap – patd@gjcity.org (970) 256-4030

1. All of the maps still show the upper part of Magnus Court as Magnus Loop. The Loop will start at Lots 29 and 58 then continues east until it meets up again with Magnus Court. Please make this change.

Applicant's Response: There has been some Lot renumbering, but we believe we understand and have made the corrections.

2. It would be helpful for me to evaluate street names now instead of just before you're ready to plat the subdivision. Please provide name for Cul A and Cul B to address from.

Applicant's Response: We have taken a shot at Road names, BUT we cannot emphasize enough that this is Annexation, ODP, and PD Zone … and we need to know we have an approved project before we get any further into the detail of street names.

3. On the Outline Development Plan, Sheet 1-1, General Note 2 states: "This PD zone will have default zone, R-2 with R-8 Cluster provision standards." Isn't that backwards? Shouldn't is be R-2 Cluster with R-8 as the default zone? That is what Table 1 shows.

Applicant's Response: It is correct as stated, which is also per Scott Petersons advice.

4. On the Outline Development Plan, Sheet 1-1, Table 3 is overlaid on Table 1. Please rearrange data in Table 2 so that OPEN SPACE info is under Table 2 to allow you to bring Table 3 and ROAD STANDARDS lower on the page.

Applicant's Response: Complete
Document Reference:

OUTSIDE REVIEW AGENCY COMMENTS

(Non-City Agencies)

Review Agency: Ute Water Conservancy District
Contact Name: Jim Daugherty
Email / Telephone Number: jdaugherty@utewater.org (970) 242-7491

- Provide Final Plan for further review.
- ALL FEES AND POLICIES IN EFFECT AT TIME OF APPLICATION WILL APPLY.
- If you have any questions concerning any of this, please feel free to contact Ute Water.

Applicant's Response: Understood

Review Agency: 5-2-1 Drainage Authority
Contact Name: Mark Barslund
Email / Telephone Number: markb@gjcity.org (970) 256-4106

Any disturbance of (1) one acre or more will require both state CDPHE and 5-2-1 Drainage Authority Construction Stormwater permits. See submittal forms and templates on the 5-2-1 website for guidance.
Applicant's Response: Understood

Review Agency: Colorado Geological Survey - FROM ROUND 1 REVIEW
Contact Name: Karen Berry
Email / Telephone Number: kaberry@mines.edu (303) 384-2640

Thank you for submitting the Magnus Court Subdivision for review. The proposed development consists of 74 single-single-family lots on 20.5 acres. The development will also have about 46 acres of open space. Parts of the site contain slopes as steep as 30 percent. In addition, parts of the site have been disturbed with sparse vegetation over most of the site. Rock outcrops are present along steep slopes and the northeast section of the development

The plans contain sections of a geotechnical report done by Huddleston-Berry. The section submitted with the application contained logs of test pits and a test pit location map done by the applicant's consultant. The logs show that the upper 2 to 12 ft of the subdivision is underlain by silty sand, sandy clay, sandstone and shale bedrock. Logs indicate the shale contains bentonite.

No soils tests were included with the test pit logs and no geologic hazard information or geotechnical analyses and recommendations were submitted. Similar areas near the proposed subdivision have been prone to settlement, expansive soils, accelerated erosion, and landslides. Steep areas underlain by shale are most prone to landslides.

It is important that a full geologic hazard and geotechnical analysis be completed before the number of lots and lot layout is set. The reports should also evaluate plans to place lots in drainages. To the extent possible, grading on steep slopes should be avoided. In addition, discharge of concentrated flow onto steep slopes should be avoided. Given the size of lots, its highly likely that mitigation of some potential hazards and constraints cannot be done on a lot by lot basis and should be constructed as part of the public improvements.

CGS recommends that a geologic hazard and geotechnical evaluation be completed before the number of lots and lot layout is finalized. Without the detailed information and reports outlined above, CGS cannot determine if the proposed subdivision is feasible as currently planned and all geologic hazard and soil constraints have been identified and mitigated.
Applicant's Response: It does not appear that CGW received the Updated Geologic Report that was submitted as part of Response To Comments #1. As this is a large document that was submitted previously, I have NOT re-included it with this Round 2 Comments. This information is already in excess of what is required for an ODP and PD Rezone. Additional testing will be required on a lot by lot basis, and/or addressed at Final Design.

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have responded with "No Comment."

1. Urban Trails Committee

The following Review Agencies have not responded as of the comment due date.

1. Colorado Department of Transportation (CDOT)
2. Colorado Geological Survey

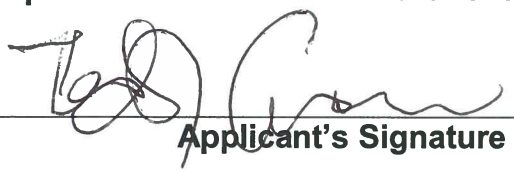
The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

1. **City Planning**
2. **City Development Engineer**
3. **City Addressing**
4. **Colorado Geological Survey**

Date due: **March 11, 2020**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.



Applicant's Signature

12/21/19

Date

City of Grand Junction
Review Comments

Date: January 27, 2020 **Comment Round No.** 3 **Page No.** 1 of 4
ANX-2019-137
Project Name: Magnus Court Subd. (Annexation – ODP) **File No:** PLD-2019-374
Project Location: Magnus Court

Check appropriate [X] **if comments were mailed, emailed, and/or picked up.**

Property Owner(s): JLC Magnus LLC – Attn: Mike Thomas
[ ] **Mailing Address:** 1985 W. Beaver Road, Suite 200, Troy MI 48084
[X] **Email:** Thomco2008@aol.com **Telephone:** (248) 568-6200
[ ] **Date Picked Up:** _____ **Signature:** _____

Representative(s): Ciavonne Roberts & Associates – Attn: Ted Ciavonne
[ ] **Mailing Address:** 222 N. 7th Street, Grand Junction, CO 81501
[X] **Email:** ted@ciavonne.com **Telephone:** (970) 241-0745
[ ] **Date Picked Up:** _____ **Signature:** _____

Developer(s):
[ ] **Mailing Address:**
[ ] **Email:** **Telephone:**
[ ] **Date Picked Up:** _____ **Signature:** _____

CITY CONTACTS

Project Manager: Scott D. Peterson, Senior Planner
Email: scottp@gjcity.org **Telephone:** (970) 244-1447

Dev. Engineer: Rick Dorris
Email: rickdo@gjcity.org **Telephone:** (970) 256-4034

City of Grand Junction
REQUIREMENTS
(with appropriate Code citations)

CITY PLANNING

1. Elevations Sheets:

FYI. On Elevation Drawing I, City Staff will recommend mitigation techniques as part of the Planning Clearance issuance for Lot 36 such as earth tone colors and the use of nonreflective materials, etc. However, full compliance with Section 21.07.020 (g) (2) of the Zoning and Development Code will not be required since the existing house located on Escondido Circle will block the view.

Code Reference: Section 21.07.020 (g) of the Zoning and Development Code.

Applicant's Response:

Document Reference:

2. Illustrative Sheet:
Applicant is proposing soft-surface trails for the existing off-street trail system, with the exception of the areas that were approved under the TEDS exception which required the construction of concrete trails in certain areas. See City Development Engineer review comments for additional information. At time of Final Subdivision Plan, a minimum 15' wide public Pedestrian/Trail Easement will also be required to be dedicated over the trails within the subdivision in support of the community benefit for the proposed PD zone district.
Applicant's Response:
Document Reference:

3. Planning Commission/City Council Public Hearings (ODP):
Planning Commission and City Council review and approval required for proposed Annexation and Outline Development Plan (ODP) requests. City Project Manager will **tentatively** schedule application(s) for the following public hearing schedule:

a. City Council Referral of Petition, Land Use Jurisdiction and 1st Reading of Annexation: **February 19, 2020** (Consent Agenda – no need to attend meeting).
b. Planning Commission review of Outline Development Plan (ODP) and zoning designation to PD (Planned Development): **February 25, 2020** (Please plan on attending meeting in case the Planning Commission has any questions).
c. City Council review of ODP and zoning designation to PD (Planned Development) (1st Reading): **March 18, 2020 (**Consent Agenda – no need to attend meeting).
d. City Council review of Annexation, Outline Development (ODP) and PD zoning designation (2nd Reading): **April 1, 2020** (Please plan on attending meeting in case the City Council has any questions).

Please plan on attending the February 25th Planning Commission meeting and the April 1st City Council meeting. The Consent Agenda meetings you do not need to attend as that is only scheduling the hearing date and the item is placed on the Consent Agenda with no public testimony taken. Both the Planning Commission and City Council meetings begin at 6:00 PM at City Hall in the City Council Chambers.

If applicant cannot make the above scheduled public hearing dates, please notify City Project Manager and we can reschedule for later meeting dates.
Code Reference: Section 21.02.150 of the Zoning and Development Code.
Applicant's Response:
Document Reference:

CITY DEVELOPMENT ENGINEER

GENERAL

Review Comment: The City's utility department confirmed the 6" sewer can handle the additional homes. No additional sewer analysis is needed.
Applicant's Response:
Document Reference:

Review Comment: The ODP will be the official approved document. In the past on some projects it has also been a Preliminary Plan. If this project wants to move ahead with it only being an ODP then the items below will simply be referenced in City documents and don't need to be included on the plan. A preliminary plan would then need to be submitted at the next step in the process. If the desire is for it to also be a preliminary plan, the items below need to be included on the drawings.

- Street sections and locations.
- Sidewalk locations.
- Trails behind lots, the TEDS exception requires they be concrete.
- Identify where parking is not allowed and that the HOA shall enforce it.
- Fire Department turn-arounds.
- A note that states all houses will be sprinkled.
- Storm sewer alignment from the detention basin to Goat Wash.
- A note stating engineered foundations are required on all lots.
- A note stating lot specific grading and drainage plans are required on all lots.
- A note stating the HOA will be required to provide snow removal on streets within the subdivision.
- A note stating street lights are required only at intersections and the entrance to shared driveways.

Applicant's Response:
Document Reference:

CITY ADDRESSING – Pat Dunlap – patd@gjcity.org (970) 256-4030

1. Thank you for fixing Magnus Court and Magnus Loop. That is what I meant.
2. Thank you for the street names for the cul-de-sacs. Bonds Court and Cooke Court are acceptable road names. I appreciate that you have provided those for me.
3. Cluster statement: Thank you for clarifying that for me.
4. Thank you for making adjustments on Sheet 1-1. It is much better.

Applicant's Response:
Document Reference:

REVIEW AGENCIES

(Responding with "No Comment" or have not responded as of the due date)

The following Review Agencies have responded with "No Comment."

1. N/A.

The following Review Agencies have not responded as of the comment due date.

1. Colorado Geological Survey

The Petitioner is required to submit electronic responses, labeled as "**Response to Comments**" for the following agencies:

1. **City Planning**
2. **City Development Engineer**

Date due: **April 27, 2020**

Please provide a written response for each comment and, for any changes made to other plans or documents indicate specifically where the change was made.

I certify that all of the changes noted above have been made to the appropriate documents and plans and there are no other changes other than those noted in the response.

Applicant's Signature	**Date**

MAGNUS COURT ANNEXATION SCHEDULE	
February 19, 2020	Referral of Petition (30 Day Notice), Introduction of a Proposed Ordinance, Exercising Land Use
February 25, 2020	Planning Commission considers Zone of Annexation
March 18, 2020	Introduction of a Proposed Ordinance on Zoning by City Council
April 1, 2020	Acceptance of Petition and Public Hearing on Annexation and Zoning by City Council
May 3, 2020	Effective date of Annexation

ANNEXATION SUMMARY		
File Number:		ANX-2019-137
Location:		West end of Magnus Court
Tax ID Numbers:		2945-182-00-046 & 2947-261-00-003
# of Parcels:		2
Existing Population:		0
# of Parcels (owner occupied):		0
# of Dwelling Units:		0
Acres land annexed:		45.543
Developable Acres Remaining:		45.173
Right-of-way in Annexation:		0.37
Previous County Zoning:		RSF-4 (Residential Single Family – 4 du/ac)
Proposed City Zoning:		PD (Planned Development)
Current Land Use:		Vacant land
Future Land Use:		Residential Low (.5 – 2 du/ac) & Rural
Values:	**Assessed:**	$123,980
	Actual:	$427,500
Address Ranges:		2217 – 2221 Magnus Court
Special Districts:	**Water:**	Ute Water Conservancy District
	Sewer:	City of Grand Junction
	Fire:	Grand Junction Rural Fire District
	Irrigation/Drainage:	Redlands Water & Power Company
	School:	Fruita Monument HS / Redlands Middle / Broadway Elementary
	Pest:	Grand River Mosquito Control District

MESA COUNTY
DEPARTMENT OF PUBLIC WORKS
Administration - Building - Engineering - Transportation
Planning - Solid Waste Management

200 S. Spruce Street • P.O. Box 20,000 • Grand Junction, Colorado 81502-5001
Ph (970) 244-1773 Fax (970) 255-7171
www.mesacounty.us

March 13, 2020

Tamra Allen
Community Development Director

Re: Magnus Court-County Comments

Dear Ms. Allen,

After reviewing drawings for the Magnus Court planned development, Mesa County has the following comments:

1. We encourage this infill project and subsequent annexation to the City of Grand Junction. With this in mind, we would expect the developer to follow City standards and we would have little to do with review of engineering drawings.
2. In regards to street improvements, Mesa County would not require improvements to the short section of County road as the current quality of the road would meet requirements of the County for this type of local road.
3. The idea of a trail or sidewalk to carry pedestrian traffic (especially school children) out to Highway 340 is something that the County would support. Our assumption is that this would be a Safe Routes to School type project. The County would be willing to team with the City of Grand Junction and the developer to share in the cost of the trail or sidewalk improvements. We would earmark $75,000 to be put toward this safe route with the understanding that the City and the developer would match those funds to get the project done.
4. The County would also support the Magnus Court planned development as the project will reduce some existing drainage issues in the area. We are in the process of working on a feasibility study in an adjacent neighborhood to solve some of these issues and this development would intercept some of the drainage that is causing the problem. We can provide information on our feasibility study as it progresses and I'm sure that the developer's engineer can provide solid numbers showing how the Magnus Court project deals with drainage through the area.

Thank you for the opportunity to comment on this development and although authority through the area rests with the City of Grand Junction, we would encourage approval of the subdivision.

Kindest regards,

Scott Mai
Deputy Public Works Director

JLC Magnus LLC
1985 W. Big Beaver Rd.
Suite 200
Troy, Michigan 48084

June 12th, 2020

Grand Junction City Administration
Attn: Mr. Greg Caton, City Manager
250 N. 5th Street
Grand Junction, CO 81501

Grand Junction Community Development
Attn: Ms. Tamra Allen, Director
250 N. 5th Street
Grand Junction, CO 81501

Re: Walking path funding

To Whom It May Concern:

The purpose of this correspondence is to affirm JLC Magnus LLC's commitment to contribute 33% of the soft and hard costs, up to a maximum contribution of $75,000.00, for the design and construction pedestrian access in the vicinity of Reed Mesa Road and Broadway, and /or along Broadway and across to the Broadway Elementary School. There has also been some discussion about potentially defining pedestrian access along 22¼ Road easterly towards Broadway, which our contribution could also be directed towards. We expect the specific location to be determined by the City and / or County.

JLC Magnus LLC proposes that a Development Agreement be put into place setting forth the tasks to be performed, a resulting budget, and the timing of the payment

obligations to be made by the various contributors, and executed by all relevant parties.

I, Michael Thomas, on behalf of JLC Magnus LLC, will make myself available in person or by telephone to answer any questions pursuant to this communication.

Very truly yours,

JLC Magnus LLC

Michael Thomas

CC: Ted Ciavonne, Ciavonne-Roberts

Magnus Re-Submit – As Narrative, and or Exhibits

Submitted to Grand Junction Community Development

Mr. Peterson,
Based on the feedback at the Planning Commission Hearing on February 25, 2020, we are resubmitting this project with changes that hopefully show display that we listened to Planning Commission, the neighbors, and Staff, in addressing many of their concerns, and that this along with additional 'Significant Community Benefit' enables a new hearing. Specifically:

- A definitive approach to the five lots that are in conflict with the Hillside code criteria;
- A more thorough discussion on construction phasing in this ODP, construction phasing in reality, construction sequencing of equipment, and construction traffic on roadways;
- A summary of our design teams multiple meetings with Mesa County and the City of Grand Junction, with regards to pedestrian safety along various roadways;
    - and an alternative solution that has strong support from the City, County, and developer;
- A better understanding from Mesa County on how this project is viewed by their Staff and Directors:
    - Their view on the existing roads;
    - Their level of participation on a trail for Safer Routes to School;
    - The importance of the Magnus development in reducing existing drainage impacts to the surrounding neighborhoods;
- Clarification of automobile traffic impacts, when traffic occurs, and any need for additional improvements;
- Additional public use trails provided around the proposed subdivision.

This narrative, along with the attached exhibits, make up the basis for a new hearing with Planning Commission. Pertinent written and graphic information submitted previously is considered a part of this resubmittal.

- Stay with current Code rather than 'future code' on Lots that do not meet Hillside Regulations (Exhibit 1)
    - It proved wrong to assume that a forthcoming code change would be in place by the time we submitted; and when it was not, the idea of 'contingency' resulted in an arduous, prolonged, and unfortunate consumption of everyone's time at the Hearing.
    - The five lots of concern noted on the Slopes map are all isolated … that is to say they are surrounded by Lots that do meet the code grades; they are not bunched together in a single location. If the geometry had allowed it, a shifting of lot lines 10' or 20' one way might have allowed the average grade to be under 20.01%:

- Lot 3 is 23.3% and abuts Lots with 9.3% and 18.4%;
- Lot 43 is 24.6% and abuts Lots with 17.5% and 15.1%;
- Lot 53 is 20.5% and abuts 16.2% and 17.1%
- Lot 55 is 20.9% and abuts 17.1% and 16.8%
- Lot 68 is 22.2% and abuts 18.2% on both sides.

- Lots between 10% and 20% need to be 100 feet wide and 10,000 SF in area. The five lots of concern were made to be proportional to their slope:
  - Lot 3 at 23.3% was made to be 140 feet wide with 15,183 SF of area;
  - Lot 43 at 24.6% was made to be 165 feet wide with 14,621 SF of area;
  - Lot 53 at 20.5% was made to be 110 feet wide with 12,218 SF of area;
  - Lot 55 at 20.9% was made to be 110 feet wide with 11,7751SF of area;
  - Lot 68 at 22.2% was made to be 110 feet wide with 12,352 SF of area;
- Hopefully it is apparent that the slope deviations are a small deviation, and we have compensated in a proportionate enlargement of each lot.
- We provided a preliminary grading plan for the entire project, complete with road grades and individual lot grading on all 68 lots. We displayed to the City Development Engineer that the drainage works.
- It is curious that code speaks to criteria that allows lots on slopes GREATER than 30% , but is silent on slopes between 20% and 30%:
  - Development on slopes of greater than 30 percent is not permitted <u>unless, after review and recommendation by the Planning Commission and approval by the City Council, it is determined that</u>:

    a. Appropriate engineering measures will be taken to minimize the impact of cuts, fills, erosion and stormwater runoff consistent with the purpose of this section; and

    b. The developer has taken reasonable steps to minimize the amount of hillside cuts and also has taken measures to mitigate the aesthetic impact of cuts through landscaping or other steps.

    - Specific to 'a.' above – We submitted individual lot grading plans detailing how <u>every</u> lot drains;

    - Specific to 'b' above – We asked for and received an Alternative Road section that creates a narrower terrace on any hillside, to reduce impacts; our engineer has graded this road to minimize cuts and fills; we have worked with the Fire Department on creating additional turn arounds and mechanisms that are sensitive to the land. Efforts will be made to reclaim the disturbed areas because the Stormwater Permit process requires

it, the City Review process requires it, the purchasing market requires it … but mostly because it is the right thing to do.

- With consideration for the additional information and clarifications provided above are asking Planning Commission to approve the five lots of concern, as part of their recommendation to City Council.

- Phasing (Exhibit 2) was another area of discussion with the neighborhood expressing concerns about this project having so many phases over so many years, the continuation of earthmoving equipment on site, the construction traffic on the roads, the impact to the roads.
  - Current City code requires a Phasing Plan for Planned Developments. From a submittal perspective it is purposeful to have more phases than you think you will need, spread over more time than you think it will take. Rephrased: there are incentives to maximize Phasing and spread it over 10 years. This is due to potential changes in the economy and trying to minimize having to come back to PC and CC to change or extend it.
  - If a Phasing Plan is being required, and it is, the developer is going to support the highest number of logical phases, four, over the longest period of time, 10 years.
  - With that said, the developer's internal plans provide for doing this project in two phases which is currently depicted as combining Phases 1 and 2, and combining Phase 3 and 4 as shown on the exhibit.
    - A picture was painted that mass numbers of construction vehicles would be going through the neighborhood on a daily basis. This will not be the case:
      - The developers intentions are that all the heavy mass grading and site balancing utilizing the heaviest equipment, will be utilized the first 90 days … this equipment mobilizes on site and stays their until done.
      - Moreover, the entirety of the domestic water line infrastructure will be installed at the front end during the first 5 months of site construction.
  - In summary, the Phasing Plan being submitted will NOT be changing; however, the REALITY is that all logic, incentives, and motivation is to get it done within a much shorter term.

- We met with the County and the City to discuss the condition of the roads, the safety of vehicular turns, and the safety of pedestrians, in particular kids walking to school. (Exhibits 3, 4, 5, and 6))

- The County (Engineering, Planning, and Director) all indicated that the quality of the roads was fine by accepted standards; and had nothing allocated in their capital funds to do improvements in this area.
- (Exhibit 3) The County provided a walking and bicycle Audit that was specific to Broadway Elementary. It was prepared by Jodie Kliska, a retired City Traffic Engineer, and the Team Members were County Engineers, and we understand Parents, and Teachers.
    - In this Audit it was recognized that Broadway (the road) has particular shortcomings, Noting:
        - (Exhibit 4) "There are no continuous sidewalks or curbing surrounding Broadway Elementary. There is no sidewalk to cross to the south side of Broadway"
        - It also noted that the "Responsible Parties" on this issue was Mesa County, City of Grand Junction, and CDOT;
    - (Exhibit 5) A two mile area was studied, and routes were mapped and scored from 'Least Favored' to 'Not Favored', to 'Favored', to 'Most Favored'.
        - This audit exhibit is cause to pause and realize:
            - that only 9% to 23% are walking these routes;
            - the majority drive or take the bus;
            - and so the "energy" (planning , funding, design, and construction) went into the north side of Broadway;
        - This is not justification for shortcomings on the south side; but it is a reality.
- The City did not support putting money towards improving the roads … somewhat for the same reason, that the roads are in good enough driving shape, and TCP dollars will go towards the intersection improvements.
- Mid-story Summary:
    - The County says the roads are fine, and have not allocated money for any improvements;
    - The City says the roads are fine, that they do not invest in County Roads;
    - A Professional Routes to Schools Audit does not prioritize anything south of Broadway.
- A solution came from the City, indicating they would have more support if improvements were put in along Broadway, between Reed Mesa and the crosswalk a block away put some energy into Broadway (Exhibit 6)
    - The City also received a great letter from the County, indicating they are willing to invest in improving pedestrian traffic, especially for school children;
    - The Developer is likewise willing to invest in it;

- We have not yet approached CDOT.
- So we have something happening. We are confident we have money for the 'solid line' in the drawing, but we do not know how far it might extend. There needs to be design work; possibly some easements, drainage, and being in a CDOT ROW we know the costs will be much higher.
    - So there are a number of things to work out, but with the approval of the Magnus project you will have Developer involvement in design and/or construction along with the City, County, and hopefully CDOT.

- (Exhibit 7) We need to go back to the Letter the County sent the City and review their comments … we have underlined what stands out:

  1. We encourage this infill project and subsequent annexation to the City of Grand Junction. With this in mind, we would expect the developer to follow City standards and we would have little to do with review of engineering drawings.

  2. In regards to street improvements, Mesa County would not require improvements to the short section of County road as the current quality of the road would meet requirements of the County for this type of local road.

  3. The idea of a trail or sidewalk to carry pedestrian traffic (especially school children) out to Highway 340 is something that the County would support. Our assumption is that this would be a Safe Routes to School type project. The County would be willing to team with the City of Grand Junction and the developer to share in the cost of the trail or sidewalk improvements. It would earmark up to $75,000 to be put toward this safe route with the understanding that the City and the developer would match up to this amount to get the project done.

  4. The County would also support the Magnus Court planned development as the project would reduce some existing drainage issues in the area. We are in the process of working on a feasibility study in an adjacent neighborhood to solve some of these issues and this development would intercept some of the drainage that is causing the problem. We can provide information on our feasibility study as it progresses and I'm sure that the developer's engineer can provide solid numbers showing how the Magnus Court project deals with drainage through the area.

- We have touched on the first three comments in this letter, but this fourth comment is particularly important : Magnus reduces exiting drainage issues to the surrounding neighborhoods;
    - (Exhibit 8) is from the City GIS site, depicting the development boundary in black, the top of the watershed in red that flows towards existing neighborhoods, and

some existing drainage paths that also go directly towards homes and neighborhoods.
    - Use the red line, the top of the watershed, as your orientation to the next slide.
  - (Exhibit 9) shows the proposed development on 'real' surveyed grades, and with the same red top of watershed line. But what the development provides, what the road network does, is intercept the vast majority of the water at the top of this watershed, direct it towards proposed stormwater facilities, and directs it towards the drainage along S. Broadway (Goat Wash).
    - The drainage interception is shown in green, including a swale above the homes on 22¼ Road
    - It is really only a small area by lots 37-40 that will contribute to the historical drainage.

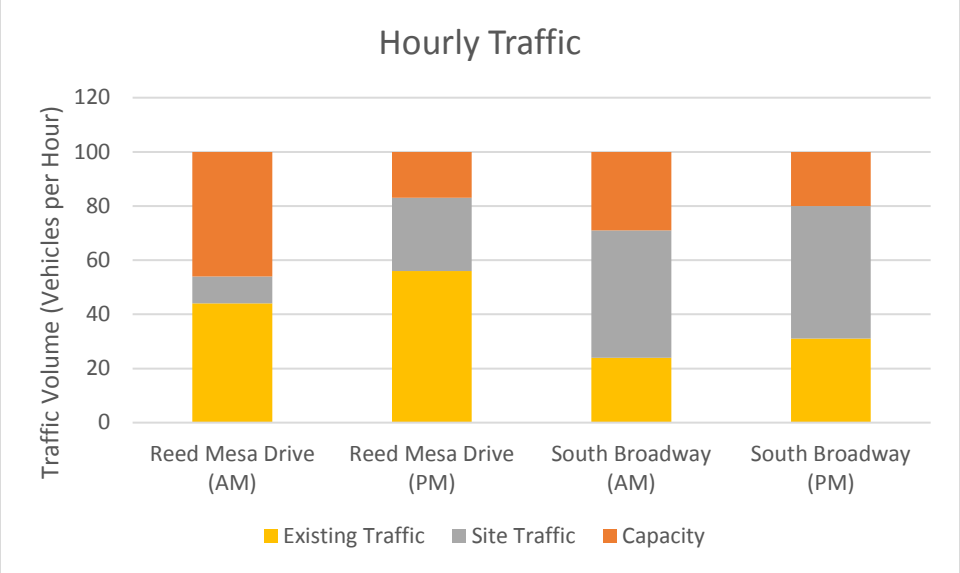
- Traffic (Exhibit 10 and 11)
  - The proposed site-generated traffic from the Magnus subdivision is anticipated to be 700 vehicles per day (vpd). This includes 56 vehicles per hour during the morning peak hour (vph) and 74vph during the evening peak hour.
  - Hourly data from our 2019 traffic counts on the existing neighborhood roads was used to approximate the existing daily traffic. Generally, industry standard assumes that 10% of the daily traffic occurs during the evening peak hour.

Existing Conditions	AM Peak Hour	PM Peak Hour	Approximate Daily Traffic
Reed Mesa Drive	44vph	56vph	500vpd
South Broadway	24vph	31vph	300vpd

  - The project's 700vpd is distributed between the Reed Mesa Drive and South Broadway accesses. Our presentation to the City used an approximate 50/50 distribution to generally split traffic between both accesses.
  - However, the traffic study included a more detailed analysis of the peak hour traffic anticipated to each intersection. This analysis incorporated adjustments for travel pattern changes based upon the time of day and congestion. Therefore, the hourly data is more accurate than a general daily comparison.
  - A revised traffic addendum was prepared. It addresses the traffic congestion on Broadway and the impact to the site traffic's directional distribution. The original study used a distribution of 35% to the north and 65% to the south. The modified analysis used 15% to the north and 85% to the south. The resulting Level of Service (LOS) was the same. The anticipated delays varied slightly.

Project Traffic	AM Peak Hour	PM Peak Hour	Approximate Daily Traffic
Reed Mesa Drive	10vph	27vph	200vpd
South Broadway	47vph	49vph	500vpd

- The resulting traffic volume impact graph has been updated accordingly. This graph uses the industry standard assumption that 10% of the daily traffic occurs during the evening peak hour. This assumption was applied to the local County Road standard of 1,000vpd, equating to 100vph.



- The project traffic is anticipated to compose of 19 – 33% of the total traffic on Reed Mesa Drive. More project traffic is anticipated to use South Broadway. The project traffic is anticipated to compose of 61 – 66% of the total traffic on South Broadway.
- The anticipated addition of total project traffic generated will occur over a number of years as the project builds out, and completed residences are occupied. Reiterating, the additional impacts are not immediate.
- Mesa County stated that they would not require improvements to the short section of County road as the current quality of the road would meet requirements of the County for this type of local road (<1,000vpd).
- However, the residents and applicant have identified a few improvements that would improve the safety of the local roadways.

- The applicant is pursuing multimodal improvements at the intersection of Reed Mesa Drive/Broadway and along Broadway in coordination with Mesa County, Grand Junction, and CDOT.
- The applicant would add stop signs at the unmarked intersections to clarify right of way to drivers.
- The applicant has also identified adding stop bars to the local roadways; however, it is the understanding of the applicant that the City does not prefer to add stop bars at each intersection.
- The applicant would improve return radii at intersections that will be impacted by construction vehicles.

- (Exhibit 12) There was a request for some additional trails which are depicted on this drawing, and labeled as 'Proposed Public Trail'.

Summary of Additional Community Benefits:

- Acknowledge intent for a smaller construction window / less phases / less construction traffic on streets;
- The continued involvement with a Safe School trail involving the City, County, CDOT and the Developer. This includes the Developer commitment to participate in design and/or funding;
- Drainage interception that relives existing off-site problems for existing neighborhoods, and aids towards long-term solutions;
- Clarification on Traffic distribution to the neighborhood, time of day, and time period;
- Additional Public Trails within the proposed subdivision.

Ciavonne, Roberts & Associates
222 North 7th Street
Grand Junction, CO 81501

April 24, 2020

Re: **Magnus Court Subdivision**
Transportation Impact Study Addendum
Grand Junction, Colorado

Purpose:

This memorandum was developed to update the original *Transportation Impact Study for Magnus Court Subdivision* dated July 10, 2019. It was observed that morning congestion on Broadway is impacting traffic egressing from Reed Mesa Drive more than originally analyzed in the original report. Based upon this observation, the directional distribution of traffic egressing the site was modified.

Additional clarity is given on the anticipated impact of the project traffic on the adjacent neighborhood roadway network.

Morning Congestion on Broadway Impacts:

More of the Magnus Court Subdivision residents are likely to exit the neighborhood via South Broadway (Intersection 5) rather than Reed Mesa Drive (Intersection 1) during the morning peak hour. The congestion is attributable to the Reed Mesa Drive / Broadway intersection being in the middle of the long school zone for Redlands Middle School and Broadway Elementary.

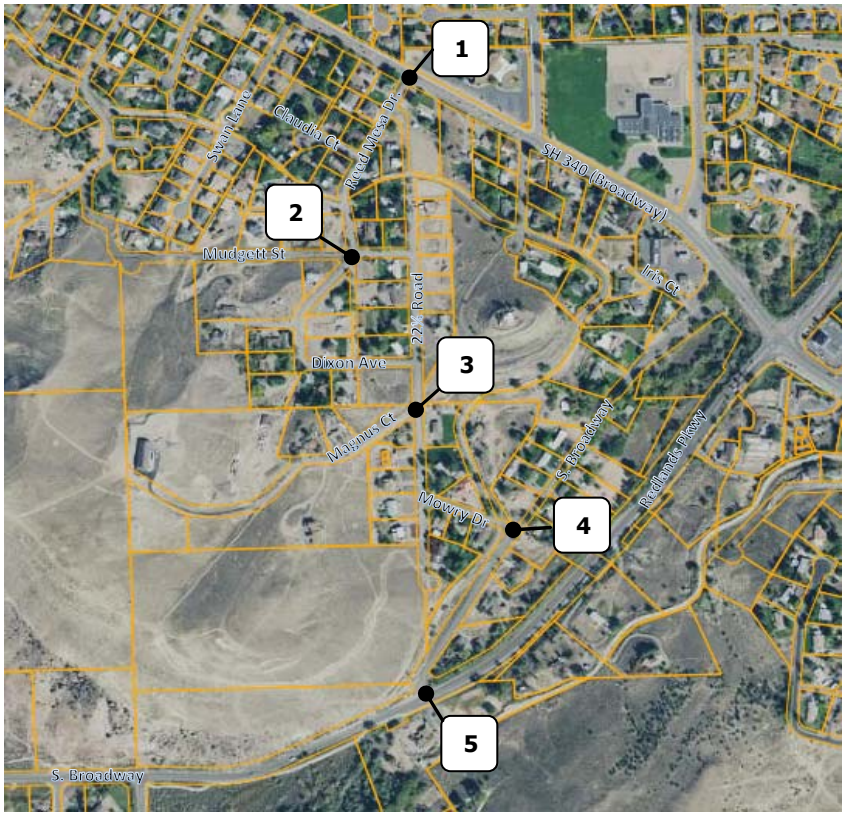
A new scenario was analyzed with northbound traffic reduced to 15% during the morning peak hour. The resultant trip distribution percentages and site-generated traffic volumes are shown in Figure 7A and Figure 9A, respectively. When the site-generated traffic is added to the initial background volumes from Figure 5 in the TIS, the initial year total traffic is shown in Figure 13A. When the site-generated traffic is added to the design year background volumes from Figure 6 in the TIS, the design year total traffic is shown in Figure 15A.

