

Item # 11c

**City of Carson City
Agenda Report**

Date Submitted: June 10, 2008

Agenda Date Requested: June 19, 2008

Time Requested: 30 minutes

To: Mayor and Board of Supervisors

From: Planning and Community Development

Subject Title: Action to approve a Tentative Subdivision Map application known as East Ridge Village from Western Engineering (property owner: Steve Ryckebosch, Eagletech Industrial Park LLC) to allow 115 lots for 113 Townhouse units on 17.65 acres, on property zoned Multi-Family Apartment, located at 7201 Highway 50 East. (TSM-08-043)

Staff Summary: The request would result in 113 attached single family residential units with approximately 49% common areas/open space on approximately 17.65 acres on property zoned multi-family apartment (MFA), in addition to one lot to be developed at a later date as a multi-family apartment development.

Type of Action Requested:

- Resolution
- Formal Action/Motion
- Ordinance
- Other (Specify)

Does This Action Require A Business Impact Statement: Yes No

Planning Commission Action: Recommended approval May 29, 2008 by a vote of 5 Ayes, 0 Nays and 2 Absent

Recommended Board Action: I move to approve a Tentative Subdivision Map application known as East Ridge Village from Western Engineering (property owner: Steve Ryckebosch, Eagletech Industrial Park LLC) to allow 115 lots for 113 Townhouse units on 17.65 acres, on property zoned Multi-Family Apartment, located at 7201 Highway 50 East, based on the findings and subject to the conditions of approval as recommended by the Planning Commission.

Explanation for Recommended Board Action: With the recommended conditions of approval, the tentative subdivision meets all the city requirements of the Subdivision Ordinance. Therefore, the Planning Commission and staff recommend that the Board of Supervisors approve the Tentative Subdivision Map. See attached Planning Commission staff report for more information.

Applicable Statute, Code, Policy, Rule or Regulation: CCMC 17.05 (Tentative Maps), 18.02.050 (Review).

Fiscal Impact: N/A

Explanation of Impact: N/A


Funding Source: N/A

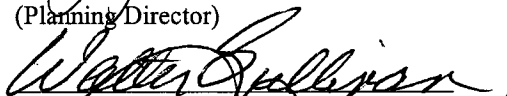
Alternatives: 1) Refer back to staff and Planning Commission for further review, or 2) Deny
TSM-08-043

Supporting Material:

- Staff Report
- Case Record
- Maps

Prepared By: Rose Mary Johnson, Management Assistant III

Reviewed By:  Date: 6-10-08
 (Planning Director)

 Date: 6-10-08
 (Development Services Director)

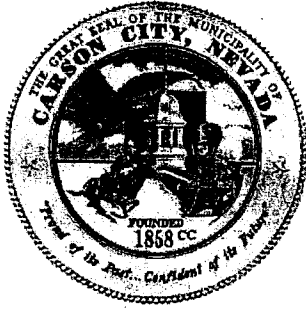
 Date: 6-10-08
 (City Manager)

 Date: 6-10-08
 (District Attorney's Office)

Board Action Taken:

Motion: _____ 1) _____ Aye/Nay
 2) _____ _____

(Vote Recorded By)



Carson City Planning Division

2621 Northgate Lane, Suite 62

Carson City, Nevada 89706

(775) 887-2180

Plandiv@ci.carson-city.nv.us

www.carson-city.nv.us

MEMORANDUM

TO: Mayor and Supervisors

FROM: Development Services, Planning Division *JP*

DATE: June 19, 2008

SUBJECT: TSM-08-043 Eagle Ridge Village

On May 28, 2008, the Planning Commission recommended approval to the Board of Supervisors of the Common Open Space Subdivision known as Eagle Ridge Village by a vote of 5-ayes 0-nays and 2-absent, subject to the amended conditions of approval below. For more information, see the attached Planning Commission staff report, which includes a detailed discussion of the proposed subdivision in addition to the information packet provided by the applicant.

AMENDED TENTATIVE SUBDIVISION MAP RECOMMENDED CONDITIONS OF APPROVAL

1. The applicant must sign and return the Notice of Decision/conditions of approval within 10 days of receipt of notification. If the Notice of Decision is not signed and returned within 10 days, the item may be rescheduled for the next Planning Commission meeting for further consideration.
2. Prior to submittal of any parcel map or preferably final map, the Development Engineering Department shall approve all on-site and off-site improvements. The applicant shall provide construction plans to the Development Engineering Department for all required on-site and off-site improvements, prior to any submittals for approval of a final map. The plan must adhere to the recommendations contained in the project soils and geotechnical report.
3. All other departments' conditions of approval, which are attached, shall be incorporated as conditions of this report.
4. The applicant shall adhere to all Carson City standards and requirements for water and sewer systems, grading and drainage, and street improvements, as outlined in the Development Standards and other applicable Divisions and as required by the Standard Specifications and Details for Public Works Construction, as adopted by Carson City. No deviations from the standards are allowed unless specifically noted on the approved tentative map.
5. The applicant shall obtain a dust control and storm water pollution prevention permit from the Nevada Division of Environmental Protection (NDEP). The site grading must incorporate proper dust control and erosion control measures.

The following shall be included in the design of the improvement plans:

6. Final improvement plans for the development shall be prepared in accordance with Carson City Development Standards (CCDS) Division 19 and the Standard Specifications and Details for Public Works Construction (Orange Book), as adopted by Carson City.
7. The applicant shall obtain a dust control and storm water pollution prevention permit from the Nevada Division of Environmental Protection (NDEP). The site grading must incorporate proper dust control and erosion control measures.
8. In accordance with CCDS 12.10 and 12.11.10, pavement sections shall be based on sub-grade strength values determined by Resistance (R) Value or California Bearing Ratio (CBR) as shown in the Soils Engineering Report. Refer to CCDS Division 17 for soils report requirements. In no case shall the proposed pavement section be less than the minimum section prescribed in Carson City standard detail C-1.11.
9. Storm drainage facility improvements shall be designed in accordance with CCDS Division 14. A Technical Drainage Study is required with submittal of Improvement Plans in accordance with CCDS 14.9 through 14.10.
10. Water mains shall be analyzed in accordance with CCDS 15.3.1 to determine system capability to provide adequate flows and pressures. This analysis shall be prepared by a qualified Nevada Civil Engineer.
11. Sewer mains shall be analyzed in accordance with CCDS 15.3.2 to determine system capability to provide capacity for the ultimate tributary population. This analysis shall be prepared by a qualified Nevada Civil Engineer.
12. Lighting shall be provided along all streets in accordance with CCDS 12.14.
13. The water main shall be extended to the adjacent property to the north (Pick-N-Pull) boundary. The alignment shall parallel the sewer main as shown on the tentative map.
14. The use of underground storm water infiltration will require additional soils analysis and percolation tests. The geotech report identified existing site soils to have slow to very slow permeability, likely making infiltration unviable for the project.
15. The traffic study must be updated to include trip generation and impacts associated with adjacent commercial property owned by the applicant. This will undoubtedly affect levels of service and recommended mitigation improvements. The updated traffic study shall be submitted to the Engineering Division for review and comment prior to submittal of Phase 1 improvement plans. There may be additional Engineering Division requirements as a result of the updated traffic study.
16. The final design shall include "NO PARKING" along Flint Drive, East Ridge Drive or Valley Drive.
17. East Ridge Drive shall be designed as a 3-lane collector with bike lanes from Flint Drive to Valley Drive and from Valley Drive to a point east of the joint commercial driveway for APN 08-011-89 and 08-011-90. The lane configuration will consist of a travel lane in each direction and a two-way left turn lane down the center. The bike lanes should be extended all the way to the cul-de-sac. The proposed right of way width shall be increased to 60 feet east of Valley Drive to a point east of the joint commercial driveway proposed for APN 008-011-89 and 008-011-90.

reducing to 50 feet in width to the eastern property line, accommodate this section. The required curb to curb pavement width is 46 feet per Carson City standard detail C1.11, for the 60 foot right of way, reducing to 34 foot pavement width for the 50 foot right of way.

18. Flint Drive roadway cross section was not included with the tentative map. The design of Flint Drive shall be coordinated with City Public Works and Engineering Division staff as well as with NDOT. The final design may be different than what is conceptually shown on the tentative map.
19. Phase 1 development shall include a 20 foot wide paved emergency access road from the east end of Brookhaven Court to connect with the cul-de-sac at the end of East Ridge Drive.

Improvements to be Completed Prior to Recording any Final Maps

19. Phase 1 development shall include a 20 foot wide paved all weather surface material acceptable to the Fire Department for the required gated emergency access road from the east end of Brookhaven Court to connect with the cul-de-sac at the end of East Ridge Drive.
20. The traffic signal and associated channelization improvements must be constructed at the intersection of Flint Drive and Highway 50 East as approved by Carson City and the Nevada Department of Transportation (NDOT). The applicant will participate in the improvements as warrant levels validate the need for the improvements.
21. Flint Drive must be improved from Highway 50 East to approximately 800 feet south as shown on the tentative map and as approved by Carson City and NDOT.
22. East Ridge Drive must be constructed from Flint Drive to the northeast corner of the subject property, ending in a cul-de-sac as shown on the tentative map.
23. Valley Drive must be constructed from East Ridge Drive to the intersection with Highway 50 East as shown on the tentative map and as approved by Carson City and NDOT.
24. Water and sewer mains must be extended all the way through the subject property and through adjacent commercial property owned by the applicant to the southwest corner of the abutting property to the north. Final line and grade for the water and sewer main extensions are subject to approval by Carson City Public Works and Development Services Engineer Division staff.

The following shall be included with the submittal of construction/improvement plans or submittal of a final map:

25. Each phase of the development will be required to submit a set of improvement plans for all on-site and off-site improvements necessary to complete that specific phase.
26. Placement of all utilities, including AT&T Cablevision, shall be underground within the subdivision. Any existing overhead facilities shall be relocated prior to the submittal of a parcel map or preferably final maps.
27. All landscaping proposed within the subdivision on site shall be in compliance with CCMC Development Standards Division 3, Landscaping.
28. Trees and significant shrubs shall be preserved whenever possible and shall be considered part of the required landscape area. Preservation of existing 4-inch caliper (6-8 foot for evergreens) healthy trees will be eligible for a 2:1 credit toward the total tree requirement if approved by the Director, up to a maximum of 25% of the requirement for trees on the site.

29. The developer must meet all applicable local, state and federal environmental standards.

The following must be submitted or included with the final subdivision map:

30. All Parcel Maps or preferably final map(s) shall be in substantial accord with the approved Tentative Map and the approved Tentative Map as signed by the Mayor, Planning Commission Chairman and the Planning Director.

31. Notes shall be added to the final map:

- A. "These parcels are subject to Carson City's Growth Management Ordinance and all property owners shall comply with provisions of said ordinance."
- B. "All development shall be in accord with Tentative Map (TSM-08-043)."
- C. "There shall be no structures associated with the residential lots allowed to be constructed/erected/located outside of the building envelopes shown on this map."
- D. "Parcels shown hereon are encumbered by a noise & odor easement in favor of the adjacent properties, for industrial, landfill and model airplane activities."
- E. "The subdivision shall include "NO PARKING" along Flint Drive, East Ridge Drive or Valley Drive."

32. ~~The right of way for East Ridge Drive shall be extended to the eastern boundary of the site in order to allow future access to APN 08-011-19. The minimum right of way width shall be 60 feet.~~

33. All street names shall be reviewed and approved by Carson City's GIS Department. The approved names shall be shown on the final map.

