

**STAFF REPORT FOR PLANNING COMMISSION MEETING OF SEPTEMBER 30, 2020**

**FILE NO:** LU-2020-0033

**AGENDA ITEM:** E.8

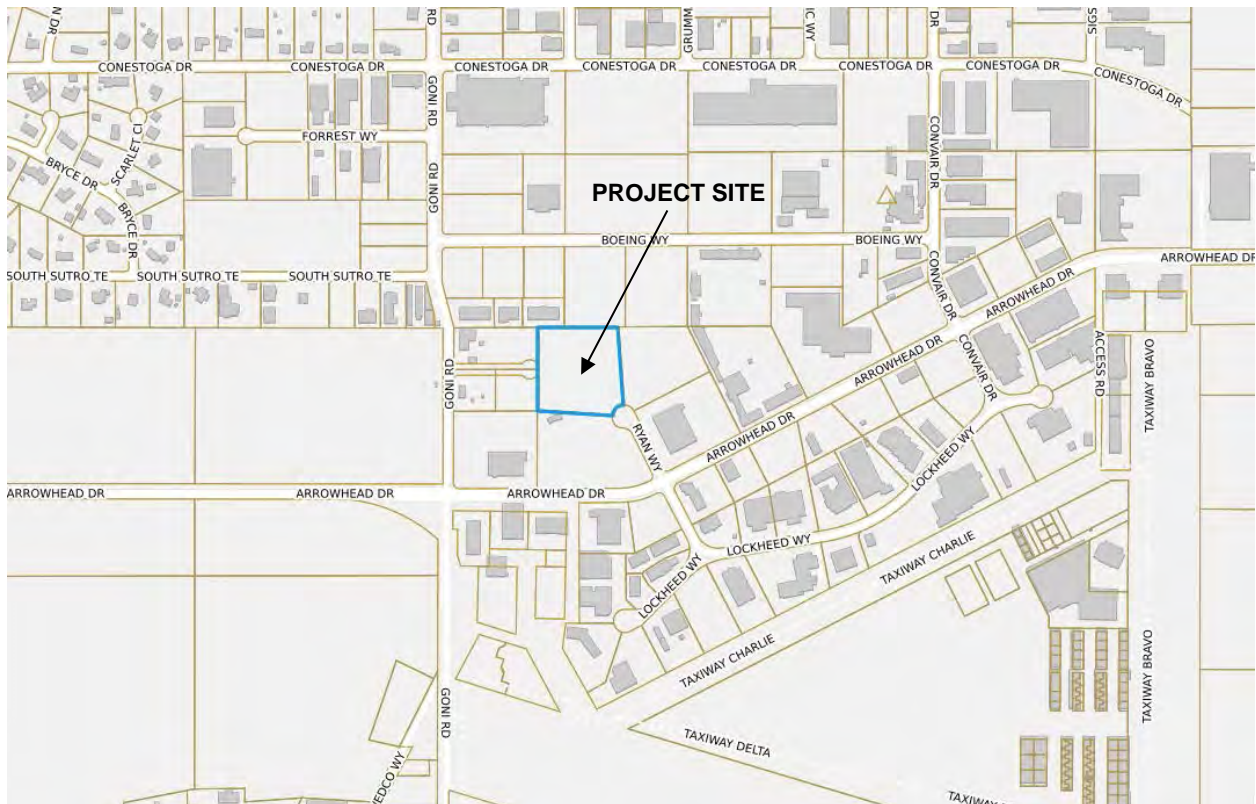
**STAFF CONTACT:** Heather Ferris, Associate Planner

**AGENDA TITLE:** For Possible Action: Discussion and possible action regarding a request for a Special Use Permit for a concrete batch plant and rock crushing operation, with silos exceeding the 45-foot height limitation on property zoned General Industrial Airport (GIA), located at 4500 Ryan Way, APN 005-072-06. (Heather Ferris, hferris@carson.org)

**SUMMARY:** The applicant is seeking to construct a permanent concrete batch plant and rock crushing operation which requires approval of a Special Use Permit per Carson City Municipal Code Section 18.04.152. Additionally, the facility will include silos for material storage that will exceed the 45-foot height limitation for a total overall height of 50 feet. A Special Use Permit is required to exceed the height limit in any zoning district. The Planning Commission is authorized to approve a Special Use Permit.

**RECOMMENDED MOTION:** I move to approve LU-2020-0033 based on findings and subject to conditions of approval contained in the staff report.

**VICINITY MAP:**



**RECOMMENDED CONDITIONS OF APPROVAL:**

**Standard Conditions of Approval per CCMC 18.02.105(1):**

1. The applicant must sign and return the Notice of Decision for conditions for approval

within 10 days of receipt of notification. If the Notice of Decision is not signed and returned within 10 days, then the item may be rescheduled for the next Planning Commission meeting for further consideration.

2. All development shall be substantially in accordance with the development plans approved with this application, except as otherwise modified by these conditions of approval.
3. All on and off-site improvements shall conform to City standards and requirements.
4. The use for which this permit is approved shall commence within 12 months of the date of final approval. A single, one-year extension of time may be requested in writing to the Planning Division thirty days prior to the one-year expiration date. Should this permit not be initiated (obtain a Building Permit) within one-year and no extension granted, the permit shall become null and void.

**The following shall be submitted or included as part of a site improvement permit or building permit application:**

5. The applicant shall submit a copy of the Notice of Decision / condition of approval, signed by the applicant and owner.
6. The silos shall be no taller than 50 feet. Silos shall be painted an earth-toned/neutral color to blend with the surrounding environments. The applicant shall provide the Planning Division with the proposed color choices for review and approval with the building permit.
7. In order to mitigate potential for an increase in bird population on-site and the possibility of bird strikes, the applicant shall develop a refuse storage and disposal plan. The plan shall be reviewed and approved by the Airport Manager prior to the issuance of any building permit.
8. As part of the site improvement permit, the applicant must provide a landscape and irrigation plan demonstrating compliance with the Development Standards in Division 3. Due to the proximity to the airport, the landscaping plans shall be limited to landscaping that does not attract birds. The landscape plan shall be subject to review and approval by the Airport Manager as well as the Planning Division.
9. Prior to issuance of any building permit, the applicant shall file with the Federal Aviation Administration (FAA) a form 7460-1, providing the FAA with notice and opportunity for review of construction near the airport. Any mitigation required as a result of this review shall be implemented.
10. Silos shall be equipped with proper obstruction lighting (red beacon light on top), as required by the Airport Manager.
11. The applicant shall submit exterior light fixture details for any proposed fixtures with the building permit application. Lights must be shielded with a 90-degree full cutoff so that light is projected downward and not horizontally or upward. Light sources or refractors shall not extend below the bottom of the shield.
12. Ryan Way must be paved, the width of half of a rural street section, from Arrowhead

Drive to the cul-de-sac, and half of the cul-de-sac must be paved.

13. A center left turn lane must be installed on Arrowhead Drive at Ryan Way.
14. Due to the anticipated truck traffic and the nature of the existing subgrade, the required pavement and base section must be designed by an engineer with experience in pavement design, to be approved by the City Engineer. The structural section of the street shall at a minimum meet the City's standard detail for industrial streets.
15. The open channel along Ryan Way must be propagated along the frontage with a swale style crossing for the driveway.
16. An 8-inch water main must be extended up Ryan Way and a hydrant installed at the end.
17. All on-site driving surfaces shall be paved to the extent practicable.

**Additional Conditions of Approval:**

18. Rock crushing shall be limited to Monday through Saturday 8 AM- 5 PM.

**LEGAL REQUIREMENTS:** CCMC 18.02.080 (Special Use Permits); CCMC 18.04.152 General Industrial Airport (GIA).

**MASTER PLAN DESIGNATION:** Industrial

**PRESENT ZONING:** General Industrial Airport (GIA)

**KEY ISSUES:** Does the application meet the required findings for approval of a Special Use Permit? Is the proposed use compatible with surrounding properties?

**SURROUNDING ZONING AND LAND USE INFORMATION:**

NORTH: General Industrial / stockpiling and crushing facility; and machine shop  
EAST: General Industrial Airport / vacant  
SOUTH: General Industrial Airport / vacant office building  
WEST: General Industrial Airport / vacant and fuel station

**ENVIRONMENTAL INFORMATION:**

1. FLOOD ZONE: Zone X shaded (0.2% annual chance of flood hazard)
2. EARTHQUAKE FAULT: Beyond 500 feet; Zone III, Moderate Severity
3. SLOPE/DRAINAGE: Generally flat, sloping from north to south.

**SITE DEVELOPMENT INFORMATION:**

LOT SIZE: 4.4 +/- acres  
EXISTING LAND USE: Vacant  
VARIANCES REQUESTED: None

**DISCUSSION:**

The applicant is proposing a concrete batch plant and rock crushing operation on the 4.4 +/- acre project site. The subject property is zoned General Industrial Airport. A concrete batch plant and rock crushing are permitted subject to first obtaining a special use permit (CCMC

18.04.152). Additionally, silos are proposed for material storage. The silos would exceed the 45-foot height limitation for a total overall height of 50 feet. Approval of a special use permit is also required in order to exceed the height limitation in any zoning district.

The batch plant is proposed to operate six days per week, Monday through Saturday between the hours of 6 AM and 5 PM. The applicant has also indicated they may operate on Sundays and/or 24 hours per day in order to fulfill any State or government contracts. The applicant estimates that 24-hour operations would occur approximately 100 days per year. The batch plant operations would include stockpiles of rock and sand; enclosed silos (maximum 50 feet in height) for cement storage and fly-ash; hoppers and conveyors to deliver the sand and rock to the plant; and the batch plant itself. Materials will be mixed in the enclosed plant and then loaded onto trucks for delivery offsite.

The rock crushing operation is proposed in order to recycle returned concrete into base material. Any unused concrete that is returned from a jobsite would be stockpiled where it can harden. Once the material hardens it can be crushed and recycled into based material which would then be reused at the batch plant. The crushing would only occur once the stockpile reaches approximately 400-600 tons. It is estimated the crushing would occur for a maximum of 90 days per calendar year; however, the applicant is requesting approval to operate rock crushing Monday- Saturday during normal business hours (8 AM- 5 PM) in order to limit noise impacts to the surrounding area.

The facility will also include a 3,360 square-foot, two-story, office/shop building. The building will be used as office space for employees, including dispatching trucks; a break area; parts storage; and light maintenance of vehicles and equipment. Twenty-two parking stalls are proposed to be provide north of the office/shop building. The site will also include washout pits for drivers to clean their trucks, silos, conveyors, material stockpiles, storage containers, and a vehicle fueling station. The site will be fenced with perimeter chain link fencing with slats.

Per the provisions of 18.02.080, the Planning Commission has the authority to approve a Special Use Permit upon making each of the seven required findings in the affirmative.

**PUBLIC COMMENTS:** Public notices were mailed to 31 property owners within 850 feet of the subject property on September 11, 2020. As of the writing of this report, no comments have been received. Any comments that are received after this report is completed will be submitted to the Planning Commission prior to or at the meeting on September 30, 2020, depending on the date of submittal of the comments to the Planning Division.

**OTHER CITY DEPARTMENTS OR OUTSIDE AGENCY COMMENTS:** The following comments were received by various city departments. Recommendations that are not code requirements have been incorporated into the recommended conditions of approval, where applicable.

**Fire Department:**

Project must comply with the International Fire Code and Northern Nevada Fire Code amendments as adopted by Carson City.

**Building Division:**

1. A building permit is required. Design to the 2018 building code amendments.



2. Site plans must show all utility lines with trench details and specific material and sizes.
3. The batch plan equipment must be 3<sup>rd</sup> party listed. A PE will need to perform an evaluation report. Engineer or listing will need to provide process to attach equipment to the parcel.

**Airport:**

1. The applicant will need to submit FAA 7460 for FAA obstruction review as it relates to protective airspace imaginary surfaces.
2. Tanks/silos must have proper obstruction lighting (red beacon on top).
3. Any parking lot or other lights be aimed in a downward direction.
4. No landscaping that attracts birds.
5. Proper enclosed refuse to limit bird attractants.

**Engineering Department:**

The Engineering Division has no preference or objection to the special use request provided that the following conditions are met:

- Due to the anticipated truck traffic and the nature of the subgrade present, the required pavement and base section must be design by an engineer with experience in pavement design, to be approved by the City Engineer. The street section will at a minimum meet the City's standard detail for industrial streets.
- A center left turn lane must be installed on Arrowhead Drive. This may necessitate FEMA permitting.
- The project must meet Carson City Development Standards including, but not limited to, the following:
  - The open channel along Ryan Way must be propagated along the frontage. With a swale style crossing for the driveway. This will necessitate FEMA permitting.
  - An 8-inch water main must be extended up Ryan Way and a hydrant installed at the end.
  - Ryan Way must be paved, the width of half of a rural street section, from Arrowhead Drive to the cul-de-sac, and half of the cul-de-sac must be paved.
  - All driving surfaces on the project must be paved to the extent practicable.

The Engineering Division has reviewed the application within our areas of purview relative to adopted standards and practices and to the provisions of CCMC 18.02.080, Conditional Uses. The Engineering Division offers the following discussion:

C.C.M.C. 18.02.080 (5a) - Master Plan

The request is not in conflict with any Engineering Master Plans.

C.C.M.C. 18.02.080 (5b) – Use, Peaceful Enjoyment, Economic Value, Compatibility

Development Engineering has no comment on this finding.

C.C.M.C. 18.02.080 (5c) - Traffic/Pedestrians

The existing infrastructure and proposed drive isles are sufficient to provide safe access and circulation if conditions are met.

C.C.M.C. 18.02.080 (5d) - Public Services

The existing sewer, water, and storm drain infrastructure are sufficient to provide service to the project.

C.C.M.C. 18.02.080 (5e) – Title 18 Standards

Development Engineering has no comment on this finding.

C.C.M.C. 18.02.080 (5f) – Public health, Safety, Convenience, and Welfare

The project meets engineering standards for health and safety.

C.C.M.C. 18.02.080 (5g) – Material Damage or Prejudice to Other Property

Development Engineering has no comment on this finding.

C.C.M.C. 18.02.080 (5h) – Adequate Information

The plans and reports provided were adequate for this analysis.

**FINDINGS:** Staff's recommendation is based upon the findings as required by CCMC Section 18.02.080 (Special Use Permits) enumerated below and substantiated in the public record for the project.

***1. Will be consistent with the objectives of the Master Plan elements.***

The application is a request for a Special Use Permit for a concrete batch plant and rock crushing facility, including additional height to allow for 50-foot tall silos. The Master Plan designates this property as Industrial with primary uses including light and heavy manufacturing, warehousing, and distribution, indoor and screened outdoor storage; and a wide variety of other industrial services operations. These uses typically involve more intensive work processes including manufacturing or basic resource handling. Chapter 3 of the Master Plan calls for achieving a more balanced land use pattern by encouraging infill and redevelopment within the City's existing urbanized area. The subject property is in an area developed with industrial uses. This application has been made consistent with CCMC 18.04.152 which allows a concrete batch plant and rock crushing facility in the General Industrial Airport zoning district, subject to first obtaining a Special Use Permit; and CCMC 18.04.195 which allows additional height, subject to first obtaining approval of a Special Use Permit. The property is zoned General Industrial Airport which is consistent with the underlying Industrial Master Plan designation.

***2. Will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and is compatible with and preserves the character and integrity of adjacent development and neighborhoods or includes improvements or modifications either on-site or within the public right-of-way to mitigate development related to adverse impacts such as noise, vibrations, fumes, odors, dust, glare or physical activity.***

In considering these findings, staff is primarily concerned with the impact on the surrounding neighborhood. The subject property is surrounded by similar use and vacant land that is similarly zoned (i.e., General Industrial and General Industrial Airport). The silos are proposed to be 50 feet in height, five feet taller than the allowed 45-foot height limit. The additional height is requested in order to provide for enough clearance for the trucks to be loaded from the silo via the gravity fed mechanism. The silos will be located near the interior of the subject parcel, approximately 105 feet from the nearest property line. The silos will also be required to be painted a non-glossy earth-toned/neutral that blends with the

surrounding environment. Additionally, advertising is prohibited on the silos. As proposed the hours of operations will be Monday -Saturday 6 AM to 5 PM for the batch plant and Monday- Saturday 8 AM to 5 PM for the rock crushing facility. Staff has also incorporated conditions of approval requiring the applicant to submit exterior lighting fixture details with the building permit application and further requiring the fixtures to be shielded with a 90-degree full cutoff so that light is projected downward and not horizontally or upward. While the City does not have a noise level limitation, the applicant also provided an acoustical analysis of the equipment associated with the project. The analysis found that at the closest property line, which is developed with a similar use, the noise levels would range from 62.8 dBA (approximately equivalent to conversational speech) to 82.5 dBA (approximately equivalent to a garbage disposal). These noise levels would be acceptable due to the similarity in the adjacent uses. There are no residential uses in the immediate vicinity. The closest residence is approximately 1,500 feet from the northwest property corner of the subject parcel. It is estimated that noise levels at the residence would be 54.4 dBA (approximately equivalent to a refrigerator). With the proposed conditions of approval, staff finds that this finding can be made in the affirmative.

**3. Will have little or no detrimental effect on vehicular or pedestrian traffic.**

The applicant provided a Trip Generation Letter as part of the application. On a typical day the project is anticipated to generate approximately 110 daily trips with 25 AM peak hour trips and 25 PM peak hour trips. On a peak day the project will generate approximately 230 daily trips with 50 AM peak hour trips and 50 PM peak hour trips. Therefore, the project is not anticipated to generate enough trips to trigger a full Traffic Impact Analysis. However, staff is recommending conditions of approval requiring the structural street section for half the width of Ryan Way, from Arrowhead to the cul-de-sac, to be improved to meet the City's standard detail for industrial streets in order to accommodate the large truck traffic. With the proposed condition of approval, the project will not have a detrimental effect on vehicular or pedestrian traffic.

**4. Will not overburden existing public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public improvements.**

The proposed use will not overburden existing public services. The existing sewer, water and storm drain infrastructure are sufficient to provide service to the project. Per Carson City Municipal Code, the applicant will be required to extend the water main up Ryan Way and install a fire hydrant and continue the open drainage channel along Ryan Way with a swale style crossing for the driveway. The use is commercial in nature and will not result in generating additional students to impact the schools. The Fire Department has also reviewed the development. The department currently serves this area. As noted in the Fire Department comments, the project must comply with the currently adopted edition of the International Fire Code and the Northern Nevada Fire Code Amendments as adopted by Carson City.

**5. Meets the definition and specific standards set forth elsewhere in this Title for such particular use and meets the purpose statement of that district.**

The subject property is zoned General Industrial Airport. The application is a request for a Special Use Permit for a concrete batch plant and rock crushing facility, including additional height to allow for 50-foot tall silos. This application has been made consistent with CCMC

18.04.152 which allows a concrete batch plant and rock crushing facility in the General Industrial Airport zoning district, subject to first obtaining a Special Use Permit; and CCMC 18.04.195 which allows additional height, subject to first obtaining approval of a Special Use Permit. The applicant has requested a reduced standard for landscaping. Based on the information provided in the application information, staff is not prepared to support the request. Therefore, staff has recommended a condition of approval requiring the applicant to provide a landscape and irrigation plan demonstrating compliance with the Development Standards in Division 3.

**6. *The use will not be detrimental to the public health, safety, convenience and welfare.***

As conditioned, the Special Use Permit will not be detrimental to the public health, safety, convenience and welfare. The project is in an industrial area and surrounded by other industrial type uses. Staff has recommended conditions of approval to limit hours of operation and ensure exterior lighting does not impact the night sky or spillover on to adjacent properties. Additionally, the applicant has provided an acoustical study that demonstrates noise impacts will be minimal.

**7. *Will not result in material damage or prejudice to other property in the vicinity, as a result of proposed mitigation measures.***

As conditioned, the use will not result in material damage or prejudice to other property in the vicinity. The project is in an industrial area and surrounded by other industrial type uses. Staff has recommended conditions of approval to limit hours of operation and ensure exterior lighting does not impact the night sky or spillover on to adjacent properties. Additionally, the applicant has provided an acoustical study that demonstrate noise impacts will be minimal.

Attachments:

Application: LU-2020-0033

# Special Use Permit R&K Ready Mixed Concrete

Submitted to Carson City

August 20, 2020

Prepared for

R&K Ready Mixed Concrete, LLC

930 Tahoe Blvd, Ste 802; PMB 526

Incline Village, NV 89451

Prepared by



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# Section 1



**Carson City Planning Division**  
 108 E. Proctor Street • Carson City NV 89701  
 Phone: (775) 887-2180 • E-mail: [planning@carson.org](mailto:planning@carson.org)

**FOR OFFICE USE ONLY:**

CCMC 18.02.080

**SPECIAL USE PERMIT**

**FEE\*:** \$2,450.00 MAJOR  
 \$2,200.00 MINOR (Residential zoning districts)  
 + noticing fee  
 \*Due after application is deemed complete by staff

- SUBMITTAL PACKET – 4 Complete Packets (1 Unbound Original and 3 Copies) including:**
  - Application Form
  - Detailed Written Project Description
  - Site Plan
  - Building Elevation Drawings and Floor Plans
  - Special Use Permit Findings
  - Master Plan Policy Checklist
  - Applicant's Acknowledgment Statement
  - Documentation of Taxes Paid-to-Date
  - Project Impact Reports (Engineering)

- CD or USB DRIVE with complete application in PDF**

**Application Received and Reviewed By:** \_\_\_\_\_

**Submission Deadline:** Planning Commission application submittal schedule.

**Note:** Submittals must be of sufficient clarity and detail for all departments to adequately review the request. Additional information may be required.

**FILE #**

**APPLICANT** **PHONE #**  
 R&K Ready Mixed Concrete LLC 949-253-2800 xt 368

**MAILING ADDRESS, CITY, STATE, ZIP**  
 930 Tahoe Blvd, Ste 802, PMB 526, Incline Village, NV 89451

**EMAIL ADDRESS**  
 ANichols@assocrmc.com (Alex Nichols)

**PROPERTY OWNER** **PHONE #**  
 CNM Family, LLC

**MAILING ADDRESS, CITY, STATE, ZIP**  
 PO Box 6448, Reno, NV 89513-6448

**EMAIL ADDRESS**

**APPLICANT AGENT/REPRESENTATIVE** **PHONE #**  
 Wood Rodgers, Inc (Stacie Huggins) 775-823-5258

**MAILING ADDRESS, CITY STATE, ZIP**  
 1361 Corporate Blvd, Reno, NV 89502

**EMAIL ADDRESS**  
 shuggins@woodroddgers.com

**Project's Assessor Parcel Number(s):** 005-072-06  
**Street Address:** 4500 Ryan Way

**Project's Master Plan Designation:** Industrial  
**Project's Current Zoning:** General Industrial Airport  
**Nearest Major Cross Street(s):** Ryan Way and Arrowhead Drive

Please provide a brief description of your proposed project and/or proposed use below. Provide additional pages to describe your request in more detail. A concrete batch plant and rock crushing operation are proposed for this parcel. Refer to Project Description in Section 2 for additional information.

**PROPERTY OWNER'S AFFIDAVIT**

I, Claude Cognian, being duly deposed, do hereby affirm that I am the record owner of the subject property, and that I have knowledge of, and I agree to, the filing of this application.

Signature: C. Cognian Address: A.O. Box 6448 Reno NV 89513 Date: 8/10/20

Use additional page(s) if necessary for additional owners.

STATE OF NEVADA  
 COUNTY of Washoe

On August 10, 2020, Claude Cognian, personally appeared before me, a notary public, personally known (or proved) to me to be the person whose name is subscribed to the foregoing document and who acknowledged to me that he/she executed the foregoing document.

Cheryl Whitaker  
 Notary Public

**CHERYL WHITAKER**  
 Notary Public - State of Nevada  
 Appointment Recorded in Washoe County  
 No: 98-49231-2 - Expires October 9, 2022

**NOTE:** If your project is located within the Historic District or airport area, it may need to be scheduled before the Historic Resources Commission or the Airport Authority in addition to being scheduled for review by the Planning Commission. Planning staff can help you make this determination.

# Master Plan Policy Checklist

## Special Use Permits & Major Project Reviews & Administrative Permits

### PURPOSE

The purpose of a development checklist is to provide a list of questions that address whether a development proposal is in conformance with the goals and objectives of the 2006 Carson City Master Plan that are related to non-residential and multi-family residential development. This checklist is designed for developers, staff, and decision-makers and is intended to be used as a guide only.

Development Name: R & K Ready Mix

Reviewed By: \_\_\_\_\_

Date of Review: \_\_\_\_\_

### DEVELOPMENT CHECKLIST

The following five themes are those themes that appear in the Carson City Master Plan and which reflect the community's vision at a broad policy level. Each theme looks at how a proposed development can help achieve the goals of the Carson City Master Plan. A check mark indicates that the proposed development meets the applicable Master Plan policy. The Policy Number is indicated at the end of each policy statement summary. Refer to the Comprehensive Master Plan for complete policy language.

#### CHAPTER 3: A BALANCED LAND USE PATTERN



The Carson City Master Plan seeks to establish a balance of land uses within the community by providing employment opportunities, a diverse choice of housing, recreational opportunities, and retail services.

##### Is or does the proposed development:

- Meet the provisions of the Growth Management Ordinance (1.1d, Municipal Code 18.12)?
- Use sustainable building materials and construction techniques to promote water and energy conservation (1.1e, f)?
- Located in a priority infill development area (1.2a)?
- Provide pathway connections and easements consistent with the adopted Unified Pathways Master Plan and maintain access to adjacent public lands (1.4a)?

The site is master planned Industrial which supports a wide range of industrial services and operations. Surrounding land uses are similar in nature to the proposed use of this property.

- Protect existing site features, as appropriate, including mature trees or other character-defining features (1.4c)?
- At adjacent county boundaries or adjacent to public lands, coordinated with the applicable agency with regards to compatibility, access and amenities (1.5a, b)?
- In identified Mixed-Use areas, promote mixed-use development patterns as appropriate for the surrounding context consistent with the land use descriptions of the applicable Mixed-Use designation, and meet the intent of the Mixed-Use Evaluation Criteria (2.1b, 2.2b, 2.3b, Land Use Districts, Appendix C)?
- Meet adopted standards (e.g. setbacks) for transitions between non-residential and residential zoning districts (2.1d)?
- Protect environmentally sensitive areas through proper setbacks, dedication, or other mechanisms (3.1b)?
- Sited outside the primary floodplain and away from geologic hazard areas or follows the required setbacks or other mitigation measures (3.3d, e)?
- Provide for levels of services (i.e. water, sewer, road improvements, sidewalks, etc.) consistent with the Land Use designation and adequate for the proposed development (Land Use table descriptions)?
- If located within an identified Specific Plan Area (SPA), meet the applicable policies of that SPA (Land Use Map, Chapter 8)?

This project is nearby sewer and water services that are anticipated to have capacity to serve this project. Roadway capacity and pedestrian access are not anticipated to be adversely affected by this project.

## CHAPTER 4: EQUITABLE DISTRIBUTION OF RECREATIONAL OPPORTUNITIES



The Carson City Master Plan seeks to continue providing a diverse range of park and recreational opportunities to include facilities and programming for all ages and varying interests to serve both existing and future neighborhoods.

N/A - This development is not anticipated to produce additional recreational demand.

### Is or does the proposed development:

- Provide park facilities commensurate with the demand created and consistent with the City's adopted standards (4.1b)?
- Consistent with the Open Space Master Plan and Carson River Master Plan (4.3a)?

## CHAPTER 5: ECONOMIC VITALITY



The Carson City Master Plan seeks to maintain its strong diversified economic base by promoting principles which focus on retaining and enhancing the strong employment base, include a broader range of retail services in targeted areas, and include the roles of technology, tourism, recreational amenities, and other economic strengths vital to a successful community.

This proposed project encourages industrial economic activities in a suitable area for Carson City, per the zoning and master plan designation of the property.



- Encourage a citywide housing mix consistent with the labor force and non-labor force populations (5.1j)
- Encourage the development of regional retail centers (5.2a)
- Encourage reuse or redevelopment of underused retail spaces (5.2b)?
- Support heritage tourism activities, particularly those associated with historic resources, cultural institutions and the State Capitol (5.4a)?
- Promote revitalization of the Downtown core (5.6a)?
- Incorporate additional housing in and around Downtown, including lofts, condominiums, duplexes, live-work units (5.6c)?

## CHAPTER 6: LIVABLE NEIGHBORHOODS AND ACTIVITY CENTERS



The Carson City Master Plan seeks to promote safe, attractive and diverse neighborhoods, compact mixed-use activity centers, and a vibrant, pedestrian-friendly Downtown.

### Is or does the proposed development:

The proposed site plan and project details adhere to the setbacks, articulation, landscaping, and other development standards outlined within Carson City Municipal Code.

- Use durable, long-lasting building materials (6.1 a)?
- Promote variety and visual interest through the incorporation of varied building styles and colors, garage orientation and other features (6.1 b)?
- Provide variety and visual interest through the incorporation of well-articulated building facades, clearly identified entrances and pedestrian connections, landscaping and other features consistent with the Development Standards (6.1 c)?
- Provide appropriate height, density and setback transitions and connectivity to surrounding development to ensure compatibility with surrounding development for infill projects or adjacent to existing rural neighborhoods (6.2a, 9.3b 9.4a)?
- If located in an identified Mixed-Use Activity Center area, contain the appropriate mix, size and density of land uses consistent with the Mixed-Use district policies (7.1 a, b)?
- If located Downtown:
  - Integrate an appropriate mix and density of uses (8.1 a, e)?
  - Include buildings at the appropriate scale for the applicable Downtown Character Area (8.1 b)?
  - Incorporate appropriate public spaces, plazas and other amenities (8.1 d)?
- Incorporate a mix of housing models and densities appropriate for the project location and size (9.1 a)?

## CHAPTER 7: A CONNECTED CITY



The Carson City Master Plan seeks promote a sense of community by linking its many neighborhoods, employment areas, activity centers, parks, recreational



**Special Use Permit, Major Project Review, & Administrative Permit Development Checklist**

amenities and schools with an extensive system of interconnected roadways, multi-use pathways, bicycle facilities, and sidewalks.

**Is or does the proposed development:**

No new roadways will be created for this project that will interfere with the existing roadway network or impede the implementation of goals and policies of the Transportation Master Plan.

- Promote transit-supportive development patterns (e.g. mixed-use, pedestrian-oriented, higher density) along major travel corridors to facilitate future transit (11.2b)?
- Maintain and enhance roadway connections and networks consistent with the Transportation Master Plan (11.2c)?
- Provide appropriate pathways through the development and to surrounding lands, including parks and public lands, consistent with the Unified Pathways Master Plan (12.1a, c)?