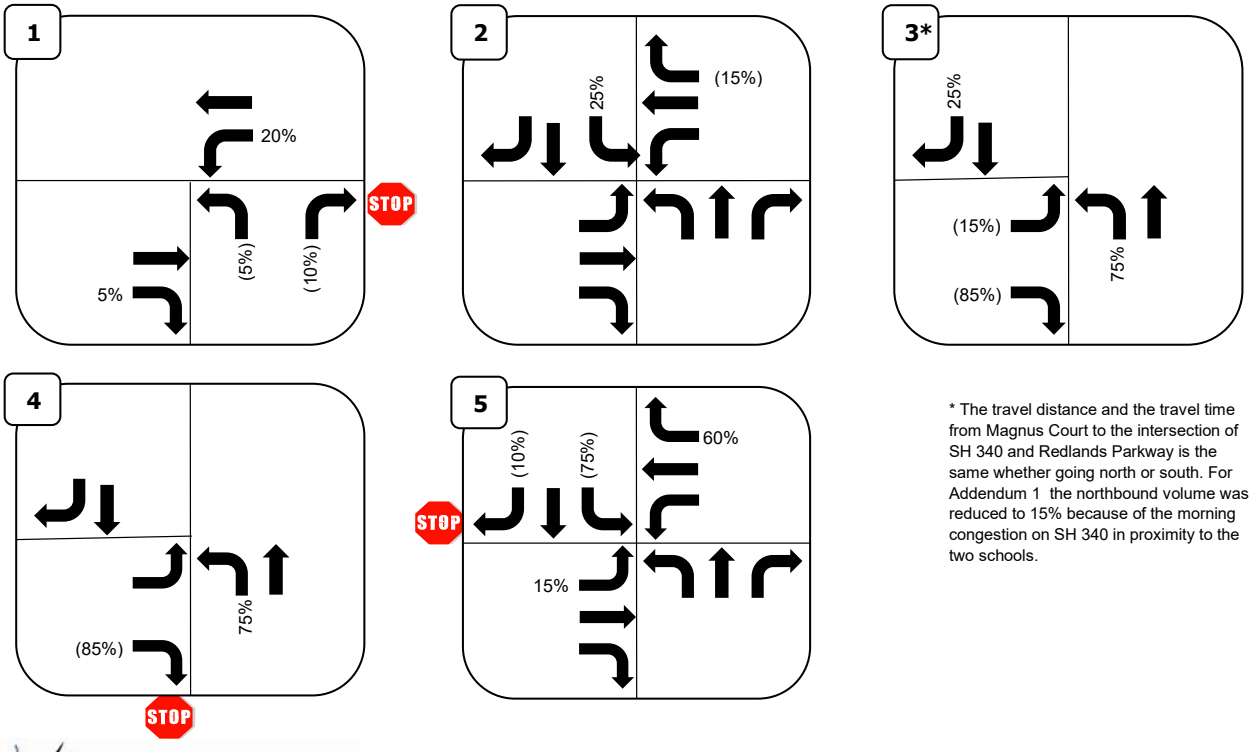
A level of service analysis was performed for the 15% NB, 85% SB Scenario using the *Highway Capacity Manual* methodology for both the initial year and the design year. The results are shown in Table 4A. Compared to the original 35% NB, 65% SB Scenario from Table 4 in the TIS, the 15% NB, 85% SB Scenario results in slightly shorter delay times at the Broadway & Reed Mesa Drive intersection and slightly longer delay times at the South Broadway & Redlands Parkway intersection. Even with the changes in the delay times, the levels of service remain the same.

Table 4A: Total Traffic Level of Service (15% NB, 65% SB Scenario)

#	Intersection	Traffic Control	Approach	Level of Service (Delay in Seconds)	
				2019	2040
1	Broadway & Reed Mesa Dr.	NB Stop	WB	A (0.4)	A (0.4)
			NB	B (13.8)	C (18.4)
2	Mudgett Ave. & Reed Mesa Dr.	EB/WB Stop	EB	A (8.8)	A (8.8)
			WB	A (8.4)	A (8.4)
			NB	A (0.0)	A (0.0)
			SB	A (4.2)	A (4.2)
3	22 1/4 Rd & Magnus Dr.	EB Stop	EB	A (8.6)	A (8.6)
			NB	A (6.7)	A (6.7)
4	Mowry & S. Broadway	EB Stop	EB	A (8.5)	A (8.5)
			NB	A (4.3)	A (4.3)
5	S. Broadway & Redlands Pkwy	NB/SB Stop	EB	A (0.3)	A (0.1)
			WB	A (0.1)	A (0.1)
			NB	B (10.5)	B (14.0)
			SB	B (12.5)	C (18.3)

Figure 7A: AM Project Traffic Distribution (15% NB, 85% SB)





* The travel distance and the travel time from Magnus Court to the intersection of SH 340 and Redlands Parkway is the same whether going north or south. For Addendum 1 the northbound volume was reduced to 15% because of the morning congestion on SH 340 in proximity to the two schools.

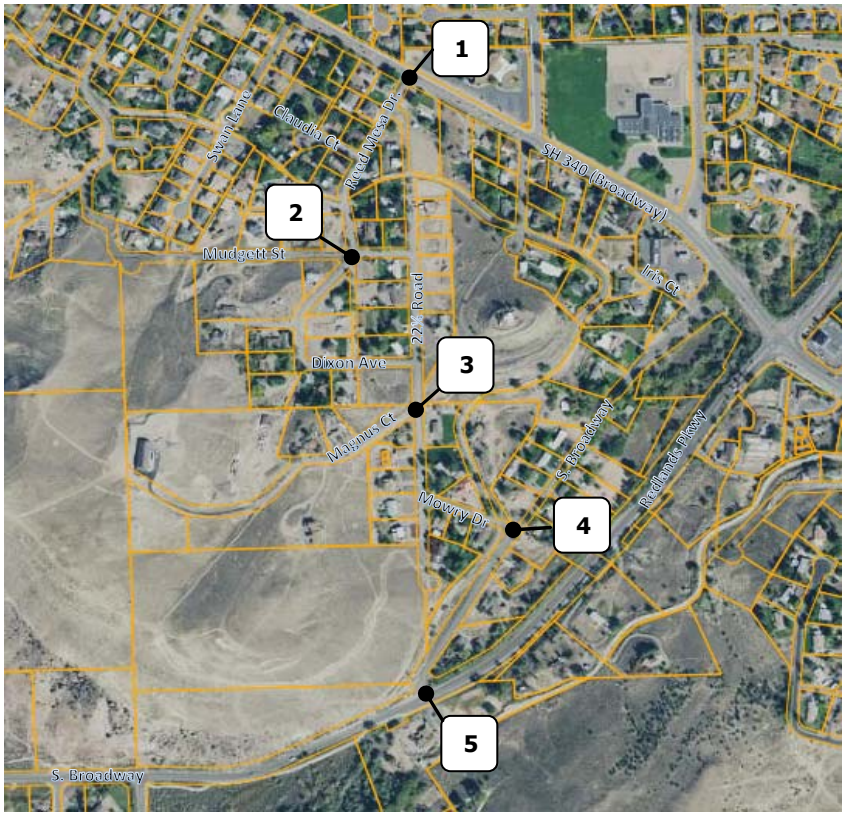
McDowell Engineering LLC
Transportation Engineering Consultants

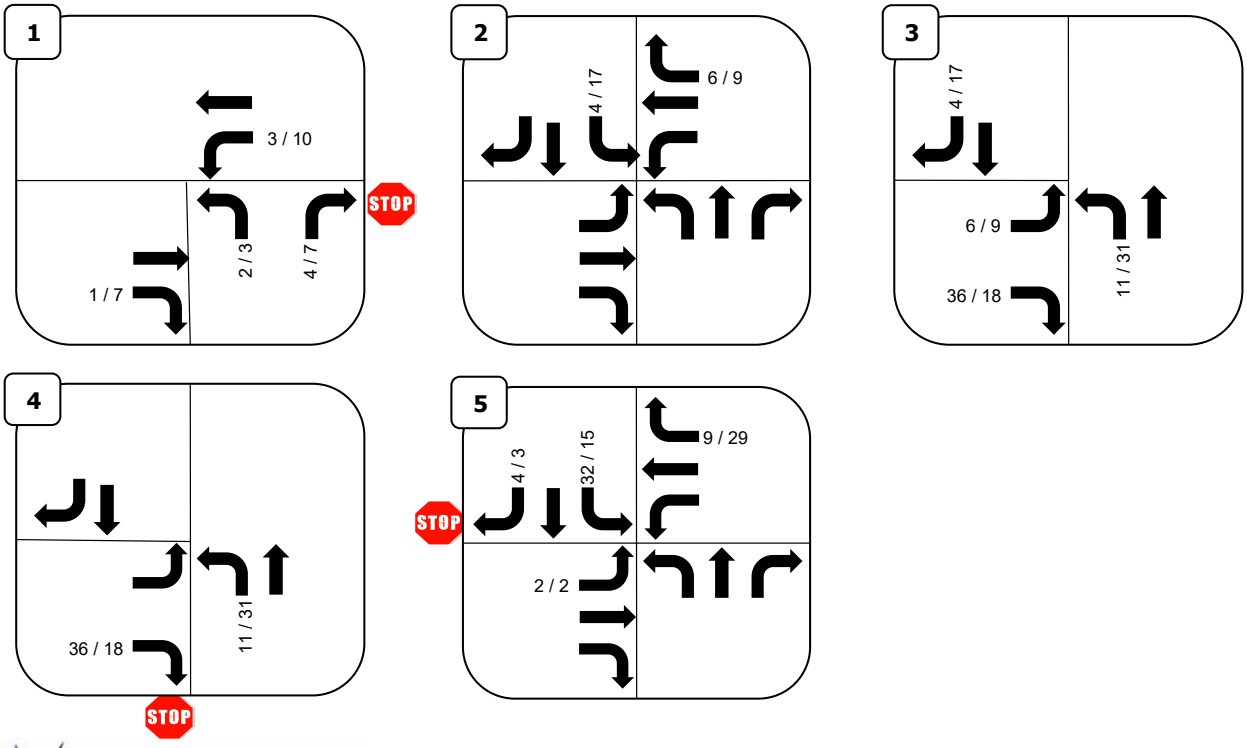
(NTS)

LEGEND
XX (XX) = Inbound (Outbound)
Turning Movements

Project Number: M1388
Prepared by: TKH

Figure 9A: Project Traffic (15% NB, 85% SB)





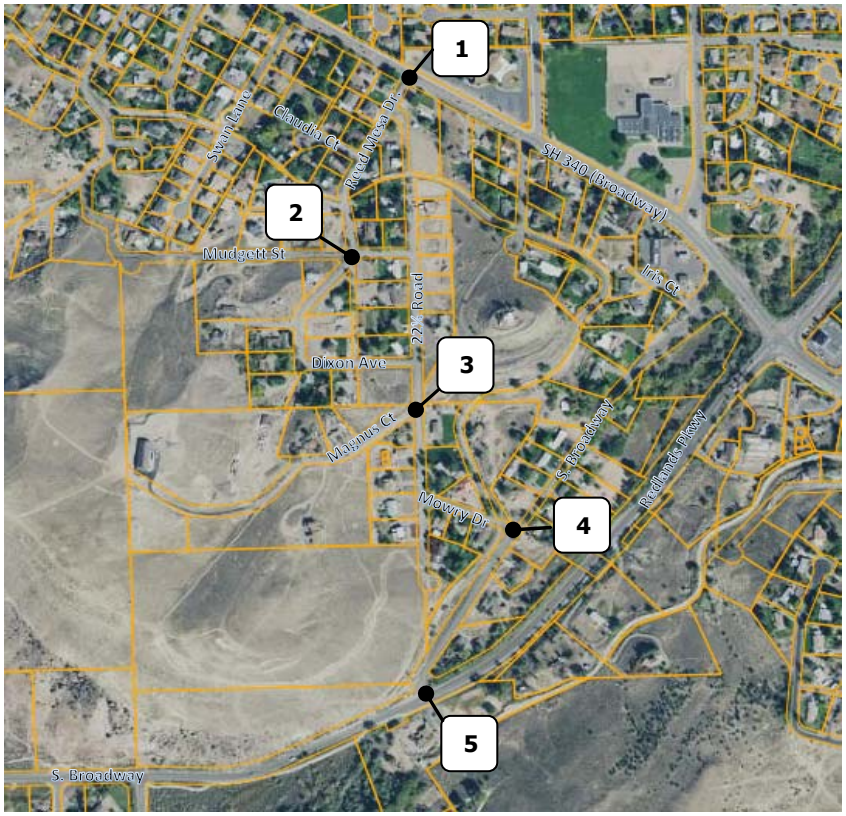
McDowell Engineering LLC
Transportation Engineering Consultants

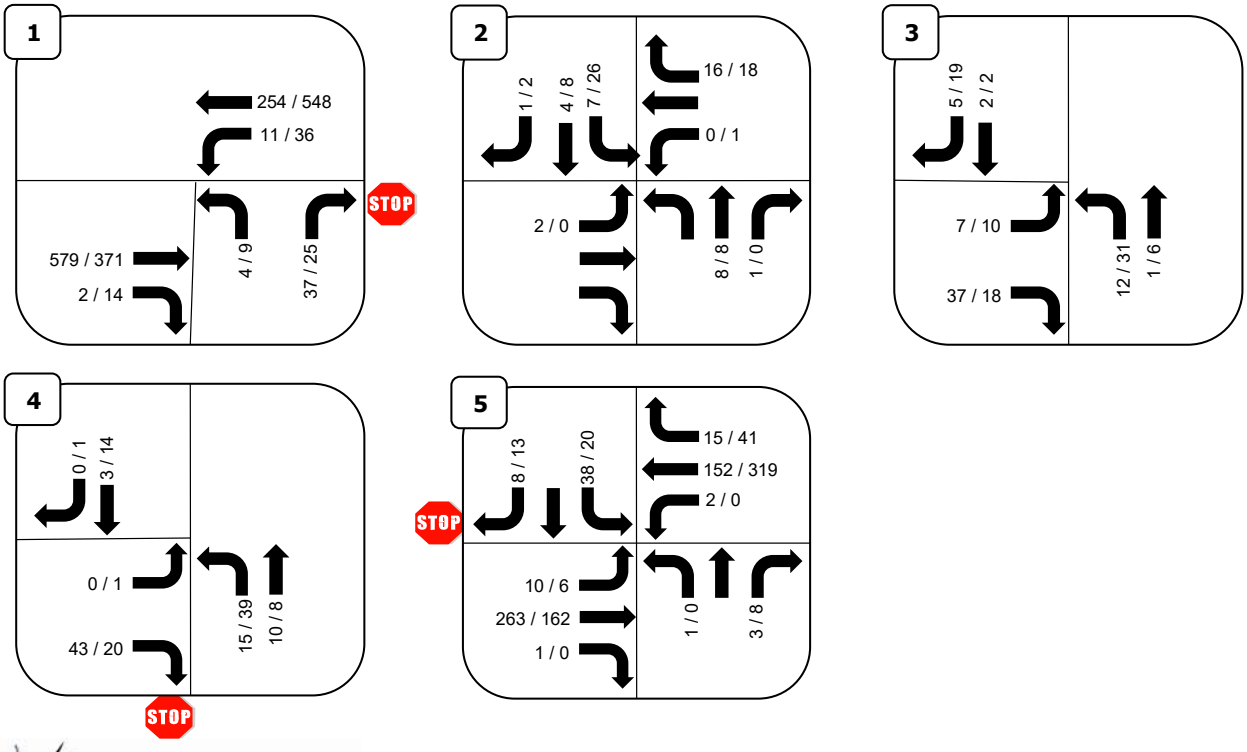
Project Number: M1388
Prepared by: TKH

N
(NTS)

LEGEND
XX/XX = AM/PM Volumes (pce vph)
Turning Movements

Figure 13A: Initial Year Total Traffic (2019) (15% NB, 85% SB)





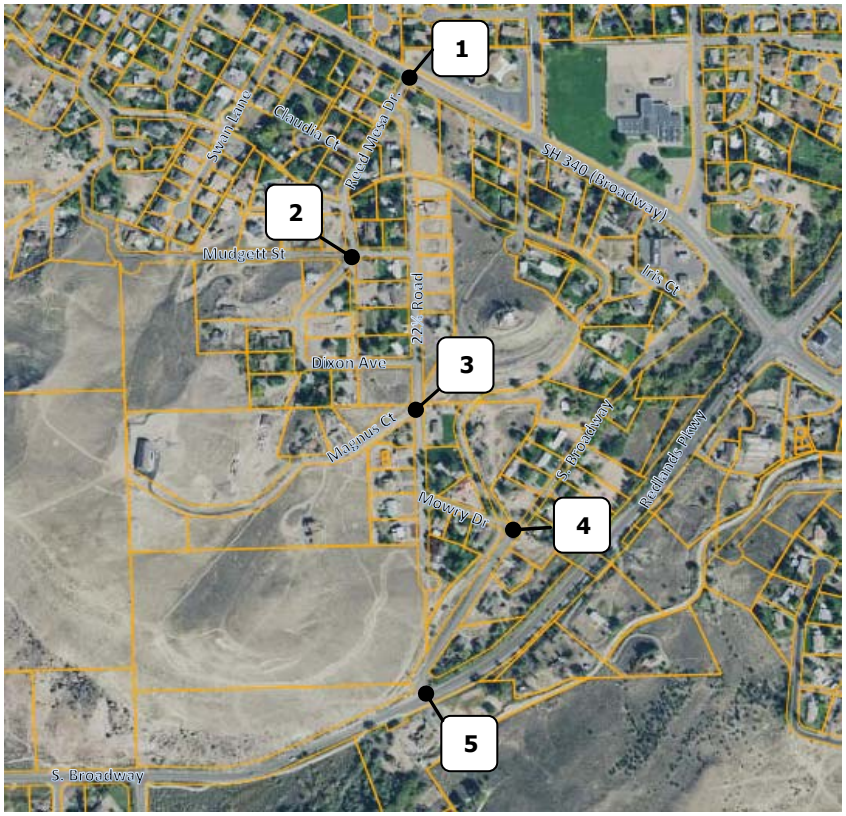
McDowell Engineering LLC
Transportation Engineering Consultants

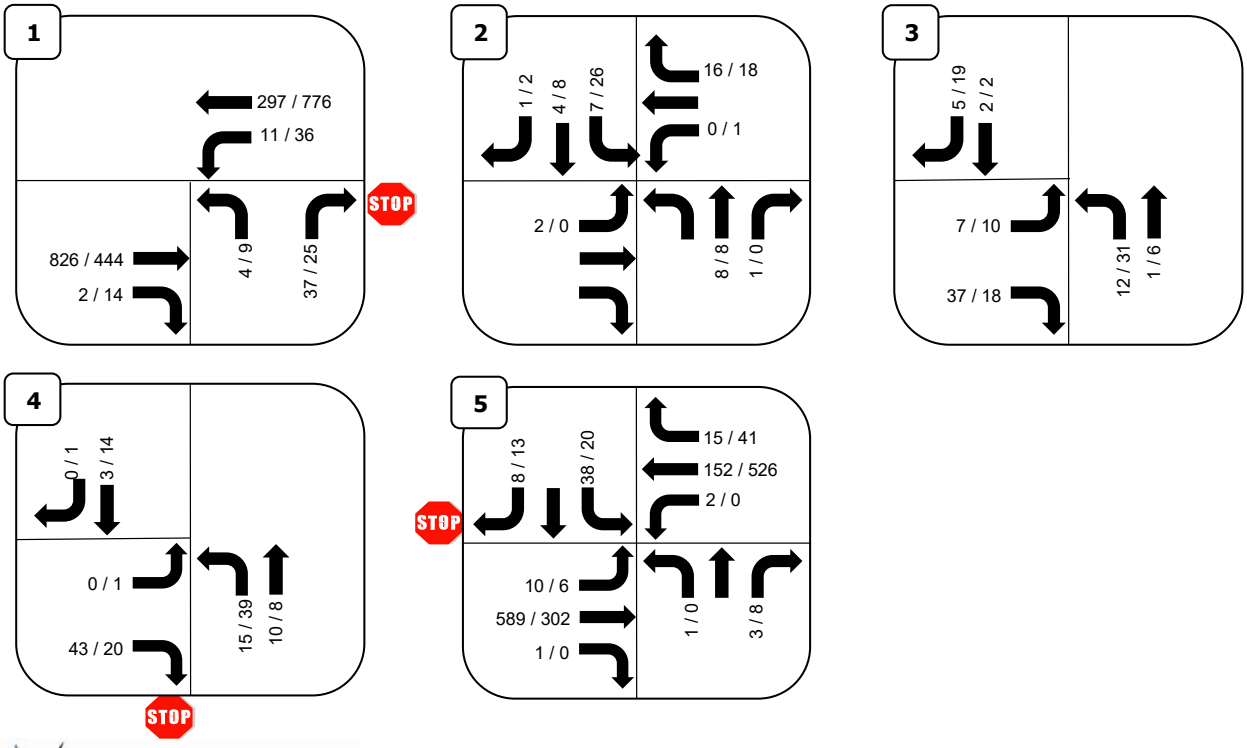
Project Number: M1388
Prepared by: TKH

N
(NTS)

LEGEND
XX/XX = AM/PM Volumes (pce vph)
Turning Movements

Figure 15A: Design Year Total Traffic (2040) (15% NB, 85% SB)





McDowell Engineering LLC
Transportation Engineering Consultants

Project Number: M1388
Prepared by: TKH

N
(NTS)

LEGEND
XX/XX = AM/PM Volumes (pce vph)
Turning Movements

Traffic Impacts on Adjacent Neighborhood Streets:

The proposed site-generated traffic from the Magnus subdivision is anticipated to be 700 vehicles per day (vpd). This includes 56 vehicles per hour during the morning peak hour (vph) and 74vph during the evening peak hour.

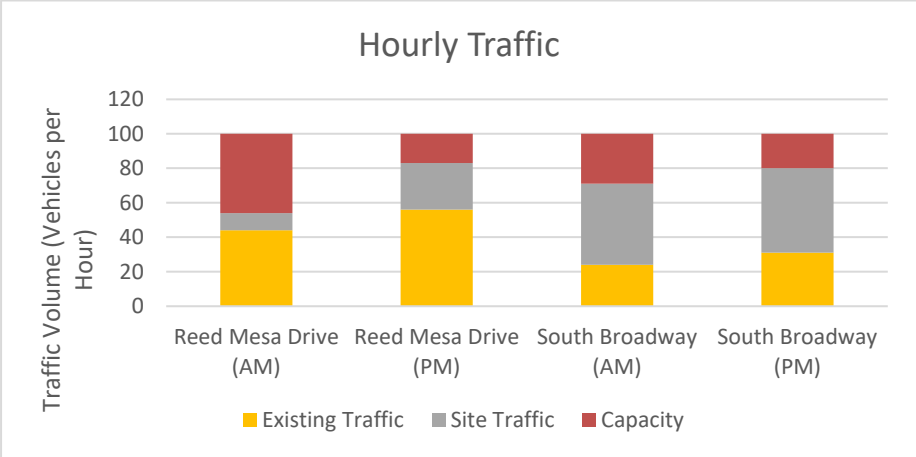
Hourly data from our 2019 traffic counts on the existing neighborhood roads was used to approximate the existing daily traffic. Generally, industry standard assumes that 10% of the daily traffic occurs during the evening peak hour.

Existing Conditions	AM Peak Hour	PM Peak Hour	Approximate Daily Traffic
Reed Mesa Drive	44vph	56vph	500vpd
South Broadway	24vph	31vph	300vpd

The project's 700vpd is distributed between the Reed Mesa Drive and South Broadway accesses. The study analyzed the peak hour traffic anticipated to each intersection. Therefore, the hourly data is more accurate than a general daily comparison. This analysis incorporated adjustments for travel pattern changes based upon the time of day and congestion.

Project Traffic	AM Peak Hour	PM Peak Hour	Approximate Daily Traffic
Reed Mesa Drive	10vph	27vph	200vpd
South Broadway	47vph	49vph	500vpd

The resulting traffic volume impact graph uses the industry standard assumption that 10% of the daily traffic occurs during the evening peak hour. This assumption was applied to the local County Road standard of 1,000vpd, equating to 100vph.



The project traffic is anticipated to compose of 19 – 33% of the total traffic on Reed Mesa Drive. More project traffic is anticipated to use South Broadway. The project traffic is anticipated to compose of 61 – 66% of the total traffic on South Broadway. The anticipated addition of project traffic will occur over a number of years as the project builds out. The additional impacts are not immediate.

Mesa County stated that they would not require improvements to the short section of County road as the current quality of the road would meet requirements of the County for this type of local road (<1,000vpd). The residents and applicant have identified a few improvements that would improve the safety of the local roadways.

- The applicant is pursuing multimodal improvements at the intersection of Reed Mesa Drive/Broadway and along Broadway in coordination with Mesa County, Grand Junction, and CDOT.
- The applicant will add stop signs at the unmarked intersections to clarify right of way to drivers. The applicant had also identified adding stop bars to the local roadways. However, the City does not prefer to add stop bars at each intersection.
- The applicant will improve return radii at intersections that will be impacted by construction vehicles.

Conclusion:

The 15% NB, 85% SB Scenario does not change any of the conclusions or recommendations in the original traffic impact study.

The proposed improvements to the neighborhood streets meet and exceed Mesa County's standards.

Please call if you would like any additional information or have any questions regarding this matter.

Sincerely,
McDowell Engineering, LLC

Kari J. McDowell Schroeder, PE, PTOE
Traffic Engineer

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	579	2	11	254	4	37
Future Vol, veh/h	579	2	11	254	4	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	266	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	629	2	12	276	4	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	631	0	930	630
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	951	-	297	482
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	951	-	293	482
Mov Cap-2 Maneuver	-	-	-	-	293	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	453	-	-	951	-
HCM Lane V/C Ratio	0.098	-	-	0.013	-
HCM Control Delay (s)	13.8	-	-	8.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	0	0	16	0	8	1	7	4	1
Future Vol, veh/h	2	0	0	0	0	16	0	8	1	7	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	0	0	0	17	0	9	1	8	4	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	31	31	5	31	31	10	5	0	0	10	0	0
Stage 1	21	21	-	10	10	-	-	-	-	-	-	-
Stage 2	10	10	-	21	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	977	862	1078	977	862	1071	1616	-	-	1610	-	-
Stage 1	998	878	-	1011	887	-	-	-	-	-	-	-
Stage 2	1011	887	-	998	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	957	858	1078	973	858	1071	1616	-	-	1610	-	-
Mov Cap-2 Maneuver	957	858	-	973	858	-	-	-	-	-	-	-
Stage 1	998	874	-	1011	887	-	-	-	-	-	-	-
Stage 2	995	887	-	993	874	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	8.4	0	4.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	957	1071	1610	-	-
HCM Lane V/C Ratio	-	-	-	0.002	0.016	0.005	-	-
HCM Control Delay (s)	0	-	-	8.8	8.4	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	37	12	1	2	5
Future Vol, veh/h	7	37	12	1	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	40	13	1	2	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	32	5	7	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	982	1078	1614	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1078	1614	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	996	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	6.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1614	-	1060	-	-
HCM Lane V/C Ratio	0.008	-	0.045	-	-
HCM Control Delay (s)	7.2	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	43	15	10	3	0
Future Vol, veh/h	0	43	15	10	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	47	16	11	3	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	46	3	3	0	-	0
Stage 1	3	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	964	1081	1619	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	954	1081	1619	-	-	-
Mov Cap-2 Maneuver	954	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	4.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1619	-	1081	-	-
HCM Lane V/C Ratio	0.01	-	0.043	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	263	1	2	152	15	1	0	3	38	0	8
Future Vol, veh/h	10	263	1	2	152	15	1	0	3	38	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	273	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	286	1	2	165	16	1	0	3	41	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	181	0	0	287	0	0	491	494	287	479	478	165
Stage 1	-	-	-	-	-	-	309	309	-	169	169	-
Stage 2	-	-	-	-	-	-	182	185	-	310	309	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1394	-	-	1275	-	-	488	476	752	497	486	879
Stage 1	-	-	-	-	-	-	701	660	-	833	759	-
Stage 2	-	-	-	-	-	-	820	747	-	700	660	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1394	-	-	1275	-	-	479	471	752	491	481	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	479	471	-	491	481	-
Stage 1	-	-	-	-	-	-	695	654	-	826	757	-
Stage 2	-	-	-	-	-	-	810	746	-	691	654	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	10.5	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	658	1394	-	-	1275	-	-	532
HCM Lane V/C Ratio	0.007	0.008	-	-	0.002	-	-	0.094
HCM Control Delay (s)	10.5	7.6	0	-	7.8	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	826	2	11	297	4	37
Future Vol, veh/h	826	2	11	297	4	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	266	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	898	2	12	323	4	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	900	0	1246	899
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	755	-	192	338
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	755	-	189	338
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	716	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	314	-	-	755	-
HCM Lane V/C Ratio	0.142	-	-	0.016	-
HCM Control Delay (s)	18.4	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	0	0	16	0	8	1	7	4	1
Future Vol, veh/h	2	0	0	0	0	16	0	8	1	7	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	0	0	0	17	0	9	1	8	4	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	31	31	5	31	31	10	5	0	0	10	0	0
Stage 1	21	21	-	10	10	-	-	-	-	-	-	-
Stage 2	10	10	-	21	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	977	862	1078	977	862	1071	1616	-	-	1610	-	-
Stage 1	998	878	-	1011	887	-	-	-	-	-	-	-
Stage 2	1011	887	-	998	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	957	858	1078	973	858	1071	1616	-	-	1610	-	-
Mov Cap-2 Maneuver	957	858	-	973	858	-	-	-	-	-	-	-
Stage 1	998	874	-	1011	887	-	-	-	-	-	-	-
Stage 2	995	887	-	993	874	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	8.4	0	4.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	957	1071	1610	-	-
HCM Lane V/C Ratio	-	-	-	0.002	0.016	0.005	-	-
HCM Control Delay (s)	0	-	-	8.8	8.4	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	37	12	1	2	5
Future Vol, veh/h	7	37	12	1	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	40	13	1	2	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	32	5	7	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	982	1078	1614	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1078	1614	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	996	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	6.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1614	-	1060	-	-
HCM Lane V/C Ratio	0.008	-	0.045	-	-
HCM Control Delay (s)	7.2	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	43	15	10	3	0
Future Vol, veh/h	0	43	15	10	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	47	16	11	3	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	46	3	3	0	-	0
Stage 1	3	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	964	1081	1619	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	954	1081	1619	-	-	-
Mov Cap-2 Maneuver	954	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	4.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1619	-	1081	-	-
HCM Lane V/C Ratio	0.01	-	0.043	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	589	1	2	152	15	1	0	3	38	0	8
Future Vol, veh/h	10	589	1	2	152	15	1	0	3	38	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	273	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	640	1	2	165	16	1	0	3	41	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	181	0	0	641	0	0	845	848	641	833	832	165
Stage 1	-	-	-	-	-	-	663	663	-	169	169	-
Stage 2	-	-	-	-	-	-	182	185	-	664	663	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1394	-	-	943	-	-	283	298	475	288	305	879
Stage 1	-	-	-	-	-	-	450	459	-	833	759	-
Stage 2	-	-	-	-	-	-	820	747	-	450	459	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1394	-	-	943	-	-	277	294	475	283	301	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	294	-	283	301	-
Stage 1	-	-	-	-	-	-	445	453	-	823	757	-
Stage 2	-	-	-	-	-	-	810	746	-	442	453	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14	18.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	403	1394	-	-	943	-	-	321
HCM Lane V/C Ratio	0.011	0.008	-	-	0.002	-	-	0.156
HCM Control Delay (s)	14	7.6	0	-	8.8	0	-	18.3
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5

Broadway Elementary School
Walking and Bicycling Audit

October 18, 2016

Broadway Elementary School

October 18th, 2016

Audit Team Members:

Erik Borschel, Engineering Intern, Mesa County

Jessica Carlson, Safe Routes to School, Mesa County

Callie Fronczak, Safe Routes to School, Mesa County

Daniel Larkin, Senior Engineer, Mesa County

Terri Wenzlaff, Safe Routes to School, Mesa County

The walking and biking audit for Broadway Elementary School was conducted after school on a typical day. Personnel were stationed in the following locations for observation:

- In front of the school for parent pick-up
- Sidewalks and bicycle routes near school property
- Bus loading zone
- 22 ½ Rd. and Greenbelt Drive intersection
- 22 ½ Rd. and Broadway Elementary intersection
- Village Way and Broadway intersection

Discussion:

Broadway Elementary has approximately 240 students, 34.4% of whom qualify for the Free and Reduced Lunch Program. There is one bus and one ADA van that service this school. The principal indicated that traffic back up is much more of an issue on days when there is inclement weather. There were two circle bike racks located at Broadway Elementary. There were 18 bikes and one razor parked at the rack with three helmets. At the end of the day, our observer counted 14 bike riders, 12 helmets, three razor riders and 13 walkers. These bike racks were not clearly visible and there are no bike paths or routes around the school.

