



N E V A D A

AGENDA
Regular Meeting
Planning Commission

Wednesday, April 12, 2023 • 5:00 PM

Members

Jenni McCullar - Chairwoman
Angela Lewis - Vice Chair
Jan Hodges - Commissioner
Humayoon Lodhi - Commissioner
Barry Williams Sr. -
Commissioner
Shellie Severa - Commissioner
Cody Wagner - Commissioner

Fernley City Council Chambers, 595 Silver Lace Boulevard, Fernley, NV 89408

Zoom information:

Please click the following link to join the webinar: <https://us02web.zoom.us/j/82966343247>, or one tap/mobile: 12532158782, Dial: 669 900 9128, Webinar ID: 829 6634 3247

Public Notice: This agenda has been physically posted in compliance with 241.020 at Fernley City Hall, 595 Silver Lace Blvd. In addition, this agenda has been electronically posted in compliance with NRS 241.020(3) at www.cityoffernley.org and NRS 232.2175 at <https://notice.nv.gov/> To obtain further documentation regarding posting, please contact the City Clerk's Office at (775) 784-9830 or cityclerk@cityoffernley.org

Public Comment: Those wishing to address the Planning Commission may submit public comment through the [online public comment form](#) or by sending an email to cityclerk@cityoffernley.org. Comments received prior to 4:00 pm the day of the meeting will be provided to the Planning Commission and added to the record but will not be read during the live meeting. Public comments received after 4 pm the day of the meeting will be included in the record but may not reach council members before action is taken. Public comment, whether on action items or public comment, is limited to three (3) minutes per person. Unused time may not be reserved by the speaker, nor allocated to another speaker. The public may comment on any matter that is not specifically included on an agenda as an action item or comment on a specific agenda item. Items not included on the agenda cannot be acted upon other than to place them on a future agenda. Additionally, if you wish you can comment in person at the meeting or use the Raise your Hand feature in Zoom (*9 if you are participating via phone).

Accommodations: The Planning Commission and staff will make reasonable efforts to assist and accommodate individuals with disabilities desiring to attend the meeting. Please contact the City Clerk's Office at (775) 784-9830 in advance so that arrangements can be made.

Supporting Material: Staff reports and supporting material for the meeting are available at the City Clerk's Office, and on the City's website at www.cityoffernley.org Pursuant to NRS 241.020(6), supporting material is made available to the general public at the same time it is provided to the Planning Commission.

Order of Business: The presiding officer shall determine the order of the agenda. The Fernley Planning Commission may combine two or more agenda items for consideration; remove an item from the agenda; or delay discussion relating to an item on the agenda at any time. All items are action items unless otherwise noted. Items scheduled to be heard at a specific time will be heard no earlier than the stated time but may be heard later.

1. INTRODUCTORY ITEMS

1.1. Roll Call

1.2. Public Forum

1.3. (For Possible Action) Approval of Agenda

1.4. (Possible Action) Approval of Minutes

2. PUBLIC HEARINGS

A. DISCUSSION WITH PLANNING COMMISSION & STAFF B. PUBLIC INPUT C. ADDITIONAL DISCUSSION WITH PLANNING COMMISSION & STAFF D. COUNCIL ACTION OR DIRECTION TO STAFF

- 2.1. (For Possible Action) Discussion and possible action regarding application CUP23001 submitted by Endured Builders for the Nevada Pacific Apartments project to request multifamily buildings as a conditional use in the General Commercial (C2) zone on a parcel ±5.44-acres in size and generally located north of Emigrant Way, south of Highway 50 Alternate, east of Nevada Pacific Boulevard, and west of Short Cut Drive (APN: 021-201-62).**

3. CHAIR AND COMMISSION ITEMS

(SUMMARY OR ACTIVITY REPORTS ON PLANNING ISSUES, ACTIVITIES OR ORGANIZATIONS IN WHICH INDIVIDUAL MEMBERS MAY BE INVOLVED. THIS ITEM IS TO PROVIDE GENERAL INFORMATION TO THE COMMISSION AND PUBLIC. NO DISCUSSION SHALL TAKE PLACE AND NO ACTION WILL BE TAKEN.)

4. PLANNING DIRECTOR ITEMS

(ACTIVITY SUMMARY OR UPDATES ON PROJECTS THAT HAVE BEEN PREVIOUSLY REVIEWED BY THE PLANNING COMMISSION. THIS ITEM IS TO PROVIDE GENERAL INFORMATION TO THE COMMISSION AND PUBLIC. NO DISCUSSION SHALL TAKE PLACE AND NO ACTION WILL BE TAKEN.)

5. PUBLIC FORUM

6. ADJOURNMENT

Next Meeting: May 10th @ 5pm

**MINUTES OF THE
FERNLEY PLANNING COMMISSION MEETING
MARCH 8, 2023**

Chairwoman McCullar called the Fernley Planning Commission meeting to order at 5:00pm.

1. INTRODUCTORY ITEMS

1.1. Roll Call

Present: Chairwoman Jenni McCullar, Commissioner Jan Hodges, Commissioner Barry Williams, Commissioner Humayoon Lodhi, Commissioner Cody Wagner, Staff: Deputy City Clerk Brenda Gosser, Administrative Specialist I Sandy Harris, Associate Planner Shay League, Assistant Planner Lisa Warner, Deputy City Manager Lydia Altick, City Attorney Brandi Jensen. **Absent:** Vice-Chair Angela Lewis, Commissioner Shellie Severa.

1.2. Public Forum

No public comments

1.3. (For Possible Action) Approval of Agenda

Motion: I MOVE TO APPROVE THE AGENDA. **Action:** Approved. **Moved by** Commissioner Cody Wagner, **Seconded by** Commissioner Humayoon Lodhi. **Vote:** Passed, **Summary:** Yes 5. Chairwoman Jenni McCullar, Commissioner Barry Williams, Commissioner Jan Hodges, Commissioner Cody Wagner, Commissioner Humayoon Lodhi, **Absent:** Commission Vice-Chair Angela Lewis, Commissioner Shellie Severa

1.4. (Possible Action) Approval of Minutes

Motion: MOVE TO APPROVE THE PLANNING COMMISSION'S FEBRUARY 8, 2023, MINUTES AND THE CORRECTED JANUARY 11, 2023, MINUTES. **Action:** Approved, **Moved by** Commissioner Cody Wagner, **Seconded by** Commissioner Jan Hodges. **Vote:** Passed, **Summary:** Yes 4, Abstained 1. **Yes:** Commissioner Barry Williams, Commissioner Jan Hodges, Chairwoman Jenni McCullar, Commissioner Cody Wagner, **Absent:** Vice-Chair Angela Lewis, Commissioner Shellie Severa, **Abstain:** Commissioner Humayoon Lodhi.

Commissioner Humayoon Lodhi abstained due to the fact that he was out of town and not present for either meeting.

2. PUBLIC HEARINGS

2.1. (For Possible Action) - Public Hearing, TSM 2018-002-EOT - Tentative Subdivision Map Extension of
03/08/2023 FPC Minutes

Time

Consideration and possible action on an extension of time request of not more than two years for Genica Shadow Hills Estates LLC to record a final parcel map for the project formerly known as "Hardie Lane Townhomes", now known as "Shadow Hills", a 66-lot multifamily subdivision approximately located at 905 Hardie Lane (APN: 021-121-19)

Associate Planner Shay League asked for extension of time in regards to TSM2018-002-EOT. The applicant has presented a final map, submitted October 21, 2019. They have not yet been able to complete all items required by their conditions of approval and Fernley Municipal Code in order for that map to be approved and recorded. Because they are unlikely to complete these requirements by the April 27, 2023 expiration date, the applicant is requesting a two-year extension of time, which would set the new tentative subdivision map expiration date as April 27, 2025. The applicant is unsure of entering the main building phase right now due to a current downturn in the real estate market; however, they have been making excellent progress on installing the infrastructure to support the eventual development.

Motion: CONSIDERING THE INFORMATION PROVIDED IN THE APPLICANT'S EXTENSION OF TIME LETTER AND THE STAFF REPORT, I MOVE TO RECOMMEND THE APPROVAL OF THIS TENTATIVE SUBDIVISION MAP EXTENSION REQUEST FOR SHADOW HILLS ASSOCIATED WITH TSM 2018-002. **Action:** Approved, **Moved by** Commissioner Hodges, **Seconded by** Commissioner Lodhi. **Vote:** Passed, **Summary:** Yes 5. **Yes:** Commissioner Williams SR., Commissioner Hodges, Chairwoman McCullar, Commissioner Wagner, Commissioner Lodhi. **Absent:** Commission Vice-Chair Lewis, Commissioner Severa

3. CHAIR AND COMMISSION ITEMS

Commissioner Cody Wagner wanted to go on the record in regards to last week's City Council discussion in regards to the residency of commission and board members. He has owned a house and lived in Fernley since 2011. In 2019 they bought a home in Yerington. He spends at least 10% to 20% of his nights in Fernley, spends at least 50% of his days there, and when in Yerington he spends at least 50% of his time working on Fernley items. He stated that he cannot find anything in NRS that states how many nights he needs to be in Fernley to be considered a resident. If the Council does put restrictions on residency, and he has to resign, he thanked the Commission for the 6 years he has been a member.

4. PLANNING DIRECTOR ITEMS

Associate Planner Shay League welcomed Commissioner Humayoon Lodi back, and thanked Commissioner Cody Wagner for his transparency.

*In regards to the Planning Commission bylaws, there is nothing stating how long you can serve on the commission, but there is a 4-year term for reappointing. There is a discrepancy in what is in the bylaws and how we act as a body in practice. Next meeting she will discuss if they want to amend the bylaws, amend practices or both. In addition to the Chair and Vice-Chair, there is a position of Secretary, which will be discussed at the next meeting, along with residency requirements.

*Next meeting will be presenting a conditional use permit for Nevada Pacific Apartments, a new project proposed to go by the Fox Peak gas station.

*There has been discussion by the Council about possibly expanding our notice radius, possibly coming before the Commission in May or June if the Council decides to take action on the issue.

*In regards to Commissioner Wagner's request to review the transportation master plan, Senior Planner League asked for clarification on whether the Commission is looking to amend them or just looking for an

introduction and familiarity.

Commissioner Cody Wagner stated that his intent was to have the Commission familiar with the contents of the Transportation Master Plan.

5. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

There were none.

6. PUBLIC FORUM

Mayor Neal McIntyre commented in regards to residency requirements to serve on city commissions or committees, that he does not support not allowing people who do not live in Fernley not to be on any commissions or committees. According to NRS Statues, there can be up to 2 people on a commission or committee that do not live in the city.

Associate Planner Shay League introduced Assistance Planner Lisa Warner to the Commission.

7. ADJOURNMENT

There being no further business to come before it, the Fernley Planning Commission meeting adjourned at 5:21 pm.

Approved by the Fernley Planning Commission on April 12, 2023, by a vote of:

AYES _____ NAYS: _____ ABSTENTIONS: _____ ABSENT: _____

Chairwoman Jenni McCullar

ATTEST:



CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: April 12, 2023

REPORT TO: Fernley Planning Commission

REPORT FROM: Shay League

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion

AGENDA ITEM: (For Possible Action):

(For Possible Action) Discussion and possible action regarding application CUP23001 submitted by Endured Builders for the Nevada Pacific Apartments project to request multifamily buildings as a conditional use in the General Commercial (C2) zone on a parcel ±5.44-acres in size and generally located north of Emigrant Way, south of Highway 50 Alternate, east of Nevada Pacific Boulevard, and west of Short Cut Drive (APN: 021-201-62).

AGENDA ITEM BRIEF:

Construction of multifamily buildings is a conditional use in the general commercial zone. The applicant is requesting a permit to construct 140 multifamily units.

RECOMMENDED MOTION:

Approval

"I move to approve the conditional use permit associated with CUP23001, adopting findings CU1 through CU6 and the facts supporting these findings as set forth in the staff report and subject to the conditions of approval 1 through 21 as listed in the staff report."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Denial

"Based on information received in written materials and the public hearings on this matter, I move to deny the conditional use permit request associated with CUP23001, because I am unable to make the following required conditional use permit finding(s): I am unable to make finding(s) _____ as it relates to _____. Therefore, I cannot approve the conditional use permit."

Note: Though no further language has been provided, all motions made in accordance with City of Fernley Planning Commission parliamentary procedure are appropriate.

BACKGROUND:

Two prior applications, BLA22001 and TPM22001, were processed for this project last year. As these were just land division applications, there were no aspects that pertained to development as a multifamily project.

This site is a prime location for dense workforce housing to support planned industrial development. As a part of the major infrastructure improvements associated with the Victory Logistics project, Mark IV and City of Fernley are working to connect Nevada Pacific Parkway with Nevada Pacific Boulevard.

FINDINGS:

CUP1. The approving agency must make findings that the proposed conditional use will be in compliance with the master plan.

This site is within the comprehensive master plan land use area devoted to commercial development. The proposed project fulfills the following characteristics and location criteria the master plan envisions for the commercial land use category:

- Pedestrian access to adjoining residential use is encouraged.
- No direct access to local streets will be allowed.
- Intended to provide a buffer between residential and major highways.
- Infill and redevelopment encouraged on vacant or underutilized sites.
- Should be located where existing public facilities have capacity to serve.
- Municipal services are required.

CUP2. The conditional use will be compatible with the existing or permitted uses of adjacent properties.

There are some perceived incompatibilities between single-family homes and multifamily development. The developer has diligently worked with staff to minimize these incompatibilities by locating the main structures as far away from the existing single-family neighborhood as possible. The parking and amenities that abut the neighboring homes are comparable to, and in most cases less disruptive, than other uses permitted in the general commercial zone. From a land use perspective, it is ideal to buffer existing single-family homes from commercial uses and arterial roads with multifamily housing.

CUP3. The potential impairment of natural resources and the total population which the available natural resources will support without unreasonable impairment

No natural resources have been identified on this project site, aside from the land itself. The City of Fernley has an abundance of undeveloped land and best land use practices dictate infill development. This parcel is located along a main arterial road and in proximity to our existing infrastructure. Conservation efforts are best applied to parcels outlying the core of existing City of Fernley development.

CUP4. The availability of and need for affordable housing in the community, including affordable housing that is accessible to persons with disabilities

There is currently an extreme need for affordable housing in Northern Nevada, and in Fernley specifically. These apartments are most likely to be priced in a manner that is affordable for households earning between 80% and

120% of the current median household income in Lyon County. The current median household income in Lyon County is \$75,100, meaning that housing in this complex will be targeted toward those earning between \$60,080 and \$90,120 annually. This qualifies the development as Tier III affordable housing. Though it does not directly serve those most in need of affordable housing in our community, it will hopefully serve to provide more desirable accommodation for those that can afford it and free up other Tier I and Tier II affordable housing currently occupied by higher-income individuals and families.

CUP5. The conditional use permit has been conditioned to address identified impacts.

City of Fernley planning and engineering staff have heavily conditioned this project to mitigate identified impacts. Conditions of approval 5 and 19 are specific to this project. Number 5 allows a reduction in the exterior side setback to allow for the buildings to be as far away from the neighboring parcels as possible. Condition 19 ensures that pedestrians will be able to access the project site from Reed Way. The specific impacts these conditions address are making this complex as unobtrusive to neighboring parcels as possible, and ensuring pedestrian access to planned future commercial development from the Donner Trails neighborhood.

All other conditions of approval are standards for this type of project. These conditions are written to serve the following purposes:

- Preventing the developer from holding on to this entitlement if the use is not established in a timely manner.
- Ensuring the developer complies with all City of Fernley design standards.
- Establishing a point of contact during the construction phase so we may quickly address any issues that arise.
- Limiting construction hours to minimize noise impacts on neighboring parcels.
- Addressing dust, noise, and other nuisances that arise during construction preemptively.
- Requiring outside verification that the site is geologically stable.
- Ensuring the City of Fernley has a bond in place to cover restoring the site if the project does not make it past the grading stage.
- Collecting construction taxes to support schools, city infrastructure, and other public services.
- Ensuring street names and addresses are both very clearly defined for emergency services and inoffensive in nature.
- Requiring the developer to construct all sewer, water, and storm drain infrastructure on their property and update any city infrastructure required to serve this community.
- Requiring outside verification that any traffic impacts have been appropriately mitigated.
- Reminding the developer of the numerous outside agencies that oversee various aspects of the project to ensure compliance with all state and federal regulations, as well as those of the City of Fernley.

CUP6. Public notice has been given and a public hearing held, per the requirements of the development code and the Nevada revised statutes.

Staff certifies that public notice has been given per the requirements of the City of Fernley Development Code and Nevada Revised Statutes. A public hearing will be held at the April 12, 2023 Planning Commission meeting.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Nevada Revised Statutes (NRS), Chapter 278 - Planning and Zoning
Fernley Municipal Code (FMC), Title 32 - Development Code
City of Fernley Comprehensive Master Plan, August 2018

Specific references:

FMC Section 32.03.050 (b) - Administration / Entitlements / Conditional use permit

FMC Section 32.06.100 - Zoning districts / Commercial (C1, C2, and TC)

FMC Section 32.06.150 - Zoning districts / Unlisted uses and use table

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

1. CUP23001 Conditions of Approval
2. Architectural Plans
3. Traffic Impact Study

Conditions of Approval for CUP23001

Conditional Use Permit

SCOPE AND DURATION OF APPROVAL

1. **APPROVAL:**

THE PROJECT IS APPROVED AS SUBMITTED AND CONDITIONED. ANY SUBSTANTIVE CHANGE SHALL REQUIRE REVIEW AND APPROVAL BY THE PLANNING COMMISSION AS AN AMENDMENT TO THIS CONDITIONAL USE PERMIT.

2. **PROJECT DESCRIPTION:**

THE PROJECT APPROVAL IS LIMITED TO A MAXIMUM OF 140 MULTI-FAMILY UNITS ON ±5.44 ACRES.

3. **EXPIRATION DATE:**

THE CONDITIONAL USE PERMIT SHALL EXPIRE WITHIN ONE (1) YEAR OF THE DATE OF APPROVAL, UNLESS THE PERMITTED USE HAS BEEN ESTABLISHED OR CONSTRUCTION TO ACCOMMODATE THAT USE HAS BEGUN AND IS BEING DILIGENTLY PURSUED. A ONE-YEAR EXTENSION MAY BE GRANTED BY THE PLANNING COMMISSION IF REQUESTED PRIOR TO THE EXPIRATION DATE OF THE CONDITIONAL USE PERMIT.

4. **DESIGN STANDARDS:**

THE DEVELOPER SHALL COMPLY WITH DESIGN STANDARDS AND REGULATIONS SET FORTH IN FERNLEY MUNICIPAL CODE (FMC) AND CITY OF FERNLEY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS MANUAL (COF DESIGN MANUAL). THE GOVERNING VERSION OF EACH SHALL BE THE VERSION EFFECTIVE AT THE TIME ANY MAP, BUILDING PERMIT, CIVIL IMPROVEMENT PERMIT, OR OTHER TYPE OF APPLICATION IS SUBMITTED. IF FMC DESIGN STANDARDS ARE IN CONFLICT WITH LOCAL, STATE, OR FEDERAL REGULATIONS, THE MORE STRINGENT REGULATION WILL TAKE PRECEDENCE.

CURRENT RELEVANT DESIGN STANDARDS INCLUDE BUT ARE NOT LIMITED TO: DIMENSIONAL STANDARDS, SITE PLANNING, PARKING AND CIRCULATION, COMMUNITY AMENITIES, LANDSCAPING AND SCREENING, BUILDING ARCHITECTURE, ADJACENCY STANDARDS, GRADING, BUFFER REQUIREMENTS, LIGHTING, STREETS, MECHANICAL AND TRASH SCREENING, AND UTILITY CONSIDERATIONS.

5. **DESIGN STANDARD DEVIATION:**

THIS DEVELOPMENT SHALL BE PERMITTED UP TO A 50% VARIATION TO THE EXTERIOR SIDE SETBACK EAST OF THE NORTHERN SITE ENTRANCE, ALONG THE NORTHERN RIGHT-OF-WAY BOUNDARY. THIS SETBACK SHALL NOT BE LESS THAN 7.5'.

CONSTRUCTION PHASE

6. **PROJECT CONTACT:**

THE DEVELOPER SHALL DESIGNATE TO THE ADMINISTRATOR A PROJECT CONTACT PERSON RESPONSIBLE AND AUTHORIZED TO CORRECT PROBLEMS REGARDING THE PROJECT ON A 24-HOUR, 7-DAYS-PER-WEEK BASIS. THE DEVELOPER SHALL DESIGNATE THE PROJECT CONTACT PERSON TO THE ADMINISTRATOR, PRIOR TO ISSUE OF ANY ENGINEERING OR BUILDING PERMIT FOR THE PROJECT.

7. **CONSTRUCTION HOURS:**

THE DEVELOPER SHALL LIMIT ALL CONSTRUCTION AND CONSTRUCTION-RELATED ACTIVITIES TO BETWEEN THE HOURS OF 7:00 AM TO 7:00 PM, SEVEN DAYS A WEEK. THE DEVELOPER SHALL INSTALL SIGNS AT ALL ACCESS POINTS TO THE PROJECT THAT CLEARLY INDICATE THE HOURS OF ACTIVITY ON-SITE PRIOR TO THE START OF ANY CONSTRUCTION-RELATED ACTIVITIES, SUBJECT TO THE APPROVAL OF THE ADMINISTRATOR. THE DEVELOPER SHALL MAINTAIN THESE SIGNS IN GOOD REPAIR FOR THE DURATION OF THE CONSTRUCTION OF THE PROJECT. ONCE CONSTRUCTION IS FINISHED, THE DEVELOPER SHALL REMOVE THESE SIGNS.

8. **CONSTRUCTION MAINTENANCE:**

THE DEVELOPER SHALL LOCATE AND UTILIZE A SUFFICIENT NUMBER OF TRASH CONTAINERS ON-SITE TO BE UTILIZED DURING THE CONSTRUCTION PHASE OF THE PROJECT TO MAINTAIN THE PROJECT SITE IN A CLEAN AND ORDERLY STATE TO THE APPROVAL OF THE ADMINISTRATOR.

Conditions of Approval for CUP23001

Conditional Use Permit

GRADING AND CIVIL IMPROVEMENT PERMIT REQUIREMENTS

9. GEOTECHNICAL REPORT:

THE DEVELOPER SHALL PROVIDE A FINAL GEOTECHNICAL REPORT FOR THE PROJECT FOR REVIEW AND APPROVAL BY THE CITY ENGINEER PRIOR TO APPROVAL OF A GRADING OR BUILDING PERMIT FOR ANY PORTION OF THE PROJECT.

10. GRADING PERMIT:

THE DEVELOPER SHALL SUBMIT A GRADING PERMIT FOR ANY PHASE OF THE PROJECT, SUBJECT TO APPROVAL BY THE CITY ENGINEER. PRIOR TO ISSUE OF A GRADING PERMIT FOR THE PROJECT, THE DEVELOPER SHALL POST A SURETY BOND FOR REGRADING AND RECLAMATION OF THE SITE. THE DEVELOPER SHALL COMPLY WITH ALL GRADING REQUIREMENTS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AS WELL AS ALL STATE AND FEDERAL REGULATIONS.

THE DEVELOPER OR THEIR DESIGNEE SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING A STORM WATER POLLUTION PREVENTION PERMIT WITH THE STATE OF NEVADA FOR GRADING AREAS 1 ACRE OR GREATER AS WELL AS A SURFACE AREA DISTURBANCE PERMIT FOR GRADING AREA EXCEEDING 5 ACRES.

BUILDING PERMIT REQUIREMENTS

11. RESIDENTIAL CONSTRUCTION TAX:

THE DEVELOPER IS SUBJECT TO THE PROVISIONS OF FERNLEY MUNICIPAL CODE RELATED TO RESIDENTIAL CONSTRUCTION TAX. THE RESIDENTIAL CONSTRUCTION TAX FEE SHALL BE PAID AT THE TIME OF SUBMITTAL OF EACH BUILDING PERMIT.

12. ADDRESSING AND STREET NAMES:

THE DEVELOPER SHALL SUBMIT A STREET NAME RESERVATION APPLICATION AND REQUEST FOR ADDRESSING TO THE CITY OF FERNLEY FOR REVIEW AND APPROVAL. ALL LOT ADDRESSING SHALL BE COMPLETED BY THE CITY. STREET NAMES SHALL BE APPROVED AND ADDRESSING SHALL BE COMPLETE PRIOR TO ISSUE OF A BUILDING PERMIT.