34. A copy of the signed Notice of Decision shall be provided.

35. With the submittal of any parcel map or preferably final maps, the applicant shall provide evidence to the Planning and Community Development Department from the Health and Fire Departments indicating the agencies' concerns or requirements have been satisfied. Said correspondence shall be included in the submittal package for any parcel map or preferably final maps and shall include approval by the Fire Department of all hydrant locations.

The following are general conditions of approval:

36. Any lots and/or phased areas not planned for immediate development will be left undisturbed and no mass grading or clearing of natural vegetation will be allowed.

37. All disturbed areas are required to have a palliative applied for dust control. Any and all grading will comply with State and City regulations.

38. Hours of construction will be limited to 7:00 a.m. to 7:00 p.m., Monday through Friday, and 7:00 a.m. to 5:00 p.m. on Saturday and Sunday. If the hours of construction are not adhered to, the Carson City Building and Safety Division will issue a warning for the first violation, and upon a second violation, will have the ability to cause work at the site to cease immediately.

39. A Final Subdivision Map for the property must be recorded within two years of the date of Tentative Subdivision Map approval by the Board of Supervisors. The applicant is responsible for complying with the required conditions of approval and submitting a final map that complies with all conditions of approval at least 30 days prior to the tentative map expiration date. A one-year extension of the tentative map approval period may be granted by the Board of Supervisors upon written request at least 30 days prior to the tentative map expiration date.
40. Exterior building colors shall blend with surrounding development and not cause abrupt changes. Primary building surfaces (excluding trim areas) should be muted or earth-tone in color. Bold colors shall be avoided except when used as accent or trim. The exterior building elevations will be subject to the review and approval of the Planning Division.
41. East Ridge Village will utilize lighting options which include Sierra Pacific street lights. The lighting fixtures include a variety of designs which Sierra Pacific designs, installs, operates and maintains. All fixtures will incorporate cut-off options.
42. Provisions shall be made to monitor and maintain, for a period of three years regardless of ownership, a maintenance plan for the common open space area. The maintenance plan for the common open space area shall, at a minimum, address the following:
 - a. Vegetation management;
 - b. Watershed management;
 - c. Debris and litter removal;
 - d. Fire access and suppression;
 - e. Maintenance of public access and
 - f. Other factors deemed necessary by the Commission or the Board.
43. Provisions shall be made for the permanent preservation and ongoing maintenance of the common open space and other common areas using a legal instrument acceptable to the City.
44. Provisions shall be made to assure adequate screening and buffering of existing and potential developments adjoining the proposed common open space development.
45. Designated common open space shall not include areas devoted to public or private vehicular streets or any land which has been, or is to be, conveyed to a public agency via a purchase agreement for such uses as parks, schools or other public facilities.
46. The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Homes Owners Association, Landscape Maintenance District or legal instrument acceptable to the City as long as the subdivision contains five or more habitable lots. The Fuels Management Plan shall include provisions for Defensible Space, Community Defense Zones, Defensible Fuel Profile Zone identification, fire lanes and fuel breaks, as required by the City. The final version of the plan shall be subject to review and approval by the Carson City Fire Department and Planning Division.
47. The applicant shall provide for and maintain two means of ingress/egress prior to construction; this must be addressed before the final map.
48. The applicant shall be required to comply with all codes and ordinances regulated by the Fire Department.

49. The Parks and Recreation Department recommends all walking trails within the development should be constructed to AASHTO and ADA design standards. In the future the City may want to connect public trails to the development's trail system.
50. All recreation and open space requirements of the proposed development will **NOT** be maintained by the Carson City Parks and Recreation Department.
51. Prior to the recordation of the final map for any phase of the project, the improvements associated with said phase must either be constructed and approved by the City, or the specific performance of said work secured by providing the City with a proper surety in the amount of one hundred fifty percent (150 %) of the engineer's estimate. In either case, upon acceptance of the improvements by the City, the developer shall provide the City with a proper surety in the amount of ten percent (10 %) of the engineer's estimate to secure the Developers obligation to repair defects in workmanship and materials which may appear in the work within one year of acceptance by the City.
52. A "will serve" letter from the water and wastewater utilities shall be provided to the Nevada Health Division prior to approval of a final map.
53. The District Attorney shall approve any CC&R's prior to recordation of the first final map.
54. The applicant shall coordinate with the local school district, the Planning Division and Engineering Division to determine an appropriate location on site for the required bus stop(s) for Eagle Ridge Village.

Please contact the Planning Division at 887-2180 if you have any questions regarding the attached information.

CARSON CITY PLANNING COMMISSION

CASE RECORD

MEETING DATE: 5-28-08

AGENDA ITEM NO.: H-5

APPLICANT(s) NAME: Western Engineering
PROPERTY OWNER(s): Steve Ryckebosch, Eagletech Industrial Park LLC

FILE NO. TSM-08-043

ASSESSOR PARCEL NO(s): 008-011-91
ADDRESS: 7201 Highway 50 East

APPLICANT'S REQUEST: Action to consider an application for a **Tentative Subdivision Map** known as East Ridge Village to allow 115 lots for 113 Townhouse units on 17.65 acres, on property zoned Multi-family Apartment (MFA).

COMMISSIONERS PRESENT: PEERY KIMBROUGH BISBEE
 MULLET REYNOLDS VANCE WENDELL

STAFF REPORT PRESENTED BY: Jennifer Pruitt REPORT ATTACHED
STAFF RECOMMENDATION: CONDITIONAL APPROVAL DENIAL
APPLICANT REPRESENTED BY: Dennis Smith, Western Engineering

APPLICANT/AGENT PRESENT

APPLICANT/AGENT SPOKE

APPLICANT/AGENT NOT PRESENT

APPLICANT/AGENT DID NOT SPEAK

APPLICANT INDICATED THAT HE HAS READ THE STAFF REPORT, AGREES AND UNDERSTANDS THE FINDINGS, RECOMMENDATIONS, AND CONDITIONS, AND AGREES TO CONFORM TO THE REQUIREMENTS THEREOF.

0 PERSONS SPOKE IN FAVOR OF THE PROPOSAL

0 PERSONS SPOKE IN OPPOSITION OF THE PROPOSAL

DISCUSSION, NOTES, COMMENTS FOR THE RECORD:

Dennis Smith: Need to meet "working" housing demand that is going to Lyon County; est. \$250,000 range

Reynolds: (Regarding open space) Is developer paying utility extensions? (answer: yes)

Bill Vance: Can downlighting be used due to location along "skyline"?

Dennis Smith: Will use "dark sky" lighting concepts

Dennis Smith: Request for:

Condition #15: Traffic study completed with commercial uses?

#17: Reduce from 60' to 50' row at east end

#19: Emergency access per Fire Dept. Must be paved? How about an all-weather surface? Or maybe gravel if not used by the public?

#20: Applicant will participate as warrants come up

Jeff Sharp, City Engineer:

#15: Need to know if roads are adequate to accommodate future commercial.

#17: Agrees with Dennis (applicant)

#19: Agrees with applicant (emergency access only)

Dennis Smith: Will provide additional traffic study information as required. Will have Paul Solaegui, Engineer, do an addendum of the traffic study.

Public Comment:

Bruce Kittess: Questions regarding future conflicts with landfill, airpark, rifle range, traffic. V & T terminal could potentially be in vicinity of the residences. Engineer trying to do a great job. Dump 7 days/ week? Experience of home owners

REVISIONS:

#19 Emergency access road to Fire Dept. Standards

#20 Add: Applicant will participate ...

APPEAL PROCESS MENTIONED AS PART OF THE RECORD

MOTION WAS MADE TO RECOMMEND APPROVAL

[X] WITH THE FINDINGS AND CONDITIONS OF THE STAFF REPORT AS MODIFIED

MOVED: Reynolds SECOND: Wendell PASSED: 5 /AYE 0/NO /ABSTAIN 2 /ABSENT

SCHEDULED FOR THE BOARD OF SUPERVISORS

DATE: June 19, 2008

STAFF REPORT FOR THE PLANNING COMMISSION MEETING OF MAY 28, 2008

FILE NO: TSM-08-043

AGENDA ITEM : H- 5

STAFF AUTHOR: Jennifer Pruitt, Senior Planner

REQUEST: A Tentative Map for a Common Open Space Development - "East Ridge Village," consisting of 113 single family town home dwelling units, and 49.2% common areas and open space on 17.65 acres, located at 7201 Highway 50 East, APN-008-011-91.

APPLICANT: Tammy Kinsley, Western Engineering

OWNERS: Steve Ryckebosch, Eagletech Industrial Park LLC

LOCATION: 7201 Highway 50 East

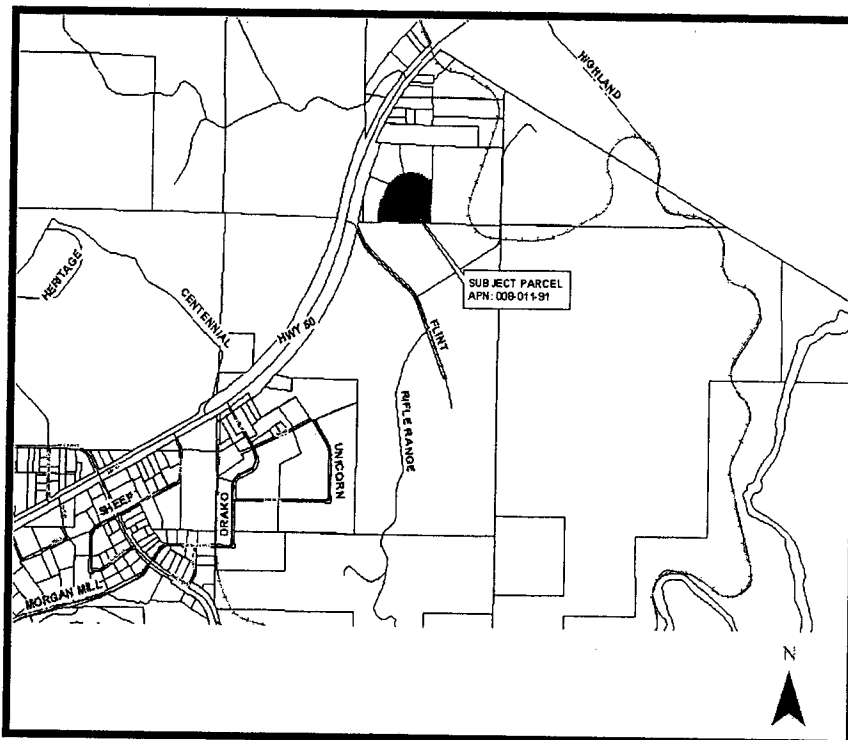
APN: 008-011-91

Master Plan: Mixed Use Commercial

Zoning: Multi Family Apartment

RECOMMENDED MOTION:

"I move to recommend to the Board of Supervisors approval of a Tentative Subdivision Map known as East Ridge Village, (TSM-08-043) to allow a Common Open Space Development of 113 residential town home lots, on property zoned Multi Family Apartment (MFA), located at 7201 Highway 50 East, Assessor's Parcel Number 008-011-91 based on required findings and subject to the recommended conditions of approval contained in the staff report."