Carson City Property Inquiry

Property Information			
<b>Parcel ID</b>	005-072-06	<b>Parcel Acreage</b>	4.4200
<b>Tax Year</b>	2020 ▾	<b>Assessed Value</b>	202,162
<b>Land Use Group</b>	VAC	<b>Tax Rate</b>	3.5700
<b>Land Use</b>	150 - Vacant - Industrial	<b>Total Tax</b>	\$6,442.73
<b>Zoning</b>	GIA	<b>Fiscal Year (2020 - 2021)</b>	
<b>Tax District</b>	024	<b>Total Unpaid All Years</b>	\$4,831.77
<b>Site Address</b>	4500 RYAN WY		

No Sketches or Photos

Assessments					
Taxable Value	Land	Building	Per. Property	Totals	
Residential	0	0	0	0	0
Com / Ind.	577,606	0	0	0	577,606
Agricultural	0	0	0	0	0
Exempt	0	0	0	0	0
Pers. Exempt					0
<b>Total</b>	<b>577,606</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>577,606</b>
Assessed Value	Land	Building	Per. Property	Totals	
Residential	0	0	0	0	0
Com / Ind.	202,162	0	0	0	202,162
Agricultural	0	0	0	0	0
Exempt	0	0	0	0	0
Pers. Exempt					0
<b>Total</b>	<b>202,162</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>202,162</b>
	New Land	New Const.	New P.P.	Omit Bldg	
Residential	0	0	0	0	0
Com / Ind.	0	0	0	0	0
Agricultural	0	0	0	0	0
Exempt	0	0	0	0	0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Assessor Descriptions						
Assessor Descriptions	Subdivision Name	Section	Township	Range	Block	Lot
Changed from Parcel # 008-403-10	INDUSTRIAL AIR PARK	04	T15N	R20E		

No Personal Exemptions

Billing Fiscal Year (2020 - 2021)

Installment	Date Due	Date Paid	Tax Billed	Cost Billed	Penalty/Interest	Total Due	Amount Paid	Total Unpaid
1	8/17/2020	8/5/2020	\$1,610.96	\$0.00	\$0.00	\$1,610.96	\$1,610.96	\$0.00
2	10/5/2020		\$1,610.59	\$0.00	\$0.00	\$1,610.59	\$0.00	\$1,610.59
3	1/4/2021		\$1,610.59	\$0.00	\$0.00	\$1,610.59	\$0.00	\$1,610.59
4	3/1/2021		\$1,610.59	\$0.00	\$0.00	\$1,610.59	\$0.00	\$1,610.59
<b>Total</b>			<b>\$6,442.73</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$6,442.73</b>	<b>\$1,610.96</b>	<b>\$4,831.77</b>

Payment History

Fiscal Year	Total Due	Total Paid	Amount Unpaid	Date Paid
⊕ (2020 - 2021)	\$6,442.73	\$1,610.96	\$4,831.77	8/5/2020
⊕ (2019 - 2020)	\$6,281.03	\$6,281.03	\$0.00	2/26/2020
⊕ (2018 - 2019)	\$5,934.06	\$5,934.06	\$0.00	2/27/2019

Show 22 More

Related Names

CURRENT MAIL TO AS OF 2021		CURRENT OWNER AS OF 2021	
<b>MAIL TO Mailing Address Status Account</b>	CNM FAMILY LLC, PO BOX 6448 RENO, NV, 89513-6448 Current	<b>OWNER Mailing Address Status Account</b>	CNM FAMILY LLC,  Current
<b>MAIL TO Mailing Address Status Account</b>	CNM FAMILY LLC, PO BOX 6448 RENO, NV, 89513-6448 Current	<b>OWNER Mailing Address Status Account</b>	CNM FAMILY LLC,  Current

No Structure Information

Sales History

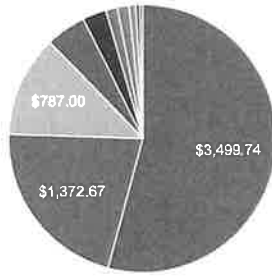
Year	Document #	Document Type	Sale Date	Sold By	Sold To	Price
2005	334970	GRANT BARGAIN SALE DEED	4/18/2005	ARROWHEAD PARTNERS	CNM FAMILY LLC	\$1,200,000

No Genealogy Information



**Taxing Entities**

<b>Tax Entity</b>	<b>Tax Rate</b>	<b>Amount</b>
CITY OPER.	1.9622	\$3,499.74
SCHOOL OPER.	0.7500	\$1,372.67
SCH. DEBT (V)	0.4300	\$787.00
STATE OF NV	0.1700	\$311.14
MEDICAL INDG	0.1000	\$183.02
SR. CIT.	0.0500	\$91.51
CAP.PROJ. (L)	0.0500	\$91.51
SUB-CONSERV.	0.0300	\$54.91
ACCIDENT INDG	0.0150	\$27.45
CO-OP EXT.	0.0128	\$23.43
<b>Tax Entity Total</b>	<b>3.5700</b>	<b>\$6,442.38</b>
EAGLE VLY GRND WTR	0.0000	\$0.35
<b>Special Assessment Total</b>	<b>0.0000</b>	<b>\$0.35</b>
<b>Year Total</b>	<b>3.5700</b>	<b>\$6,442.73</b>



- CITY OPER.
- SCHOOL OPER.
- SCH. DEBT (V)
- STATE OF NV
- MEDICAL INDG
- SR. CIT.
- CAP.PROJ. (L)
- SUB-CONSERV.
- ACCIDENT INDG
- CO-OP EXT.
- Other

# Section 2

**R&K Ready Mixed Concrete Batch Plant**  
**Special Use Permit Application**  
**Project Description**

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**PROJECT DESCRIPTION**

**Request**

The proposed project is a permanent concrete batch plant and rock crushing operation on a parcel zoned General Industrial Airport, which requires approval of a SUP per Carson City Municipal Code Section 18.04.152. A special use permit is also needed to use silos for material storage that exceed the 45-foot height limitation in the GIA zone.

**Existing Conditions**

The proposed site is located at APN 005-072-06 at 4500 Ryan Way. The site, located on the north terminus of Ryan Way, is approximately 4.42± acres in size. (Refer to the Vicinity Map in Section 2 of this submittal packet). The subject site is currently zoned General Industrial Airport (GIA) and the properties surrounding the site are zoned General Industrial or General Industrial Airport. Consistent with the zoning, the subject site has a master plan designation of Industrial. (Refer to Zoning and Master Plan Maps in Section 2 of this submittal packet).

The surrounding area is developed with a variety of uses, including a medicinal mushroom factory to the south, a gravel and aggregate storage facility to the north, an industrial area to the east with a trailer repair shop, a tool and mold shop, and other industrial uses.



The area is relatively flat with undisturbed native vegetation (Refer to Aerial map in Section 2 of this submittal package.) There are no slopes greater than 15% on the site. The property is located within a Floodway Zone X (Shaded) per FEMA LOMR case 19-09-1428P dated May 28, 2020.

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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**Project Details**

R&K Ready Mixed is proposing to develop a new concrete batch plant and rock crushing operation on the project site. (Refer to Preliminary Site Plan in Section 2 of this submittal packet). The concrete batch plant is proposed on the southern portion of the site while the rock crushing facility is proposed on the northern portion. A 6' chain link fence will be installed along the northern portion of the batch plant operation to separate the two uses and ensure safety throughout the site. Upon approval of the SUP and subsequent Building Permits, the applicant plans to erect the batch plant equipment and import materials needed to process concrete to pave the site instead of hauling concrete from elsewhere.

**Batch Plant Operation**

In terms of operation, the batch plant is proposed to operate six days a week, Monday through Saturday, between the hours of 6am and 5pm, with the occasional need to run on Sundays and/or 24 hours a day to fulfill any State or government contracts. Based on prior situations, the applicant foresees the batch plant operating 24 hours a day approximately 100 days per year. Operationally, the plant includes stockpiles for rock and sand, with enclosed silos ranging from 45-50 feet in height for cement storage and flyash. Rock and sand are delivered to the batch plant via hoppers and conveyors. Cement and flyash will be pneumatically or gravity fed to the batch plant. Materials are mixed together in the enclosed batch plant and loaded onto mixer trucks for delivery to offsite construction sites.

In terms of structures on site, the batch plant includes a 3,360 square-foot two story office/shop building that will be used for parts storage, a break area for employees, light maintenance on vehicles and for operating the plant equipment and dispatching trucks.

In terms of other elements on the site, in addition to the batch plant itself, the project includes three washout pit bays that drivers will use to clean their mixer trucks at the end of the day. These pads are designed so that water and excess material can be recycled and reused. Additional typical plant elements include silos, conveyors, material stockpiles, storage containers for AD Mixtures, and a vehicle fueling station.

Photos of typical plant elements have been included in Section 3 for reference.

**Rock Crushing Operation**

In terms of the rock crushing operation, the purpose of this element is to turn returned concrete into recycled base. Generally speaking, concrete that is ordered for a construction jobsite that is unused/returned to the facility will be stockpiled in the northern portion of the site where it will ultimately harden. Once the materials have hardened, they will be transferred to the crushing and screening equipment to size the crushed material appropriately. Finished product is then conveyed to a second stockpile that can be reused within the batch plant as base material.

Operationally, the crushing equipment would operate when the stockpile has approximately 400 – 600 tons of returned concrete. The crushing equipment proposed with this project can crush up to 150 tons per hour at the slowest speed. Assuming the maximum tonnage for this facility, we anticipate the rock crushing equipment operating approximately 60 – 90 days over the course of a year. In order accommodate peak

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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construction seasons and stay within that timeframe, the applicant is seeking approval to operate the rock crushing equipment up to six days a week (Monday – Saturday) during normal business hours which will limit noise impacts on the surrounding area.

Photos of typical rock crushing elements have been included in Section 3 for reference.

**Access, Circulation, and Traffic**

Looking specifically at the site design, on-site circulation is a key element in design. As proposed with this project, both entry and exit access to the site is provided via a new driveway connecting to Ryan Way. As designed, trucks will enter the site from the south and follow the access road along the southern boundary where they will turn and head north either stopping at the material stockpiles or continuing to circulate through the site toward the batch plant located on the eastern portion of the site. From the batch plant, trucks will head south to the exit onto Ryan Way. Additional access lanes are provided along the eastern property boundary primarily for vehicular traffic (employees) and also for access to the rear portion of the site where the rock crushing operation is planned. To control access to the rock crushing operation, an access gate will be installed.

In terms of traffic, CCMC requires a traffic study if the proposed project generates eight (80) or more peak hour trips or five hundred daily trips. A trip generation letter prepared by Headway Transportation (*refer to Headway Transportation Letter in Section 4 for additional details*) estimates that the proposed project will generate fewer trips than the threshold for triggering a full traffic study.

Specifically, the analysis estimated that, on a typical day the plant could potentially have 25 round trips (concrete out/materials in), which is estimated to generate approximately 110 daily trips with 25 PM peak hour trips with approximately half of the daily trips expected to be trucks/heavy vehicles. The analysis further estimated, on a peak day typically during peak construction season, the plant could potentially have 75 round trips (concrete out/materials in), potentially generating approximately 230 daily trips with 50 PM Peak trips. While there is a slightly higher impact estimated during peak construction season, the proposed project is not anticipated to substantially increase traffic in the area.

**Parking**

In terms of parking, the project has been designed to meet the Manufacturing plant requirement of 1 space/500 sqft gross floor area. As proposed, the project includes a total of 22 parking spaces, seven employee spaces, 1 accessible stall, and the remaining spaces designated for mixer trucks.

In order to minimize vehicle/pedestrian impacts, angled parking spaces have been provided along the northern portion of the batch plant site adjacent to the building. This parking area has been designed to provide parking for both vehicles and mixer trucks.

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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**Landscaping**

In terms of landscaping, Carson City Code requires 20% of the impervious area excluding building area to be landscaped. Given the type and location of the proposed project, the applicant is seeking relief from this requirement. Landscaping at a facility like this would be destroyed by trucks and equipment on a daily basis if required to be planted throughout the site. To compromise on the landscaping requirement, the applicant is proposing an enhanced entry feature at the gate that includes drought tolerant shrubs and grasses and trees that are similar to the landscape treatments used in the area.

As a part of the enhanced landscape feature at the entry, a monument sign with the name of the company and address is proposed. The sign will be designed in accordance with Carson City Municipal Code Section 4 Signs.

**Lighting**

External lighting will consist of 30-foot tall pole lights strategically located throughout the site and wall pack lighting on the buildings. The lights will include refractors to direct the light down to meet dark sky requirements. A lighting cut sheet has been included in Section 3 of this application package.

**Utilities**

Utilities to serve the project are generally located in Arrowhead Drive. In order to serve the project, utilities will be extended up Ryan Way where they will be designed to serve the various aspects of the operation.

**Drainage**

Onsite stormwater will be designed to sheet flow into drainage swales along the south and east sides of the project site where it will be detained in a linear basin along the south edge of the site prior to discharge. Stormwater from the site will outlet into Ryan Way where it will flow along an improved roadside swale then be routed into the existing storm drain network in Arrowhead Drive. Currently, there is an existing drainage swale that flows through the western side of the parcel that will be intercepted and rerouted along the western edge of the project site and discharged into the existing swale located on the parcel south of the project. No additional stormwater will be added to the western swale from the project site.

Additionally, the adjacent parcel, east of the project site, has an existing open drainage channel located within FEMA Flood Area AE. A stormwater culvert is proposed under the extension of Ryan Way for the crossing with the existing channel where it will then continue its current flow path within the existing roadside swale along Ryan Way. The proposed project site is located within FEMA Flood Area Zone X therefore buildings will be elevated one foot above the existing ground elevation. A Technical Drainage Study will further analyze and design the stormwater system in the subsequent Improvement Permit. *(Refer to the Preliminary Site Plan provided in Section 2 of this submittal packet)*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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**Development Statistics**

Total Site Area:	4.42± acres (192,534 sq. ft.)
Building Footprint Area:	3,360± sq. ft.
Parking/Pavement Area:	78,311± sq. ft.
Landscape/Open Space Area:	5,131± sq. ft.
Landscape Area Required:	15,662± sq. ft. (20% impervious)
Landscape Area Provided:	5,131± sq. ft. (6.6%)
Parking Required:	7 stalls
Parking Provided:	22 stalls
Accessible Parking Required:	1 stall
Accessible Parking Provided:	1 stall



**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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**Special Use Permit Findings – Batch Plant/Rock Crushing**

Special Use Permit: General special use permit findings. Except where specifically noted, all special use permit applications shall require that all of the following general findings be met, as applicable.

**(1) The proposed use is consistent with the master plan elements;**

*Response: The proposed use is consistent with the general theme of the Master Plan. Specifically, in terms of a balanced land use pattern (Principle 3), the site is designated Industrial in the Carson City Master Plan which supports a wide range of industrial services and operations. Surrounding land uses are similar in nature to the proposed use of this property and infrastructure is available and adequate for the proposed project. The proposed use promotes vitality and long-term economic stability in an area of Carson City that supports similar uses that can enhance the employment base while further diversifying the economic base (Principle 5).*

*In terms of livable neighborhoods and activity centers (Principle 6), the proposed project is designed with appropriate height and setback transitions to ensure compatibility with surrounding development. In terms of a connected city (Principle 7), the proposed project does not require any new roadways that will interfere with the existing street network in the general vicinity; however, it is worth noting that as part of the project Ryan Way will be improved to Carson City rural street standards.*

**(2) The project will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and is compatible with and preserves the character and integrity of adjacent development and neighborhoods or includes improvements or modifications either on-site or within the public right-of-way to mitigate development related to adverse impacts such as noise, vibrations, fumes, odors, dust, glare, or physical activity.**

**A. Describe the general types of land uses and zoning designations adjoining your property.**

*Response: The site is surrounded by a variety of uses, including a medicinal mushroom factory to the south, a gravel and aggregate storage facility to the north, an industrial area to the east with a trailer repair shop, a tool and mold shop, and other industrial uses. The subject site is currently zoned General Airport Industrial (GIA) and the properties surrounding the site are also zoned GIA, which is conforming with the master plan designation of Industrial.*

**B. Explain why your project is similar to existing development in the neighborhood, and why it will not hurt property values or cause problems, such as noise, dust, odors, vibration, fumes, glare, or physical activity, etc. with neighboring property owners. Have other properties in your area obtained approval of a similar request? How will your project differ in appearance from your neighbors? Your response should consider the proposed physical appearance of your proposal, as well as comparing your use to others in the area.**

*Response: The proposed use will generate less impacts than many uses allowed in the GIA zoning district. In fact, the project site is located in an area that has been developed with heavy*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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*industrial uses including an existing gravel and aggregate storage facility immediately adjacent to the proposed project. Given the GIA zoning and Industrial master plan designations, the proposed project is consistent with the land use planned for the area and therefore should not hurt property values within the area.*

*In terms of specific impacts related to the project, any new development has the potential to create some impacts on the surrounding area. For this project, the key potential impact is noise associated with the equipment, specifically the rock crushing equipment. It is worth noting, that Carson City does not have specify daytime maximum noise levels, however, to address this potential impact, an acoustical analysis was prepared by Sespe Consulting and is included in Section 4 of this application packet. In summary, the analysis found that at the closest property lines, which are developed with similar Industrial-type uses, the predicated noise level ranged from 62.8dBA to 82.5dBA. In terms of impacts to residential uses, the subject site does NOT share a property line with residential uses, and in fact, the nearest residential use is approximately 1,500 feet from the northwest property line, where noise levels were projected to be 54.4dBA, well below acceptable daytime noise levels noted for nearby jurisdictions. Based on the findings of the analysis, additional noise mitigation measures are not warranted.*

*In terms of visibility, the project site is not visible from Arrowhead Drive and is only partially visible from Goni Road, as the existing fueling station and light industrial buildings provide a natural buffer along Goni Road. Additionally, the portion of the project closest to Goni Road includes material stockpiles, similar to the existing aggregate and materials storage facility directly north of the site.*

*In terms of physical appearance, the site is actually buffered from the surrounding properties with a 6' chain link fence with slates on all sides to screen the uses. Additionally, where the silos are concerned, they will be painted an earth-tone color to blend with the natural environment.*

- C. Provide a statement explaining how your project will not be detrimental to the use, peaceful enjoyment or development of surrounding properties and the general neighborhood.**

Response: *The project site is located in an industrial use and is surrounded by other office and light industrial uses. The project is not anticipated to be detrimental to the use, peaceful enjoyment or development of surrounding properties and the general neighborhood.*

- D. If outdoor lighting is to be a part of the project, please indicate how it will be shielded from adjoining property and the type of lighting (wattage/height/placement) provided.**

Response: *The subject site is surrounded by typical industrial uses with parking lot lighting as necessary. The site will include 30-foot tall pole lights strategically placed around the site to ensure safety for both pedestrians and vehicles. A cut sheet of the proposed light fixture is provided in Section 3 for reference.*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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- E. Describe the proposed landscaping, including screening and arterial landscape areas (if required by the zoning code). Include a site plan with existing and proposed landscape shown on the plan which complies with the City ordinance requirements.**

Response: *In accordance with CCMC, the project site requires 20% of the impervious area excluding building area to be landscaped. As part of this request, the applicant is seeking approval from the Director to reduce the required landscape area because the project consists primarily of paved roads and parking areas, so providing landscaping based on 20% of the impervious area would result in significant landscaping and increased water demand. Additionally, providing landscaping at the rate required by Code would actually make the project more obvious since the surrounding uses generally consist of large buildings with minimal impervious surface requiring less landscaping.*

*While we understand and acknowledge the benefit of landscaping, we believe that the proposed project, which includes 6.6% of the site in landscaping, seems adequate given the proposed use and surrounding built environment.*

- F. Explain any short-range and long-range benefit to the people of Carson City that will occur if your project is approved.**

Response: *The proposed project will benefit the general public in that it will provide an essential supply and service to the Carson City and surrounding area(s) with respect to construction and development needs.*

- (3) Will have little or no detrimental effect on vehicular or pedestrian traffic;**

Response: *Considering the nature of pedestrian and vehicular traffic that currently exists on Ryan Way (and nearby, connected Arrowhead Road), the proposed project is anticipated to have minimal impact on the area and surrounding establishments. Seeing that the proposed project did not meet the threshold for triggering a full traffic study (refer to Headway Transportation Letter in Section 4 for additional details), no additional walkways, traffic lights or other vehicle/pedestrian accommodations should be necessary.*

*The analysis by Headway Transportation estimated that, on a typical day the plant could potentially have 25 round trips (concrete out/materials in), which is estimated to generate approximately 110 daily trips with 25 PM peak hour trips with approximately half of the daily trips expected to be trucks/heavy vehicles. The analysis further estimated, on a peak day typically during peak construction season, the plant could potentially have 75 round trips (concrete out/materials in), potentially generating approximately 230 daily trips with 50 PM Peak trips. While there is a slightly higher impact estimated during peak construction season, the proposed project is not anticipated to substantially increase traffic in the area.*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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(4) Will not overburden existing public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage and other public improvements.

A. How will your project affect the school district? Will your project add to the student population or will it provide a service to the student population?

Response: *The proposed project will have no effect on schools or the school district, as the proposed location is not near a school district facility and, as an industrial business, will not impact student populations.*

B. How will your project affect police and fire protection?

Response: *The proposed project is not anticipated to generate significant impact to fire and/or police services in the area. All construction will meet fire code standards to minimize any risk to buildings or equipment, or that which could result from day-to-day operations. Onsite activity will result from business operations by employees or contractor clientele only, and is unlikely to require any additional police presence. Measures will be implemented to ensure the utmost safety and welfare of employees and customers during operations, as well as sufficient security efforts to protect the site outside of business hours.*

C. Is the water supply serving your project adequate to meet your needs without degrading supply and quality to others in the area? Is there adequate water pressure? Are the lines in need of replacement? Is your project served by a well? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.

Response: *Utilities (including those to supply water) will be extended to the site from existing lines in Arrowhead Road, where they will be designed to serve the various aspects of the operation. Adequate City water supply/pressure is anticipated for the proposed project, and will not degrade supply or quality to others in the area.*

*The project includes three washout pit bays that drivers will use to clean their mixer trucks at the end of the day. These pads are designed so that water and excess material can be recycled and reused, therefore reducing the water quantity necessary to operate the site.*

D. If your project will result in the covering of land area with paving or a compacted surface, how will drainage be accommodated? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.

Response: *Onsite stormwater will be designed to sheet flow into drainage swales along the south and east sides of the project site where it will be detained in a linear basin along the south edge of the site prior to discharge. Stormwater from the site will outlet into Ryan Way where it will flow along an improved roadside swale then be routed into the existing storm drain network in Arrowhead Drive. Currently, there is an existing drainage swale that flows through the western side of the parcel that will be intercepted and rerouted along the*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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*western edge of the project site and discharged into the existing swale located on the parcel south of the project. No additional stormwater will be added to the western swale from the project site. Additionally, the adjacent parcel, east of the project site, has an existing open drainage channel located within FEMA Flood Area AE. A stormwater culvert is proposed under the extension of Ryan Way for the crossing with the existing channel where it will then continue its current flow path within the existing roadside swale along Ryan Way. The proposed project site is located within FEMA Flood Area Zone X therefore buildings will be elevated one foot above the existing ground elevation. A Technical Drainage Study will further analyze and design the stormwater system in the subsequent Improvement Permit.*

- E. Is there adequate capacity in the sewage disposal trunk line that you will connect to in order to serve your project, or is your site on a septic system? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.**

Response: *To service the site, the exiting 8-inch public sanitary sewer main located along the west property line will be utilized. The flows generated by this project are low, less than 200 fixture units, and it is assumed that the downstream system can handle the additional load.*

- F. What kind of road improvements are proposed or needed to accommodate your project? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.**

Response: *Ryan Way will be widened and extended up to the project site. It will be designed to meet Carson City's Rural Roads Roadway Section Standard Detail. It will be a 28-foot wide asphalt section with a 4-foot shoulder.*

- G. Indicate the source of the information that you are providing to support your conclusions and statements made in this application (private engineer, Development Engineering, Public Works, Transportation, title report or other sources).**

Response: *The property owner worked with Wood Rodgers, Inc. (engineering, survey and planning services), Headway Transportation (traffic engineering services) and Carson City Public Works to establish the information provided in this request/proposal.*

- (5) Meets the definition and specific standards set forth elsewhere in Carson City Municipal Code, Title 18 for such particular use and meets the purpose statement of that district.**

Response: *The proposed project meets the use definition/standards and fits within the purpose statement for the General Industrial Airport zoning district in which it is located, as described in CCMC, Title 18:*

*The GIA District is established to preserve an industrial district which combines the uses engaged in the assembly or manufacture of products from previously prepared materials with the uses engaged in the basic processing and manufacturing of materials or products predominantly from extracted or*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

*raw materials, while continuing to promote accessory airport and support services due to the proximity of the district to the Carson City Airport.*

*R&K Ready Mixed Batch Plant will operate as an industrial use, engaging in the processing of materials or products (concrete) from raw/extracted materials. While unrelated to general airport operations, the plant will serve to meet the construction/surfacing needs of the Carson City and surrounding area(s).*

*Additionally, the project meets, or will meet, the specific Intensity and Dimensional Standards for the GIA zoning district, as outlined below:*

Zoning Districts	Minimum Area (SF or AC) <sup>13</sup>	Minimum Lot Width (Feet)	Maximum Lot Depth (Feet)	Maximum Height (Feet)	Minimum Setbacks (Feet): Front	Minimum Setbacks (Feet): Side	Minimum Setbacks (Feet): Street Side	Minimum Setbacks (Feet): Rear
GIA	12,000 SF	120	N/A	45 <sup>1</sup>	30 <sup>8,10</sup>	0 <sup>10</sup>	0 <sup>8,10</sup>	0 <sup>8,10</sup>

*Additional Requirements or Allowances:*

- 1. Additional height allowed by special use permit.*
- 8. Business Arterial landscape setback requirement = 10 feet (average).*
- 10. 50 feet adjacent to residential district.*

**(6) Will not be detrimental to the public health, safety, convenience and welfare.**

*Response: The proposed project will not be detrimental to public health, safety, convenience and/or welfare. The project will be subject to public health, safety and environmental standards through the Carson City/State permitting process(es), and will adhere to all requirements necessary to meet those standards.*

*The proposed project will benefit the general public in that it will provide an essential supply and service to the Carson City and surrounding area(s) with respect to construction and development needs.*

**(7) Will not result in material damage or prejudice to other property in the vicinity, as a result of proposed mitigation measures.**

*Response: The proposed project will not result in material damage or prejudice to other property in the vicinity. Mitigation measures are planned to be self-contained to the existing property boundaries, and any disruption or damage to other property resulting from such measures will be mitigated and restored as deemed appropriate and necessary by law.*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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**Special Use Permit Findings – Building Height (Silo)**

Special Use Permit: General special use permit findings. Except where specifically noted, all special use permit applications shall require that all of the following general findings be met, as applicable.

**(1) The proposed use is consistent with the master plan elements;**

*Response: The request for additional height related to the silo for material storage associated with the primary use is consistent with the general theme of the Master Plan. In general, the overall project, including the silos, is designed with height and setback transitions that will ensure compatibility with surrounding development.*

**(2) The project will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and is compatible with and preserves the character and integrity of adjacent development and neighborhoods or includes improvements or modifications either on-site or within the public right-of-way to mitigate development related to adverse impacts such as noise, vibrations, fumes, odors, dust, glare, or physical activity.**

**G. Describe the general types of land uses and zoning designations adjoining your property.**

*Response: As noted in the proposal's main Special Use Permit Findings, the site is surrounded by a variety of uses, including a medicinal mushroom factory to the south, a gravel and aggregate storage facility to the north, an industrial area to the east with a trailer repair shop, a tool and mold shop, and other industrial uses. The subject site is currently zoned General Airport Industrial (GIA) and the properties surrounding the site are also zoned GIA, which is conforming with the master plan designation of Industrial.*

*Based on the surrounding uses, the request for an additional 5 feet associated with the silos will not be a detriment to the surrounding properties or general neighborhood.*

**H. Explain why your project is similar to existing development in the neighborhood, and why it will not hurt property values or cause problems, such as noise, dust, odors, vibration, fumes, glare, or physical activity, etc. with neighboring property owners. Have other properties in your area obtained approval of a similar request? How will your project differ in appearance from your neighbors? Your response should consider the proposed physical appearance of your proposal, as well as comparing your use to others in the area.**

*Response: Because the project site is located in an area that has been developed with heavy industrial uses including an existing gravel and aggregate storage facility immediately adjacent to the proposed project (and given the GIA zoning and Industrial master plan designations), the request for additional 5' height allowance specific to the silos on-site is consistent with the land use planned for the area and therefore should not hurt property values within the area.*



**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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*In terms of specific impacts related to the proposed silos on site, the key potential impact is a visual disturbance associated with the silo height(s), which will stand approximately 50 feet tall (5 feet above allowable height, per Carson City Code). It is worth noting that because surrounding establishments operate with similar industrial uses, these uses should not be negatively impacted by an additional 5 feet of height being proposed for the plant's silos. In terms of impacts to residential uses, the subject site does NOT share a property line with residential uses. In fact, the nearest residential use is approximately 1,500 feet from the northwest property line, where a 5-foot height increase will not have a substantial visual impact.*

*In terms of physical appearance, the proposed silos will be painted an earth-tone color to blend with the natural environment. Additionally, the site is buffered from the surrounding properties with a 6' chain link fence with slates on all sides to screen the uses.*

- I. Provide a statement explaining how your project will not be detrimental to the use, peaceful enjoyment or development of surrounding properties and the general neighborhood.**

Response: *The project site is located in an industrial zone and is surrounded by other office and light industrial uses. Based on the surrounding uses, the request to allow an additional 5 feet associated with the silos will not be a detriment to the surrounding properties or general neighborhood.*

- J. If outdoor lighting is to be a part of the project, please indicate how it will be shielded from adjoining property and the type of lighting (wattage/height/placement) provided.**

Response: *The request for increased allowed height for the proposed silos does not change or affect the site's outdoor lighting plan (as addressed in this proposal's main Special Use Permit Findings).*

- K. Describe the proposed landscaping, including screening and arterial landscape areas (if required by the zoning code). Include a site plan with existing and proposed landscape shown on the plan which complies with the City ordinance requirements.**

Response: *The request for increased allowed height for the proposed silos does not change or affect the site's landscape plan (as addressed in this proposal's main Special Use Permit Findings).*

- L. Explain any short-range and long-range benefit to the people of Carson City that will occur if your project is approved.**

Response: *As addressed in this proposal's main Special Use Permit Findings, the proposed project will benefit the general public in that it will provide an essential supply and service to the Carson City and surrounding area(s) with respect to construction and development needs. The request to allow an additional 5' in height associated with the silos does not change or affect the proposed plant's potential benefits to the people of Carson City.*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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- (3) Will have little or no detrimental effect on vehicular or pedestrian traffic;**

Response: *The request to allow an additional 5' in height associated with the silos does not change or affect the site's impact on vehicular or pedestrian traffic (as addressed in this proposal's main Special Use Permit Findings).*

- (4) Will not overburden existing public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage and other public improvements.**

- H. How will your project affect the school district? Will your project add to the student population or will it provide a service to the student population?**

Response: *As addressed in this proposal's main Special Use Permit Findings, the proposed project, including the request to allow an additional 5' in height associated with the silos, will have no effect on schools or the school district, as the proposed location is not near a school district facility and, as an industrial business, will not impact student populations.*

- I. How will your project affect police and fire protection?**

Response: *As the proposed project is not anticipated to generate significant impact to fire and/or police services in the area, the request for increased height associated with the silos on-site does not change or affect the proposed plant's impact to area fire or police services.*

- J. Is the water supply serving your project adequate to meet your needs without degrading supply and quality to others in the area? Is there adequate water pressure? Are the lines in need of replacement? Is your project served by a well? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.**

Response: *The request for additional height associated with the silos does not change or affect the site's water supply, quality or pressure.*

- K. If your project will result in the covering of land area with paving or a compacted surface, how will drainage be accommodated? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.**

Response: *Please reference this proposal's main Special Use Permit Findings to address drainage plans and accommodations. The request for increased allowed height for the proposed silos will not impact this information.*

**R&K Ready Mixed Concrete  
Special Use Permit Application  
Project Description**

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**L. Is there adequate capacity in the sewage disposal trunk line that you will connect to in order to serve your project, or is your site on a septic system? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.**

*Response: Please reference this proposal's main Special Use Permit Findings to address sewage disposal capacity. The request for increased allowed height for the proposed silos will not impact this information.*

**M. What kind of road improvements are proposed or needed to accommodate your project? Contact the Development Engineering Division at (775) 887-2300 for assistance with this item, if applicable.**

*Response: The request for increased allowed height for the proposed silos will not impact road improvements associated with the primary batch plant use.*

**N. Indicate the source of the information that you are providing to support your conclusions and statements made in this application (private engineer, Development Engineering, Public Works, Transportation, title report or other sources).**

*Response: The property owner worked with Wood Rodgers, Inc. (engineering, survey and planning services), Headway Transportation (traffic engineering services) and Carson City Public Works to establish the information provided in this request/proposal.*

**(5) Meets the definition and specific standards set forth elsewhere in Carson City Municipal Code, Title 18 for such particular use and meets the purpose statement of that district.**

*Response: The Applicant understands that the maximum building height listed in the GIA zoning district is 45 feet; however, as noted in the Carson City Municipal code, the allowable height may be higher if approved by SUP. As part of this SUP, the Applicant is requesting allowance for an additional 5 feet, for a total building height, related specifically to the silos, of 50' maximum. To support this request, we have included a conceptual elevation showing the silos with the proposed 50' max height.*