13. WATER AND SEWER SYSTEM:

THE DEVELOPER SHALL COMPLETE WATER AND SEWER SYSTEM MODELING AND CONSTRUCT ANY IMPROVEMENTS IDENTIFIED AS NECESSARY TO SERVE THE PROJECT IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS PRIOR TO ISSUE OF ANY BUILDING PERMIT.

14. STORM WATER DRAINAGE:

THE DEVELOPER SHALL PROVIDE A FINAL DRAINAGE REPORT FOR THE PROJECT IN CONFORMANCE WITH THE FERNLEY MUNICIPAL CODE AND THE PUBLIC WORKS DESIGN MANUAL FOR REVIEW AND APPROVAL BY THE CITY ENGINEER PRIOR TO APPROVAL OF A BUILDING PERMIT FOR ANY PORTION OF THE PROJECT.

ALL INTERNAL STORM DRAIN INFRASTRUCTURE SHALL BE MAINTAINED BY THE PROPERTY OWNER.

15. STORM WATER TREATMENT:

THE DEVELOPER SHALL EMPLOY STRUCTURAL CONTROLS FOR THE TREATMENT OF STORM WATER RUNOFF IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AND SUBJECT TO APPROVAL OF THE CITY ENGINEER AND PUBLIC WORKS DIRECTOR. DRAINAGE CONVEYANCE FACILITIES AND OTHER IMPROVEMENTS MUST BE CONSTRUCTED AND FUNCTIONAL PRIOR TO ISSUE OF ANY BUILDING PERMIT.

16. TRAFFIC ANALYSIS:

THE DEVELOPER SHALL PROVIDE A FINAL TRAFFIC ANALYSIS REPORT FOR THE PROJECT IN CONFORMANCE WITH THE CITY OF FERNLEY'S MUNICIPAL CODE AND THE PUBLIC WORKS DESIGN MANUAL FOR REVIEW AND APPROVAL BY THE CITY ENGINEER AND PUBLIC WORKS DIRECTOR PRIOR TO

Conditions of Approval for CUP23001

Conditional Use Permit

ISSUE OF ANY BUILDING PERMIT.

EACH SUCCESSIVE PHASE OF THE PROJECT SHALL SUBMIT AN UPDATED TRAFFIC ANALYSIS REPORT FOR REVIEW AND APPROVAL BY THE CITY ENGINEER AND PUBLIC WORKS DIRECTOR SHOWING THE CUMULATIVE EFFECT OF THE DEVELOPED PORTION OF THE PROJECT ALONG WITH THE PROPOSED PHASE'S EFFECT.

17. UNITED STATES POSTAL SERVICE:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE UNITED STATES POSTAL SERVICE FOR MAIL DELIVERY AND MAILBOX DESIGN AND LOCATION, SUBJECT TO APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, FERNLEY POSTMASTER, AND PUBLIC WORKS DIRECTOR PRIOR TO THE ISSUE OF A BUILDING PERMIT FOR THE PROJECT.

CERTIFICATE OF OCCUPANCY REQUIREMENTS

18. EXISTING CONDITIONS OF APPROVAL:

THE EXISTING CONDITIONS OF APPROVAL FOR TPM22001 AND THE ASSOCIATED INFRASTRUCTURE IMPROVEMENTS SHALL BE COMPLETE PRIOR TO ISSUE OF ANY CERTIFICATE OF OCCUPANCY FOR THE PROJECT.

19. REED WAY PEDESTRIAN ACCESS:

THE DEVELOPER SHALL PROVIDE PEDESTRIAN ACCESS AT THE EXISTING REED WAY ON THE NORTHERN EDGE OF THE PROPERTY PRIOR TO ISSUE OF ANY CERTIFICATE OF OCCUPANCY FOR THE PROJECT.

REGULATORY AGENCIES

20. NORTH LYON COUNTY FIRE PROTECTION DISTRICT:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT, INCLUDING BUT NOT LIMITED TO: DEVELOPING A PLAN TO PROVIDE ADEQUATE EMERGENCY ACCESS THROUGHOUT THE SITE, DEVELOPING A MASTER FIRE HYDRANT AND FIRE FLOW PLAN, DEVELOPING A MASTER FIRE DEPARTMENT CONNECTION (FDC) PLAN, AND INSTALLING FIRE SUPPRESSION AND/OR ALARM SYSTEMS, SUBJECT TO APPROVAL OF THE FIRE CHIEF, PRIOR TO ISSUE OF ANY BUILDING PERMIT

21. FEDERAL, STATE, AND LOCAL AGENCIES:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF ANY FEDERAL, STATE, LOCAL AGENCY, DEPARTMENT, OR LICENSED PROFESSIONAL WITH JURISDICTION OVER THE PROJECT INCLUDING, BUT NOT LIMITED TO: NEVADA DEPARTMENT OF TRANSPORTATION (NDOT), NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP), NEVADA DIVISION OF WATER RESOURCES (NDWR), NEVADA BUREAU OF WATER POLLUTION CONTROL, NEVADA BUREAU OF SAFE DRINKING WATER, NEVADA STATE ENVIRONMENTAL COMMISSION, THE CITY OF FERNLEY BUILDING OFFICIAL, THE CITY OF FERNLEY ENGINEER, CITY OF FERNLEY PLANNING DEPARTMENT, AND CITY OF FERNLEY PUBLIC WORKS DEPARTMENT.

ABBREVIATIONS			
A.B.	ANCHOR BOLT	G	GAS
ABV	ABOVE	GA	GAUGE
A.C.	ASPHALT CONCRETE	GALV	GALVANIZED
A.C.	AIR CONDITIONING	G.C.	GENERAL CONTRACTOR
A.D.	AREA DRAIN	GL	GLASS
ADJ	ADJUSTABLE / ADJACENT	GLB	GLU-LAM BEAM
A.F.F.	ABOVE FINISHED FLOOR	GND	GROUND
AGGR	AGGREGATE	GR	GRADE
ALUM	ALUMINUM	GRDR	GIRDER
ALT	ALTERNATE	G.S.	GYPSUM SHEATHING
ANCH	ANCHOR / ANCHORAGE	G.W.B.	GYPSUM WALL BOARDED
ARCH	ARCHITECTURAL	PLASTIC	
AVG	AVERAGE		
AWN	AWNING	H.B.	HOSE BIB
		H.C.	HOLLOW CORE
		H.D.	HOLD DOWN
		HDR	HEADER
		HDWR	HARDWARE
		HGR	HANGER
		H.M.	HOLLOW METAL
		HOBZ	HORIZONTAL
		H.P.	HIGH POINT
		HR	HOUR
		HT	HEIGHT
		HTG	HEATING
		H.V.A.C.	HEATING / VENTILATING / AIR CONDITIONING
		H.W.	HOT WATER
		I.B.	INFILTRATION BARRIER
		IN	INSIDE DIAMETER
		INCH	INCH
		INCL	INCLUDED / INCLUDING
		INFORM	INFORMATION
		INSL	INSULATION / INSULATED
		INT	INTERIOR
		JST	JOIST
		JT	JOINT
		K.P.	KICK PLATE
		KIT	KITCHEN
		LAM	LAMINATED
		LAV	LAVATORY
		L.B.	LAG BOLT
		LB	POUND
		L.F.	LINEAR FOOT
		L.L.	LIVE LOAD
		LT	LIGHT
		LTL	LINTEL
		LKR	LOCKER
		L.P.	LOW POINT
		LVR	LOUVER
		LACQ	LAQUER
		MATL	MATERIAL
		MAX	MAXIMUM
		M.B.	MACHINE BOLT
		M.C.	MASONRY CEMENT
		MECH	MECHANICAL
		MED	MEDIUM
		MFD	MANUFACTURED
		MFR	MANUFACTURER
		MH	MANHOLE
		MICRO	MICROWAVE
		MIN	MINIMUM
		MIR	MIRROR
		MISC	MISCELLANEOUS
		M.O.	MASONRY OPENING
		M.R.	MOISTURE RESISTANT
		MOD	MODULAR
		MOV	MOVABLE
		MTD	MOUNTED
		MTL	METAL
		MUL	MULLION
		N	NORTH
		(N)	NEW
		N.I.C.	NOT IN CONTRACT
		N.A.	NOT APPLICABLE
		NO.	NUMBER
		N.T.S.	NOT TO SCALE
		O/	OVER
		O.C.	ON CENTER
		O.D.	OUTSIDE DIAMETER
		OFF	OFFICE
		OH	OVERHEAD
		OPNG	OPENING
		OPP	OPPOSITE
		O.R.D.	OVERFLOW ROOF DRAIN
		O.S.B.	ORIENTED STRAND BOARD
		PART	PARTITION
		P.C.	PRE CAST CONCRETE
		P.C.F.	POUNDS PER CUBIC FOOT
		PFB	PREFABRICATED
		PL	PLATE
		P.D.F.	POWDER DRIVEN FASTENER
		P.L.F.	POUNDS PER LINEAL FOOT
		P.LAM.	PLASTIC LAMINATE
		PLYWD	PLYWOOD
		P.H.	PAPER HOLDER
		PNT	PAINT
		POW	POWDER
		PRJ	PROJECT / PROJECTED
		P.S.F.	POUNDS PER SQUARE FOOT
		P.S.I.	POUNDS PER SQUARE INCH
		P.T.	PRESSURE TREATED
		PT	POINT
		PVMT	PAVEMENT
		R	RISER
		RAD	RETURN AIR
		R/COT	RADIATOR
		R.B.	RUBBER BASE
		RUB	RUBBER
		R/C	RIP-FACE BLOCK
		R.D.	ROOF DRAIN
		REDW	REDWOOD
		REINF. OR	REINFORCING STEEL
		BARS	RE BAR
		REF	REFERENCE
		REFR	REFRIGERATOR / REFRIGERATION
		REG	REGISTER
		REQ'D	REQUIRED
		RET	RETAIN / RETAINING
		REV	REVISION
		RM	ROOM
		R.O.	ROUGH OPENING
		R.S.	REINFORCING STEEL
		R.W.L.	RAIN WATER LEADER
		S	SOUTH
		S.B.	SOLID BLOCKING
		S.C.	SOLID CORE
		SCHED	SCHEDULE
		S.D.R.	STORM DRAIN
		SECT	SECTION
		S.E.D.	SEE ELECTRICAL DRAWINGS
		S.F.	SQUARE FOOT
		S.F.F.	SPIT-FACE BLOCK
		S.F.S.D.	SEE FOOD SERVICE DRAWINGS
		S.G.D.	SLEED GLASS DOOR
		SHT	SHEET
		SHT-H	G SHEATHING
		SHVL	SHELVES / SHELVING
		SHWR	SHOWER
		SIM	SIMILAR
		SLR	SEALER
		SLDR	SLIDER
		S.M.D.	SEE MECHANICAL DRAWINGS
		SPEC	SPECIFICATIONS
		S.P.D.	SEE PLUMBING DRAWINGS
		SPL.BLK	SPLASH BLOCK
		SQU	SQUARE
		S.S.R.	SHELF AND ROD
		S.S.	SANITARY SEWER
		S.S.D.	SEE STRUCTURAL DRAWINGS
		S.S.K.	SERVICE SINK
		S.S.T.	STAINLESS STEEL
		STA	STATION
		S.T.C.	SOUND TRANSMISSION COEFFICIENT
		STN	STAIN
		STD	STANDARD
		STL	STEEL
		STO	STORAGE
		STRUC	STRUCTURE / STRUCTURAL
		SUSP	SUSPENDED
		S.W.	SHEAR WALL
		S.T.	SQUARE YARD
		SYS	SYSTEM
		T	TREAD
		T.B.	TOWEL BAR
		T.C.	TRASH COMPACTOR
		TEL	TELEPHONE
		TEMP	TEMPERED
		T.O.C.	TOP OF CURB
		T&G	TONGUE AND GROOVE
		THK	THICK (NESS)
		THR	THRESHOLD
		T.O.B.	TOP OF BEAM
		T.O.B/LK	TOP OF BLOCK
		T.O.G.	TOP OF GRATE
		T.O.PL	TOP OF PLATE
		T.O.S.	TOP OF SLAB
		T.O.STL	TOP OF STEEL
		T.O.W.	TOP OF WALL
		T.F.D.	TOILET PAPER DISPENSER
		T.S.	TUBE STEEL
		TV	TELEVISION
		TXT	TEXTURE
		TYP	TYPICAL
		U/	OVER
		O.C.	ON CENTER
		O.D.	OUTSIDE DIAMETER
		OFF	OFFICE
		OH	OVERHEAD
		OPNG	OPENING
		OPP	OPPOSITE
		O.R.D.	OVERFLOW ROOF DRAIN
		O.S.B.	ORIENTED STRAND BOARD
		PART	PARTITION
		P.C.	PRE CAST CONCRETE
		P.C.F.	POUNDS PER CUBIC FOOT
		PFB	PREFABRICATED
		PL	PLATE
		P.D.F.	POWDER DRIVEN FASTENER
		P.L.F.	POUNDS PER LINEAL FOOT
		P.LAM.	PLASTIC LAMINATE
		PLYWD	PLYWOOD
		P.H.	PAPER HOLDER
		PNT	PAINT
		POW	POWDER
		PRJ	PROJECT / PROJECTED
		P.S.F.	POUNDS PER SQUARE FOOT
		P.S.I.	POUNDS PER SQUARE INCH
		P.T.	PRESSURE TREATED
		PT	POINT
		PVMT	PAVEMENT
		R	RISER
		RAD	RETURN AIR
		R/COT	RADIATOR
		R.B.	RUBBER BASE
		RUB	RUBBER
		R/C	RIP-FACE BLOCK
		R.D.	ROOF DRAIN
		REDW	REDWOOD
		REINF. OR	REINFORCING STEEL
		BARS	RE BAR
		REF	REFERENCE
		REFR	REFRIGERATOR / REFRIGERATION
		REG	REGISTER
		REQ'D	REQUIRED
		RET	RETAIN / RETAINING
		REV	REVISION
		RM	ROOM
		R.O.	ROUGH OPENING
		R.S.	REINFORCING STEEL
		R.W.L.	RAIN WATER LEADER
		S	SOUTH
		S.B.	SOLID BLOCKING
		S.C.	SOLID CORE
		SCHED	SCHEDULE
		S.D.R.	STORM DRAIN
		SECT	SECTION
		S.E.D.	SEE ELECTRICAL DRAWINGS
		S.F.	SQUARE FOOT
		S.F.F.	SPIT-FACE BLOCK
		S.F.S.D.	SEE FOOD SERVICE DRAWINGS
		S.G.D.	SLEED GLASS DOOR
		SHT	SHEET
		SHT-H	G SHEATHING
		SHVL	SHELVES / SHELVING
		SHWR	SHOWER
		SIM	SIMILAR
		SLR	SEALER
		SLDR	SLIDER
		S.M.D.	SEE MECHANICAL DRAWINGS
		SPEC	SPECIFICATIONS
		S.P.D.	SEE PLUMBING DRAWINGS
		SPL.BLK	SPLASH BLOCK
		SQU	SQUARE
		S.S.R.	SHELF AND ROD
		S.S.	SANITARY SEWER
		S.S.D.	SEE STRUCTURAL DRAWINGS
		S.S.K.	SERVICE SINK
		S.S.T.	STAINLESS STEEL
		STA	STATION
		S.T.C.	SOUND TRANSMISSION COEFFICIENT
		STN	STAIN
		STD	STANDARD
		STL	STEEL
		STO	STORAGE
		STRUC	STRUCTURE / STRUCTURAL
		SUSP	SUSPENDED
		S.W.	SHEAR WALL
		S.T.	SQUARE YARD
		SYS	SYSTEM
		T	TREAD
		T.B.	TOWEL BAR
		T.C.	TRASH COMPACTOR
		TEL	TELEPHONE
		TEMP	TEMPERED
		T.O.C.	TOP OF CURB
		T&G	TONGUE AND GROOVE
		THK	THICK (NESS)
		THR	THRESHOLD
		T.O.B.	TOP OF BEAM
		T.O.B/LK	TOP OF BLOCK
		T.O.G.	TOP OF GRATE
		T.O.PL	TOP OF PLATE
		T.O.S.	TOP OF SLAB
		T.O.STL	TOP OF STEEL
		T.O.W.	TOP OF WALL
		T.F.D.	TOILET PAPER DISPENSER
		T.S.	TUBE STEEL
		TV	TELEVISION
		TXT	TEXTURE
		TYP	TYPICAL
		U/	OVER
		O.C.	ON CENTER
		O.D.	OUTSIDE DIAMETER
		OFF	OFFICE
		OH	OVERHEAD
		OPNG	OPENING
		OPP	OPPOSITE
		O.R.D.	OVERFLOW ROOF DRAIN
		O.S.B.	ORIENTED STRAND BOARD
		PART	PARTITION
		P.C.	PRE CAST CONCRETE
		P.C.F.	POUNDS PER CUBIC FOOT
		PFB	PREFABRICATED
		PL	PLATE
		P.D.F.	POWDER DRIVEN FASTENER
		P.L.F.	POUNDS PER LINEAL FOOT
		P.LAM.	PLASTIC LAMINATE
		PLYWD	PLYWOOD
		P.H.	PAPER HOLDER
		PNT	PAINT
		POW	POWDER
		PRJ	PROJECT / PROJECTED
		P.S.F.	POUNDS PER SQUARE FOOT
		P.S.I.	POUNDS PER SQUARE INCH
		P.T.	PRESSURE TREATED
		PT	POINT
		PVMT	PAVEMENT
		R	RISER
		RAD	RETURN AIR
		R/COT	RADIATOR
		R.B.	RUBBER BASE
		RUB	RUBBER
		R/C	RIP-FACE BLOCK
		R.D.	ROOF DRAIN
		REDW	REDWOOD
		REINF. OR	REINFORCING STEEL
		BARS	RE BAR
		REF	REFERENCE
		REFR	REFRIGERATOR / REFRIGERATION
		REG	REGISTER
		REQ'D	REQUIRED
		RET	RETAIN / RETAINING
		REV	REVISION
		RM	ROOM
		R.O.	ROUGH OPENING
		R.S.	REINFORCING STEEL
		R.W.L.	RAIN WATER LEADER
		S	SOUTH
		S.B.	SOLID BLOCKING
		S.C.	SOLID CORE
		SCHED	SCHEDULE
		S.D.R.	STORM DRAIN
		SECT	SECTION
		S.E.D.	SEE ELECTRICAL DRAWINGS
		S.F.	SQUARE FOOT
		S.F.F.	SPIT-FACE BLOCK
		S.F.S.D.	SEE FOOD SERVICE DRAWINGS
		S.G.D.	SLEED GLASS DOOR
		SHT	SHEET
		SHT-H	G SHEATHING
		SHVL	SHELVES / SHELVING
		SHWR	SHOWER
		SIM	SIMILAR
		SLR	SEALER
		SLDR	SLIDER
		S.M.D.	SEE MECHANICAL DRAWINGS
		SPEC	SPECIFICATIONS
		S.P.D.	SEE PLUMBING DRAWINGS
		SPL.BLK	SPLASH BLOCK
		SQU	SQUARE
		S.S.R.	SHELF AND ROD
		S.S.	SANITARY SEWER
		S.S.D.	SEE STRUCTURAL DRAWINGS
		S.S.K.	SERVICE SINK
		S.S.T.	STAINLESS STEEL
		STA	STATION
		S.T.C.	SOUND TRANSMISSION COEFFICIENT
		STN	STAIN
		STD	STANDARD
		STL	STEEL
		STO	STORAGE
		STRUC	STRUCTURE / STRUCTURAL
		SUSP	SUSPENDED
		S.W.	SHEAR WALL
		S.T.	SQUARE YARD
		SYS	SYSTEM
		T	TREAD
		T.B.	TOWEL BAR
		T.C.	TRASH COMPACTOR
		TEL	TELEPHONE
		TEMP	TEMPERED
		T.O.C.	TOP OF CURB
		T&G	TONGUE AND GROOVE
		THK	THICK (NESS)
		THR	THRESHOLD
		T.O.B.	TOP OF BEAM
		T.O.B/LK	TOP OF BLOCK
		T.O.G.	TOP OF GRATE
		T.O.PL	TOP OF PLATE
		T.O.S.	TOP OF SLAB
		T.O.STL	TOP OF STEEL
		T.O.W.	TOP OF WALL
		T.F.D.	TOILET PAPER DISPENSER
		T.S.	TUBE STEEL
		TV	TELEVISION
		TXT	TEXTURE
		TYP	TYPICAL
		U/	OVER
		O.C.	ON CENTER
		O.D.	OUTSIDE DIAMETER
		OFF	OFFICE
		OH	OVERHEAD
		OPNG	OPENING
		OPP	OPPOSITE
		O.R.D.	OVERFLOW ROOF DRAIN
		O.S.B.	ORIENTED STRAND BOARD
		PART	PARTITION
		P.C.	PRE CAST CONCRETE
		P.C.F.	POUNDS PER CUBIC FOOT
		PFB	PREFABRICATED
		PL	PLATE
		P.D.F.	POWDER DRIVEN FASTENER
		P.L.F.	POUNDS PER LINEAL FOOT
		P.LAM.	PLASTIC LAMINATE
		PLYWD	PLYWOOD
		P.H.	PAPER HOLDER
		PNT	PAINT
		POW	POWDER
		PRJ	PROJECT / PROJECTED
		P.S.F.	POUNDS PER SQUARE FOOT
		P.S.I.	POUNDS PER SQUARE INCH
		P.T.	PRESSURE TREATED
		PT	POINT
		PVMT	PAVEMENT
		R	RISER
		RAD	RETURN AIR
		R/COT	RADIATOR
		R.B.	RUBBER BASE
		RUB	RUBBER
		R/C	RIP-FACE BLOCK
		R.D.	ROOF DRAIN
		REDW	REDWOOD
		REINF. OR	REINFORCING STEEL
		BARS	RE BAR
		REF	REFERENCE
		REFR	REFRIGERATOR / REFRIGERATION
		REG	REGISTER
		REQ'D	REQUIRED
		RET	RETAIN / RETAINING
		REV	REVISION
		RM	ROOM
		R.O.	ROUGH OPENING
		R.S.	REINFORCING STEEL
		R.W.L.	RAIN WATER LEADER
		S	SOUTH
		S.B.	SOLID BLOCKING
		S.C.	SOLID CORE
		SCHED	SCHEDULE
		S.D.R.	STORM DRAIN
		SECT	SECTION
		S.E.D.	SEE ELECTRICAL DRAWINGS
		S.F.	SQUARE FOOT
		S.F.F.	SPIT-FACE BLOCK
		S.F.S.D.	SEE FOOD SERVICE DRAWINGS
		S.G.D.	SLEED GLASS DOOR
		SHT	SHEET
		SHT-H	G SHEATHING

CODE DATA	
ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CODES, STANDARDS, ORDINANCES AND LAWS ADOPTED BY THE STATE OF NEVADA AND THE AUTHORITY HAVING JURISDICTION.	
COMPLIANCE REQUIRED FOR: <i>International Building Code, 2018 edition, including appendix C, E, H and I.</i> <i>International Residential Code, 2018 edition, including appendix A, B, C, G H and Q.</i> <i>International Mechanical Code, 2018 edition.</i> <i>International Plumbing Code, 2018 edition, including appendix B, E, F.</i> <i>International Fire Code, 2018 edition, including appendix B, C and D.</i> <i>International Property Maintenance Code, 2018 edition.</i> <i>National Electric Code, 2017 edition.</i> <i>International Fuel Gas Code, 2018 edition.</i> <i>International Energy Conservation Code, 2018 edition.</i> <i>International Existing Buildings Code, 2018 edition.</i> <i>International Swimming Pool & Spa Code 2018 Edition</i> <i>2018 Northern Nevada Amendments by NNICC. Copies are available at www.nnicc.org</i> <i>Uniform Plumbing Code, 2018 Edition</i> <i>Uniform Mechanical Code, 2018 Edition</i>	
MULTIFAMILY UNITS INCLUDING GARAGE SPACES	
HEIGHT	37'-8"
NUMBER OF STORIES	THREE

ASSEMBLY NOTES:	
1.	REFER TO PROJECT SPECIFICATIONS FOR INFORMATION ON PRODUCTS LISTED IN THE FLOOR, ROOF AND WALL ASSEMBLIES.
2.	REFER TO FINISH SCHEDULE FOR SCHEDULED INTERIOR FINISHES.
3.	PROVIDE HORIZONTAL & VERTICAL FIRE BLOCKING & DRAFT STOPPING AT ALL ASSEMBLIES AS REQUIRED BY CODE.
4.	PROVIDE REINFORCED BACKING AT WALLS & CEILINGS AS REQUIRED TO SUPPORT ALL EQUIPMENT, FIXTURES, FURNISHINGS, ETC. TO BE ATTACHED TO FRAMING.
5.	SEAL ALL PENETRATIONS AT FIRE RATED PARTITIONS WITH APPROVED SYSTEMS TO MAINTAIN REQUIRED RATINGS.
6.	PROVIDE FIRE RATED GYP. BOARD ENCLOSURE AT ALL RECESSED FIXTURES TO MAINTAIN REQUIRED RATINGS.
7.	METAL STUD GAUGES WHERE SHOWN ARE MINIMUM REQUIRED. PROVIDE STUD GAUGES & CONNECTIONS AS REQUIRED BY BUILDING CODE FOR ALL CONDITIONS.
8.	ALL INTERIOR PARTITIONS SHALL EXTEND TO STRUCTURE, UNLESS NOTED OTHERWISE.
9.	WOOD STUD SIZES SHOWN ARE THE MINIMUM REQUIRED AND STUD SPACING IS THE MAXIMUM ALLOWED. REFER TO THE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND OTHER REQUIREMENTS.
10.	REQUIRED STRUCTURAL SHEATHING IS NOT SHOWN ON ALL WALL ASSEMBLIES. REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS AND REQUIREMENTS FOR SHEATHING.
11.	REFER TO FIRE CODE STANDARDS FOR SPECIFIC CONSTRUCTION REQUIREMENTS AT FIRE RATED ASSEMBLIES.
12.	PROVIDE CEMENTITIOUS BACKER BOARD @ WALL AREAS SCHEDULED TO RECEIVE TILE.