TENTATIVE SUBDIVISION MAP RECOMMENDED CONDITIONS OF APPROVAL

1. The applicant must sign and return the Notice of Decision / conditions of approval within 10 days of receipt of notification. If the Notice of Decision is not signed and returned within 10 days, the item may be rescheduled for the next Planning Commission meeting for further consideration.
2. Prior to submittal of any parcel map or preferably final map, the Development Engineering Department shall approve all on-site and off-site improvements. The applicant shall provide construction plans to the Development Engineering Department for all required on-site and off-site improvements, prior to any submittals for approval of a final map. The plan must adhere to the recommendations contained in the project soils and geotechnical report.
3. All other departments' conditions of approval, which are attached, shall be incorporated as conditions of this report.
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 - 33. All street names shall be reviewed and approved by Carson City's GIS Department. The approved names shall be shown on the final map.
 - 34. A copy of the signed Notice of Decision shall be provided.
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- 39. A Final Subdivision Map for the property must be recorded within two years of the date of Tentative Subdivision Map approval by the Board of Supervisors. The applicant is responsible for complying with the required conditions of approval and submitting a final map that complies with all conditions of approval at least 30 days prior to the tentative map expiration date. A one-year extension of the tentative map approval period may be granted by the Board of Supervisors upon written request **at least 30 days prior to the tentative map expiration date.**
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 - a. Vegetation management;
 - b. Watershed management;
 - c. Debris and litter removal;
 - d. Fire access and suppression;
 - e. Maintenance of public access and
 - f. Other factors deemed necessary by the Commission or the Board.
43. Provisions shall be made for the permanent preservation and ongoing maintenance of the common open space and other common areas using a legal instrument acceptable to the City.
44. Provisions shall be made to assure adequate screening and buffering of existing and potential developments adjoining the proposed common open space development.
45. Designated common open space shall not include areas devoted to public or private vehicular streets or any land which has been, or is to be, conveyed to a public agency via a purchase agreement for such uses as parks, schools or other public facilities.
46. The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Homes Owners Association, Landscape Maintenance District or legal instrument acceptable to the City as long as the subdivision contains five or more habitable lots. The Fuels Management Plan shall include provisions for Defensible Space, Community Defense Zones, Defensible Fuel Profile Zone identification, fire lanes and fuel breaks, as required by the City. The final version of the plan shall be subject to review and approval by the Carson City Fire Department and Planning Division.
47. The applicant shall provide for and maintain two means of ingress/egress prior to construction; this must be addressed before the final map.
48. The applicant shall be required to comply with all codes and ordinances regulated by the Fire Department.
49. The Parks and Recreation Department recommends all walking trails within the development should be constructed to AASHTO and ADA design standards. In the future the City may want to connect public trails to the development's trail system.
50. All recreation and open space requirements of the proposed development will **NOT** be maintained by the Carson City Parks and Recreation Department.
51. Prior to the recordation of the final map for any phase of the project, the improvements associated with said phase must either be constructed and approved by the City, or the specific performance of said work secured by providing the City with a proper surety in the amount of one hundred fifty percent (150 %) of the engineer's estimate. In either

case, upon acceptance of the improvements by the City, the developer shall provide the City with a proper surety in the amount of ten percent (10 %) of the engineer's estimate to secure the Developers obligation to repair defects in workmanship and materials which may appear in the work within one year of acceptance by the City.

52. A "will serve" letter from the water and wastewater utilities shall be provided to the Nevada Health Division prior to approval of a final map.
53. The District Attorney shall approve any CC&R's prior to recordation of the first final map.
54. The applicant shall coordinate with the local school district, the Planning Division and Engineering Division to determine an appropriate location on site for the required bus stop(s) for Eagle Ridge Village.

LEGAL REQUIREMENTS: CCMC 17.05 (Tentative maps); 17.10 (Common Open Space Development); NRS 278.330; CCMC 18.02.050 (Review); 18.04.105 (Multi Family Apartment district); and 18.04.190 (Residential Districts Intensity and Dimensional Standards);

KEY ISSUES: Does the proposal meet the Tentative Map requirements? Will the proposal cause material damage to surrounding land uses or properties?

SURROUNDING ZONING AND LAND USE INFORMATION

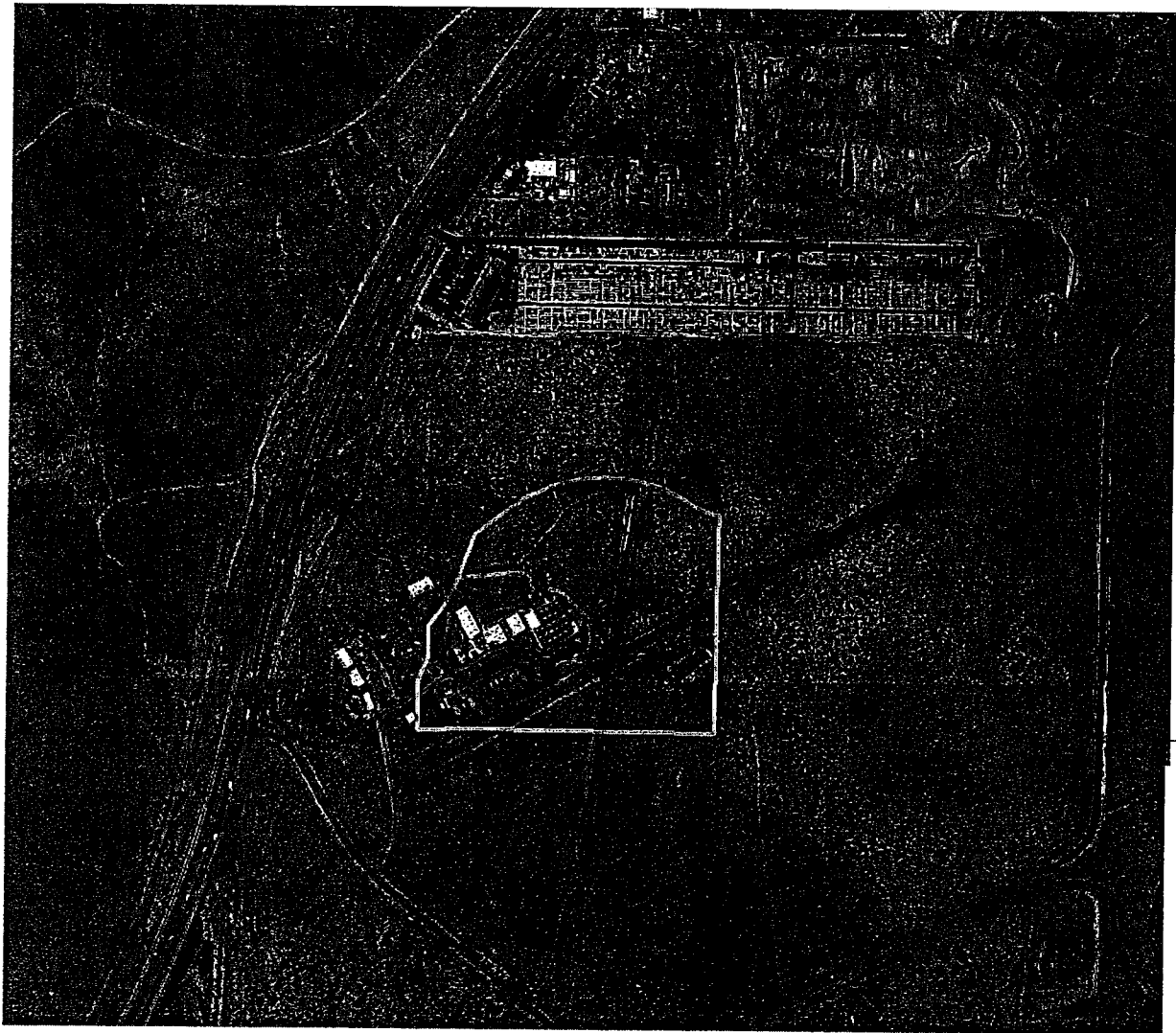
- NORTH: General Commercial (GC) - vacant
- SOUTH: Conservation Reserve (CR) - BLM lands/Carson City Landfill
- EAST: General Industrial (GI) - BLM lands/vacant
- WEST: General Commercial (GC) - vacant

ENVIRONMENTAL INFORMATION

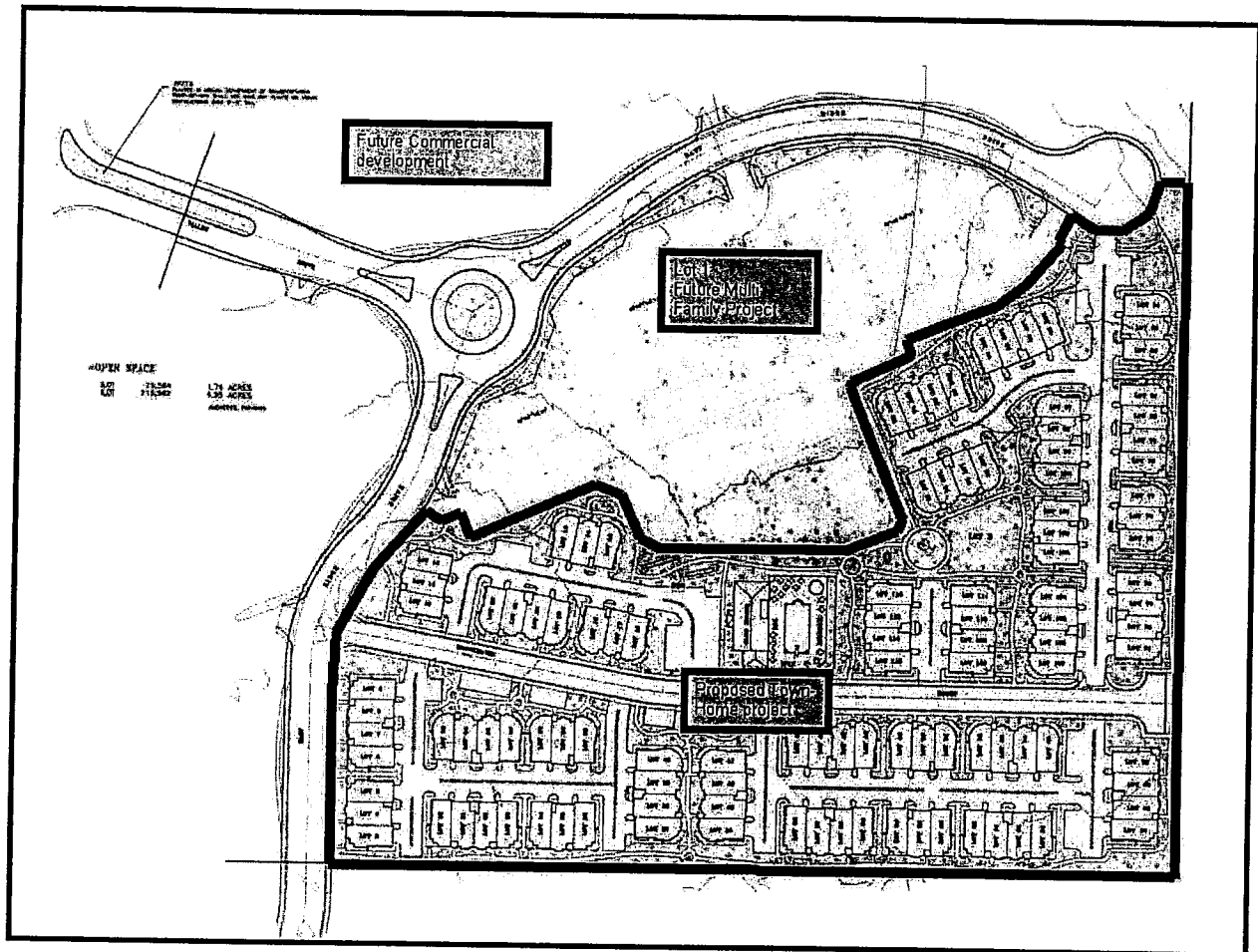
1. FLOOD ZONE: Zone C (Areas of minimal flooding)
2. SLOPE/DRAINAGE: The proposed development is in the area of minimal topographical changes.
3. SOILS:
No. 86: Devada- Rock Outcrop Complex, 4%-15% slopes
No. 99. Reno Cobbly Sandy Loam, 4%-15% slopes
4. SEISMIC ZONE: II & III (least severity of shaking potential);

SITE DEVELOPMENT INFORMATION

1. SUBJECT AREA: 17.65 acres
2. Total residential lots (town homes): 113 residential lots
3. Total Multi Family Dwelling units: 96 residential units (approximate; not a part of this approval)
4. PROJECT SITE AREA: 17.65 acres
 - Town-homes 3.57 acres
 - Multi Family Apartment lot 5.32 acres
 - Common Area/Open Space area 8.67 acres
 - club house .09 acres
 - Hard Scape 3.63 acres
 - Open space 4.95 acres
5. EXISTING LAND USE: Several warehouse buildings are currently located on the subject parcel and adjacent commonly owned parcels.
6. PROPOSED UNIT SIZES: 2,300 square feet (two story) to 3,140 square feet (three story)
7. PROPOSED LOT SIZES 1,346 square feet to 1,564 square feet per town home
8. REQUIRED SETBACKS: See proposed building envelopes.
9. PARKING REQUIRED: 226 parking spaces (two spaces per dwelling unit)
10. PARKING PROVIDED: 296 parking spaces 226 garage spaces and 70 guest parking spaces.
11. BUILDING HEIGHT: The proposed town homes project notes varying building heights ranging from two stories to three stories in height, not to exceed the maximum building height of 45 feet.