**(6) Will not be detrimental to the public health, safety, convenience and welfare.**

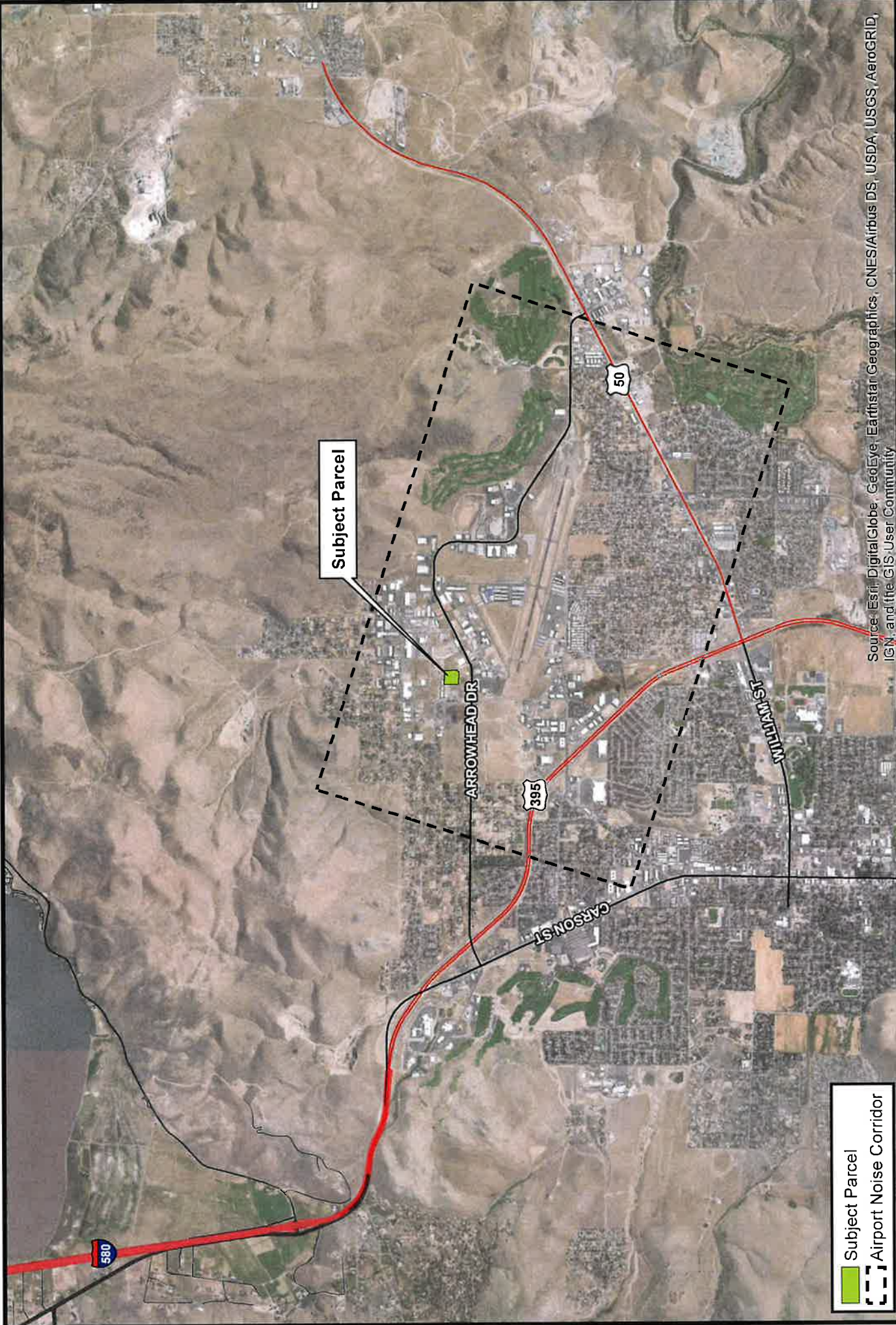
*Response: Based on the surrounding uses, the request for an additional 5 feet associated with the silos will not be detrimental to the public health, safety, convenience or welfare of the community.*

**(7) Will not result in material damage or prejudice to other property in the vicinity, as a result of proposed mitigation measures.**

*Response: The request for additional height associated with the silos will not result in material damage or prejudice to other property in the vicinity. Mitigation measures are planned to be self-contained to the existing property boundaries, and any disruption or damage to other property resulting from such measures will be mitigated and restored as deemed appropriate and necessary by law.*

# Section 3







Subject Parcel

ARROWHEAD DR

CARSON ST

WILKMAN ST

-  Subject Parcel
-  Airport Noise Corridor



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## Vicinity

Zoning Report - APN: 005-072-06

May 2020



**WOOD RODGERS**  
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
 1361 Corporate Boulevard  
 Reno, NV 89502  
 Tel: 775.823.4068  
 Fax: 775.823.4066





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Subject Parcel

# Aerial

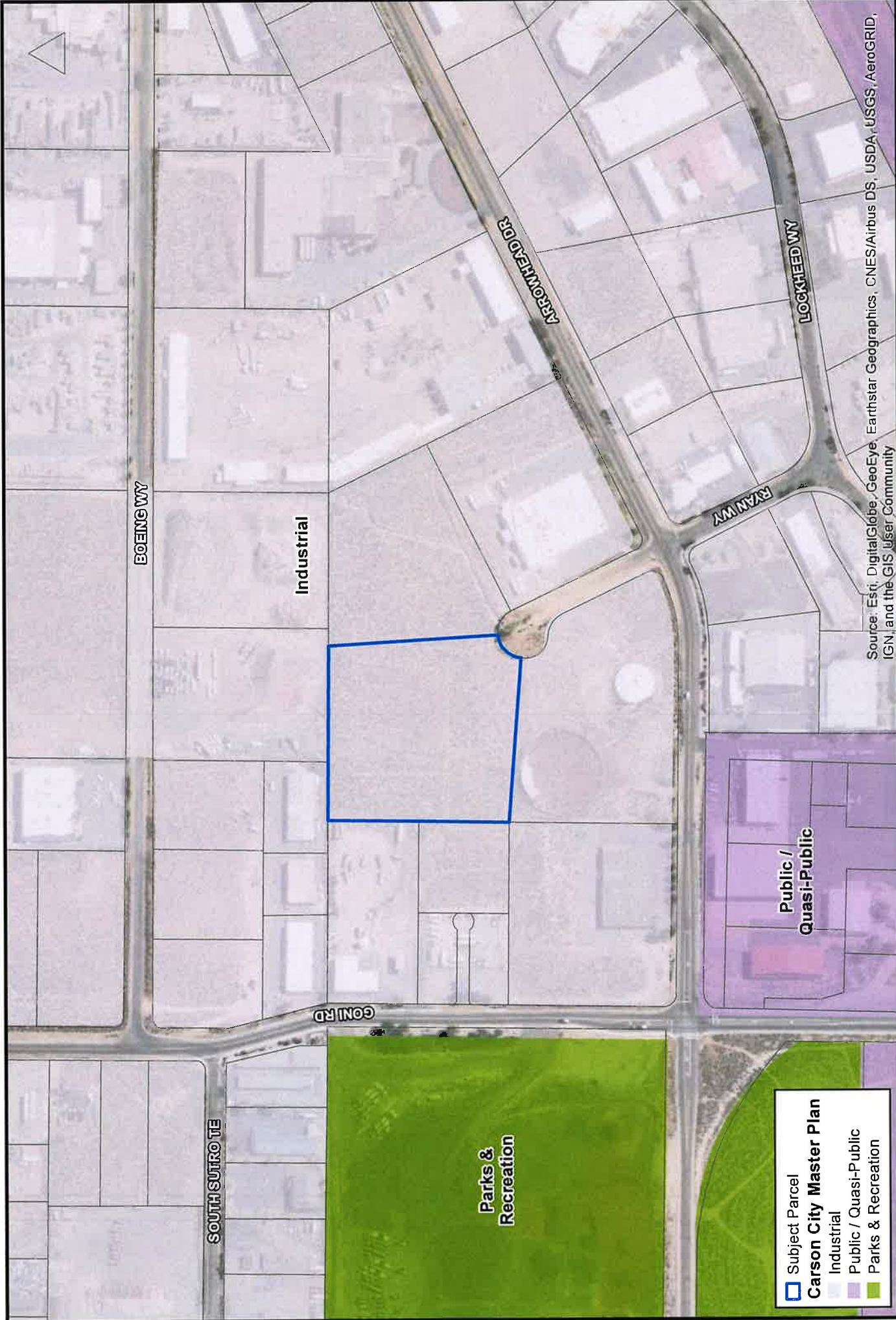
## Zoning Report - APN: 005-072-06

May 2020



**WOOD RODGERS**  
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
1361 Corporate Boulevard  
Reno, NV 89502  
Tel: 775.823.4068  
Fax: 775.823.4066





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**Legend**

- Subject Parcel
- Industrial
- Public / Quasi-Public
- Parks & Recreation

**Carson City Master Plan**



# Master Plan

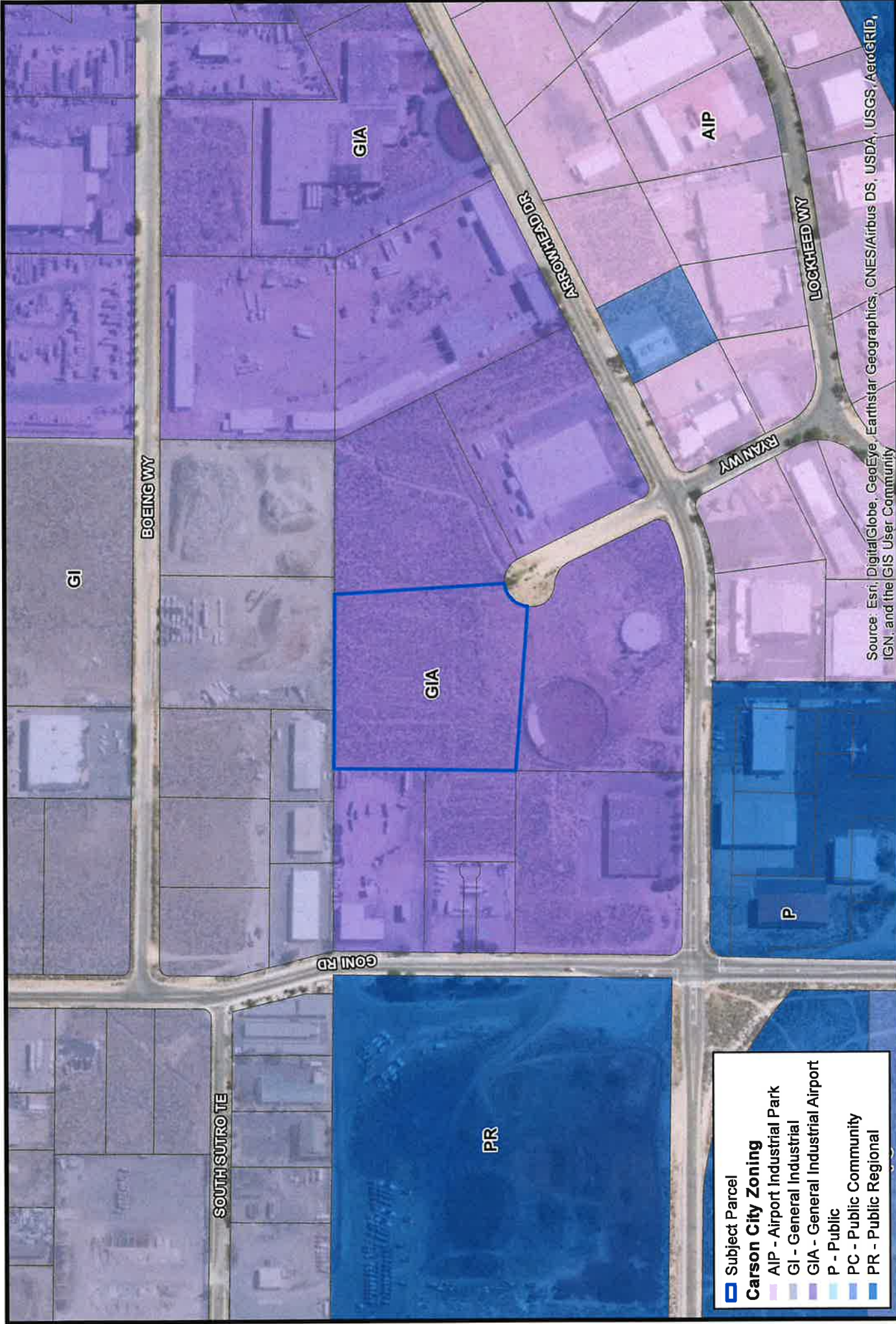
Zoning Report - APN: 005-072-06

May 2020



**WOOD RODGERS**  
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
 1361 Corporate Boulevard  
 Reno, NV 89502  
 Tel: 775.823.4068  
 Fax: 775.823.4066





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- Subject Parcel
- Carson City Zoning**
- AIP - Airport Industrial Park
- GI - General Industrial
- GIA - General Industrial Airport
- P - Public
- PC - Public Community
- PR - Public Regional



## Zoning

**Zoning Report - APN: 005-072-06**

May 2020



**WOOD RODGERS**  
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
 1361 Corporate Boulevard  
 Reno, NV 89502  
 Tel: 775.823.4068  
 Fax: 775.823.4066

# E-AL2L Series

LED Area Light - Type III  
Replaces 400W PSMH



For use in 0° orientation  
(downlight position)  
only

**A one-for-one replacement for 400W PSMH.**

### Efficient

- Uses 33% less energy than comparable 400W PSMH fixtures
- Heat dissipating fins keep LEDs running cooler, longer

### Recommended Use

- General area lighting
- Parking lots
- Roadways

### Durable

- Sturdy, low-copper die-cast aluminum construction
- Rugged tempered glass lens

### Input Voltage

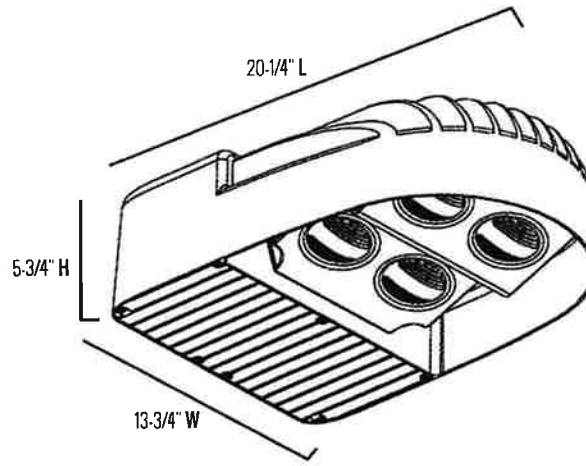
- Universal (120V through 277V Operation)

### Certifications





# E-AL2L Series



## Series Overview

DIMENSIONS	PRODUCT WEIGHT	MOUNTING HEIGHT	SPACING
20-1/4" L x 13-3/4" W x 5-3/4" H	26.71 lbs.	20 to 30 feet	4 to 5 times the mounting height

## Fixture Specifications

<b>HOUSING</b>	Low-copper, die-cast aluminum housing Dark bronze polyester powder-coat finish
<b>LENS ASSEMBLY</b>	Tempered glass lens is thermal shock and impact resistant Patented lens design delivers 15% Type II distribution
<b>MOUNTING</b>	Fixture comes without mounting (sold separately) For use in 0° orientation (downlight position) only

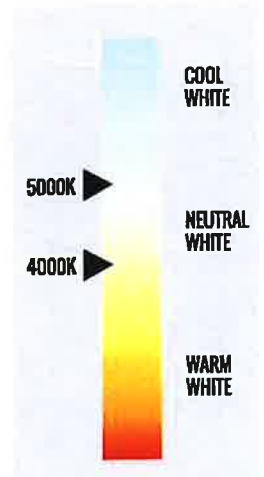
## Electrical Performance

OPERATING MINIMUM	LIFESPAN <small>L<sub>70</sub> AT 25 C (77 F)</small>	POWER FACTOR	TOTAL HARMONIC DISTORTION	DIMMABLE
-40°C (-40°F)	Estimated 100,000 Hours	> 0.9	< 20%	No
INPUT VOLTAGE	120V	208V	240V	277V
Current Draw (Amps)	2.6A	1.6A	1.4A	1.2A

## Warranty & Certifications

WARRANTY	UL LISTED	DLC	ENERGY STAR
5-Year Limited	Wet Locations (0° tilt only)	Only E-AL2L331NZ	---

## CORRELATED COLOR TEMPERATURE (CCT)



## Output Specifications

SKU	LIGHT OUTPUT	COLOR TEMP <small>(See chart)</small>	POWER CONSUMPTION	COLOR ACCURACY	REPLACES
<b>E-AL2L331CZ</b>	24,200 Lumens	Cool White (5000K)	300W	≥ 70 CRI	400W PSMH
<b>E-AL2L331NZ</b>	24,000 Lumens	Neutral White (4000K)	300W	≥ 70 CRI	400W PSMH

Due to continuous product improvement, information in this document is subject to change.  
Revision Date: 03/16/16

# E-AL2L Series

## Accessories



**Photocell - Button, 120V/208V/240V/277V**

**SKU: E-ACP1 (120V)**  
**E-ACP2 (208V/240V/277V)**

**USE:** Photocell is field installed  
For use with 2" adjustable slip fitter only

## Mounting Options (Use only when mounting E-AL1L & E-AL2L Series Area Lights)



**6" Mounting Arm**

**SKU: E-ACE**  
**USE:** For pole mounting



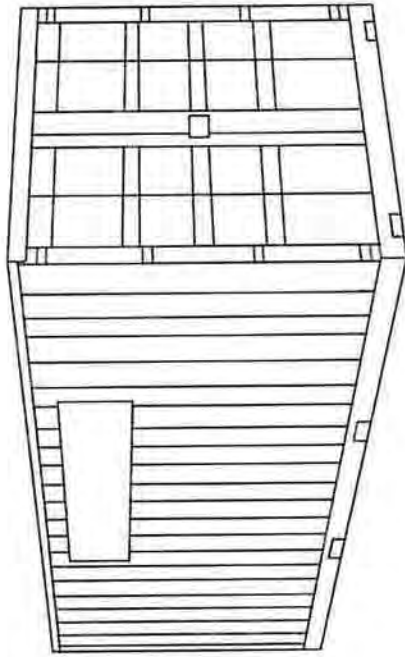
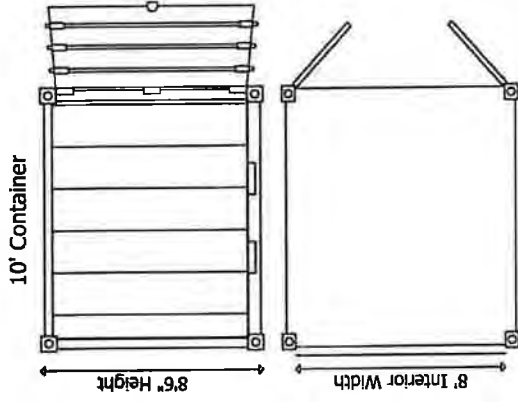
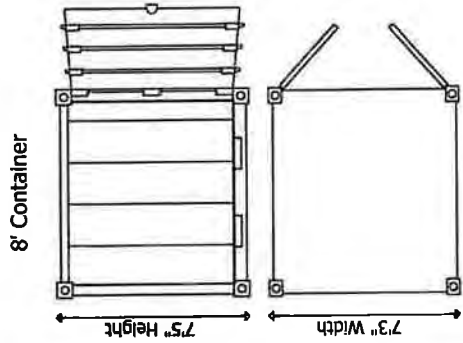
**2" Slip Fitter**

**SKU: E-ACS**  
**USE:** For pole mounting  
Fits over 2-3/8" O.D. pipe

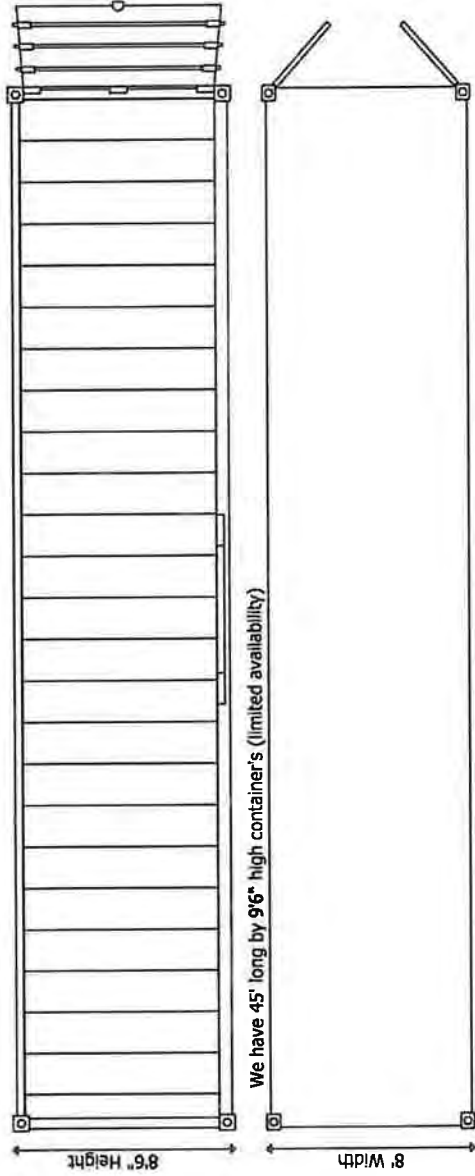


# SECURE STORAGE CONTAINERS

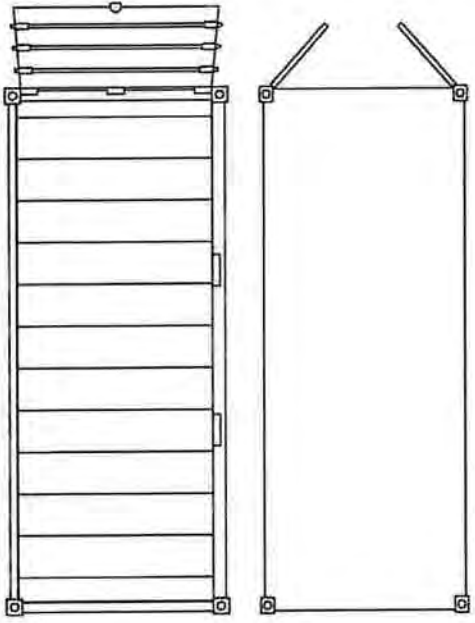
DELIVERED ON TIME & ON BUDGET



40' Container



20' Container



Call Your Local Sales Professional

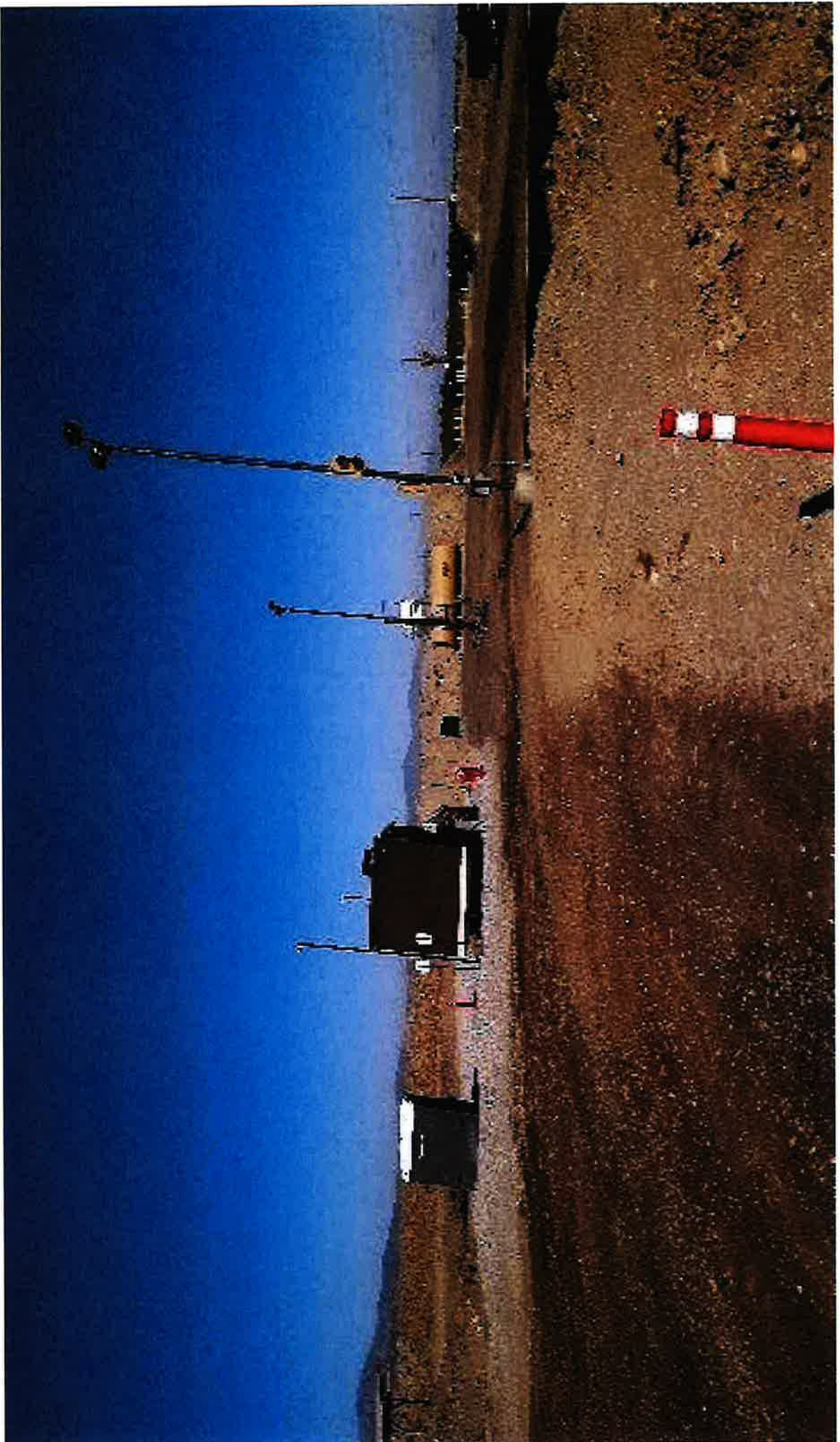
**866.889.7777**

**8' x 8' · 8' x 10' · 8' x 20' · 8' x 40'**  
Storage Containers

Delivered ready to use "On Time and On Budget"

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MODULAR BUILDINGS  
*From Vision to Reality On Time and On Budget*  
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Containment Solutions, Inc. (CSI) has earned the reputation over the last 40 years for providing owners and engineers with cost effective solutions for the safe storage of motor vehicle fuels in underground and aboveground applications. This goal is best achieved by providing customers with a totally integrated fueling system assembled and field inspected by factory trained and qualified employees.

The FuelMaster<sup>®</sup> System from CSI takes the guess work and frustration out of selecting and maintaining a vehicle fueling system. CSI realizes that end users require additional products and services in order to have a fully operational and safe fueling system.

With FuelMaster<sup>®</sup> you also receive dispensers that are weights and measures approved, electronic overfill indication, and leak detection. Consult CSI for dispensers compatible with ethanol blend gasoline greater than E10.

### STANDARD FEATURES:

- Complete AGT System
- UL 2085 Listed Tank
- UL Listed Components
- Extensive Warranty
- One Price Approach
- Standard Products
- Electronic Overfill / Leak Detection
- Weights & Measures Approved Dispenser

### BENEFITS:

- Single-source accountability & convenience
- Easy to specify, bid, test and install
- Eliminates missing components
- UL listed as Insulated, Protected Secondary Containment Tank
- Most comprehensive warranty in the industry
- Continuous fail-safe monitoring

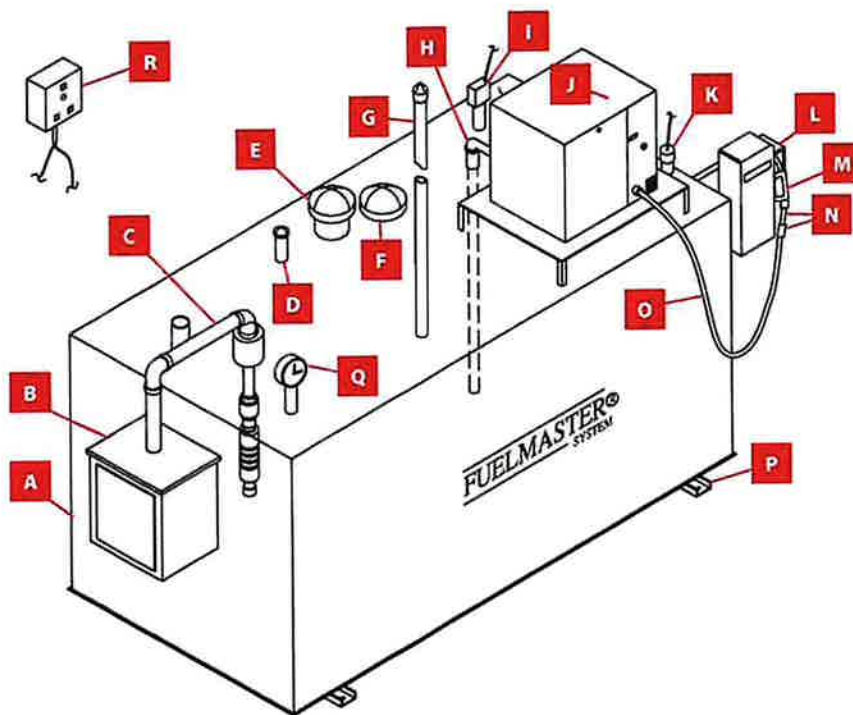
### OPTIONS:

- Inventory Management System
- Compartment Tanks
- FIBERVAULT<sup>®</sup> Exterior Coatings
- Phase I & II Vapor Recovery Packages
- Start-Up Inspection Service
- Annual Maintenance & Service Program

## STANDARD TANK SIZES

CAPACITY (GALLONS)	LENGTH	WIDTH	HEIGHT	SHIPPING WEIGHT
250	4'9"	3'7"	3'9"	4,100 LBS.
500	6'8"	4'7"	3'9"	6,100 LBS.
1,000	7'9"	5'7"	4'9"	9,300 LBS.
1,500	10'7"	5'11"	4'9"	11,050 LBS.
2,000	11'10"	6'11"	4'9"	13,300 LBS.
2,500	9'5"	6'11"	7'1"	13,900 LBS.
3,000	9'8"	7'11"	7'1"	16,600 LBS.
4,000	12'8"	7'11"	7'1"	19,800 LBS.
5,000	15'8"	7'11"	7'1"	24,500 LBS.
6,000	18'8"	7'11"	7'1"	27,800 LBS.
8,000	24'8"	7'11"	7'1"	34,250 LBS.
10,000	30'8"	7'11"	7'1"	42,400 LBS.
12,000	36'8"	7'11"	7'1"	49,550 LBS.
15,000	45'8"	7'11"	7'1"	61,200 LBS.
20,000	60'8"	7'11"	7'1"	77,700 LBS.