REFERENCE SYMBOLS:	
	GRID LINE
	SECTION IDENTIFICATION
	SHEET DESIGNATION
	DETAIL IDENTIFICATION
	SHEET DESIGNATION
	INTERIOR ELEVATION
	SHEET DESIGNATION
	EXTERIOR ELEVATION
	ELEVATION IDENTIFICATION
	SHEET DESIGNATION
	SPOT ELEVATION
	ROOM IDENTIFICATION
	WINDOW IDENTIFICATION
	DOOR IDENTIFICATION
	MATCH LINE
	WALL ASSEMBLY TYPE
	ROOF OR FLOOR / CEILING ASSEMBLY TYPE

ASSEMBLIES	
	TYPICAL FLOOR - SCHEDULED FINISH FLOORING (REFER TO FLOOR PLAN & SCHEDULES) - PLYWOOD SHEATHING, S.S.D. - FACED R-30 BATT INSULATION - JOIST PER PLAN, S.S.D.
	SLAB ON GRADE - CONC. SEALER FINISH - REINFORCED CONCRETE SLAB, S.S.D. - SAND, S.S.D. - VAPOR BARRIER - COMPACTED AGGREGATE BASE, S.S.D. - PREPARED SUB-GRADE
	DECK ASSEMBLY - SCHEDULED FINISH FLOORING (REFER TO FLOOR PLAN & SCHEDULES) 2x REDWOOD DECKING W/ 1/8" GAPS BETWEEN - JOISTS, S.S.D. - DECK GIRDERS, S.S.D. - JOIST PER PLAN, S.S.D.
	STONE TERRACE - STONE PAVERS - MORTAR BED - REINFORCED CONCRETE, S.S.D. - COMPACTED AGGREGATE BASE, S.S.D. - PREPARED SUB-GRADE (SEE SOIL REPORT)
	EXTERIOR WALL - PLASTER - COLOR INTEGRAL ELASTOMERIC PLASTER FINISH COAT 3/4" CEMENT PLASTER, 1/4 SCRATCH, 1/5 BROWN COAT BY VOLUME, CEMENT TO SAND. 2 LAYERS, GRADE "D" BUILDING PAPER - PLYWOOD SHEATHING, S.S.D. 2x4 OR 2x6 STUDS @ 16" O.C., S.S.D. - BATT INSULATION W/INTEGRAL VAPOR BARRIER (PER T-24) 5/8" G.W.B. OR MATCH EXISTING - SCHEDULED FINISH
	TYPICAL INTERIOR PARTITION 1/2" GYP. BD TO ROOF OR 5/8" G.W.B. @ RATED WALLS 2x4 STUDS @ 16" O.C. 1/2" GYP. BD OR 5/8" TYPE "X" G.W.B. @ RATED WALLS

GENERAL INFORMATION	
1. GENERAL NOTES: WORK SHALL BE DONE TO THE HIGHEST STANDARDS OF CRAFTSMANSHIP AND BEST TRADE PRACTICES. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND/OR LOCAL CODES, LAWS AND ORDINANCES, RULES AND REGULATIONS. REFERENCES IN THE SPECIFICATIONS TO "CODE" OR TO "BUILDING CODES" NOT OTHERWISE IDENTIFIED SHALL MEAN THE 2018 INTERNATIONAL BUILDING CODE, TOGETHER WITH ADDITIONS, AND IN EFFECT ON THE DATE OF RECEIPT OF BIDS, NOTHING IN THE DRAWINGS IS TO BE CONSTRUED AS OR PERMITTING WORK THAT IS CONTRARY TO THESE RULES, REGULATIONS, AND CODES.	
2. HOLD HARMLESS: WORK DONE ON THE PREMISES, OR IN CONNECTION WITH THE PROSECUTION OF THIS CONTRACT, SHALL BE AT THE CONTRACTOR'S RISK AND CONTRACTOR SHALL ASSUME ANY AND ALL LIABILITY AND SHALL INDEMNIFY AND SAVE HARMLESS THE OWNER AND ANY OTHER PERSON, FIRM, CORPORATION, OR ORGANIZATION FOR WHOM SUCH CONTRACT WORK IS BEING PERFORMED, THEIR AGENTS, SERVANTS OR EMPLOYEES, OF AND FROM CLAIMS OR DEMANDS, COSTS, EXPENSES, LOSS OR DAMAGE ON ACCOUNT OF BODILY INJURY, SICKNESS OR DISEASE, INCLUDING DEATH, TO EMPLOYEES OF THE CONTRACTOR OR ANY OTHER PERSON, OR DAMAGE TO PROPERTY INCLUDING LOSS OF USE THEREOF SUFFERED BY EMPLOYEES OF THE CONTRACTOR, OR OF ANY PERSON, OR OF LIABILITY IMPOSED UPON SAID OWNER BY LAW, ARISING OUT OF THE OPERATION OF THIS CONTRACT.	
3. VERIFICATION OF CONDITIONS: CONTRACTORS AND BIDDERS SHALL HAVE CAREFULLY EXAMINED ALL LOCAL, CITY, COUNTY, STATE, FEDERAL AND NATIONAL BOARD OF FIRE UNDERWRITERS LAWS, ORDINANCES, RULES AND REGULATIONS GOVERNING THEIR WORK AND SHALL HAVE MADE ALL NECESSARY PROVISIONS IN THEIR BIDS OR QUOTATIONS FOR FULL CONFORMANCE THERETO IN THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS WITH THOSE AT THE SITE. THE CONTRACTORS ACCEPT THE BIDDING PLANS AND/OR SPECIFICATIONS AS COMPLETE FOR THE PERFORMANCE OF THEIR TRADE WORK. THEY SHALL CALL TO THE ATTENTION OF THE OWNER ANY ERRORS OR OMISSIONS OBSERVED BY THEM FOR CORRECTION PRIOR TO THE EXECUTION OF THEIR CONTRACT WITH THE OWNER. THE DRAWINGS SHOW THE GENERAL FEATURES OF THE CONSTRUCTION AND ARE NOT TO BE SCALED. WORK SHALL BE GOVERNED BY WRITTEN DIMENSION ONLY. BEFORE PROCEEDING WITH ANY OF THE WORK, THE CONTRACTOR SHALL CAREFULLY CHECK THE DRAWINGS AND SHALL BE RESPONSIBLE FOR ALL ERRORS THAT SHOULD HAVE BEEN DISCOVERED BY SUCH A CHECK. THE DRAWINGS SHALL BE SUPPLEMENTED BY SUCH WORKING DRAWINGS AND SHOP DRAWINGS FOR THE OWNERS APPROVAL, TO BE PREPARED BY THE CONTRACTORS, AND/OR DESCRIPTIVE LEAFLETS AS ARE NECESSARY TO ADEQUATELY ILLUSTRATE AND CONTROL THE WORK. NO CHANGES SHALL BE MADE ON ANY DRAWINGS AFTER IT HAS BEEN APPROVED EXCEPT BY THE WRITTEN PERMISSION OF THE OWNER.	
4. GENERAL COMPLIANCE NOTES: DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE, AND WITH ANY LOCAL OR STATE GOVERNING CODES, ORDINANCES OR AMENDMENTS. SHEET METAL SUB-CONTRACTOR SHALL DESIGN AND INSTALL COMPLETE HEATING AND VENTILATION SYSTEM FOR THE STRUCTURE IN ACCORDANCE WITH THE 2018 INTERNATIONAL MECHANICAL CODE, AND ANY LOCAL, STATE OR FEDERAL GOVERNING CODES, ORDINANCES OR AMENDMENTS. PLUMBING SUB-CONTRACTOR SHALL DESIGN AND INSTALL COMPLETE PLUMBING SYSTEM FOR THE STRUCTURE IN ACCORDANCE WITH THE 2018 INTERNATIONAL PLUMBING CODE AND ALL GOVERNING LOCAL CODES OR ORDINANCES. ELECTRICAL SUB-CONTRACTOR SHALL DESIGN AND INSTALL COMPLETE ELECTRICAL SYSTEM FOR THE STRUCTURE FROM THE ENCLOSED SCHEMATIC PLANS IN ACCORDANCE WITH THE 2017 N.E.C. AND ANY LOCAL, STATE OR FEDERAL GOVERNING CODES, ORDINANCES OR AMENDMENTS. DRAWINGS ARE NOT TO BE SCALED. ALL WORK SHALL BE GOVERNED BY WRITTEN DIMENSIONS AND/OR EXISTING CONDITIONS AS NOTED OR IMPLIED. ANY OMISSIONS OR DISCREPANCIES OR DISAGREEMENTS BETWEEN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER.	
5. PERMITS AND FEES: THE CONTRACTOR SHALL PAY FOR THE BUILDING PERMIT AND ANY RELATED PERMIT FEES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND OBTAINING THE REQUIRED PERMITS PRIOR TO COMMENCEMENT OF THE WORK.	

PLUMBING FIXTURE COUNT	
KITCHEN FAUCET COUNT:	140
RESTROOM FAUCET COUNT:	207
WATER CLOSET COUNT:	205
URINAL COUNT:	3
BATH/SHOWER FIXTURE COUNT:	204
DISHWASHER COUNT	140
WASHING MACHINE COUNT	140
DRINKING FOUNTAIN COUNT	4
HOSE BIB COUNT	6
TOTAL FIXTURE COUNT:	1,043
OTHER:	
POOL	1
DRIP IRRIGATION FOR LANDSCAPING	

SHEET INDEX

A0.1	PROJECT DATA & GENERAL INFO.
A0.2	FRONT 3D VIEWS _ BUILDING - A
A0.4	FRONT 3D VIEWS _ BUILDING - B
A0.3	REAR 3D VIEWS _ BUILDING - A
A0.5	REAR 3D VIEWS _ BUILDING B
A0.6	FRONT 3D VIEWS _ BUILDING C
A0.7	REAR 3D VIEWS _ BUILDING C
A1.2	SITE PLAN
A1.3	LANDSCAPE PLAN
A2.0	UNIT LAYOUTS
A2.4	FLOOR PLAN _BUILDING-A
A2.5	FLOOR PLAN _BUILDING-B
A2.6	FLOOR PLAN _BUILDING-C
A2.8	UPPER FLOOR PLANS
A3.2	ELEVATIONS _ BUILDING - B _ Color Scheme 2
A3.1	ELEVATIONS _ BUILDING - A _ Color Scheme 1
A3.3	ELEVATIONS _ BUILDING - C _ Color Scheme 3
A4.1	Rendered _ 3D VIEWS _ Color Scheme 3
A4.2	Rendered _ 3D VIEWS _ Color Scheme 3

VICINITY MAP

The vicinity map displays the project site, highlighted in yellow, situated at the intersection of E Main St and a street labeled 'AR 80'. The map includes surrounding streets such as E Main St, E Bridge Rd, E Main St, E Main

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

ENDURED BUILDERS
General • Concrete • Framing • Contracting
NV License #s 51422A, 51740A, 75337 • CA Lic. #909402
Building Northern Nevada Since 2001

SCALE

DATE
03/22/2023

SHEET TITLE
**FRONT 3D
VIEWS_
BUILDING - A**

SHEET NO.

A0.2





1 3D View 3

N.T.S.



2 3D View 4

N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:

Goudy Investments
LLC

ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD

CONTRACTOR:

JOE MACHADO
775-691-5318



SCALE

DATE
03/22/2023

SHEET TITLE

REAR 3D
VIEWS_
BUILDING - A

SHEET NO.

A0.3



1

3D View 5

N.T.S.



2

3D View 6

N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

**ENDURED
BUILDERS**
General • Concrete • Framing • Contracting
NV License #S 51402A, 51740A, 75337 • CA Lic. #909402
*Building Northern Nevada
Since 2001*

SCALE

DATE
03/22/2023

SHEET TITLE

**FRONT 3D
VIEWS_
BUILDING - B**

SHEET NO.

A0.4



1 3D View 10 N.T.S.



2 3D View 9 N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

ENDURED BUILDERS

General • Concrete • Framing • Contracting
NV License #S 51422A, 51740A, 75337 • CA Lic. #909402
Building Northern Nevada Since 2001

SCALE

DATE
03/22/2023

SHEET TITLE
REAR 3D
VIEWS_
BUILDING B

SHEET NO.

A0.5



1 3D View 7

N.T.S.



2 3D View 8

N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

**ENDURED
BUILDERS**
General • Concrete • Framing • Contracting
NV License #s 51402A, 51740A, 75337 • CA Lic. #909402
*Building Northern Nevada
Since 2001*

SCALE

DATE
03/22/2023

SHEET TITLE

FRONT 3D
VIEWS_
BUILDING C

SHEET NO.

A0.6



1 3D View 11

N.T.S.



2 3D View 12

N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

- 138 APARTMENT UNITS
- 12 THREE BEDROOMS
- 50 TWO BEDROOMS
- 76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318



SCALE

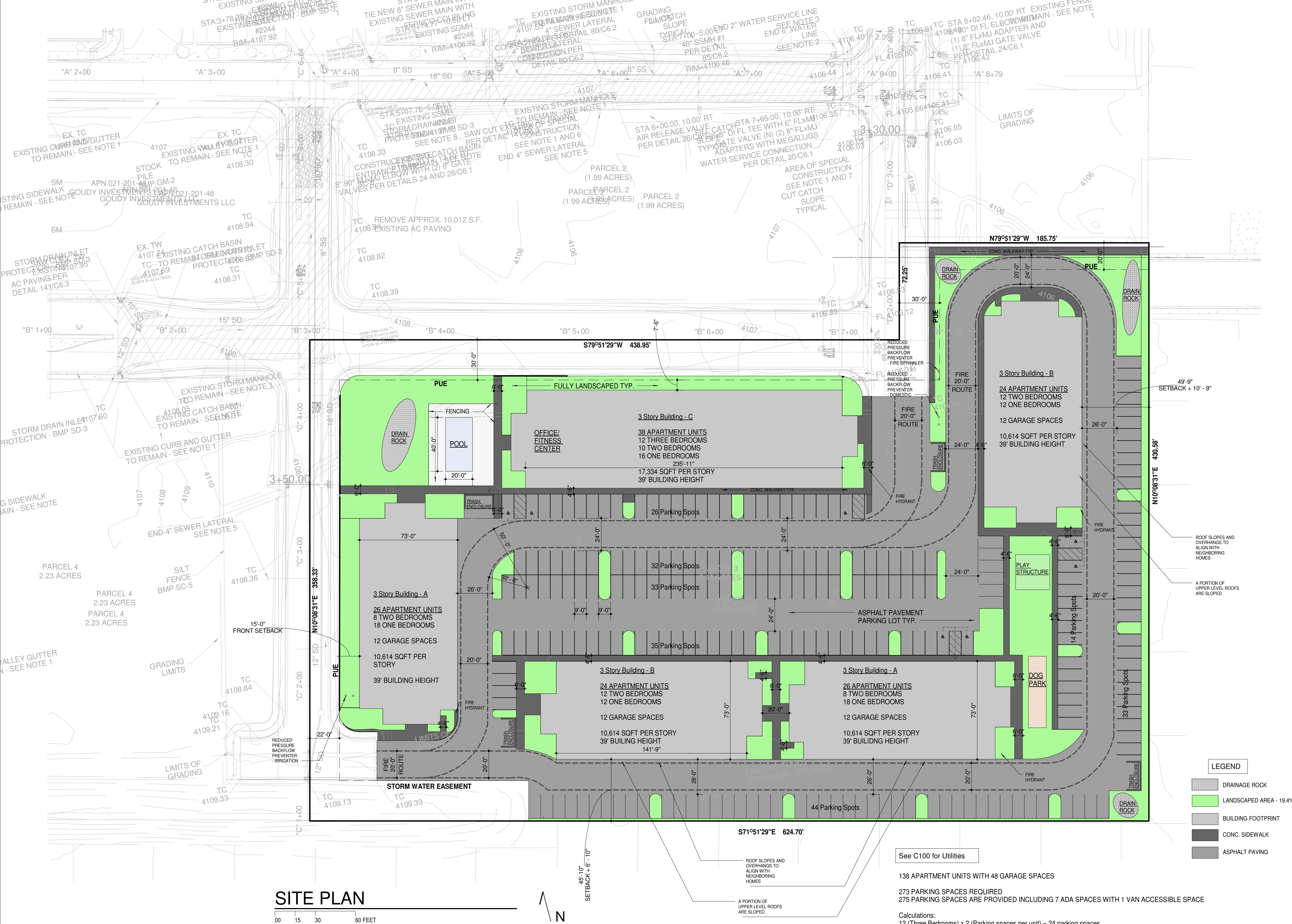
DATE
03/22/2023

SHEET TITLE

REAR 3D
VIEWS_
BUILDING C

SHEET NO.

A0.7



PROJECT DESCRIPTION:

NEW DEVELOPMENT

- 138 APARTMENT UNITS
- 12 THREE BEDROOMS
- 50 TWO BEDROOMS
- 76 ONE BEDROOMS

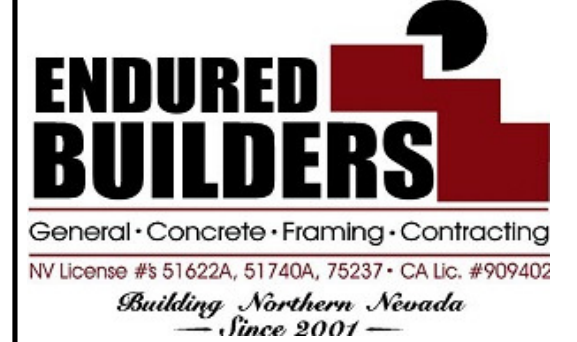
25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318



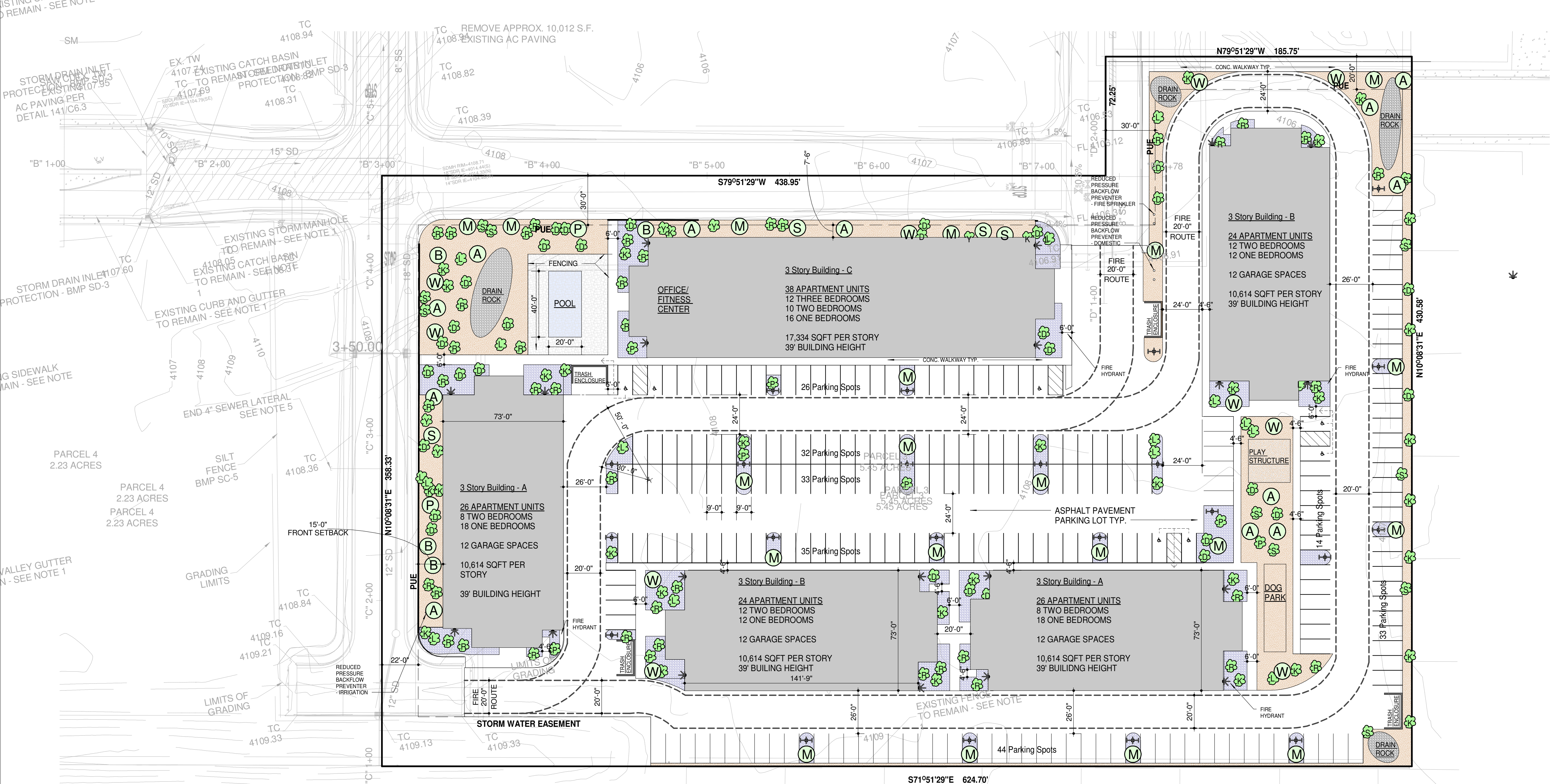
SCALE
1" = 30'-0"

DATE
03/22/2023

SHEET TITLE
SITE PLAN

SHEET NO.

A1.2



LANDSCAPE PLAN

LANDSCAPE & LIGHTING LEGEND

- (B) B - BLACK PINE - 24" BOX - 8' MIN. 10' MAX.
- (W) W - WEEPING CHERRY TREE - 2" CALIPER
- (A) A - ASPEN TREE - 24" BOX - 2" CALIPER
- (S) S - SYCAMORE TREE - 24" BOX - 2" CALIPER
- (P) P - FLOWERING PEAR - 2" CALIPER
- (M) M - BLOODGOOD JAPANESE MAPLE

- L - LAVENDER - 1 GAL
- S - LOW GROW SAMAE - 5 GAL
- P - PRAIRIE FIRE BURNING BUSH - 5 GAL
- D - DAY LILLY - 1 GAL
- Y - PINK YUCCA - 5 GAL
- R - CREEPING ROSE BUSH - 2 GAL
- K - KARL FORESTER GRASS - 1 GAL

EXTERIOR WALL SCONCE,
Kichler 2 Light 15" Tall Outdoor
Wall Sconce, Model:9246BK, Wattage: 240 watts

- DECOMPOSED GRANITE
- ROCKS/BOULDERS
- 1" x 3" ROUND RIVER ROCK MULTCH

20' TALL DF LED 7750 DOUBLE HEADED POWDER COATED CAST
ALUMINUM POST LIGHT WITH POLE / PARKING LOT LIGHTING /
STREET LIGHT, Lumens::150 Watt LED 20,250 Lumens x2

NOTE: ALL PLANTS WATERED USING PROPER DRIP IRRIGATION.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

- 138 APARTMENT UNITS
- 12 THREE BEDROOMS
- 50 TWO BEDROOMS
- 76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

ENDURED BUILDERS
General - Concrete - Framing - Contracting
NV License #S 51422A, 51740A, 75337 - CA Lic. #909402
Building Northern Nevada
Since 2001

SCALE
1" = 30'-0"

DATE
03/22/2023

SHEET TITLE
**LANDSCAPE
PLAN**

SHEET NO.