Proposed Site Plan for Eagle Ridge Village



BACKGROUND

In 2005 the subject site, including the adjacent three parcels to the north, were purchased by Eagle Tech Industrial Park, LLC.

In April 2006 Carson City adopted the revised Master Plan and Land Use Map of Carson City. Within the Master Plan was the Virginia & Truckee Railroad Gateway Specific Plan Area.

On May 03, 2007 a record of survey for Lot Line Adjustment LLA-07-037 was recorded, resulting in a new lot line alignment.

On August 02, 2007 the Board of Supervisors approved the second reading of ZMA-07-077, a Zoning Map Amendment from General Industrial/Mobile Home One Acre to Multi Family Apartment.

On February 13, 2008, the applicant, Western Engineering, and City staff participated in a Conceptual Review meeting (CSM-08-005) for the proposed Eagle Ridge Village subdivision. The original proposal consisted of 113 single-family town-home lots and 96 multi family dwelling units.

On April 17, 2008 the applicant submitted the subject Tentative Subdivision Map TSM-08-043 for Planning Commission review on May 28, 2008.

DISCUSSION

The proposed Eagle Ridge Village Subdivision is located at the 7201 Highway 50 East, APN-008-011-91, within the northeastern portion of Carson City. The subject parcel is located on the south side of Highway 50 East and just north of Flint Drive, which leads to the Carson City landfill approximately 1/2-mile to the south. The developed area will consist of approximately 17.65 acres. Open space and common area combined will consist of approximately 8.67 acres (49% of the proposed Eagle Ridge Village subdivision).

Several warehouse buildings are currently located on the subject parcel. The property is located in the vicinity of the future V&T Railroad alignment, which passes to the northeast on the adjacent BLM property.

The subject site was formerly also used as a rural airport. The site is primarily undeveloped, however, as noted above, there are several existing buildings, dirt roads and one paved and one dirt runway, which are all planned for removal. A majority of the subject site is covered with native sage and scrub brush.

Water and wastewater lines have not yet been extended to serve the subject parcels or other private parcels in the vicinity along Highway 50 East. This is a primary reason that little development has occurred thus far in the vicinity. Water is available to serve the area from a City water storage tank located to the west of the subject parcels on BLM land. The nearest wastewater service lines are located in the vicinity of Highway 50 and Deer Run Road.

According to CCMC 17.10, The purpose of the Common Open Space subdivision chapter is to set forth regulations to permit variation of lot size, including density transfer (cluster) subdivisions, in order to preserve or provide open space, protect natural, cultural and scenic

resources, achieve a more efficient use of land, minimize road building and encourage stable, cohesive neighborhoods offering a mix of housing types.

According to CCMC 17.10.030, the minimum lot size, lot width, and setback requirements applicable to the base zoning district may be reduced for better utilization of the land and to produce a housing environment of stable and desirable character consistent with the objectives of this chapter and the master plan, or as an alternative, typical building envelopes shall be shown on the tentative subdivision map or Parcel Map.

The proposed Eagle Ridge Village subdivision does not exceed the total number of dwelling units allowed by the underlying zoning district which allows up to 512 total two-plus bedroom units on the 17.65 acre site. The gross site area includes four contiguous parcels. At this time the developer is proposing a residential tentative subdivision map creating 115 lots, consisting of a defined 3.57 acre area for owner occupied town homes and a defined area for rental apartments. The residential units are proposed at two and three story units that will not exceed the maximum building height of 45 feet. A 5.32 acre remainder lot for future multi family apartments and open space area of 8.64 acres.

The project is well designed with quality architecture and good pedestrian circulation. The orientation of front porches towards the street and garages at the rear is very good. Guest parking within the town home area is well dispersed and broken into smaller lots.

The applicant has also designed recreational amenities, such as meandering walking trail areas, play ground areas with BBQ and picnic areas and an abundance of landscaping and natural terrain.

Lot sizes of the proposed town-homes are at a minimum size of 1,346 square feet to 1,564 square feet, with building plans ranging from 2,300 square feet (two story) to 3,140 square feet (three story).

The Eagle Ridge Village project is proposed in four phases:

Phase I

- Construction of lots three through 36;
- The construction of Valley Drive, East Ridge Drive and a portion of Brookhaven Court;
- The Nevada Department of Transportation improvements, the realignment and construction of Flint Drive.

Phase II

- Construction of lots 37 through 70;
- The construction of the Club House and Pool area;
- Completion of Brookhaven Court.

Phase III

- Construction of lots 71 through 115.

Phase IV

- Construction of Multi Family Apartment project of 96 units and improvements of lot One (5.32 acres).

Open Space, Parks, Trails and Pathways

The Unified Pathways Master Plan of Carson City calls for an Equestrian Trailhead area in close proximity to the site. The Parks and Recreation Department also recommends all walking trails within the development should be constructed to AASHTO and ADA design standards. In the future the City may want to connect public trails to the development's internal trail system.

See pages 16 and 17 of this staff report regarding the required open space for this project.

Access

Primary access to the proposed East Ridge Village development will be provided from U.S Highway 50 which is a five lane roadway with two lanes in each direction and a continuous center two-way left turn lane in the vicinity of the project site. The proposed access intersection does not exist but is anticipated to be an unsignalized "T" intersection with stop sign control at the east approach.

Staff recommends that the right of way for East Ridge Drive be extended to the eastern boundary of the site in order to allow future access to APN 08-011-19. The minimum right of way width shall be 60 feet.

Traffic

A traffic study has been provided by the applicant see attached report. The study analyzed the impacts and proposed mitigation to traffic impacts of development on the existing transportation system.

The traffic study prepared by Solaegui Engineers dated 2/19/08 does not consider traffic generated by adjacent commercial property owned by the applicant. Consequently the results and recommendations (levels of service, turn lanes, queing lengths, roadway widths, signalization, etc.) may not reflect necessary improvements for the complete build-out of the residential and commercial properties.

The traffic study included a vague recommendation to construct a traffic signal at the Flint Drive and Highway 50 East intersection "when warranted." No discussion was provided as to when the traffic engineer thought that the signal might be warranted. However, it was identified in the study that the intersection currently functions at level of service "F" (greater than 80 second delay) during the PM peak. Obviously the level of service will get much worse with the proposed residential development and with any commercial development on adjacent property owned by the applicant. Consequently, it is Engineering Division recommendation to require the developer to construct the traffic signal prior to recording any final maps for the development.

Drainage

The applicant provided a drainage analysis with the application submittal prepared by Western Engineering. Drainage for the project site will be made up of a detention pond system that will

follow the natural topography of the site. These proposed detention areas will incorporate existing and new landscaping on site. The streets and the landscape areas will direct the flow of drainage to the detention pond areas, away from structures and public common areas.

Per the geotech report prepared by Pezonella Associates, the native site soils have permeability of slow to very slow. Consequently, it is doubtful that underground infiltration as shown on the tentative map is a viable solution. Keep in mind that above ground detention ponds require significant land area, therefore total lot count may need to be reduced in order to accommodate storm ponds.

Fire Mitigation and Fuels Management Plan

According to Fire Department standards, the roads in the Eagle Ridge Village development are required to provide two points of access and egress.

The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Home Owners Association, Landscape Maintenance District or legal instrument acceptable to the City as long as the subdivision contains five or more habitable lots. The Fuels Management Plan shall include provisions for defensible space, Community Defense Zones, Defensible Fuel Profile Zone identification, fire lanes and fuel breaks, as required by the City. The final version of the plan shall be subject to review and approval by the Carson City Fire Department and Planning Division.

Eastern Portal—Virginia & Truckee Railroad Gateway

The subject site is located within the Eastern Portal—Virginia & Truckee Railroad Gateway. The V&T Railroad is planned for construction from Virginia City, crossing Highway 50 East and entering Carson City at the Lyon County border, past private lands and BLM lands on the south side of Highway 50 East, and continuing along the Carson River corridor to the Deer Run Road vicinity. Plans are presently under way to finalize the right-of-way acquisition for the route into Carson City and to find a location for a train depot.

The V&T Railroad is anticipated to be a tourist attraction and a benefit to the local economy. The visual experience of the train ride will be a key element in the success of the V&T. The Carson River corridor within Carson City is arguably the most dramatic visual experience along the entire V&T route. The vistas overlooking Carson City from the Eastern Portal gateway into Carson City also offers magnificent views of Carson City and the Sierra Nevada mountains beyond.

The purpose of the Eastern Portal—Virginia & Truckee Railroad Gateway Specific Plan Area (V&T-SPA) is:

- To provide for cohesive development within the area.
- To create a "gateway" into Carson City.
- To protect economic development opportunities along the highway corridor, particularly in conjunction with development of the V&T Railroad.
- To protect visual resources associated with the V&T Railroad route and terminal location.
- To encourage public/private partnerships to facilitate economic development and public purpose uses.

- To encourage public/private cooperation in creating public access, trails and recreational opportunities.

Per the information provided by the applicant the proposed development is in keeping with the goals of the V & T-SPA. The project will adhere to the MFA design standards for building height. Although the railroad corridor is 700 feet to 800 feet away from the project site, the visual impact will be minimal as the view of the Sierras to the west will not be blocked. In addition, the residential portion of the project will include landscaping and natural vegetation native to the site, and will include attractive building design elements.

The applicant notes the proposed development will be a well defined gateway project of commercial and residential uses for the eastern area of Carson City. The proposed variety of residential units will provide opportunities to a variety of people with a variety of housing needs. With the development of the future commercial amenities this area will provide employment and recreational opportunities as is requested in the V & T-SPA.

The residential portion of the project provides a walk-able community within the subject site. The project will provide recreational opportunities within the site as well as providing future recreational access to adjacent public lands.

MFA Standards

The following standards are intended to establish minimum standards for residential development within the Multi-Family Apartment (MFA) zoning district, Development Standards Division 1.17.

1. Maximum permitted density:
 - a. For one-bedroom or studio units, one unit per 1,200 square feet of area.
 - b. For two or more bedroom units, one unit per 1,500 square feet of area.

The proposed Eagle Ridge Village subdivision does not exceed the total number of dwelling units allowed by the underlying zoning district which allows up to 512 total two-plus bedroom units on the 17.65 acre site. The applicant is proposing 113 town home units with this Tentative Map request and 96 residential units (approximate; not a part of this approval) for future development on lot 1.