Figure 1: Diagram of the school layout.

Observations/Comments:

Members of the audit team and members of the school community made the following observations and comments regarding the afternoon pick-up and departure:

Drop-off/Pick-up Area:

- Parent pick-up is in a small loop in front of the school. When that loop is full, traffic either parks in the small parking lot or backs up to Broadway.
- When parents park in the parking lot, they walk over to the sidewalk to get their kids. When walking back to the parking lot through lines of pick-up traffic, parent walk with their children.
- Parking lot is small and fills up quickly, especially because staff park there as well.

Intersection at 22 ½ Rd. and Greenbelt Drive:

- There is vegetation overgrowth that could limit visibility of pedestrians/bicyclists.
- No bike routes present; sidewalk is more or less a path that has a multitude of cracks, uneven edges and is next to a drainage ditch.

Figure 2: Drainage ditch on 22 1/2 Road.

- Sidewalks and curbing are not continuous surrounding the school.
- Speeding traffic has been reported on Greenbelt coming up the hill to 22 ½ Rd.

Walkers/Bikers:

- There is ample bike parking at the school and there are a fair amount of walkers and bikers.
- Sidewalks around the property need to be replaced/installed. The ones that are there are cracked, have broken curbs and in many places, children are walking along uneven gravel pathways.
- The school zone crosswalk that is in front of Redlands United Methodist Church to the west of the school does not have a sidewalk to cross to on the south side of Highway 340.

- The east/west crosswalk at Village Way is not utilized. Rather, the walkers cross that street adjacent to the opening in the fence, about 30 feet back from the intersection. There is little to no use of the sidewalk in front of the school.

Figure 3: Underutilized lot behind the school that could be used for staff parking.

Suggested Solutions:

Location of Interest	Obstacle	Proposed Solutions	Responsible Parties
General	Information sharing of available resources (Safe Routes to school maps and WebApp); promotional ideas about getting kids to walk and bike to school.	Link on school website with pertinent information including SRTS maps.	Broadway administration, Safe Routes To School personnel, parent involvement groups, school safety teams.
Parent pick-up	Pick-up loop is small and the parking lot fills up quickly. Traffic backs up to Broadway.	There is vacant land owned by the school district at the back of the property that could be utilized for staff parking. This would free up space in the front of the school for less congestion during parent pick-up	District 51 Administration
Crosswalk on Village Way	Crosswalk is not used. Pedestrians cross the road adjacent to the opening in the fence 30 feet back from the intersection.	Move crosswalk back to where students will use it. Install signage warning motorists that there is a crosswalk in the vicinity.	Mesa County
Walking and Biking routes	There are no continuous sidewalks or curbing surrounding Broadway Elementary. There is no sidewalk to cross to on the south side of Broadway.	A plan for sidewalk installation or other infrastructure to support walking or biking in this area.	Mesa County; City of Grand Junction; CDOT

Best Practices:

- “Children Breathing - No Idle Zone” = Engines off sign (e.g. West MS photos)
- Pick-up/Drop-off areas by grade (e.g. Bookcliff MS, Pear Park ES). This may create a safer situation for walkers and bikers.
- Crossing guard gathers kids by school for crossing busy street (e.g. Mesa View ES)
- Crossing guards have standard stop signs, and Class A, Level 2 vests.
- Crossing guards are well trained -- on site training available (e.g. Chipeta report for more on this). Crossing guards need to be paid to take the training.
- Take the time to teach parents how to go through pick-up/drop-off process correctly. (e.g. Bookcliff MS)
- Teach kids to wear helmets.
- Having staff and faculty outside the building at the beginning and the end of day. (e.g. West MS, Rocky Mountain ES)
- Clear and predictable flow of traffic through parking lots. (e.g. Bookcliff MS)
- The Health Assistant and PE teachers are active in promoting healthy transportation to and from school. (e.g. Mesa View ES)
- Hosting a bike rodeo and teaching the bike safety and skills unit in PE.
- Crossing guards shouldn’t be teachers or other staff who can’t get to their stations in time. (e.g. Tope ES, where the PTO pays crossing guards, and “specials” teachers also have duty)

Walk Route Maps

Broadway Elementary School
Walk Route Map Summary

	1-Mile Radius ~ 228 street crossings		2-Mile Radius ~251 street crossings	
	Length	Percent	Length	Percent
Least Favored - 4	16.8	33%	20.6	36%
Not Favored - 3	21.5	42%	22.8	40%
Favored - 2	8.9	17%	9.6	17%
Most Favored - 1	3.7	7%	4.1	7%
	50.9	100%	57.1	100%

Key to Walk Route Map Ratings:

GREEN

Most favored route. May have a detached sidewalk and/or a bike lane. May be a path that has no vehicle traffic. (A detached sidewalk is separated from the roadway, often by a strip of grass, dirt or rocks.)

BLUE

Has attached sidewalks that are wide enough for 2 people to walk side by side. (An attached sidewalk is right next to the roadway).

YELLOW

Has a place to walk or ride that may be a sidewalk, but could be a path or simply sufficient unpaved space on the side of the road.

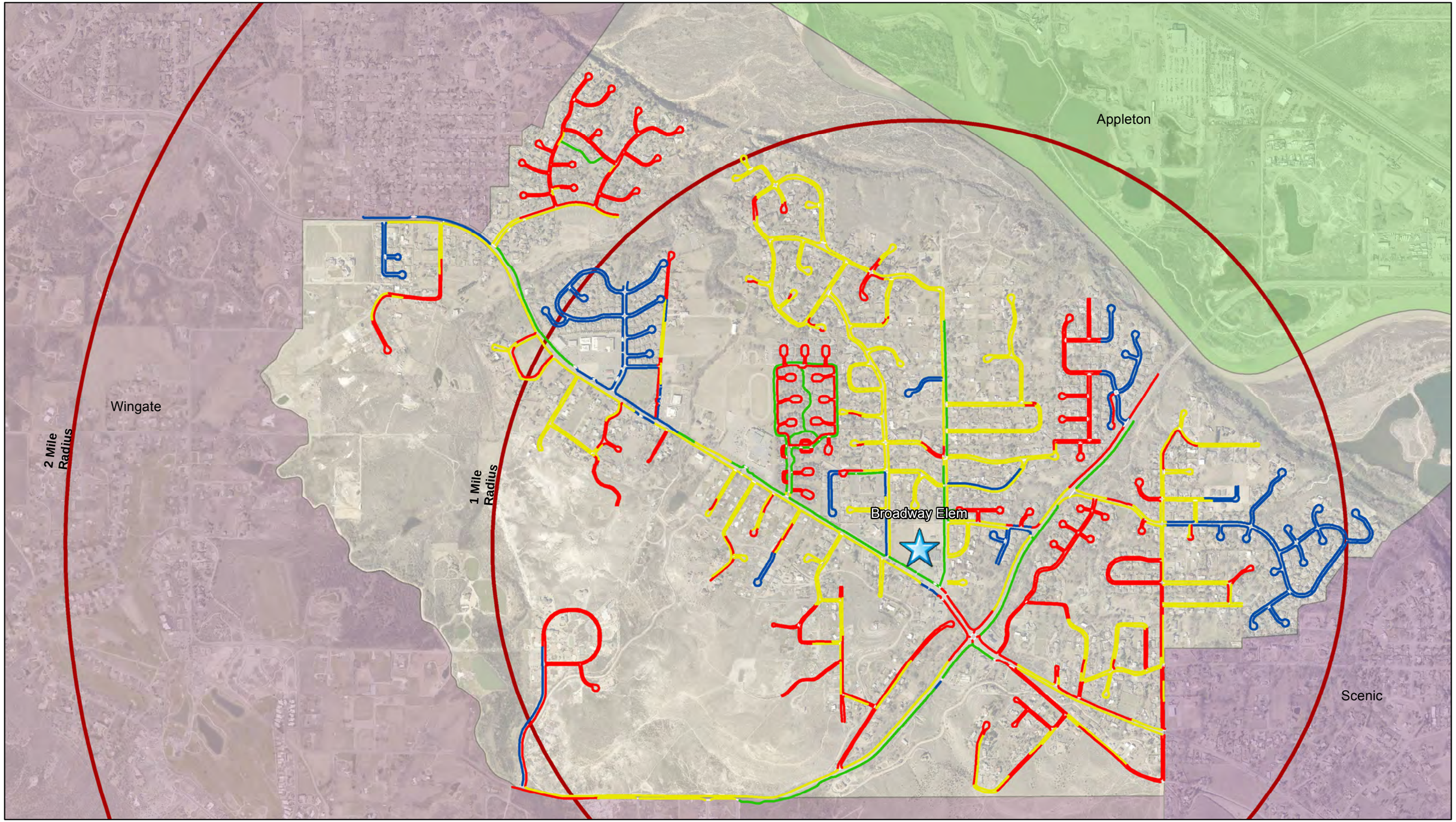
RED

Least favored route. Pedestrians and bicyclists must use the vehicle lanes to walk or ride. (No sidewalk and little or no space beyond the white edge line on the side of the road.)

SRTS 2016 - Broadway Elementary
Path Ratings within 1 & 2 Mile Radii

Legend

- Most favored
- Favored
- Not favored
- Least favored
- Crosswalk
- 2 Mile Radius
- 1 Mile Radius



Student Travel Tally Report: Combining Schools in One Data Collection Season

School Group: Mesa County Valley School District 51

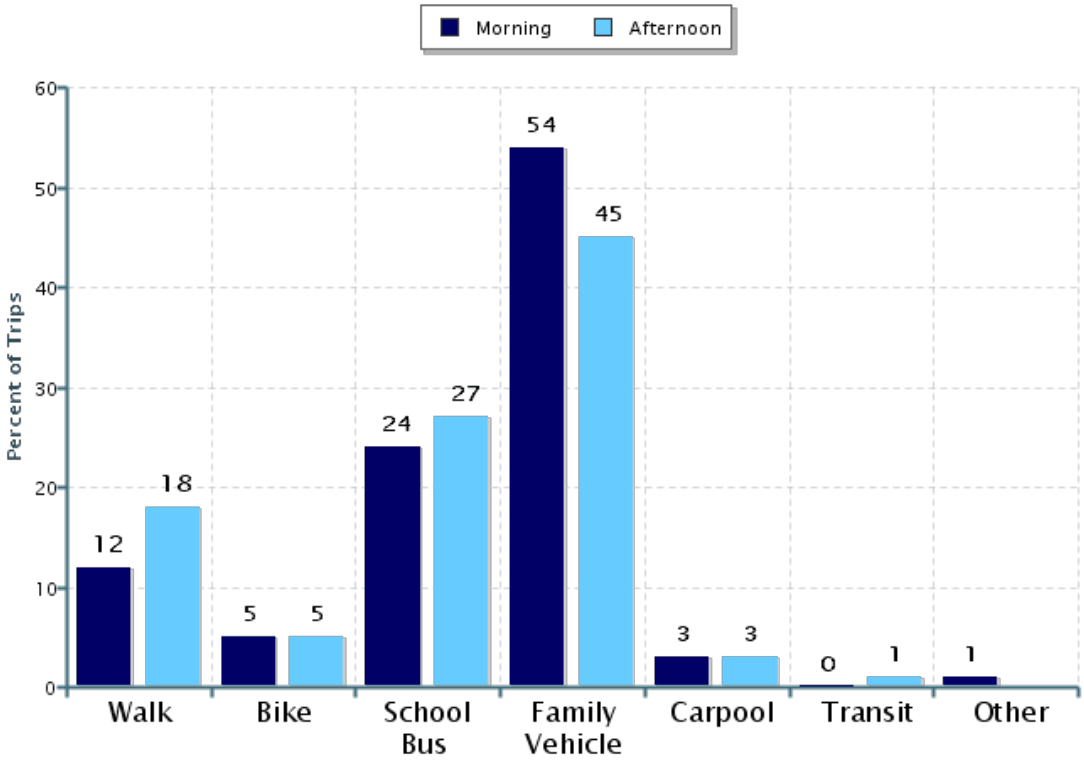
Date Range: Fall 2016

Date Report Generated: 01/03/2017

School Name:	Month & Year Collected & (Set ID)	School Enrollment:	% Range of School's Students Involved in SRTS:	Number of Classroom in School Targeted by School Group:	Number of Classrooms Included in Report:
Bookcliff Middle	October 2016 (22430)				7
Broadway Elementary School	October 2016 (22432)				12
Dos Rios Elementary School	October 2016 (22434)				5
East Middle School	October 2016 (22456)				2
Lincoln Orchard Mesa Elementary School	October 2016 (22428)				6
Loma Elementary School	October 2016 (22439)				1
Mesa View Elementary	October 2016 (22440)				2
Mount Garfield Middle School	October 2016 (22437)				6
Pear Park Elementary	October 2016 (22433)				9
Redlands Middle School	October 2016 (22441)				4
Rocky Mountain Elementary School	October 2016 (22436)				5
Taylor Elementary School	October 2016 (22442)				19
West Middle School	October 2016 (22435)				4
			Total:	0	82

This report contains information from schools' classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison

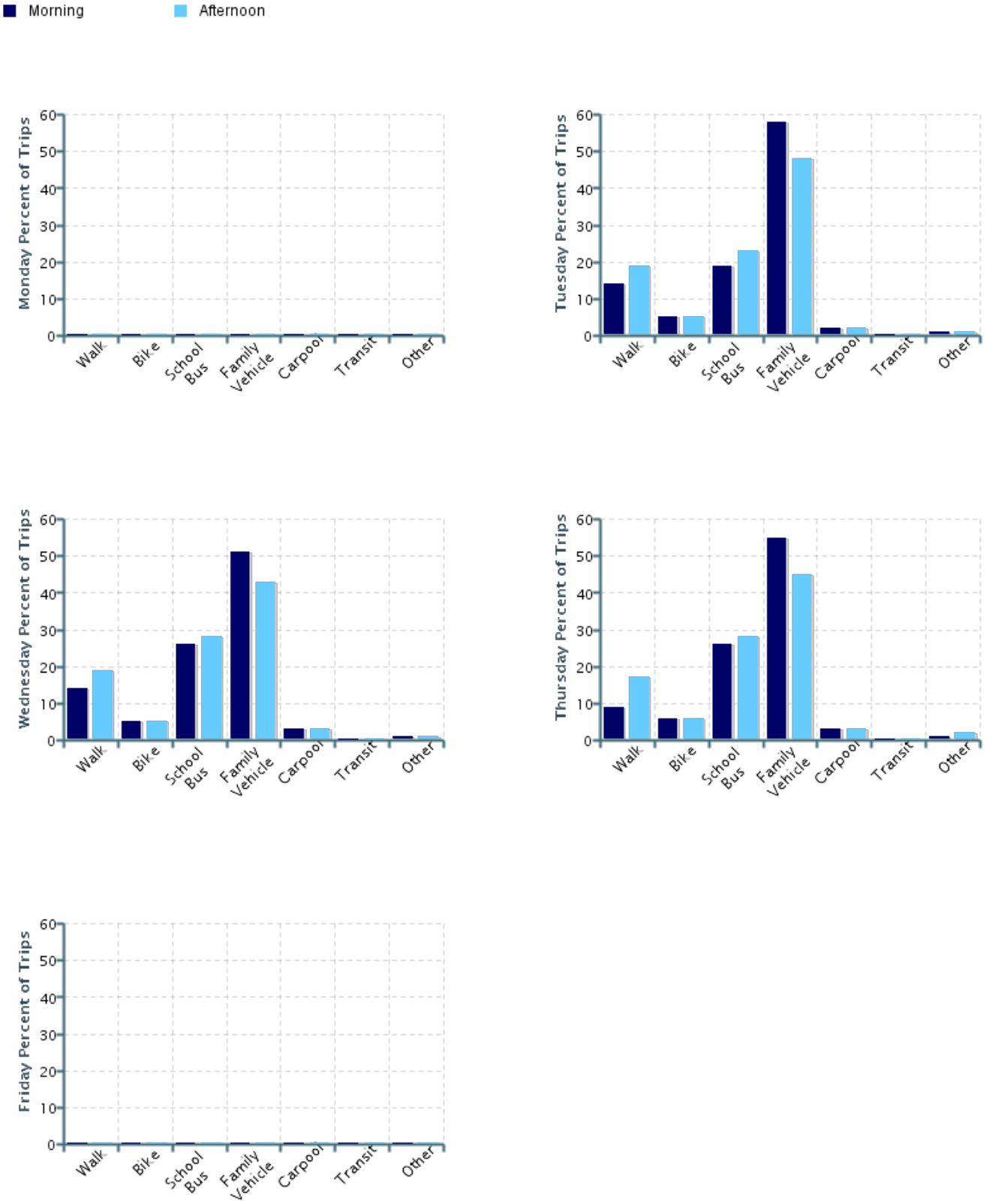


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	4456	12%	5%	24%	54%	3%	0.0%	0.9%
Afternoon	4424	18%	5%	27%	45%	3%	0%	1%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

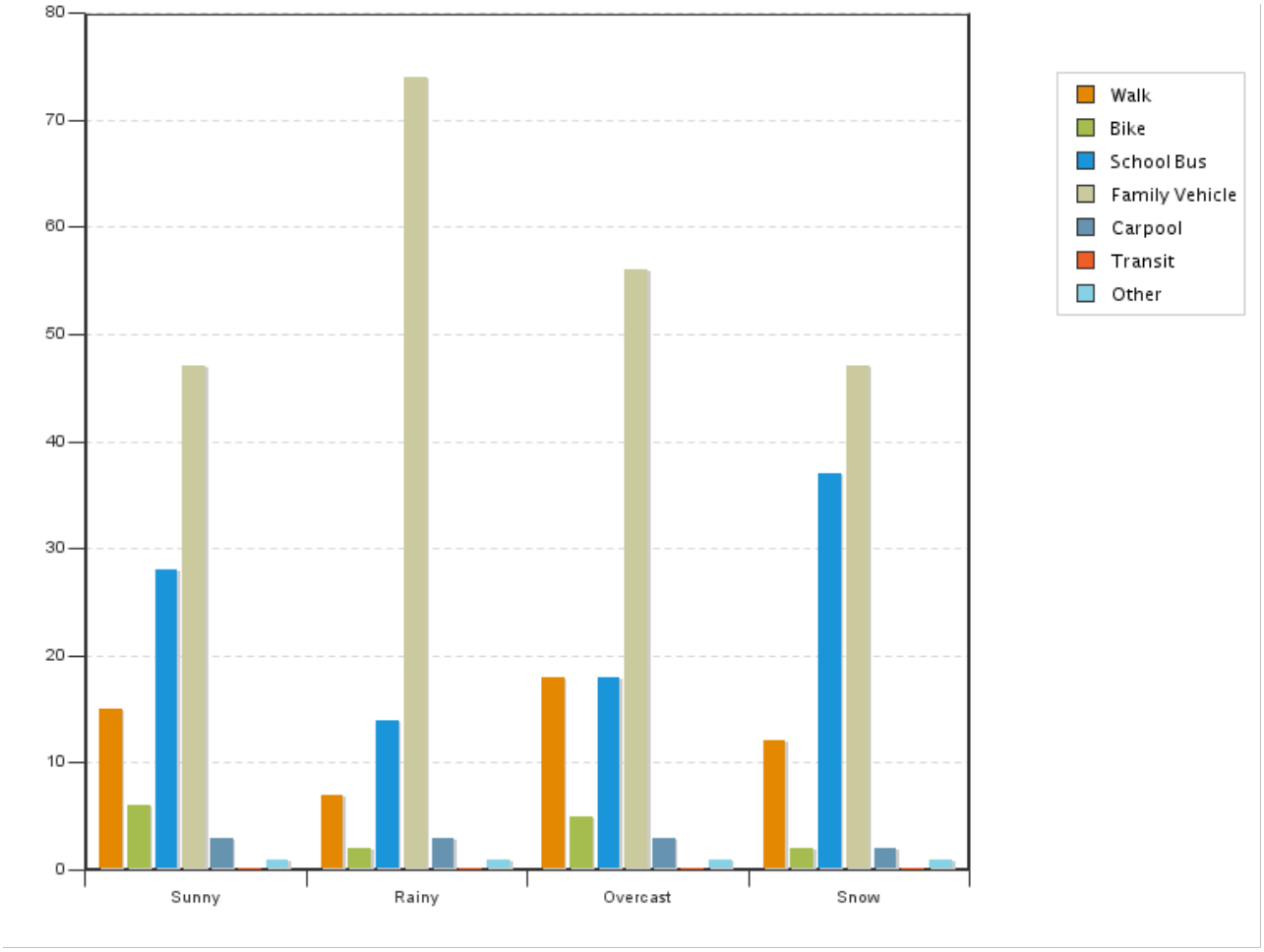


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Monday AM		0%	0%	0%	0%	0%	0%	0%
Monday PM		0%	0%	0%	0%	0%	0%	0%
Tuesday AM	1168	14%	5%	19%	58%	2%	0.1%	1%
Tuesday PM	1121	19%	5%	23%	48%	2%	0%	1%
Wednesday AM	1635	14%	5%	26%	51%	3%	0%	0.9%
Wednesday PM	1644	19%	5%	28%	43%	3%	0%	1%
Thursday AM	1653	9%	6%	26%	55%	3%	0%	0.8%
Thursday PM	1659	17%	6%	28%	45%	3%	0%	2%
Friday AM		0%	0%	0%	0%	0%	0%	0%
Friday PM		0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	7013	15%	6%	28%	47%	3%	0.0%	1%
Rainy	200	7%	2%	14%	74%	3%	0%	1%
Overcast	1123	18%	5%	18%	56%	3%	0%	1%
Snow	216	12%	2%	37%	47%	2%	0%	0.9%

Percentages may not total 100% due to rounding.

Student Travel Tally Report: One School in One Data Collection Period

School Name: Broadway Elementary School

School Group: Mesa County Valley School District 51

School Enrollment: 0

% of Students reached by SRTS activities:

Number of Classrooms Included in Report: 12

Set ID: 22432

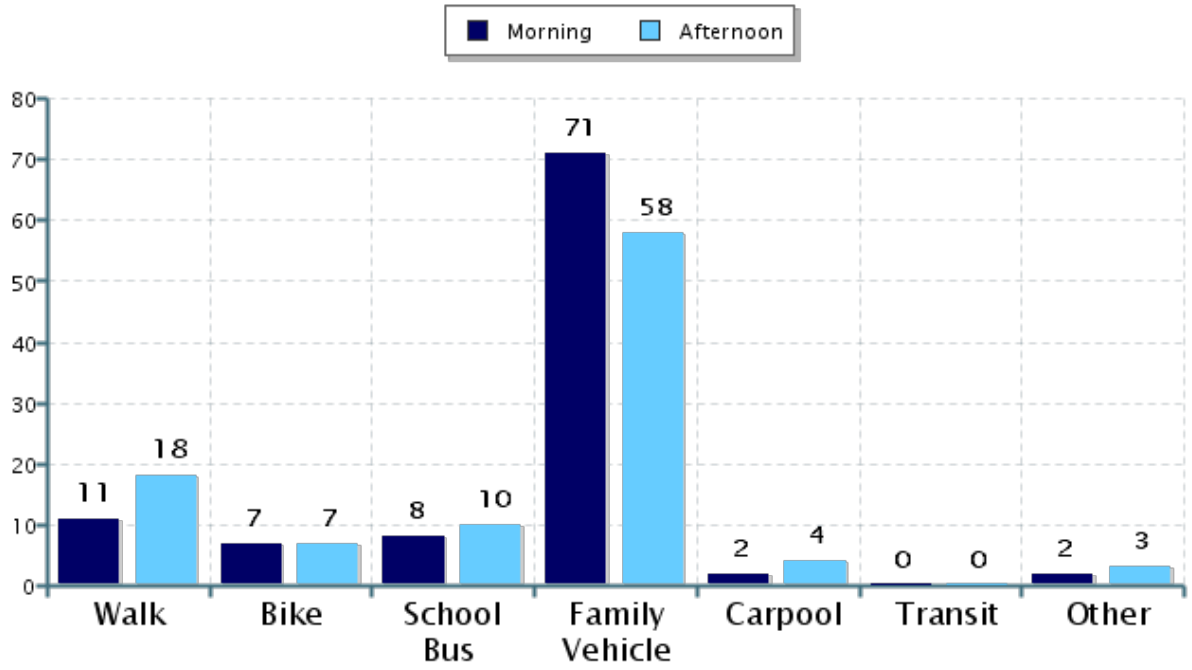
Month and Year Collected: October 2016

Date Report Generated: 01/03/2017

Tags: Safe Routes To School

This report contains information from your school's classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison

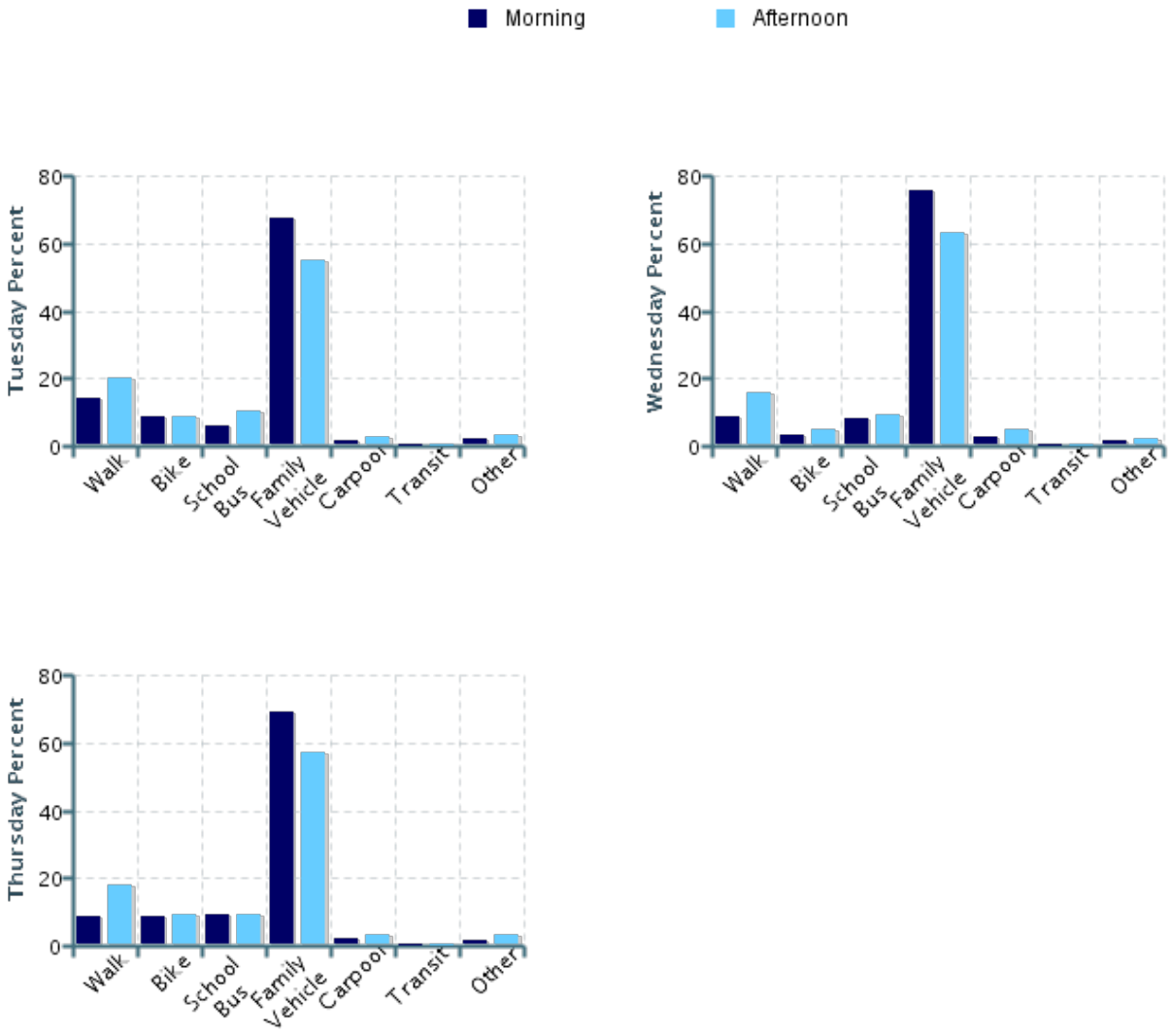


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	632	11%	7%	8%	71%	2%	0%	2%
Afternoon	635	18%	7%	10%	58%	4%	0%	3%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

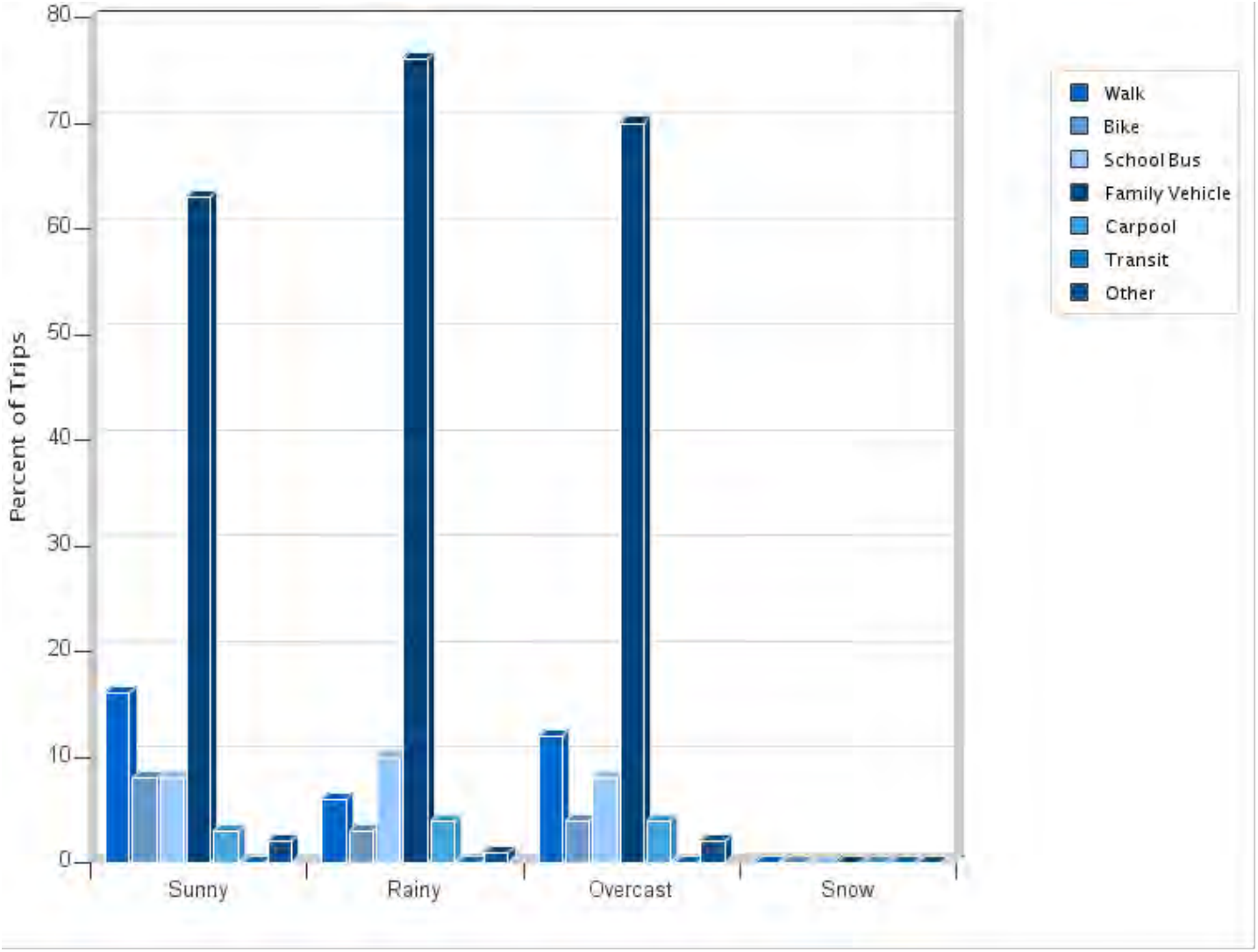


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	209	14%	9%	6%	67%	1%	0%	2%
Tuesday PM	210	20%	9%	10%	55%	3%	0%	3%
Wednesday AM	212	9%	3%	8%	75%	3%	0%	1%
Wednesday PM	214	16%	5%	9%	63%	5%	0%	2%
Thursday AM	211	9%	9%	9%	69%	2%	0%	2%
Thursday PM	211	18%	9%	9%	57%	3%	0%	3%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	931	16%	8%	8%	63%	3%	0%	2%
Rainy	90	6%	3%	10%	76%	4%	0%	1%
Overcast	212	12%	4%	8%	70%	4%	0%	2%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