A1.3

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

ENDURED BUILDERS
General • Concrete • Framing • Contracting
NV License #s 51422A, 51740A, 75337 • CA Lic. #909402
Building Northern Nevada Since 2001

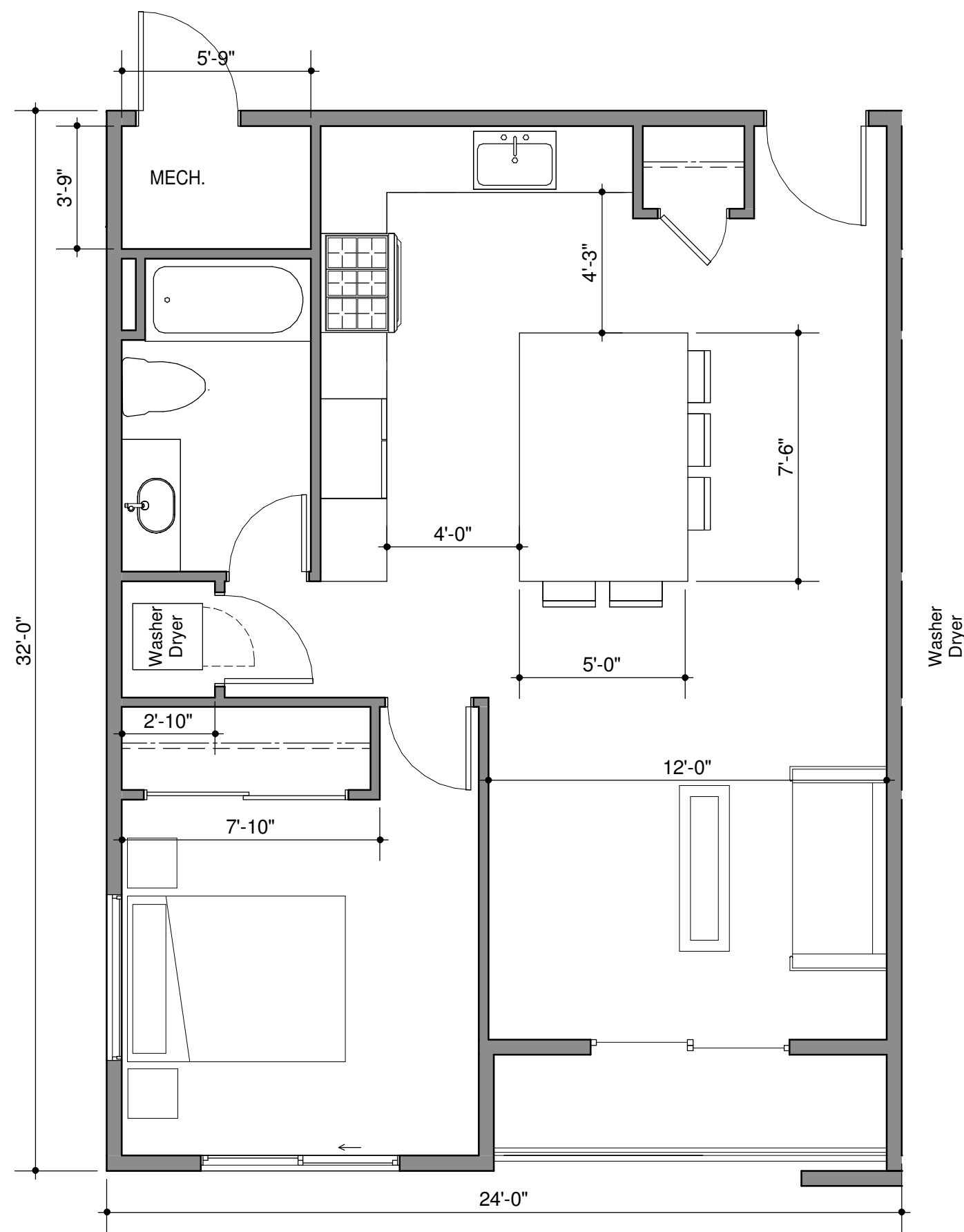
SCALE
1/4" = 1'-0"

DATE
03/22/2023

SHEET TITLE
UNIT LAYOUTS

SHEET NO.

A2.0

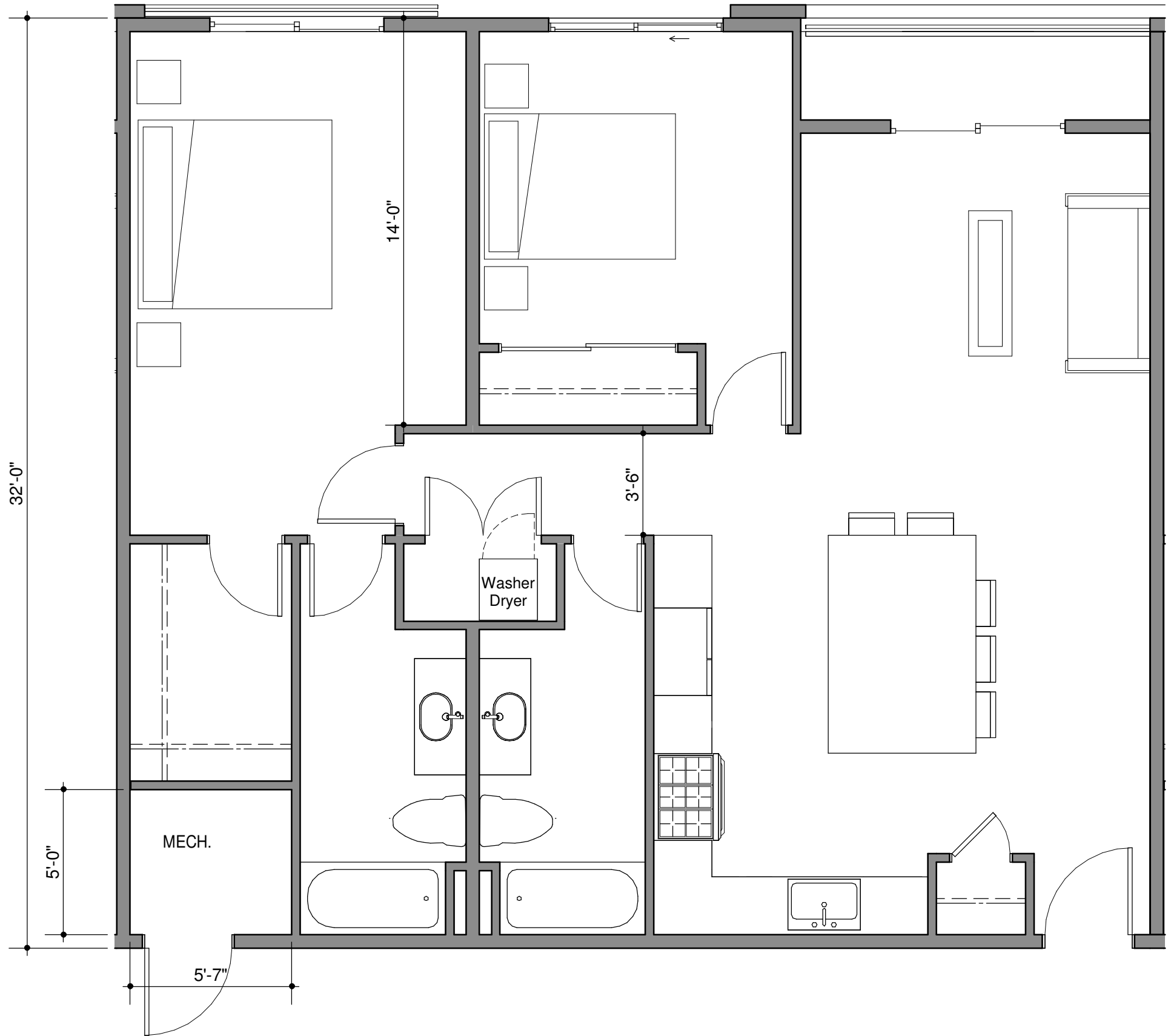


ONE BEDROOM

00 02 04 08 FEET

675 SQFT CONDITIONED SPACE

42 SQFT PATIO/DECK SPACE

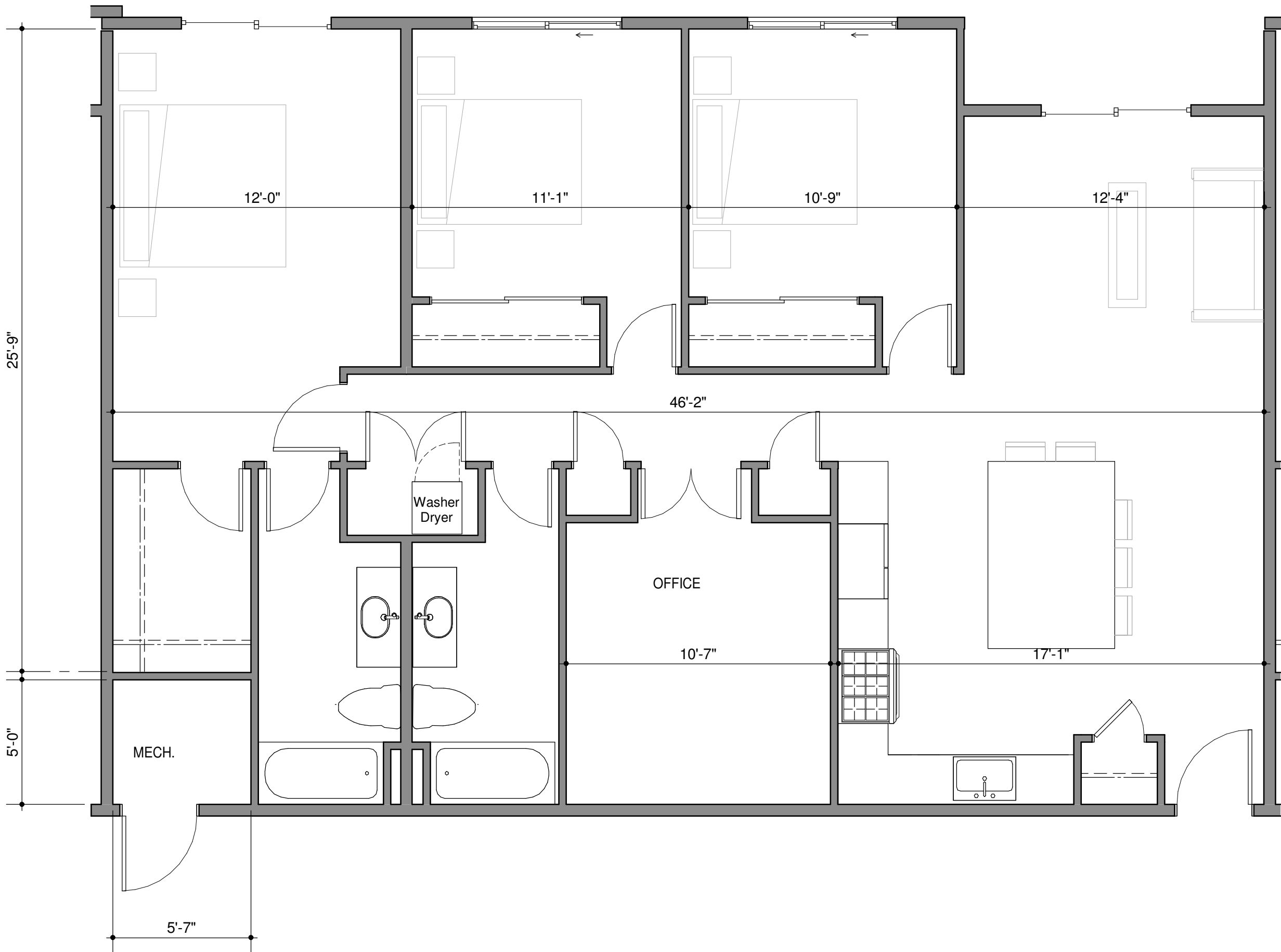


TWO BEDROOM

00 02 04 08 FEET

1048 SQFT CONDITIONED SPACE

42 SQFT PATIO/DECK SPACE

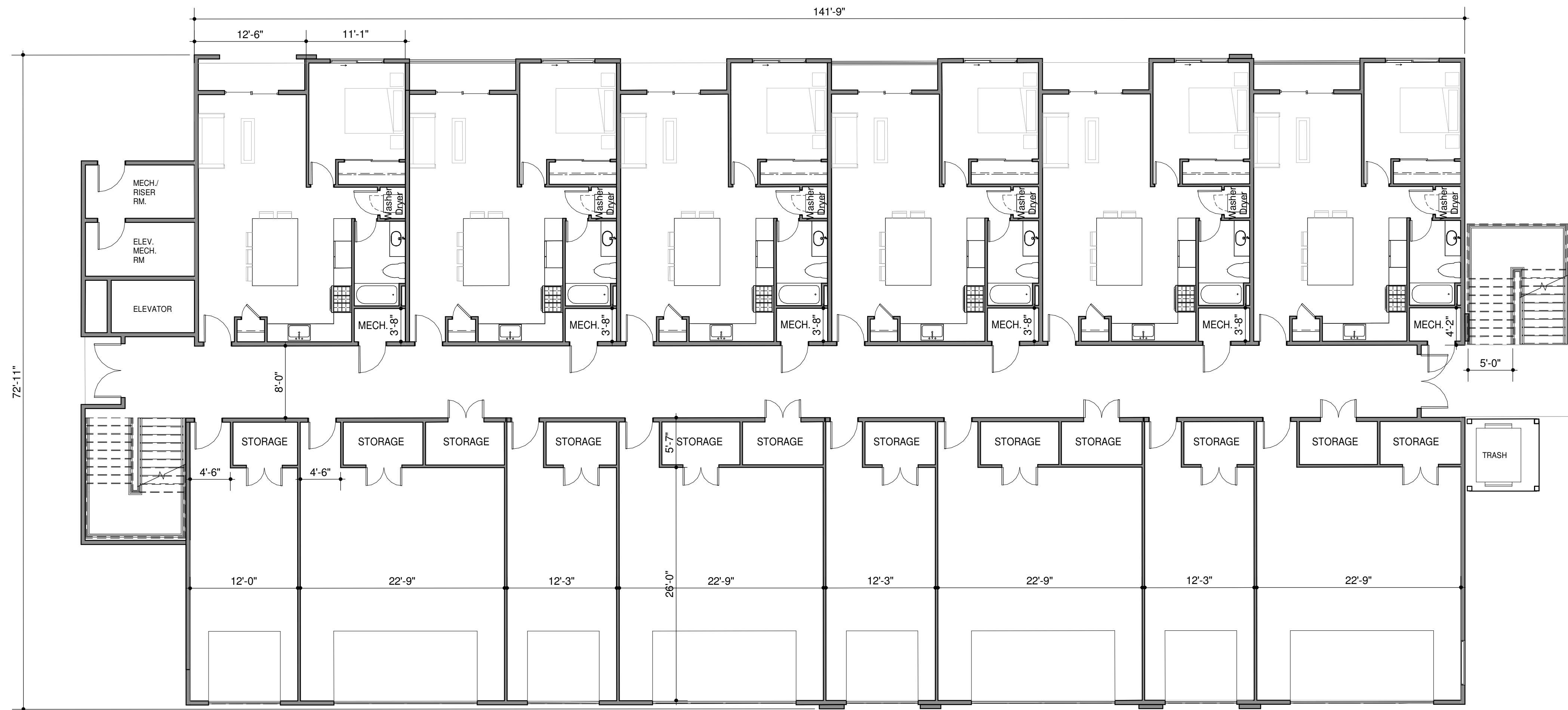


THREE BEDROOM

00 02 04 08 FEET

1462 SQFT CONDITIONED SPACE

42 SQFT PATIO/DECK SPACE



LEVEL 1 _ BUILDING - A

00 04 08 16 FEET

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

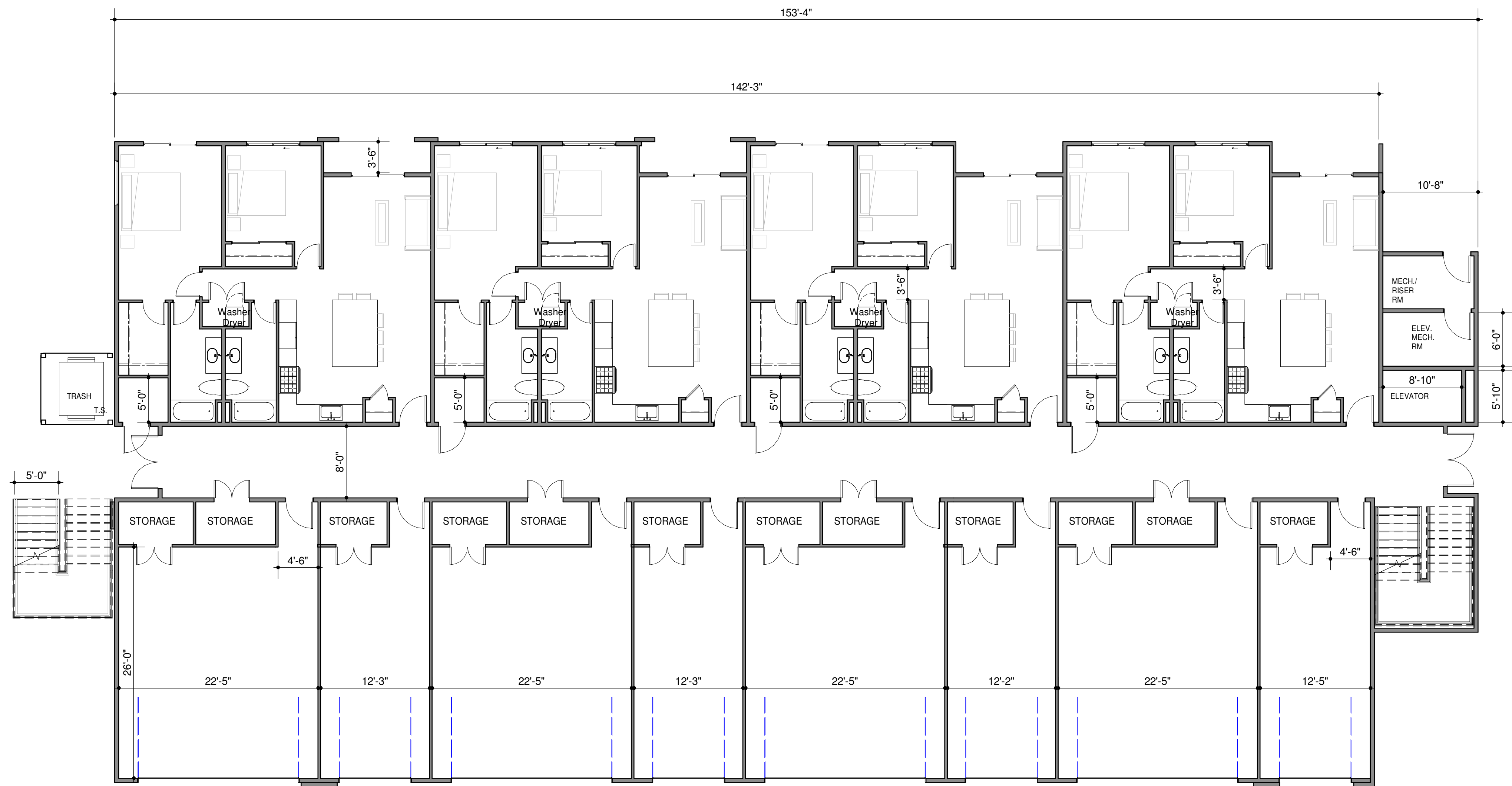


SCALE
1/8" = 1'-0"

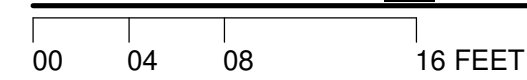
DATE
03/22/2023

SHEET TITLE
FLOOR
PLAN_BUILDING-A

SHEET NO.
A2.4



LEVEL 1 BUILDING - B



PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:

Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD

CONTRACTOR:

JOE MACHADO
775-691-5318



SCALE

1/8" = 1'-0"

DATE

03/22/2023

SHEET TITLE

FLOOR
PLAN_BUILDING-B

SHEET NO.

A2.5



LEVEL 1 _ BUILDING - C

00 04 08 16 FEET

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

**ENDURED
BUILDERS**
General • Concrete • Framing • Contracting
NV License #s 51422A, 51740A, 75337 • CA Lic. #909402
*Building Northern Nevada
Since 2001*

SCALE
1" = 10'-0"

DATE
03/22/2023

SHEET TITLE
**FLOOR
PLAN_BUILDING-C**

SHEET NO.
A2.6



LEVELS 2&3 BUILDING A & B



LEVELS 2&3 BUILDING C



PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318



SCALE
As indicated

DATE
03/22/2023

SHEET TITLE
**UPPER FLOOR
PLANS**

SHEET NO.

A2.8



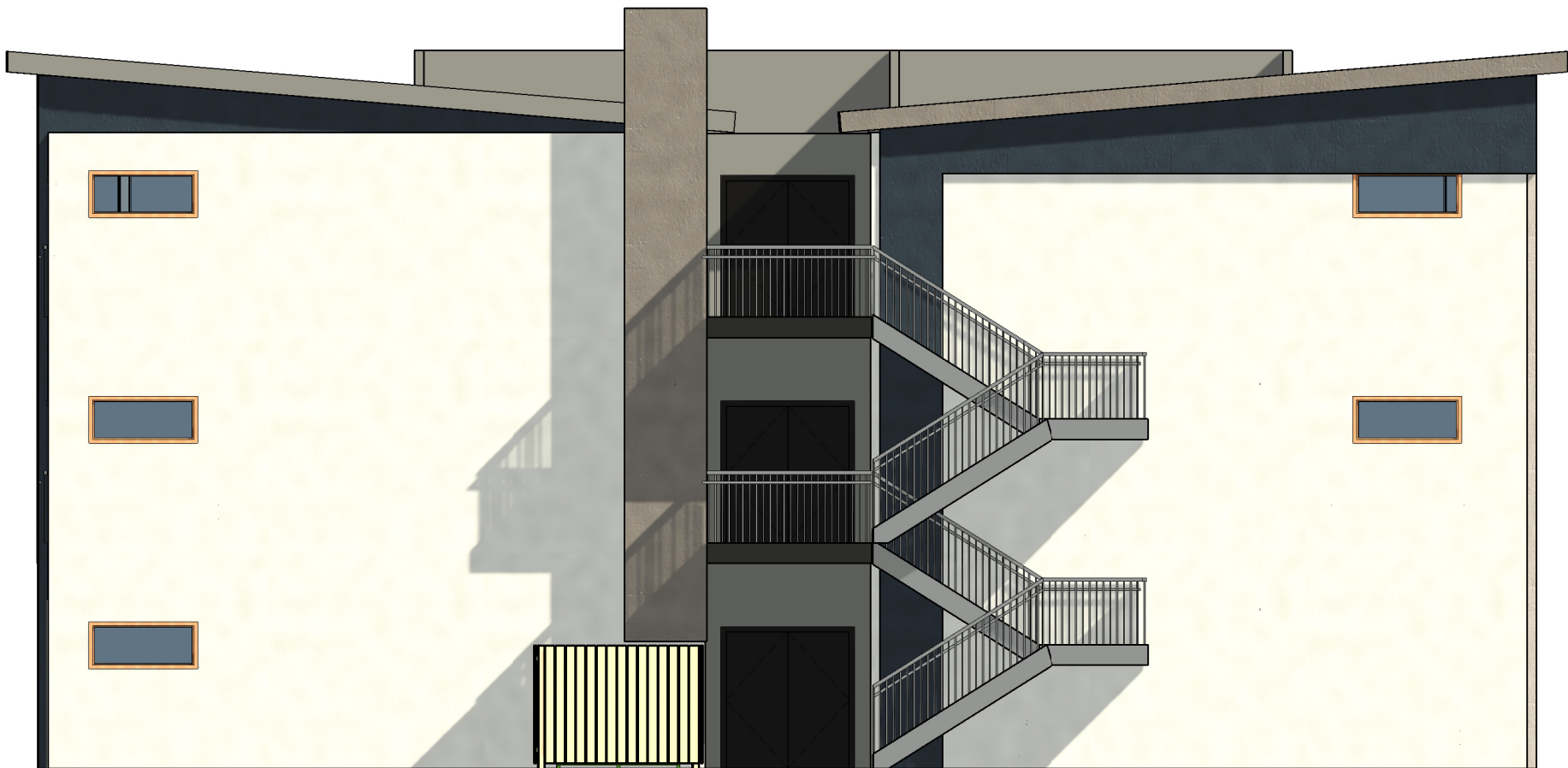
FRONT ELEVATION_BLDG-A

00 04 08 16 FEET



REAR ELEVATION_BLDG-A

00 04 08 16 FEET



RIGHT ELEVATION_BLDG-A

00 04 08 16 FEET



LEFT ELEVATION_BLDG-A

00 04 08 16 FEET

PROJECT DESCRIPTION:
NEW DEVELOPMENT
138 APARTMENT UNITS
12 THREE BEDROOMS
50 TWO BEDROOMS
76 ONE BEDROOMS
25.2% Building Coverage
NEVADA PACIFIC PARKWAY DEVELOPMENT PARCEL 3 5.44 ACRES FERNLEY, NV
APN:021-201-47
OWNER: Goudy Investments LLC ROGER BAYLOCQ roger.baylocq@gmail .com
DESIGN BUILD CONTRACTOR: JOE MACHADO 775-691-5318
ENDURED BUILDERS General • Concrete • Framing • Contracting NV License #S 51422A, 51740A, 75337 • CA Lic. #909402 Building Northern Nevada Since 2001
SCALE
1/8" = 1'-0"
DATE
03/22/2023
SHEET TITLE
ELEVATIONS_ BUILDING - A _ Color Scheme 1
SHEET NO.
A3.1



FRONT ELEVATION_BLDG-B

00 04 08 16 FEET



REAR ELEVATION_BLDG-B

00 04 08 16 FEET



RIGHT ELEVATION_BLDG-B

00 04 08 16 FEET



LEFT ELEVATION_BLDG-B

00 04 08 16 FEET

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:

Goudy Investments
LLC

ROGER BAYLOCQ

roger.baylocq@gmail
.com

DESIGN BUILD

CONTRACTOR:

JOE MACHADO

775-691-5318

**ENDURED
BUILDERS**

General • Concrete • Framing • Contracting
NV License #S 51422A, 51740A, 75337 • CA Lic. #909402

*Building Northern Nevada
Since 2001*

SCALE

1/8" = 1'-0"

DATE

03/22/2023

SHEET TITLE

**ELEVATIONS _
BUILDING - B _
Color Scheme 2**

SHEET NO.