2. Maximum building height: 45 feet.

The proposed town home units of Eagle Ridge Village will not exceed 45 feet in height.

3. Setbacks:

- a. Front yard: 10 feet, plus an additional 10 feet for each story above two stories; minimum driveway approach from property line to garage doors is 20 feet.
- b. Side yard: 10 feet for external project boundaries; minimum 10 feet between residential structures for internal setbacks. Where a side yard is

adjacent to a single-family zoning district, an additional 10 feet is required for each story above one story.

- c. Street side yard: 10 feet, plus an additional 5 feet for each story above two stories; minimum driveway approach from property line to garage doors is 20 feet.
- d. Rear yard: 20 feet. Where a rear yard is adjacent to a single-family zoning district, an additional 10 feet is required for each story above one story.

According to CCMC 17.10.030, the minimum lot size, lot width, and setback requirements applicable to the base zoning district may be reduced for better utilization of the land and to produce a housing environment of stable and desirable character consistent with the objectives of this chapter and the master plan, or as an alternative, typical building envelopes shall be shown on the tentative subdivision map or Parcel Map. The applicant has noted the proposed building foot prints of the town homes on the Tentative Map submitted for review. The proposed building footprints do not result in an increase of the density allowed on site.

- 4. Required parking: Two spaces per dwelling unit; and in compliance with the Development Standards Division 2, Parking and Loading.

PARKING REQUIRED: 226 parking spaces- (two spaces per dwelling unit)

PARKING PROVIDED: 296 parking spaces- 226 garage spaces and 70 guest parking spaces.

- 5. Open Space:

- a. A minimum of 150 square feet per dwelling unit of common open space must be provided. Areas of common open space may include contiguous landscaped areas with no dimension less than 15 feet. A minimum of 100 square feet per unit of the common open space area must be designed for recreation, which may include but not be limited to picnic areas, sports courts, a softscape surface covered with turf, sand or similar materials acceptable for use by young children, including play equipment and trees, with no dimension less than 25 feet.

Required Common Open Space: $150 \times 113 = .39$ acres

Required Min recreation: $100 \times 113 = .26$ acres

- b. A minimum of 100 square feet of additional open space must be provided for each unit either as private open space or included in the common open space area.

Required private open space: $100 \times 113 = .26$ acres

- c. Front and street side yard setback areas may not be included toward meeting the open space requirements.

Per the proposed lot layout the open space requirement is not included within any proposed setbacks due to the zero not line configuration of the proposed town-homes.

The applicant is aware of the Open Space requirements associated with the MFA standards. The open space proposed by the applicant for the Eagle Ridge Village project, significantly exceeds the total open space required pursuant to the Carson City Municipal Code.

Total required Open Space	.65 acres
Total Open Space proposed:	4.95 acres
Total Common area proposed:	3.72 acres
Total Open Space/Common area proposed:	8.67 acres

6. Landscaping. Landscaping shall comply with the Development Standards Division 3, Landscaping.

Condition of approval # 27 requires "All landscaping proposed within the subdivision on site shall be in compliance with CCMC Development Standards Division 3, Landscaping.

With the recommended conditions of approval, the findings to grant approval have been met by the applicant. The Planning Division staff is in support of this Tentative Map application. It is recommended that the Planning Commission make the recommendation to the Board of Supervisors, for approval of TSM-08-043 based on the required findings as noted on the following pages.

PUBLIC COMMENTS: Public notices were mailed on May 09, 2008 to 31 adjacent property owners within 6,025 feet of the subject site pursuant to the provisions of NRS and CCMC. As of May 16, 2008, one letter has been received in support of this application, from an adjacent property owner, see attached. Any comments that are received after this report is completed will be submitted prior to or at the Planning Commission meeting, depending on their submittal date to the Planning Division. Any comments that are received after this report is complete will be submitted prior to or at the Planning Commission meeting, depending on their submittal date to the Planning and Community Development Division.

OTHER CITY DEPARTMENT OR OUTSIDE AGENCY COMMENTS: Comments were received from various city departments. Recommendations have been incorporated into the recommended conditions of approval, where applicable.

Nevada Division of Environmental Protection (NDEP):

1. Please be advised that inclusion under NDEP's Construction Stormwater General Permit is required for any project involving land disturbances of one or more acres.
2. NDEP recommends approval of said subdivision with respect to water pollution control, sewage disposal, water quality and water supply facilities.

Carson City School District Transportation Department:

The School Transportation department will not be able to accommodate the projected additional student loads. This will require an additional bus for a one time expenditure of \$93,000.00 and reoccurring yearly cost of a driver at \$14,500.00.

1. The projected bus stop location will be in the round-about at the proposed Village Drive and Ridge Drive.
2. The project is zoned for Freemont Elementary School (a year round schedule), Carson Middle School and Carson High School.

The Carson City Parks and Recreation Department:

1. Based on our experience when we considered relocating the Fairgrounds to Flint Drive, trying to make a left turn out of the development to head west into Carson City is extremely difficult. Our department is assuming a traffic study will be required. This issue was certainly a concern when the city was looking to relocate the Fairgrounds to Flint Drive.
2. The Parks and Recreation Department recommends all walking trails within the development should be constructed to AASHTO and ADA design standards. In the future the City may want to connect public trails to the development's internal trail system.
3. The site is located in close proximity to the V&T railroad project corridor.
4. The site is adjacent to lands presently under the ownership of BLM. Through the Federal Lands Bill, lands to the east and south will be used for economic development.
5. The Unified Pathways Master Plan call for an Equestrian Trailhead area in close proximity to the site.
6. The closest park facilities to the proposed project site is John D Winters Centennial Park complex and Pony Express Airpark.
7. It is anticipated this project will contribute to the City's Residential Construction Tax fund based on approximately \$1,000.00 per unit.
8. All recreation and open space requirements of the proposed development will NOT be maintained by the Carson City Parks and Recreation Department.
9. The proposed development should consider the use of fencing to delineate private land vs. public land ownership.
10. Comprehensive Master Plan - Are there any V&T Specific Plan Area issues that need to be addressed as a part of the development?
11. Can East Ridge Drive be used as a public road access to a future trailhead?
12. The Parks and Recreation Department would recommend all sidewalks on both side of streets need to provide access to public lands.

The Carson City Fire Department:

1. The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Homes Owners Association, Landscape Maintenance District or legal instrument acceptable to the City as long as the subdivision contains five or more habitable lots. The Fuels Management Plan shall include provisions for Defensible Space, Community Defense Zones, Defensible Fuel Profile Zone identification, fire lanes and fuel breaks, as required by the City. The final version of the plan shall be subject to review and approval by the Carson City Fire Department and Planning Division.
2. The applicant shall provide for and maintain two means of ingress/egress prior to construction. The map does not presently demonstrate the means or methods that will be used to connect East Ridge Drive to Flint Drive; this must be addressed before the final map.
3. The applicant shall be required to comply with all codes and ordinances regulated by the Fire Department.

The Carson City Building Division:

1. The demolition of any building or structure, as a part of this project will require a permit issued through the Carson City Building Division
2. As a part of the Tentative Map submittal, provide three copies of the Geotechnical Report with seismic analysis. The Geotechnical Report for the proposed location shall include a complete assessment of the potential consequences of any liquefaction and soil strength loss, including estimation of differential settlement, lateral movement or reduction in foundation soil-bearing capacity, and shall address mitigation measures. ((CCMC 17.05.030 #12 and '06 IBC 1802.2.7 #2) In addition, the Geotechnical Report shall address sub-soil drainage per 2007 Northern Nevada Amendments, Section 1101.5.
3. The plan submittals for the future dwellings (Townhouses) shall comply with the Carson City Building Division handout titled: *RESIDENTIAL PLAN SUBMITTAL REQUIREMENTS: One & Two Family Dwellings and Accessory Structures*
4. The separation requirements between individual units shall comply with the prescriptive requirements of either the International Building Code or the International Residential Code, as applicable.
5. The apartment and commercial buildings shall comply with the accessibility requirements of the current adopted versions of the International Building Code, and ICC/ANSI A117.1.
6. The submittal shall clearly show the distance between proposed structures at wall lines and roof lines (sides and rear of structures).

The Carson City Engineering Division had a number of comments that are included in the conditions and attached with their memo.

TENTATIVE MAP FINDINGS:

Staff recommends approval of the Tentative Subdivision Map based on the findings below and in the information contained in the attached reports and documents, pursuant to CCMC 17.05 (Tentative Maps); 17.07 (Findings) and NRS 278.349, subject to the recommended conditions of approval, and further substantiated by the applicant's written justification. This development was reviewed under the guidelines of CCMC Title 17, specifically Section 17.01.010. The design, improvement and maps of subdivisions are governed by the Planning and Zoning Act (Chapter 278 and 278A of Nevada Revised Statutes, hereinafter referred to as "NRS"), NRS 116, so far as is applicable, and the provisions of this title. The purposes of this title are to safeguard the public health, safety and general welfare by establishing certain additional standards of design, improvement, survey and development of subdivisions hereafter platted in Carson City in order to provide and insure the orderly and proper growth and development thereof.

- 1. The project complies with applicable environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, water supply, and sewage disposal.**

The development is required to comply with all applicable environmental and health laws concerning water and air pollution and disposal of solid waste. The development will be served by the Carson City Community Water System and the Carson City Wastewater Collection System.

The applicant has met with City staff regarding the connections of sewer and water. The tentative map showed extending the sewer main to the boundary of the adjacent property to the north (Pick-N-Pull), but failed to shown extending the water main to the same point. Both water and sewer must be extended to the adjacent property to the north (Pick-N-Pull) prior to recording of any final maps.

- 2. Adequate water that meets applicable health standards is available in sufficient quantity to serve the subdivision.**

Water and wastewater lines have not yet been extended to serve the subject parcels or other private parcels in the vicinity along Highway 50 East. This is a primary reason that little development has occurred thus far in the vicinity. Water is available to serve the area from a City water storage tank located to the west of the subject parcels on BLM land. The nearest wastewater service lines are located in the vicinity of Highway 50 and Deer Run Road.

As indicated in the Engineering Division's analysis of the application, water supplied to the development will meet applicable health standards. Carson City's water supply capability will not be exceeded by final approval of this development.

- 3. Adequate utilities are available and accessible to serve the subdivision.**

The applicant shall adhere to all Carson City standards and requirements for water and sewer systems, grading and drainage, and street improvements, as outlined in the Development Standards and other applicable Divisions and as required by the Standard Specifications and

Details for Public Works Construction, as adopted by Carson City. No deviations from the standards are allowed unless specifically noted on the approved tentative map.

The applicant has been in contact with Sierra Pacific Power Company, Southwest Gas and Verizon regarding the availability of utilities for the site.

- 4. Adequate public services such as schools, police protection, transportation, recreation and parks are available and accessible to serve the subdivision, including adequate availability and accessibility of water and services for the prevention and containment of fires.**

The Carson City School District has provided comments, and staff has integrated a condition regarding bus stop incorporation within the site planning of the project as needed by the Carson City School District.

The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Homes Owners Association, Landscape Maintenance District or legal instrument acceptable to the City as long as the subdivision contains five or more habitable lots.

- 5. Adequate access to public lands is provided where the proposed subdivision is adjacent to public lands.**

The proposed subdivision is adjacent to public lands to the east and south. However, the proposed project does not impair access to those public lands in anyway. The lands adjacent to the subject project is a 40 acre parcel to the east owned by the Bureau of Land Management (BLM)/United States of America (USA) and a 376+ acre parcel to the south owned by the BLM/United States of America (USA).