### Fuelmaster® Standard Equipment



- A. UL-2085 Insulated, Protected Type Secondary Containment Tank
- B. Ground Level Fill Containment Box & Piping
- C. Fill w/Overfill Prevention Valve & Drop Tube
- D. Secondary Containment Working Vent
- E. Primary Tank Emergency Vent
- F. Secondary Tank Emergency Vent
- G. Primary Tank Vent w/Riser Pipe
- H. Pump Supply w/ Suction Pipe
- I. High Level Alarm Float
- J. Weights & Measures Approved Pump
- K. Secondary Containment Leak Detection Sensor
- L. Side Mount Register
- M. Automatic Nozzle
- N. 3/4" Whip Hose & Breakaway
- O. 3/4" x 12' Fuel Hose
- P. Extended Channel for Anchoring (Seismic Zone 4 Rating)
- Q. Clock Level Gauge
- R. Leak Detection & Overfill Alarm System w/ Audible Alarm (Remote Location)



**CONTAINMENT  
SOLUTIONS**



# TOMORROW'S ABOVEGROUND STORAGE SOLUTION FOR PETROLEUM DISPENSING

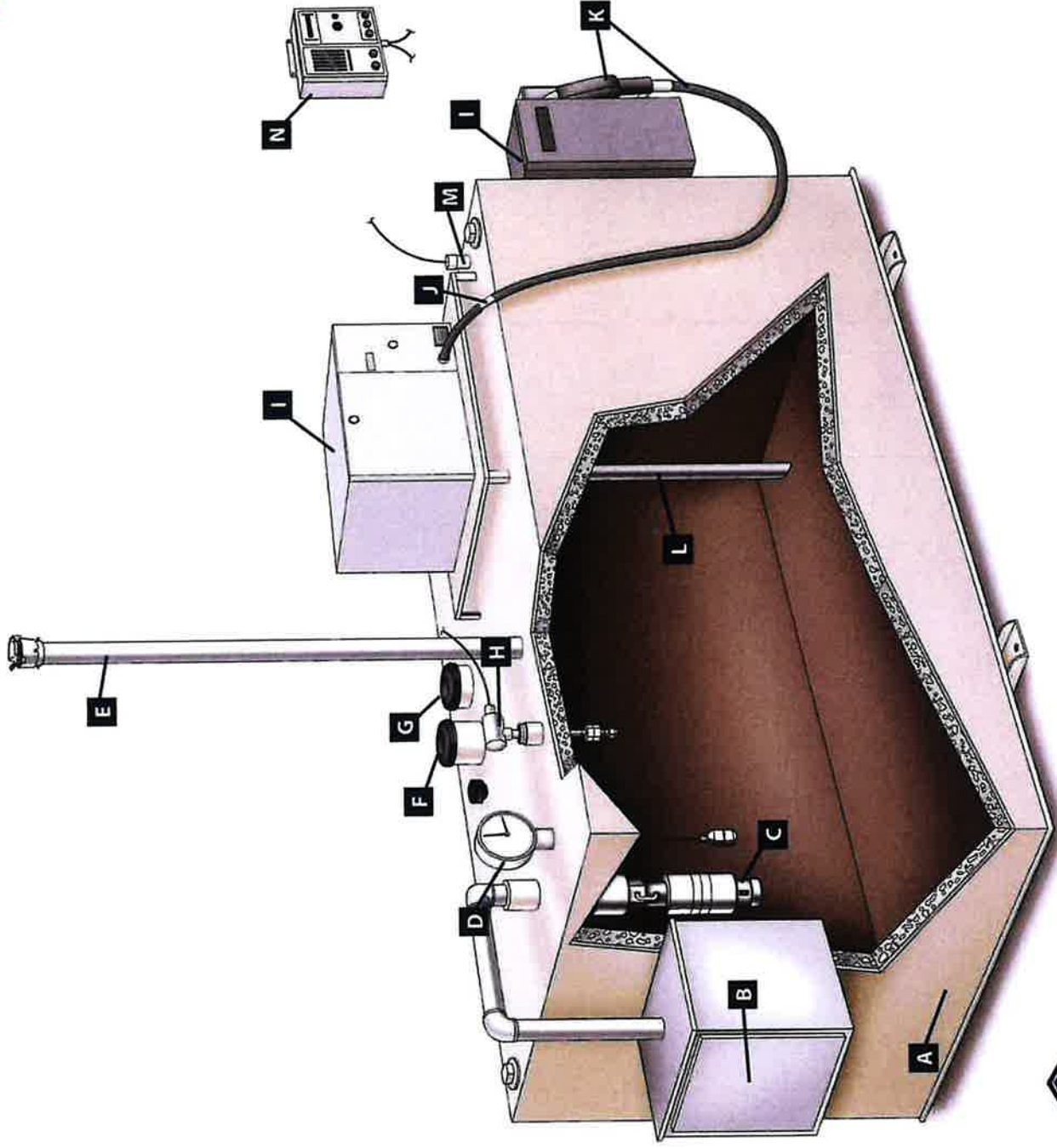
## FUELMASTER®

### STANDARD FEATURES:

- A.** UL-2085 Tank
- B.** Spill Containment Box
- C.** Overfill Prevention Valve
- D.** Clock Level Gauge
- E.** Primary Tank Vent
- F.** Primary Tank Emergency Vent
- G.** Secondary Tank Emergency Vent
- H.** High Level Alarm Float
- I.** Fuel Dispensing Pump
- J.** Whip Hose and Breakaway
- K.** Fuel Hose and Nozzle
- L.** Suction Pipe
- M.** Secondary Tank Leak Sensor
- N.** Remote Alarm Panel

### AVAILABLE OPTIONS:

- O.** Inventory Management System
- P.** Compartment Tanks
- Q.** Fibervault Exterior Coating
- R.** Phase I and II Vapor Recovery Packages Start-Up Inspection Service
- S.** Annual Maintenance and Service Programs



**CONTAINMENT  
SOLUTIONS**

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**1-877-CSI-TANK**  
www.containmentsolutions.com

ITEM	SIZE	SUGGESTED FUNCTION
1	4"	ELECTRONIC LEVEL GAUGE
2	2"	SPARE
3	4"	SUBMERSIBLE PUMP
4	4"	SPARE
5	8"	PRIMARY TANK EMERGENCY VENT
6	3"	PRIMARY WORKING VENT
7	4"	PHASE 1 VAPOR RECOVERY
8	6"	FILL
9	2"	MECHANICAL GAUGE
10	18"	ABOVE LIQUID MANHOLE
11	2"	SECONDARY WORKING VENT
12	8"	SECONDARY CONTAINMENT EMERGENCY VENT
13	2"	SECONDARY MONITOR PIPE
14	4"	FIRE RATED MATERIAL FILL
15	FP3	SIMPLEX BOX, DWG."SBB006"
16		FR-305 BRACKET W/COUPLING, DWG."PBB008"

**TANK SPECIFICATIONS**

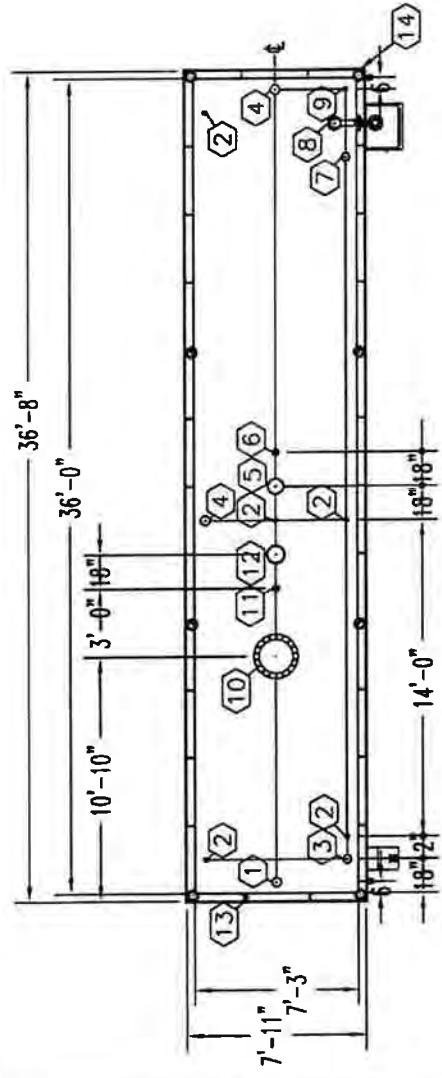
VENTING CAPACITY: PRIMARY TANK - 462,600 CUBIC FEET PER HOUR  
 SECONDARY TANK - 496,300 CUBIC FEET PER HOUR  
 MATERIAL: PRIMARY TANK - 1/4" THICK  
 SECONDARY TANK - 3/16" THICK

**NOTE:**

OVERALL SHIPPING DIMENSION: 30'-10" L X 8'-6" W X 8'-6" H

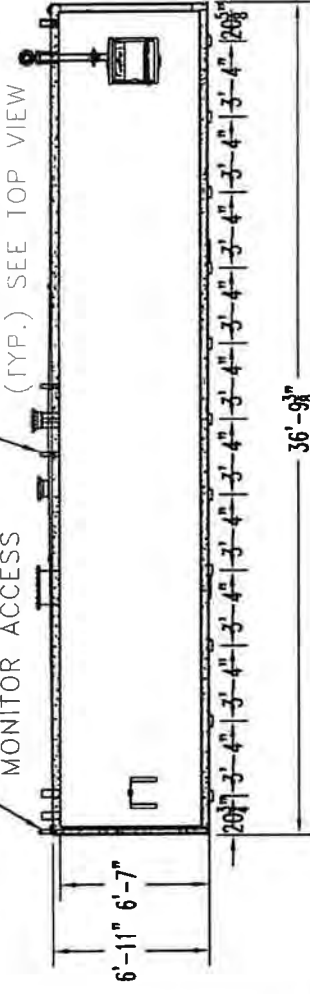
SEAL WELD ALL FITTINGS AND TANK  
 4" SPACE BETWEEN INNER & OUTER TANKS  
 FILLED WITH LIGHT WEIGHT FIRE-RATED MATERIAL

C6 X 8.2# SUPPORTS WITH 7/8" DIA. HOLE EACH END FOR ANCHORING



**TOP VIEW**

2" STD. PIPE FOR MONITOR ACCESS  
 THREADED CONNECTION (TYP.) SEE TOP VIEW



**ELEVATION**

**END VIEW**

PRODUCT CODE	GALLONS	DESCRIPTION	OVERALL SIZE	SHIP WT.
V4AA12MVS547	12000	U/L-2085 ABOVE GROUND VAULT TANK	36'-8" L X 7'-11" W X 7'-1 H	48,200 LBS.

THIS DRAWING AND DESIGN SHOWN HEREIN IS THE PROPERTY OF CONTAINMENT SOLUTIONS. USE OR COPIES THEREOF CANNOT BE MADE WITHOUT WRITTEN CONSENT.

CUSTOMER NAME: ORANGE COAST PETROLEUM EQUIPMENT  
 APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



DRAWN BY: D. ROVANG  
 DWG NUMBER: 5102871  
 REV: \_\_\_\_\_ REV BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DATE DRAWN: 07-26-07  
 SCALE: 1:96  
 SHEET: 1 OF 1



***R&K Ready Mixed Concrete Batch Plant***  
**Special Use Permit Application**  
**Project Description**

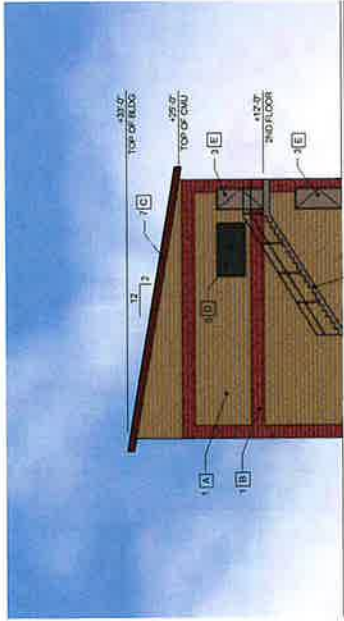
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Typical Batch Plant Equipment

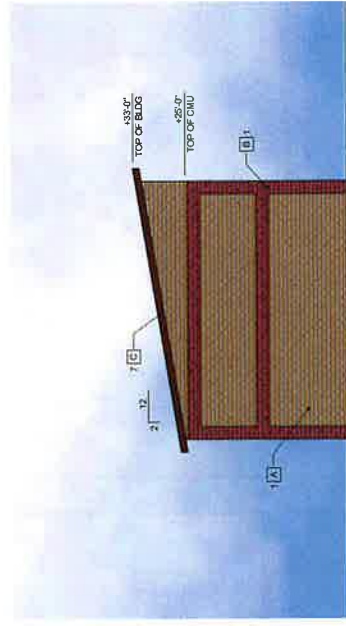


Typical Rock Crushing Equipment

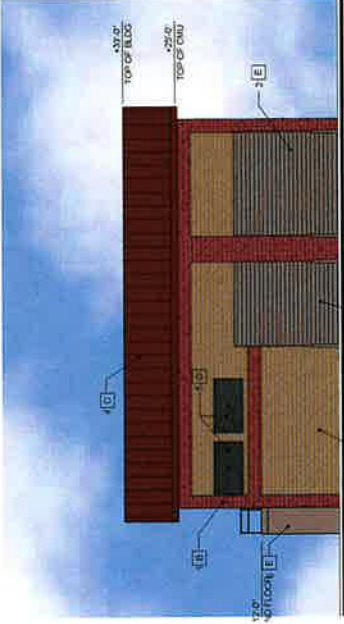




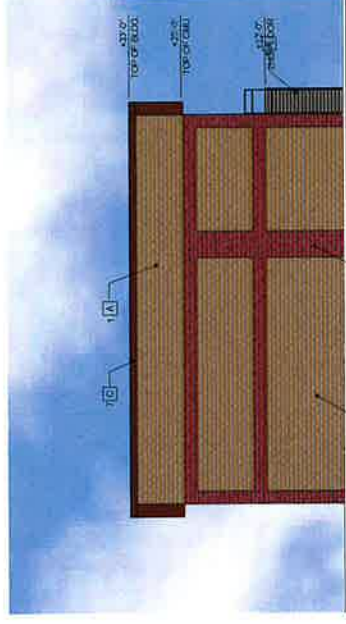
NORTH ELEVATION



SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION

KEYNOTES

1. CONCRETE BLOCK WALL
2. METAL ROLL UP DOOR
3. METAL MANDOOR
4. METAL ROOF PANEL
5. FIXED WINDOW
6. STEEL STAIR AND LANDING
7. FRAME FLASHING

FINISH KEYNOTES

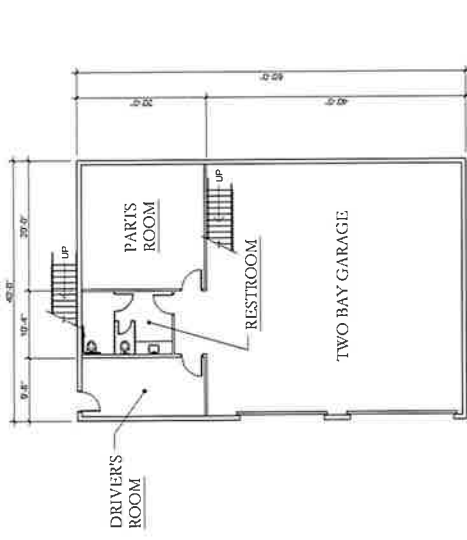
- A. BUILDING CMU FIELD COLOR: ORIGO BLOCK, "WHEAT" FINISH BLOCK
- B. BUILDING CMU ACCENT COLOR: ORIGO BLOCK, "RED SP" SPLIT FACE BLOCK
- C. METAL ROOF PANEL COLOR: PPG DURANAR, "COLONIAL RED"
- D. GLAZING COLOR: PPG "GRAYLITE" GRAY
- E. STEEL FRAME AND DOOR: PPG "ZINC GRAY"



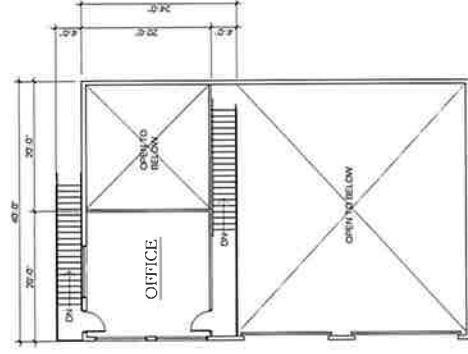
R & K READY MIXED CONCRETE  
CARSON CITY, NEVADA

JOB # 1327

August 2020

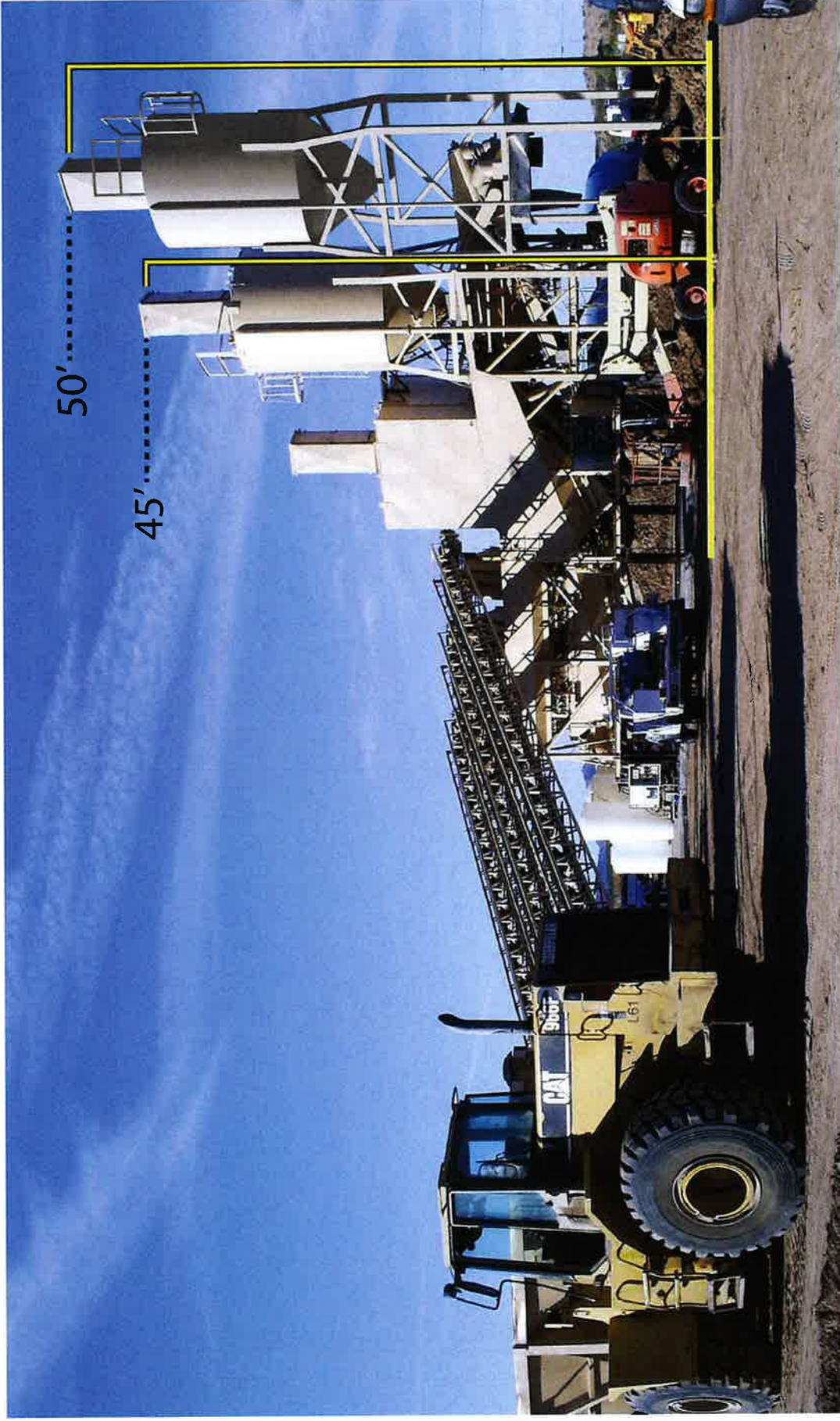


FIRST FLOOR PLAN



SECOND FLOOR PLAN





Typical Silo Elevation

# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT TITLE SHEET

**OWNER/DEVELOPER:**  
R&K READY MIXED CONCRETE, LLC  
930 FAULDE BLVD, STE 802, P.O. BOX 524  
INCLINE VILLAGE, NV 89451  
949-253-2800 EXT 388

**BASIS OF BEARINGS**

ALL BEARINGS ARE TO THE CENTER OF GRAVITY UNLESS OTHERWISE NOTED. ALL BEARINGS ARE TO THE CENTER OF GRAVITY UNLESS OTHERWISE NOTED. ALL BEARINGS ARE TO THE CENTER OF GRAVITY UNLESS OTHERWISE NOTED.

**BASIS OF ELEVATION**

ELEVATIONS ARE TO THE NATIONAL MESH DATUM UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE TO THE NATIONAL MESH DATUM UNLESS OTHERWISE NOTED.



VICINITY MAP  
NOT TO SCALE



SITE PLAN  
NOT TO SCALE

**SITE INFORMATION:**

PROJECT NAME: R&K READY MIXED CONCRETE  
PROJECT ADDRESS: 930 FAULDE BLVD, STE 802, P.O. BOX 524, INCLINE VILLAGE, NV 89451  
PROJECT CONTACT: R&K READY MIXED CONCRETE, LLC  
PROJECT PHONE: 949-253-2800 EXT 388  
PROJECT FAX: 949-253-2800  
PROJECT WEBSITE: WWW.R&KREADYMIXEDCONCRETE.COM  
PROJECT EMAIL: INFO@R&KREADYMIXEDCONCRETE.COM  
PROJECT PERMIT NUMBER: 2020-001  
PROJECT DATE: 08/11/2020

**ENGINEER'S STATEMENT:**

I, THE ENGINEER, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEVADA AND THAT I AM THE DESIGNER OF THE PROJECT SHOWN ON THIS PLAN.

ALAN W. WILSON, P.E.  
REGISTERED PROFESSIONAL ENGINEER  
NO. 10000  
STATE OF NEVADA



**SHEET INDEX**

NO.	DESCRIPTION
1	GENERAL NOTES
2	FOUNDATION PLAN
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**R&K READY MIXED CONCRETE**  
TITLE SHEET

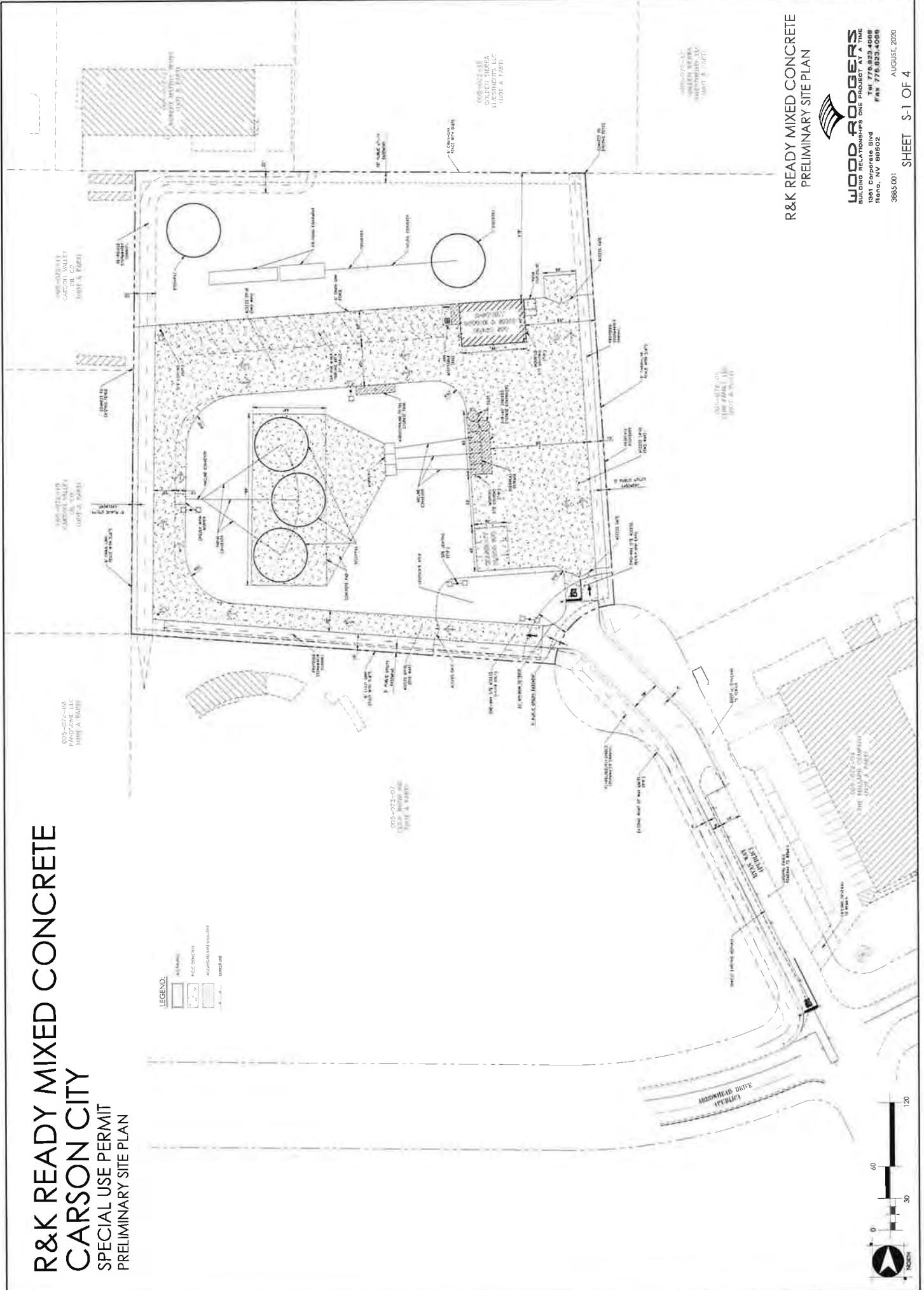
**WOOD RODGERS**  
BUILDING RELATIONSHIPS ONE PHOENIX AVENUE  
1981 CONVENT ROAD  
CARSON CITY, NV 89402  
PHONE: 775.823.4088  
FAX: 775.823.4088

3985.001  
AUGUST, 2020  
SHEET T-1 OF 4

# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT PRELIMINARY SITE PLAN

LEGEND:

	12' Sidewalk
	R&K Concrete
	R&K Ready Mixed Concrete
	Survey Line

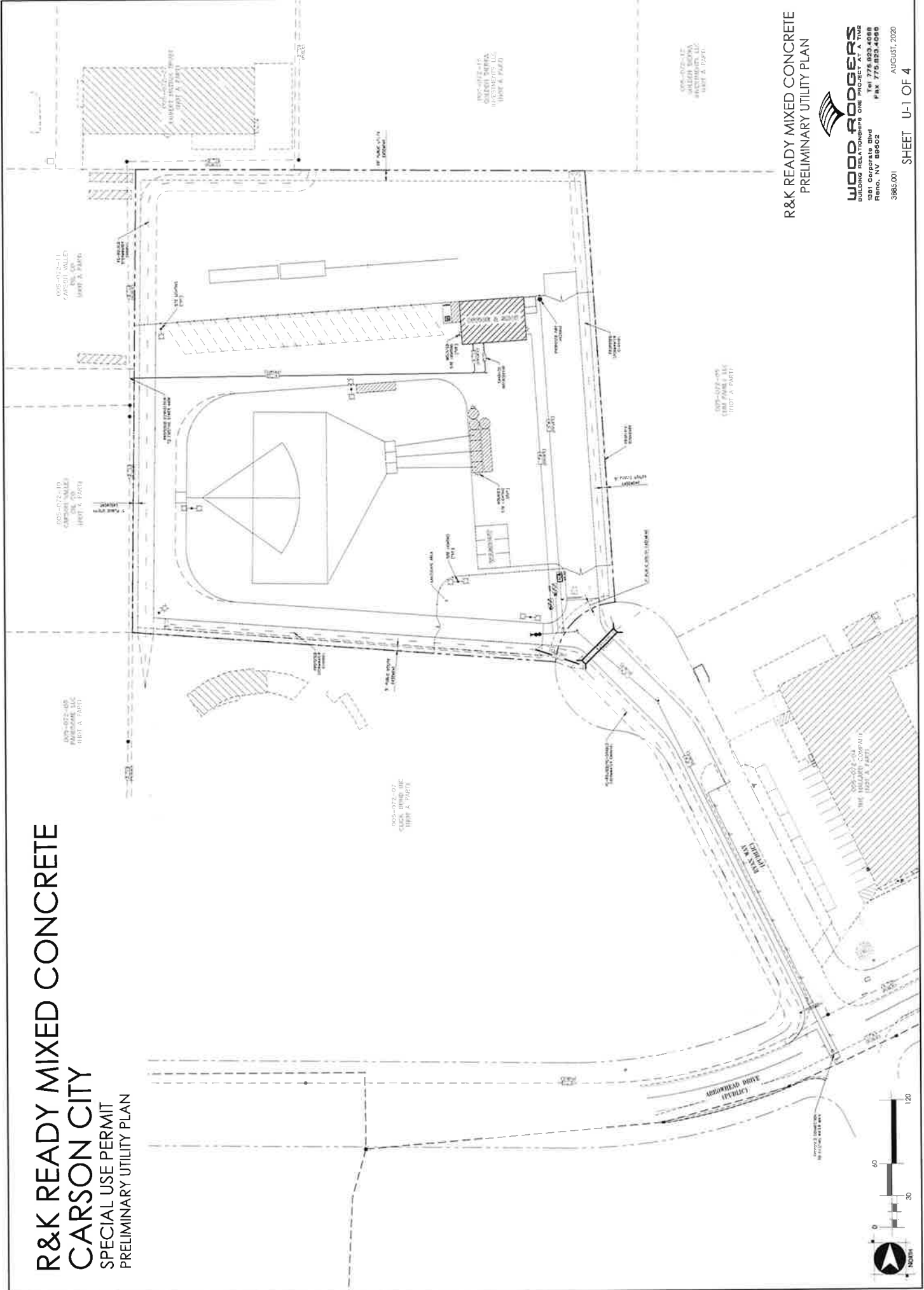


R&K READY MIXED CONCRETE  
PRELIMINARY SITE PLAN

**WOOD RODGERS**  
BUILDING RELATIONSHIPS ONE PRODUCT AT A TIME  
891 Canyon Blvd  
Reno, NV 89502  
PHONE 775.833.4008  
FAX 775.833.4008  
AUGUST, 2020

SHEET S-1 OF 4

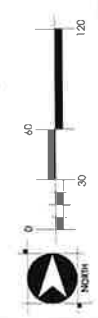
# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT PRELIMINARY UTILITY PLAN



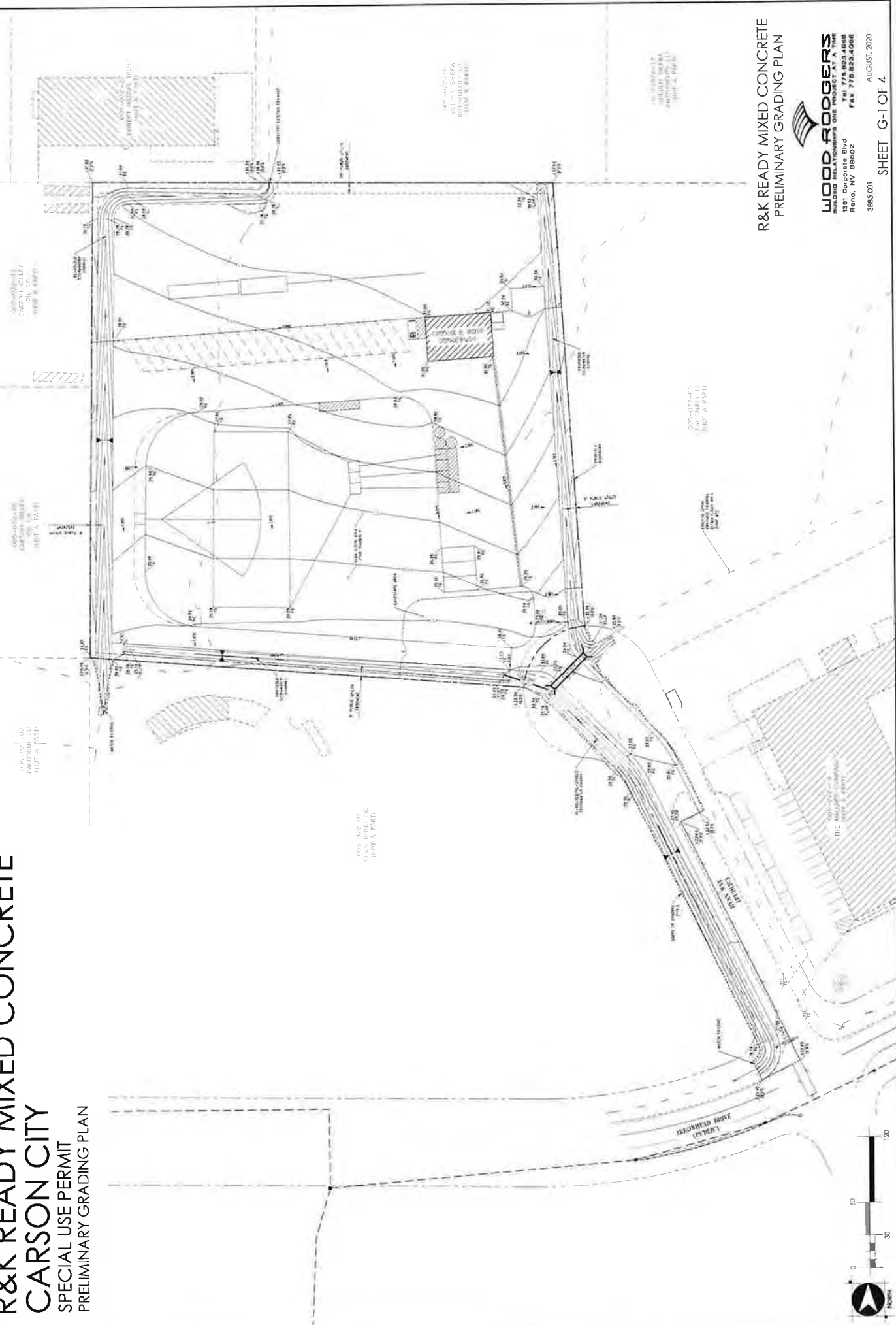
R&K READY MIXED CONCRETE  
PRELIMINARY UTILITY PLAN

**WOOD RODGERS**  
BUILDING RELATIONS ONE PROJECT  
1000 S. WASHINGTON ST. SUITE 200  
RENO, NV 89502 PHONE: 775.853.4088  
FAX: 775.853.4088

3985.001 AUGUST, 2020  
SHEET U-1 OF 4



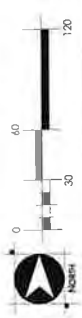
# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT PRELIMINARY GRADING PLAN



R&K READY MIXED CONCRETE  
PRELIMINARY GRADING PLAN

**WOOD RODGERS**  
 1901 ROBERTA BLVD  
 RENO, NV 89602  
 TEL 775.825.4008  
 FAX 775.825.4006

AUGUST, 2020  
 SHEET G-1 OF 4





# Section 4



July 23, 2020

Stacie Huggins  
 Wood Rodgers, Inc.  
 1361 Corporate Boulevard  
 Reno, NV 89502

**Trip Generation Letter – R&K Ready Mixed Concrete**

Dear Ms. Huggins,

This letter provides trip generation and distribution estimates for the R&K Ready Mixed Concrete project in Carson City, NV. The proposed project is located on the northwest corner at the terminus of Ryan Way (APN 00507205) as shown in **Figure 1**, attached. The project proposes to construct a concrete batch plant as shown in the site plan on **Figure 2**.