A3.2



FRONT ELEVATION_BLDG-C

00 05 10 20 FEET



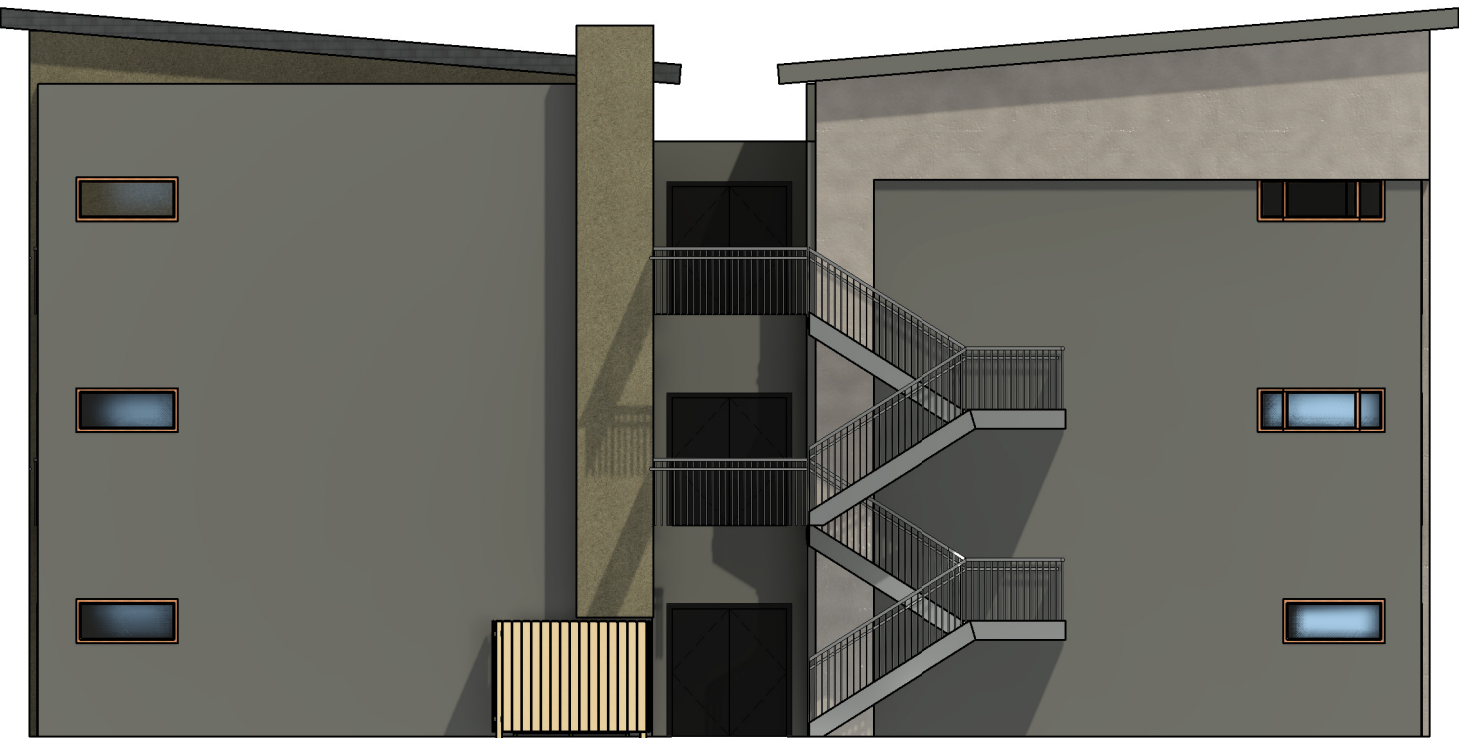
REAR ELEVATION_BLDG-C

00 05 10 20 FEET



RIGHT ELEVATION_BLDG-C

00 05 10 20 FEET



LEFT ELEVATION_BLDG-C

00 05 10 20 FEET

PROJECT DESCRIPTION:

NEW DEVELOPMENT

- 138 APARTMENT UNITS
- 12 THREE BEDROOMS
- 50 TWO BEDROOMS
- 76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318



SCALE
1" = 10'-0"

DATE
03/22/2023

SHEET TITLE
ELEVATIONS_
BUILDING - C_
Color Scheme 3

SHEET NO.

A3.3



1 3D View _ From North Entrance N.T.S.



2 3D View _ From HWY 50 N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT

138 APARTMENT UNITS

12 THREE BEDROOMS

50 TWO BEDROOMS

76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

ENDURED
BUILDERS

General • Concrete • Framing • Contracting
NV License #s 51402A, 51740A, 75337 • CA Lic. #909402
*Building Northern Nevada
Since 2001*

SCALE

DATE
03/22/2023

SHEET TITLE
Rendered _ 3D
VIEWS _ Color
Scheme 3

SHEET NO.
A4.1



1 3D View _ From Office N.T.S.



2 3D View _ From South Entrance N.T.S.

PROJECT DESCRIPTION:

NEW DEVELOPMENT
138 APARTMENT UNITS
12 THREE BEDROOMS
50 TWO BEDROOMS
76 ONE BEDROOMS

25.2% Building Coverage

NEVADA PACIFIC
PARKWAY
DEVELOPMENT
PARCEL 3
5.44 ACRES
FERNLEY, NV

APN:021-201-47

OWNER:
Goudy Investments
LLC
ROGER BAYLOCQ
roger.baylocq@gmail
.com

DESIGN BUILD
CONTRACTOR:
JOE MACHADO
775-691-5318

ENDURED
BUILDERS

General • Concrete • Framing • Contracting
NV License #s 51422A, 51740A, 75337 • CA Lic. #909402
Building Northern Nevada
Since 2001

SCALE

DATE
03/22/2023

SHEET TITLE
**Rendered _ 3D
VIEWS _ Color
Scheme 3**

SHEET NO.

A4.2

TRAFFIC IMPACT STUDY

for

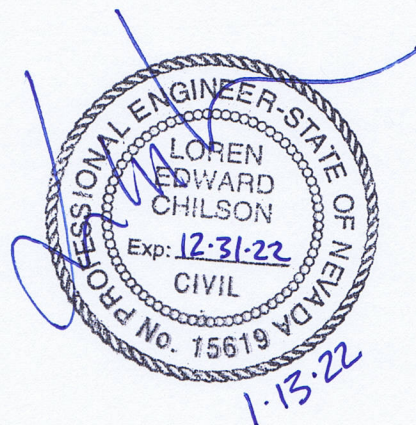
Nevada Pacific Boulevard Development

January 13, 2022

PREPARED FOR:

Lumos & Associates

PREPARED BY:



Headway Transportation, LLC
5482 Longley Lane, Suite B, Reno, Nevada 89511
775.322.4300
www.HeadwayTransportation.com

YOUR QUESTIONS ANSWERED QUICKLY

Why did you perform this study?

This Traffic Impact Study evaluates the potential traffic impacts associated with the Nevada Pacific Boulevard Development in Fernley, NV. This study was undertaken to determine the baseline and future traffic conditions, quantify traffic volumes generated by the proposed project, identify potential impacts, and develop recommendations to mitigate impacts, if any are found.

What does the project consist of?

The project is a mixed-use development, anticipated to include various retail, food, services, and residential uses. The proposed project is located in the southeast quadrant of the Nevada Pacific Parkway/ US 50 ALT intersection. Access is proposed via an existing roundabout on Nevada Pacific Parkway, an existing right-in/right-out access connection on Nevada Pacific Parkway, and an existing right-in access on US 50 ALT.

How much traffic will the project generate?

The proposed project is anticipated to generate approximately 3,535 Daily trips, 286 AM peak hour trips, and 303 PM peak hour trips.

Are there any traffic impacts?

All studied intersections operate within policy level of service under all scenarios, with and without the project. No impacts were identified.

Unrelated to, and prior to this project, the Nevada Pacific Parkway/ US 50 ALT intersection will be converted from side-street stop to a traffic signal by NDOT. It is analyzed as a signal in the Baseline Conditions.

In the Future (20-year horizon) Conditions, the Nevada Pacific Parkway extension project will form the fourth, north leg of the US 50 ALT/Nevada Pacific Parkway intersection.

Are any improvements proposed?

No capacity improvements or modifications are recommended at the study intersections based on the addition of project traffic. The project will construct frontage improvements on the internal project roadways.



LIST OF FIGURES

1. Project Location
2. Preliminary Site Plan
3. Baseline Lane Configurations, Controls, and Traffic Volumes
4. Baseline Project Trip Distribution & Assignment
5. Baseline Plus Project Traffic Volumes
6. Future Lane Configurations, Controls, and Traffic Volumes
7. Future Trip Distribution & Assignment
8. Future Plus Project Traffic Volumes

LIST OF APPENDICES

- A. Baseline Conditions LOS Calculations
- B. Baseline Plus Project Conditions LOS Calculations
- C. Future Conditions LOS Calculations
- D. Future Plus Project Conditions LOS Calculations



INTRODUCTION

This Traffic Impact Study evaluates the potential traffic impacts associated with the Nevada Pacific Boulevard Development in Fernley, NV. This study was undertaken to determine the existing and future (20-year horizon) traffic conditions, quantify traffic volumes generated by the proposed project, identify potential impacts, and develop recommendations to mitigate impacts, if any are found.

Study Area and Evaluated Scenarios

The proposed project is located in the southeast quadrant of the Nevada Pacific Parkway/ US 50 ALT intersection. All study intersections are shown in **Figure 1** and a preliminary site plan/parcel map is shown in **Figure 2**. This project is at the parcel map stage and there are no defined uses at this time. The project is analyzed using the owner/developer's anticipation of the most likely uses.

The following intersections are included in this study:

1. Nevada Pacific Parkway / US 50 ALT: currently side-street stop controlled, soon to be signalized
2. Nevada Pacific Parkway / Project Access Road: right-in/right-out
3. Nevada Pacific Parkway / Project Access Road: roundabout
4. US 50 ALT / Project Access Road east of Fox Peak Station: right-in only

Lane configurations and intersection controls at the study intersections are shown in **Figure 3**. The Nevada Pacific Parkway/ US 50 ALT intersection is represented as signalized for the Baseline (existing) Conditions since the signal will be constructed in summer 2022, prior to the subject project construction.

This study includes analysis of both the weekday AM and PM peak hours as these are the periods of time in which peak traffic is anticipated to occur. The evaluated development scenarios are:

- ▶ Baseline Conditions (no project)
- ▶ Baseline Plus Project
- ▶ Future Conditions (20-year horizon without the project)
- ▶ Future Plus Project Conditions

ANALYSIS METHODOLOGY

Level of service (LOS) is a term commonly used by transportation practitioners to measure and describe the operational characteristics of intersections, roadway segments, and other facilities. This term equates seconds of delay per vehicle at intersections to letter grades "A" through "F" with "A" representing optimum conditions and "F" representing breakdown or over capacity flows.

Intersections

Intersection LOS methodology is established in the *Highway Capacity Manual (HCM) 6th Edition*, published by the Transportation Research Board (TRB). The methodology for signalized intersections determines



the LOS by comparing the average control delay for the overall intersection to the delay thresholds in **Table 1**. LOS at unsignalized intersections is determined by comparing the average control delay for the worst movement/approach to the delay thresholds in **Table 1**.

Table 1: Level of Service Definition for Intersections

Level of Service	Brief Description	Average Delay (seconds per vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Free flow conditions.	< 10	< 10
B	Stable conditions with some affect from other vehicles.	10 to 20	10 to 15
C	Stable conditions with significant affect from other vehicles.	20 to 35	15 to 25
D	High density traffic conditions still with stable flow.	35 to 55	25 to 35
E	At or near capacity flows.	55 to 80	35 to 50
F	Over capacity conditions.	> 80	> 50

Source: Highway Capacity Manual, Chapters 18 through 21

Level of service calculations for the signalized and yield-controlled intersections were performed using the Synchro 11 software package with results reported in accordance with the current HCM methodology. Level of service calculations for roundabouts were performed using SIDRA version 6 software package. For roundabouts, the volume to capacity (v/c) ratio is a better indicator of roundabout performance than delay. Roundabouts should operate with a v/c of less than 0.85 on all approaches. Therefore, v/c and LOS are presented for the roundabout.

Level of Service Policies

The *City of Fernley Comprehensive Master Plan* indicates that “the minimum Level of Service on all city-maintained roadways shall be LOS D.” This is consistent with Nevada Department of Transportation (NDOT) policies, which indicate that “*Level of Service “C” will be the design objective for capacity and under no circumstances will less than Level of Service “D” be accepted for site and non-site traffic.*”

Therefore, LOS D was used as the threshold for evaluating this project. Where intersections are already experiencing LOS beyond the thresholds, conditions should not be exacerbated.

The LOS policies are not specific to minor side street approaches, but rather focus on maintaining quality operations on the mainline corridors. Overall intersection operations is the measure to which the LOS policy applies.



BASELINE CONDITIONS

Roadway Facilities

A brief description of the key roadways in the study area is provided below:

US 50 ALT is a four-lane divided roadway classified by NDOT as a Principal Arterial in the project vicinity with a 65-mph speed limit at Nevada Pacific Parkway.

Nevada Pacific Parkway is classified by NDOT as a Minor Arterial. The roadway adjacent to the site is four lanes and currently extends half a mile from US 50 ALT south to Jasmine Lane. Sidewalks exist on both sides of the roadway.

North of the site, Nevada Pacific Parkway continues from E. Newlands Drive north to Interstate 80. The roadway is planned to be extended to fill in the missing segment between E. Newlands Drive and US 50 ALT.

The US 50 ALT/ Nevada Pacific Parkway intersection is side-street stop but will be signalized in the near future (anticipated summer of 2022), prior to construction of this project.

Crash History

The most recent five years of crash data (2015 – 2019) in the project area was obtained through an NDOT Crash Data request. Seventeen crashes occurred at the Nevada Pacific Parkway/ US 50 ALT intersection; eleven were injury crashes and six were property damage only. Almost all (16 out of 17) crashes were angle crashes which should be substantially improved with the conversion to a signal.

Eight additional crashes occurred within 500' of the intersection but were not intersection related. All were property damage only.

The crash data does not indicate a significant safety issue in the study area.

Traffic Volumes

Traffic counts for US 50 ALT/ Nevada Pacific Parkway were obtained in October 2021. Traffic counts for Nevada Pacific Parkway/ Project Access Roundabout and US 50 ALT/ Project Access Road (entry east of Fox Peak Station) were collected in December 2021, with school out of session. Therefore, the December counts were balanced and increased based on the October count data. The Baseline Condition traffic volumes are shown in **Figure 3**.

Intersection Level of Service

Level of service calculations were performed using the Baseline Condition traffic volumes, lane configurations, and traffic controls. The results are presented in **Table 2** and full calculations are provided in **Appendix A**.



Table 2: Baseline Condition Intersection Level of Service Summary

Intersection	Intersection Control	AM Peak		PM Peak	
		LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²
1. Nevada Pacific Parkway/ US 50 ALT	Signalized				
<i>Overall</i>		B	11.5	B	11.4
2. Nevada Pacific Parkway/ Project Access Road	Side Street Yield				
Westbound Right		A	9.2	A	9.1
<i>Overall</i>		A	1.1	A	0.9
3. Nevada Pacific Parkway/ Project Access Road	Roundabout				
Northbound Approach		A	v/c=0.132	A	v/c=0.109
Southbound Approach		A	v/c=0.078	A	v/c=0.077
Eastbound Approach		A	v/c=0.007	A	v/c=0.008
Westbound Approach		A	v/c=0.015	A	v/c=0.053
<i>Overall</i>		A	v/c=0.132	A	v/c=0.109

Notes: 1. Delay is reported in seconds per vehicle for the worst approach/movement for unsignalized (side-street stop controlled) intersections, and overall for signalized intersections.

2. Volume to capacity ratio is reported for the highest per approach for roundabouts

Source: Headway Transportation, 2022

As shown in **Table 2**, all study intersections operate within LOS policy. The signalized US 50 ALT/ Nevada Pacific Parkway intersection is expected to operate at a LOS B. Level of service for intersection #4 US 50 ALT/ Project Access Road (right in from US 50 ALT) cannot be calculated since all movements are free. The LOS for this movement is understood to be A since it experiences no delay.

PROJECT GENERATED TRAFFIC

Trip Generation

Trip generation rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition were used to develop trip generation estimates for the anticipated mix of land uses likely to be built in this project. **Table 3** shows the estimated land uses and sizes.



Table 3: Land Uses for Trip Generation

ITE Code and Land Use	Independent Variable	Size
720 - Medical-Dental Office Building - Stand-Alone	1000 Sq. Ft. GFA	10.5
881 - Pharmacy/Drugstore with Drive-Through Window	1000 Sq. Ft. GFA	15
934 - Fast-Food Restaurant with Drive-Through Window	1000 Sq. Ft. GFA	3.5
822 - Strip Retail Plaza	1000 Sq. Ft. GLA	17
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Dwelling Units	150
938 - Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	Drive-Through Lanes	2
948 - Automated Car Wash	Car Wash Tunnels	1

Source: Headway Transportation, 2022

The exact land uses, sizes, and locations on the site are to be determined. Any land use mix generating fewer total AM and PM project trips and similar trip patterns is considered equivalent from a traffic impact perspective.

Table 4 shows the Daily, AM peak hour, and PM peak hour trip generation estimates. The trip generation accounts for internal trips, which are trips made between land uses within a mixed-use development which do not produce new trips on the external road network. The trip generation also accounts for pass-by trips which are made by drivers already on the roadway network that divert to the project site on their way to another destination.

Table 4: Trip Generation Estimates

Multiuse Summary	Daily	AM Peak			PM Peak		
		Total	In	Out	Total	In	Out
New Trips (with reduction for internal)	5,765	462	231	231	460	234	226
Pass-by Trips	-2,230	-176	-88	-88	-157	-82	-75
New Trips on Roadway Network	3,535	286	143	143	303	152	151

Source: Headway Transportation, 2022



As shown in **Table 4**, the proposed project is anticipated to generate approximately 3,535 new Daily trips, 286 new AM peak hour trips, and 303 new PM peak hour trips on the roadway network.

Project Access & Internal Roadway Improvements

Access to the internal road network serving the site is provided via:

- ▶ The roundabout on Nevada Pacific Parkway (full access)
- ▶ Project Access Road on Nevada Pacific Parkway between the roundabout and US 50 ALT (right-in/right-out)
- ▶ US 50 ALT (right-in only)

The project will construct frontage improvements on the internal roadway network.

Trip Distribution and Assignment

Traffic generated by the project was distributed to the road network based on the location of the project site, the relative locations of major activity centers, and access connection points to regional roadways. The distribution is expected to differ in the future when the fourth leg of the US 50 ALT / Nevada Pacific Parkway is completed.

Table 5 shows the percentages used for distributing the new project traffic (primary trips) in the Baseline and Future Conditions:

Table 5. Baseline and Future Project Traffic Distribution

Distribution	Baseline	Future
To/from west via US 50 ALT	35%	25%
To/from east via US 50 ALT	35%	25%
To/from North via Nevada Pacific Parkway	0% - N/A	20%
To/from South via Nevada Pacific Parkway	30%	30%
Total	100%	100%

Project generated trips were assigned to the adjacent roadway system based on the distributions outlined above. The project trip assignment for the Baseline Conditions is shown on **Figure 4**.

BASELINE PLUS PROJECT CONDITIONS

Traffic Volumes

Baseline Plus Project traffic volumes were developed by adding the project generated trips (**Figure 4**) to the existing traffic volumes (**Figure 3**) and are shown on **Figure 5**.



Intersection Level of Service Analysis

Table 6 presents the LOS analysis summary for the Baseline Plus Project Conditions and the detailed calculation sheets are provided in **Appendix B**.

Table 6: Baseline Plus Project Conditions Intersection Level of Service Summary

Intersection	Intersection Control	AM Peak		PM Peak		AM Peak PP		PM Peak PP	
		LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²
1. Nevada Pacific Parkway/ US 50 ALT	Signalized								
Overall		B	11.5	B	11.4	B	12.0	B	12.0
2. Nevada Pacific Parkway/ Project Access Road	Side Street Yield								
Westbound Right		A	9.2	A	9.1	A	10.0	A	9.8
Overall		A	1.1	A	0.9	A	1.3	A	1.2
3. Nevada Pacific Parkway/ Project Access Road	Roundabout								
Northbound Approach		A	v/c=0.132	A	v/c=0.109	A	v/c=0.167	A	v/c=0.146
Southbound Approach		A	v/c=0.078	A	v/c=0.077	A	v/c=0.153	A	v/c=0.196
Eastbound Approach		A	v/c=0.007	A	v/c=0.008	A	v/c=0.008	A	v/c=0.010
Westbound Approach		A	v/c=0.015	A	v/c=0.053	A	v/c=0.147	A	v/c=0.144
Overall		A	v/c=0.132	A	v/c=0.109	A	v/c=0.167	A	v/c=0.196

Notes: 1. Delay is reported in seconds per vehicle for the worst approach/movement for unsignalized (side-street stop controlled) intersections, and overall for signalized intersections.

2. Volume to capacity ratio is reported for the highest per approach for roundabouts

Source: Headway Transportation, 2022

As shown in **Table 6**, all study intersections are anticipated to operate within LOS policy. The LOS for the inbound right-turn movement from US 50 ALT is understood to be A since it experiences no delay. The addition of project traffic has no significant impact on intersection operations.

FUTURE CONDITIONS

Roadway Facilities

In the future, Nevada Pacific Parkway will be extended north of US 50 ALT to complete the missing segment and connect to Interstate 80 as shown in **Exhibit 1**.





Exhibit 1: Nevada Pacific Parkway Extension



The *City of Fernley Transportation Master Plan* includes the Nevada Pacific Parkway Extension project to “extend the existing Nevada Pacific Parkway south across the UPRR railroad to existing US 50A to provide additional north/south and I-80 connectivity.”