Per the Engineering Division, the right of way for East Ridge Drive shall be extended to the eastern boundary of the site in order to allow future access to APN 08-011-19. The minimum right of way width shall be 60 feet. This condition of approval will allow for adequate access to adjacent public lands.

- 6. The subdivision conforms with the zoning ordinance and master plan.**

The proposed development is in keeping with the purpose statement of the Multi Family Apartment zoning district:

The MFA District is intended to provide for the development of a variety of multi-family units such as duplexes, townhouses and high density apartments. The MFA District is consistent with the policies of the High Density Residential category of the Master Plan.

As noted above, the applicant is not seeking to develop the subject site with an increase of density other than the density currently allowed with the underlying zoning. Multi family dwelling units and single family dwelling units are primary permitted use within the underlying zoning district.

The proposed development is in keeping with the purpose statement of the Common Open Space Development Title 17.10.005:

The purpose of this Chapter is to set forth regulations to permit variation of lot size, including density transfer (cluster) subdivisions, in order to preserve or provide open space, protect natural, cultural and scenic resources, achieve a more efficient use of land, minimize road building and encourage stable, cohesive neighborhoods offering a mix of housing types.

*The proposal **is in conformance with the Master Plan** and will be in conformance with the Zoning Ordinance (Title 18). The proposal is consistent with a number of goals and policies that support a diverse community with multiple opportunities for housing.*

7. The subdivision generally conforms with the City's Streets and Transportation Element.

Access to the site will be from Flint Drive and Highway 50 East. Roadway improvements on and off site will be built to City standards, consistent with the Carson City Transportation Plan.

*Prior to submittal of any final map or parcel maps, Development Engineering shall approve **all** on-site and off-site improvements which are to be in conformance with the City's Streets and Transportation Element of the City's Master Plan.*

8. The subdivision will have little or no detrimental effect on vehicular or pedestrian traffic and adequate public streets are provided to serve the subdivision.

A Traffic Analysis was prepared by Paul W. Solaigui and completed in May of 2007. The proposed project will generate approximately 1,196 average daily trips with 91 trips occurring during the AM peak hour and 110 trips occurring during the PM peak hour. Within the traffic analysis are recommendations regarding improvements which shall comply with Carson City requirements.

The traffic study included a vague recommendation to construct a traffic signal at the Flint Drive and Highway 50 East intersection "when warranted." No discussion was provided as to when the traffic engineer thought that the signal might be warranted. However, it was identified in the study that the intersection currently functions at level of service "F" (greater than 80 second delay) during the PM peak. Obviously the level of service will get much worse with the proposed residential development and with any commercial development on adjacent property owned by the applicant. Consequently, it is Engineering Division recommendation to require the developer to construct the traffic signal prior to recording any final maps for the development.

The traffic study must be updated to include trip generation and impacts associated with adjacent commercial property owned by the applicant. This will undoubtedly affect levels of service and recommended mitigation improvements. The updated traffic study shall be submitted to the Engineering Division for review and comment prior to submittal of Phase 1 improvement plans. There may be additional Engineering Division requirements as a result of the updated traffic study.

9. The subdivision will have little or no detrimental effect on physical characteristics of the land such as flood plain, earthquake faults, slope, and soil.

A Conceptual Drainage Study was prepared by Western Engineering in April of 2008. The proposed drainage infrastructure to mitigate increase storm water runoff due to development will involve detention basins and underground infiltration systems.

This location of the proposed project is unique. The existing topography of the subject site slopes northeast toward the southeast. The site is covered by natural vegetation. The subject site is not located in a primary floodplain. A preliminary Geotechnical Investigation was completed by Pezonella Associates, Inc., Bruce R. Lee dated December 15, 2006.

The physical characteristics of the area do not preclude the development as proposed. No portion of the property lies within FEMA mapped 100 or 500 year floodplains. Site slopes are generally five percent or flatter. The site soils are conducive to the proposed development.

Per the geotech report prepared by Pezonella Associates, the native site soils have permeability of slow to very slow. Consequently, it is doubtful that underground infiltration as shown on the tentative map is a viable solution. Keep in mind that above ground detention ponds require significant land area, therefore total lot count may need to be reduced in order to accommodate storm ponds.

10. The recommendations of applicable State agencies and the School District have been incorporated into the conditions of approval.

The requirements of Nevada Division of Environmental Protection (NDEP) have been incorporated into this staff report on page 13. The applicant must comply with all State agency requirements prior to approval of the final subdivision map.

The School Transportation department will not be able to accommodate the projected additional student loads. This will require an additional bus for a one time expenditure of \$93,000.00 and reoccurring yearly cost of a driver at \$14,500.00.

- The projected bus stop location will be in the round-about at the proposed Village Drive and Ridge Drive.*
- The project is zoned for Freemont Elementary School (a year round schedule), Carson Middle School and Carson High School.*

11. Existing and/or proposed recreation and trail easements are adequate to serve the proposed development.

The East Ridge Village development will assist in the improving and expanding of the Carson City Trails Network as identified on the Carson City Unified Pathways Master Plan adopted March of 2006 by the Carson City Board of Supervisors.

East Ridge Village's trails and pathways have been designed to minimize vehicular conflicts that allow the user to enjoy Carson City's natural setting.

The applicant has also designed recreational amenities, such as meandering walking trail areas, play ground areas, with BBQ and picnic areas and an abundance of landscaping and natural terrain. The proposed trail system will provided connectivity throughout the site and to federal lands to the east.

12. All codes and regulations requirements of the Carson City Fire Department.


The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Homes Owners Association, Landscape Maintenance District or legal instrument acceptable to the City as long as the subdivision contains five or more habitable lots. The Fuels Management Plan shall include provisions for Defensible Space, Community Defense Zones, Defensible Fuel Profile Zone identification, fire lanes and fuel breaks, as required by the City. The final version of the plan shall be subject to review and approval by the Carson City Fire Department and Planning Division.

The applicant shall provide for and maintain two means of ingress/egress prior to construction. The map does not presently demonstrate the means or methods that will be used to connect East Ridge Drive to Flint Drive; this must be addressed before the final map.

The applicant shall be required to comply with all codes and ordinances regulated by the Fire Department.

Respectfully submitted,

PLANNING AND COMMUNITY DEVELOPMENT DIVISION


Jennifer Pruitt AICP, LEED AP
Senior Planner

Attachments

- Application (TSM-08-043)
- Engineering Division comments
- Carson City Fire Department comments
- Carson City Parks and Recreation comments
- Carson City Building Division
- Division of Environmental Protection comment
- Carson City School District comments

NRS 278.349 Action on tentative map by governing body; considerations in determining action on tentative map; final disposition.

3. The governing body, or planning commission if it is authorized to take final action on a tentative map, shall consider:

- (a) Environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal;

The residential project will hook up to Carson City's existing water and sewer systems, within the area of this project site. A utility plan and off-site improvements have been provided with the Tentative Subdivision Map Application.

- (b) The availability of water which meets applicable health standards and is sufficient in quantity for the reasonably foreseeable needs of the subdivision;

The developer and his engineer have meet with Carson City staff to plan out the availability of water for the development. Please refer to the Conceptual Review (CSM- 08-005) comments attached within this application.

- (c) The availability and accessibility of utilities;

The applicant has been in contact with Sierra Pacific and Southwest Gas and Verizon regarding the availability of utilities for the site.

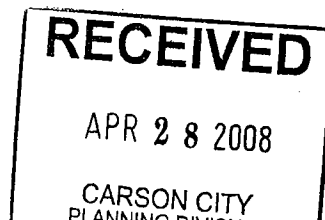
- (d) The availability and accessibility of public services such as schools, police protection, transportation, recreation and parks;

The developer has submitted for Conceptual Review of the project and public service comments have been provided. The developer will provide for these public services where applicable to the timing and development of the project. With regard to the school comments, as requested, a school bus stop location will be provided at the "Round About" location. The applicant will be working with Carson City Post Office for the exact location of the cluster mailboxes. These locations have been indicated on the Open Space Plan.

- (e) Conformity with the zoning ordinances and master plan, except that if any existing zoning ordinance is inconsistent with the master plan, the zoning ordinance takes precedence;

The project site has a Master Plan designation of Mixed Use Commercial (MUC) and a Zoning designation of Multi Family Apartments (MFA). The proposed Multi family apartments and townhouse units are consistent with this zoning and master plan designations.

TSM - 08 - 043



- (f) General conformity with the governing body's master plan of streets and highways;

As per the Master Plan the East Ridge Village is a connect city within Carson City. The project is made up of two primary entrances connecting to a major collector road. Off of this road are two secondary private roads that have branches of driveway accesses to the individual units and guest parking areas. This project site is located off of Hwy 50, a major improved road, maintained by NDOT. This project will also access Flint Road, A Carson City, paved road. Any improvements required by NDOT and Carson City for access into the project Site will conform to all City, State, and Federal Regulations for improvements and permitting.

- (g) The effect of the proposed subdivision on existing public streets and the need for new streets or highways to serve the subdivision;

All proposed public and private streets will be designed per Carson City Code. Any improvements within the NDOT right-of-way, specifically at Flint Drive and the improvements to the existing entrance off of Hwy 50 will also meet those standards and regulations as put forth by NDOT. A Traffic Report prepared by Solaegui Engineers has been provided with this application.

- (h) Physical characteristics of the land such as floodplain, slope and soil;

The project site is not located in a primary floodplain. Per FEMA the flood zone designation for this parcel is Zone C: areas located outside the 500-year floodplain. A Soils Report prepared by Pezonella Associates, Inc has been provided with this application that addresses earthquake faults, slope and soils.

- (i) The recommendations and comments of those entities and persons reviewing the tentative map pursuant to NRS 278.330 to 278.3485, inclusive; and

The entire project consisting of four parcels, was submitted to the Planning Division for a Conceptual Review meeting held on February 13, 2008. Comments were received from Carson City staff on February 25, 2008. (Please refer to the attached Conceptual Review - CSM - 08-005)

- (j) The availability and accessibility of fire protection, including, but not limited to, the availability and accessibility of water and services for the prevention and containment of fires, including fires in wild lands.

Comments from the Carson City Fire division were received with the Conceptual Review (CSM-08-005) The developer will adhere to those recommendations as development occurs on the site, through the improvement plan permitting process.

LET US LIGHT YOUR WAY

Sierra Pacific offers streetlighting service that applies to roadway lighting installations*. This service is available to our qualified Nevada and California customers.

Based on your needs, you can decide to own or you may have Sierra Pacific own the streetlights facilities. If you qualify for the utility-owned streetlighting, you can choose from our standard, or for an additional cost, the decorative series.

OWNERSHIP

The first decision is deciding whether to own the streetlight facilities, or to opt for the utility to own the streetlight service. The following provides some guidelines for your ownership decision.

CUSTOMER OWNED STREETLIGHTS

Sierra Pacific distribution service only:

- Open to all customers.
- Customer provided facilities.
- Operation and maintenance by the customer.
- Monthly billing at appropriate rate for the customer class.
- Metered service.
- Unlimited streetlight options within jurisdiction requirements.

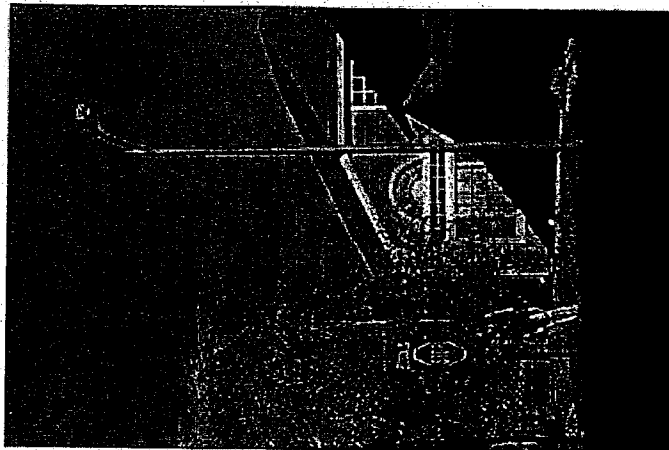
*Excludes highway and area lighting, such as parking lots or other general facility lighting.