Parent Surveys

Parent Survey Report: One School in One Data Collection Period

School Name: Broadway Elementary School

Set ID: 15679

School Group: Mesa County Valley School District 51

Month and Year Collected: October 2016

School Enrollment: 0

Date Report Generated: 12/12/2016

% Range of Students Involved in SRTS: Don't Know

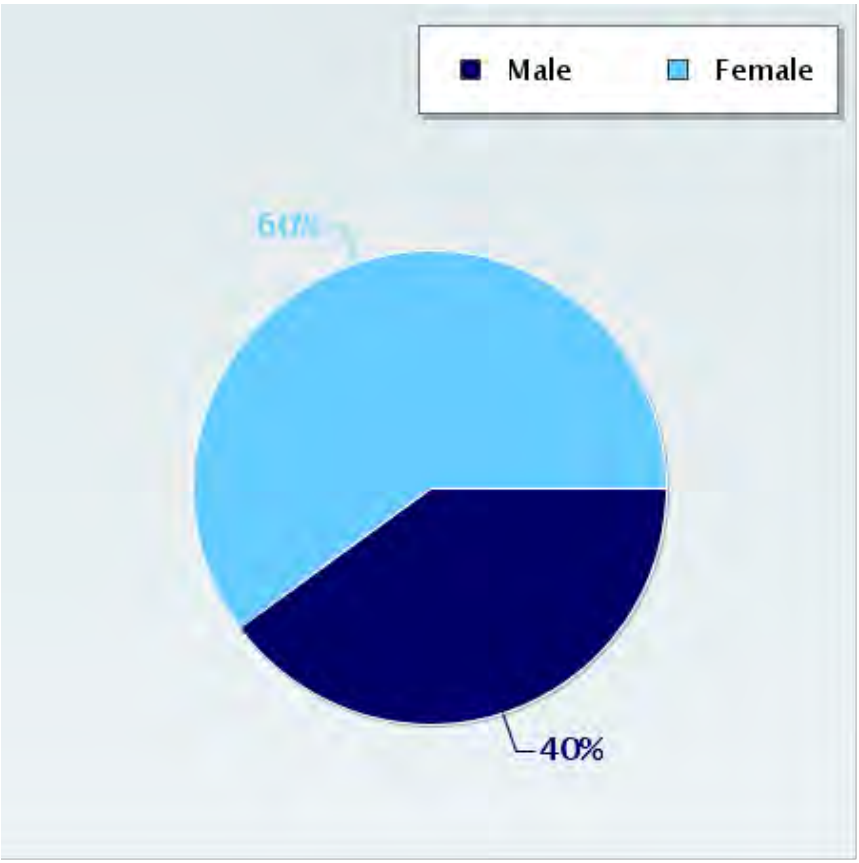
Tags: Safe Routes To School

Number of Questionnaires Distributed: 0

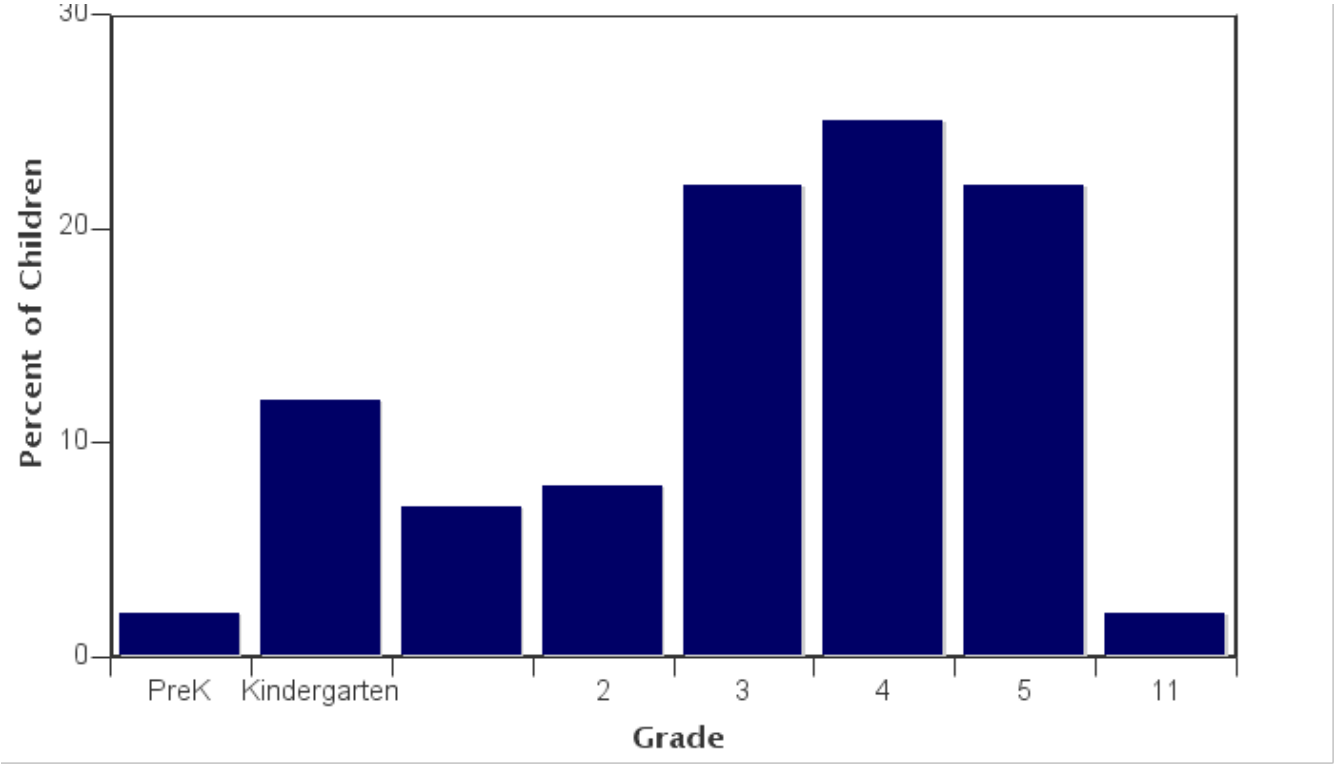
Number of Questionnaires Analyzed for Report: 63

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Sex of children for parents that provided information



Grade levels of children represented in survey

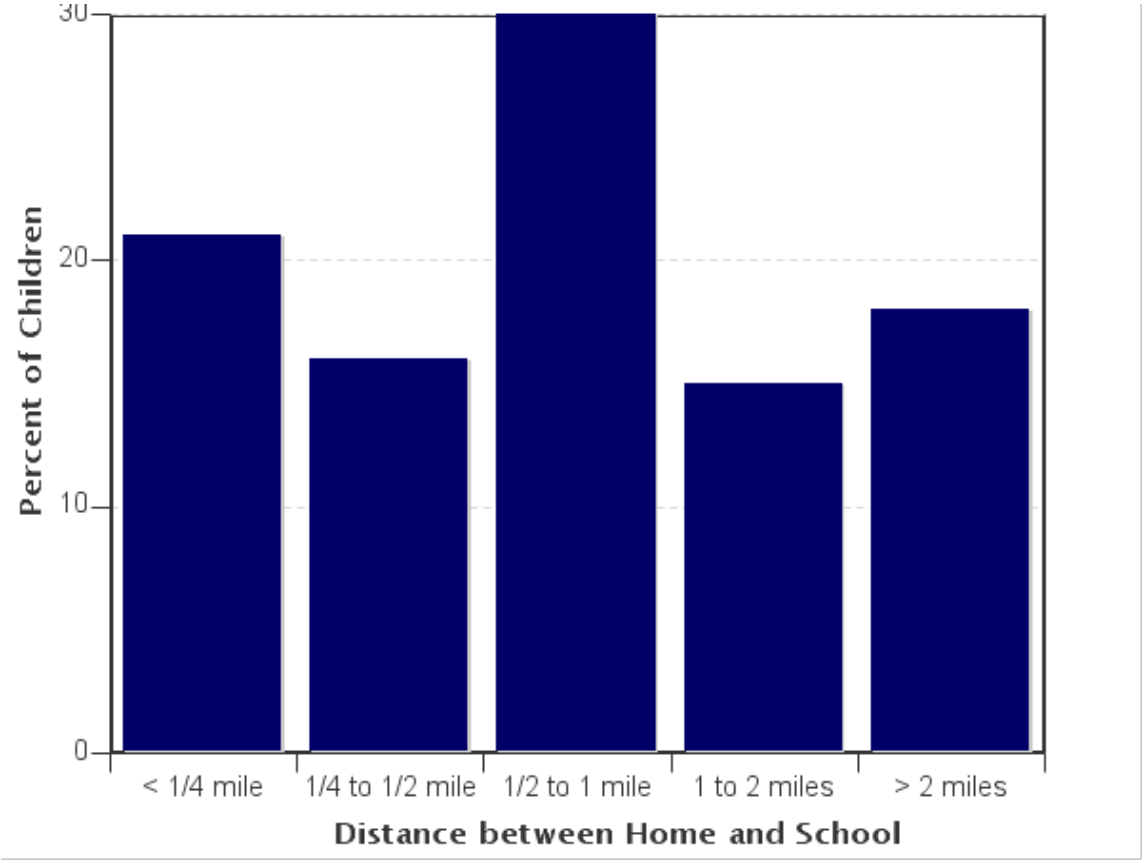


Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
PreK	1	2%
Kindergarten	7	12%
1	4	7%
2	5	8%
3	13	22%
4	15	25%
5	13	22%
11	1	2%

No response: 0
Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school

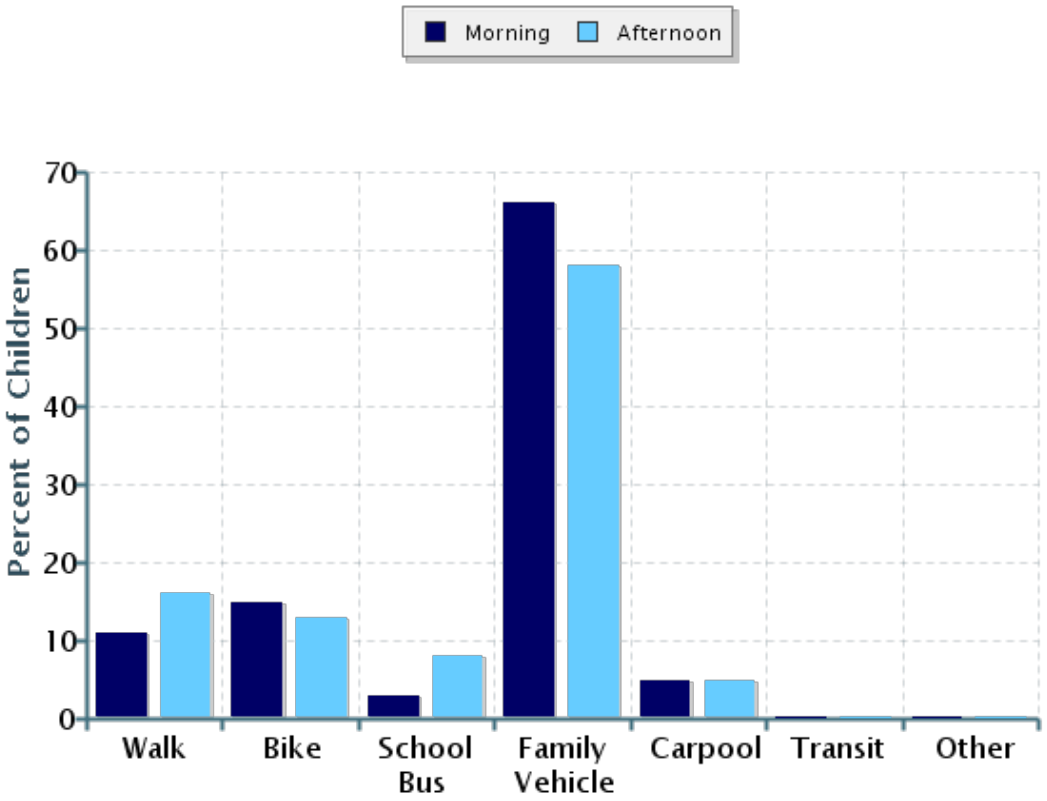


Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	13	21%
1/4 mile up to 1/2 mile	10	16%
1/2 mile up to 1 mile	18	30%
1 mile up to 2 miles	9	15%
More than 2 miles	11	18%

Don't know or No response: 2
Percentages may not total 100% due to rounding.

Typical mode of arrival at and departure from school

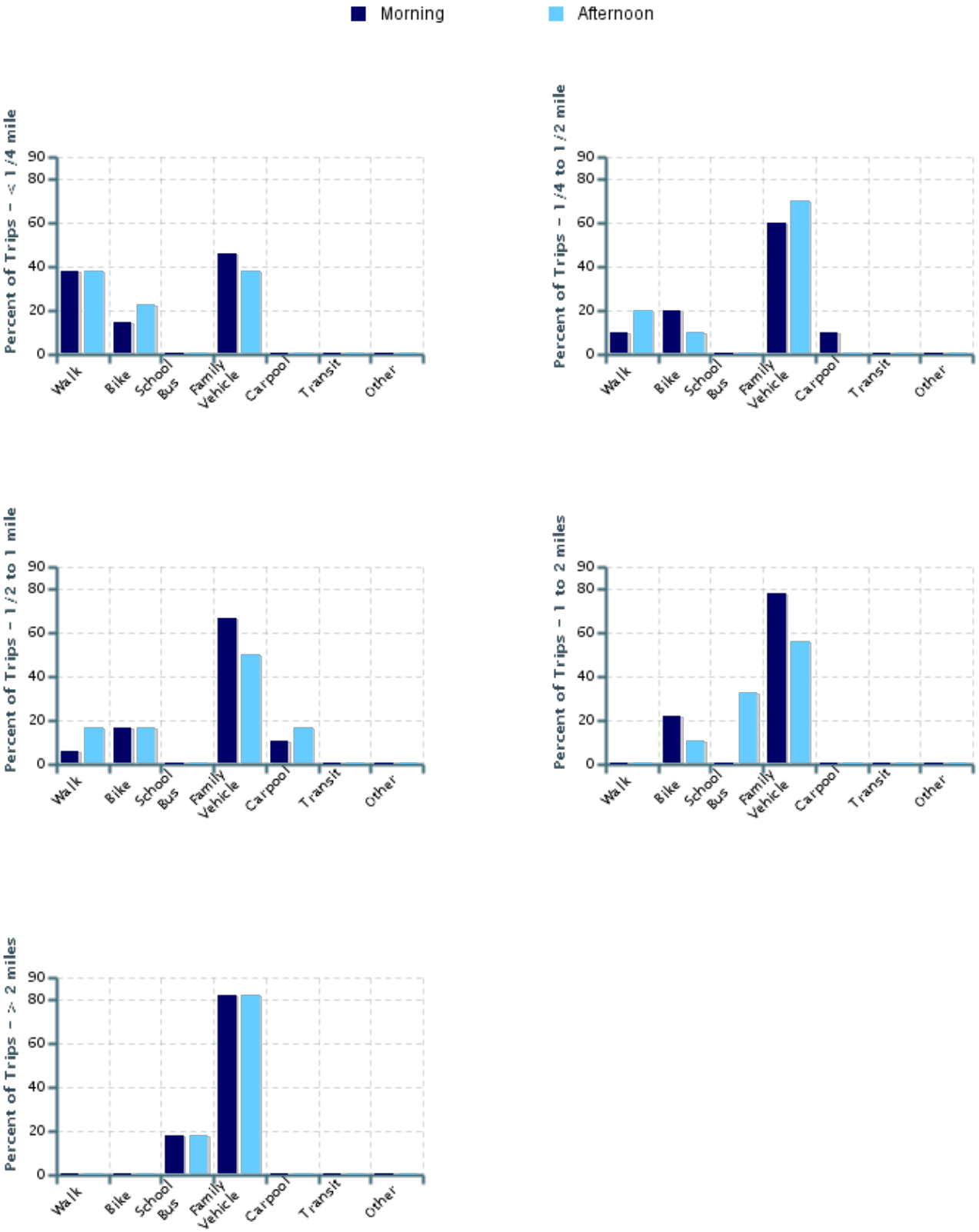


Typical mode of arrival at and departure from school

Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	62	11%	15%	3%	66%	5%	0%	0%
Afternoon	62	16%	13%	8%	58%	5%	0%	0%

No Response Morning: 1
No Response Afternoon: 1
Percentages may not total 100% due to rounding.

Typical mode of school arrival and departure by distance child lives from school



Typical mode of school arrival and departure by distance child lives from school

School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	13	38%	15%	0%	46%	0%	0%	0%
1/4 mile up to 1/2 mile	10	10%	20%	0%	60%	10%	0%	0%
1/2 mile up to 1 mile	18	6%	17%	0%	67%	11%	0%	0%
1 mile up to 2 miles	9	0%	22%	0%	78%	0%	0%	0%
More than 2 miles	11	0%	0%	18%	82%	0%	0%	0%

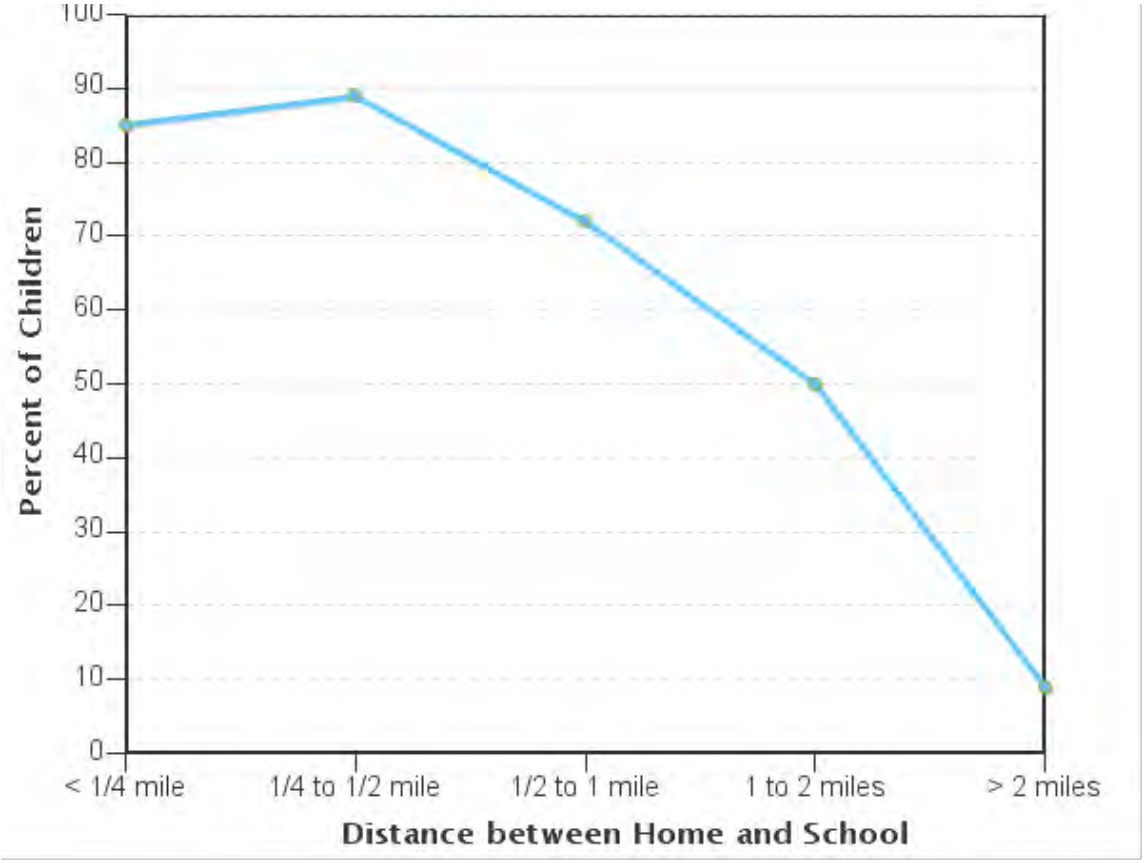
Don't know or No response: 2
Percentages may not total 100% due to rounding.

School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	13	38%	23%	0%	38%	0%	0%	0%
1/4 mile up to 1/2 mile	10	20%	10%	0%	70%	0%	0%	0%
1/2 mile up to 1 mile	18	17%	17%	0%	50%	17%	0%	0%
1 mile up to 2 miles	9	0%	11%	33%	56%	0%	0%	0%
More than 2 miles	11	0%	0%	18%	82%	0%	0%	0%

Don't know or No response: 2
Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

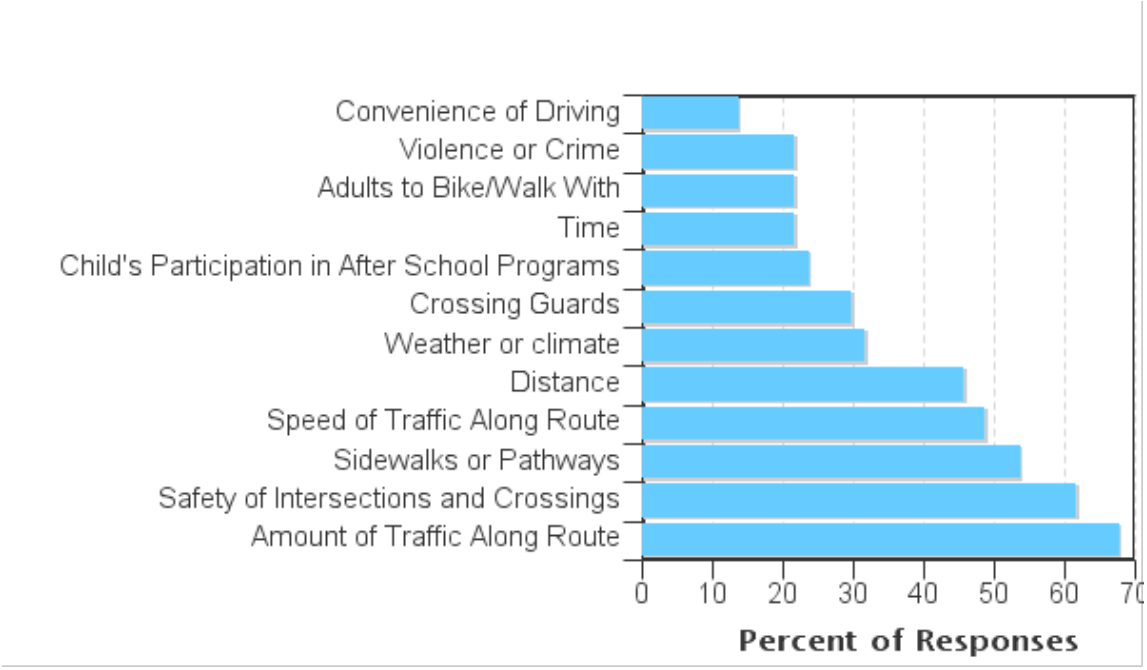


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

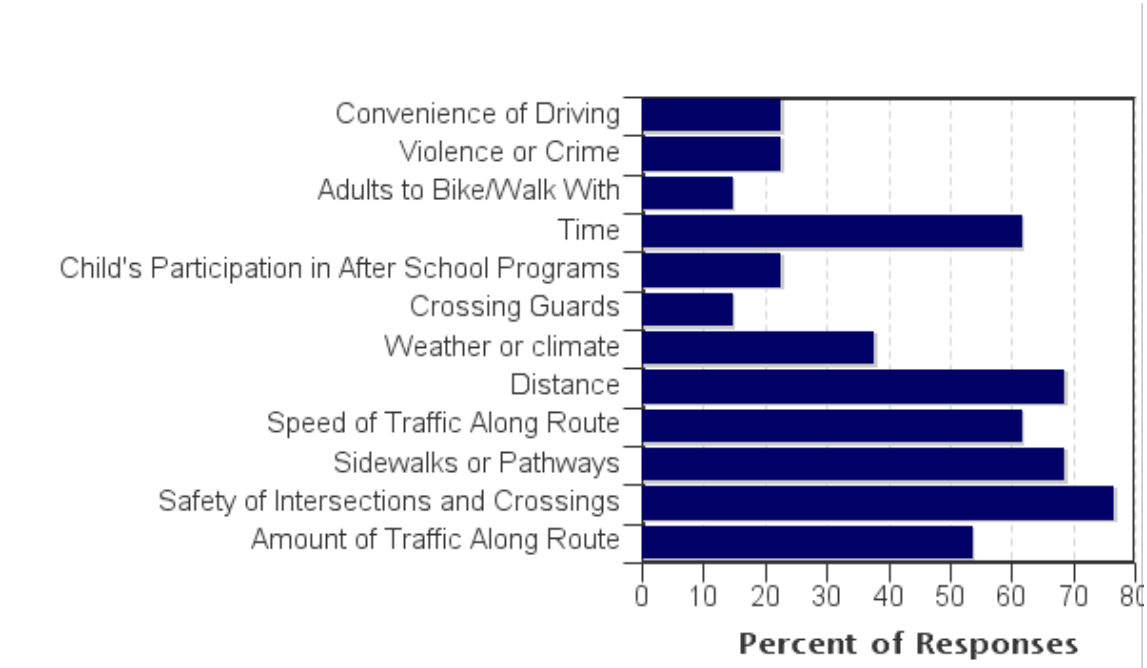
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	37	85%	89%	72%	50%	9%
No	22	15%	11%	28%	50%	91%

Don't know or No response: 4
Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

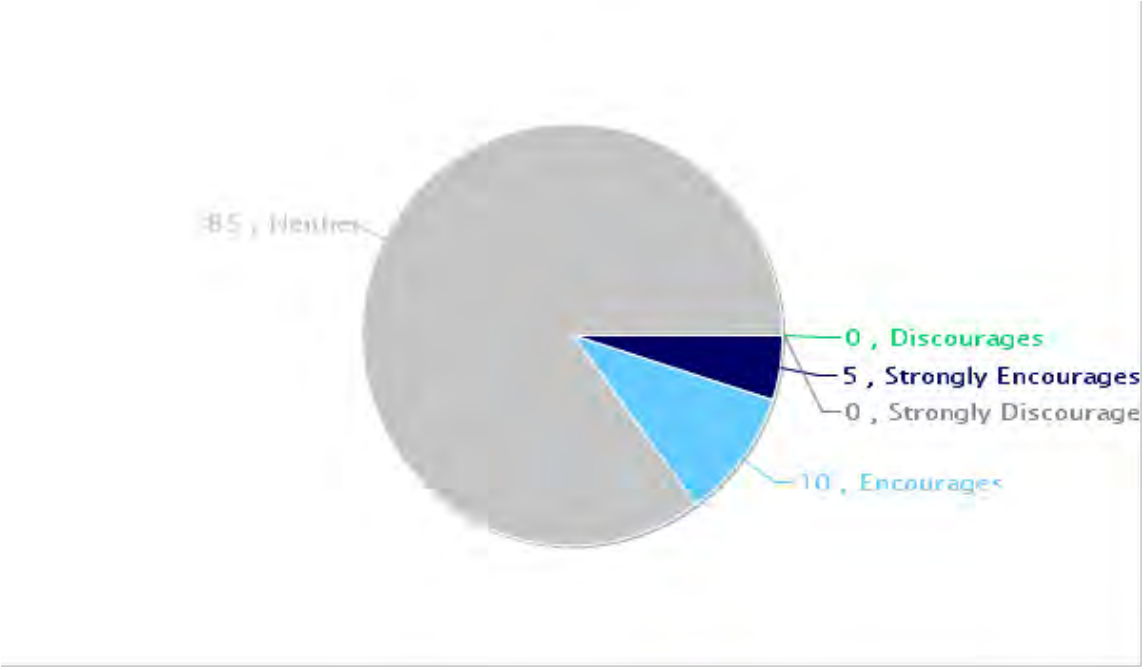


Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

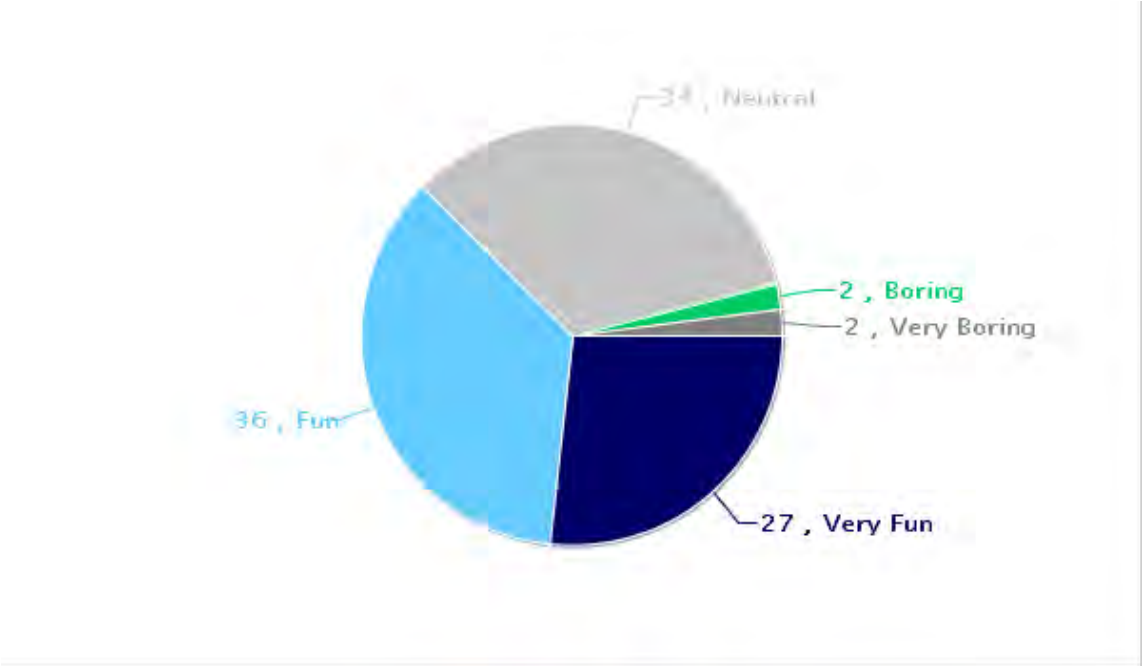
Issue	Child does not walk/bike to school	Child walks/bikes to school
Amount of Traffic Along Route	68%	54%
Safety of Intersections and Crossings	62%	77%
Sidewalks or Pathways	54%	69%
Speed of Traffic Along Route	49%	62%
Distance	46%	69%
Weather or climate	32%	38%
Crossing Guards	30%	15%
Child's Participation in After School Programs	24%	23%
Time	22%	62%
Adults to Bike/Walk With	22%	15%
Violence or Crime	22%	23%
Convenience of Driving	14%	23%
Number of Respondents per Category	**37**	**13**

No response: 13
Note:
--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.
--Each column may sum to > 100% because respondent could select more than issue
--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

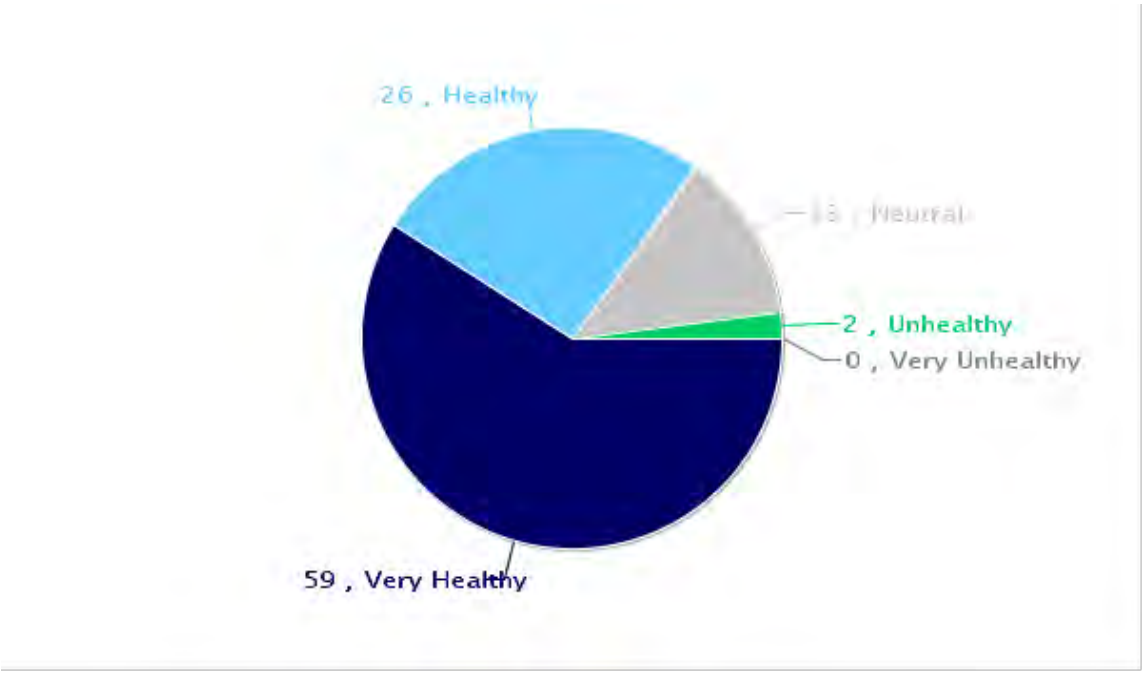
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child



Comments Section

SurveyID	Comment
1485372	When approaching Broadway Elem. from the east there is absolutely no safe place to walk. Even for adults. They would have to go down to greenbelt and double the time/distance to school.
1485481	We do school of choice. So walking/biking to and from school is not an option.
1485376	I will let my child bike on their own in a few years but since our neighborhood doesn't have sidewalks and cars drive too fast I'm not comfortable yet. We do walk/bike some days when there is time, but only w/ an adult.
1485378	They will be able to walk/bike to school when they are older and mature enough.
1485407	Since the drop-off parking off 22 1/2 Rd. is a mud pit, some drivers pull onto the pedestrian path so their kids don't climb out right into the mud... understandable, yet not very safe.
1485462	We live too far away if we lived closer, (lack of) sidewalks, walkways, and bridges would be our main concern.
1485468	The traffic coming off Broadway onto 22 1/2 is fast.
1485393	I would allow my child to walk/bike at grade 3 (with friends only).
1485397	Would love a sidewalk on village way.
1485388	My husband and my work schedules have forced us to let our kids bike/walk to school on some days. It's great for them, but the big intersection does concern me. There have been several times that cars haven't stopped for the kids. Thankfully the kids were paying attention.
1485421	We bike with him to school if we have the time and the weather is nice.
1485491	My children have the opportunity to walk from my parent's house and love it. We let them walk to/from there at least once a week. Our house is too far and they are too young.
1485401	We live too far away for my children to walk to school.
1485425	It is inconvenient, dangerous, and time consuming for my child to walk to/from school. I therefore choose to spend the $ for my son to ride the bus. Next year will change as he heads to the Redlands.