***Trip Generation***

The *Trip Generation Manual, 10<sup>th</sup> Edition* published by the Institute of Transportation Engineers (ITE) does not provide trip generation estimates for the proposed land use. Therefore, trip generation was estimated based on operator projections. To be conservative, each employee is assumed to arrive in the morning, leave and return at lunch and depart in the evening. Similar land uses within the *Trip Generation Manual, 10<sup>th</sup> Edition* indicate that the peak hour trip generation is approximately one-fifth of the total Daily trips generated.

Typical Day

The plant expects to employ approximately 15 employees. The plant expects to deliver approximately 14 loads of concrete and receive 9 loads of materials per day. For the purposes of this analysis we have rounded up to 25 round trips for a typical day. **Table 1** shows the Daily, AM peak hour, and PM peak hour trip generation estimates for the proposed project on a typical day.

**Table 1. Estimated Project Trips (Typical Day)**

Element	Trips						
	Daily	AM	AM In	AM Out	PM	PM In	PM Out
Employees	60	15	15	0	15	0	15
Heavy Vehicles	50	10	5	5	10	10	0
<b>Total Trips</b>	<b>110</b>	<b>25</b>	<b>20</b>	<b>5</b>	<b>25</b>	<b>10</b>	<b>15</b>

Source: Headway Transportation, 2020



As shown in the table, the proposed project is expected to generate approximately 110 Daily trips, 25 AM peak hour trips, and 25 PM peak hour trips on a typical day. Approximately half of the daily project trips are assumed to be trucks/heavy vehicles.

**Peak Production Day**

The plant expects to employ up to 20 employees during the peak construction season. The plant could potentially deliver approximately 42 loads of concrete and receive 27 loads of materials. For the purposes of this analysis we have rounded up to 75 round trips on a peak day. **Table 2** shows the Daily, AM peak hour, and PM peak hour trip generation estimates for the proposed project during the peak construction season.

**Table 2. Estimated Project Trips (Peak Day)**

Element	Trips						
	Daily	AM	AM In	AM Out	PM	PM In	PM Out
Employees	80	20	20	0	20	0	20
Heavy Vehicles	150	30	15	15	30	30	0
<b>Total Trips</b>	<b>230</b>	<b>50</b>	<b>35</b>	<b>15</b>	<b>50</b>	<b>30</b>	<b>20</b>

Source: Headway Transportation, 2020

As shown in the table, the proposed project is expected to generate approximately 230 Daily trips, 50 AM peak hour trips, and 50 PM peak hour trips on peak days. Approximately two-thirds of the daily project trips are assumed to be trucks/heavy vehicles.

***Trip Distribution***

Project trips were distributed to the adjacent roadway network based on the plant location relative to the urban area and likely areas to which concrete loads would most commonly be delivered. Project trips are anticipated to be distributed as follows:

- ▶ 80% to/from the west via Arrowhead Drive
- ▶ 20% to/from the east via Arrowhead Drive

The project trip distribution and assignment for a typical day is shown on **Figure 3** and a peak day is shown on **Figure 4**.

***Carson City Municipal Code***

The Carson City Municipal Code states that a traffic engineering study is required if a proposed development generates eighty (80) or more peak hour trips or five hundred or more daily trips. The proposed project is anticipated to generate fewer peak hour trips (50 or less) and daily trips (230 or less) than the threshold that would require a full traffic study.



---

## Conclusion

Based on operator projections, the project is anticipated to generate approximately 110 Daily trips, 25 AM peak hour trips, and 25 PM peak hour trips on a typical day. Approximately half of the daily project trips on a typical day are expected to be trucks/heavy vehicles. On a peak day, the project is anticipated to generate approximately 230 Daily trips, 50 AM peak hour trips, and 50 PM peak hour trips. Approximately two-thirds of the daily project trips on a peak day are expected to be trucks/heavy vehicles. The proposed project is anticipated to generate fewer peak hour and daily trips than the 80 peak hour trips or 500 daily trips threshold which would trigger a formal Traffic Study.

Please do not hesitate to contact us at (775) 322-4300 with any questions.

Sincerely,  
Headway Transportation, LLC



Loren E. Chilson, PE  
Principal

### Attachments:

- ▶ Figure 1 – Project Location
- ▶ Figure 2 – Site Plan
- ▶ Figure 3 – Typical Day Project Trip Distribution and Assignment
- ▶ Figure 4 – Peak Day Project Trip Distribution and Assignment





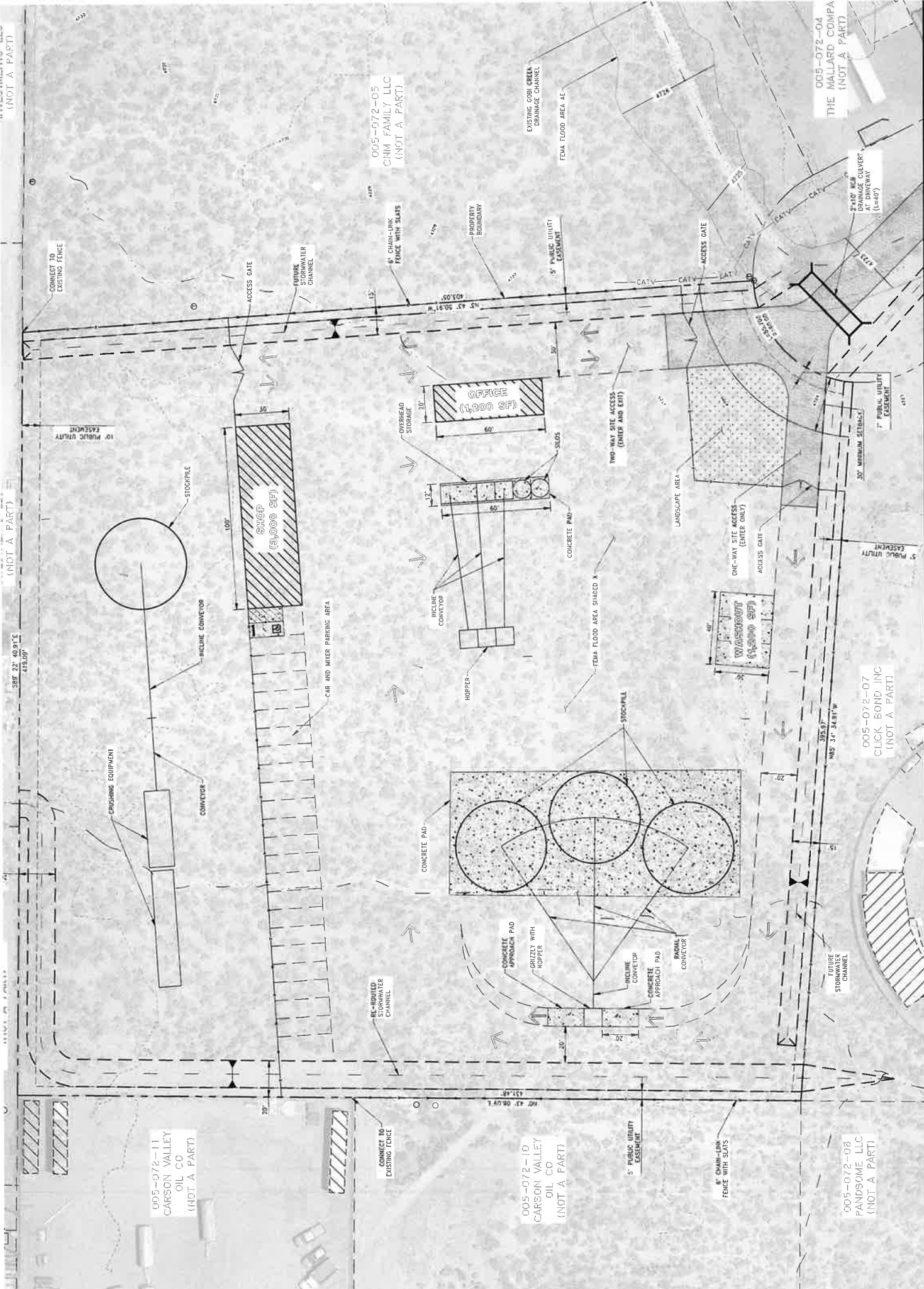


**Project Site**  
(APN 00507206)

Figure

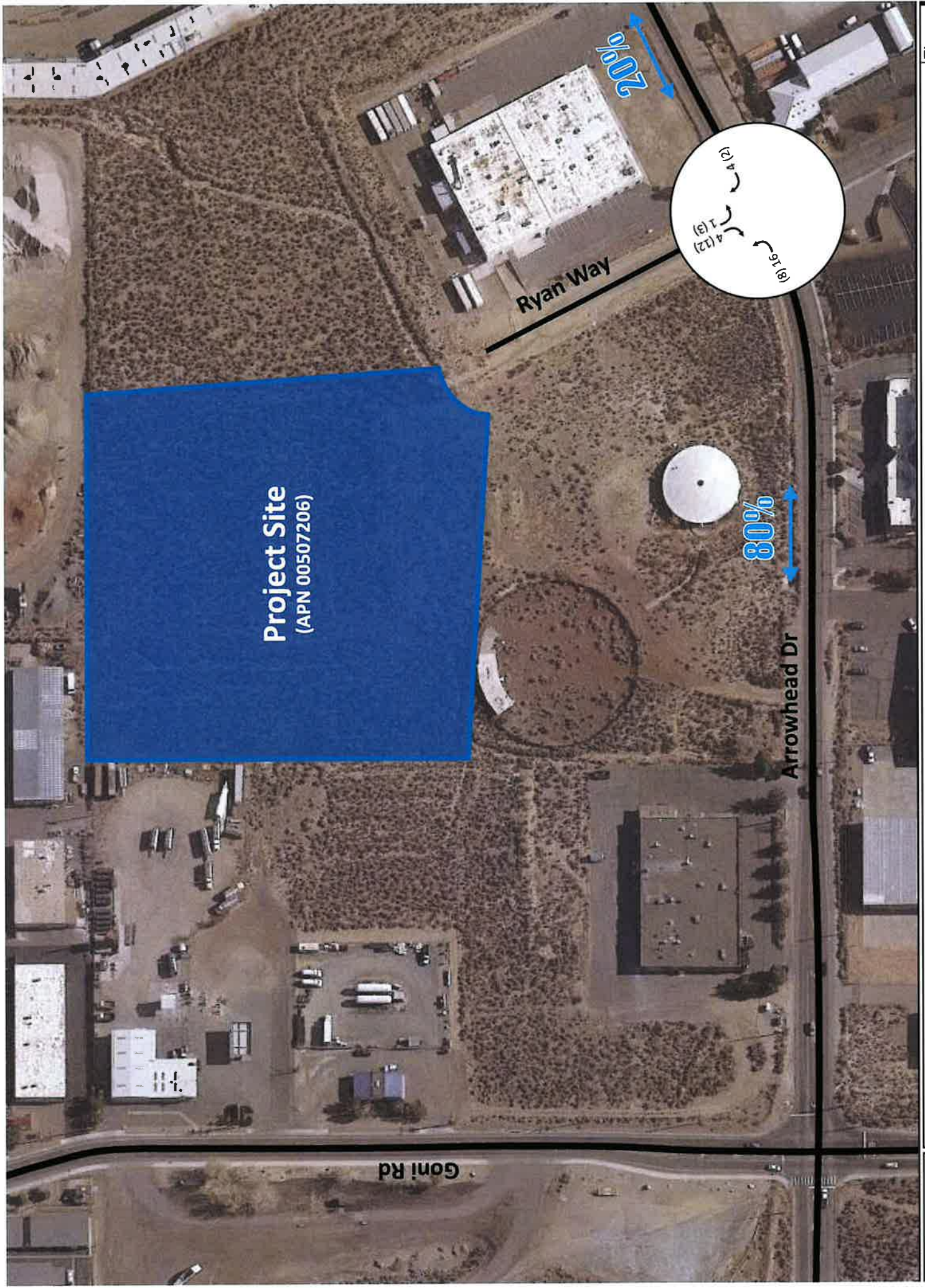
R&K Ready Mixed Concrete  
Trip Generation Letter





**Figure**  
**R&K Ready Mixed Concrete**  
**Trip Generation Letters**





**Project Site**  
(APN 00507206)

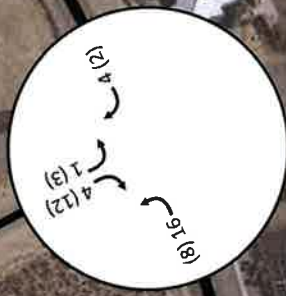
Ryan Way

Arrowhead Dr

Goni Rd

200%

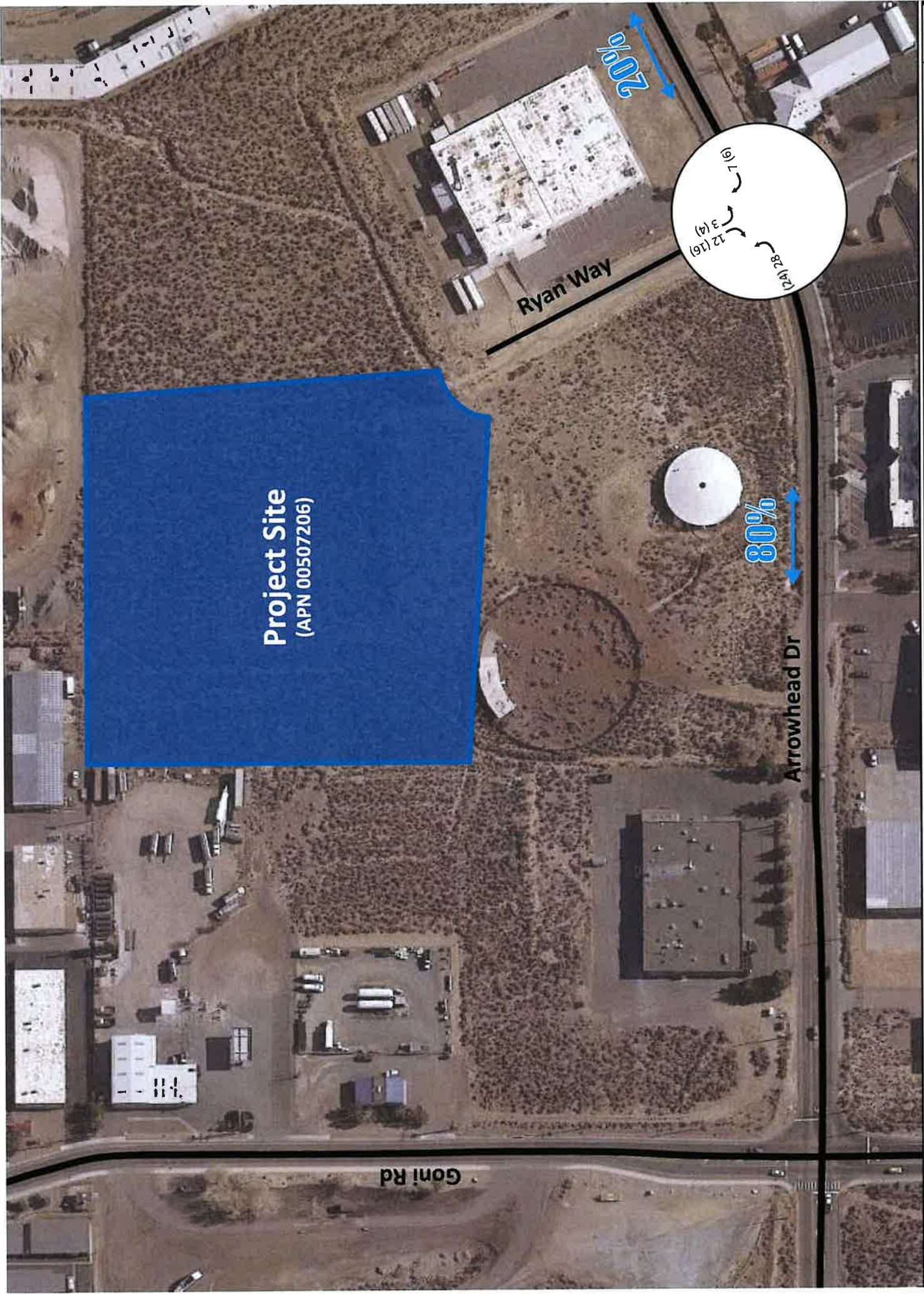
80%



Figure

R&K Ready Mixed Concrete  
Trip Generation Left





**Project Site**  
(APN 00507206)

Ryan Way

Arrowhead Dr

Goni Rd

200%

80%

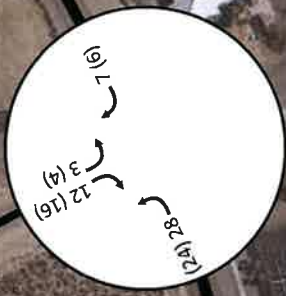


Figure  
R&K Ready Mixed Concrete  
Trip Generation Letters



374 Poli Street, Suite 200 • Ventura, CA 93001  
 Office: (805) 275-1515 • Fax: (805) 667-8104

Date: August 18, 2020

To: R&K Ready Mix Concrete

From: Graham Stephens and Scott D. Cohen, P.E., C.I.H.

Cc: John Hecht, P.E., Sespe Consulting

Re: **Noise Measurements & Prediction for Concrete Crushing Operation**  
**R&K Ready Mix Concrete – 4500 Ryan Way, Carson City, Nevada (APN 005-072-06)**




On July 27, 2020, Sespe conducted noise monitoring at the R&K Ready Mix Concrete (“R&K”) site Otay Mesa, California. The noise levels observed (attached) were then used to determine noise levels that may be expected at property lines and adjacent receptors for the 4.2-acre subject property in Carson City, Nevada. The crushing process begins with stockpiled concrete debris fed by loader to a portable plant consisting of a feed hopper, impact crusher, vibrating screen, and stacking conveyor system.

**SOURCE NOISE MEASUREMENTS (OTAY MESA)**

Figure 1 shows photos of the crushing plant proposed for the subject site. Two (2) Quest Technologies Soundpro SE/DL sound level meters programmed for A-weighted sound and slow response were positioned in various locations around the crushing plant for three (3) minutes each location. Figure 2 illustrates each of the ten (10) measurement locations and a scaled representation of the crushing plant equipment. The sound level meters were field calibrated prior to and following the measurements and are factory calibrated and certified annually (attached). Measurements were taken with the meters placed on tripods so that the microphones were approximately five (5) feet above the ground in an area of the site that was free of obstructions that may reflect or attenuate noise (e.g., walls or barriers). A noise log report for each location measured is attached.

During the noise measurements, the loader and crushing system were reported by R&K to be operating at a normal rate representative of the rate that can be expected to occur at the subject site. Additionally, at least one other offroad vehicle was operating nearby working within the Otay Mesa site during the noise measurements. By capturing noise from the crushing operation and other offroad vehicle(s) performing unrelated tasks, the measurements overestimate the noise generated by the crushing operations alone. Thus, the noise level determined for the crushing operation (i.e., 78.1 dBA at 100-feet as shown in Table 1) is considered a conservatively high value as compared to the actual noise level from the crushing operations.

**Table 1: Noise Measurements**

Location ID	Number of Three-Minute Measurements	Distance to Source (ft)	Sound Pressure Level (dBA Leq)	Normalized Sound Pressure Level @ 100-feet (dBA Leq)
1	3	205	81.2	87.4
2	3	145	76.4	79.6
3	3	42	80.7	73.2
4	3	51	81.5	75.6
5	3	54	81.0	75.7

Location ID	Number of Three-Minute Measurements	Distance to Source (ft)	Sound Pressure Level (dBA L <sub>eq</sub> )	Normalized Sound Pressure Level @ 100-feet (dBA L <sub>eq</sub> )
6	2	78	82.7	80.5
7	2	96	78.2	77.8
8	1	140	83.4	86.3
9	1	120	73.3	74.9
10	1	70	72.8	69.7
<b>Crushing Plant Noise Level (L<sub>eq</sub>) – Average @ 100-feet:</b>				<b>78.1 dBA</b>

Note: Normalized 100-foot sound pressure levels at each location were calculated using the following equation.  $L_{eqCalc} = Selected\_L_{eq} - 20 * \log(D/100)$ . "Selected\_L<sub>eq</sub>" = reference noise level @ 100-feet. D = distance to location/receptor (feet). (Source: Federal Highway Administration's Roadway Construction Noise Model (FHWA, 2006)). These values were then statistically averaged to determine a common reference noise level (78.1 dBA) at 100-feet from the source.

### PREDICTED NOISE LEVELS (CARSON CITY)

Figure 3 shows crushing plant proposed near the northwest corner of the Carson City site. Distance from the plant to the property lines and adjacent receptors, 78.1 dBA at 100-foot noise generation by the crushing operation, and assuming noise attenuation by -6 dBA per doubling of distance from the plant equipment (FHWA, 2006), were used to determine noise at the receptors presented in Figure 3 (attached) and Table 2 (below). Calculations with more detail are attached.

**Table 2: Noise Levels at Property Line and Nearby Receptors**

Location ID	Receptor Type / Land Use	Description	Direction	Distance to Sources (feet)	Noise Level (dBA L <sub>eq</sub> )
1	Industrial	Property Line	North	70	81.2
2	Industrial	Receptor/Structure	North	110	77.3
3	Industrial	Property Line	West	60	82.5
4	Industrial	Receptor/Structure	West	385	66.4
5	Industrial	Property Line	South	325	67.8
6	Industrial	Receptor/Structure	South	575	62.9
7	Industrial	Property Line	East	240	70.5
8	Industrial	Receptor/Structure	East	580	62.8
9	Residential	Property Line	Northwest	1,525	54.4
10	Residential	Receptor/Structure	Northwest	1,610	53.9

Note: FHWA (2006) equation utilized to predict noise levels at locations described above. See Table 1 footnote for more detail. The rock crushing equipment will operate at the Carson City site during daytime hours (7:00 a.m. – 7:00 p.m.) only.

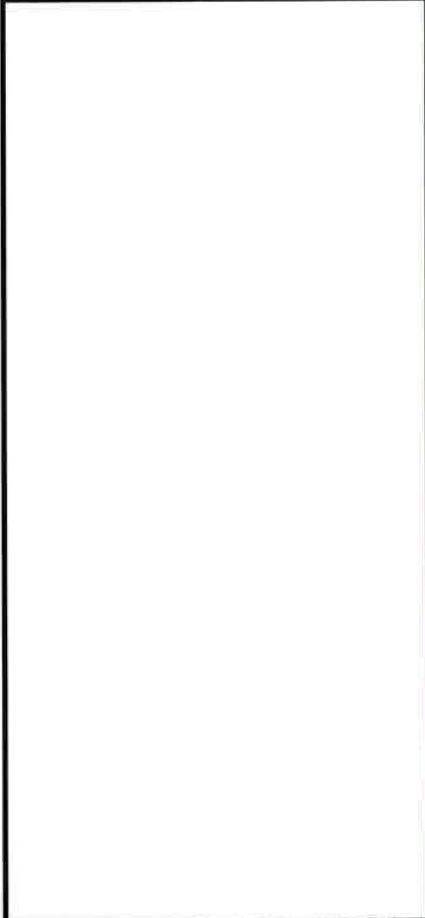
Noise levels presented in Table 2 were determined based on geometric spreading without regard to other attenuation factors such as ground absorption; atmospheric effects and refraction; and shielding by natural and manmade features, noise barriers, diffraction, and reflection. Accordingly, values in Table 2 are believed to be conservatively high as compared to actual levels that will occur with the project. As shown in Table 2, predicted noise levels at the receptors range from 53.9 dBA to 82.5 dBA at the closest property lines/structures to the crushing plant. Parcels that share a property line with the site appear to have industrial uses.



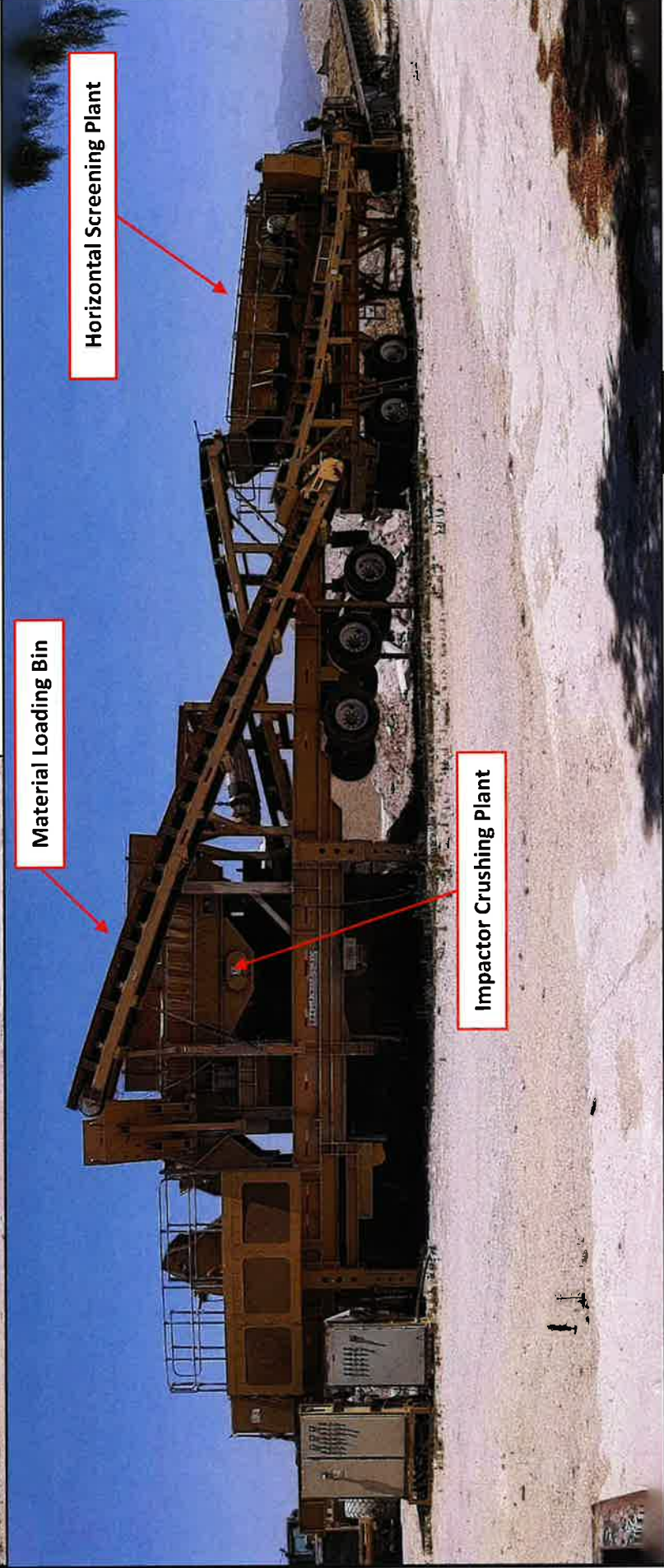
The crushing equipment will operate during daytime hours only. The Carson City Development Code does not limit daytime maximum noise levels associated with new development. However, acceptable daytime noise levels in nearby jurisdictions were researched. Comparison of noise levels determined for the crushing operation to allowable levels for those jurisdictions shows that project noise is expected to be compatible with the surrounding land uses. For example, the City of Reno Noise Ordinance limits daytime noise at residential receptors to 65 dBA and the maximum residential exposure presented in Table 2 is 54.4 dBA. Thus, noise mitigation is unwarranted for this project.