SIERRA PACIFIC OWNED STREETLIGHTS

Utility service option by Sierra Pacific includes:

- Service open to qualifying customers that may include municipalities, contractors, developers, and some home owner associations. Check with your local Sierra Pacific Planning Representative for more details.
- All fixtures incorporate cut-off optics supporting the "Dark Skies" initiative.
- Design and installation by Sierra Pacific.
- Sierra Pacific operates and maintains the facility.
- Monthly billing provided.
- Unmetered service.
- Lighting services limited to utility's standard options.

STREETLIGHT SERVICE



STANDARD UTILITY OWNED STREETLIGHTS

The basic utility owned streetlight service utilizes the Cobra Head Series fixture. The Cobra Head Series fixture comes in several available wattages—100W, 200W and 400W. These utilize High Pressure Sodium (HPS) lamps on wood steel and concrete poles.

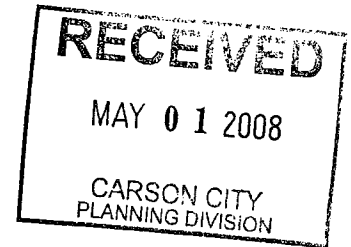




DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

901 S. Stewart Street, Suite 2002
Carson City, Nevada 89701
(775) 684-2800 • Fax (775) 684-2811
<http://water.nv.gov>

April 28, 2008



Subdivision Review No. 20619-T

To: Carson City
2621 Northgate Lane, Suite 62
Carson City, Nevada 89706

Name: East Ridge Village

County: U. S. Highway 50 and Flint Drive-Carson City

Location: SW ¼ SE¼ Section 36, Township 16 North, Range 20 East,
M.D.M.

Plat: Tentative map and review fee received April 23, 2008 for 115 lots.

**Owner/
Developer:** Eagletech Industrial Park, LLC
3891 Warren Way
Reno, Nevada 89509

Engineer: Western Engineering and Surveying
3032 Silver Sage Drive
Carson City, Nevada 89701

**Water
Supply:** Carson City Utilities (not designated)

Subdivision Review No. 20619-T

4/28/2008

Page Two

General: The tentative map does not indicate that the source of water is to be from Carson City Utilities. To date, no letter has been received by this office indicating that there is sufficient water for the subject subdivision.

Action: Recommend disapproval to water quantity as required by statutes for **East Ridge Village** based on water service by Carson City Utilities, until such time that written notification addressed to this office is received listing the water right permit(s) from the water purveyor with an indication that it has both sufficient uncommitted water rights and developed water source capacity to serve the proposed subdivision.

Best regards,

A handwritten signature in black ink, appearing to read "Thomas K. Gallagher, P.E.", with a stylized flourish at the end.

Thomas K. Gallagher, P.E.
Manager II, Water Rights Section Chief

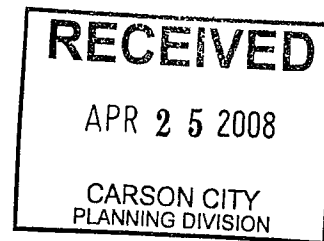
TKG/sem

cc: Division of Real Estate
Public Utilities Commission of Nevada
Eagletech Industrial Park, LLC
Western Engineering and Surveying
Carson City Utilities



JIM GIBBONS, Governor

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
District II
310 Galletti Way
Sparks, Nevada 89431
(775) 834-8300 FAX (775) 834-8390



SUSAN MARTINOVICH, P.E., Director

April 24, 2008

Carson City Community Development Dept.
2621 Northgate Lane, Suite 62
Carson City, Nevada 89706
Attention: Heidi Eskew-Herrmann

file # TSM-08-043
East Ridge Village Phase 1
US50 (7201 Hwy 50 East)

Dear Ms. Eskew-Herrmann:

Staff has reviewed the above-referenced application to construct a 31,000 sf addition to the existing State of Nevada Printing Facility building adjacent to SR520 (Stewart St) and SR513 (5th St). We have the following comments:

1. Prior to any grading adjacent to the Nevada Department of Transportation (NDOT) right-of-way, a Drainage Report, including a grading plan, and a Drainage Form must be submitted to the Permit office. A Drainage Information Form is attached. Please contact the Permit Office at (775) 834-8330 for more information.
2. NDOT will require an occupancy permit for any work performed within the State's right-of-way. Please contact the Permit Office at (775) 834-8330 for more information regarding the occupancy permit.
3. NDOT typically does not deny access to developments that have no alternatives for access; however, the Department requires the use of only legal, permitted accesses onto State roadways. All driveway accesses to the state highway system will be required to comply with the NDOT access management guidelines current at the time of application. Some applicants are required to provide cross access easements to adjacent parcels in order to provide adequate access for development while meeting the NDOT access management requirements. Public improvements, like turn lanes and medians, may be required to mitigate proposed access points. Applicant may be required to provide a Traffic Study to determine the impacts of any new driveways to the state highway system and any required mitigation strategies. A change or an increase in the function of the property served by an existing access or street may require a new right-of-way encroachment permit.
4. It appears the proposed development could have significant impact to US50. NDOT suggest considering any potential impact to traffic volumes and any required mitigation. Any required mitigation will require a permanent encroachment permit and appropriate coordination with NDOT District II staff, NDOT Headquarters Traffic staff, NDOT Headquarters Design staff, and FHWA Nevada Division staff.

Thank you for the opportunity to review this development proposal. The Department reserves the right to incorporate further changes and/or comments as the design review advances. We look forward to working with you and your team, and completing a successful project. Please feel free to contact Ms. Anita Lyday (NDOT District II Urban Traffic Engineer), if you have any further questions or comments. Ms. Lyday can be reached at (775) 834-8320.

Sincerely,

Thor A. Dyson, P.E.
District Engineer

TAD:MJF:art

cc: Dennis Taylor
Fred Droes
file

Janet Sue Reck
Mike Fuess

Jim Gallegos
Eric Glick

N:\TRAFFIC\Project Review 2008\Carson\East Ridge Village.doc

DECORATIVE UTILITY STREETLIGHTS

For an additional cost, you can choose among the following decorative fixtures and pole options. These lighting fixtures feature 100W, and 150W HPS lamps along with both steel and concrete poles.

BRACKET-MOUNTED FIXTURES

Candela Streetlight

- Contemporary pendulum design with sealed globe and decorative ring
- Black fixture; 150W lamp
- 17 foot square decorative concrete pole



Lantern Streetlight

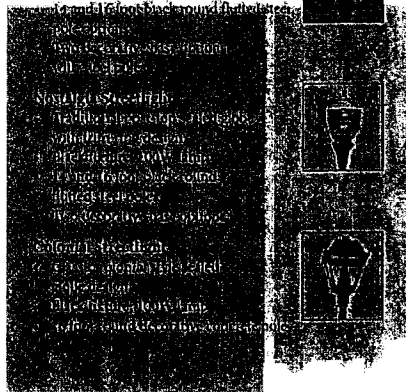
- Classic pendulum with sealed rectangular globe and decorative partitions
- Black fixture; 100W and 150W models
- 17 foot square decorative concrete pole



POLE-TOP MOUNTED FIXTURES

Acorn Streetlight

- Traditional post-top sealed globe
- Black fixture; 100W lamp
- 16 foot round decorative concrete pole



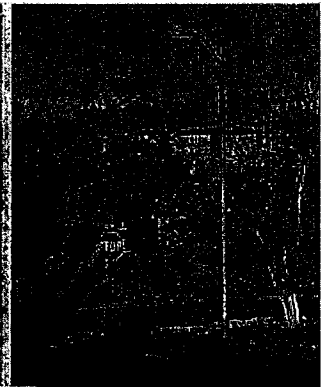
FOR MORE INFORMATION

CALL YOUR LOCAL SIERRA PACIFIC PLANNING REPRESENTATIVE

Truckee Meadows	(775) 834-1555
Carson City	(775) 834-2930
Tallon	(775) 423-5148
Yerington	(775) 463-2315
Winnemucca	(775) 623-3667
Fiko	(775) 738-3188
Lake Tahoe	(800) 782-2506

customer service

Roadway Lighting Solutions




Sierra Pacific
 sierrapacific.com
 6100 Neil Road
 Reno, NV 89520

SIERRA PACIFIC STREETLIGHT SERVICE

CARSON CITY SCHOOL DISTRICT
PROPOSED SUBDIVISION PLAN
IMPACT STATEMENT

SUBDIVISION East Ridge Village UNITS 201

NRS 278.349 - Availability of School Services:

This property, East Ridge Village, consists of 201 units. Our impact statement indicates the total number of children that this project generates and which schools are affected.

Transportation: The Transportation Department will not be able to accommodate the projected additional student loads. This will require an additional bus for a one time expenditure of \$93,000.00 and reoccurring yearly cost of a driver at \$14,500.00.

- A. The projected bus stop location will be in the round-about at Village Drive and Ridge Drive.
- A. The project is zone for Fremont Elementary School (a year round school schedule), Carson Middle School and Carson High School.

Staffing/Supplies/Other: As enrollment increases, funds for staffing, materials and other costs are made available through the State of Nevada per pupil funding allocations, 2007-08 allotment is approximately \$6,000 per pupil.

Elementary School (s): Fremont Elementary # Students 37

Middle School: Carson Middle School # Students 29

High School: Carson High School # Students 26

Discussion: Fremont Elementary School will be able to accommodate the students generated by this project. The middle school and high school are currently full and to accommodate these additional students will require increasing either the square footage of the facilities or by increasing the student teacher ratio.

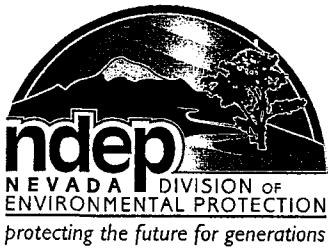
NRS 278.346 - Site Acquisition: Being reviewed by Master Plan Committee.


Michael A. Mitchell
Signature

Director of Operations
Title

February 8, 2008
Date

Q:\AOPERTNS\NEW DEVELOPMENTS\East Ridge Village Impact 2-8-08.doc



STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor
Allen Biaggi, Director
Leo M. Drozdoff, P.E., Administrator

April 24, 2008

Walter A. Sullivan, Director
Community Development Department Carson City
2621 Northgate Lane, Suite 62
Carson City, NV 89701



Re: East Ridge Village Tentative Subdivision Map – 115 Lots in Carson City

Dear Mr. Sullivan:

The Nevada Division of Environmental Protection (“NDEP”) has reviewed the above referenced map for the conditions of water pollution control, sewage disposal, water quality and water supply facilities. Based on this review, NDEP recommends approval of said subdivision with respect to water pollution control, sewage disposal, water quality and water supply facilities. This approval is predicated upon plans for community water supply and wastewater service to the referenced subdivision.

Please be advised that inclusion under NDEP’s Construction Stormwater General Permit is also required for any project involving land disturbances of one or more acres. If the above referenced subdivision falls into this category, a stormwater authorization letter must be obtained from NDEP prior to commencement of land-disturbing activities at the site. To apply for permit coverage, a Notice of Intent must be submitted along with a \$200 filing fee. For further details regarding this requirement, please contact me at 775-687-9429 or visit our website at the following address:

<http://ndep.nv.gov/bwpc/ConstructionNOI/signin.aspx>

If you have any questions concerning this letter, please give me a call at 775-687-9429.