Suggested Solutions:

Location of Interest	Obstacle	Proposed Solutions	Responsible Parties
General	Information sharing of available resources (Safe Routes to school maps and WebApp); promotional ideas about getting kids to walk and bike to school.	Link on school website with pertinent information including SRTS maps.	Broadway administration, Safe Routes To School personnel, parent involvement groups, school safety teams.
Parent pick-up	Pick-up loop is small and the parking lot fills up quickly. Traffic backs up to Broadway.	There is vacant land owned by the school district at the back of the property that could be utilized for staff parking. This would free up space in the front of the school for less congestion during parent pick-up	District 51 Administration
Crosswalk on Village Way	Crosswalk is not used. Pedestrians cross the road adjacent to the opening in the fence 30 feet back from the intersection.	Move crosswalk back to where students will use it. Install signage warning motorists that there is a crosswalk in the vicinity.	Mesa County
Walking and Biking routes	There are no continuous sidewalks or curbing surrounding Broadway Elementary. There is no sidewalk to cross to on the south side of Broadway.	A plan for sidewalk installation or other infrastructure to support walking or biking in this area.	Mesa County; City of Grand Junction; CDOT

Broadway Elementary School
Walk Route Map Summary

	1-Mile Radius ~ 228 street crossings		2-Mile Radius ~251 street crossings	
	Length	Percent	Length	Percent
Least Favored - 4	16.8	33%	20.6	36%
Not Favored - 3	21.5	42%	22.8	40%
Favored - 2	8.9	17%	9.6	17%
Most Favored - 1	3.7	7%	4.1	7%
	50.9	100%	57.1	100%

Key to Walk Route Map Ratings:

GREEN

Most favored route. May have a detached sidewalk and/or a bike lane. May be a path that has no vehicle traffic. (A detached sidewalk is separated from the roadway, often by a strip of grass, dirt or rocks.)

BLUE

Has attached sidewalks that are wide enough for 2 people to walk side by side. (An attached sidewalk is right next to the roadway).

YELLOW

Has a place to walk or ride that may be a sidewalk, but could be a path or simply sufficient unpaved space on the side of the road.

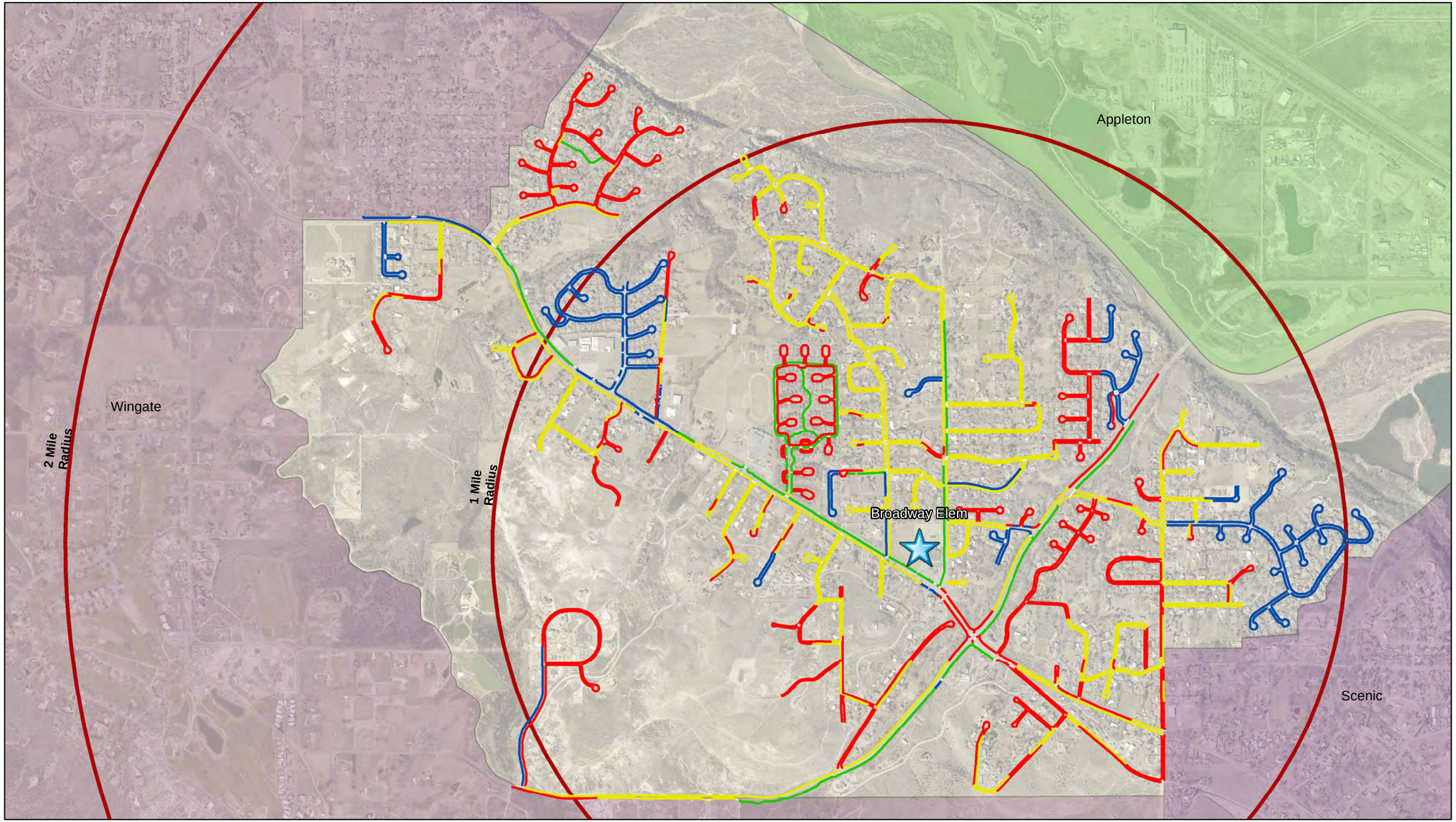
RED

Least favored route. Pedestrians and bicyclists must use the vehicle lanes to walk or ride. (No sidewalk and little or no space beyond the white edge line on the side of the road.)

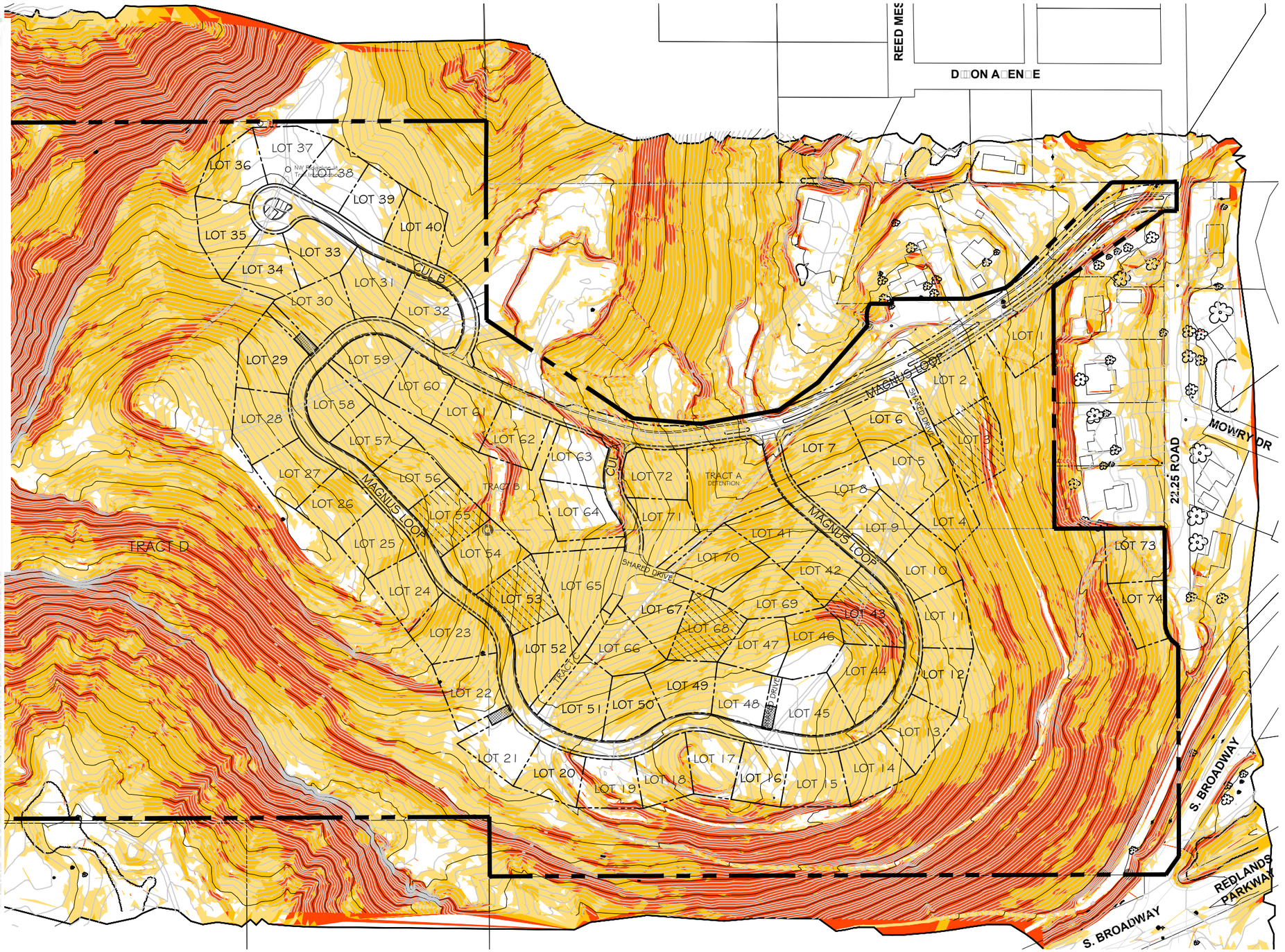
SRTS 2016 - Broadway Elementary
Path Ratings within 1 & 2 Mile Radii

Legend

- Most favored
- Favored
- Not favored
- Least favored
- Crosswalk
- 2 Mile Radius
- 1 Mile Radius



Lot #	section line length	high point	low point	grade change	grade	lot width	lot area	
1	128	4756	4734	22	17.2%	147	12,710	
2	107	4772	4762	10	9.3%	115	11,427	
3	103	4780	4756	24	23.3%	140	15,183	
4	98	4796	4778	18	18.4%	107	11,342	
5	112	4798	4784	14	12.5%	110	14,353	
6	101	4794	4776	18	17.8%	121	12,096	
7	91	4794	4776	18	19.8%	136	13,728	
8	116	4808	4794	14	12.1%	121	11,955	
9	93	4810	4798	12	12.9%	100	10,104	
10	105	4810	4794	16	15.2%	100	11,951	
11	100	4814	4798	16	16.0%	100	10,560	
12	99	4814	4798	16	16.2%	100	10,323	
13	116	4832	4814	18	15.5%	100	10,924	
14	128	4846	4826	20	15.6%	100	11,631	
15	89	4856	4846	10	11.2%	100	11,626	
16	75	4863	4858	5	6.7%	90	10,057	
17	98	4870	4862	8	8.2%	108	10,969	
18	119	4868	4850	18	15.1%	107	11,017	
19	107	4855	4842	13	12.1%	100	10,341	
20	91	4852	4838	14	15.4%	100	10,541	
21	88	4846	4844	2	2.3%	83	10,552	
22	154	4870	4848	22	14.3%	110	13,032	
23	155	4884	4854	30	19.4%	145	13,560	
24	100	4896	4880	16	16.0%	100	11,030	
25	129	4906	4892	14	10.9%	115	11,514	
26	113	4910	4892	18	15.9%	100	10,961	
27	91	4910	4892	18	19.8%	100	11,433	
28	110	4910	4892	18	16.4%	100	13,045	
29	123	4902	4882	20	16.3%	100	13,855	
30	102	4876	4858	18	17.6%	100	11,863	
31	121	4852	4840	12	9.9%	175	12,207	
32	94	4858	4842	16	17.0%	118	12,496	
33	101	4864	4852	12	11.9%	124	11,691	
34	109	4870	4852	18	16.5%	64	11,786	cul lot
35	161	4870	4844	26	16.1%	75	11,896	cul lot
36	106	4852	4836	16	15.1%	77	11,929	cul lot
37	109	4851	4846	5	4.6%	65	11,445	cul lot
38	128	4851	4840	11	8.6%	100	10,932	
39	102	4848	4840	8	7.8%	116	10,626	
40	109	4844	4828	16	14.7%	105	10,487	
41	112	4820	4798	22	19.6%	100	11,997	loop
42	114	4830	4810	20	17.5%	106	10,944	
43	130	4848	4816	32	24.6%	165	14,621	
44	106	4856	4840	16	15.1%	162	14,777	
45	151	4852	4846	6	4.0%	149	13,638	
46	102	4853	4834	19	18.6%	128	12,173	
47	107	4852	4836	16	15.0%	111	10,348	
48	88	4858	4848	10	11.4%	100	10,273	
49	101	4856	4836	20	19.8%	100	11,735	
50	104	4856	4836	20	19.2%	120	10,948	
51	151	4852	4830	22	14.6%	124	13,904	
52	99	4846	4830	16	16.2%	133	12,571	
53	127	4862	4836	26	20.5%	110	12,218	
54	140	4874	4850	24	17.1%	100	12,789	
55	134	4886	4858	28	20.9%	110	11,775	
56	95	4886	4870	16	16.8%	100	10,272	
57	107	4886	4868	18	16.8%	100	10,095	
58	106	4888	4872	16	15.1%	148	10,398	
59	116	4872	4856	16	13.8%	145	10,173	
60	115	4866	4850	16	13.9%	100	10,244	
61	118	4860	4842	18	15.3%	100	10,536	
62	131	4858	4834	24	18.3%	100	10,528	
63	135	4836	4820	16	11.8%	103	10,927	
64	111	4838	4818	20	18.0%	107	13,004	
65	149	4844	4818	26	17.4%	118	18,413	
66	112	4838	4816	22	19.6%	109	11,126	
67	154	4838	4810	28	18.2%	124	13,069	
68	117	4846	4820	26	22.2%	110	12,352	
69	110	4838	4818	20	18.2%	126	13,586	
70	102	4822	4802	20	19.6%	114	12,781	
71	111	4820	4800	20	18.0%	140	11,220	
72	128	4820	4798	22	17.2%	100	11,517	
73	104	4726	4712	14	13.5%	100	11,700	
74	82	4724	4708	16	19.5%	119	10,183	



MAGNUS COURT

SLOPE ANALYSIS □2□4□8 □R□□□□d □□□□□□□□

0 200 400 600

NORTH

SLOPES LEGEND

- <10%
- 10-20%
- 20-30%
- 30% +
- PROPOSED LOTS EXCEEDING 20.01%

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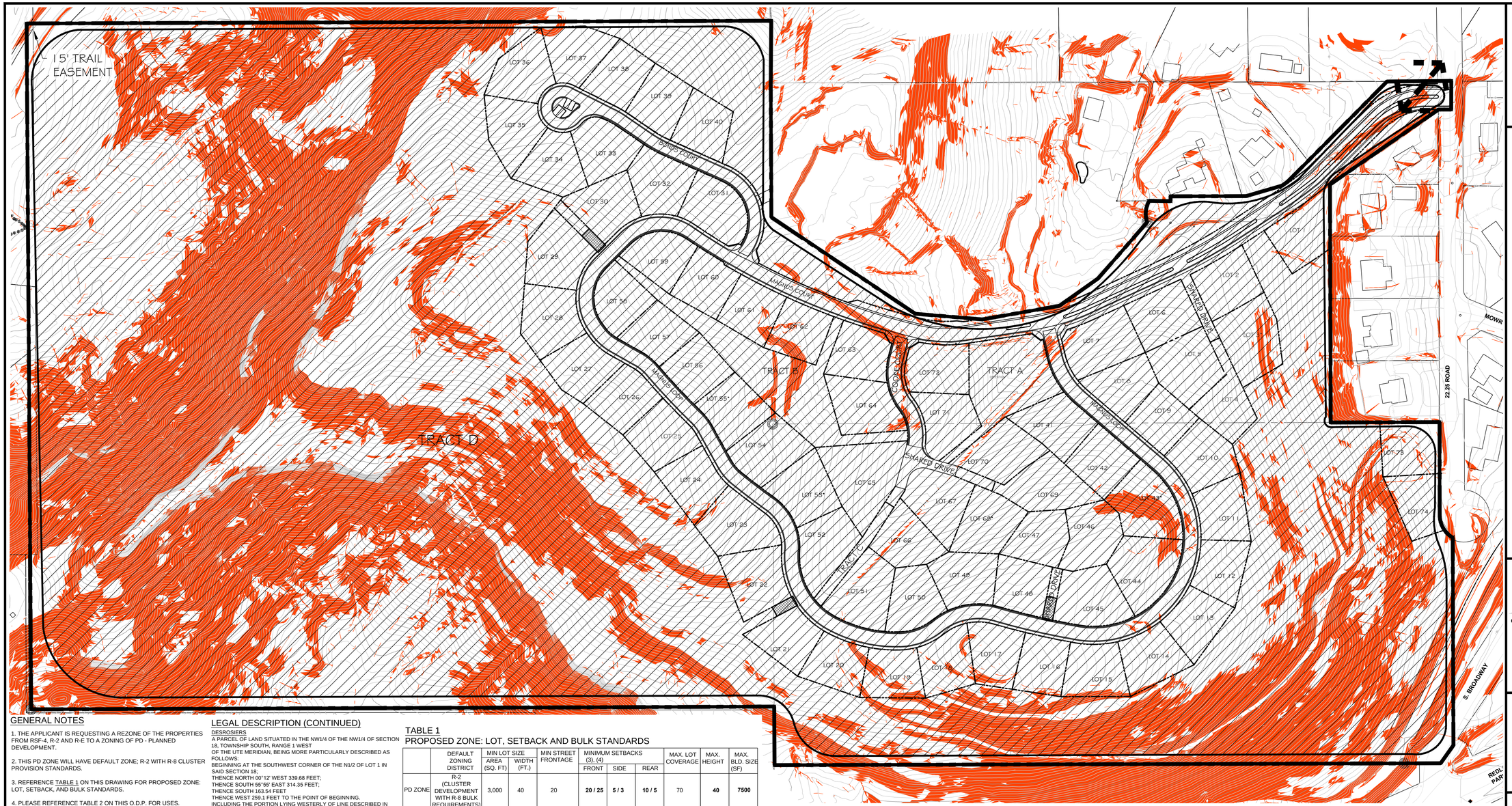

DRAWN BY	MR
CHECKED	TC
JOB NO.	1744
DATE	02-20-2019

REVISIONS
11-01-2019 Rnd 1 Comments
12-20-2019 Rnd 2 Comments

MAGNUS COURT

2215 MAGNUS CT. #A G.J. CO 81507

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MAGNUS CT. SUBDIVISION

OUTLINE DEVELOPMENT PLAN

SHEET NO. 1-1

GENERAL NOTES

1. THE APPLICANT IS REQUESTING A REZONE OF THE PROPERTIES FROM RSF-4, R-2 AND R-E TO A ZONING OF PD - PLANNED DEVELOPMENT.

2. THIS PD ZONE WILL HAVE DEFAULT ZONE; R-2 WITH R-8 CLUSTER PROVISION STANDARDS.

3. REFERENCE TABLE 1 ON THIS DRAWING FOR PROPOSED ZONE: LOT, SETBACK, AND BULK STANDARDS.

4. PLEASE REFERENCE TABLE 2 ON THIS O.D.P. FOR USES.

5. ALL DEVELOPMENT PLANS WILL REQUIRE APPROVAL BY THE CITY OF GRAND JUNCTION COMMUNITY DEVELOPMENT DEPARTMENT. ALL DEVELOPMENT PLANS WILL NEED TO CONFORM TO THE PROPOSED ZONE DIMENSIONAL STANDARDS, AND THE STANDARDS AND DEVELOPMENT GUIDELINES PROPOSED WITHIN THIS OUTLINE DEVELOPMENT PLAN.

6. SITE DESIGN AND ARCHITECTURAL STANDARD ARE PER CITY OF GRAND JUNCTION CODE UNLESS SPECIFICALLY ADDRESSED HEREIN. SEE TABLE 3 FOR SITE AND ARCHITECTURAL DESIGN STANDARDS.

LEGAL DESCRIPTION

CR NEVADA ASSOCIATES LLC
THE S1/2. OF LOT 1 IN SECTION 18, TOWNSHIP 1 SOUTH RANGE 1WEST OF THE UTE MERIDIAN, COUNTY OF MESA, STATE OF COLORADO. EXCEPTING THEREFROM THAT PORTION LYING WITHIN THE LINES OF SOUTH BROADWAY; AND ALSO EXCEPT A PARCEL OF LAND FOR ROAD RIGHT-OF-WAY AND UTILITY PURPOSES SITUATED IN LOT 1, SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE PRINCIPAL MERIDIAN, MESA COUNTY, COLORADO BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE MESA COUNTY SURVEY MONUMENT OF THE SOUTHEAST CORNER OF SAID LOT 1, THENCE SOUTH 89°34'25" WEST. (BEARINGS BASED ON NORTH 00°08'18" WEST ON THES EAST LINE OF SAID LOT 1) 24.79 FEET ALONG THE SOUTH LINE OF SAID LOT 1 TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF SOUTH BROADWAY AS CONSTRUCTED, BEING ON A 705.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT, THE RADIUS POINT OF WHICH BEARS NORTH 53°06'40" WEST, THENCE 42.75 FEET ALONG THE ARC OF SAID CURVE, THE CHORD OF WHICH BEARS NORTH 35°09'06" EAST 42.74 FEET THROUGH A CENTRAL ANGLE OF 03°28'28" ALONG SAID RIGHT-OF-WAY LINE TO A POINT ON THE EAST LINE OF SAID LOT 1, THENCE SOUTH 00°08'18" EAST 34.77 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION (CONTINUED)

DESROSIERS
A PARCEL OF LAND SITUATED IN THE NW1/4 OF THE NW1/4 OF SECTION 18, TOWNSHIP SOUTH, RANGE 1 WEST
OF THE UTE MERIDIAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST CORNER OF THE N1/2 OF LOT 1 IN SAID SECTION 18;
THENCE NORTH 00°12' WEST 339.68 FEET;
THENCE SOUTH 55°55' EAST 314.35 FEET;
THENCE SOUTH 163.54 FEET
THENCE WEST 259.1 FEET TO THE POINT OF BEGINNING.
INCLUDING THE PORTION LYING WESTERLY OF LINE DESCRIBED IN BOUNDARY LINE AGREEMENT AS RECORDED AT RECEPTION NUMBER 2756698 OF THE MESA COUNTY RECORDS.
COUNTY OF MESA, STATE OF COLORADO.

BONDS LLC
LOT 1 SECTION 26, TOWNSHIP 11 SOUTH, RANGE 101 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF MESA, STATE OF COLORADO.

JLC MAGNUS LLC
A TRACT OF LAND LOCATED IN THE N1/2 OF LOT 1 SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT 25 FEET WEST AND 267.8 FEET SOUTH 51 38' WEST AND 31.9 FEET SOUTH OF THE NORTHEAST CORNER OF SAID LOT 1 OF SAID SECTION 18 AND RUNNING THENCE SOUTH 51°38' WEST 92.1 FEET;
THENCE SOUTH 73°53' WEST 88.9 FEET;
THENCE WEST 136.3 FEET;
THENCE SOUTH 41°00' WEST 181.7 FEET;
THENCE SOUTH 55°00' WEST 108.6 FEET;
THENCE SOUTH 80°00' WEST 168.8 FEET;
THENCE NORTH 85° WEST 149.1 FEET;
THENCE SOUTH TO THE SOUTH BOUNDARY LINE OF THE N1/2 OF SAID LOT 1;
THENCE EAST ALONG THE SAID SOUTH BOUNDARY OF LOT 1 TO A POINT DUE SOUTH OF THE POINT OF BEGINNING;
THENCE NORTH TO THE POINT OF BEGINNING.
INCLUDING THE PORTION LYING EASTERLY OF LINE DESCRIBED IN BOUNDARY LINE AGREEMENT AS RECORDED AT RECEPTION NUMBER 2756698 OF THE MESA COUNTY RECORDS.
COUNTY OF MESA, STATE OF COLORADO.

TABLE 1
PROPOSED ZONE: LOT, SETBACK AND BULK STANDARDS

	DEFAULT ZONING DISTRICT	MIN LOT SIZE AREA (SQ. FT)	MIN LOT SIZE WIDTH (FT.)	MIN STREET FRONTAGE	MINIMUM SETBACKS (3), (4) FRONT	SIDE	REAR	MAX. LOT COVERAGE	MAX. HEIGHT	MAX. BLD. SIZE (SF)
PD ZONE	R-2 (CLUSTER DEVELOPMENT WITH R-8 BULK REQUIREMENTS)	3,000	40	20	**20 / 25**	**5 / 3**	**10 / 5**	70	**40**	**7500**

(1) MINIMUM LOT AREA SUBJECT TO HILLSIDE REGULATIONS

(2) MINIMUM LOT WIDTH SUBJECT TO HILLSIDE REGULATIONS

(3) PRINCIPAL / ACCESSORY BUILDING

(4) DEVIATIONS FROM R-8 DEFAULT STANDARDS
- MAXIMUM LOT COVERAGE: 70%

TABLE 2
DEVIATIONS FROM R-2 DEFAULT ZONE WITH CLUSTER DEVELOPMENT OF R-8 USES AND BULK STANDARDS

(1) THE ONLY USE ALLOWED WILL BE DETACHED SINGLE FAMILY AND PARK AREAS. ALL OTHER USES ARE PROHIBITED.

(2) BULK STANDARD DEVIATIONS - DENSITY
*NO MINIMUM DENSITY REQUIRED.

TABLE 3
SITE DESIGN AND ARCHITECTURAL STANDARDS

(1) SITE DESIGN AND ARCHITECTURAL STANDARDS SHALL BE PER CITY OF GRAND JUNCTION CODE FOR THE DEFAULT ZONE OF R-2 WITH CLUSTER DEVELOPMENT OF R-8 STANDARDS UNLESS MODIFIED HEREIN.

(2) ALL ROOF TOP AND GROUND MOUNTED MECHANICAL AND HVAC EQUIPMENT SHALL BE SCREENED FROM VIEW FROM ADJACENT PUBLIC STREETS

(2) AS THIS PD IS FOR A RESIDENTIAL NEIGHBORHOOD, HOURS OF OPERATIONS FOR THIS IS NOT LIMITED

ROAD STANDARDS INCLUDE:
ROADS INTERNAL TO THE DEVELOPMENT

(1) 31.5' ALTERNATIVE ROAD SECTIONS (APPROVED)

(2) 20' SHARED DRIVES

OPEN SPACE

THIS PD HAS OVER 45 ACRES OF OPEN SPACE. THIS OPEN SPACE IS INTENDED TO BE NATURAL/NATIVE IN APPEARANCE, WITH THE LARGEST CONTINUOUS AREA BEING UNDISTURBED.

PHASING SCHEDULE

SEE PHASING PLAN FOR APPROXIMATE BOUNDARIES OF EACH PHASE.

PHASE #	DATE OF COMPLETION
PHASE 1	2023
PHASE 2	2026
PHASE 3	2028
PHASE 4	2030

ODP LEGEND

PROJECT PROPERTY LINE

PROPOSED R-2 DEFAULT WI R-8 CLUSTER STANDARDS

ACCESS POINTS

+30% SLOPES

FIRE TURNAROUND

0 100 200 300 NORTH

LAND USE	AREA	% OF SITE
TOTAL AREA	± 72.0 ACRES GROSS	100 %
RESIDENTIAL AREA	± 26.3 ACRES	37%
RIGHT OF WAYS	INCLUDED IN RESIDENTIAL	INCLUDED IN RESIDENTIAL
OPEN SPACE	± 45.7 ACRES	63%

ACCEPTANCE BLOCK

THE CITY OF GRAND JUNCTION REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING SEALED, SIGNED, AND DATED BY THE PROFESSIONAL OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD.

CONSTRUCTION MUST COMMENCE WITHIN ONE YEAR FROM THE DATE OF PLAN SIGNATURE.

CITY PLANNER _____ Date _____

RICKSTREW PROPERTY
6.68 AC
GROWTH PLAN - 1/2-2 U/A
IF R-2 ZONE = 13 LOTS

15' TRAIL EASEMENT

EXISTING MAGNUS ROW

PHASE 1

PHASE 2

PHASE 3

PHASE 4

TRACT A

TRACT B

TRACT D

MAGNUS COURT

DORGAS COURT

COOKE COURT

SHARED DRIVE

PHASING SCHEDULE

SEE PHASING PLAN FOR APPROXIMATE BOUNDARIES OF EACH PHASE.

PHASE #	DATE OF COMPLETION
PHASE 1	2023
PHASE 2	2026
PHASE 3	2028
PHASE 4	2030

LEGEND

REALISTIC PHASE 1

REALISTIC PHASE 2

0 100 200 300 NORTH

DRAWN BY	MR
CHECKED	TC
JOB NO.	1744
DATE	01-21-2019

REVISIONS
11-1-2019 Rnd 1 Comments
12-20-2019 Rnd 2 Comments
14-22-2020 RESUBMIT

MAGNUS COURT

2215 MAGNUS CT. #A G.J. CO 81507

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MAGNUS CT. SUBDIVISION

PHASING PLAN (RESUBMIT)

SHEET NO.
1-1

MAGNUS COURT

ILLUSTRATIVE □RESU□MIT 4□24□2□2□

15' TRAIL EASEMENT

TRACT D

BONDS COURT

MAGNUS COURT

MAGNUS LOOP

COOKE COURT

SHARED DRIVE

TRACT A
DETENTION

TRACT B

LOT 1 LOT 2 LOT 3* LOT 4 LOT 5 LOT 6 LOT 7 LOT 8 LOT 9 LOT 10 LOT 11 LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 17 LOT 18 LOT 19 LOT 20 LOT 21 LOT 22 LOT 23 LOT 24 LOT 25 LOT 26 LOT 27 LOT 28 LOT 29 LOT 30 LOT 31 LOT 32 LOT 33 LOT 34 LOT 35 LOT 36 LOT 37 LOT 38 LOT 39 LOT 40 LOT 41 LOT 42 LOT 43* LOT 44 LOT 45 LOT 46 LOT 47 LOT 48 LOT 49 LOT 50 LOT 51 LOT 52 LOT 53* LOT 54 LOT 55* LOT 56 LOT 57 LOT 58 LOT 59 LOT 60 LOT 61 LOT 62 LOT 63 LOT 64 LOT 65 LOT 66 LOT 67 LOT 68* LOT 69 LOT 70 LOT 71 LOT 72 LOT 73 LOT 74

EXISTING MAGNUS ROW

REED MESA DR.