#### **ATTACHMENTS**

- Figures
- Summary of Noise Measurement (Otay Mesa) & Predicted Noise Levels (Carson City)
- Noise Meter Logs
- Noise Meter and Calibration Device Factory Certifications



Conveyor



Material Loading Bin

Horizontal Screening Plant

Impactor Crushing Plant

<b>FIGURE</b>	<b>1</b>	<b>CRUSHING EQUIPMENT PHOTOS</b>	
PROJECT #:	RK01.20.01	DATE:	8/4/20
SCALE:	N/A	DRAWN BY:	GPS

**SESPÉ**  
CONSULTING, INC.

Otay Mesa Facility  
R&K Ready Mix Concrete  
San Diego, California 92154



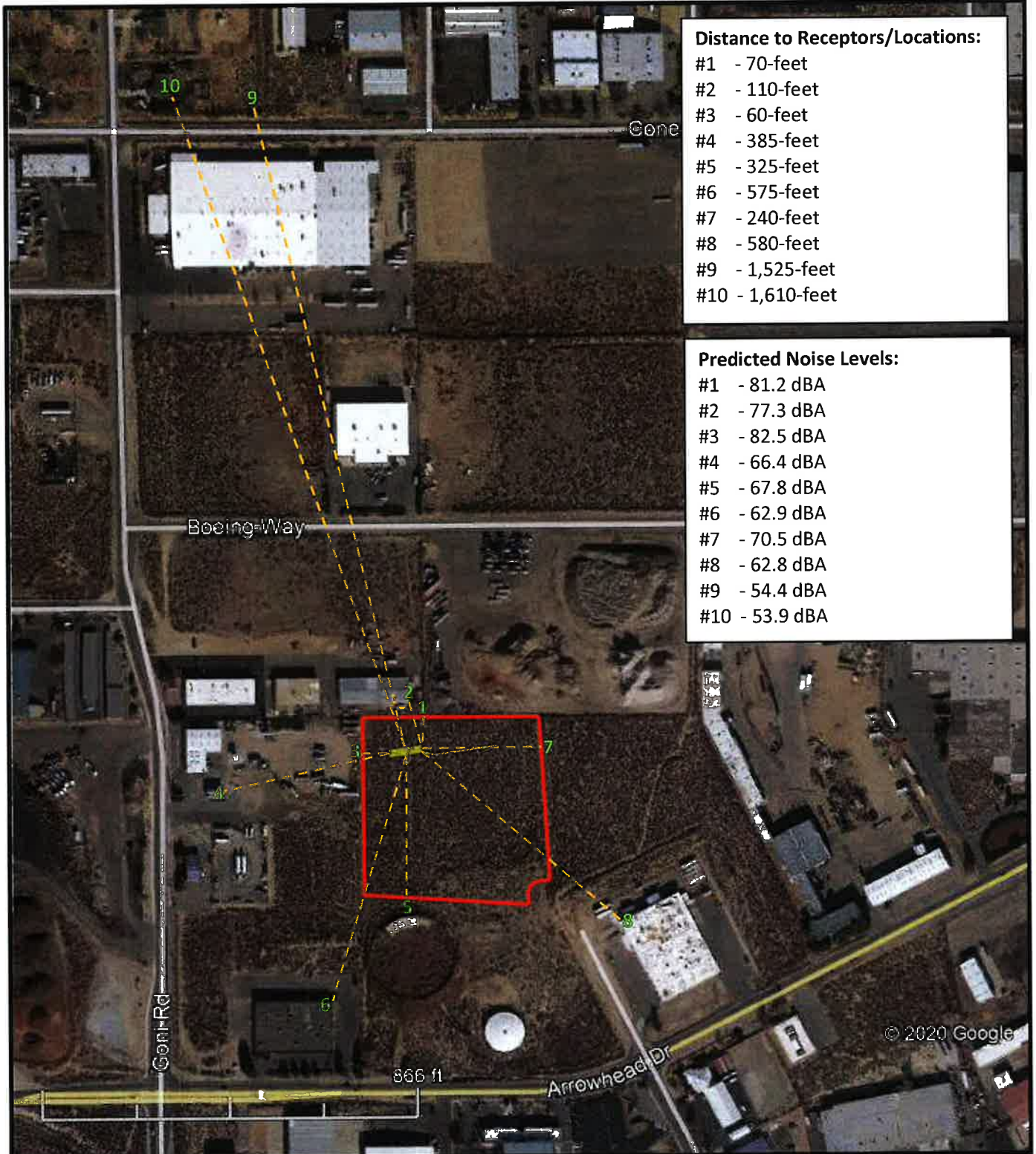


Source: Google Earth 2020 (Imagery Date: 8/13/2018)

**SESP**  
CONSULTING, INC.

<b>FIGURE</b>	<b>NOISE MEASUREMENT MAP</b>
<b>2</b>	Otay Mesa Facility R&K Ready Mix Concrete San Diego, California 92154
PROJECT #:	RK01.20.01
DATE:	8/4/20
SCALE:	As Shown
DRAWN BY:	GPS





**Distance to Receptors/Locations:**

- #1 - 70-feet
- #2 - 110-feet
- #3 - 60-feet
- #4 - 385-feet
- #5 - 325-feet
- #6 - 575-feet
- #7 - 240-feet
- #8 - 580-feet
- #9 - 1,525-feet
- #10 - 1,610-feet

**Predicted Noise Levels:**

- #1 - 81.2 dBA
- #2 - 77.3 dBA
- #3 - 82.5 dBA
- #4 - 66.4 dBA
- #5 - 67.8 dBA
- #6 - 62.9 dBA
- #7 - 70.5 dBA
- #8 - 62.8 dBA
- #9 - 54.4 dBA
- #10 - 53.9 dBA

Source: Google Earth 2020 (Imagery Date: 11/16/2018)

**SESPE**  
CONSULTING, INC.

- Approximate Carson City Facility Boundaries
- Approximate Crushing System Location

**FIGURE**

**3**

**RELOCATED CRUSHER SITE**  
Proposed Carson City Facility  
R&K Ready Mix Concrete  
Carson City, Nevada 89706

PROJECT #:	RK01.20.01	DATE:	8/4/20
SCALE:	As Shown	DRAWN BY:	GPS



Crushing Plant Noise Measurements (Otay Mesa)							
Location #	Measurement #	Measured Noise Levels			Reference Noise Levels		
		Measured $L_{eq}$	Measured $L_{eq}$ (Combined)	Distance from Source (ft.)	Reference Distance (ft.) <sup>A</sup>	$L_{eq}$ @ 100-feet <sup>B</sup>	$L_{eq}$ @ 100-feet (Combined)
Location #1	#1	76.0	81.2	205	100	82.2	87.4
	#2	80.6				86.8	
	#3	83.8				90.0	
Location #2	#1	79.4	76.4	145	100	82.6	79.6
	#2	76.3				79.5	
	#3	61.9				65.1	
Location #3	#1	77.7	80.7	42	100	70.2	73.2
	#2	83.7				76.2	
	#3	77.9				70.4	
Location #4	#1	83.4	81.5	51	100	77.6	75.6
	#2	74.3				68.5	
	#3	82.4				76.6	
Location #5	#1	83.0	81.0	54	100	77.6	75.7
	#2	82.2				76.8	
	#3	72.1				66.7	
Location #6	#1	85.1	82.7	78	100	82.9	80.5
	#2	76.7				74.5	
Location #7	#1	79.0	78.2	96	100	78.6	77.8
	#2	77.1				76.7	
Location #8	#1	83.4	83.4	140	100	86.3	86.3
Location #9	#1	73.3	73.3	120	100	74.9	74.9
Location #10	#1	72.8	72.8	70	100	69.7	69.7
<b>Crushing Plant Noise Level (<math>L_{eq}</math>) - Statistical Average @ 100-feet<sup>C</sup> :</b>							<b>78.1</b>

See Figure 2 for the noise monitoring locations described above.

A - Distances (feet) estimated using Google Earth™.

B -  $L_{eq}Calc = Selected_{L_{eq}} - 20 * \log(D/100)$ . "Selected  $L_{eq}$ " = reference noise level @ 100-feet. D = distance to location/receptor (feet).

Source: Federal Highway Administration's *Roadway Construction Noise Model* (FHWA, 2006).

C - A total of 22 noise measurements (3-minutes each) were collected at 10 locations surrounding the crushing equipment at the Otay Mesa facility (see attached meter output files).

Measurements were collected while the crushing equipment was operating at approximately full capacity and within line-of-sight of the noise source(s).

Noise measurements were then statistically combined/averaged to determine an average source noise level (81.4 dBA) at a reference distance of 100-feet.

Crusher Equipment - Measured Reference Noise Level (Otay Mesa)		
Noise Source	Reference Distance (feet)	L <sub>eq</sub> (dBA)
Crusher Equipment	100	78.1

Note: See previous calculations for more detail.

Crusher System - Predicted Noise Levels (Carson City)						
Location / Figure #	Receptor Type / Land Use	Location Description	Direction	Approximate Distance Source to Location (feet) <sup>A</sup>	Predicted Noise Level @ Location (L <sub>eq</sub> dBA) <sup>B</sup>	
1	Industrial	Property/Fence Line	North	70	81.2	
2	Industrial	Receptor/Structure	North	110	77.3	
3	Industrial	Property/Fence Line	West	60	82.5	
4	Industrial	Receptor/Structure	West	385	66.4	
5	Industrial	Property/Fence Line	South	325	67.8	
6	Industrial	Receptor/Structure	South	575	62.9	
7	Industrial	Property/Fence Line	East	240	70.5	
8	Industrial	Receptor/Structure	East	580	62.8	
9	Residential	Property/Fence Line	Northwest	1,525	54.4	
10	Residential	Receptor/Structure	Northwest	1,610	53.9	

See Figure 3 for the locations/receptors described above.

A - Distances (feet) estimated using Google Earth™.

B - LeqCalc = Selected\_Leq - 20\*log(D/100). "Selected\_Leq" = reference noise level @ 100-feet. D = distance to location/receptor (feet).

Source: Federal Highway Administration's Roadway Construction Noise Model (FHWA, 2006).

# Otay Mesa Measurement - Location #1, Measurement #1

Start Time 09:26:11 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	76	76
Lmax	dB	87.6	87.6
Lmin	dB	66.9	66.8
Lpk	dB	97.2	97.2
TWA	dB	54	54
PTWA	dB	80.8	80.8
DOSE	%	0.02	0.02
PDOSE	%	11.99	11.92
SEL	dB	98.6	98.5
EXP	p2s	3	3

## Otay Mesa Measurement - Location #1, Measurement #2

Start Time 09:30:02 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Post-Cal Level	dB	114
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	80.6	80.6
Lmax	dB	85.1	85.1
Lmin	dB	78	78
Lpk	dB	106.7	106.7
TWA	dB	58.6	58.6
PTWA	dB	85.4	85.4
DOSE	%	0.07	0.07
PDOSE	%	34.81	34.62
SEL	dB	103.2	103.2
EXP	p2s	8	8



### Otay Mesa Measurement - Location #1, Measurement #3

Start Time 09:50:22 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Pre-Cal Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Post-Cal Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	83.8	83.8
Lmax	dB	87	86.9
Lmin	dB	81.2	81.2
Lpk	dB	104.6	104.6
TWA	dB	61.8	61.8
PTWA	dB	88.6	88.6
DOSE	%	0.15	0.15
PDOSE	%	72.76	72.35
SEL	dB	106.4	106.4
EXP	p2s	17	17

# Otay Mesa Measurement - Location #2, Measurement #1

Start Time 09:18:25 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Pre-Cal Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Post-Cal Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	79.4	79.3
Lmax	dB	89.9	89.8
Lmin	dB	67.8	67.8
Lpk	dB	100.2	100.1
TWA	dB	57.3	57.3
PTWA	dB	84.1	84.1
DOSE	%	0.05	0.05
PDOSE	%	25.83	25.68
SEL	dB	101.9	101.9
EXP	p2s	6	6

## Otay Mesa Measurement - Location #2, Measurement #2

Start Time 09:45:59 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Post-Cal Level	dB	114
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	76.3	76.3
Lmax	dB	86	86
Lmin	dB	66.2	66.2
Lpk	dB	95.3	95.3
TWA	dB	54.3	54.3
PTWA	dB	81.1	81.1
DOSE	%	0.03	0.03
PDOSE	%	12.9	12.83
SEL	dB	98.9	98.9
EXP	p2s	3	3

### Otay Mesa Measurement - Location #2, Measurement #3

Start Time 10:07:48 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Pre-Cal Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Post-Cal Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	61.9	61.8
Lmax	dB	70.8	70.8
Lmin	dB	59.3	59.3
Lpk	dB	98.1	98.1
TWA	dB	39.8	39.8
PTWA	dB	66.6	66.6
DOSE	%	0	0
PDOSE	%	0.46	0.46
SEL	dB	84.4	84.4
EXP	p2s	0	0



# Otay Mesa Measurement - Location #3, Measurement #1

Start Time 09:14:22 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Pre-Cal Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Post-Cal Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	77.7	77.7
Lmax	dB	87.5	87.4
Lmin	dB	73	73
Lpk	dB	105.1	105.1
TWA	dB	55.7	55.7
PTWA	dB	82.5	82.5
DOSE	%	0.04	0.04
PDOSE	%	17.77	17.67
SEL	dB	100.3	100.3
EXP	p2s	4	4

## Otay Mesa Measurement - Location #3, Measurement #2

Start Time 09:33:41 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Post-Cal Level	dB	114
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	83.7	83.6
Lmax	dB	87	87
Lmin	dB	81.1	81.1
Lpk	dB	109.1	109.1
TWA	dB	61.6	61.6
PTWA	dB	88.4	88.4
DOSE	%	0.15	0.14
PDOSE	%	69.67	69.28
SEL	dB	106.2	106.2
EXP	p2s	17	16

### Otay Mesa Measurement - Location #3, Measurement #3

Start Time 10:03:46 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	77.9	77.9
Lmax	dB	86.6	86.6
Lmin	dB	76.8	76.8
Lpk	dB	103.3	103.3
TWA	dB	55.9	55.8
PTWA	dB	82.7	82.6
DOSE	%	0.04	0.04
PDOSE	%	18.49	18.38
SEL	dB	100.4	100.4
EXP	p2s	4	4

Calibration Information			
Description	Units	Value	
Pre-Cal Level	dB	114.1	
Pre-Cal Date		08:56:47	27-Jul-2020
Post-Cal Level	dB	114	
Post-Cal Date		10:11:45	27-Jul-2020
ReCert Date		Unavailable	

# Otay Mesa Measurement - Location #4, Measurement #1

Start Time 09:06:55 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Pre-Cal Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Post-Cal Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	83.4	83.3
Lmax	dB	89.6	89.5
Lmin	dB	78.6	78.6
Lpk	dB	106.9	106.9
TWA	dB	61.3	61.3
PTWA	dB	88.1	88.1
DOSE	%	0.14	0.14
PDOSE	%	65.23	64.85
SEL	dB	105.9	105.9
EXP	p2s	16	15



## Otay Mesa Measurement - Location #4, Measurement #2

Start Time 09:37:50 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Post-Cal Level	dB	114
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	74.3	74.3
Lmax	dB	82.9	82.9
Lmin	dB	69.6	69.6
Lpk	dB	100.5	100.5
TWA	dB	52.2	52.2
PTWA	dB	79	79
DOSE	%	0.02	0.02
PDOSE	%	8.03	7.99
SEL	dB	96.8	96.8
EXP	p2s	2	2

### Otay Mesa Measurement - Location #4, Measurement #3

Start Time 09:54:29 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114.1
Pre-Cal Date		08:56:47 27-Jul-2020
Post-Cal Level	dB	114
Post-Cal Date		10:11:45 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	82.4	82.3
Lmax	dB	84.6	84.5
Lmin	dB	79.1	79.1
Lpk	dB	102.7	102.7
TWA	dB	60.3	60.3
PTWA	dB	87.1	87.1
DOSE	%	0.11	0.11
PDOSE	%	51.82	51.52
SEL	dB	104.9	104.9
EXP	p2s	12	12

# Otay Mesa Measurement - Location #5, Measurement #1

Start Time 09:09:54 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	83	83	83	83
Lmax	dB	90.9	90.8	90.9	90.8
Lmin	dB	76.4	76.4	76.4	76.4
Lpk	dB	107.1	107.1	107.1	107.1
TWA	dB	61	61	61	61
PTWA	dB	87.8	87.8	87.8	87.8
DOSE	%	1.26	1.25	1.26	1.25
PDOSE	%	604.87	599.23	604.87	599.23
SEL	dB	105.6	105.6	105.6	105.6
EXP	p2s	14	14	14	14

## Otay Mesa Measurement - Location #5, Measurement #2

Start Time 09:38:26 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	82.2	82.2
Lmax	dB	84.7	84.7
Lmin	dB	80.4	80.4
Lpk	dB	104.8	104.8
TWA	dB	60.2	60.2
PTWA	dB	87	87
DOSE	%	1.05	1.04
PDOSE	%	501.88	497.18
SEL	dB	104.8	104.7
EXP	p2s	12	12



### Otay Mesa Measurement - Location #5, Measurement #3

Start Time 09:55:20 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	72.1	72		
Lmax	dB	73.4	73.4		
Lmin	dB	71.2	71.2		
Lpk	dB	89.9	89.8		
TWA	dB	50	50		
PTWA	dB	76.8	76.8		
DOSE	%	0.1	0.1		
PDOSE	%	48.3	47.87		
SEL	dB	94.6	94.6		
EXP	p2s	1	1		

# Otay Mesa Measurement - Location #6, Measurement #1

Start Time 09:14:04 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	85.1	85.1	85.1	85.1
Lmax	dB	87.3	87.3	87.3	87.3
Lmin	dB	83.5	83.5	83.4	83.4
Lpk	dB	106.5	106.5	106.5	106.5
TWA	dB	63.1	63	63	63
PTWA	dB	89.9	89.9	89.8	89.8
DOSE	%	2.03	2.03	2.01	2.01
PDOSE	%	974.74	974.74	965.8	965.8
SEL	dB	107.7	107.7	107.6	107.6
EXP	p2s	23	23	23	23

## Otay Mesa Measurement - Location #6, Measurement #2

Start Time 09:58:44 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	76.7	76.7	76.7	76.7
Lmax	dB	78.4	78.4	78.3	78.3
Lmin	dB	75.4	75.4	75.4	75.4
Lpk	dB	94.5	94.5	94.5	94.5
TWA	dB	54.7	54.7	54.6	54.6
PTWA	dB	81.5	81.5	81.5	81.5
DOSE	%	0.29	0.29	0.29	0.29
PDOSE	%	141.25	141.25	139.92	139.92
SEL	dB	99.3	99.3	99.2	99.2
EXP	p2s	3	3	3	3

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert Date		Unavailable

# Otay Mesa Measurement - Location #7, Measurement #1

Start Time 09:23:14 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Post-Cal Level	dB	113.7
ReCert Date	Date	10:04:49 27-Jul-2020
		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	79	79	79	79
Lmax	dB	81	81	81	81
Lmin	dB	77.3	77.2	77.2	77.2
Lpk	dB	100.6	100.6	100.6	100.6
TWA	dB	57	56.9	56.9	56.9
PTWA	dB	83.8	83.8	83.8	83.8
DOSE	%	0.5	0.49	0.49	0.49
PDOSE	%	239.54	237.3	237.3	237.3
SEL	dB	101.6	101.5	101.5	101.5
EXP	p2s	6	6	6	6



# Otay Mesa Measurement - Location #7, Measurement #2

Start Time 09:34:34 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert		Unavailable

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	77.1	77.1	77.1	77.1
Lmax	dB	79	79	78.9	78.9
Lmin	dB	75.2	75.2	75.1	75.1
Lpk	dB	99	99	99	99
TWA	dB	55.1	55.1	55	55
PTWA	dB	81.9	81.9	81.8	81.8
DOSE	%	0.32	0.32	0.32	0.32
PDOSE	%	154.22	154.22	152.84	152.84
SEL	dB	99.7	99.7	99.6	99.6
EXP	p2s	4	4	4	4

# Otay Mesa Measurement - Location #8, Measurement #1

Start Time 09:18:48 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	83.4	83.4	83.4	83.4
Lmax	dB	85.7	85.7	85.6	85.6
Lmin	dB	81.2	81.2	81.2	81.2
Lpk	dB	107.4	107.4	107.4	107.4
TWA	dB	61.4	61.4	61.4	61.4
PTWA	dB	88.2	88.2	88.2	88.2
DOSE	%	1.38	1.38	1.37	1.37
PDOSE	%	662.6	662.6	656.52	656.52
SEL	dB	106	106	106	106
EXP	p2s	16	16	16	16

Calibration Information			
Description	Level	Units	Value
Pre-Cal	Date	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Date	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

# Otay Mesa Measurement - Location #9, Measurement #1

Start Time 09:42:41 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level Date	dB	113.8 09:01:48 27-Jul-2020
Post-Cal Level Date	dB	113.7 10:04:49 27-Jul-2020
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	73.3	73.3	73.3	73.3
Lmax	dB	74.8	74.8	74.8	74.8
Lmin	dB	72.4	72.4	72.3	72.3
Lpk	dB	96.4	96.4	96.4	96.4
TWA	dB	51.3	51.2	51.2	51.2
PTWA	dB	78.1	78.1	78.1	78.1
DOSE	%	0.13	0.13	0.13	0.13
PDOSE	%	64.49	63.89	63.89	63.89
SEL	dB	95.9	95.8	95.8	95.8
EXP	p2s	2	2	2	2

# Otay Mesa Measurement - Location #10, Measurement #1

Start Time 09:46:01 27-Jul-2020  
 Run Length 0:03:00 11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	113.8
Pre-Cal Date		09:01:48 27-Jul-2020
Post-Cal Level	dB	113.7
Post-Cal Date		10:04:49 27-Jul-2020
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1		Meter 2	
		Broadband	Broadband	Broadband	Broadband
Lavg	dB	72.8	72.8	72.8	72.8
Lmax	dB	77.9	77.9	77.9	77.9
Lmin	dB	70.5	70.5	70.5	70.5
Lpk	dB	93	93	93	93
TWA	dB	50.8	50.8	50.7	50.7
PTWA	dB	77.6	77.6	77.5	77.5
DOSE	%	0.12	0.12	0.12	0.12
PDOSE	%	57.08	57.08	56.56	56.56
SEL	dB	95.3	95.3	95.3	95.3
EXP	p2s	1	1	1	1



# Certificate of Compliance and Calibration



**Calibrated for:**

Mr. Graham Stephens  
 Sespe Consulting, Inc.  
 1565 Hotel Circle South  
 Suite 370  
 San Diego, CA 92108

Client#S-100  
 EDI Job#CR6035-1  
 ID# 103

Calibration Conclusion	
As Received: In Tolerance	<input checked="" type="checkbox"/>
As Received: Out of Tolerance	<input type="checkbox"/>
As Left: In Tolerance	<input checked="" type="checkbox"/>
As Left: Out of Tolerance	<input type="checkbox"/>

**Manufacturer:** 3M/Quest Technologies  
**Model Number:** SoundPro DL-1/3 Sound Level Meter Type-2  
**Serial No.:** BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962  
**Calibration Date:** 26-Mar-2020  
**Calibration Due Date:** 26-Mar-2021  
**Calibrated By:** John R. Johnson



As-Received Pre-Calibration Values: IN-TOLERANCE	ANSI S1.4-2014 Lower Tolerance	Actual Value	ANSI S1.4-2014 Upper Tolerance	Compliance
Sound Pressure Level, 114.0dB@1KHz	113.0	114.2	115.0	YES

As-Received Pre-Calibration Values: IN-TOLERANCE	ANSI S1.4-2014 Lower Tolerance	Actual Value	ANSI S1.4-2014 Upper Tolerance	Compliance
Sound Pressure Level, 114.0dB@1KHz	113.0	114.0	115.0	YES

Acoustical Parameter Check (110 dB input)	ANSI S1.4 Lower Tolerance	Actual Value	ANSI S1.4 Upper Tolerance	Compliance
Fast Response dB	107.0	109.9	110.0	YES
Slow Response dB	103.9	105.9	107.9	YES
Crest Factor dB	109.5	110.0	110.5	YES
Impulse Response	109.5	110.0	110.5	YES

Linearity Check	dB Input Level at 1000 Hz							
	130.0 dB	120.0 dB	110.0 dB	100.0 dB	90.0 dB	80.0 dB	70.0 dB	60.0 dB
Linearity Tolerance ±0.5 dB	130.0	120.0	110.0	100.0	90.0	80.0	70.0	59.9
Compliance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Electrical Linearity Check	dB Input Level at 1000 Hz				
	70.0 dB	60.0 dB	50.0 dB	40.0 dB	30.0 dB
Linearity Tolerance ±0.6 dB	70.0	60.0	50.0	40.0	30.2
Compliance	Yes	Yes	Yes	Yes	Yes

# Certificate of Compliance and Calibration



**Manufacturer:** 3M/Quest Technologies  
**Model Number:** SoundPro DL-1/3 Sound Level Meter Type-2  
**Serial No.:** BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962  
**Calibration Date:** 26-Mar-2020  
**Calibration Due Date:** 26-Mar-2021  
**Calibrated By:** John R. Johnson



A-weighted Frequency Response with 100.0dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	46.5	49.8	52.5	-50.5	± 3	Yes
31.5	57.6	60.6	61.5	-39.4	± 3	Yes
63	71.8	73.9	75.8	-26.2	± 2	Yes
125	82.4	83.7	85.4	-16.1	± 1.5	Yes
250	89.9	91.2	92.9	-8.6	± 1.5	Yes
500	95.3	96.7	98.3	-3.2	± 1.5	Yes
1K REF.	98.5	100.0	101.5	0	± 1.5	Yes
2K	99.2	101.4	103.2	1.2	± 2	Yes
4K	98.0	102.3	104.0	1	± 3	Yes
8K	93.9	97.1	103.9	-1.1	± 5	Yes
16K	--	93.7	98.4	-6.6	+5/-∞	Yes

C-weighted Frequency Response with 100 dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	90.8	93.7	96.8	-3.0	± 3	Yes
31.5	94.0	97.0	100.0	-3.0	± 3	Yes
63	97.2	99.0	101.2	-0.8	± 2	Yes
125	98.3	99.5	101.3	-0.2	± 1.5	Yes
250	98.5	99.7	101.5	0.0	± 1.5	Yes
500	98.5	99.8	101.5	0.0	± 1.5	Yes
1K REF.	98.5	99.9	101.5	0.0	± 1.5	Yes
2K	97.8	99.9	101.8	-0.2	± 2	Yes
4K	96.2	100.5	102.2	-0.8	± 3	Yes
8K	92.0	95.2	102.0	-3.0	± 5	Yes
16K	--	91.7	96.5	-8.5	+5/-∞	Yes

# Certificate of Compliance and Calibration



**Manufacturer:** 3M/Quest Technologies  
**Model Number:** SoundPro DL-1/3 Sound Level Meter Type-2  
**Serial No.:** BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962  
**Calibration Date:** 26-Mar-2020  
**Calibration Due Date:** 26-Mar-2021  
**Calibrated By:** John R. Johnson



Z-weighted Frequency Response with 100.0dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	97.0	99.1	103.0	0.0	± 3	Yes
31.5	97.0	99.4	103.0	0.0	± 3	Yes
63	98.0	99.7	102.0	0.0	± 2	Yes
125	98.5	99.7	101.5	0.0	± 1.5	Yes
250	98.5	99.8	101.5	0.0	± 1.5	Yes
500	98.5	99.8	101.5	0.0	± 1.5	Yes
1K REF.	98.5	99.9	101.5	0.0	± 1.5	Yes
2K	98.0	100.1	102.0	0.0	± 2	Yes
4K	97.0	101.2	103.0	0.0	± 3	Yes
8K	95.0	97.6	105.0	0.0	± 5	Yes
16K	—	98.1	105.0	0.0	+5/-∞	Yes

Flat-weighted Frequency Response with 100.0dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	97.0	99.8	103.0	0.0	± 3	Yes
31.5	97.0	99.7	103.0	0.0	± 3	Yes
63	98.0	99.8	102.0	0.0	± 2	Yes
125	98.5	99.7	101.5	0.0	± 1.5	Yes
250	98.5	99.8	101.5	0.0	± 1.5	Yes
500	98.5	99.9	101.5	0.0	± 1.5	Yes
1K REF.	98.5	99.9	101.5	0.0	± 1.5	Yes
2K	98.0	100.1	102.0	0.0	± 2	Yes
4K	97.0	101.3	103.0	0.0	± 3	Yes
8K	95.0	98.2	105.0	0.0	± 5	Yes
16K	—	100.2	105.0	0.0	+5/-∞	Yes



# Certificate of Compliance and Calibration



**Manufacturer:** 3M/Quest Technologies  
**Model Number:** SoundPro DL-1/3 Sound Level Meter Type-2  
**Serial No.:** BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962  
**Calibration Date:** 26-Mar-2020  
**Calibration Due Date:** 26-Mar-2021  
**Calibrated By:** John R. Johnson



## OCTAVE BAND FILTER ROLL-OFF RESPONSE

Center Freq. Hz @ 110.0dB	Lower Band Limit	Limits dB 104.3/109.6	Upper Band Limit	Limits dB 104.3/109.6	Compliance
12	11.2Hz	106.1	14.1Hz	106.4	Yes
16	14.1Hz	106.2	17.8Hz	106.2	Yes
20	17.8Hz	106.8	22.4Hz	106.9	Yes
25	22.4Hz	106.6	28.2Hz	106.6	Yes
31.5	28.2Hz	106.4	35.5Hz	106.1	Yes
40	35.5Hz	106.5	44.7Hz	106.9	Yes
50	44.7Hz	106.8	56.2Hz	106.6	Yes
63	56.2Hz	106.8	70.8Hz	106.5	Yes
80	70.8Hz	106.5	89.1Hz	107.1	Yes
100	89.1Hz	106.5	112.0Hz	107.0	Yes
125	112.0Hz	106.3	141.0Hz	106.8	Yes
160	141.0Hz	106.5	178.0Hz	106.6	Yes
200	178.0Hz	106.9	224.0Hz	107.1	Yes
250	224.0Hz	106.9	282.0Hz	107.2	Yes
315	282.0Hz	106.7	355.0Hz	106.9	Yes
400	355.0Hz	106.6	447.0Hz	106.5	Yes
500	447.0Hz	106.9	562.0Hz	106.6	Yes
630	562.0Hz	106.5	708.0Hz	107.0	Yes
800	708.0Hz	106.2	891.0Hz	105.7	Yes
1,000	891.0Hz	106.7	1,122.0KHz	106.1	Yes
1,250	1,122.0KHz	106.6	1,413.0KHz	106.9	Yes
1,600	1,413.0KHz	106.5	1,778.0KHz	107.1	Yes
2,000	1,778.0KHz	106.5	2,239.0KHz	106.5	Yes
2,500	2,239.0KHz	106.9	2,818.0KHz	106.9	Yes
3,150	2,818.0KHz	106.5	3,548.0KHz	107.2	Yes
4,000	3,548.0KHz	106.5	4,467.0KHz	106.8	Yes
5,000	4,467.0KHz	106.5	5,623.0KHz	107.1	Yes
6,300	5,623.0KHz	106.4	7,079.0KHz	105.7	Yes
8,000	7,079.0KHz	106.9	8,913.0KHz	106.4	Yes
10,000	8,913.0KHz	106.6	11,220.0KHz	106.8	Yes
12,500	11,220.0KHz	106.3	14,130.0KHz	106.3	Yes
16,000	14,130.0KHz	106.4	17,780.0KHz	106.2	Yes



# Certificate of Compliance and Calibration



**Manufacturer:** 3M/Quest Technologies  
**Model Number:** SoundPro DL-1/3 Sound Level Meter Type-2  
**Serial No.:** BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962  
**Calibration Date:** 26-Mar-2020  
**Calibration Due Date:** 26-Mar-2021  
**Calibrated By:** John R. Johnson



Center Freq. Hz @ 110.0dB	Lower Limits 109.7 dB	Data Found (dB)	Upper Limits 110.3dB	Deviation	Compliance
12.5	109.7 dB	110.0	110.3dB	0.0	YES
16	109.7 dB	110.0	110.3dB	0.0	YES
20	109.7 dB	110.0	110.3dB	0.0	YES
25	109.7 dB	109.9	110.3dB	-0.1	YES
31.5	109.7 dB	110.0	110.3dB	0.0	YES
40	109.7 dB	110.0	110.3dB	0.0	YES
50	109.7 dB	110.0	110.3dB	0.0	YES
63	109.7 dB	110.0	110.3dB	0.0	YES
80	109.7 dB	110.0	110.3dB	0.0	YES
100	109.7 dB	110.0	110.3dB	0.0	YES
125	109.7 dB	110.0	110.3dB	0.0	YES
160	109.7 dB	110.0	110.3dB	0.0	YES
200	109.7 dB	110.0	110.3dB	0.0	YES
250	109.7 dB	110.0	110.3dB	0.0	YES
315	109.7 dB	110.0	110.3dB	0.0	YES
400	109.7 dB	110.0	110.3dB	0.0	YES
500	109.7 dB	110.0	110.3dB	0.0	YES
630	109.7 dB	110.0	110.3dB	0.0	YES
800	109.7 dB	110.0	110.3dB	0.0	YES
1,000	109.7 dB	110.0	110.3dB	0.0	YES
1,250	109.7 dB	110.0	110.3dB	0.0	YES
1,600	109.7 dB	110.0	110.3dB	0.0	YES
2,000	109.7 dB	110.0	110.3dB	0.0	YES
2,500	109.7 dB	110.0	110.3dB	0.0	YES
3,150	109.7 dB	110.0	110.3dB	0.0	YES
4,000	109.7 dB	110.0	110.3dB	0.0	YES
5,000	109.7 dB	110.0	110.3dB	0.0	YES
6,300	109.7 dB	110.0	110.3dB	0.0	YES
8,000	109.7 dB	110.0	110.3dB	0.0	YES
10,000	109.7 dB	110.0	110.3dB	0.0	YES
12,500	109.7 dB	109.9	110.3dB	-0.1	YES
16,000	109.7 dB	109.9	110.3dB	-0.1	YES
20,000	109.7 dB	109.8	110.3dB	-0.2	YES

# Certificate of Compliance and Calibration



**Manufacturer:** 3M/Quest Technologies  
**Model Number:** SoundPro DL-1/3 Sound Level Meter Type-2  
**Serial No.:** BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962  
**Calibration Date:** 26-Mar-2020  
**Calibration Due Date:** 26-Mar-2021  
**Calibrated By:** John R. Johnson



Peak Parameter Electrical Check	ANSI S1.4 Lower Tolerance	Actual Value	ANSI S1.4 Upper Tolerance	Compliance
Peak-C Response 110.0 dB - 31.5Hz	109.5	113.1	115.5	YES
Peak-C Response 110.0 dB - 500Hz	111.5	113.9	115.5	YES
Peak-C Response 110.0 dB - 8000Hz	110.4	114.7	116.4	YES

Broadband Noise Floor Check	Test Result (dB)	Upper Limit (dB)	Compliance
A-weight Noise Floor	17.4	22.0	Yes
C-weight Noise Floor	16.0	30.0	Yes
Z-weight Noise Floor	18.8	35.0	Yes
F-weight Noise Floor	20.3	40.0	Yes

### Laboratory Conditions during Calibration

Atmospheric Pressure 827.3 hPa  
 Laboratory Air Temperature 22.4 Deg. C  
 Laboratory Air Humidity 26.2 %

### Standards Used and Their Due Dates:

<b>Measuring Amp</b>	<b>B&amp;K 2636</b>	<b>SN: 812847</b>	<b>Trace # CAS-355090-C1T2Z7-101</b>	<b>Due Date: 01/16/2021</b>
<b>Piston Phone</b>	<b>B&amp;K 4228</b>	<b>SN: 1747024</b>	<b>Trace # CAS-355090-C1T2Z7-802</b>	<b>Due Date: 01/16/2021</b>
<b>Calibrator</b>	<b>B&amp;K 4231</b>	<b>SN: 2122969</b>	<b>Trace # CAS-355090-C1T2Z7-801</b>	<b>Due Date: 01/16/2021</b>
<b>Multimeter</b>	<b>HP</b>	<b>SN: US36054035</b>	<b>Trace # 1-10796763933-1</b>	<b>Due Date: 01/14/2021</b>

Engineering Dynamics, Inc. does hereby certify that the above referenced SOUND LEVEL ANALYZER meets the requirements of the American National Standards Institute and is traceable to NIST.