Future condition lane configurations at the Nevada Pacific Parkway/US 50 ALT intersection were determined in the *Lane Configurations for Nevada Pacific Parkway Extension* (Headway, April 28, 2020). **Figure 6** shows the future (20-year horizon) lane configurations and controls at the study intersections.

Traffic Volumes

Future Year (20-year horizon) traffic volumes were developed using regional growth rates and considering traffic redistribution with the Nevada Pacific Parkway connection. When the Nevada Pacific Parkway connection is complete, it is expected that some traffic travelling between US 50 ALT to the east and I-80 will shift from US 95A to Nevada Pacific Parkway. For analysis purposes, it was assumed that approximately 40 percent of the traffic on US 50 ALT east of Nevada Pacific Parkway would use Nevada Pacific Parkway rather than US 95A. This re-routed traffic (approximately 5,080 daily trips) was assumed on Nevada Pacific Parkway in the Future Year forecasts.

Historical traffic volume data in the project area was used to develop a regional background annual growth rate. **Table 7** shows the historical traffic volume data.

Table 7: NDOT Historical Traffic Volume Data

Roadway – Location	Annual Average Daily Traffic (AADT) Volumes										Annual Growth Rate
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
US 50 ALT – East of NPP ¹	9,100	9,000	11,000	10,500	11,000	12,000	12,000	12,700	13,000	12,500	4.2%
US 95A – North of US 50 ALT	25,000	24,500	25,000	25,500	28,000	29,000	28,000	32,500	31,000	29,900	2.2%
Farm District Rd – South of US 50 ALT	9,500	8,900	9,200	9,100	7,800	7,700	8,300	10,300	9,900	9,200	-0.4%
Average											2.0%

Notes: 1. NPP = Nevada Pacific Parkway
Source: Headway Transportation, 2022

As shown in **Table 7**, the historical average annual growth rate is approximately 2 percent per year, which is consistent with the annual growth rate used in the *Comprehensive Master Plan* and the *Transportation Master Plan*.

Future Year traffic volumes were developed by factoring the existing traffic volumes (plus the shift in volume from the connection of Nevada Pacific Parkway) up by 2 percent per year. Traffic from the following projects was also added to the Future Year forecasts for background conditions:



- ▶ Victory Logistics Buildings A, B, & C - per the *Traffic Impact Study for Victory Logistics District Phase 1 -Buildings A, B, & C*, (Headway Transportation, January 2020)
- ▶ Victory Logistics Building D-2 per the - *Traffic Impact Study for Victory Logistics District Building D-2*, (Headway Transportation, December 2021)
- ▶ 1200 Fremont Street Apartments per the - *Traffic Impact Study for 1200 Fremont Street Apartments*, (Headway Transportation, July 2021)

Figure 6 shows the Future (20-year horizon) traffic volumes at the study intersections.

Intersection Level of Service Analysis

Table 8 presents the Future year (20-year horizon) Conditions LOS summary and the detailed calculation sheets are provided in **Appendix C**.

Table 8: Future Conditions Level of Service Summary

Intersection	Intersection Control	AM Peak		PM Peak	
		LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²
1. Nevada Pacific Parkway/ US 50 ALT	Signalized				
Overall		C	25.5	C	29.4
2. Nevada Pacific Parkway/ Project Access Road	Side Street Yield				
Westbound Right		A	9.8	A	9.5
Overall		A	1.2	A	0.9
3. Nevada Pacific Parkway/ Project Access Road	Roundabout				
Northbound Approach		A	v/c=0.186	A	v/c=0.156
Southbound Approach		A	v/c=0.110	A	v/c=0.112
Eastbound Approach		A	v/c=0.010	A	v/c=0.013
Westbound Approach		A	v/c=0.022	A	v/c=0.079
Overall		A	v/c=0.186	A	v/c=0.156

Notes: 1. Delay is reported in seconds per vehicle for the worst approach/movement for unsignalized (side-street stop controlled) intersections, and overall for signalized intersections.

2. Volume to capacity ratio is reported for the highest per approach for roundabouts

Source: Headway Transportation, 2022



As shown in **Table 8**, all study intersections will operate within policy LOS under Future Conditions.

FUTURE PLUS PROJECT CONDITIONS

Traffic Volumes

Future Plus Project traffic volumes were developed by adding the project generated trips for the Future Year Conditions (**Figure 7**) to the Future year traffic volumes (**Figure 6**) and are shown on **Figure 8**.

Intersection Level of Service Analysis

Level of service calculations were performed using the Future Year (20-year horizon) Plus Project Conditions described above. The results are presented in **Table 9** and the calculation sheets are provided in **Appendix D**.

Table 9: Future Year Plus Project Conditions Level of Service Summary

Intersection	Intersection Control	Future Year				Future Year Plus Project			
		AM Peak		PM Peak		AM Peak PP		PM Peak PP	
		LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²	LOS	Avg Delay ¹ (sec/veh) or v/c ²
1. Nevada Pacific Parkway/ US 50 ALT	Signalized								
Overall		C	25.5	C	29.4	C	27.3	C	30.1
2. Nevada Pacific Parkway/ Project Access Road	Side Street Yield								
Westbound Right		A	9.8	A	9.5	B	10.5	B	10.1
Overall		A	1.2	A	0.9	A	1.3	A	1.1
3. Nevada Pacific Parkway/ Project Access Road	Roundabout								
Northbound Approach		A	v/c=0.186	A	v/c=0.156	A	v/c=0.216	A	v/c=0.188
Southbound Approach		A	v/c=0.110	A	v/c=0.112	A	v/c=0.166	A	v/c=0.229
Eastbound Approach		A	v/c=0.010	A	v/c=0.013	A	v/c=0.011	A	v/c=0.014
Westbound Approach		A	v/c=0.022	A	v/c=0.079	A	v/c=0.171	A	v/c=0.166
Overall		A	v/c=0.186	A	v/c=0.156	A	v/c=0.216	A	v/c=0.229

Notes: 1. Delay is reported in seconds per vehicle for the worst approach/movement for unsignalized (side-street stop controlled) intersections, and overall for signalized intersections.

2. Volume to capacity ratio is reported for the highest per approach for roundabouts

Source: Headway Transportation, 2022



As shown in **Table 9**, all study intersections are anticipated to operate within LOS policy. The LOS for the inbound right-turn movement from US 50 ALT is understood to be A since it experiences no delay.

The addition of project traffic has no significant impact on intersection operations.

Nevada Pacific Parkway Queuing Analysis

Queuing reports for the northbound approach of the Nevada Pacific Parkway/ US 50 ALT signal were reviewed to estimate if the northbound queue could potentially extend to the roundabout in any scenario. As shown in **Exhibit 2**, the roundabout is approximately 375' south of US 50 ALT.



Exhibit 2. Intersection Spacing

The queue analysis indicated that the longest queues that would be expected to occur would be less than 125' in any scenario, shorter than the distance to the roundabout.

US 50 ALT Right Turn Analysis

The US 50 ALT project access (right-in entry east of Fox Peak Station) was reviewed. The existing deceleration length is maximized, extending from the US 50 ALT/ Nevada Pacific Parkway intersection. The right turn lane provides a safety benefit and experiences no delay. The addition of project trips does not impact the operation, and no modifications are recommended.



Findings

No intersection improvements are justified since the studied intersection will operate within policy level of service.

CONCLUSIONS & RECOMMENDATIONS

The following is a list of key findings and recommendations:

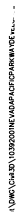
- ▶ The proposed project is anticipated to generate approximately 3,535 new Daily trips, 286 new AM peak hour trips, and 303 new PM peak hour trips.
- ▶ Access to the internal site road network is provided via the Nevada Pacific Parkway roundabout (full access), the Project Access Road between the roundabout and US 50 ALT (right-in/right-out), and via the eastbound right turn lane from US 50 ALT (right-in only).
- ▶ The US 50 ALT / Nevada Pacific Parkway intersection will be signalized prior to this project; and the roadway will be extended to the north in the future.
- ▶ All study intersections will operate within policy level of service under Baseline, Baseline Plus Project, Future, and Future Plus Project Conditions.
- ▶ No traffic capacity improvements are recommended for this project.
- ▶ The project will construct frontage improvements on the internal roadway network.

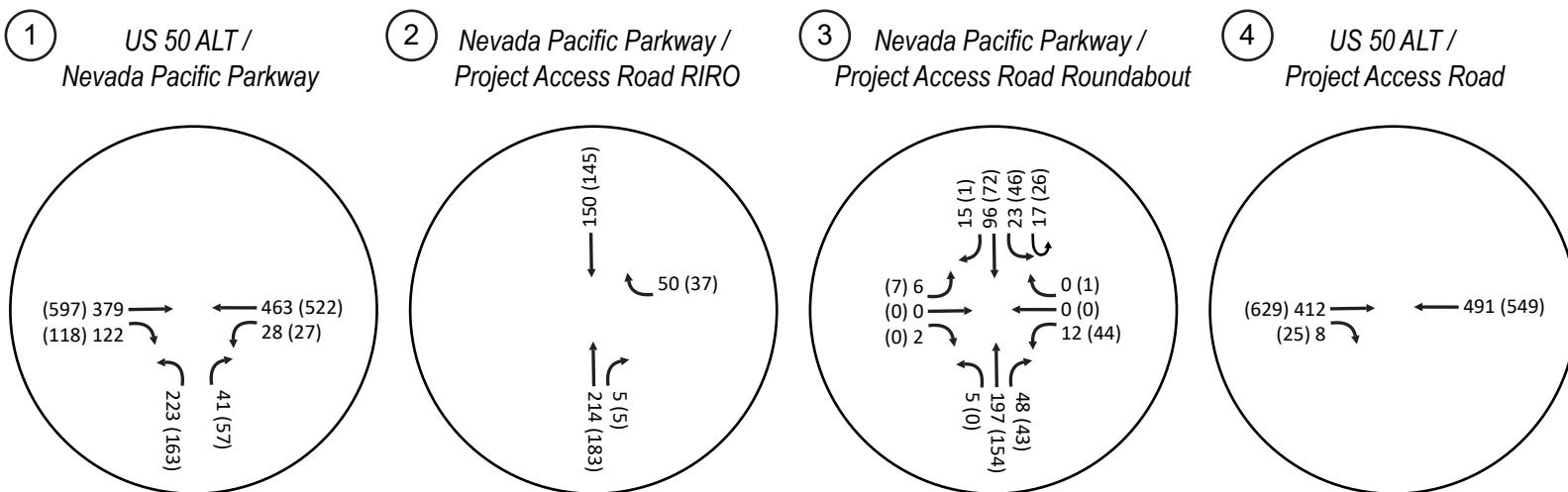
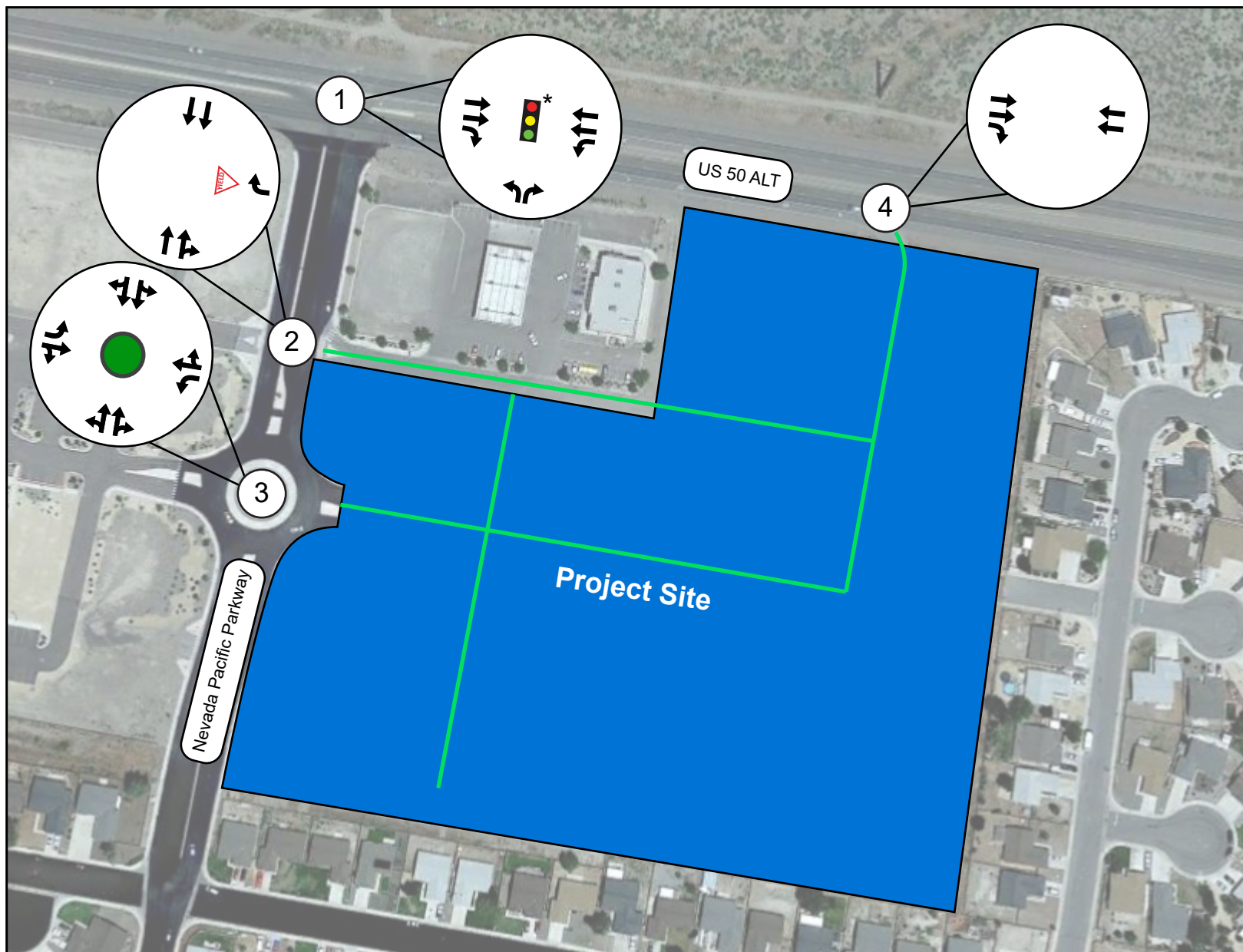


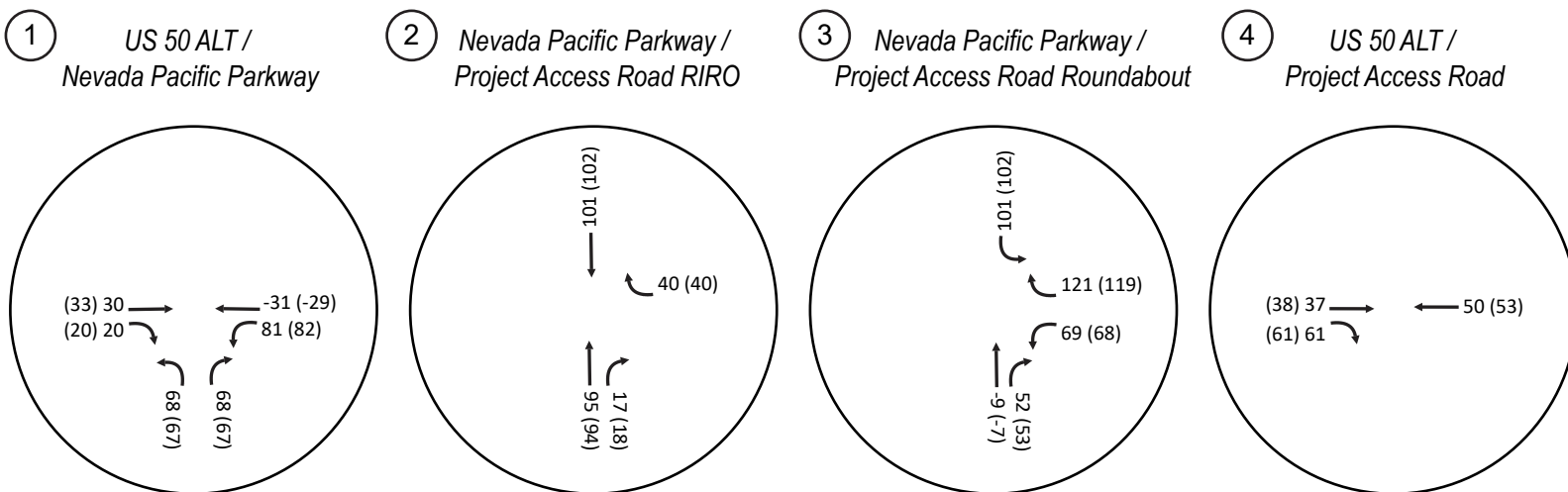
Study Locations

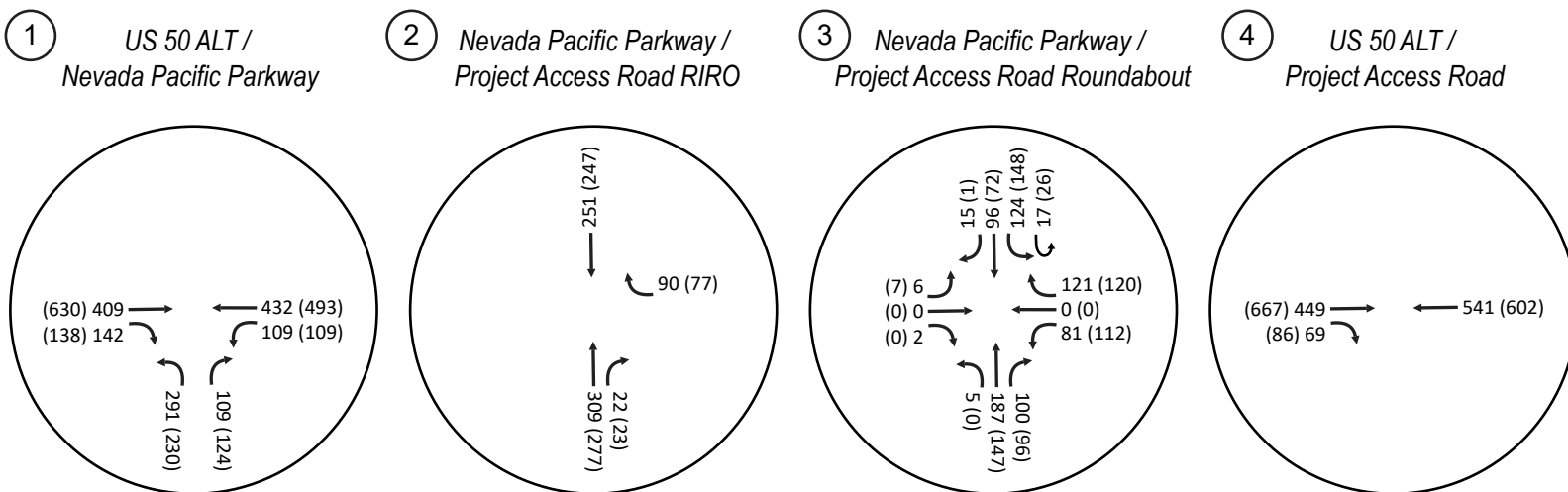
- ① US 50 ALT / Nevada Pacific Parkway
- ② Nevada Pacific Parkway / Project Access Road RIRO
- ③ Nevada Pacific Parkway / Project Access Road Roundabout
- ④ US 50 ALT / Project Access Road

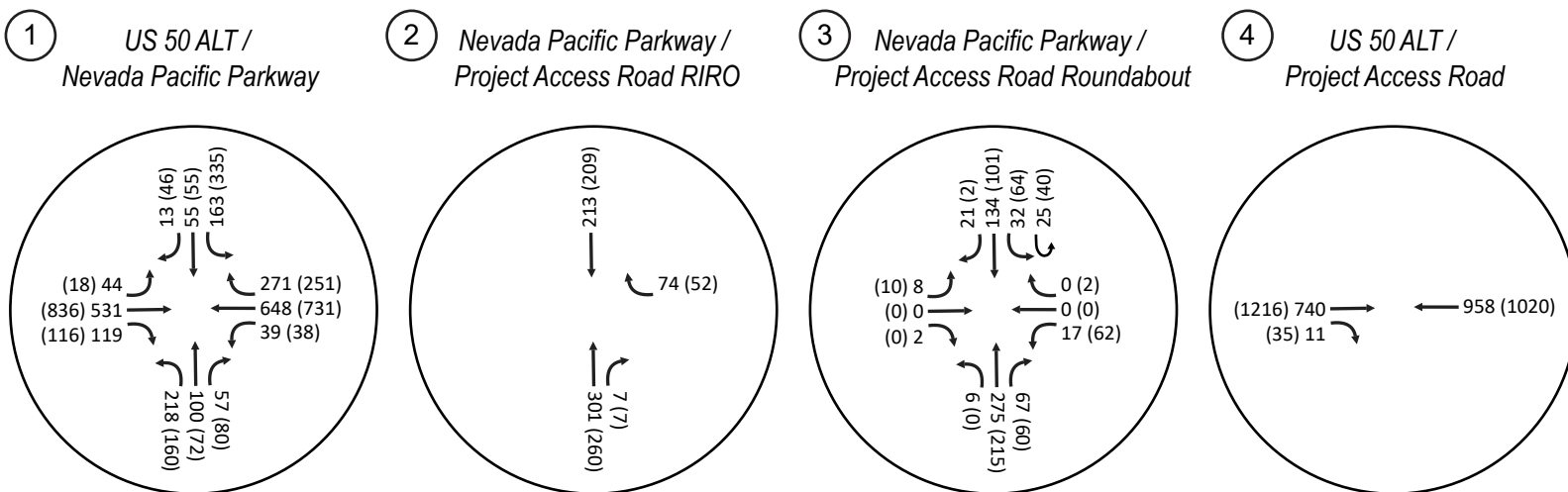
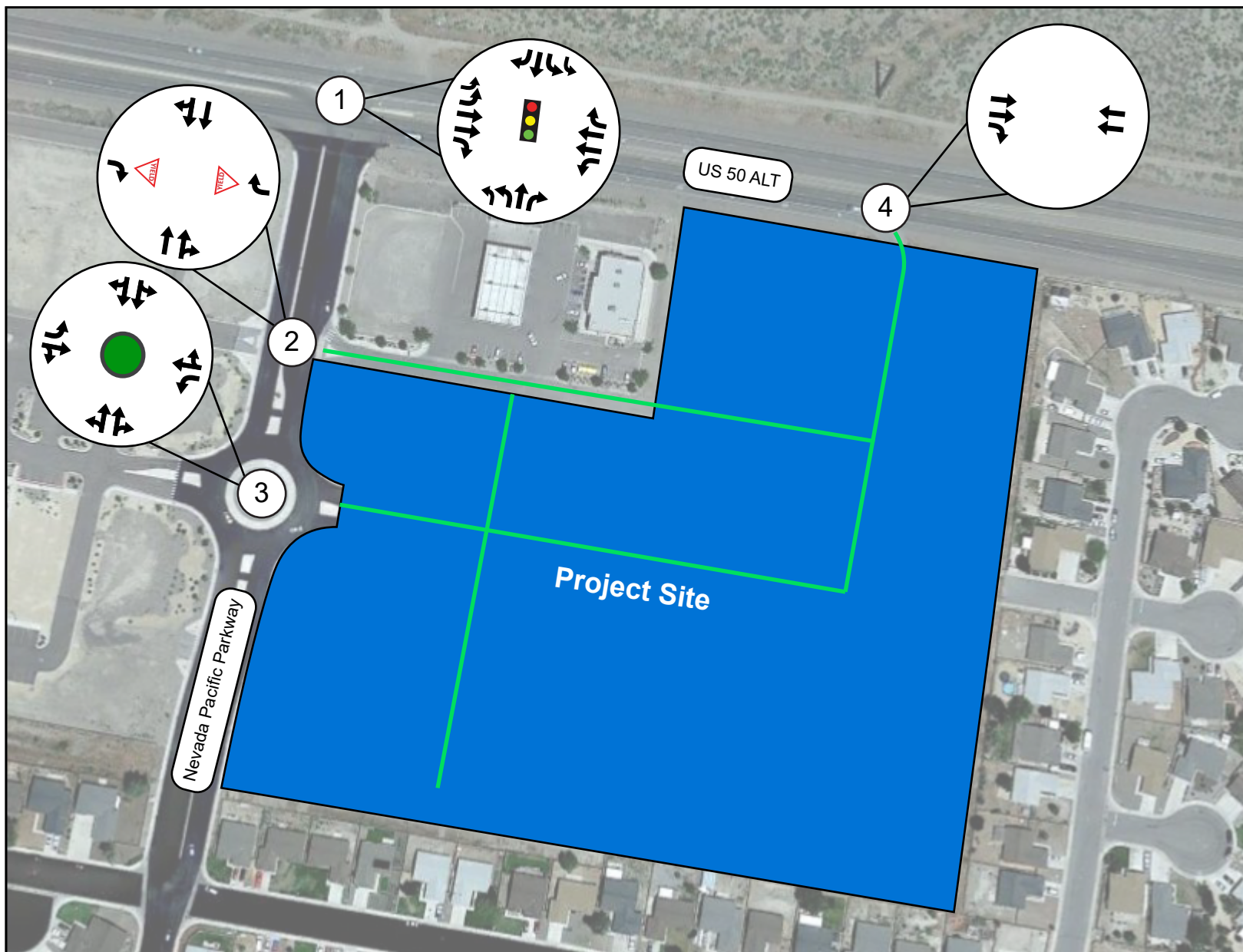