D□□ON A□EN□E

MOWRY DR

22.25 ROAD

S. BROADWAY

S. BROADWAY

REDLANDS PARKWAY

LEGEND

- DEDICATED HOA OPEN SPACE
- DEDICATED OPEN SPACE
- PROPOSED ROW VACATION
- HOA TRAILS
- PROPOSED PUBLIC TRAIL
- EXISTING 'TRESPASS' TRAIL
- FIRE DEPARTMENT TURN-AROUND

LAND USE SUMMARY		
USE	AREA (ACRES)	PERCENT
AREA LOTS - 74 (RED)	20.5	29%
AREA OPEN SPACE (GREEN)	46.0	64%
AREA ROW	4.6	6%
UNKNOWN (BLUE)	0.9	1%
TOTAL	72.0	100%

0 200 400 600

NORTH

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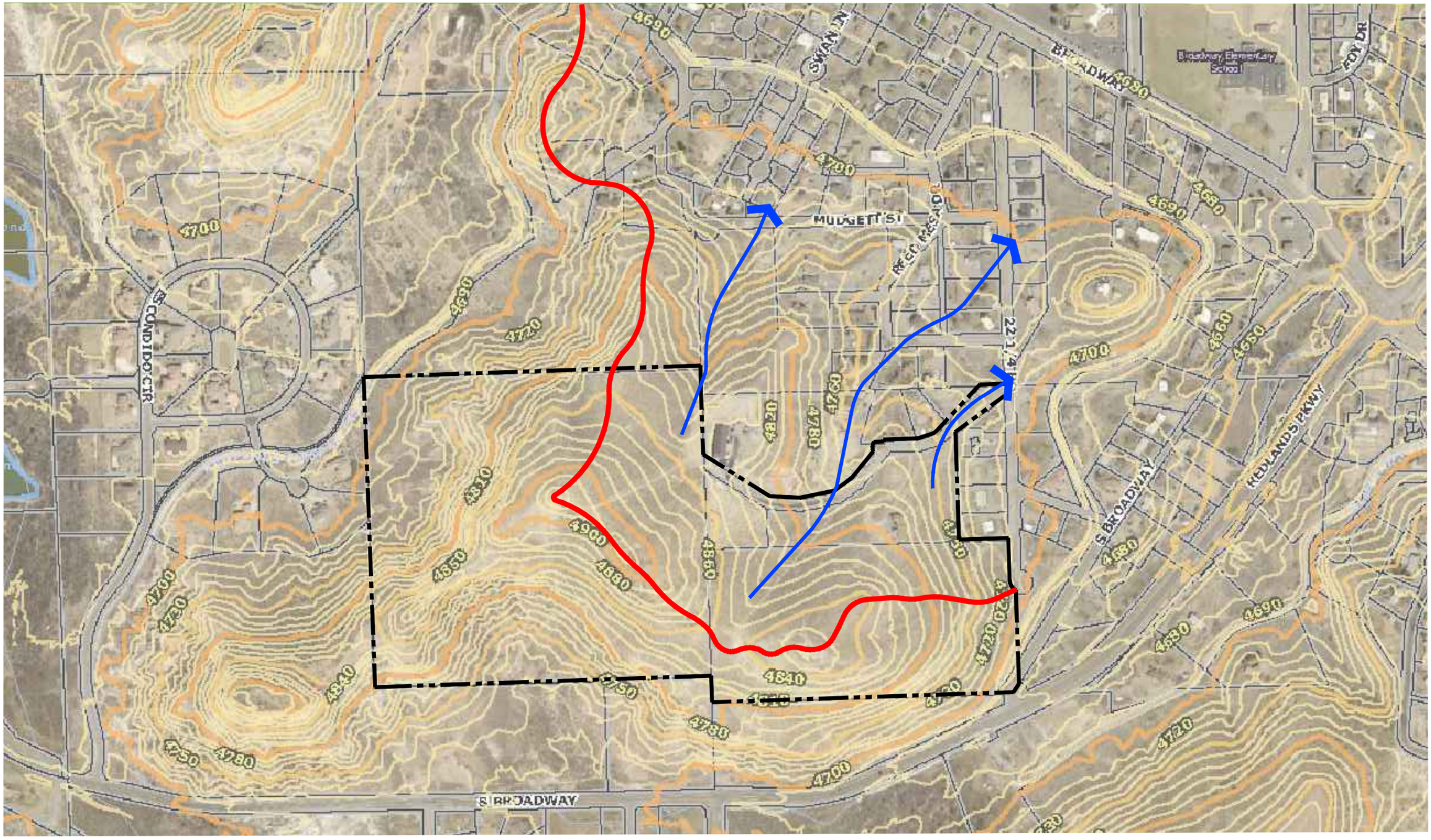

LEGEND

- PROPERTY LINE
- EXISTING WATERSHED
- EXISTING DRAINAGE PATH

0 400 800 1200

NORTH

MAGNUS COURT

EXISTING WATERSHED MAP RESUBMIT 4/24/22

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MAGNUS COURT

PROPOSED □ ATERS□ED MAP □RESU□MIT 4□24□2□2□

REED MESA DR.

D□□ON A□EN□E

EXISTING MAGNUS ROW

BONDS COURT

MAGNUS COURT

COOKE COURT

SHARED DRIVE

MAGNUS LOOP

MOWRY DR

22.25 ROAD

S. BROADWAY

REDLANDS PARKWAY

TRACT A DETENTION

TRACT B

TRACT D

LOT 1 LOT 2 LOT 3 LOT 4 LOT 5 LOT 6 LOT 7 LOT 8 LOT 9 LOT 10 LOT 11 LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 17 LOT 18 LOT 19 LOT 20 LOT 21 LOT 22 LOT 23 LOT 24 LOT 25 LOT 26 LOT 27 LOT 28 LOT 29 LOT 30 LOT 31 LOT 32 LOT 33 LOT 34 LOT 35 LOT 36 LOT 37 LOT 38 LOT 39 LOT 40 LOT 41 LOT 42 LOT 43* LOT 44 LOT 45 LOT 46 LOT 47 LOT 48 LOT 49 LOT 50 LOT 51 LOT 52 LOT 53* LOT 54 LOT 55* LOT 56 LOT 57 LOT 58 LOT 59 LOT 60 LOT 61 LOT 62 LOT 63 LOT 64 LOT 65 LOT 66 LOT 67 LOT 68* LOT 69 LOT 70 LOT 71 LOT 72 LOT 73 LOT 74

LEGEND

- PROPERTY LINE
- EXISTING WATERSHED
- EXISTING DRAINAGE PATH
- PROPOSED DRAINAGE
- PROPOSED DRAINAGE DIRECTION

0 200 400 600

NORTH

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484 22 ¼ Road,

Grand Junction,

CO 81507

24th February 2020

To Whom it May Concern:-

Re: Land development applications 201-9-137 and 201-9-374

My name is Nuala Whitcomb. My husband John and I have lived at the above address for approximately 15 years. We have been given notice of the proposed plans to build a new development bordering our neighborhood - land development applications 201-9-137 and 201-9-374.We have some questions and concerns that we would like answered. Obviously the public meeting is not going to allow the time to fully answer these and others questions. We would greatly appreciate a written reply addressing these points.

1. What is the long term plan for domestic water in Mesa County and Grand Junction? We are living in an extended period of drought and development all over the valley has been rampant. How are the City and the County going to ensure that all residents will have sufficient water in 10, 20, 30, years and beyond?
2. How is the City and the County going to manage the increased traffic in and out of the Redlands? We are already congested and at certain times of the day it is nearly impossible to exit our side streets onto the main thoroughfares. There are only two bridges, one a single lane. Can these bridges bear the enormous increase in volume?

3. What is going to be done for the schools? The schools are at capacity and there is already deadlock and dissention over building new schools. How is the potential enormous increase in student volume going to be handled?

4. The wildlife. With the seemingly endless rubber stamping of new developments, we are displacing our treasured wildlife and plant life at an alarming speed. Once it is gone, it is gone! Houses are no substitute for the natural beauty of the Grand Valley. Once we block our panoramic views with brick and mortar it is a permanent change that can never be reversed. Please take a moment to think on this and picture a skyline of executive homes where once there was a skyline of majestic cliffs.

5. The infrastructure. Is there the infrastructure to support this level of development? What is going to be done about this clear problem?

These questions really address the problem of such rapid growth throughout the valley.

The following questions address our particular neighborhood and how the City and the County plan on managing the proposed developments 201-9-137 and 201-9-374.

   a. Traffic. Reed Mesa, 22 ¼ Road, and South Broadway are already used as a "rat run" with speeding traffic in both directions. Increased traffic increases the risk of a serious tragedy. Children play in the street and cut through the neighborhood to get to Broadway Elementary and Redlands Middle School. The corner of Mowry and 22 ¼ Road is an extreme danger zone. There are no sidewalks, no stop or yield signs, and no

streetlights. How do you propose making the introduction of up to 300 more cars entering and leaving the neighborhood daily safe for all?

b. Drainage. We understand that this is being looked into by the County but knowing the level of the problems we have experienced over the years, we do not believe that a couple of "holding ponds" will anywhere near solve the problem.

c. Human impact. Most of the people, ourselves included, chose to live in this older neighborhood because it was quieter, more rural, and not dominated by HOAs. Are we expected to just accept the increased traffic, noise, and disruption that comes with that number of people and cars? Do you have a solution for the adverse impact that there is going to be on this very pleasant neighborhood that we chose as home?

d. Finally, when we bought our house, our realtor assured us that the land you are proposing to build on could <u>never</u> be built on. In his words it had been deemed "too steep and unstable." Was he lying to us?

Please consider these questions I have put forward and, once again, I am requesting a <u>written</u> answer to them from both the City and the County.

Please also consider the bigger question - when is enough enough? How long will we continue to sacrifice all that makes <u>our</u> valley so unique and wonderful just so that a few wealthy developers can become even more wealthy? Perhaps that is the question you should be asking them.

Yours faithfully

Nicola L. Whitcomb

---------- Forwarded message ---------
From: **Mahoney, Mike** <mmahoney2@coloradomesa.edu>
Date: Wed, Mar 4, 2020 at 9:09 AM
Subject: Magnus Development Project
To: carrie Gudorf <carrie.gudorf@mesacounty.us>

Hi Carrie,

My wife and I attended the public meeting on February 18, 2020, where we expressed our concerns with the current issue with regard to the flooding that drainage from Magnus Ct. causes. We live at 2226 Mowry Dr., on the corner of Mowry Dr. and 22 1/4 rd. The county added a curbing to the driveway at 498 22 1/4 rd. which caused more flooding on our property which is next door to 498 22 1/4 rd. With the proposed Magnus development, were are concerned that the flooding will only increase once Magnus is widened and paved as proposed. The proposes plan for the Magnus development includes a retention pond to capture runoff from their development, but does not address the drainage below the retention pond onto 22 1/4. This is our concern. When asked about this drainage issue, representatives from the Magnus project say that this is a county issue.

The Magunus project solely relies on county roads for egress, 22 1/4 to Reed Mesa, or 22 1/4 to Mowry to S. Broadway. These roads do not provide a safe means for children to access local schools by foot or bike. We also see foot and bike traffic coming from the South/East from South Camp through S. Broadway, Mowry Dr., 22 1/14 rd. and out Reed Mesa, on their way to school.

We attended the city meeting at the Middle School last night and learned of a meeting between the county and the city about the Magnus project. We are asking that the drainage and safety concerns be addressed (a plan in place) before the Magnus project is approved.

Thank you for your consideration.

Regards,

Mike Mahoney
STEM Technical Instructor
Western Colorado Community College
970-255-2654

Grand Junction Speaks
Published Comments for May 26, 2020 Planning Commission Meeting
Magnus Court Zone of Annexation and Outline Development Plan

On February 25, 2020 the Grand Junction Planning Commission, citizens, and developers spent 2.75 hours discussing the proposed Magnus Court. Neighborhood residents voiced their concerns about pedestrian safety, traffic, access, drainage issues, land unsuitability, and urban sprawl. The commissioners voted 4 to 3 to deny recommendation to the City Council.

On May 15, 2020 we received another Notice of Public Hearing for Magnus Court. The resubmittal has minor revisions and does little or nothing to alleviate the concerns of the neighborhood residents. Below are the primary concerns regarding the proposal that were heard on February 25 with updates on the resubmittal where appropriate.

1. Pedestrian traffic isn't safe due to existing narrow roads with no curbs, gutters or sidewalks

Resident Lisa Lefebre of 22 1/4 Road said, "I have three small children, there are no sidewalks on these county roads. They are not wide enough. We have senior citizens who walk every day. Their agility to move out of a vehicle's way is slower. I'm concerned about my children and their safety walking to school."

Commissioner Ken Scissors said, "There are just too many concerns. For me, the one that tips it over is the safety concern for the neighborhood. I understand that there are things that could be done but I'm not hearing definitively enough they will be done..."

The resubmittal states the City and County deem the roads acceptable and will not improve them. A trail or sidewalk to Broadway is proposed. They don't address residents who walk or bike on South Broadway for access to the pedestrian/bike trail on Redlands Parkway.

2. The two access points to this neighborhood will be strained by an increase in traffic.

A traffic impact study said traffic generated from the subdivision will be 700 vehicles per day. The study stated a typical neighborhood street is comfortable at 1000 vehicles a day. The study based their findings on 28-foot wide, two lane neighborhood roads, not the 22-foot wide rural narrow roads in this area.

The study said a right turn lane on southbound Redlands Parkway will be required. The study did not address the more difficult left-hand turn from South Broadway north onto Redlands Parkway.

In the resubmittal the study stated 15% would use Broadway and 85% would use Redlands Parkway.

3. Increased runoff from this development threatens neighboring properties.

Mike Mahoney, Mowry Dr. & 22 1/4 Road said, “There are existing issues not addressed in their plan. One is the draining of Magness where it meets 22 1/4. It drains straight into my front yard. That is a dirt road that absorbs part of that water. If they double the width and pave it, it will become a raceway for water.”

Ted Ciavonne, development representative said, “Additional drainage coming down Magness Road — we are already aware of that. It’s not just about water getting to a detention pond. There has to be other interceptions that happen. It’s created its own watershed and made matters worse. Those things get resolved. Do they get totally fixed? No, I don’t think so. Are we aware of them and need to address them? Yes.”

The resubmittal claims the development reduces existing drainage to the surrounding areas by intercepting the vast majority of water at the top of the watershed and directing it towards proposed storm water facilities, which directs it to Goat Wash on South Broadway. They do not explain how they will safely pipe the water across an unstable hillside without endangering homes below. Nor do they explain how they will physically get the water across South Broadway to Goat Wash without easements from landowners. The proposal fails to address the impact of the added runoff to Goat Wash which could flood Redlands Parkway or homes along the wash and if existing culverts can handle the increased runoff.

4. Individual proposals are considered without accounting for their collective impact on infrastructure.

Richard Swingle, a Renaissance resident said, “There is a huge amount of development and population growth in this area of South Broadway, Redlands Parkway, South Camp. We don’t understand the constraints to our system of what will happen. We are looking at them as individual elements instead of a broader perspective. We need to consider the broader perspective of what will happen to our community.”

Commissioner William Wade stated, “… one of our citizen speakers asked us to look at this from 50,000 feet and see the other projects that are coming around it and what that does to our infrastructure. Unfortunately, you counter that by saying we’re not responsible for taking a long-term view, well we have to take a long-term view of planning and that’s our responsibility. We have to look at each project that is brought before us on it’s own merits.”

5. Unsuitability of land for development

Commissioner Kathy Deppe said, “Less than two months ago we had a property on the Redlands very similar to this with similar kinds of conditions. We had people get up from the audience and tell us they built houses there, spent $500,000 and after they moved in had to spend another $100,000 to fix the foundation.” “… we have a responsibility to not create any kind of financial burden or harm to the citizens of Grand Junction. So looking at this one … it does cause a burden.”

6. Unfettered suburban development paired with a lack of community centers is leading to urban sprawl.

Resident Naomi Rintoul of 515 22 1/4 Road, said, “Since I’ve moved in we’ve lost the hardware store, Safeway, Wells Fargo, the greenhouse and Loki.” “I’m just asking if these

growth plans shouldn’t include infrastructure before planning this large subdivision. This is quite literally the definition of urban sprawl if we have this many houses and no services.”

The developer’s resubmittal doesn’t resolve pedestrian safety, increased traffic volume, drainage impacts, the unsuitability of the land and the entire area’s infrastructure. Therefore, I urge the County Commissioners to again vote nay on this project.

05/25/2020 11:19 pm

Lisa Smith
2222 S. Broadway
Grand Junction, 81507

As a neighbor to the proposed Magnus Court Planned Development, we have concerns about how the subdivision has been planned. These concerns are as follows:

Ground instability: The owner/developer of the Magnus Court proposed development is from Michigan and doesn’t know about building on the unstable ground in the Grand Junction area. We’ve had many disastrous results in our area; Escondido Circle (the neighbor to the West of Magnus Court) and Spyglass Ridge are examples. Building on this land can be done – but it’s costly and frequently repairs and piers need to be done after construction. The developer/builders should be required have a $1 Mil bond for foundation repairs for each property, so they don’t pass that cost on to the homeowner who has problems, or to the city if the property is condemned.

Drainage: The developer represents that their drainage plan will benefit the neighboring communities as well. We will trust the Planning Commission and City Council to ensure that this is accurate. There is already a documented drainage issue downhill from the Magnus Court properties. If not done properly, drainage issues will cause additional ground instability in the development itself and water issues below.

Fire Hazards: The fire department has required many modifications to the proposed Planned Development, including widened roads, no parking areas on some of the streets, fire truck turn-arounds. However the fire department is also acknowledging that there’s still quite a bit of threat of damage if a fire starts, as there’s only one access road for the subdivision. This threat is evidenced by the fire department requiring an automatic fire sprinkler system in all the homes in the Magnus Court development.

Despite the fire hazard, the Magnus Ct subdivision still has 5 non-conforming lots in its proposed Planned Development. These do not comply with current code in terms of the size or width of lot required for the slope of the land – a requirement which is in place (at least in part) due to the speed at which fire spreads on an uphill slope, and access to those properties as well as surrounding land for the fire department to fight a fire. The developers of this property need to go back to the drawing board and comply with current codes rather than create a situation that could endanger the lives of all that live in that subdivision in the future.

Traffic and Public Safety: The residential and construction traffic that Magnus Court will cause in the neighborhoods to the East and Northeast of their Proposed Development will change the nature of life in those rural Mesa County communities. The developer’s traffic

studies show that theoretically the roads can handle the residential traffic at a projected 700 additional vehicles per day, but they don't show that in reality the roads are not wide enough, nor do they have sidewalks for safety of the pedestrian traffic that will be impacted.

During construction the developer has agreed to try and keep his equipment on site for phase 1/phase 2 if possible but that does not account for the builders who will be purchasing the lots and building the homes and bringing in their heavy equipment for that work. There's no way for the developer to control the construction traffic of the Builders to whom he sells the land. It's just going to be something that the surrounding neighborhoods are going to have to deal with for 10 years.

We know there will be construction traffic impact, and we know there will be a residential traffic impact. Instead of passing the costs on to the county and city taxpayers, the developer should be made to pay 100% of the costs for the necessary infrastructure improvements in those neighboring areas that will be impacted by their development. This would include road widening, intersection improvements, and sidewalk installation on at least one side of the street on the routes from Magnus Court to the only two exits from this residential area: Reed Mesa Drive at SH 340 (Broadway), and S Broadway at Redlands Parkway. This would include the intersections at Mudgett Street & Reed Mesa Drive, Magnus Ct & 22 ¼ Road, and Mowry Drive & S Broadway, as well as the roadways between them.

Additionally, the intersection at S Broadway and Redlands Parkway has a blind corner. Simply putting in a turn lane and trimming the trees to the Northwest of the intersection will not be a permanent solution to the problem that there will be at least 200 additional vehicles per day using that intersection as a result of this subdivision (per their own traffic study). Developments already approved for properties off of South Camp and S Broadway are already increasing traffic on S Broadway so it will make the intersection much busier even than today. For public safety, there is no doubt that a traffic signal will be needed at the intersection of S Broadway and Redlands Parkway by the time the Magnus Court subdivision is completed - and it should be paid for by the Developer. It should not be passed on to the taxpayers.

Thank you for your consideration.

Lori & Jay Thompson

05/26/2020 9:37 am

Jay Thompson
495 Escondido Cir
Grand Junction, CO, 81507

After reviewing the revised plans submitted by the developer I find they fall short of addressing the community concerns in two key areas: increased traffic and drainage. Rather than solving the issues they have been shifted, quite literally, to my doorstep.

First, the issue of traffic. The revised traffic study has actually increased the estimated number of vehicles that will be added to the neighborhood on a daily basis. It has also revised the split of traffic utilizing Reed Mesa and South Broadway to enter/exit the

neighborhood so that 85% of that traffic is now expected to use South Broadway to access Redlands Parkway. By the developer's own admission, this will more than double the peak local traffic at that intersection from 24 vehicles per hour (VPH) to 71 VPH in the morning and from 31 VPH to 80 VPH in the afternoon. This is on a street that has no sidewalk or shoulder, where children walk to access their bus stop, and that bicyclists use to access the Redlands Parkway bike/pedestrian path. Once vehicles reach this intersection, where most make a left turn towards businesses and services in town, they must navigate increasing traffic from South Camp and Tiara Rado golf course housing developments , a 45 MPH speed limit, and obstructed views in both directions.

The developer deserves credit for offering to help fund a sidewalk on Reed Mesa to improve safety for children walking to Broadway Elementary. But with such an increase in traffic utilizing South Broadway they should also install a bike/pedestrian path that ties into the path on Redlands Parkway. The city needs to consider measures to ease access to Redlands Parkway such as lowering speed limits or installing a roundabout.

Drainage is also still an issue in the revised plans. The developer proposes building a retention pond and diverting water that traditionally flowed northwards to the wash that runs between our house and Redlands Parkway. While this may mitigate drainage issues for our neighbors that live directly below Magnus Court, it may also be shifting the problem to a new area.

I cannot find where any study has been done on how this will impact the flow of the wash. The wash has running water year-round with typical increases in the summer due to irrigation waste water flowing into it. Occasionally the flow increases dramatically due to desert thunderstorms. Presumably, diversion from the development would coincide with this storm runoff. While the risk of flooding at our home is minimal, it is likely that increased flow will cause erosion that could threaten the trees that provide us with some privacy and block sound from the traffic on Redlands Parkway. Further downstream the wash flows under the Parkway. Are the culverts adequate to handle the increased runoff? Additionally, other developments are underway or planned along South Camp Road. How many of them are being allowed to divert storm runoff into this wash? At what point does this wash reach its capacity to safely handle it?

The proposed route of the drainage from Magness Court would be uphill from our home before it reaches the wash. If the drainage failed or flowed over we would be faced with flooding. A few years ago a sewer pipe in that same general area failed and our property was contaminated with raw sewage. This is a prospect I never want to face again.

Also included in the developer's revised proposal were sightline elevations. They show that from the middle of South Broadway directly in front of our house, the upper half of the homes on lots 12 and 13 would be visible. From our home another 60 feet to the east of the elevation study even more of the homes will be visible and our view of the ridge line will be completely disrupted. With our new neighbors peering off of their decks into our backyard, it may start to feel like we live on the wrong side of the fence at the zoo. The developer needs to be required to move the set back for these homes so that they are not visible from South Broadway.

Due to these issues of traffic, safety, and preservation of property value, I respectfully urge the commissioners to vote 'no' on this development in its current form.

05/26/2020 11:36 am

Wayne Smith
2222 S Broadway
Grand Junction, 81507

See attached for a letter delivered via email to City Staff and members of City Council from Lisa R. Smith.

05/26/2020 12:18 pm

Lisa Smith
2222 S. Broadway
Grand Junction, 81501

As the owner of 2226 South Broadway, I am most concerned about the ingress and egress, amount of houses to be built, and the drainage issues. To reach the Redlands Parkway, you must go down South Broadway to the south, to the north you would have to cross private property to Broadway, then to the Redlands Parkway. A traffic light or roundabout would have to be built where South Broadway meets the Redlands Parkway. At this time it is very difficult to enter the Parkway because of the traffic and ability to see right or left.
With 74 houses proposed to be built, that will be at least 150 cars trying to enter either the Parkway or Broadway. Plus there are no sidewalks for once you exit or enter the Magnus subdivision.
How does the developer propose to install piping for the drainage emptying into Goat Wash without crossing private property?

05/26/2020 12:32 pm

Linda Rattan
2226 So. Broadway
Grand Junction, 81507

Reference: Magnus Court of Annexation and Outline Development Plan
Case: ANX-2019-137: PLD-2019-374

At the Grand Junction Planning Commission meeting on February 25, 2020, area residents expressed concerns on the impact that the Magnus Court development will have on the surrounding neighborhoods. These concerns include but are not limited to traffic safety, congestion, flood and drainage control.

I live at 2226 Mowry Dr., on the corner of 22 ¼ road. Every time that it rains, Magnus Ct. sheds water that ends up in my yard and driveway. Our water main gets buried frequently from debris accumulated as this water erodes dirt not protected by a curb on 22 ¼ Road. Heavy rain causes flooding to the extent that the walkway from our driveway to the house floats, this is inches from flooding the crawl space and worse, the house.

At the meeting on Feb. 25, 2020, I expressed my concern over the magnified impact that paving and widening Magnus Ct. will have on flooding the properties below Magnus Ct. The flooding issues will be greatly magnified as soon as Magnus Ct. is widened and paved, long

before a single house is built. Once Phase 1 begins, there will be at least eight properties that lie below the detention pond, that will contribute to the water shed from roof and driveway runoff, further magnifying the problem.

Applicants response to my concerns at the Feb. 25, 2020 meeting (video:3:25:03):

“With regards to the gentleman’s comment on additional drainage coming down Magnus Rd. We are already aware of that. We are already aware that we can reduce that, it’s not just water getting to the detention pond, there has to be some other interception that happens and we know where the current driveway comes out of the current house up there, it’s funneling water, it’s created its own water shed and made matters worse in that situation, and those things get resolved, and do they get totally fixed? No. I don’ t think so, are we aware of them, and do we need to address them? Yes.”

I would like to see a plan for this “interception.” How do these “things get resolved” without any plan in place? A plan for this flood control should be a part of the development plan.

With responses to the concerns of the homeowners of the surrounding neighborhood like: “Those things do get fixed.” (video 3:19:45) in reference to traffic safety and congestion, and “… those things get resolved” (video 3:25:32) in response to the flooding that Magnus Ct. are evidence that the applicant has no concern or plan(s) for the issues that the development will create in the surrounding neighborhood. The applicant’s response to the peripheral issues created by the proposed development are often non-specific, vague and lack consideration.

In conversations with Carrie Gudorf of Mesa County Flood Management, I was told that if annexed, the city will be responsible for any water that sheds off Magnus Ct. If this is the case, then by approving this project as presented, the city willingly and knowingly assumes the responsibility and liability for any flooding and damages caused by the water that Magnus Ct. will shed as a result of widening and paving Magnus Ct.

I am asking that before this project is approved that a planned and engineered solution to the water shed below the detention pond be included in the application of the Magnus Court of Annexation and Outline Development Plan.

Thank you for your consideration,
Mike Mahoney

05/26/2020 1:12 pm

Mike Mahoney
2226 Mowry Dr.
Grand Junction, 81507

I feel that 2 house to an acre is too dense for the area. Traffic congestion would be a problem not only getting out of immediate area but also increasing the traffic of Redlands Parkway. Pedestrian walks and bike trails would have to be addressed. Irrigation is another problem that is not sufficiently addressed and would cause problems with Goat Creek.

Besides the above considerations, I think that the State of Colorado and the county will not have sufficient money to make all the improvements necessary.

Judy Shoffner
532 Park Ridge Ct.
Grand Junction, CO 81507

05/26/2020 2:10 pm

Judith Shoffner
532 Park Ridge Ct
Grand Junction, 81507

City of Grand Junction Planning Commission:
In regards to the proposed Magnus Court Development Plan, I do not believe that the significant negative impacts of increased traffic and congestion are realized or accounted for in the planning process. Specifically, the narrow county roads leading to the proposed Magnus Court development lack the infrastructure to support the size and scope of the proposed development. There are no street lights, sidewalks, curbs, gutters, pedestrian crossings, walking/biking paths, etc. Further, given the steep dropoff into the deep drainage ditch along the east side of 22 ¼ Rd and the surrounding established yards, there is no room to add infrastructure such as sidewalks. Currently, if vehicles are parked along the street (which they commonly are), traffic is already reduced to a single lane. No amount of additional stop signs will counteract the increased safety hazards to pedestrians in this residential neighborhood that would result from construction of such as ambitious undertaking.

Regardless of if the narrow county roads can physically handle the increased traffic, given the narrowness of the roads and the lack of sidewalks, in practicality the access roads to Magnus Court could not safely be used through this residential neighborhood to convey vehicle traffic anywhere near the estimated 700 vehicles per day as predicted with this new construction. If this development is to proceed as planned – notwithstanding potential drainage, foundation, and other issues - alternative vehicular access must be devised, such as potentially through Escondido Drive to the west.

Given the plethora of safety, traffic, foundation, and drainage issues raised by neighborhood residents during and after the initial meeting for this development that remain unresolved and the excessive size and scope of the proposed development that would amplify these concerns, I urge the Planning Commission to again vote “no” on the Magnus Court development. The proposed development is simply too large, dense, complex, and therefore too risky to safely develop as currently planned. Thank you.
Garrett Williams
515 22 ¼ Road

05/26/2020 4:37 pm

Garrett Williams
515 22 1/4 Rd
Grand Junction, 81507

Regarding the Magnus Court subdivision:

As a resident of the Redlands, I am concerned that building the proposed subdivision in such a prominent location (right around the peak of Riggs Hill) will negatively affect the character of the Redlands. The subdivision documentation states: “The project location can be generally described as the northeast facing ‘backside’ of Riggs Hill.” It is, in fact, atop Riggs Hill, a world-renowned site (see figure). The bulk of the subdivision would be clearly visible from the Redlands Roundabout, the Liberty Cap trail/Colorado National Monument, Tiara Rado Golf Course, Broadway and S. Broadway/Redlands Parkway, and especially from the museum owned portion of Riggs Hill, including the parking area.

It appears to me that there are numerous inconsistencies and questionable claims made in the submitted documentation.

Housing Density
The largest parcel, 62% of the land total, is not currently in the city, and is designated in the GJ Comprehensive Plan (City Ordinance # 4406) as RUR 5-10 acres.

The plan states:
"Rural 1 du/5-10 acre lots Private land that will remain in parcels of 5 to 10 acres on average. The uses will vary among low density residential lots, low intensity agricultural operations, orchards and other small scale farm operations. Rural land use areas serve as a transition between urban and agricultural uses. Clustering techniques are required to achieve maximum density. No urban level services are supplied."

The development proposes approximately 34 dwellings on this parcel, well above the number allowed by the comprehensive plan (maximum 8 dwellings). This lot would house roughly 50% of the total dwellings in Magnus Court.

The adjacent Desert Hills Estates and Rocky Heights subdivisions have a total of 26 large lots (1 to 2+ acres) and over 20 acres of open/ preserved space.

During the February Planning Board meeting where Magnus Court was discussed, there was discussion about the inability of the city to zone another property for less density than the Comprehensive Plan allows. But the Magnus Court proposal calls for annexing and rezoning this parcel at a much higher density than the Comprehensive Plan allows.

Preserving Scenic Vistas
The GJ Comprehensive Plan includes preserving scenic vistas. The subdivision would wreck views of Riggs Hill from the entire surrounding area while the developers tout the “spectacular panoramic views of the valley” from the subdivision, thus wrecking part of the scenic vista to provide great views to Magnus Court.

Open Space
The subdivision documentation highlights 64% of the site as open space “respecting the natural conditions of the site.” The developers plan to build on the land that meets slope requirements for development. That essentially leaves the much steeper, unbuildable land as “open space” while claiming this is “predominantly placed to protect natural slopes and view sheds.”

The Planned Development (PD) and Outline Development Plan (ODP) cites “More usable public and/or private open space.” Most of that open space consists of very steep slopes that are not usable.

Public Benefit Section
The subdivision documentation claims that the residential project meets the intentions and densities of the Growth Plan – although it certainly does not meet the GJ Comprehensive Plan.

The subdivision documentation mentions drainage improvements. A subdivision is certainly not going to capture water as well as the existing natural vegetation on this steep hill.

Code amendment and rezoning
The Code Amendment and rezoning section includes several requirements that do not appear to be met:

1 - The subdivision documentation claims that “the character of the area has changed with the annexation and development of adjacent residential subdivisions.” As noted above, both Rocky Point and Desert Hills Estates have far larger lots and considerable open space as well. Magnus Court is not consistent with these neighboring subdivision annexations. Additionally, these older subdivisions are not built atop a hill and are not visible from adjacent neighborhoods.

2 - Public and community facilities include the road system. The proposed subdivision does not address the inadequacy of the county roads leading to the proposed development nor the obvious traffic problems that will occur on both Broadway and S. Broadway/Redland Parkway resulting from the additional traffic.

3 - The availability of suitably designated land within Grand Junction may be a concern, but this land is not particularly suited to the need for high-density housing such as proposed. So, it’s not much of a benefit to the community compared to other (flatter) parcels.

4 - Is the availability of sewer and water along Magus Court a benefit to the community? It appears to affect only 4 or 5 properties, all of which are currently developed.

Infill Development

At the planning board meeting, this property was characterized as an “infill” development. This project in no way meets the description of infill in the Comprehensive Plan:

"Infill development on vacant and underutilized land in City Center, at higher densities, will significantly increase housing affordable to workers. The Villageand Neighborhood Centers designated in the Comprehensive Plan offer housing types that will be affordable to workers through higher densities and
housing-over-stores spaces. Being in walkable centers that are near transit further impacts affordability by lowering the total cost of living. Retention of existing housing stock is also a means to retain an affordable product".

Magnus Court would push a dense subdivision into an area of low-density and unimproved county land, thus creating more sprawl in an area largely composed of houses on large lots and open space. Further, Magnus Court is planned to be upscale housing, not affordable housing.

Dark Skies

74 houses atop Riggs Hill will contribute significantly to the light pollution in the Redlands.

Conclusion
Magnus Court will wreck the historic treasure of Riggs Hill and have a negative effect on the character and quality of life in the Redlands and Grand Junction. Such character cannot be regained once lost. I see no benefit to the people and city of Grand Junction in annexing the proposed parcels.

Respectfully submitted,

Michael Petri

05/26/2020 5:07 pm

Michael C. Petri
477 Escondido Cir
Grand Junction, 81507

While I can see that efforts to respond to some concerns have been made, specific improvements as well as funding of these improvements remain inadequate or unaddressed. Road/human safety, existing and potential water/drainage issues, and property devaluation surrounding the proposed access route need further examination. In a nutshell: Too many unknowns, too many risks, too many cars, too many houses.

Because we continue to see this area repeatedly make mistakes causing us and others many headaches, the following are additional ground instability questions:

Without knowledge of the quality of soil, can plans really be finalized?

Given the numerous past (and present) issues with movement in this area, who will verify proper foundation plans are being used?

Will builders be mandated to hold proper builder insurance which specifically includes coverage of foundation/movement and builder defects? (My builder did not have this coverage, and we don't want to see anyone else go through this nightmare.)

Given the substantial erosion--including soil, rock, and boulder slides--have building envelopes been adequately defined to mitigate the risk?

Will a buyback program be considered? (In the newer neighborhood, RedRocks, off S.Camp near Monument Road the builder was required to buy back foundation-defective homes.)

Our point: Given this location, additional improvements, extra precautions--including probable expensive foundations--and ongoing remediation are likely. Very specific scopes and defined accountability are a necessity. Again, too many unknowns, too many risks, too many cars, too many houses.