Certification of this instrument is valid for 1-year from the calibration date listed above.  
 This certificate shall not be reproduced, except in full, without the written approval of Engineering Dynamics, Inc.



August 31, 2020

Community Development Department  
Carson City  
108 E. Proctor Street  
Carson City, NV 89701

Re: Water Letter in support of the R&K Ready Mixed Concrete Special Use Permit

The purpose of this letter is to address water impacts from the proposed project. The proposed project site (APN 005-072-06) is approximately 4.4 acres in size and is located in Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way.

The site is currently undeveloped. An existing 12-inch ACP public water main is located south of the project site within Arrowhead Drive. An 8-inch water main will be extended up Ryan Way to supply the project site. The R&K Ready Mixed Concrete project includes a 3,360 square foot office and shop building to be serviced by the extended main. One domestic service water meter will supply the building. Another meter and service will be utilized for the small landscape area. Additionally, a fire hydrant will be placed onsite so that it is located within 100 feet of the building.

The demand for the building and small landscape area is low based on similar uses. The process water and mixing water for the concrete production will be estimated and analyzed at final design.

The proposed water system will meet the requirements outlined in the *Carson City Development Standards*. A full water design will be completed at the time of final design of the project.

Please consider this letter in lieu of a Preliminary Water Report for the project. If you have any questions or concerns, please contact me at 775-823-5204 or [jwilbrecht@woodrogers.com](mailto:jwilbrecht@woodrogers.com).

Sincerely,

Jillian Wilbrecht, P.E.







August 31, 2020

Community Development Department  
Carson City  
108 E. Proctor Street  
Carson City, NV 89701

Re: Sewer Letter in support of the R&K Ready Mixed Concrete Special Use Permit

The purpose of this letter is to address sewer impacts from the proposed project. The proposed project site (APN 005-072-06) is approximately 4.4 acres in size and is located in Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way.

The site is currently undeveloped. An existing 8-inch ACP public sanitary sewer main is located along the west property line. The R&K Ready Mixed Concrete project includes a 3,360 square foot office and shop building that will connect to the existing public sewer system.

The peak daily flow is calculated using the sewage contributions for industrial areas as specified by the *Carson City Development Standards*. The *Standards* specify an average flow of 300 gallons/capita/day peak design flow rate with a 12 capita/acre population density. This results in a peak sewer flow rate of 0.025 cubic feet per second (15,900 gallons per day). The sewer flows will likely be less than the design code calculations based on the small building footprint for the site. The flows generated by this project are low, less than 200 fixture units, and it is assumed that the downstream system can handle the additional load.

The proposed private sanitary sewer system located within the project will meet the requirements outlined in the *Carson City Development Standards*. A full sewer design will be completed at the time of final design of the project.

Please consider this letter in lieu of a Preliminary Sewer Report for the project. If you have any questions or concerns, please contact me at 775-823-5204 or [jwilbrecht@woodrogers.com](mailto:jwilbrecht@woodrogers.com).

Sincerely,

Jillian Wilbrecht, P.E.





**PRELIMINARY DRAINAGE REPORT**

**FOR**

**R&K READY MIXED CONCRETE**

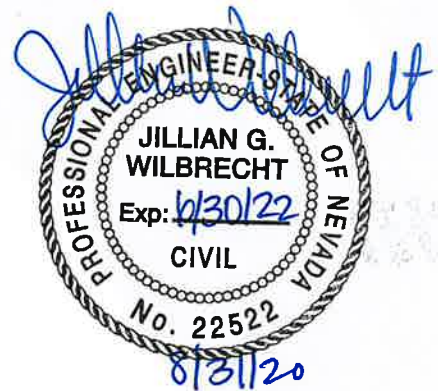
*Prepared for:*

**R&K Ready Mixed Concrete, LLC  
930 Tahoe Boulevard, Suite 802; PMB 526  
Incline Village, NV 89451**

August 2020

*Prepared by:*

**Wood Rodgers Inc.  
1361 Corporate Boulevard  
Reno, Nevada 89502**



---

Jillian Wilbrecht, P.E.



**WOOD RODGERS**  
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

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EXISTING ONSITE CONDITIONS 5 & 100-YEAR RATIONAL FORMULA CALCULATIONS

PROPOSED WATERSHEDS, FLOWPATHS, AND LAND USE FIGURE

PROPOSED ONSITE CONDITIONS 5 & 100-YEAR RATIONAL FORMULA CALCULATIONS



## **INTRODUCTION**

This report represents the Preliminary Drainage Report for the development of the proposed R&K Ready Mixed Concrete site. The purpose of this report is to address drainage issues that result from development of the existing property in accordance with the *Carson City Development Standards* and sound design and engineering practices. This report describes the existing drainage condition on and around the project site, details the proposed routing of storm water, quantifies the estimated onsite storm water flow to be generated from development, compares it to the existing condition, and defines the design measures proposed to mitigate increased runoff.

## **GENERAL LOCATION AND DEVELOPMENT DESCRIPTION**

The proposed project site (APN 005-072-06) is approximately 4.4± acres in size and is located within Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way. A Vicinity Map is included in the appendix of this report for reference.

The project site is located within the Carson River Basin as delineated by the State of Nevada Division of Environmental Protection. There are currently no underground drainage facilities adjacent to the project site.

## **PROPERTY DESCRIPTION**

The parcel is currently undeveloped land without any utilities or other improvements onsite. The property is covered in brush and native grasses. The site is generally flat, sloping from north to south at a less than 2% slope.

## **PROJECT DESCRIPTION**

The R&K Ready Mixed Concrete project includes a 3,360 square foot office and shop building. The site will include equipment and materials for processing concrete. The site has approximately 5,100 square feet of landscaping and 78,300 square feet of paving for access roads, parking, and equipment pads.

## **EXISTING DRAINAGE DESCRIPTION**

### **OFFSITE DRAINAGE DESCRIPTION**

The current historic drainage pattern is characterized by shallow overland flow, generally flowing from north to south across minimally-sloping, natively-vegetated land. An existing drainage swale crosses the site along the western third of the property. This swale will be intercepted at the north edge of the property and conveyed west then south along the property lines. It will then be aligned to discharge into the existing swale on the property south of the project site. No additional stormwater from the



proposed project site will be discharged into the western swale. To size the re-routed channel, three cross-sections were taken of the existing channel and evaluated.

### ONSITE DRAINAGE DESCRIPTION

Historic onsite drainage sheet flows from north to south as directed by the existing slope of the land. The site is devoid of any existing drainage infrastructure.

### FLOODPLAIN INFORMATION

The entire site is designated as Zone Shaded X by FEMA. See the FEMA Firmette in the appendix of this report for an illustration of the area. The building will be elevated one foot above the existing ground for mitigation.

## **PROPOSED DRAINAGE FACILITIES & HYDROLOGY**

### GENERAL DESCRIPTION

In the proposed condition, the site will be graded to route all onsite runoff to the south or southeast area of the site, mimicking the existing condition. Stormwater routing consists of sheet flow from the paved areas, building roof, and landscape areas to drainage swales. The drainage swale along the south side of the project site will act as a linear detention basin with outlet control in the southeast corner matching the existing 5-year flow condition. A copy of the Site Drainage Plan is included in the appendix for graphical representation.

### HYDROLOGIC ANALYSIS

5-year and 100-year storm event runoff for the onsite and offsite areas was analyzed using the Rational Method, per Carson City drainage manual for sites less than 100 acres. Rational Method input includes rainfall frequency, runoff coefficients, and drainage areas. Rainfall input was generated from the NOAA Atlas 14 Point Precipitation Frequency Estimates at the site. A copy of the frequency table is included in the appendix of this report. Runoff coefficients (C-values) were estimated using standard C-value estimates published in the Truckee Meadows Regional Drainage Manual based on surface characteristics.

A Rational Method spreadsheet was used to calculate runoff from the design storm events. Copies of the spreadsheets are included in the appendix of this report. Calculations are included for the onsite 5-year and 100-year events for both the existing and proposed conditions.

Results from the calculations are summarized in the following table:

<b>Basin &amp; Condition</b>	<b>5-Year Flow Rate (cfs)</b>	<b>100-Year Flow Rate (cfs)</b>
Existing (E-1)	1.0	6.5
Proposed (P-1 & P-2)	2.8	9.7





Development of the project site results in a 5-year runoff increase of 1.8 cubic feet per second (cfs). The impact of the proposed flow rates on the existing site has been evaluated and mitigated as described below.

### DETENTION

A linear detention basin is proposed along the south side of the project site to handle stormwater. The detention basin has been designed to handle the additional flow generated from development of the site and is equipped with an outlet pipe that restricts the discharge to the downstream system to match the existing 5-year condition flow rate.

The existing and proposed flows on the site were evaluated. The existing condition has a 5-year storm event flow rate of 1.0 cfs and a proposed flow rate of 2.8 cfs resulting in an increase of 1.8 cfs. The minimum detention volume was calculated using the Rational Formula Method for the Truckee Meadows Regional Drainage Manual, which states the volume is equal to 60 times the time of concentration times the detained flow rate. The resulting minimum required detention volume is 1,500 cubic feet (cf). A berm set at a level elevation along the south side of the project site will allow for sheet flow from the offsite areas to continue across the project site matching existing discharge conditions for storms larger than the 5-year.

### RYAN WAY STORMWATER CROSSING

An existing FEMA Regulatory Floodway open drainage channel is located on the parcel east of the project site. Currently, the open drainage channel flows across Ryan Way near the entrance of the proposed project site. As a part of the development of the project, Ryan Way will be paved up to the project site, therefore impacting the existing channel crossing. As the site will accommodate large vehicles for hauling concrete and associated materials, an underground crossing at this location is proposed. Based on information received from Carson City Public Works, the existing channel has a 100-year, 24-hour flow rate of 45 cfs. Additionally, some sheet flow west of the channel will be routed to the crossing. The underground crossing will handle the 100-year flow contribution.

### **CONCLUSION**

The drainage facilities that will be constructed with the R&K Ready Mixed Concrete site have been designed in compliance with all drainage laws, Carson City Municipal Code, FEMA requirements and development standards. The proposed drainage facilities are adequately sized to ensure flow leaving the site in the proposed condition is at or below existing condition levels and will therefore not impact downstream flow rates or storage requirements.



## **REFERENCES**

*Carson City Municipal Code, Title 18 Appendix – Carson City Development Standards, August 27, 2014.*

Federal Emergency Management Agency, Flood Insurance Rate Map for Carson City, Nevada.

NOAA Atlas 14, Volume 1, Version 5. Downloaded August 18, 2020.

*Truckee Meadows Regional Drainage Manual, April 30, 2009.*



## **APPENDIX**



Fig. 1  
Vicinity Map

***R&K Ready Mixed Concrete***

***Carson City, NV***

*July 2020*



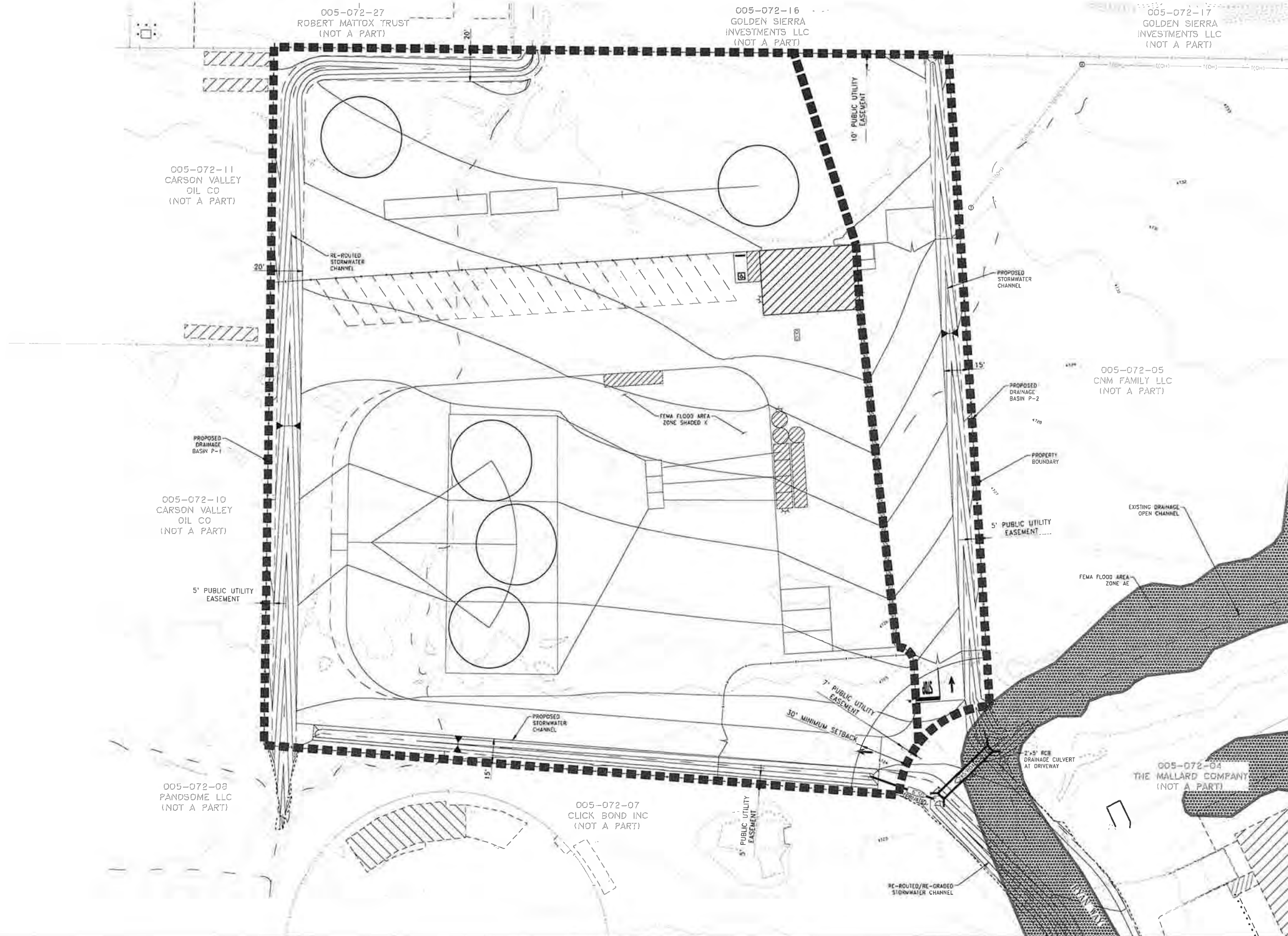


SITE DRAINAGE PLAN

# R&K READY MIX CARSON CITY

R&K READY MIXED CONCRETE, LLC

CARSON CITY AUGUST, 2020 NEVADA



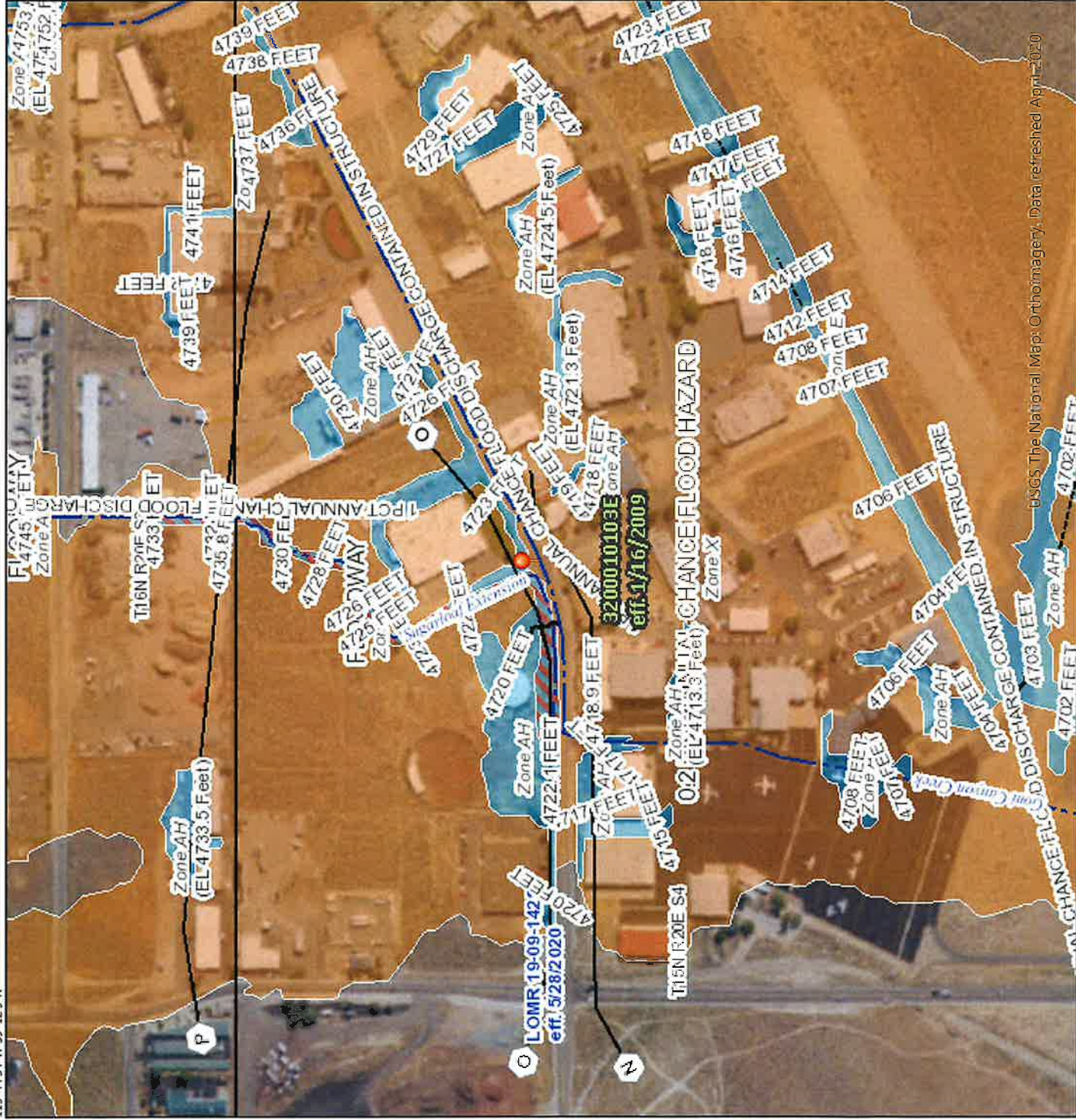
R&K READY MIX



# National Flood Hazard Layer FIRMette



119°44'54"W 39°12'9"N



119°44'17"W 39°11'41"N

## 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. Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone B
- 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 C

**OTHER AREAS**

- NO SCREEN
- Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone B

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**CROSS SECTIONS WITH 1% ANNUAL CHANCE WATER SURFACE ELEVATION**

- 20.2
- 17.5
- 99

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance 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

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 8/19/2020 at 2:05 PM 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.





**NOAA Atlas 14, Volume 1, Version 5**  
**Location name: Carson City, Nevada, USA\***  
**Latitude: 39.1998°, Longitude: -119.7442°**  
**Elevation: 4727.78 ft\*\***



\* source: ESRI Maps  
 \*\* source: USGS

**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

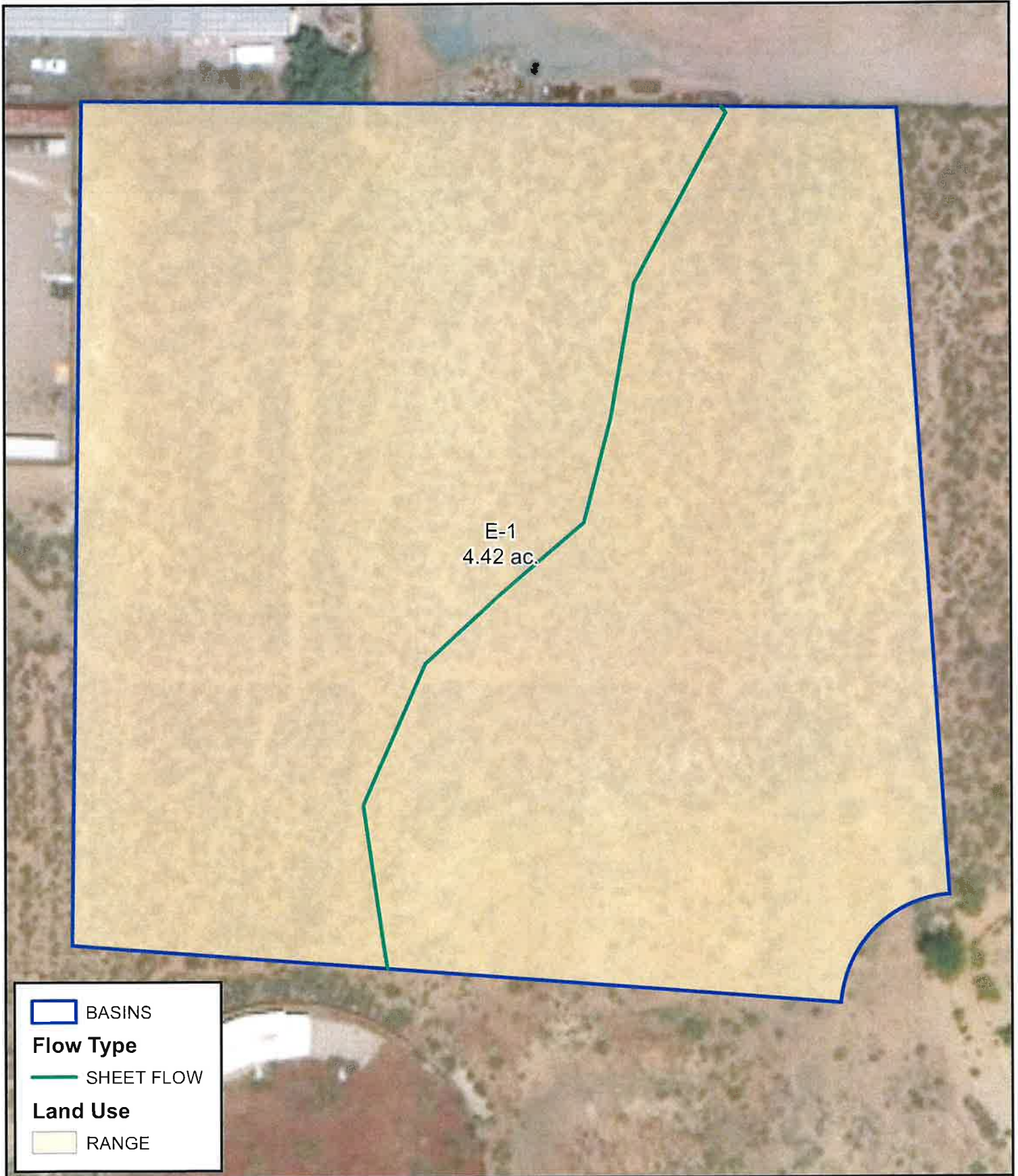
**PF tabular**

<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
<b>5-min</b>	<b>1.20</b> (1.03-1.42)	<b>1.49</b> (1.30-1.76)	<b>1.98</b> (1.70-2.35)	<b>2.46</b> (2.09-2.90)	<b>3.24</b> (2.66-3.83)	<b>3.94</b> (3.14-4.69)	<b>4.78</b> (3.68-5.75)	<b>5.78</b> (4.28-7.08)	<b>7.37</b> (5.15-9.24)	<b>8.82</b> (5.87-11.3)
<b>10-min</b>	<b>0.912</b> (0.786-1.07)	<b>1.13</b> (0.984-1.34)	<b>1.51</b> (1.29-1.79)	<b>1.87</b> (1.59-2.21)	<b>2.46</b> (2.03-2.92)	<b>2.99</b> (2.39-3.57)	<b>3.64</b> (2.80-4.38)	<b>4.40</b> (3.26-5.39)	<b>5.61</b> (3.92-7.03)	<b>6.71</b> (4.46-8.57)
<b>15-min</b>	<b>0.752</b> (0.648-0.888)	<b>0.936</b> (0.812-1.11)	<b>1.25</b> (1.07-1.48)	<b>1.55</b> (1.31-1.83)	<b>2.03</b> (1.67-2.41)	<b>2.48</b> (1.98-2.95)	<b>3.00</b> (2.32-3.62)	<b>3.64</b> (2.69-4.46)	<b>4.64</b> (3.24-5.82)	<b>5.55</b> (3.69-7.09)
<b>30-min</b>	<b>0.506</b> (0.436-0.598)	<b>0.630</b> (0.546-0.748)	<b>0.842</b> (0.720-0.996)	<b>1.04</b> (0.884-1.23)	<b>1.37</b> (1.13-1.62)	<b>1.67</b> (1.33-1.99)	<b>2.02</b> (1.56-2.44)	<b>2.45</b> (1.81-3.00)	<b>3.12</b> (2.18-3.91)	<b>3.73</b> (2.48-4.77)
<b>60-min</b>	<b>0.313</b> (0.270-0.370)	<b>0.390</b> (0.338-0.462)	<b>0.520</b> (0.445-0.617)	<b>0.645</b> (0.547-0.761)	<b>0.847</b> (0.697-1.00)	<b>1.03</b> (0.823-1.23)	<b>1.25</b> (0.965-1.51)	<b>1.51</b> (1.12-1.86)	<b>1.93</b> (1.35-2.42)	<b>2.31</b> (1.54-2.95)
<b>2-hr</b>	<b>0.210</b> (0.187-0.241)	<b>0.261</b> (0.232-0.299)	<b>0.332</b> (0.293-0.380)	<b>0.396</b> (0.345-0.452)	<b>0.491</b> (0.417-0.562)	<b>0.576</b> (0.478-0.667)	<b>0.671</b> (0.542-0.787)	<b>0.788</b> (0.616-0.938)	<b>0.990</b> (0.739-1.22)	<b>1.18</b> (0.848-1.49)
<b>3-hr</b>	<b>0.167</b> (0.150-0.189)	<b>0.209</b> (0.188-0.236)	<b>0.262</b> (0.233-0.295)	<b>0.305</b> (0.270-0.344)	<b>0.366</b> (0.319-0.415)	<b>0.419</b> (0.358-0.479)	<b>0.478</b> (0.400-0.551)	<b>0.553</b> (0.453-0.649)	<b>0.676</b> (0.537-0.823)	<b>0.794</b> (0.615-1.00)
<b>6-hr</b>	<b>0.117</b> (0.105-0.131)	<b>0.146</b> (0.131-0.164)	<b>0.181</b> (0.162-0.202)	<b>0.209</b> (0.185-0.234)	<b>0.246</b> (0.216-0.277)	<b>0.276</b> (0.238-0.312)	<b>0.305</b> (0.259-0.350)	<b>0.340</b> (0.283-0.394)	<b>0.390</b> (0.316-0.460)	<b>0.435</b> (0.345-0.521)
<b>12-hr</b>	<b>0.077</b> (0.068-0.086)	<b>0.096</b> (0.086-0.109)	<b>0.121</b> (0.108-0.137)	<b>0.141</b> (0.124-0.158)	<b>0.167</b> (0.146-0.189)	<b>0.187</b> (0.161-0.214)	<b>0.208</b> (0.176-0.240)	<b>0.229</b> (0.191-0.267)	<b>0.258</b> (0.209-0.306)	<b>0.280</b> (0.222-0.338)
<b>24-hr</b>	<b>0.050</b> (0.045-0.056)	<b>0.063</b> (0.057-0.070)	<b>0.079</b> (0.072-0.088)	<b>0.092</b> (0.084-0.102)	<b>0.111</b> (0.100-0.123)	<b>0.126</b> (0.112-0.139)	<b>0.141</b> (0.124-0.157)	<b>0.157</b> (0.137-0.175)	<b>0.178</b> (0.154-0.201)	<b>0.196</b> (0.166-0.223)
<b>2-day</b>	<b>0.030</b> (0.027-0.034)	<b>0.038</b> (0.034-0.042)	<b>0.048</b> (0.043-0.054)	<b>0.056</b> (0.050-0.063)	<b>0.068</b> (0.060-0.076)	<b>0.077</b> (0.068-0.087)	<b>0.087</b> (0.076-0.099)	<b>0.097</b> (0.084-0.111)	<b>0.111</b> (0.094-0.129)	<b>0.122</b> (0.102-0.144)
<b>3-day</b>	<b>0.022</b> (0.020-0.025)	<b>0.028</b> (0.025-0.031)	<b>0.035</b> (0.032-0.040)	<b>0.042</b> (0.037-0.047)	<b>0.051</b> (0.045-0.057)	<b>0.058</b> (0.051-0.066)	<b>0.065</b> (0.057-0.075)	<b>0.074</b> (0.063-0.084)	<b>0.085</b> (0.071-0.098)	<b>0.094</b> (0.078-0.110)
<b>4-day</b>	<b>0.018</b> (0.016-0.020)	<b>0.023</b> (0.020-0.026)	<b>0.029</b> (0.026-0.033)	<b>0.035</b> (0.031-0.039)	<b>0.042</b> (0.037-0.048)	<b>0.048</b> (0.042-0.055)	<b>0.055</b> (0.047-0.063)	<b>0.062</b> (0.053-0.071)	<b>0.072</b> (0.060-0.083)	<b>0.080</b> (0.066-0.093)
<b>7-day</b>	<b>0.012</b> (0.011-0.014)	<b>0.015</b> (0.013-0.017)	<b>0.020</b> (0.017-0.022)	<b>0.023</b> (0.021-0.026)	<b>0.028</b> (0.025-0.032)	<b>0.032</b> (0.028-0.037)	<b>0.037</b> (0.032-0.042)	<b>0.041</b> (0.035-0.047)	<b>0.047</b> (0.040-0.055)	<b>0.052</b> (0.043-0.061)
<b>10-day</b>	<b>0.009</b> (0.008-0.011)	<b>0.012</b> (0.010-0.013)	<b>0.015</b> (0.014-0.017)	<b>0.018</b> (0.016-0.021)	<b>0.022</b> (0.019-0.025)	<b>0.025</b> (0.022-0.028)	<b>0.028</b> (0.024-0.032)	<b>0.031</b> (0.027-0.036)	<b>0.036</b> (0.030-0.041)	<b>0.039</b> (0.033-0.046)
<b>20-day</b>	<b>0.006</b> (0.005-0.006)	<b>0.007</b> (0.007-0.008)	<b>0.009</b> (0.008-0.011)	<b>0.011</b> (0.010-0.012)	<b>0.013</b> (0.012-0.015)	<b>0.015</b> (0.013-0.017)	<b>0.017</b> (0.015-0.019)	<b>0.018</b> (0.016-0.021)	<b>0.021</b> (0.018-0.024)	<b>0.022</b> (0.019-0.026)
<b>30-day</b>	<b>0.004</b> (0.004-0.005)	<b>0.006</b> (0.005-0.006)	<b>0.007</b> (0.006-0.008)	<b>0.008</b> (0.008-0.009)	<b>0.010</b> (0.009-0.011)	<b>0.011</b> (0.010-0.013)	<b>0.013</b> (0.011-0.014)	<b>0.014</b> (0.012-0.016)	<b>0.016</b> (0.013-0.018)	<b>0.017</b> (0.014-0.019)
<b>45-day</b>	<b>0.003</b> (0.003-0.004)	<b>0.004</b> (0.004-0.005)	<b>0.006</b> (0.005-0.006)	<b>0.007</b> (0.006-0.007)	<b>0.008</b> (0.007-0.009)	<b>0.009</b> (0.008-0.010)	<b>0.010</b> (0.008-0.011)	<b>0.010</b> (0.009-0.012)	<b>0.012</b> (0.010-0.013)	<b>0.012</b> (0.011-0.014)
<b>60-day</b>	<b>0.003</b> (0.003-0.003)	<b>0.004</b> (0.003-0.004)	<b>0.005</b> (0.004-0.005)	<b>0.006</b> (0.005-0.006)	<b>0.007</b> (0.006-0.007)	<b>0.007</b> (0.007-0.008)	<b>0.008</b> (0.007-0.009)	<b>0.009</b> (0.008-0.010)	<b>0.009</b> (0.008-0.011)	<b>0.010</b> (0.009-0.011)