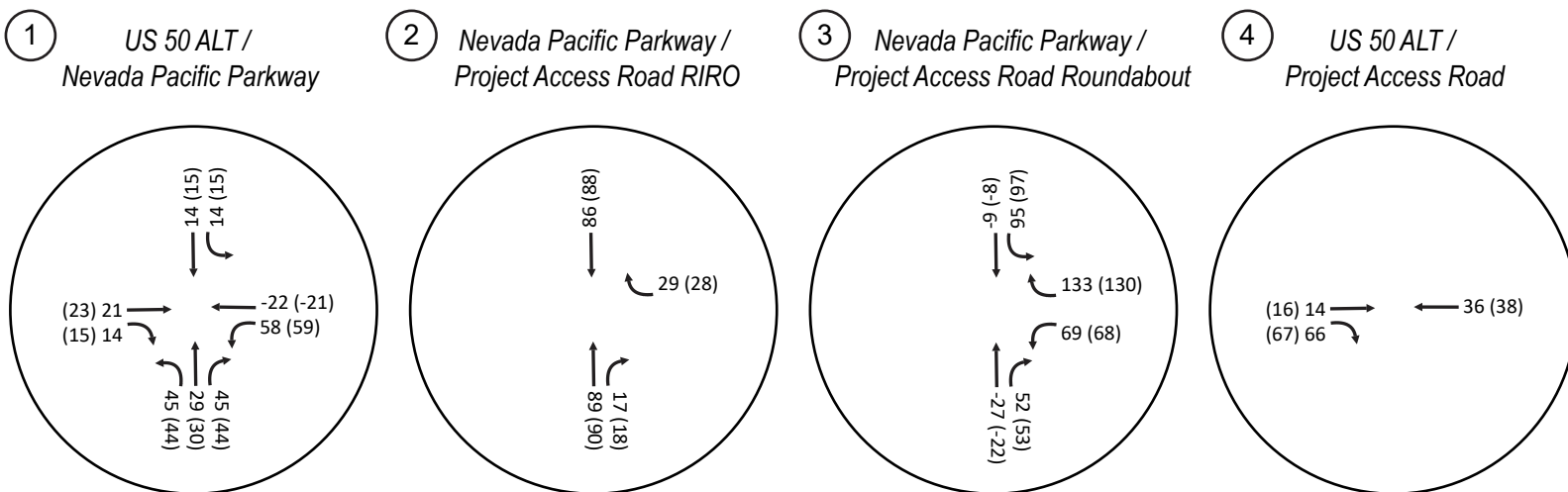


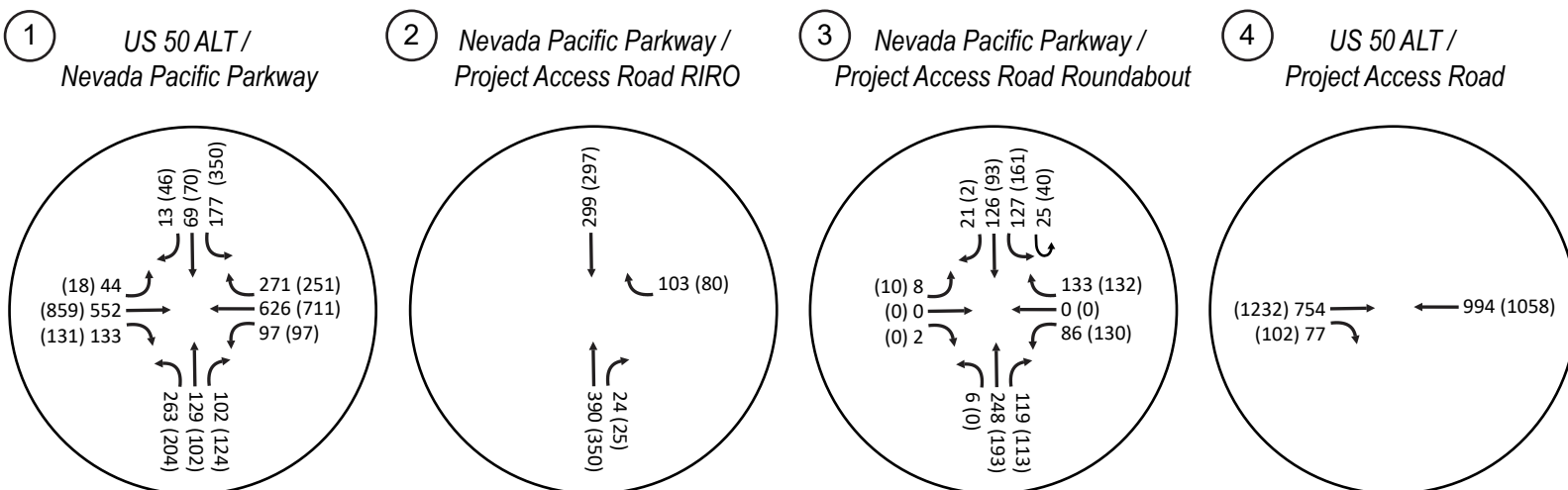












Appendix A

Baseline Conditions LOS Calculations



HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Traffic Volume (veh/h)	379	122	28	463	223	41
Future Volume (veh/h)	379	122	28	463	223	41
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	431	139	32	526	253	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	725	345	319	1158	804	716
Arrive On Green	0.22	0.22	0.03	0.35	0.45	0.45
Sat Flow, veh/h	3416	1585	1781	3416	1781	1585
Grp Volume(v), veh/h	431	139	32	526	253	47
Grp Sat Flow(s),veh/h/ln	1664	1585	1781	1664	1781	1585
Q Serve(g_s), s	4.6	3.0	0.5	4.9	3.6	0.7
Cycle Q Clear(g_c), s	4.6	3.0	0.5	4.9	3.6	0.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	725	345	319	1158	804	716
V/C Ratio(X)	0.59	0.40	0.10	0.45	0.31	0.07
Avail Cap(c_a), veh/h	1336	636	445	2003	804	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	13.4	10.6	10.1	7.0	6.2
Incr Delay (d2), s/veh	0.8	0.8	0.1	0.3	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.8	0.1	1.1	1.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.8	14.1	10.7	10.3	8.0	6.4
LnGrp LOS	B	B	B	B	A	A
Approach Vol, veh/h	570			558	300	
Approach Delay, s/veh	14.6			10.4	7.8	
Approach LOS	B			B	A	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	22.0		5.2	12.7	17.9	
Change Period (Y+Rc), s	4.0		4.0	4.0	4.0	
Max Green Setting (Gmax), s	18.0		4.0	16.0	24.0	
Max Q Clear Time (g_c+l1), s	5.6		2.5	6.6	6.9	
Green Ext Time (p_c), s	0.7		0.0	2.0	2.8	
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Traffic Volume (veh/h)	0	0	0	0	0	50	0	214	5	0	150	0
Future Volume (Veh/h)	0	0	0	0	0	50	0	214	5	0	150	0
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	0	0	0	56	0	240	6	0	169	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											314	
pX, platoon unblocked												
vC, conflicting volume	345	415	84	328	412	123	169			246		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	345	415	84	328	412	123	169			246		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	94	100			100		
cM capacity (veh/h)	549	527	958	602	529	905	1406			1317		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	56	160	86	113	56						
Volume Left	0	0	0	0	0	0						
Volume Right	0	56	0	6	0	0						
cSH	1700	905	1700	1700	1700	1700						
Volume to Capacity	0.00	0.06	0.09	0.05	0.07	0.03						
Queue Length 95th (ft)	0	5	0	0	0	0						
Control Delay (s)	0.0	9.2	0.0	0.0	0.0	0.0						
Lane LOS	A	A										
Approach Delay (s)	0.0	9.2	0.0		0.0							
Approach LOS	A	A										
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			16.1%		ICU Level of Service				A			
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: AM Baseline

AM Baseline
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Nevada Pacific Parkway											
3	L2	6	2.0	0.132	4.6	LOS A	0.4	9.5	0.12	0.05	35.5
8	T1	221	2.0	0.132	4.6	LOS A	0.4	9.5	0.12	0.05	35.5
18	R2	54	2.0	0.132	4.5	LOS A	0.3	8.9	0.11	0.05	34.4
Approach		281	2.0	0.132	4.6	LOS A	0.4	9.5	0.12	0.05	35.2
East: Project Access Rd											
1	L2	13	2.0	0.015	4.0	LOS A	0.0	0.9	0.25	0.15	33.1
6	T1	1	2.0	0.002	4.0	LOS A	0.0	0.2	0.26	0.13	35.8
16	R2	1	2.0	0.002	4.0	LOS A	0.0	0.2	0.26	0.13	34.6
Approach		16	2.0	0.015	4.0	LOS A	0.0	0.9	0.25	0.14	33.4
North: Nevada Pacific Parkway											
7u	U	19	2.0	0.078	4.0	LOS A	0.2	5.3	0.06	0.02	35.0
7	L2	26	2.0	0.078	4.0	LOS A	0.2	5.3	0.06	0.02	34.2
4	T1	108	2.0	0.078	4.0	LOS A	0.2	5.3	0.06	0.02	35.2
14	R2	17	2.0	0.078	4.0	LOS A	0.2	4.9	0.06	0.02	34.7
Approach		170	2.0	0.078	4.0	LOS A	0.2	5.3	0.06	0.02	34.9
West: Project Access Road											
5	L2	7	2.0	0.007	3.7	LOS A	0.0	0.4	0.19	0.09	33.3
2	T1	1	2.0	0.003	3.7	LOS A	0.0	0.2	0.21	0.09	35.9
12	R2	2	2.0	0.003	3.7	LOS A	0.0	0.2	0.21	0.09	34.8
Approach		10	2.0	0.007	3.7	LOS A	0.0	0.4	0.20	0.09	33.8
All Vehicles		476	2.0	0.132	4.3	LOS A	0.4	9.5	0.10	0.04	35.0

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 6:40:27 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

SIDRA
INTERSECTION 6

HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Volume (veh/h)	597	118	27	522	163	57
Future Volume (veh/h)	597	118	27	522	163	57
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	649	128	29	567	177	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	967	442	299	1394	725	645
Arrive On Green	0.28	0.28	0.03	0.40	0.41	0.41
Sat Flow, veh/h	3561	1585	1781	3561	1781	1585
Grp Volume(v), veh/h	649	128	29	567	177	62
Grp Sat Flow(s),veh/h/ln	1735	1585	1781	1735	1781	1585
Q Serve(g_s), s	6.9	2.6	0.4	4.9	2.7	1.0
Cycle Q Clear(g_c), s	6.9	2.6	0.4	4.9	2.7	1.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	967	442	299	1394	725	645
V/C Ratio(X)	0.67	0.29	0.10	0.41	0.24	0.10
Avail Cap(c_a), veh/h	1411	645	421	2076	725	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	11.8	9.9	8.9	8.2	7.7
Incr Delay (d2), s/veh	0.8	0.4	0.1	0.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.7	0.1	1.1	0.9	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.2	12.2	10.0	9.1	9.0	7.9
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	777			596	239	
Approach Delay, s/veh	13.9			9.2	8.7	
Approach LOS	B			A	A	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		21.0	5.1	15.6		20.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		17.0	4.0	17.0		25.0
Max Q Clear Time (g_c+l1), s		4.7	2.4	8.9		6.9
Green Ext Time (p_c), s		0.5	0.0	2.7		3.1
Intersection Summary						
HCM 6th Ctrl Delay			11.4			
HCM 6th LOS			B			

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	37	0	183	5	0	145	0
Future Volume (Veh/h)	0	0	0	0	0	37	0	183	5	0	145	0
Sign Control	Yield			Yield			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	0	0	42	0	208	6	0	165	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage veh												
Upstream signal (ft)												314
pX, platoon unblocked												
vC, conflicting volume	311	379	82	294	376	107	165				214	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	311	379	82	294	376	107	165				214	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	100	100	95	100				100	
cM capacity (veh/h)	590	552	961	636	554	926	1411				1353	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	42	139	75	110	55						
Volume Left	0	0	0	0	0	0						
Volume Right	0	42	0	6	0	0						
cSH	1700	926	1700	1700	1700	1700						
Volume to Capacity	0.00	0.05	0.08	0.04	0.06	0.03						
Queue Length 95th (ft)	0	4	0	0	0	0						
Control Delay (s)	0.0	9.1	0.0	0.0	0.0	0.0						
Lane LOS	A	A										
Approach Delay (s)	0.0	9.1	0.0		0.0							
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			15.2%		ICU Level of Service				A			
Analysis Period (min)			15									

MOVEMENT SUMMARY

 **Site: PM Baseline**

AM Baseline
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Nevada Pacific Parkway											
3	L2	1	2.0	0.109	4.5	LOS A	0.3	7.6	0.16	0.08	35.7
8	T1	175	2.0	0.109	4.4	LOS A	0.3	7.6	0.16	0.08	35.6
18	R2	49	2.0	0.109	4.4	LOS A	0.3	7.1	0.15	0.08	34.4
Approach		225	2.0	0.109	4.4	LOS A	0.3	7.6	0.16	0.08	35.3
East: Project Access Rd											
1	L2	50	2.0	0.053	4.3	LOS A	0.1	3.3	0.23	0.15	33.0
6	T1	1	2.0	0.002	3.8	LOS A	0.0	0.2	0.24	0.11	35.9
16	R2	1	2.0	0.002	3.8	LOS A	0.0	0.2	0.24	0.11	34.7
Approach		52	2.0	0.053	4.2	LOS A	0.1	3.3	0.23	0.15	33.1
North: Nevada Pacific Parkway											
7u	U	30	2.0	0.077	4.1	LOS A	0.2	5.3	0.11	0.04	33.5
7	L2	52	2.0	0.077	4.1	LOS A	0.2	5.3	0.11	0.04	32.8
4	T1	82	2.0	0.077	4.0	LOS A	0.2	5.3	0.11	0.04	35.8
14	R2	1	2.0	0.077	4.0	LOS A	0.2	4.9	0.11	0.04	34.7
Approach		165	2.0	0.077	4.0	LOS A	0.2	5.3	0.11	0.04	34.3
West: Project Access Road											
5	L2	8	2.0	0.008	3.9	LOS A	0.0	0.5	0.22	0.12	33.2
2	T1	1	2.0	0.002	3.8	LOS A	0.0	0.2	0.24	0.11	35.9
12	R2	1	2.0	0.002	3.8	LOS A	0.0	0.2	0.24	0.11	34.7
Approach		10	2.0	0.008	3.9	LOS A	0.0	0.5	0.23	0.12	33.6
All Vehicles		452	2.0	0.109	4.3	LOS A	0.3	7.6	0.15	0.07	34.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 6:40:29 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

**SIDRA
INTERSECTION 6**

Appendix B

Baseline Plus Project Conditions LOS Calculations



HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Traffic Volume (veh/h)	409	142	109	432	291	109
Future Volume (veh/h)	409	142	109	432	291	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1752	1870	1870
Adj Flow Rate, veh/h	465	161	124	491	331	124
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	10	2	2	10	2	2
Cap, veh/h	743	354	378	1301	751	668
Arrive On Green	0.22	0.22	0.07	0.39	0.42	0.42
Sat Flow, veh/h	3416	1585	1781	3416	1781	1585
Grp Volume(v), veh/h	465	161	124	491	331	124
Grp Sat Flow(s),veh/h/ln	1664	1585	1781	1664	1781	1585
Q Serve(g_s), s	5.4	3.7	2.1	4.5	5.6	2.1
Cycle Q Clear(g_c), s	5.4	3.7	2.1	4.5	5.6	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	743	354	378	1301	751	668
V/C Ratio(X)	0.63	0.45	0.33	0.38	0.44	0.19
Avail Cap(c_a), veh/h	1248	594	413	1872	751	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	14.3	10.6	9.3	8.8	7.7
Incr Delay (d2), s/veh	0.9	0.9	0.5	0.2	1.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.1	0.6	1.0	2.0	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.8	15.2	11.1	9.5	10.6	8.4
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	626			615	455	
Approach Delay, s/veh	15.7			9.8	10.0	
Approach LOS	B			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		22.0	7.2	13.5		20.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s		18.0	4.0	16.0		24.0
Max Q Clear Time (g_c+I1), s		7.6	4.1	7.4		6.5
Green Ext Time (p_c), s		1.1	0.0	2.1		2.6
Intersection Summary						
HCM 6th Ctrl Delay			12.0			
HCM 6th LOS			B			

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Traffic Volume (veh/h)	0	0	0	0	0	90	0	309	22	0	251	0
Future Volume (Veh/h)	0	0	0	0	0	90	0	309	22	0	251	0
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	0	0	0	101	0	347	25	0	282	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											314	
pX, platoon unblocked												
vC, conflicting volume	556	654	141	500	642	186	282			372		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556	654	141	500	642	186	282			372		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	88	100			100		
cM capacity (veh/h)	363	385	881	453	391	824	1277			1183		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	101	231	141	188	94						
Volume Left	0	0	0	0	0	0						
Volume Right	0	101	0	25	0	0						
cSH	1700	824	1700	1700	1700	1700						
Volume to Capacity	0.00	0.12	0.14	0.08	0.11	0.06						
Queue Length 95th (ft)	0	10	0	0	0	0						
Control Delay (s)	0.0	10.0	0.0	0.0	0.0	0.0						
Lane LOS	A	A										
Approach Delay (s)	0.0	10.0	0.0		0.0							
Approach LOS	A	A										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			21.5%			ICU Level of Service			A			
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: AM Baseline PP

AM Baseline
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Nevada Pacific Parkway											
3	L2	6	2.0	0.167	5.3	LOS A	0.5	12.4	0.24	0.16	35.2
8	T1	210	2.0	0.167	5.3	LOS A	0.5	12.4	0.24	0.15	35.1
18	R2	112	2.0	0.167	5.2	LOS A	0.5	11.7	0.22	0.15	34.0
Approach		328	2.0	0.167	5.2	LOS A	0.5	12.4	0.23	0.15	34.7
East: Project Access Rd											
1	L2	91	2.0	0.099	4.8	LOS A	0.3	6.9	0.27	0.20	32.7
6	T1	1	2.0	0.147	5.3	LOS A	0.4	10.0	0.27	0.20	35.0
16	R2	136	2.0	0.147	5.3	LOS A	0.4	10.0	0.27	0.20	33.9
Approach		228	2.0	0.147	5.1	LOS A	0.4	10.0	0.27	0.20	33.4
North: Nevada Pacific Parkway											
7u	U	19	2.0	0.153	4.9	LOS A	0.4	10.6	0.16	0.09	33.4
7	L2	139	2.0	0.153	4.9	LOS A	0.4	10.6	0.16	0.09	32.6
4	T1	108	2.0	0.121	4.6	LOS A	0.3	8.6	0.17	0.09	35.5
14	R2	17	2.0	0.121	4.6	LOS A	0.3	8.6	0.17	0.09	34.4
Approach		283	2.0	0.153	4.8	LOS A	0.4	10.6	0.17	0.09	33.8
West: Project Access Road											
5	L2	7	2.0	0.008	4.3	LOS A	0.0	0.5	0.29	0.19	33.0
2	T1	1	2.0	0.004	4.3	LOS A	0.0	0.3	0.31	0.19	35.6
12	R2	2	2.0	0.004	4.3	LOS A	0.0	0.3	0.31	0.19	34.4
Approach		10	2.0	0.008	4.3	LOS A	0.0	0.5	0.30	0.19	33.6
All Vehicles		849	2.0	0.167	5.0	LOS A	0.5	12.4	0.22	0.14	34.0

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 11:31:27 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

SIDRA
INTERSECTION 6

HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	630	138	109	493	230	124
Future Volume (veh/h)	630	138	109	493	230	124
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	685	150	118	536	250	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	976	446	353	1526	679	604
Arrive On Green	0.28	0.28	0.07	0.44	0.38	0.38
Sat Flow, veh/h	3561	1585	1781	3561	1781	1585
Grp Volume(v), veh/h	685	150	118	536	250	135
Grp Sat Flow(s),veh/h/ln	1735	1585	1781	1735	1781	1585
Q Serve(g_s), s	7.9	3.4	1.9	4.6	4.5	2.6
Cycle Q Clear(g_c), s	7.9	3.4	1.9	4.6	4.5	2.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	976	446	353	1526	679	604
V/C Ratio(X)	0.70	0.34	0.33	0.35	0.37	0.22
Avail Cap(c_a), veh/h	1322	604	390	1943	679	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	12.7	10.1	8.3	9.9	9.3
Incr Delay (d2), s/veh	1.1	0.4	0.6	0.1	1.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.9	0.5	1.0	1.7	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.4	13.2	10.6	8.4	11.5	10.2
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	835			654	385	
Approach Delay, s/veh	15.0			8.8	11.0	
Approach LOS	B			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	21.0		7.1	16.6	23.6	
Change Period (Y+Rc), s	4.0		4.0	4.0	4.0	
Max Green Setting (Gmax), s	17.0		4.0	17.0	25.0	
Max Q Clear Time (g_c+I1), s	6.5		3.9	9.9	6.6	
Green Ext Time (p_c), s	0.9		0.0	2.7	3.0	
Intersection Summary						
HCM 6th Ctrl Delay			12.0			
HCM 6th LOS			B			

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	77	0	277	23	0	247	0
Future Volume (Veh/h)	0	0	0	0	0	77	0	277	23	0	247	0
Sign Control	Yield				Yield				Free			
Grade	0%				0%				0%			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	0	0	88	0	315	26	0	281	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None								None			
Median storage (veh)												
Upstream signal (ft)												314
pX, platoon unblocked												
vC, conflicting volume	526	622	140	468	609	170	281				341	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	526	622	140	468	609	170	281				341	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	100	100	90	100				100	
cM capacity (veh/h)	389	401	882	478	408	844	1278				1215	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	88	210	131	187	94						
Volume Left	0	0	0	0	0	0						
Volume Right	0	88	0	26	0	0						
cSH	1700	844	1700	1700	1700	1700						
Volume to Capacity	0.00	0.10	0.12	0.08	0.11	0.06						
Queue Length 95th (ft)	0	9	0	0	0	0						
Control Delay (s)	0.0	9.8	0.0	0.0	0.0	0.0						
Lane LOS	A	A										
Approach Delay (s)	0.0	9.8	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			19.8%		ICU Level of Service				A			
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: PM Baseline PP