05/26/2020 6:26 pm

Lora Curry
493 Escondido Cir
Grand Junction, 81507

May 25, 2020

Dear City of Grand Junction Planning Commission and City Council,

On February 25, 2020 the City of Grand Junction Planning Commission voted 4 to 3 to deny recommendation to the City Council of the Magnus Court Subdivision, ANX-2019-137, PLD-20190374. The Planning Commission heard from 13 neighborhood residents who voiced concerns about the lack of safety for pedestrian traffic, the increased amount of traffic and access to the site, drainage issues, the lack of consideration of nearby proposed developments, unsuitability of the building site, and urban sprawl. The citizens, staff and developers spent 2.75 hours discussing the subdivision. Citizens voiced their concerns about protecting the safety of their families and the neighborhood and were looking forward to a final disposition at the City Council meeting.

However, on May 15, 2020 my husband and I received a Notice of Public Hearing and were surprised to learn another Planning Commission meeting was scheduled for May 26 and the process would be repeated. A thorough review of the resubmittal reveals that the revisions are minor and do little or nothing to alleviate the concerns of the neighborhood residents. Below are the primary concerns regarding the proposal that were heard on February 25 with updates on the resubmittal where appropriate. Apologies for the length of this letter, but I feel the content is important and relevant enough to be considered when making a decision about recommending the Magnus Court Subdivision.

Community concerns about the proposed Magnus Court Subdivision

1. The lack of safety for pedestrian traffic due to existing narrow roads with no curbs, gutters or sidewalks is a concern of residents and commissioners.

   Resident Lisa Lefebre of 22 1/4 Road said, “I have three small children, there are no sidewalks on these county roads. They are not wide enough. These maps are not topographic and they don’t show you that if there are two cars going and there is a pedestrian you can’t just step over to get out of the way, you’ll fall off. What do you do? We have senior citizens who walk every day. Their agility to move out of a vehicle’s way is slower. I’m concerned about my children and their safety walking to school. It’s not going to happen with additional traffic.”

   Naomi Rental of 515 22 1/4 Road said, “This should be a fairly easy neighborhood to walk around and it’s not. The walkability score is 16 out of 100. Bikability score is 30 out of 100. Transit score is 0. Real estate websites list the neighborhood as car dependent.”

   Ted Ciavonne, the developer’s representative said, “A lot of the roads are in the county, the county is not going to go out there and improve them ahead of time.”

   Jay Thompson, 495 Escondidio Circle said, “A really good attempt at responsible development but access is the problem. You got narrow roads through small neighborhoods, up to ten years of heavy equipment and trucks coming in and out of there. It’s not just 300 cars. Its hazardous enough on construction sites without this kind of traffic.”

   Commissioner Ken Scissors said, “How can we be assured that the construction traffic won’t be an issue? It seems the study is mostly about resident traffic, an extra 300-500 cars. But it’s going to be awhile for the resident traffic, but looking at the roads and the circuitous route to get in there, how can we be sure there is not a safety concern at that stage?” “There are just

too many concerns. For me, the one that tips it over is the safety concern for the neighborhood. I understand that there are things that could be done but I'm not hearing definitive enough they will be done, and they will be satisfactorily and they will be done in time."

In the resubmittal the developer will combine phases and their intentions are that the heaviest equipment (for heavy mass grading and site balancing) will be used the first 90 days. The equipment goes to the site and stays until done. However, there is no way the developer can guarantee that work will be completed on schedule, nor that the contractor will leave their equipment on site until the project is completed. They state the phasing plan will NOT be changing but they'll try to get it done in a shorter time.

In the resubmittal it states the developer met with the County and City and discussed conditions of roads and the safety of pedestrians, in particular kids walking to school. The City and County deem the roads acceptable and will not improve them. However, the City, County and the developer say they will support a trail or sidewalk to Broadway. Details regarding location of a trail or sidewalk are not listed. A trail or sidewalk to Broadway will make pedestrian traffic going in that direction safer. But please consider the many residents who walk or bike on South Broadway to get access to the pedestrian/bike trail on the Redlands Parkway. The safety of residents will be greatly affected considering 85% of the additional 700 cars will be using this route.

2. The two access points to this neighborhood will be strained by an increase in traffic.

A traffic impact study was performed and it stated the proposed site-generated traffic from the Magnus Court subdivision will be 700 vehicles per day. The study stated a typical neighborhood street is comfortable at 1000 vehicles a day. The study based their findings on 28-foot wide, standard, two lane neighborhood roads with curbs, gutters and sidewalks, not the 22-foot wide rural narrow roads in this area that don't have curbs, gutters and sidewalks and with gravel shoulders which are nonexistent to approximately six feet wide. The study said, "Having sidewalks is preferred but the low volume of traffic allows streets to be shared by all users." How can the level of service not be affected after adding 700 cars a day? There will be more traffic and it will affect the safety of pedestrians sharing the roads with vehicles.

The TIS stated a right turn lane on southbound Redlands Parkway will be required. The study did not address the more difficult left-hand turn from South Broadway north onto Redlands Parkway. The TIS reported that 142 cars travel this section in a 15-minute period during peak times. This intersection has a stop sign and the speed limit on the Redlands Parkway is 45 mph with two blind corners. It is already difficult getting onto the Parkway and if the majority of traffic from Magnus Court and the surrounding area uses this intersection we will see a long backup of traffic.

Commissioner Ken Scissors said, "Just putting in the infrastructure for this is going to be a huge amount of large vehicle traffic. It sounds like those roads would not be able to handle that from day one. The residents will be suffering through this heavy traffic waiting for the city and county to catch up and fix their roads."

Commissioner William Wade said, "I agree with Commissioner Gatseos to adequate circulation and access being provided within the development but because of the particular juxtaposition of this to the county roads and the only ways in and out. Now, I don't see that's adequate access for a development of this size."

In the resubmittal the traffic student revised the distribution of traffic to access points. The original traffic study said 35% would use the north access point to Broadway and 65% would use the south access to South Broadway. In the resubmittal it was stated 15% would use the north access point and 85% would use the south. This revision doesn't resolve traffic issues, however it does point out the greatest traffic issues will be at the South Broadway and Redlands Parkway intersection.

It is not known if the traffic study considered the increasing number of developments in the area and how this will also increase traffic on Redlands Parkway.

3. Increased runoff from this development threatens neighboring properties.

Many residents currently experience drainage issues. The subdivision will add of 24 acres of paved roads and landscaping, increasing the volume of drainage into neighborhoods below.

Resident Wayne Smith, 2222 S. Broadway said, "The developer said storm drainage will come off the hill to Goat Wash. My house is located here. I don't know how he is going to get to this without crossing my property. This wash gets close to flooding every year, I don't know what will happen with the additional water that will run. I'm concerned with safety and maintaining my property in that kind of situation."

Mike Mahoney, Mowry Dr. & 22 1/4 Road said, "There are existing issues not addressed in their plan. One is the draining of Magness where it meets 22 1/4. It drains straight into my front yard. That is a dirt road that absorbs part of that water. If they double the width and pave it, it will become a raceway for water. The retention pond is a great distance above this intersection. What happens to water below this pond? It gets magnified. You're greatly amplifying the potential of flooding."

Ted Ciavonne, development representative said, "Additional drainage coming down Magness Road — we are already aware of that. It's not just about water getting to a detention pond. There has to be other interceptions that happen. It's created its own watershed and made matters worse. Those things get resolved. Do they get totally fixed? No, I don't think so. Are we aware of them and need to address them? Yes."

In the resubmittal the developer claims the Magnus Court Development reduces existing drainage to the surrounding areas by intercepting the vast majority of water at the top of the watershed and directing it towards proposed storm water facilities, which directs it towards drainage to Goat Wash on South Broadway. This information is not new, it is in the development application, see page 77. Per the new illustration they may be directing more of the water to a storm water facility than previously planned. They do not explain how they will safely pipe the water across an unstable hillside without endangering the homes below. Nor do they explain how they will physically get the water across South Broadway to Goat Wash without easements from landowners. Goat Wash is a natural creek that flows year-round and is not maintained by the City or the County. The proposal fails to address the impact of the added runoff to Goat Wash. Could it flood Redlands Parkway or homes along the wash? Will existing culverts under the road be able to handle the increased runoff?

Also in the resubmittal is a letter from Scott Mai stating the County will share a drainage feasibility study in an adjacent neighborhood and that "I'm sure the developer's engineer can provide solid numbers showing how the Magnus Court project deals with drainage through the area." I'm assuming the developer included the letter as proof they will mitigate the drainage

issues. It does not. It seems to me it only shows there are additional drainage issues in the area being studied by the County.

4. Individual proposals are considered without accounting for their collective impact on infrastructure and the tranquility of the community.

In addition to the proposed Magnus Court subdivision, three other subdivisions are being built or proposed that will affect the infrastructure of the area and greatly increase traffic. Building on Renaissance Boulevard (7.5 acres), Canyon Rim (23 acre rezone request), and Redlands 360 Planned Development (624 acre property) are all within three miles of this proposed development.

Richard Swingle, a resident of the Renaissance said, “There is a huge amount of development and population growth in this area of South Broadway, Redlands Parkway, South Camp. We don’t understand the constraints to our system of what will happen. We are looking at them as individual elements instead of a broader perspective. We need to consider the broader perspective of what will happen to our community.”

Commissioner William Wade stated, “The problem is not that the project is not good, the problem is one of our citizen speakers asked us to look at this from 50,000 feet and see the other projects that are coming around it and what that does to our infrastructure. Unfortunately, you counter that by saying we’re not responsible for taking a long-term view, well we have to take a long-term view of planning and that’s our responsibility. We have to look at each project that is brought before us on it’s own merits.”

5. Unsuitability of land for development: this area is known for its expansive clay soils and bentonite which causes foundation problems.

At the meeting on February 25, resident Sharon Sigurist said, “Our neighbor had to dig down 18 feet to build a stable foundation. They themselves had to dynamite to put in fence posts.”

Resident Laura Curry said, “The soils are horrible. The development will be really difficult. My house is having major foundation issues. Our neighborhood on Riggs Way, over 50% of houses are having foundation issues due to soil. Responsible building means learning from past mistakes and this community has made a number of mistakes, we need to look into that. Friends off South Camp in a newer development have all kinds of issues there. This area is notorious for that. Clustering houses on this hill, given soils and rockiness, is a major mistake. An employee from Foundation Repair was at my house, and he said, “I’m sure I’ll be visiting those houses soon.”

Commissioner Kathy Deppe said, “Less than two months ago we had a property on the Redlands very similar to this with similar kinds of conditions. We had people get up from the audience and tell us they built houses there, spent $500,000 and after they moved in had to spend another $100,000 to fix the foundation.” “... we also have a responsibility to not create any kind of financial burden or harm to the citizens of Grand Junction. So looking at this one and the one we saw before, in my opinion, it does cause a burden. Or it could cause a burden.”

6. Unfettered suburban development paired with a lack of community centers is leading to urban sprawl.

Resident Naomi Rintoul of 515 22 1/4 Road, said, “The GJ Comprehensive Plan and the Path for Growth for the City states ‘Centers are the logical location for public facilities, fire stations, police stations, branch libraries, parks, schools. These mixed-use centers combine working, housing and shopping and are used to reduce driving.’ There are two neighborhood centers within walking distance of my house and they are mostly empty. Since I’ve moved in we’ve lost the hardware store, the Safeway, the Wells Fargo, the greenhouse and Loki moved downtown. Our post office, which doesn’t have full services, operates out of a gas station and is constantly on the closing list.” “I’m just asking if these growth plans shouldn’t include, before we start putting this many houses out there, infrastructure before planning this large subdivision. This park will bring more people to the area. And I can’t walk to it anyway. So think about pedestrian and bike safety. This is quite literally the definition of urban sprawl if we have this many houses and no services.”

Resident Noella Cumin said, “My biggest problem is a human concern. Most people chose to live there because it’s a quiet, rural area. We never expected to have something coming right through our neighborhood that would bring upwards of at least 300 cars a day back and forth. I realize you did a traffic study...it doesn’t take into account the traffic coming from new developments from South Camp, from the west on Broadway and developments all over. It is urban sprawl and the impact on our little neighborhood is going to be quite something.”

Resubmittal of project

Based on the feedback at the February 25 meeting the developer resubmitted the project “with changes showing they listened to the neighbors and staff, and with additional ‘Significant Community Benefit’ enables a new hearing.” (See page 273 of application) The changes address five lots whose dimensions were too small, construction phasing and construction traffic on roadways, pedestrian traffic on roadways, paths/sidewalks to schools, drainage diversion, traffic, and public use trails. The developer’s resubmittal doesn’t resolve pedestrian safety, increased traffic volume, drainage impacts, the unsuitability of the land and the entire area’s infrastructure. Therefore, I urge the County Commissioners to again vote nay on this project.

Sincerely,

Lisa R. Smith
2222 S. Broadway
Grand Junction, Colorado
lisarattansmith@yahoo.com

Here you see the UPS Driver making His way down 22 1/4 rd going around Parked vehicles.

Here you see two vehicles trying to make their way down 22 1/4 rd at the intersection of Magnus Court with pedestrians also trying to make their way down the street for a family evening walk.

There is no shoulder/sidewalk for the pedestrians to move to the left and allow the vehicles to pass as this is an immediate drop off into the property below.

From: Tom Arthur <start67@acsol.net>
Sent: Wednesday, May 27, 2020 6:15 AM
To: Belinda White <belindaw@gjcity.org>
Subject: Developement

The development in the area of Riggs's Hill is TOTALLY unacceptable.
The road is very narrow with blind curves. Frequent bicycle traffic makes it even worse.
In addition there is another development on the drawing board in the area NW of S. Broadway and 20 ½ road. Serious impact studies should be done before any developement. Then the plan should be KILLED!
FOR ONCE IN YOUR LIFE STOP BEING SO TAX GREEDY AND CONSIDER THE QUALITY OF LIFE FOR THE LOCAL RESIDENCES!!!! You have already compromise the area with the high density development near the golf course.

PS: Have you ever said no to a development?

From: dmoesser@bresnan.net <dmoesser@bresnan.net>
Sent: Wednesday, June 3, 2020 2:03 PM
To: Belinda White <belindaw@gjcity.org>
Subject: Tonight's mtg - Magnus Ct.

June 3, 2020

Dear City Council,

This email is regarding the Magnus Court Subdivision (70 homes on 24 acres).

I am really concerned about the increase in traffic that will come with all these new homes. Our roads cannot sustain this amount of traffic. It is hard enough to turn onto Broadway during school hours now. Can you image having 700 more cars trying to get onto Broadway.

The cars on Reed Mesa now speed down the hill and run the stop signs on 22 ¼ road. This creates safety issues for the pedestrians and drivers alike. What issues will 500 – 700 more cars do?

There are no sidewalks – where will the pedestrians walk?

I really believe that the Planning Commission and City Council members need to view the areas they are approving in person along with community members present to explain possible concerns.

This concerned resident respectfully asks you to consider the above concerns in making your decision on the Magnus Ct. Subdivision.

Thank you,

Debbie Moesser

2220 Claudia Ct.

From: Jenette Lacey <happycookergt@me.com>
Sent: Tuesday, June 9, 2020 12:46 PM
To: Belinda White <belindaw@gjcity.org>
Cc: comdev <comdev@gjcity.org>
Subject: Magnus Court Subdivision

Dear City Council members,

This email is in regards to the proposed Magnus Court Subdivision.

I am writing to voice my concerns over the magnitude of this project and the negative impact it will likely have on our small community roads.

As I am sure most of you know, the access onto Broadway from Reed Mesa and other nearby streets is currently very challenging during busy times, rush hour, and school season. Reed Mesa is also currently unsafe to drivers and pedestrians on most days, due to drivers disobeying posted speed limits and ignoring stop signs. The lack of pedestrian walkways also poses current hazards. I feel that a significant increase in traffic due to this large development will perpetuate an already existing safety issue.

As a concerned homeowner and resident, I respectfully ask that the council take a moment to view this area during times of congestion prior to making a decision to approve the Magnus Court Subdivision development.

Kindest regards,

Jenette Lacey
2217 Claudia Court

Grand Junction City Council:

This letter is in regards to the proposed Magnus Court Development Plan. Chief among other concerns, I do not believe that the significant negative impacts of increased traffic and congestion are realized or accounted for in the planning process. While the proposed Magnus Court subdivision will have a double lane road with median, sidewalks, and street lights, all of the roads proposed to access it have none of these features. Specifically, the narrow county roads leading to the proposed Magnus Court development - Reed Mesa, Mudgett, 22 ¼, Mowry, and South Broadway - lack street lights, sidewalks, curbs, gutters, pedestrian crossings, walking/biking paths, etc. Currently, if vehicles are parked along the street (which they commonly are), traffic is already reduced to a single lane. Further, the network of roads used to access Magnus Court is anything but a direct thoroughfare; there are several 90 degree turns and uncontrolled intersections, in addition to many blind hills, including specifically where Magnus Court intersects with 22 ¼ Rd. It is already a dangerous intersection with only a handful of houses currently utilizing it. No amount of additional stop signs will counteract the increased safety hazards to pedestrians in this residential neighborhood that would result from construction of such as ambitious undertaking.

Regardless of if the narrow county roads can physically handle the increased traffic, given the narrowness of the roads and the lack of sidewalks, in practicality the access roads to Magnus Court could not safely be used through this residential neighborhood to convey vehicle traffic anywhere near the estimated 700 vehicles per day as predicted with this new construction. The obvious solution of course would be to improve the existing ancillary roads which were intended to be, and which are, rural roads. However, even if there were intentions or the funding to improve these roads, given the steep dropoff into the deep drainage ditch along the east side of 22 ¼ Rd north of Magnus Court and the surrounding established yards on both sides of the road, there is simply no room to add infrastructure such as sidewalks or bike paths.

If the Magnus Court development is to proceed – notwithstanding potential drainage, foundation, and other issues - alternative vehicular access must be devised, such as potentially through Escondido Drive to the west. A more obvious and easier solution would be to simply reduce the number of homes planned in such a steep and constrained area to build upon. As stated by a member of the Planning Commission during the last meeting, as it is currently planned, this project lacks the appropriate "balance" with the surrounding neighborhood.

Finally, while the Planning Commission voted that the proposed project meets "the code", this is simply a minimum standard and should not mean that the development should be constructed as currently planned. A host of issues were brought forth at previous meetings – both in public comments and in letters - that I do not believe were thoroughly addressed. Further, given the number and scale of surrounding developments that have been approved nearby in the Redlands, which have the potential to amplify neighborhood concerns, it is appropriate that this proposal receive considerable scrutiny by the City Council to ensure that it does more than simply meet "the code". In my view, it does not.

Given the plethora of safety, traffic, foundation, and drainage issues raised by neighborhood residents that remain unresolved and the excessive size and scope of the proposed development that would amplify these concerns, I urge the City Council to vote "no" on the Magnus Court development. The proposed development is simply too large, too dense, too complex, and therefore too risky to safely develop *where* it is currently planned. Thank you.

Garrett Williams
515 22 ¼ Road

From: Mark Shoberg <marks@brayandco.com>
Sent: Monday, June 15, 2020 10:50 AM
To: Lance Gloss <lanceg@gjcity.org>; Ken Sherbenou <kensh@gjcity.org>
Cc: markannieshoberg <markannieshoberg@aol.com>
Subject: Meeting Tonight

Hello Lance and Ken,

I don't know if I'll be able to attend the meeting tonight for the Riggs Hill proposed subdivision. Can you make sure this gets to the right person for planning.

We live at 2244 S. Broadway, which backs up to the proposed PUD and right off of Mowry, which will be used for traffic.

We understand that development is inevitable and our biggest concerns are that the proper safety concerns are addressed for any PUD.

As you know, the PUD plans to use Mowry as an exit onto S. Broadway, which exits onto the Redlands PKWY, south of the roundabout. Currently, anyone exiting S Broadway and going north or south on Redlands PKWY is hindered by Russian olive trees from seeing the cars coming from the roundabout. Cars moving south from the roundabout to S. Broadway are already moving 50 mph and it makes using S. Broadway to enter the R-Pkwy dangerous. I can look and see no cars, look the opposite direction and by the time I gun it, a car can be seconds away from a collision. The issue is so bad I stopped using this exit and instead go north of S. Broadway and use the gas station exit on Broadway.

I'm requesting a three-way stop sign at Mowry and S. Broadway as well if this goes through. The reason is simple. Cars already use this section of S. Broadway to cut across to Broadway through the gas station. They fly down S. Broadway doing anywhere from 30-50 on a tiny road with several families. This will only increase with the new PUD. The three way stop will slow things down and minimize danger on S. Broadway, which has no sidewalks.

If a couple hundred cars begin using this exit, my request is that either a three way stop sign be added on Redlands Parkway or a stop light. Also, we need the trees on the corner of 2222 S BROADWAY Removed to be able to see cars coming. Like I said, I've been nearly hit several times because of the blind corner these trees create.

For the second exit, which is on Reed Mesa Dr. a stop light needs to be added. There is a stop light roughly 100 feet east on Broadway, which should be moved to Reed Mesa and a blinking crosswalk added to the location where there is currently a light. This change is needed because cars are moving 40-50 mph on Broadway into a school zone and the light will be needed for 200 plus extra drivers. I use the gas station exit every day to bring my 2 and 4 year old to daycare and drivers are doing close to 50 when they come down the hill to the roundabout. It too is dangerous for egress, but with the two

schools in the area, it is imperative to have a stop light added at Reed Mesa and the flashing light added for children crossing at both 527 VILLAGE WAY And 22 ½ Rd and Broadway or near this location. Kids run across from the south side to their school all the time and its only a matter of time before it turns deadly.

Finally, if this goes through, we are requesting sidewalks for all impacted areas: S. Broadway, Mowry, and any roads that egress the new PUD, as well as Reed Mesa. This is a bare minimum for safety. We walk these roads with our children, daily and the increase in traffic will make this unsafe to walk without sidewalks on at least one side of the streets in this area. There are no street lights on these sections of street either. We request if these is approved, street lights be added to S. Broadway, Mowry, Reed Mesa and anywhere else in the PUD to allow safe walking in these impacted areas.

In sum, we are requesting the City ensure this is done properly to allow safe traffic for vehicles and pedestrians as the area does not have the capacity to add a few hundred vehicles, at least (may five hundred more a day with service providers); an area with two schools, hundreds of children walking daily in the area, and vehicles already breaking the speed limit as they rush to the roundabout. This PUD also creates the unintended consequence of hundreds of new drivers in competition with each other to get out of the PUD as fast as they can, each day, every day.

We request the minimum of making our community safe with stop lights, stop signs, sidewalks, night lights and additional blinking crosswalks for our children. This would be the right/correct way to develop a neighborhood. Without these additions, we are opposed to any expansion. With these additions, we feel everyone might eventually benefit from this addition. I really hope these requests are taken seriously, as they are not complaints but completely valid.

Thanks for your time,

Have a great day!

Mark S.
Bray HOA Management
637 North Ave. Grand Jct, CO 81501
hoa@brayandco.com
970 242 8450

Councilors:

This is my response to the proposed **ANX-2019-137; PLD-2019-Magnus Annexation, Zone of Annexation, Outline Development Plan**(commonly known as the MAGNUS COURT ODP). Thank you for this opportunity.

In an effort to provide you a visual sense of the land involved in this response, I have included an attachment. Please review.

My home is located at 2229 Mowry Drive. My wife and I have lived there for the past 15 years. It is our sole residence and is, along with approximately 20 other Mesa county properties, surrounded (all the areas shaded in green in the attachment photo) by the City of Grand Junction.

I'm not entirely opposed to the MAGNUS COURT ODP. I understand that growth is inevitable and the development plan looks to be an attractive addition to your municipality. However, I'm not a part of your municipality and yet one of the main corridors to be used in-order-to drive to this development (along Mowry Drive), it is going to drastically increase the traffic that goes past my home. Traffic that is going to include city services. As such, I too would now like to be a part of and benefit from these same services. To me The 3.25% increase in taxes would be worth it.

I have discussed this, my wish with your city planner, Mr. Scott Peterson. He has informed me that at any time I have the right to petition for annexation to the city. He has also informed me that this petition can still be denied. I challenge this right to denial. Here is why:

1. Back in 2007, when the city used a "flagpole" practice in-order-to annex one parcel of the MAGNUS COURT ODP(County Assessor's Parcel 2945-182-00-018) I question that the city adequately informed those owners of property along this "flagpole" of their right to also be annexed (if they desire) into the city. I believe was and still is the law.
2. If (and I understand this is a big if, but hopefully it can be proven/disproven through the 2007 city record) the city did not adequately inform these owners, then I believe the law was broken and as such before the city council can proceed, they must remedy this. They must inform the present owners along this "flagpole" of this right today.
3. If (again this is a big if) the three present owners of these properties do indeed still have the right to petition for annexation to the city (legally and then without the city being able to deny) and IF they would ALL wish to exercise this right, then my home, along with all the homes in the still unincorporated Mesa county area (again see the attachment) would be "encamped".
4. According to my understanding of the PERSIGO agreement "once encamped the city *must* annex".

I don't think "all is legal". Please, before you vote on this matter, would you take a moment and confer with your Mr. Peterson and your legal counsel to insure that it is. Back in 2007 I believe the legal rights of three landowners may not have been adequately provided and ,as thus, calls into question the legality of all of these present day conditions and how they apply to EVERYONE'S future.. Please, prove me wrong.

Respectfully,

Denis Guenther

6/15/2020


AVON DR
DIXON AVE
221/4 RD
MOWRY DR
S BROADWAY
REDLANDS PKWY
S BROADWAY
REDLANDS PKWY

6/15/2020

CITY OF GRAND JUNCTION, COLORADO

RESOLUTION NO. ____

A RESOLUTION ACCEPTING A PETITION FOR THE ANNEXATION OF LANDS TO THE CITY OF GRAND JUNCTION, COLORADO, MAKING CERTAIN FINDINGS, AND DETERMINING THAT PROPERTY KNOWN AS THE MAGNUS COURT ANNEXATION, LOCATED AT THE WEST END OF MAGNUS COURT IS ELIGIBLE FOR ANNEXATION

WHEREAS, on the 19th day of February, 2020, a petition was referred to the City Council of the City of Grand Junction, Colorado, for annexation to said City of the following property situate in Mesa County, Colorado, and described as follows:

MAGNUS COURT ANNEXATION

A certain parcel of land lying in the North Half (N-1/2) of Government Lot 1 of Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian and all of Government Lot 1 of Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado and being more particularly described by metes and bounds as follows:

BEGINNING at the Northwest corner of said Government Lot 1 of Section 26 and assuming the North line of said Government Lot 1 of Section 26 bears N 89°47'19" E with all other bearings contained herein being relative thereto; thence from said Point of Beginning, N 89°47'19" E, along the North line of said Government Lot 1, a distance of 1,435.80 feet to a point being the Northeast corner of said Government Lot 1; thence S 00°44'28" E, along the East line of said Government Lot 1, a distance of 119.82 feet, more or less, to a point being the Northwest corner of Government Lot 1 of said Section 18; thence S 00°19'18" E, along the West line of Government Lot 1 of said Section 18, a distance of 258.91 feet, more or less, to a point on the North right of way for Magnus Court, as same is recorded in Book 1378, Page 534, Public Records of Mesa County, Colorado; thence S 56°04'41" E, along the North right of way for said Magnus Court, a distance of 335.68 feet, more or less, to a point being the Northwest corner of Gummin Annexation, City of Grand Junction Ordinance No. 4034, as same is recorded in Book 4366, Page 382, Public Records of Mesa County, Colorado; thence S 19°22'30" W, along the West line of said Gummin Annexation, a distance of 51.66 feet; thence S 00°08'08" E, continuing along the West line of said Gummin Annexation, a distance of 163.40 feet to a point on the South line of the N-1/2 of said Government Lot 1 of Section 18; thence S 89°50'09" W, along said South line and the North line of the CR Nevada Annexation, City of Grand Junction Ordinance No. 3890, as same is recorded in Book 4160, Page 213, Public Records of Mesa County, Colorado, a distance of 259.55 feet to a point being on the East line of said Government Lot 1 of Section 26; thence S

00°19’18” E, along the East line of said Government Lot 1 of Section 26, a distance of 546.03 feet to a point being the Southeast corner of said Government Lot 1 of Section 26; thence S 89°47’00” W, along the South line of said Government Lot 1 of Section 26, a distance of 1,434.62 feet to a point being the Southwest corner of said Government Lot 1 of Section 26; thence N 00°24’33” W, along the West line of said Government Lot 1 of Section 26, a distance of 1,325.11 feet, more or less, to the Point of Beginning.

CONTAINING 45.543 Acres or 1,983,885 Square Feet, more or less, as described.

WHEREAS, a hearing on the petition was duly held after proper notice on the ____ day of _____, 2020; and

WHEREAS, the Council has found and determined and does hereby find and determine that said petition is in substantial compliance with statutory requirements therefore, that one-sixth of the perimeter of the area proposed to be annexed is contiguous with the City; that a community of interest exists between the territory and the City; that the territory proposed to be annexed is urban or will be urbanized in the near future; that the said territory is integrated or is capable of being integrated with said City; that no land held in identical ownership has been divided without the consent of the landowner; that no land held in identical ownership comprising more than twenty acres which, together with the buildings and improvements thereon, has an assessed valuation in excess of two hundred thousand dollars is included without the landowner’s consent; and that no election is required under the Municipal Annexation Act of 1965.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION:

The said territory is eligible for annexation to the City of Grand Junction, Colorado, and should be so annexed by Ordinance.

ADOPTED the _____ day of _____, 2020.

Attest:

_____
President of the Council

_____
City Clerk

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO.

AN ORDINANCE ANNEXING TERRITORY TO THE CITY OF GRAND JUNCTION, COLORADO

MAGNUS COURT ANNEXATION

APPROXIMATELY 45.543 ACRES LOCATED AT THE WEST END OF MAGNUS COURT

WHEREAS, on the 19th day of February 2020, the City Council of the City of Grand Junction considered a petition for the annexation of the following described territory to the City of Grand Junction; and

WHEREAS, a hearing on the petition was duly held after proper notice on the 15th day of June 2020; and

WHEREAS, the City Council determined that said territory was eligible for annexation and that no election was necessary to determine whether such territory should be annexed;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:

That the property situate in Mesa County, Colorado, and described to wit:

MAGNUS COURT ANNEXATION

A certain parcel of land lying in the North Half (N-1/2) of Government Lot 1 of Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian and all of Government Lot 1 of Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado and being more particularly described by metes and bounds as follows:

BEGINNING at the Northwest corner of said Government Lot 1 of Section 26 and assuming the North line of said Government Lot 1 of Section 26 bears N 89°47’19” E with all other bearings contained herein being relative thereto; thence from said Point of Beginning, N 89°47’19” E, along the North line of said Government Lot 1, a distance of 1,435.80 feet to a point being the Northeast corner of said Government Lot 1; thence S 00°44’28” E, along the East line of said Government Lot 1, a distance of 119.82 feet, more or less, to a point being the Northwest corner of Government Lot 1 of said Section 18; thence S 00°19’18” E, along the West line of Government Lot 1 of said Section 18, a distance of 258.91 feet, more or less, to a point on the North right of way for Magnus

Court, as same is recorded in Book 1378, Page 534, Public Records of Mesa County, Colorado; thence S 56°04'41" E, along the North right of way for said Magnus Court, a distance of 335.68 feet, more or less, to a point being the Northwest corner of Gummin Annexation, City of Grand Junction Ordinance No. 4034, as same is recorded in Book 4366, Page 382, Public Records of Mesa County, Colorado; thence S 19°22'30" W, along the West line of said Gummin Annexation, a distance of 51.66 feet; thence S 00°08'08" E, continuing along the West line of said Gummin Annexation, a distance of 163.40 feet to a point on the South line of the N-1/2 of said Government Lot 1 of Section 18; thence S 89°50'09" W, along said South line and the North line of the CR Nevada Annexation, City of Grand Junction Ordinance No. 3890, as same is recorded in Book 4160, Page 213, Public Records of Mesa County, Colorado, a distance of 259.55 feet to a point being on the East line of said Government Lot 1 of Section 26; thence S 00°19'18" E, along the East line of said Government Lot 1 of Section 26, a distance of 546.03 feet to a point being the Southeast corner of said Government Lot 1 of Section 26; thence S 89°47'00" W, along the South line of said Government Lot 1 of Section 26, a distance of 1,434.62 feet to a point being the Southwest corner of said Government Lot 1 of Section 26; thence N 00°24'33" W, along the West line of said Government Lot 1 of Section 26, a distance of 1,325.11 feet, more or less, to the Point of Beginning.

CONTAINING 45.543 Acres or 1,983,885 Square Feet, more or less, as described.

be and is hereby annexed to the City of Grand Junction, Colorado.

INTRODUCED on first reading on the 19th day of February, 2020 and ordered published in pamphlet form.