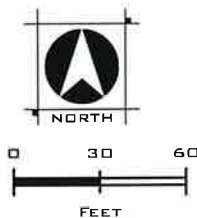
<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration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

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**PF graphical**



EXISTING HYDROLOGY  
 R AND K READY MIX  
 CARSON CITY, NV  
 AUGUST 2020  
 NOTES



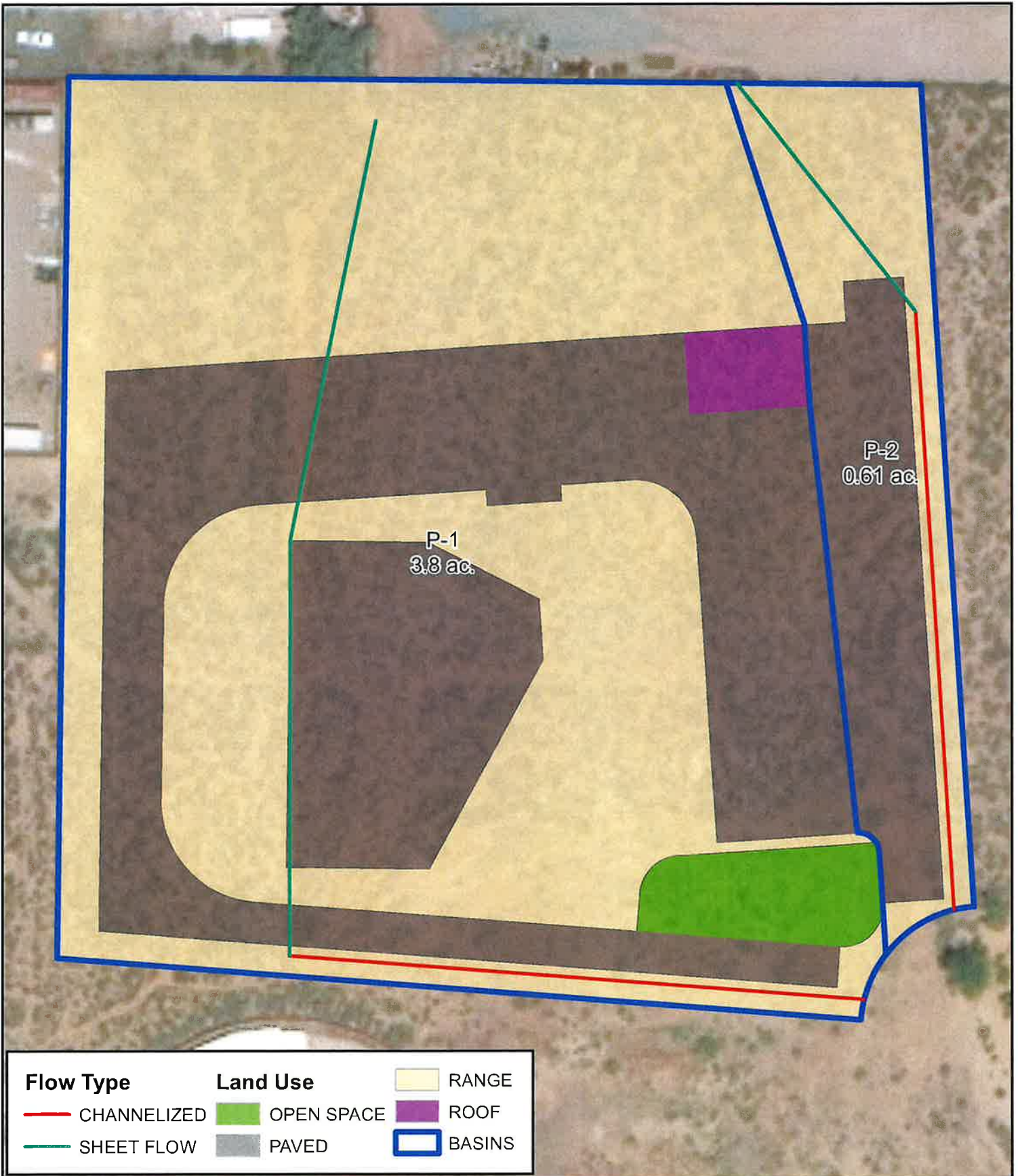
**PRELIMINARY**

**WOOD RODGERS**  
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
 1361 Corporate Boulevard Tel: 775.823.4068  
 Reno, NV 89502 Fax: 775.823.4066

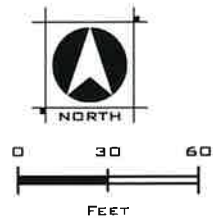


Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor $C_{avg}$	TIME OF CONCENTRATION												5-YEAR STORM EVENT						
			Initial Flow Time, $T_1$			Channelized Flow			Gutter Flow			Travel Time, $T_1$			Total $(T_1+T_2)$	Urbanized Basins Check $T_c$ (min)	Final $T_c$ (min)	NOAA ATLAS 14 Rainfall Intensity $I_{5-year}$ (in/hour)	Rational Flow $Q_{5-year}$ (cfs)		
			$L_1$ (ft)	$S$ (ft/ft)	$T_1$ (min)	$L_c$ (ft)	$S$ (ft/ft)	$T_{11}$ (min)	$L_2$ (ft)	$S$ (ft/ft)	$T_{12}$ (min)	$L_3$ (ft)	$S$ (ft/ft)	$T_{13}$ (min)						$T_c$ (min)	
E-1	4.42	0.20	500	0.0177	30.0													12.8	12.8	1.19	1.0

Drainage Basin	Drainage Area (AC)	TIME OF CONCENTRATION												100-YEAR STORM EVENT			
		Initial Flow Time, $T_1$			Channelized Flow			Travel Time, $T_1$			Total ( $T_1+T_2$ )	Urbanized Basins Check $T_c^u$ (min)	Final $T_c$ (min)	NOAA ATLAS 14 Rainfall Intensity $I_{100\text{-year}}$ (in/hour)	Rational Flow $Q_{100\text{-year}}$ (cfs)		
		$L_1$ (ft)	$S$ (ft/ft)	$T_1$ (min)	$L_2$ (ft)	$S$ (ft/ft)	$V$ (ft/s)	$T_{12}$ (min)	$L_3$ (ft)	$S$ (ft/ft)						$V$ (ft/s)	$T_{13}$ (min)
E-1	4.42	500	0.0777	20.0									20.0	12.8	12.8	2.93	6.5



PROPOSED HYDROLOGY  
 R AND K READY MIX  
 CARSON CITY, NV  
 AUGUST 2020  
 NOTES



**PRELIMINARY**

**WOOD RODGERS**  
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
 1361 Corporate Boulevard  
 Reno, NV 89502  
 Tel: 775.823.4068  
 Fax: 775.823.4066

Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor $C_{p,100}$	TIME OF CONCENTRATION												5-YEAR STORM EVENT							
			Initial Flow Time, $T_1$			Channelized Flow			Gutter Flow			Travel Time, $T_i$			Total (T <sub>1</sub> +T <sub>i</sub> )	Urbanized Basins Check	Final	Rational Flow				
			$L_1$ (ft)	$S$ (ft/ft)	$T_1$ (min)	$L_c$ (ft)	$S$ (ft/ft)	$V$ (ft/s)	$T_{11}$ (min)	$L_1$ (ft)	$S$ (ft/ft)	$V$ (ft/s)	$T_{12}$ (min)	$L_2$ (ft)					$S$ (ft/ft)	$V$ (ft/s)	$T_{13}$ (min)	$T_c$ (min)
P-1	3.80	0.47	413	0.0229	17.6	293	0.0023	0.8	6.1									23.7	13.9	13.9	1.31	2.3
P-2	0.61	0.54	142	0.0256	8.9	294	0.0171	2.1	2.3									11.2	12.4	11.2	1.45	0.5



Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor <sup>100-year</sup>	TIME OF CONCENTRATION												100-YEAR STORM EVENT			
			Initial Flow Times, T <sub>i</sub>			Channelized Flow			Travel Times, T <sub>t</sub>			Total (T <sub>t</sub> +T <sub>c</sub> )	Urbanized Basins Check T <sub>c</sub> (min)	Final T <sub>c</sub> (min)	NOAA ATLAS 14 Rainfall Intensity I <sub>100-year</sub> (in/hour)	Rational Flow Q <sub>100-year</sub> (cfs)		
			L <sub>i</sub> (ft)	S (ft/ft)	T <sub>i</sub> (min)	L <sub>c</sub> (ft)	S (ft/ft)	V (ft/s)	T <sub>c</sub> (min)	L <sub>t</sub> (ft)	S (ft/ft)						V (ft/s)	T <sub>t</sub> (min)
P-1	3.80	0.67	413	0.0228	12.1	283	0.0023	0.8	6.1	2.3	6.1	2.3	2.1	2.1	16.2	13.9	3.15	8.0
P-2	0.81	0.71	142	0.0256	6.1	284	0.0171	2.1	2.3	2.3	2.3	2.3	2.1	2.1	8.4	12.4	4.00	1.7



August 31, 2020

Community Development Department  
Carson City  
108 E. Proctor Street  
Carson City, NV 89701

Re: Sewer Letter in support of the R&K Ready Mixed Concrete Special Use Permit

The purpose of this letter is to address sewer impacts from the proposed project. The proposed project site (APN 005-072-06) is approximately 4.4 acres in size and is located in Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way.

The site is currently undeveloped. An existing 8-inch ACP public sanitary sewer main is located along the west property line. The R&K Ready Mixed Concrete project includes a 3,360 square foot office and shop building that will connect to the existing public sewer system.

The peak daily flow is calculated using the sewage contributions for industrial areas as specified by the *Carson City Development Standards*. The *Standards* specify an average flow of 300 gallons/capita/day peak design flow rate with a 12 capita/acre population density. This results in a peak sewer flow rate of 0.025 cubic feet per second (15,900 gallons per day). The sewer flows will likely be less than the design code calculations based on the small building footprint for the site. The flows generated by this project are low, less than 200 fixture units, and it is assumed that the downstream system can handle the additional load.

The proposed private sanitary sewer system located within the project will meet the requirements outlined in the *Carson City Development Standards*. A full sewer design will be completed at the time of final design of the project.

Please consider this letter in lieu of a Preliminary Sewer Report for the project. If you have any questions or concerns, please contact me at 775-823-5204 or [jwilbrecht@woodrogers.com](mailto:jwilbrecht@woodrogers.com).

Sincerely,

Jillian Wilbrecht, P.E.





# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT TITLE SHEET

**OWNER/DEVELOPER:**  
R&K READY MIXED CONCRETE, LLC  
930 TAHOE BLVD, STE 802; PMB 526  
INCLINE VILLAGE, NV 89451  
949-253-2800 EXT 368



**VICINITY MAP**  
NOT TO SCALE

**BASIS OF BEARINGS**

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983/1994, HIGH ACCURACY REFERENCE NETWORK (NAD 83/94-HARN), AS DETERMINED USING REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS CONSTRAINED TO THE 2010 CARSON CITY CONTROL NETWORK. THE BEARING BETWEEN CARSON CITY CONTROL MONUMENTS CC053 AND CC052 IS TAKEN AS NORTH 31°53'06" EAST. ALL DIMENSIONS SHOWN ARE GROUND DISTANCES. GRID TO GROUND COMBINED FACTOR=1.0002000

**BASIS OF ELEVATION**

BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) AS TAKEN FROM CARSON CITY BENCHMARK CC053, WITH A PUBLISHED ELEVATION OF 4714.97 FT. BENCHMARK CC053 IS DESCRIBED AS BEING 2 1/2" BRASS DISK STAMPED "CC053 2010" LOCATED ON THE EAST SIDE OF WEDCO WAY, APPROX. 408' NORTH OF THE INTERSECTION OF OLD HOT SPRINGS ROAD AND WEDCO WAY.

**SITE INFORMATION:**

**SITE PLAN STATISTICS**  
SITE AREA: 4.42 AC  
BUILDING AREA: 3,360± SF  
IMPERVIOUS AREA: 78,311± SF  
LANDSCAPE AREA: 5,131± SF

**PARKING STATISTICS**  
TOTAL PARKING REQUIRED: 7 STALLS  
TOTAL PARKING PROVIDED: 22 STALLS  
TOTAL ACCESSIBLE PARKING REQUIRED: 1 STALL  
TOTAL ACCESSIBLE PARKING PROVIDED: 1 STALL

**LANDSCAPING STATISTICS**  
SITE AREA: 4.42 AC  
REQUIRED LANDSCAPE AREA: 20% IMPERVIOUS AREA = 15,662± SF  
PROVIDED LANDSCAPE AREA: 6.6% = 5,131± SF

ASSESSOR PARCEL NUMBER  
005-072-06

**ENGINEERS STATEMENT:**

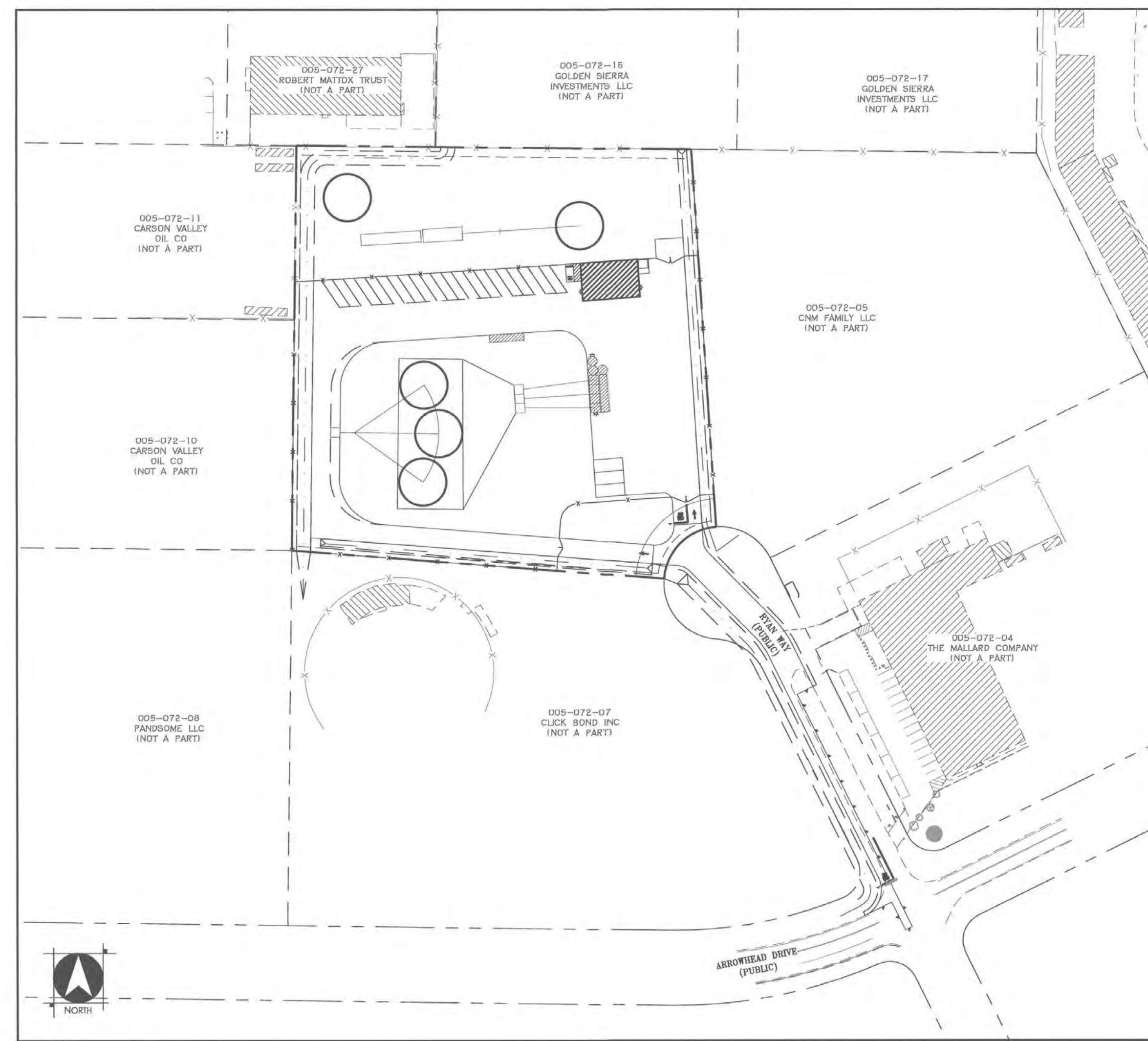
I, JILLIAN WILBRECHT, DO HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND WAS COMPLETED ON THE 31ST DAY OF AUGUST, 2020.

JILLIAN G. WILBRECHT, P.E. #22522



**SHEET INDEX**

SHT No.	DWG ID	DRAWING DESCRIPTION
1	T-1	TITLE SHEET
2	S-1	PRELIMINARY SITE PLAN
3	G-1	PRELIMINARY GRADING PLAN
4	U-1	PRELIMINARY UTILITY PLAN



**SITE PLAN**  
NOT TO SCALE

R&K READY MIXED CONCRETE  
TITLE SHEET



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Reno, NV 89502 Fax 775.823.4066


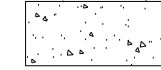


3885.001

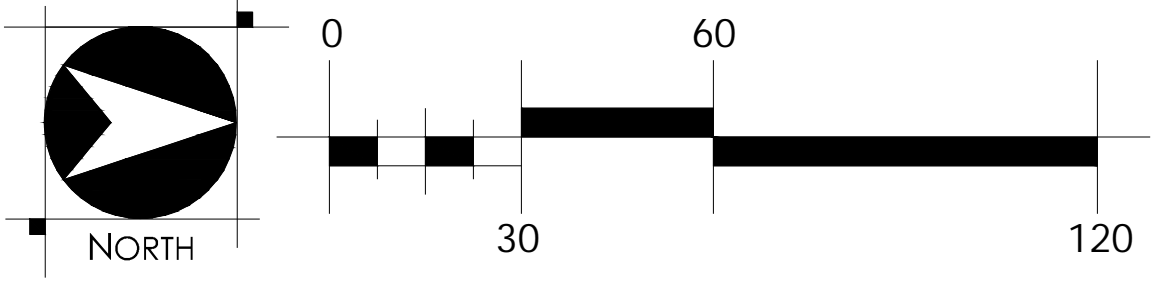
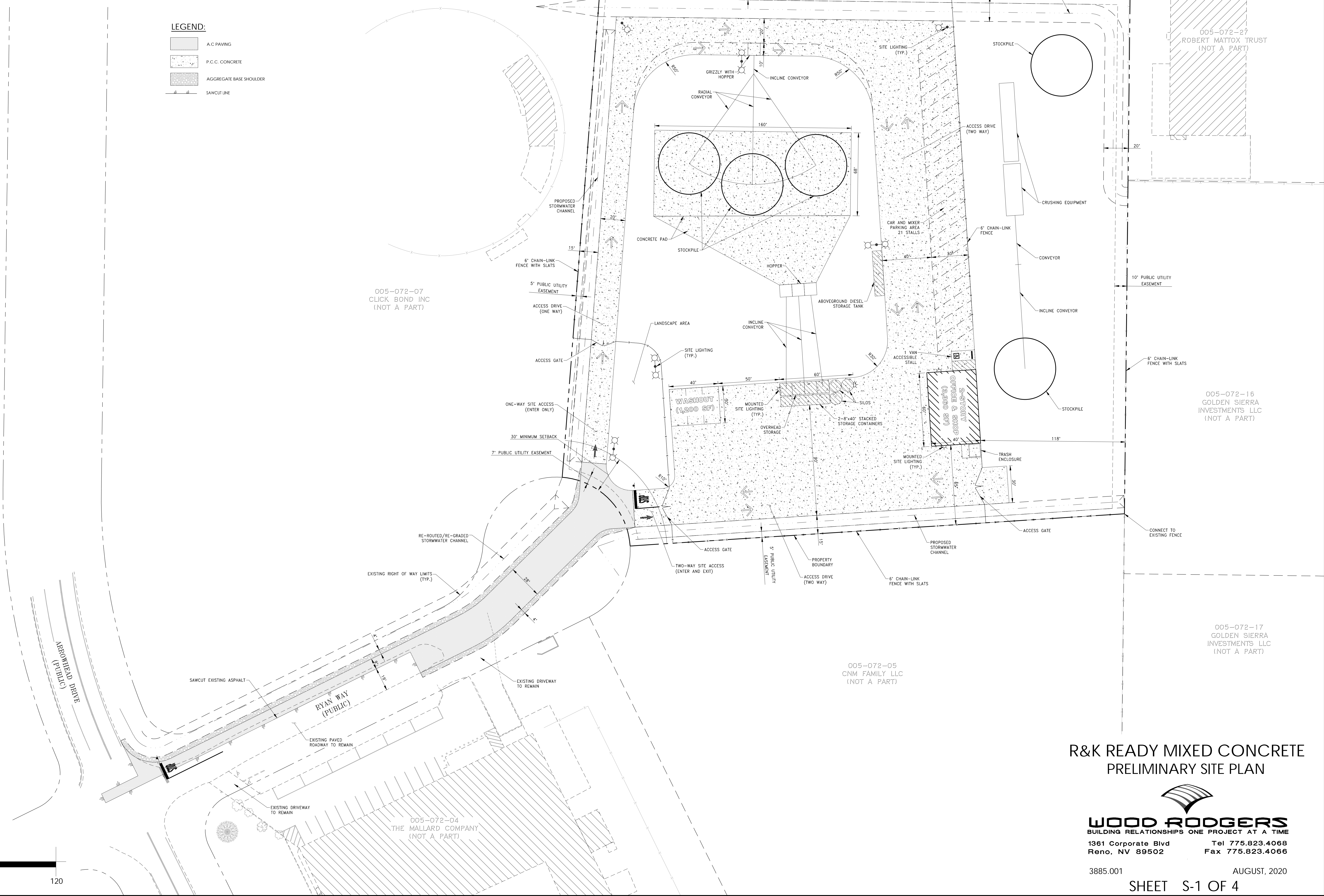
AUGUST, 2020

SHEET T-1 OF 4



# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT PRELIMINARY SITE PLAN

- LEGEND:**
-  A.C. PAVING
  -  P.C.C. CONCRETE
  -  AGGREGATE BASE SHOULDER
  -  SAWCUT LINE



R&K READY MIXED CONCRETE  
PRELIMINARY SITE PLAN

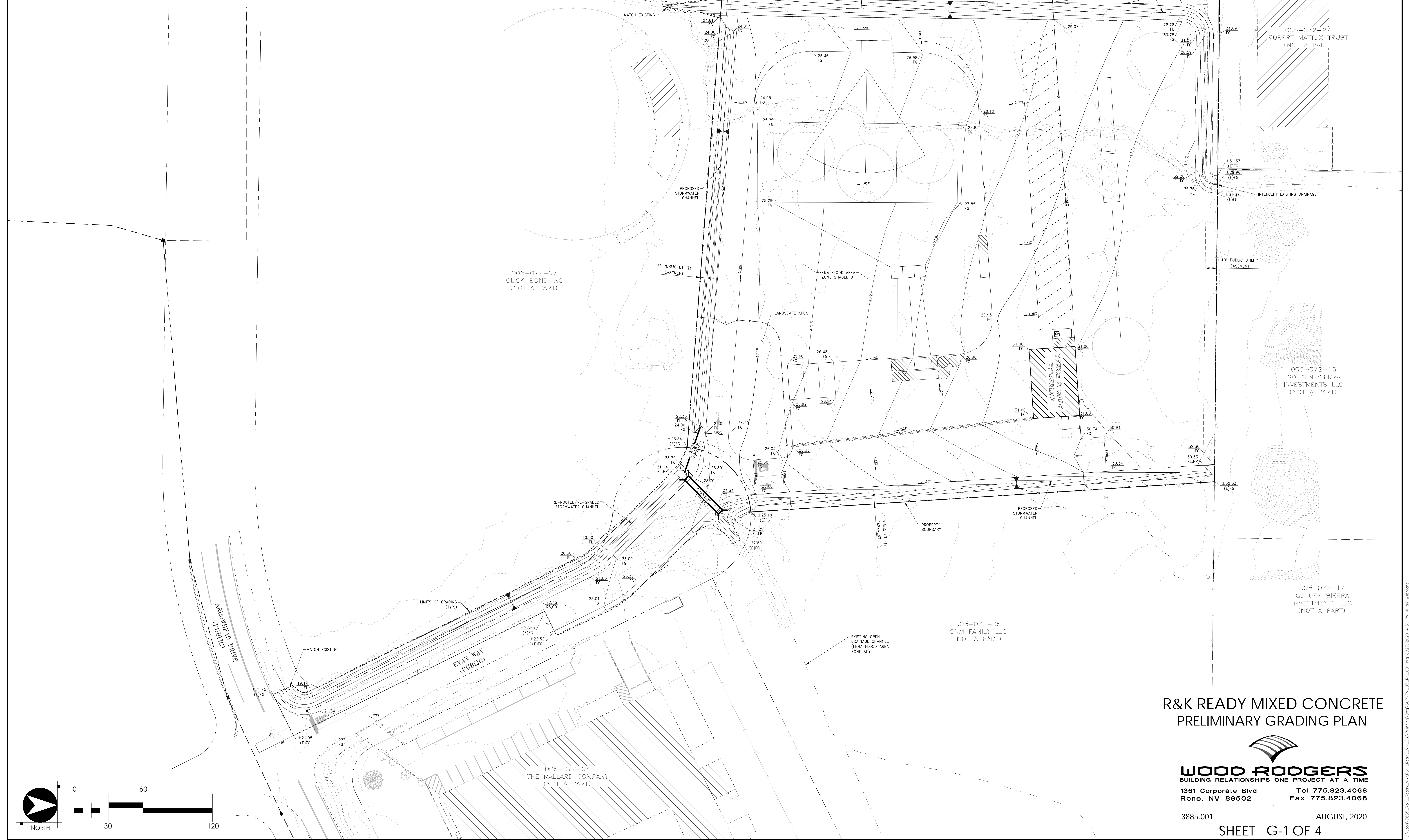
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Tel 775.823.4068 Fax 775.823.4066

3885.001 AUGUST, 2020  
SHEET S-1 OF 4

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# R&K READY MIXED CONCRETE CARSON CITY SPECIAL USE PERMIT PRELIMINARY GRADING PLAN



R&K READY MIXED CONCRETE  
PRELIMINARY GRADING PLAN

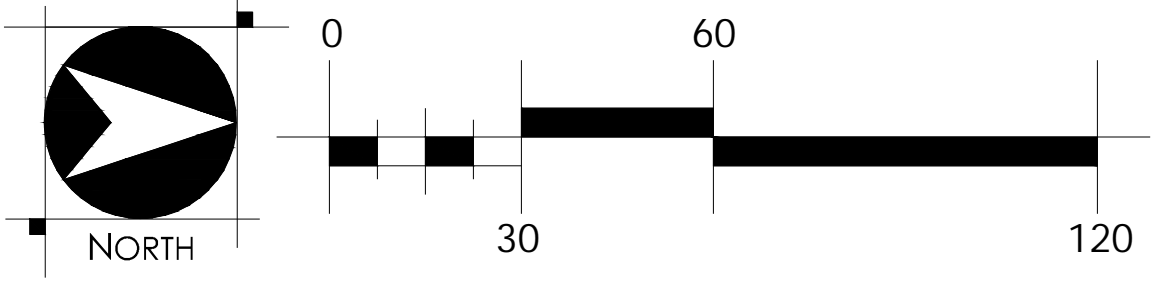
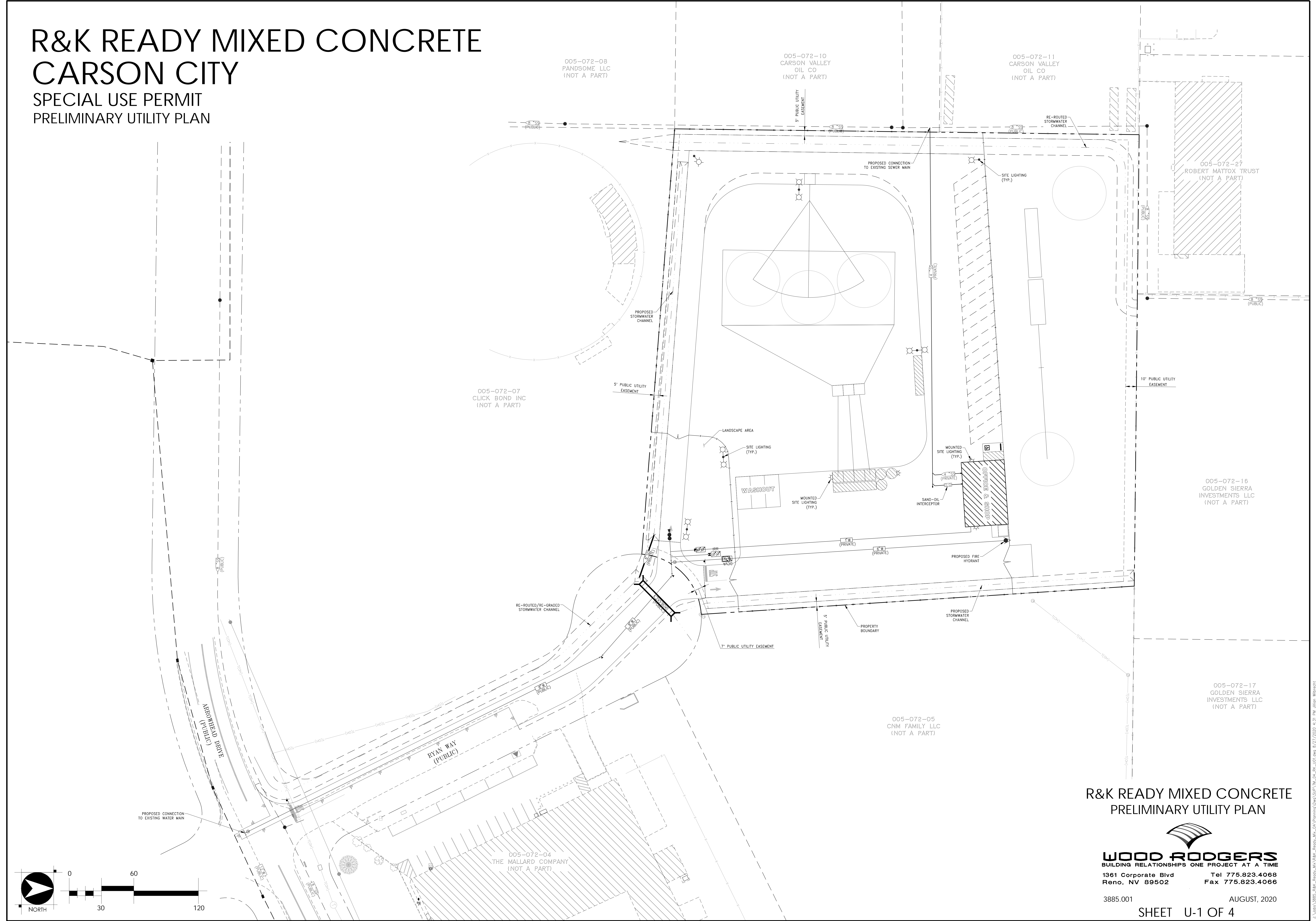
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Tel 775.823.4068 Fax 775.823.4066

3885.001 AUGUST, 2020  
SHEET G-1 OF 4

005-072-08 PANDSOME LLC (NOT A PART)  
 005-072-10 CARSON VALLEY OIL CO. (NOT A PART)  
 005-072-11 CARSON VALLEY OIL CO. (NOT A PART)  
 005-072-27 ROBERT MATTOX TRUST (NOT A PART)  
 005-072-16 GOLDEN SIERRA INVESTMENTS LLC (NOT A PART)  
 005-072-17 GOLDEN SIERRA INVESTMENTS LLC (NOT A PART)  
 005-072-05 CNM FAMILY LLC (NOT A PART)  
 005-072-04 THE MALLARD COMPANY (NOT A PART)

# R&K READY MIXED CONCRETE CARSON CITY

SPECIAL USE PERMIT  
PRELIMINARY UTILITY PLAN



## R&K READY MIXED CONCRETE PRELIMINARY UTILITY PLAN



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3885.001 AUGUST, 2020  
SHEET U-1 OF 4

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