AM Baseline
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Nevada Pacific Parkway												
3	L2	1	2.0	0.146	5.2	LOS A	0.4	10.6	0.26	0.18	35.3	
8	T1	167	2.0	0.146	5.2	LOS A	0.4	10.6	0.26	0.18	35.2	
18	R2	109	2.0	0.146	5.1	LOS A	0.4	9.9	0.25	0.17	34.0	
Approach		277	2.0	0.146	5.2	LOS A	0.4	10.6	0.26	0.18	34.7	
East: Project Access Rd												
1	L2	127	2.0	0.134	5.1	LOS A	0.4	9.6	0.26	0.18	32.6	
6	T1	1	2.0	0.144	5.1	LOS A	0.4	9.8	0.25	0.17	35.1	
16	R2	136	2.0	0.144	5.1	LOS A	0.4	9.8	0.25	0.17	34.0	
Approach		265	2.0	0.144	5.1	LOS A	0.4	9.8	0.25	0.18	33.3	
North: Nevada Pacific Parkway												
7u	U	30	2.0	0.196	5.4	LOS A	0.6	14.1	0.20	0.12	33.1	
7	L2	168	2.0	0.196	5.4	LOS A	0.6	14.1	0.20	0.12	32.3	
4	T1	82	2.0	0.083	4.3	LOS A	0.2	5.7	0.19	0.11	35.7	
14	R2	1	2.0	0.083	4.3	LOS A	0.2	5.7	0.19	0.11	34.5	
Approach		281	2.0	0.196	5.1	LOS A	0.6	14.1	0.20	0.12	33.3	
West: Project Access Road												
5	L2	8	2.0	0.010	4.4	LOS A	0.0	0.6	0.32	0.21	32.9	
2	T1	1	2.0	0.003	4.5	LOS A	0.0	0.2	0.33	0.20	35.5	
12	R2	1	2.0	0.003	4.5	LOS A	0.0	0.2	0.33	0.20	34.4	
Approach		10	2.0	0.010	4.4	LOS A	0.0	0.6	0.32	0.21	33.3	
All Vehicles		833	2.0	0.196	5.1	LOS A	0.6	14.1	0.24	0.16	33.8	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 11:31:55 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

**SIDRA
INTERSECTION 6**

Appendix C

Future Conditions LOS Calculations



HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	531	119	39	648	271	218	100	57	163	55	13
Future Volume (veh/h)	44	531	119	39	648	271	218	100	57	163	55	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	603	135	44	736	0	248	112	65	183	62	0
Peak Hour Factor	0.89	0.88	0.88	0.88	0.88	0.89	0.88	0.89	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	125	869	414	60	861		862	700	593	282	386	
Arrive On Green	0.04	0.26	0.26	0.03	0.26	0.00	0.25	0.37	0.37	0.08	0.21	0.00
Sat Flow, veh/h	3456	3328	1585	1781	3328	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	49	603	135	44	736	0	248	112	65	183	62	0
Grp Sat Flow(s),veh/h/ln	1728	1664	1585	1781	1664	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	0.9	10.5	4.4	1.6	13.5	0.0	3.7	2.6	1.7	3.3	1.7	0.0
Cycle Q Clear(g_c), s	0.9	10.5	4.4	1.6	13.5	0.0	3.7	2.6	1.7	3.3	1.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	869	414	60	861		862	700	593	282	386	
V/C Ratio(X)	0.39	0.69	0.33	0.73	0.85		0.29	0.16	0.11	0.65	0.16	
Avail Cap(c_a), veh/h	215	934	445	111	934		862	700	593	431	466	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.2	21.4	19.1	30.7	22.6	0.0	19.5	13.4	13.1	28.6	20.9	0.0
Incr Delay (d2), s/veh	2.0	2.1	0.5	15.4	7.4	0.0	0.8	0.5	0.4	2.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.7	1.4	0.9	5.3	0.0	1.5	1.1	0.6	1.4	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	23.4	19.6	46.1	30.0	0.0	20.3	13.9	13.5	31.1	21.1	0.0
LnGrp LOS	C	C	B	D	C		C	B	B	C	C	
Approach Vol, veh/h	787			780			A			425		
Approach Delay, s/veh	23.3			30.9			17.6			28.6		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	28.0	6.2	20.8	20.0	17.2	6.3	20.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	24.0	4.0	18.0	16.0	16.0	4.0	18.0				
Max Q Clear Time (g_c+l1), s	5.3	4.6	3.6	12.5	5.7	3.7	2.9	15.5				
Green Ext Time (p_c), s	0.1	0.7	0.0	2.0	0.6	0.2	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay	25.5											
HCM 6th LOS	C											

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	74	0	301	7	0	213	0
Future Volume (Veh/h)	0	0	0	0	0	74	0	301	7	0	213	0
Sign Control	Yield				Yield				Free		Free	
Grade	0%				0%				0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	0	0	0	83	0	338	8	0	239	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												314
pX, platoon unblocked												
vC, conflicting volume	491	585	120	462	581	173	239				346	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	491	585	120	462	581	173	239				346	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	100	100	90	100				100	
cM capacity (veh/h)	415	421	910	483	424	840	1325				1210	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	83	225	121	159	80						
Volume Left	0	0	0	0	0	0						
Volume Right	0	83	0	8	0	0						
cSH	1700	840	1700	1700	1700	1700						
Volume to Capacity	0.00	0.10	0.13	0.07	0.09	0.05						
Queue Length 95th (ft)	0	8	0	0	0	0						
Control Delay (s)	0.0	9.8	0.0	0.0	0.0	0.0						
Lane LOS	A	A										
Approach Delay (s)	0.0	9.8	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			19.8%		ICU Level of Service				A			
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: AM Future

AM Baseline
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Nevada Pacific Parkway												
3	L2	7	2.0	0.186	5.2	LOS A	0.6	14.2	0.16	0.08	35.2	
8	T1	309	2.0	0.186	5.2	LOS A	0.6	14.2	0.15	0.07	35.1	
18	R2	75	2.0	0.186	5.1	LOS A	0.5	13.3	0.15	0.07	34.0	
Approach		391	2.0	0.186	5.1	LOS A	0.6	14.2	0.15	0.07	34.9	
East: Project Access Rd												
1	L2	19	2.0	0.022	4.4	LOS A	0.1	1.4	0.30	0.21	33.0	
6	T1	1	2.0	0.003	4.3	LOS A	0.0	0.2	0.31	0.18	35.6	
16	R2	1	2.0	0.003	4.3	LOS A	0.0	0.2	0.31	0.18	34.5	
Approach		21	2.0	0.022	4.4	LOS A	0.1	1.4	0.30	0.20	33.2	
North: Nevada Pacific Parkway												
7u	U	28	2.0	0.110	4.3	LOS A	0.3	7.7	0.08	0.02	34.8	
7	L2	36	2.0	0.110	4.3	LOS A	0.3	7.7	0.08	0.02	34.0	
4	T1	151	2.0	0.110	4.3	LOS A	0.3	7.7	0.08	0.02	35.0	
14	R2	24	2.0	0.110	4.3	LOS A	0.3	7.2	0.07	0.02	34.5	
Approach		238	2.0	0.110	4.3	LOS A	0.3	7.7	0.08	0.02	34.8	
West: Project Access Road												
5	L2	9	2.0	0.010	3.9	LOS A	0.0	0.6	0.23	0.13	33.2	
2	T1	1	2.0	0.004	3.9	LOS A	0.0	0.2	0.25	0.13	35.8	
12	R2	2	2.0	0.004	3.9	LOS A	0.0	0.2	0.25	0.13	34.6	
Approach		12	2.0	0.010	3.9	LOS A	0.0	0.6	0.24	0.13	33.6	
All Vehicles		663	2.0	0.186	4.8	LOS A	0.6	14.2	0.13	0.06	34.8	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 6:40:31 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

SIDRA
INTERSECTION 6

HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	836	116	38	731	251	160	72	80	335	55	46
Future Volume (veh/h)	18	836	116	38	731	251	160	72	80	335	55	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	909	126	41	795	0	174	81	87	376	62	0
Peak Hour Factor	0.89	0.92	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	5	2	2	5	2	2	2	2	2	2	2
Cap, veh/h	65	970	443	58	1018		859	552	468	498	357	
Arrive On Green	0.02	0.28	0.28	0.03	0.29	0.00	0.25	0.30	0.30	0.14	0.19	0.00
Sat Flow, veh/h	3456	3469	1585	1781	3469	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	20	909	126	41	795	0	174	81	87	376	62	0
Grp Sat Flow(s),veh/h/ln	1728	1735	1585	1781	1735	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	0.4	16.5	4.0	1.5	13.5	0.0	2.6	2.1	2.6	6.7	1.8	0.0
Cycle Q Clear(g_c), s	0.4	16.5	4.0	1.5	13.5	0.0	2.6	2.1	2.6	6.7	1.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	970	443	58	1018		859	552	468	498	357	
V/C Ratio(X)	0.31	0.94	0.28	0.71	0.78		0.20	0.15	0.19	0.75	0.17	
Avail Cap(c_a), veh/h	215	970	443	111	1018		859	552	468	698	465	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.2	22.6	18.1	30.8	20.8	0.0	19.1	16.7	16.9	26.4	21.8	0.0
Incr Delay (d2), s/veh	2.7	15.9	0.3	15.0	4.0	0.0	0.5	0.6	0.9	3.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	7.7	1.3	0.8	5.1	0.0	1.0	0.9	0.9	2.8	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	38.5	18.5	45.9	24.8	0.0	19.7	17.3	17.8	29.4	22.0	0.0
LnGrp LOS	C	D	B	D	C		B	B	B	C	C	
Approach Vol, veh/h		1055			836	A		342			438	A
Approach Delay, s/veh		36.0			25.9			18.6			28.4	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	23.0	6.1	22.0	20.0	16.3	5.2	22.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	19.0	4.0	18.0	16.0	16.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	8.7	4.6	3.5	18.5	4.6	3.8	2.4	15.5				
Green Ext Time (p_c), s	0.6	0.5	0.0	0.0	0.4	0.2	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	52	0	260	7	0	209	0
Future Volume (Veh/h)	0	0	0	0	0	52	0	260	7	0	209	0
Sign Control	Yield				Yield				Free		Free	
Grade	0%				0%				0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	0	0	59	0	295	8	0	238	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												314
pX, platoon unblocked												
vC, conflicting volume	444	541	119	418	537	152	238				303	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	444	541	119	418	537	152	238				303	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	100	100	93	100				100	
cM capacity (veh/h)	463	447	910	519	449	868	1326				1255	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	59	197	106	159	79						
Volume Left	0	0	0	0	0	0						
Volume Right	0	59	0	8	0	0						
cSH	1700	868	1700	1700	1700	1700						
Volume to Capacity	0.00	0.07	0.12	0.06	0.09	0.05						
Queue Length 95th (ft)	0	5	0	0	0	0						
Control Delay (s)	0.0	9.5	0.0	0.0	0.0	0.0						
Lane LOS	A	A										
Approach Delay (s)	0.0	9.5	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			17.4%		ICU Level of Service				A			
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: PM Future

AM Baseline
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Nevada Pacific Parkway											
3	L2	1	2.0	0.156	5.0	LOS A	0.5	11.5	0.21	0.12	35.4
8	T1	244	2.0	0.156	5.0	LOS A	0.5	11.5	0.20	0.12	35.3
18	R2	68	2.0	0.156	5.0	LOS A	0.4	10.8	0.19	0.12	34.1
Approach		314	2.0	0.156	5.0	LOS A	0.5	11.5	0.20	0.12	35.0
East: Project Access Rd											
1	L2	70	2.0	0.079	4.8	LOS A	0.2	5.1	0.29	0.22	32.8
6	T1	1	2.0	0.004	4.1	LOS A	0.0	0.2	0.29	0.16	35.7
16	R2	2	2.0	0.004	4.1	LOS A	0.0	0.2	0.29	0.16	34.5
Approach		74	2.0	0.079	4.7	LOS A	0.2	5.1	0.29	0.21	32.9
North: Nevada Pacific Parkway											
7u	U	45	2.0	0.112	4.4	LOS A	0.3	7.4	0.13	0.06	33.3
7	L2	73	2.0	0.112	4.4	LOS A	0.3	7.4	0.13	0.06	32.6
4	T1	115	2.0	0.112	4.4	LOS A	0.3	7.9	0.14	0.07	35.6
14	R2	2	2.0	0.112	4.4	LOS A	0.3	7.9	0.14	0.07	34.5
Approach		235	2.0	0.112	4.4	LOS A	0.3	7.9	0.14	0.06	34.1
West: Project Access Road											
5	L2	11	2.0	0.013	4.2	LOS A	0.0	0.8	0.27	0.17	33.1
2	T1	1	2.0	0.003	4.1	LOS A	0.0	0.2	0.29	0.15	35.7
12	R2	1	2.0	0.003	4.1	LOS A	0.0	0.2	0.29	0.15	34.6
Approach		14	2.0	0.013	4.1	LOS A	0.0	0.8	0.27	0.17	33.4
All Vehicles		636	2.0	0.156	4.7	LOS A	0.5	11.5	0.19	0.11	34.4

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 6:40:33 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

SIDRA
INTERSECTION 6

Appendix D

Future Plus Project Conditions LOS Calculations



HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	552	133	97	626	271	263	129	102	177	69	13
Future Volume (veh/h)	44	552	133	97	626	271	263	129	102	177	69	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1752	1870	1870	1752	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	627	151	110	711	0	299	145	116	199	78	0
Peak Hour Factor	0.89	0.88	0.88	0.88	0.88	0.89	0.88	0.89	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	2	10	2	2	10	2	2	2	2	2	2	2
Cap, veh/h	124	749	357	140	892		843	684	580	298	389	
Arrive On Green	0.04	0.23	0.23	0.08	0.27	0.00	0.24	0.37	0.37	0.09	0.21	0.00
Sat Flow, veh/h	3456	3328	1585	1781	3328	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	49	627	151	110	711	0	299	145	116	199	78	0
Grp Sat Flow(s),veh/h/ln	1728	1664	1585	1781	1664	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	0.9	11.8	5.4	4.0	13.0	0.0	4.7	3.5	3.3	3.7	2.3	0.0
Cycle Q Clear(g_c), s	0.9	11.8	5.4	4.0	13.0	0.0	4.7	3.5	3.3	3.7	2.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	749	357	140	892		843	684	580	298	389	
V/C Ratio(X)	0.39	0.84	0.42	0.78	0.80		0.35	0.21	0.20	0.67	0.20	
Avail Cap(c_a), veh/h	211	812	387	163	914		843	684	580	422	456	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	24.3	21.8	29.7	22.3	0.0	20.5	14.3	14.2	29.1	21.5	0.0
Incr Delay (d2), s/veh	2.0	7.2	0.8	19.0	4.9	0.0	1.2	0.7	0.8	2.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.7	1.8	2.3	4.9	0.0	1.9	1.5	1.1	1.6	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	31.5	22.6	48.7	27.3	0.0	21.7	15.0	15.0	31.6	21.7	0.0
LnGrp LOS	C	C	C	D	C		C	B	B	C	C	
Approach Vol, veh/h	827			821			A			560		
Approach Delay, s/veh	29.9			30.1			18.6			28.8		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	28.0	9.2	18.8	20.0	17.7	6.4	21.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	24.0	6.0	16.0	16.0	16.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	5.7	5.5	6.0	13.8	6.7	4.3	2.9	15.0				
Green Ext Time (p_c), s	0.1	1.1	0.0	1.0	0.7	0.2	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	27.3											
HCM 6th LOS	C											

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Traffic Volume (veh/h)	0	0	0	0	0	103	0	390	24	0	299	0
Future Volume (Veh/h)	0	0	0	0	0	103	0	390	24	0	299	0
Sign Control	Yield				Yield				Free		Free	
Grade	0%				0%				0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	0	0	0	116	0	438	27	0	336	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												314
pX, platoon unblocked												
vC, conflicting volume	671	801	168	620	788	232	336				465	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	671	801	168	620	788	232	336				465	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	100	100	85	100				100	
cM capacity (veh/h)	291	316	847	373	322	770	1220				1093	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	116	292	173	224	112						
Volume Left	0	0	0	0	0	0						
Volume Right	0	116	0	27	0	0						
cSH	1700	770	1700	1700	1700	1700						
Volume to Capacity	0.00	0.15	0.17	0.10	0.13	0.07						
Queue Length 95th (ft)	0	13	0	0	0	0						
Control Delay (s)	0.0	10.5	0.0	0.0	0.0	0.0						
Lane LOS	A	B										
Approach Delay (s)	0.0	10.5	0.0	0.0								
Approach LOS	A	B										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			24.6%		ICU Level of Service				A			
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: AM Future PP

AM Baseline
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Nevada Pacific Parkway											
3	L2	7	2.0	0.216	5.8	LOS A	0.7	16.9	0.26	0.18	34.9
8	T1	279	2.0	0.216	5.8	LOS A	0.7	16.9	0.26	0.18	34.8
18	R2	134	2.0	0.216	5.8	LOS A	0.6	15.8	0.25	0.17	33.7
Approach		419	2.0	0.216	5.8	LOS A	0.7	16.9	0.26	0.18	34.4
East: Project Access Rd											
1	L2	97	2.0	0.112	5.2	LOS A	0.3	7.8	0.32	0.26	32.6
6	T1	1	2.0	0.171	5.8	LOS A	0.5	11.9	0.32	0.27	34.8
16	R2	149	2.0	0.171	5.8	LOS A	0.5	11.9	0.32	0.27	33.6
Approach		247	2.0	0.171	5.6	LOS A	0.5	11.9	0.32	0.26	33.2
North: Nevada Pacific Parkway											
7u	U	28	2.0	0.166	5.0	LOS A	0.5	11.6	0.17	0.09	33.3
7	L2	143	2.0	0.166	5.0	LOS A	0.5	11.6	0.17	0.09	32.5
4	T1	142	2.0	0.161	5.0	LOS A	0.5	12.0	0.18	0.10	35.3
14	R2	24	2.0	0.161	5.0	LOS A	0.5	12.0	0.18	0.10	34.1
Approach		336	2.0	0.166	5.0	LOS A	0.5	12.0	0.18	0.10	33.8
West: Project Access Road											
5	L2	9	2.0	0.011	4.5	LOS A	0.0	0.7	0.32	0.22	32.9
2	T1	1	2.0	0.004	4.5	LOS A	0.0	0.3	0.34	0.21	35.5
12	R2	2	2.0	0.004	4.5	LOS A	0.0	0.3	0.34	0.21	34.3
Approach		12	2.0	0.011	4.5	LOS A	0.0	0.7	0.32	0.22	33.4
All Vehicles		1015	2.0	0.216	5.5	LOS A	0.7	16.9	0.25	0.17	33.9

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 11:33:00 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

**SIDRA
INTERSECTION 6**

HCM 6th Signalized Intersection Summary

1: Nevada Pacific Pkwy & US 50

01/10/2022

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	18	859	131	97	711	251	204	102	124	350	70	46	
Future Volume (veh/h)	18	859	131	97	711	251	204	102	124	350	70	46	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	20	934	142	105	773	0	222	115	135	393	79	0	
Peak Hour Factor	0.89	0.92	0.92	0.92	0.92	0.89	0.92	0.89	0.92	0.89	0.89	0.89	
Percent Heavy Veh, %	2	5	2	2	5	2	2	2	2	2	2	2	
Cap, veh/h	63	1015	464	125	1195		776	499	423	504	352		
Arrive On Green	0.02	0.29	0.29	0.07	0.34	0.00	0.22	0.27	0.27	0.15	0.19	0.00	
Sat Flow, veh/h	3456	3469	1585	1781	3469	1585	3456	1870	1585	3456	1870	1585	
Grp Volume(v), veh/h	20	934	142	105	773	0	222	115	135	393	79	0	
Grp Sat Flow(s),veh/h/ln	1728	1735	1585	1781	1735	1585	1728	1870	1585	1728	1870	1585	
Q Serve(g_s), s	0.4	18.6	5.0	4.1	13.4	0.0	3.8	3.4	4.9	7.8	2.6	0.0	
Cycle Q Clear(g_c), s	0.4	18.6	5.0	4.1	13.4	0.0	3.8	3.4	4.9	7.8	2.6	0.0	
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	63	1015	464	125	1195		776	499	423	504	352		
V/C Ratio(X)	0.32	0.92	0.31	0.84	0.65		0.29	0.23	0.32	0.78	0.22		
Avail Cap(c_a), veh/h	194	1023	467	125	1195		776	499	423	679	446		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	34.5	24.4	19.6	32.7	19.7	0.0	22.9	20.4	20.9	29.3	24.5	0.0	
Incr Delay (d2), s/veh	2.8	13.0	0.4	37.3	1.2	0.0	0.9	1.1	2.0	4.1	0.3	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.2	8.3	1.6	2.9	4.8	0.0	1.6	1.6	1.8	3.4	1.1	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	37.3	37.4	19.9	70.0	20.9	0.0	23.8	21.5	22.9	33.4	24.8	0.0	
LnGrp LOS	D	D	B	E	C		C	C	C	C	C		
Approach Vol, veh/h	1096			878			A			472			A
Approach Delay, s/veh	35.1			26.8			23.0			32.0			
Approach LOS	D			C			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	14.4	23.0	9.0	24.8	20.0	17.4	5.3	28.5					
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Max Green Setting (Gmax), s	14.0	19.0	5.0	21.0	16.0	17.0	4.0	22.0					
Max Q Clear Time (g_c+I1), s	9.8	6.9	6.1	20.6	5.8	4.6	2.4	15.4					
Green Ext Time (p_c), s	0.6	0.8	0.0	0.3	0.5	0.2	0.0	2.5					
Intersection Summary													
HCM 6th Ctrl Delay	30.1												
HCM 6th LOS	C												

HCM Unsignalized Intersection Capacity Analysis

2: Nevada Pacific Pkwy & Project Access RIRO

01/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	80	0	350	25	0	297	0
Future Volume (Veh/h)	0	0	0	0	0	80	0	350	25	0	297	0
Sign Control	Yield				Yield				Free		Free	
Grade	0%				0%				0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	0	0	91	0	398	28	0	338	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												314
pX, platoon unblocked												
vC, conflicting volume	628	764	169	581	750	213	338				426	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	628	764	169	581	750	213	338				426	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	100	100	100	100	89	100				100	
cM capacity (veh/h)	325	332	845	397	339	792	1218				1130	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	0	91	265	161	225	113						
Volume Left	0	0	0	0	0	0						
Volume Right	0	91	0	28	0	0						
cSH	1700	792	1700	1700	1700	1700						
Volume to Capacity	0.00	0.11	0.16	0.09	0.13	0.07						
Queue Length 95th (ft)	0	10	0	0	0	0						
Control Delay (s)	0.0	10.1	0.0	0.0	0.0	0.0						
Lane LOS	A	B										
Approach Delay (s)	0.0	10.1	0.0	0.0								
Approach LOS	A	B										
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			22.1%	ICU Level of Service				A				
Analysis Period (min)			15									

MOVEMENT SUMMARY



Site: PM Future PP

AM Baseline
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Nevada Pacific Parkway												
3	L2	1	2.0	0.188	5.8	LOS A	0.6	14.2	0.30	0.23	35.0	
8	T1	219	2.0	0.188	5.7	LOS A	0.6	14.2	0.29	0.22	34.9	
18	R2	128	2.0	0.188	5.7	LOS A	0.5	13.3	0.28	0.21	33.7	
Approach		349	2.0	0.188	5.7	LOS A	0.6	14.2	0.29	0.22	34.4	
East: Project Access Rd												
1	L2	148	2.0	0.165	5.6	LOS A	0.5	12.1	0.31	0.25	32.4	
6	T1	1	2.0	0.166	5.6	LOS A	0.5	11.5	0.30	0.23	34.9	
16	R2	150	2.0	0.166	5.6	LOS A	0.5	11.5	0.30	0.23	33.7	
Approach		299	2.0	0.166	5.6	LOS A	0.5	12.1	0.30	0.24	33.0	
North: Nevada Pacific Parkway												
7u	U	45	2.0	0.229	5.8	LOS A	0.7	17.1	0.23	0.15	32.9	
7	L2	183	2.0	0.229	5.8	LOS A	0.7	17.1	0.23	0.15	32.1	
4	T1	106	2.0	0.109	4.6	LOS A	0.3	7.7	0.21	0.13	35.5	
14	R2	2	2.0	0.109	4.6	LOS A	0.3	7.7	0.21	0.13	34.4	
Approach		336	2.0	0.229	5.5	LOS A	0.7	17.1	0.22	0.14	33.2	
West: Project Access Road												
5	L2	11	2.0	0.014	4.7	LOS A	0.0	0.9	0.35	0.26	32.8	
2	T1	1	2.0	0.003	4.7	LOS A	0.0	0.2	0.36	0.23	35.4	
12	R2	1	2.0	0.003	4.7	LOS A	0.0	0.2	0.36	0.23	34.2	
Approach		14	2.0	0.014	4.7	LOS A	0.0	0.9	0.35	0.25	33.1	
All Vehicles		998	2.0	0.229	5.6	LOS A	0.7	17.1	0.27	0.20	33.6	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Monday, January 10, 2022 11:27:35 AM

SIDRA INTERSECTION 6.0.24.4877

Project: J:\21-105 - NPP Commercial\Analysis\NPP_RAB.sip6

8001485, 6017358, TRAFFIC WORKS, PLUS / 1PC

Copyright © 2000-2014 Akcelik and Associates Pty Ltd

www.sidrasolutions.com

**SIDRA
INTERSECTION 6**