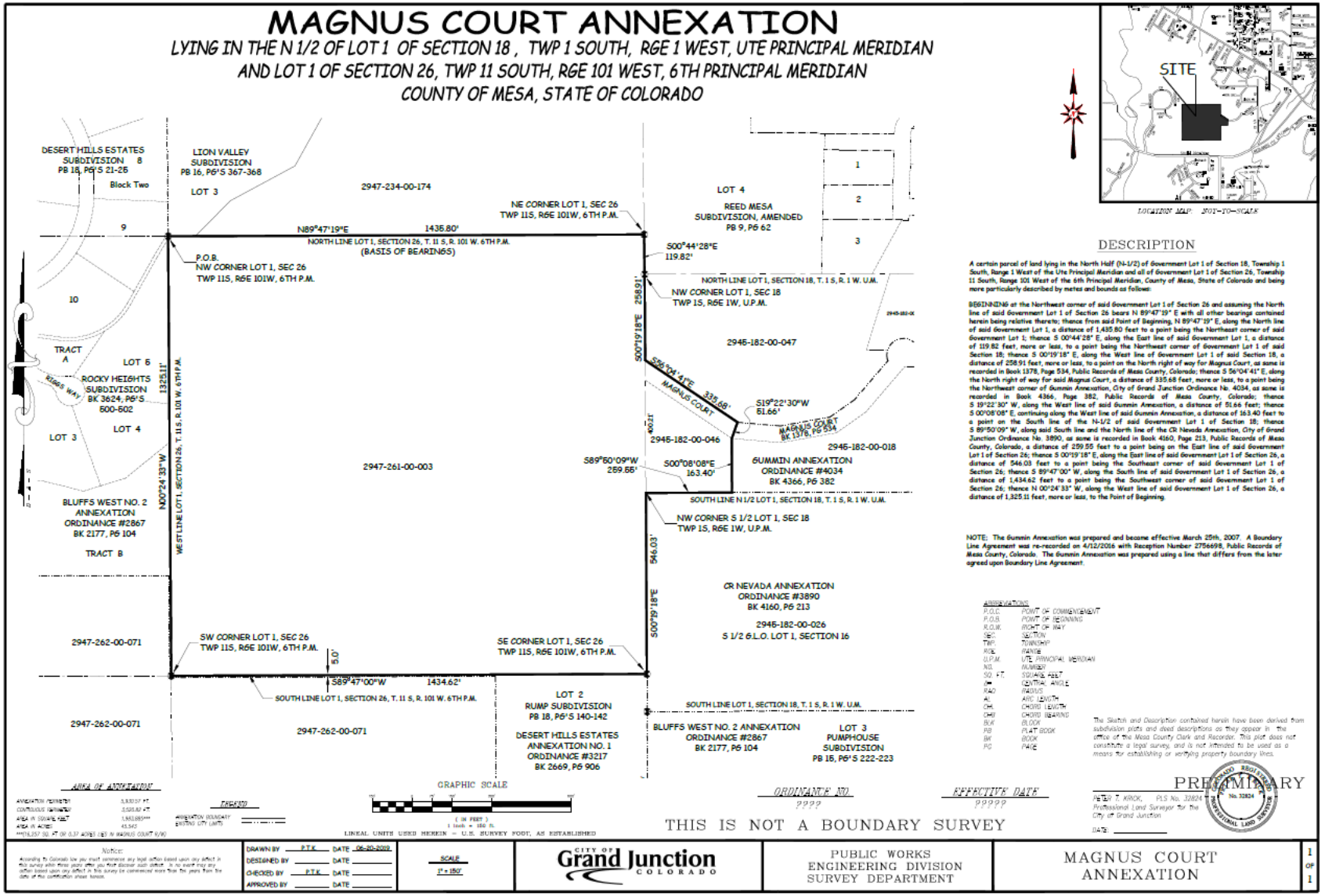
ADOPTED on second reading the _____ day of _____, 2020 and ordered published in pamphlet form.

_____
President of the Council

Attest:

_____
City Clerk

Exhibit A


MAGNUS COURT ANNEXATION
LYING IN THE N 1/2 OF LOT 1 OF SECTION 18 , TWP 1 SOUTH, RGE 1 WEST, UTE PRINCIPAL MERIDIAN
AND LOT 1 OF SECTION 26, TWP 11 SOUTH, RGE 101 WEST, 6TH PRINCIPAL MERIDIAN
COUNTY OF MESA, STATE OF COLORADO
SITE
LOCATION MAP: NOT-TO-SCALE
DESCRIPTION
A certain parcel of land lying in the North Half (N-1/2) of Government Lot 1 of Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian and all of Government Lot 1 of Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado and being more particularly described by metes and bounds as follows:
BEGINNING at the Northwest corner of said Government Lot 1 of Section 26 and assuming the North line of said Government Lot 1 of Section 26 bears N 89°47'19" E with all other bearings contained herein being relative thereto; thence from said Point of Beginning, N 89°47'19" E, along the North line of said Government Lot 1, a distance of 1,435.80 feet to a point being the Northeast corner of said Government Lot 1; thence S 00°44'28" E, along the East line of said Government Lot 1, a distance of 119.82 feet, more or less, to a point being the Northwest corner of Government Lot 1 of said Section 18; thence S 00°19'18" E, along the West line of Government Lot 1 of said Section 18, a distance of 258.91 feet, more or less, to a point on the North right of way for Magnus Court, as same is recorded in Book 1378, Page 534, Public Records of Mesa County, Colorado; thence S 56°04'41" E, along the North right of way for said Magnus Court, a distance of 335.68 feet, more or less, to a point being the Northwest corner of Gummin Annexation, City of Grand Junction Ordinance No. 4034, as same is recorded in Book 4366, Page 382, Public Records of Mesa County, Colorado; thence S 19°22'30" W, along the West line of said Gummin Annexation, a distance of 51.66 feet; thence S 00°08'08" E, continuing along the West line of said Gummin Annexation, a distance of 163.40 feet to a point on the South line of the N-1/2 of said Government Lot 1 of Section 18; thence S 89°50'09" W, along said South line and the North line of the CR Nevada Annexation, City of Grand Junction Ordinance No. 3890, as same is recorded in Book 4160, Page 213, Public Records of Mesa County, Colorado, a distance of 259.55 feet to a point being on the East line of said Government Lot 1 of Section 26; thence S 00°19'18" E, along the East line of said Government Lot 1 of Section 26, a distance of 546.03 feet to a point being the Southeast corner of said Government Lot 1 of Section 26; thence S 89°47'00" W, along the South line of said Government Lot 1 of Section 26, a distance of 1,434.62 feet to a point being the Southwest corner of said Government Lot 1 of Section 26; thence N 00°24'33" W, along the West line of said Government Lot 1 of Section 26, a distance of 1,325.11 feet, more or less, to the Point of Beginning.
NOTE: The Gummin Annexation was prepared and became effective March 25th, 2007. A Boundary Line Agreement was re-recorded on 4/12/2016 with Reception Number 2756698, Public Records of Mesa County, Colorado. The Gummin Annexation was prepared using a line that differs from the later agreed upon Boundary Line Agreement.
ABBREVIATIONS
P.O.C. POINT OF COMMENCEMENT
P.O.B. POINT OF BEGINNING
R.O.W. RIGHT OF WAY
SEC. SECTION
TWP. TOWNSHIP
RGE. RANGE
U.P.M. UTE PRINCIPAL MERIDIAN
NO. NUMBER
SQ. FT. SQUARE FEET
Δ CENTRAL ANGLE
RAD RADIUS
AL ARC LENGTH
CH. CHORD LENGTH
CHB CHORD BEARING
BLK BLOCK
PB PLAT BOOK
BK BOOK
PG PAGE
The Sketch and Description contained herein have been derived from subdivision plats and deed descriptions as they appear in the office of the Mesa County Clerk and Recorder. This plat does not constitute a legal survey, and is not intended to be used as a means for establishing or verifying property boundary lines.
PRELIMINARY
PETER T. KRICK, P.L.S. No. 32824
Professional Land Surveyor for the City of Grand Junction
DATE:
DESERT HILLS ESTATES SUBDIVISION 8 PB 18, P6'S 21-26
Block Two
LION VALLEY SUBDIVISION PB 16, P6'S 367-368
LOT 3
2947-234-00-174
LOT 4
REED MESA SUBDIVISION, AMENDED PB 9, P6 62
NE CORNER LOT 1, SEC 26 TWP 11S, R6E 101W, 6TH P.M.
N89°47'19"E 1435.80'
NORTH LINE LOT 1, SECTION 26, T. 11 S, R. 101 W. 6TH P.M. (BASIS OF BEARINGS)
P.O.B. NW CORNER LOT 1, SEC 26 TWP 11S, R6E 101W, 6TH P.M.
S00°44'28"E 119.82'
NORTH LINE LOT 1, SECTION 18, T. 1 S, R. 1 W. U.M.
NW CORNER LOT 1, SEC 18 TWP 1S, R6E 1W, U.P.M.
S00°19'18"E 258.91'
2946-182-00-047
TRACT A
LOT 5
ROCKY HEIGHTS SUBDIVISION BK 3624, P6'S 500-502
RIGGS WAY
LOT 3
LOT 4
1325.11'
N00°24'33"W
WEST LINE LOT 1, SECTION 26, T. 11 S, R. 101 W. 6TH P.M.
S56°04'41"E 335.68'
MAGNUS COURT
S19°22'30"W 51.66'
MAGNUS COURT BK 1378, P6 534
100.21'
2946-182-00-046
2946-182-00-018
2947-261-00-003
S89°50'09"W 259.55'
S00°08'08"E 163.40'
GUMMIN ANNEXATION ORDINANCE #4034 BK 4366, P6 382
SOUTH LINE N1/2 LOT 1, SECTION 18, T. 1 S, R. 1 W. U.M.
NW CORNER S 1/2 LOT 1, SEC 18 TWP 1S, R6E 1W, U.P.M.
546.03'
S00°19'18"E
CR NEVADA ANNEXATION ORDINANCE #3890 BK 4160, P6 213
2946-182-00-026
S 1/2 G.L.O. LOT 1, SECTION 16
BLUFFS WEST NO. 2 ANNEXATION ORDINANCE #2867 BK 2177, P6 104
TRACT B
2947-262-00-071
SW CORNER LOT 1, SEC 26 TWP 11S, R6E 101W, 6TH P.M.
SE CORNER LOT 1, SEC 26 TWP 11S, R6E 101W, 6TH P.M.
S89°47'00"W 1434.62'
SOUTH LINE LOT 1, SECTION 26, T. 11 S, R. 101 W. 6TH P.M.
SOUTH LINE LOT 1, SECTION 18, T. 1 S, R. 1 W. U.M.
LOT 2 RUMP SUBDIVISION PB 18, P6'S 140-142
DESERT HILLS ESTATES ANNEXATION NO. 1 ORDINANCE #3217 BK 2669, P6 906
BLUFFS WEST NO. 2 ANNEXATION ORDINANCE #2867 BK 2177, P6 104
LOT 3 PUMPHOUSE SUBDIVISION PB 16, P6'S 222-223
AREA OF ANNEXATION
LEGEND
ANNEXATION BOUNDARY
EXISTING CITY LIMITS
GRAPHIC SCALE
(IN FEET)
1 inch = 150 ft.
LINEAL UNITS USED HEREIN = U.S. SURVEY FOOT, AS ESTABLISHED
ORDINANCE NO. 9999
EFFECTIVE DATE 99/99/99
THIS IS NOT A BOUNDARY SURVEY
Notice: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.
DRAWN BY P.T.K. DATE 06-20-2019
DESIGNED BY DATE
CHECKED BY P.T.K. DATE
APPROVED BY DATE
SCALE 1" = 150'
CITY OF Grand Junction COLORADO
PUBLIC WORKS ENGINEERING DIVISION SURVEY DEPARTMENT
MAGNUS COURT ANNEXATION
1 OF 1

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO. _____

AN ORDINANCE ZONING THE MAGNUS COURT ANNEXATION TO PD (PLANNED DEVELOPMENT) WITH AN R-2 (RESIDENTIAL – DU/AC) DEFAULT ZONE DISTRICT

LOCATED AT THE WEST END OF MAGNUS COURT

Recitals

The property owners have requested annexation of two properties that total 45.543-acres into the City limits in anticipation of future residential subdivision development.

After public notice and public hearing as required by the Grand Junction Zoning & Development Code, the Grand Junction Planning Commission recommended approval of zoning the Magnus Court Annexation to the PD (Planned Development) zone district with a default zone of R-2 (Residential – 2 du/ac), finding that it conforms with the designations of Residential Low (.5 – 2 du/ac) and Rural as shown on the Future Land Use Map of the Comprehensive Plan and the Comprehensive Plan's goals and policies and is generally compatible with land uses located in the surrounding area.

After public notice and public hearing, the Grand Junction City Council finds that the PD (Planned Development) zone district with a default zone of R-2 (Residential – 2 du/ac), is in conformance with at least one of the stated criteria of Section 21.02.140 of the Grand Junction Zoning & Development Code.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:

MAGNUS COURT ANNEXATION

The following properties be zoned PD (Planned Development) zone district with a default zone of R-2 (Residential – 2 du/ac).

A certain parcel of land lying in the North Half (N-1/2) of Government Lot 1 of Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian and all of Government Lot 1 of Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado and being more particularly described by metes and bounds as follows:

BEGINNING at the Northwest corner of said Government Lot 1 of Section 26 and assuming the North line of said Government Lot 1 of Section 26 bears N 89°47'19" E with all other bearings contained herein being relative thereto; thence from said Point of

Beginning, N 89°47’19” E, along the North line of said Government Lot 1, a distance of 1,435.80 feet to a point being the Northeast corner of said Government Lot 1; thence S 00°44’28” E, along the East line of said Government Lot 1, a distance of 119.82 feet, more or less, to a point being the Northwest corner of Government Lot 1 of said Section 18; thence S 00°19’18” E, along the West line of Government Lot 1 of said Section 18, a distance of 258.91 feet, more or less, to a point on the North right of way for Magnus Court, as same is recorded in Book 1378, Page 534, Public Records of Mesa County, Colorado; thence S 56°04’41” E, along the North right of way for said Magnus Court, a distance of 335.68 feet, more or less, to a point being the Northwest corner of Gummin Annexation, City of Grand Junction Ordinance No. 4034, as same is recorded in Book 4366, Page 382, Public Records of Mesa County, Colorado; thence S 19°22’30” W, along the West line of said Gummin Annexation, a distance of 51.66 feet; thence S 00°08’08” E, continuing along the West line of said Gummin Annexation, a distance of 163.40 feet to a point on the South line of the N-1/2 of said Government Lot 1 of Section 18; thence S 89°50’09” W, along said South line and the North line of the CR Nevada Annexation, City of Grand Junction Ordinance No. 3890, as same is recorded in Book 4160, Page 213, Public Records of Mesa County, Colorado, a distance of 259.55 feet to a point being on the East line of said Government Lot 1 of Section 26; thence S 00°19’18” E, along the East line of said Government Lot 1 of Section 26, a distance of 546.03 feet to a point being the Southeast corner of said Government Lot 1 of Section 26; thence S 89°47’00” W, along the South line of said Government Lot 1 of Section 26, a distance of 1,434.62 feet to a point being the Southwest corner of said Government Lot 1 of Section 26; thence N 00°24’33” W, along the West line of said Government Lot 1 of Section 26, a distance of 1,325.11 feet, more or less, to the Point of Beginning.

CONTAINING 45.543 Acres or 1,983,885 Square Feet, more or less, as described.

INTRODUCED on first reading this _____ day of _____, 2020 and ordered published in pamphlet form.

ADOPTED on second reading this _____ day of _____, 2020 and ordered published in pamphlet form.

ATTEST:

_____
President of the Council

_____
City Clerk

CITY OF GRAND JUNCTION, COLORADO

ORDINANCE NO.

AN ORDINANCE ZONING MAGNUS COURT SUBDIVISION TO PD (PLANNED DEVELOPMENT) WITH A DEFAULT ZONE OF R-2 (RESIDENTIAL, 2 DU/AC) AND AN OUTLINE DEVELOPMENT PLAN FOR 74 RESIDENTIAL UNITS ON 69.67 ACRES

LOCATED AT MAGNUS COURT & 2215 MAGNUS COURT #A

Recitals:

The applicants, CR Nevada Associates LLC, JLC Magnus LLC and Bonds LLC, proposes to develop 74 single-family detached lots to be located at the west end of Magnus Court and 2215 Magnus Court #A on a total of 69.67-acres to be constructed within up to four phases.

The request for an Outline Development Plan as a Planned Development with a default R-2 (Residential—2 du/ac) has been submitted in accordance with the Zoning and Development Code (Code).

This Planned Development zoning ordinance will establish the standards, default zoning, and conditions of approval for the Outline Development Plan for Magnus Court Subdivision.

In public hearings, the Planning Commission and City Council reviewed the request for the proposed Outline Development Plan and determined that the Plan satisfied the criteria of the Code and is consistent with the purpose and intent of the Comprehensive Plan. Furthermore, it was determined that the proposed Plan has achieved "long-term community benefits" by providing;

#1. Greater quality and quantity of public and/or private open space. The Applicant is proposing over 46-acres as open space or 65% of the project site. The minimum requirement in order to be considered as a cluster development would be 20%, the applicant is therefore providing an additional 45% of open space. The Applicant is proposing for the open space to either be granted to the homeowner's association or to be considered for acceptance as public open space by either the City of Grand Junction or the Museum of Western Colorado. The abutting open space is owned and maintained by the Museum of Western Colorado and is 43 acres in size.

#2. Other recreational amenities. The site currently contains numerous hiking trails that have been created over the years that have been utilized by the public but are located on private property. As part of the ODP request, the Applicant is proposing to grant public access to the existing trail network through the conveyance of easements or open space tracts throughout the project. Further, connections to the trail system will include both connections that are internal and external to the project.

The project is proposing construction and dedication of 1.62 miles of public trail system.

#3. Protection and/or Preservation of natural resources, habitat areas and natural features. With over 46-acres remaining as open space intended to be open to the public the proposed development preserves environmentally sensitive areas, natural features and rock-outcroppings.

After reviewing the application for a rezone to PD with an R-2 default zone district and an Outline Development Plan for the proposed Magnus Court Subdivision, the following findings of fact have been made:

1. In accordance with Section 21.02.140 (a) of the Zoning and Development Code, the application meets one or more of the rezone criteria.

2. The Planned Development is in accordance with all criteria in Section 21.02.150(b)(2) of the Grand Junction Zoning and Development Code.

3. Pursuant to Section 21.05.010, the Planned Development has been found to have long term community benefits including:

a. Greater quality and quantity of public and/or private open space,
b. Other Recreational Amenities; and
c. Protection and/or Preservation of natural resources, habitat areas and natural features.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT THE OUTLINE DEVELOPMENT PLAN AS A PLANNED DEVELOPMENT FOR MAGNUS COURT SUBDIVISION IS APPROVED WITH THE FOLLOWING STANDARDS AND DEFAULT ZONE:

A. This Ordinance applies to the following described properties:

PARCEL 1

WARRANTY DEED RECORDED JULY 31, 2008 AT RECEPTION NO. 2451023:

A PARCEL OF LAND SITUATED IN THE NW1/4 OF THE NW 1/4 OF SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1
WEST
OF THE UTE MERIDIAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST COMER OF THE N1/2 OF LOT 1 IN SAID SECTION 18;
THENCE NORTH 00°12' WEST 339.68 FEET;
THENCE SOUTH 55°55' EAST 314.35 FEET;
THENCE SOUTH 163.54 FEET
THENCE WEST 259.1 FEET TO THE POINT OF BEGINNING.

INCLUDING THE PORTION LYING WESTERLY OF LINE DESCRIBED IN BOUNDARY LINE AGREEMENT AS RECORDED AT RECEPTION NUMBER 2756698 OF THE MESA COUNTY RECORDS.
COUNTY OF MESA, STATE OF COLORADO.

PARCEL 2

WARRANTY DEED RECORDED AUGUST 30, 2016 AT RECEPTION NO. 2772258:

A TRACT OF LAND LOCATED IN THE N½ OF LOT 1 IN SECTION 18, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE MERIDIAN, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT 25 FEET WEST AND 267.8 FEET SOUTH 51 38' WEST AND 31.9 FEET SOUTH OF THE NORTHEAST CORNER OF SAID LOT 1 OF SAID SECTION 18 AND RUNNING THENCE SOUTH 51°38' WEST 92.1 FEET;
THENCE SOUTH 73°53' WEST 88.9 FEET;
THENCE WEST 136.3 FEET;
THENCE SOUTH 41°00' WEST 181.7 FEET;
THENCE SOUTH 55°00' WEST 108.6 FEET;
THENCE SOUTH 80°00' WEST 168.8 FEET;
THENCE NORTH 85°00' WEST 149.1 FEET;
THENCE SOUTH TO THE SOUTH BOUNDARY LINE OF THE N½ OF SAID LOT 1;
THENCE EAST ALONG THE SAID SOUTH BOUNDARY OF LOT 1 TO A POINT DUE SOUTH OF THE POINT OF BEGINNING;
THENCE NORTH TO THE POINT OF BEGINNING,

INCLUDING THE PORTION LYING EASTERLY OF LINE DESCRIBED IN BOUNDARY LINE AGREEMENT AS RECORDED AT RECEPTION NUMBER 2756698 OF THE MESA COUNTY RECORDS.
COUNTY OF MESA, STATE OF COLORADO.

PARCEL 3

WARRANTY DEED RECORDED JULY 21, 2005 IN BOOK 3947 AT PAGE 217 AT RECEPTION NO. 2265192:

The S1/2. of Lot 1 in Section 18, Township 1 South, Range 1West of the Ute Meridian, County of Mesa, State of Colorado,
EXCEPTING THEREFROM that portion lying within the lines of South Broadway;
AND ALSO EXCEPT A parcel of land for road right-of-way and utility purposes situated in Lot 1, Section 18, Township 1 South, Range 1 West of the Ute Principal Meridian, Mesa County, Colorado, being more particularly described as follows:
Beginning at the Mesa County Survey Monument for the Southeast Corner of said Lot 1, thence South 89°34'25' West, (Bearings based on North 00°08'18' West on the East line of said Lot 1) 24.79 feet along the South line of said Lot 1to a point on the Easterly right-of-way line of South Broadway as constructed, being on a 705.00 foot radius non-tangent curve to the left, the radius point of which bears North 53°06'40' West, thence 42.75 feet along the arc of said curve, the chord of which bears North 35°09'06" East 42.74 feet through a central angle of 03°28'28" along said right-of-way line to a point on

the East line of said Lot 1, thence South 00°08'18" East 34.77 feet to the Point of Beginning.

PARCEL 4

Lot 1 Section 26, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado

Said parcels contain 69.67-acres more or less.

B. This Property is zoned PD (Planned Development) with the following standards and requirements of the Outline Development Plan ("Plan"):

Default Zone & Zone District Standards:
The Plan establishes of a default R-2 zone district. However, the development also utilizes the Cluster Development provisions and under this code section would apply the R-8 bulk standards for building setbacks, etc., based on the applicant providing over 65 percent open space (46-acres) within the ODP. The ODP will meet or exceed all other Zoning Code requirements as identified.

Establishment of Uses:
The Plan allows only single-family detached dwelling units and associated accessory land uses.

Density:
The Plan density is 1.06 dwelling units per acre (74 dwelling units on 69.67-acres). The Comprehensive Plan Future Land Use Map designates these properties as Residential Low (.5 – 2 du/ac) and Rural.

Access:
The main external access points are Highway 340 (Broadway) and Reed Mesa Drive and South Broadway and Redlands Parkway. An access permit from CDOT will be required. All interior intersections to the existing County subdivision including the intersections at 22 ¼ Road and Mowry Drive, Dixon Avenue, Mudgett Street and Reed Mesa Drive will continue to operate at a level of service A in 2040 after the full build-out of the project. Stop signs will be installed at intersections in coordination with the County.

The Plan will provide public access from Magnus Court. Three (3) separate Alternative Street Requests were reviewed and approved by the City regarding the proposed Plan for this site as follows:

1) Develop the streets with 31.5 feet of right-of-way, sidewalk on one side only, 21 feet of asphalt width and parking only on one side.
2) Allowance of 72 lots from a single point of access by constructing. three (3) dedicated fire turn-around locations, a divided entrance (median) street with a 16-foot lane width on each side (50-foot ROW) to the first loop street, a widened street section (40-foot ROW) past the second intersection, and a structurally sufficient street section for all areas. All homes will provide sprinkler fire suppression systems.
3) Provide street-lights at street and shared driveway intersections.

Open Space and Pedestrian Amenities:

The Plan includes over 46-acres as open space or 65 percent of the project site. The open space with be granted to either the homeowner's association or to a public entity such as the City of Grand Junction or the Museum of Western Colorado, in full or in part. Final determination of any dedication will be made at time of Final Subdivision Plan review and any request for the City to accept dedication of open space would be a decision of City Council with a recommendation from the City's Parks and Recreation Board. The Plan provides public access/trail easements through the project allowing approximately 1.62 miles of trail as part of the development. The alignment of the trails are consistent with a number of the existing trail alignments.

Consistent with the City's Active Transportation Corridor Plan the project will grant an access/trail easement of 90 lineal feet in this area as required by the City's Active Transportation Corridor Plan along the Redlands First Lift Canal at the northwest corner of the property.

The Plan includes a total of 1.62 miles of trails. The trail system will be internal to the subdivision as well as connect into the Riggs Hill area trail system which is presently owned and maintained by the Museum of Western Colorado.

Trails will be maintained by their respective owner(s).

Phasing:
The following is the Plan phasing schedule based on the City's approval of a final plat:

Filing One (20 Lots): By December 31, 2023
Filing Two (20 Lots): By December 31, 2026
Filing Three (17 Lots): By December 31, 2028
Filing Four (17 Lots): By December 31, 2030

Lot Layout:
The Plan includes 74 lots ranging in size between 10,095 square feet and 18,413 square feet.

Individual lot-specific grading and drainage plans, which will include designating building envelopes, are required for all lots within the development at the time of final plat.

The Applicant will utilize the Cluster Development standards as provided in Section 21.03.060 that allows for the application of the R-8 bulk standards (Residential – 8 du/ac).

Landscaping:
Landscaping per Code requirements with the use of xeric plant materials will be provided within proposed center medians and homeowners association tracts of land as appropriate.

Introduced for first reading on this _____ day of _____, 2020 and ordered published in pamphlet form.

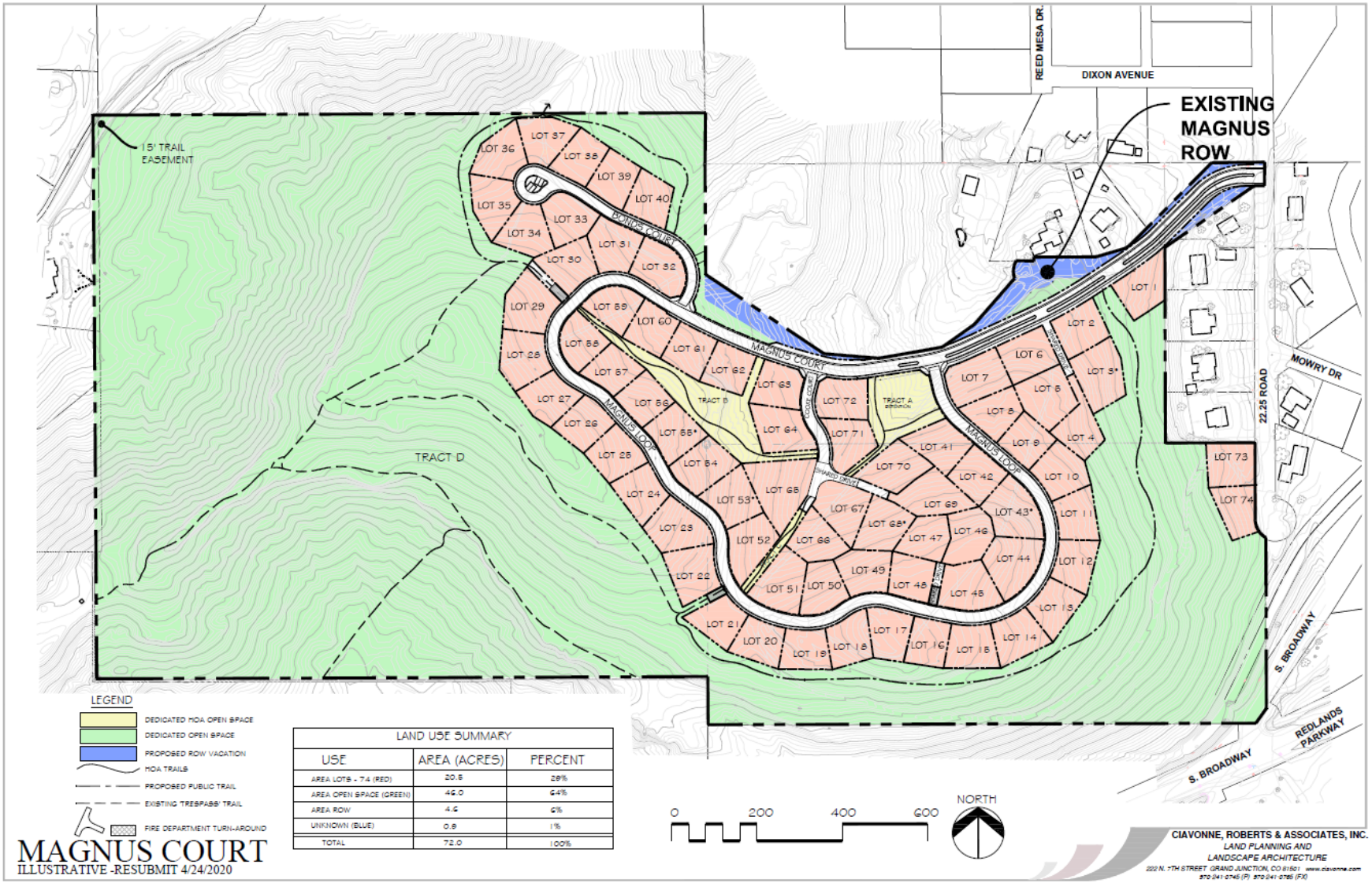
PASSED and ADOPTED this _____ day of _____, 2020 and ordered published in pamphlet form.

ATTEST:

_____
President of City Council

_____
City Clerk

EXHIBIT A – OUTLINE DEVELOPMENT PLAN



MAGNUS COURT
ILLUSTRATIVE -RESUBMIT 4/24/2020

LAND USE SUMMARY		
USE	AREA (ACRES)	PERCENT
AREA LOTS - 74 (RED)	20.6	28%
AREA OPEN SPACE (GREEN)	46.0	64%
AREA ROW	4.6	6%
UNKNOWN (BLUE)	0.8	1%
TOTAL	72.0	100%

CIAVONNE, ROBERTS & ASSOCIATES, INC.
LAND PLANNING AND
LANDSCAPE ARCHITECTURE
222 N. 7TH STREET, GRAND JUNCTION, CO 81501 www.ciavonne.com
970.241.0745 (P) 970.241.0765 (FX)

1. **Magnus Court Annexation, Zone of Annexation and Outline Development Plan File # ANX-2019-137; PLD-2019-374 | agenda item can be viewed at 12:58**

Consider a request by CR Nevada Associates LLC, JLC Magnus LLC and Bonds LLC for a Zone of Annexation for two (2) properties and rezone of two (2) properties from R-E (Residential Estate) and R-2 (Residential – 2 Dwelling Units per acre). All properties are seeking a zone district of Planned Development with an associated Outline Development Plan (ODP) called Magnus Court to develop 74 single-family detached lots with an R-2 (Residential – 2 du/ac) default zone district. The properties combined are 69.67 acres and are generally located at the west end of Magus Court and include the property addressed as 2215 Magus Court #A.

Staff Presentation

Scott Peterson, Senior Planner, introduced exhibits into the record and provided a presentation based on the request. A pre-recorded presentation was available at www.GJSpeaks.org.

Questions for Staff

Commissioner Gatseos asked a question regarding the process of planned development approvals.

Commissioners Teske and Wade asked questions regarding traffic impact.

Rick Dorris, Development Engineer, was available to answer questions.

Commissioner Scissors asked a question regarding community benefit.

Applicant's Presentation

Ted Ciavonne, the Applicant's representative, was present and gave a presentation regarding the request.

Questions for Applicant

Commissioner Gatseos asked a question regarding the previous application that was submitted on this project and the substantive changes that were made.

Commissioner Wade asked a question regarding the public concerns about drainage around the proposed development.

Commissioner Scissors asked a question regarding pedestrian traffic and safe transportation.

Ms. Kari McDowell Schroeder was available for questions regarding the traffic impact study.

Commissioner Ehlers asked a question regarding Ms. McDowell Shroeder's credentials.

Public Hearing
The public hearing was opened at 5 p.m. on Tuesday, May 19, 2020 via www.GJSpeaks.org. Option for public comment via voicemail was also available starting Tuesday, May 19, 2020 as described on the meeting notice as well as the agenda.

The following spoke in opposition of the request: Dennis Gunther, Laura Whitcomb, Kristy Black, Wayne Smith, Clay Prout, Naomi Rintoul, Sharon Sigrist, Susan Stanton, Lisa Lefever, Nickara Yeter-Przystup, Mike Mahoney, Lisa Smith, Paul Sigrist, Randall Cass, Joe Black, Linda Rattan, John Whitcomb.

Tamra Allen read into the record a comment from GJSpeaks from Lora Curry.

GJSpeaks received 10 comments from Lora Curry, Michael C. Petri, Garrett Williams, Judith Shoffner, Mike Mahoney, Linda Rattan, Lisa Smith, Wayne Smith, Jay Thomspon, and Lisa Smith.

The public hearing was closed at 8:50 p.m. on May 26, 2020.

Planning Commission took a recess at 8:50 p.m.

Planning Commission resumed at 8:59 p.m.

Applicant's Response
Mr. Ciavonne made a statement in response to the public comment period.

Questions for Applicant
Commissioner Gatseos asked a question regarding infrastructure and phasing. Mr. Ciavonne stated the Applicant will do significant grounding, underground utilities and completing the curb, gutter, sidewalk in phases.

Discussion
Commissioners Susuras, Ehlers, Teske, Wade, Gatseos, and Reece made comments in support of the request.

Commissioner Scissors made a comment in opposition of the request.

Motion and Vote
Commissioner Ehlers made the following motion, "Madam Chairman, on the Zone of Annexation and Rezones to Planned Development (PD) with an R-2 (Residential – 2 du/ac) default zone district and an Outline Development Plan to develop 74 single-family

detached lots, file numbers ANX-2019-137 and PLD-2019-374, I move that the Planning Commission forward a recommendation of approval to City Council with the findings of fact listed in the staff report."

Commissioner Susuras seconded the motion.

The motion carried 6-1.