Sincerely,

Steve McGoff, P.E.
Staff Engineer III
Technical Services Branch
Bureau of Water Pollution Control

cc: Cliff Lawson, P.E., NDEP
Tammy Kinsley, Western Engineering
Steven Ryckebosch, EagleTech Industrial Park, LLC, 3891 Warren Way, Reno, NV 89509

S8699EastRidgeVillage_CCTMAApprovalApril2008.doc





CARSON CITY, NEVADA

CONSOLIDATED MUNICIPALITY AND STATE CAPITAL

MEMORANDUM



TO: Lee Plemel, Planning Director
Heidi Eskew-Herrmann, Assistant Planner
Jennifer Pruitt, Senior Planner (Hardcopy and Email)

FROM: Roger Moellendorf, Parks & Recreation Director

DATE: May 12, 2008

SUBJECT: Tentative Subdivision Map comments for the May 28, 2008, Planning Commission Meeting

The following are comments from the Parks and Recreation Department on the below Tentative Subdivision Map.

TSM-08-043	<ol style="list-style-type: none">1. Based on our experience when we considered relocating the Fairgrounds to Flint Drive, trying to make a left turn out of the development to head west into Carson City is extremely difficult. Our department is assuming a traffic study will be required. This issue was certainly a concern when the city was looking to relocate the Fairgrounds to Flint Drive.2. Our department recommends all walking trails within the development should be constructed to AASHTO and ADA design standards. In the future the City may want to connect public trails to the development's internal trail system.3. The site is located in close proximity to the V&T railroad project corridor.4. The site is adjacent to lands presently under the ownership of BLM. Through the Federal Lands Bill, lands to the east and south will be used for economic development.5. The Unified Pathways Master Plan call for an Equestrian Trailhead area in close proximity to the site.6. The closest park facilities to the proposed project site is JohnD Winters Centennial Park complex and Pony Express Airpark.7. It is anticipated this project will contribute to the City's Residential Construction Tax fund based on approximately \$1,000 per unit.8. All recreation and open space requirements of the proposed development will <u>NOT</u> be maintained by the Carson City Parks and Recreation Department.9. The proposed development should consider the use of fencing to delineate private land vs. public land ownership.10. Comprehensive Master Plan - Are there any V&T Specific Plan Area issues that need to be addressed as a part of the development?11. Can East Ridge Drive be used as a public road access to a future trailhead?12. Our department would recommend all sidewalks on both side of streets need to provide access to public lands.
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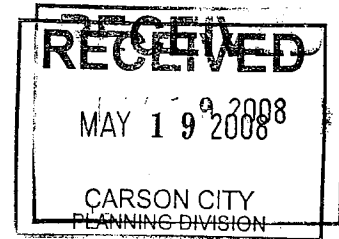
File # (Ex: MPR #07-111)	<i>TSM 08-043</i>
Brief Description	<i>Create parcels for residential & comm'l</i>
Project Address or APN	<i>008-011-88, -89, -90, -91</i>
Bldg Div Plans Examiner	<i>Kevin Gattis</i>
Review Date	<i>May 5, 2008</i>
Total Spent on Review	<i>1.5 hours</i>


BUILDING DIVISION COMMENTS:

1. The demolition of any building or structure, as a part of this project will require a permit issued through the Carson City Building Division
2. As a part of the Tentative Map submittal, provide three (03) copies of the Geotechnical Report with seismic analysis. The Geotechnical Report for the proposed location shall include a complete assessment of the potential consequences of any liquefaction and soil strength loss, including estimation of differential settlement, lateral movement or reduction in foundation soil-bearing capacity, and shall address mitigation measures. ((CCMC 17.05.030 #12 and '06 IBC 1802.2.7 #2) In addition, the Geotechnical Report shall address sub-soil drainage per 2007 Northern Nevada Amendments, Section 1101.5.
3. The plan submittals for the future dwellings (Townhouses) shall comply with the Carson City Building Division handout titled: *RESIDENTIAL PLAN SUBMITTAL REQUIREMENTS: One & Two Family Dwellings and Accessory Structures*
4. The separation requirements between individual units shall comply with the prescriptive requirements of either the International Building Code or the International Residential Code, as applicable.
5. The apartment and commercial buildings shall comply with the accessibility requirements of the current adopted versions of the International Building Code, and ICC/ANSI A117.1.
6. The submittal shall clearly show the distance between proposed structures at wall lines and roof lines (sides and rear of structures).



MEMORANDUM



DATE: May 19, 2008
TO: Jennifer Pruitt – Planning Division
FROM:  Jeff Sharp – Engineering Division
RE: TSM 08-043 East Ridge Village Tentative Subdivision
Engineering Text for Planning Commission Staff Report

The following text is offered for inclusion in the Planning Commission staff report for the above referenced land use proposal:

GENERAL: The Engineering Division has considered the elements of NRS 278.349, the Carson City Municipal Code and the Carson City Development Standards in its review of the tentative map described above.

This recommendation for 'approval with conditions' from the Engineering Division is based on conceptual level analysis that indicates the development as proposed currently meets or will meet with concurrent improvements, prior to final map approval, Nevada Revised Statutes, the Carson City Municipal Code and the Carson City Development Standards. With the request for final approval of any and all phases, detailed engineering analyses addressing the following issues and recommending system improvements shall be submitted to the Engineering Division.

FINDINGS: The Conceptual Findings by the Engineering Division are:

(a) *Environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal;*

The development is required to comply with all applicable environmental and health laws concerning water and air pollution and disposal of solid waste. The development will be served by the Carson City Community Water System and the Carson City Wastewater Collection System.

(b) *The availability of water which meets applicable health standards and is sufficient in quantity for the reasonably foreseeable needs of the subdivision;*

Water supplied to the development will meet applicable health standards. Carson City's water supply capability will not be exceeded by final approval of this development.

(c) The availability and accessibility of utilities;

The applicant has been in contact with Sierra Pacific Power Company, Southwest Gas and Verizon regarding the availability of utilities for the site.

(d) General conformity with the governing body's master plan of streets and highways;

Access to the site will be from Flint Drive and Highway 50 East. Roadway improvements on and off site will be built to City standards, consistent with the Carson City Transportation Plan.

(e) The effect of the proposed subdivision on existing public streets and the need for new streets or highways to serve the subdivision;

A traffic study has been prepared for the project to quantify the potential impacts to public streets. The study includes several recommendations for roadway improvements to mitigate the impacts. One measure includes providing a traffic signal at the intersection of Flint Drive and Highway 50 East. The proposed roadway improvements as shown on the tentative map along with the Engineering Division recommended conditions of approval should ensure minimal impacts to existing public streets.

(f) Physical characteristics of the land such as floodplain, slope and soil.

The physical characteristics of the area do not preclude the development as proposed. No portion of the property lies within FEMA mapped 100 or 500 year floodplains. Site slopes are generally 5 percent or flatter. The site soils are conducive to the proposed development.

RECOMMENDATION: If the tentative map is approved, the Engineering Division has the following recommended conditions of approval for the project:

A. Conditions to be included in the Design of the Improvement Plans:

1. Final improvement plans for the development shall be prepared in accordance with Carson City Development Standards (CCDS) Division 19 and the Standard Specifications and Details for Public Works Construction (Orange Book), as adopted by Carson City.
2. The applicant shall obtain a dust control and stormwater pollution prevention permit from the Nevada Division of Environmental Protection (NDEP). The site grading must incorporate proper dust control and erosion control measures.
3. In accordance with CCDS 12.10 and 12.11.10, pavement sections shall be based on subgrade strength values determined by Resistance (R) Value or California Bearing Ratio (CBR) as shown in the Soils Engineering Report. Refer to CCDS Division 17 for soils report requirements. In no case shall the proposed pavement section be less than the minimum section prescribed in Carson City standard detail C-1.11.
4. Storm drainage facility improvements shall be designed in accordance with CCDS Division 14. A Technical Drainage Study is required with submittal of Improvement Plans in accordance with CCDS 14.9 through 14.10.

5. Water mains shall be analyzed in accordance with CCDS 15.3.1 to determine system capability to provide adequate flows and pressures. This analysis shall be prepared by a qualified Nevada Civil Engineer.
6. Sewer mains shall be analyzed in accordance with CCDS 15.3.2 to determine system capability to provide capacity for the ultimate tributary population. This analysis shall be prepared by a qualified Nevada Civil Engineer.
7. Lighting shall be provided along all streets in accordance with CCDS 12.14.
8. The water main shall be extended to the Pick-N-Pull property boundary. The alignment shall parallel the sewer main as shown on the tentative map.
9. The use of underground stormwater infiltration will require additional soils analysis and percolation tests. The geotech report identified existing site soils to have slow to very slow permeability, likely making infiltration unviable for the project.
- ✓ 10. The traffic study must be updated to include trip generation and impacts associated with adjacent commercial property owned by the applicant. This will undoubtedly affect levels of service and recommended mitigation improvements. The updated traffic study shall be submitted to the Engineering Division for review and comment prior to submittal of Phase 1 improvement plans. There may be additional Engineering Division requirements as a result of the updated traffic study.
11. The final design shall include "NO PARKING" along Flint Drive, East Ridge Drive or Valley Drive.
12. East Ridge Drive shall be designed as a 3-lane collector with bike lanes from Flint Drive to Valley Drive and from Valley Drive to a point east of the joint commercial driveway for APN 08-011-89 and 08-011-90. The lane configuration will consist of a travel lane in each direction and a two-way left turn lane down the center. The bike lanes should be extended all the way to the cul-de-sac. The proposed right of way width shall be increased to 60 feet east of Valley Drive to accommodate this section. The required curb to curb pavement width is 46 feet per Carson City standard detail C1.11.
13. Flint Drive roadway cross section was not included with the tentative map. The design of Flint Drive shall be coordinated with City Public Works and Engineering Division staff as well as with NDOT. The final design may be different than what is conceptually shown on the tentative map.
14. Phase 1 development shall include a 20 foot wide paved emergency access road from the east end of Brookhaven Court to connect with the cul-de-sac at the end of East Ridge Drive.
- ✓ 15. The right of way for East Ridge Drive shall be extended to the eastern boundary of the site in order to allow future access to APN 08-011-19. The minimum right of way width shall be 60 feet.

B. Improvements to be Completed Prior to Recording any Final Maps

Certain minimum improvements must be built or bonded for prior to recordation of any final

map for the development. These improvements are outlined as follows:

1. Water and sewer mains must be extended all the way through the subject property and through adjacent commercial property owned by the applicant to the southwest corner of the Pick-N-Pull property. Final line and grade for the water and sewer main extensions is subject to approval by Carson City Public Works and Development Services Engineer Division staff.
2. The traffic signal and associated channelization improvements must be constructed at the intersection of Flint Drive and Highway 50 East as approved by Carson City and the Nevada Department of Transportation (NDOT).
3. Flint Drive must be improved from Highway 50 East to approximately 800 feet south as shown on the tentative map and as approved by Carson City and NDOT.
4. East Ridge Drive must be constructed from Flint Drive to the northeast corner of the subject property, ending in a cul-de-sac as shown on the tentative map.
5. Valley Drive must be constructed from East Ridge Drive to intersection with Highway 50 East as shown on the tentative map and as approved by Carson City and NDOT.

C. General Conditions

1. Prior to the recordation of the final map for any phase of the project, the improvements associated with said phase must either be constructed and approved by the City, or the specific performance of said work secured by providing the City with a proper surety in the amount of one hundred fifty percent (150 %) of the engineer's estimate. In either case, upon acceptance of the improvements by the City, the developer shall provide the City with a proper surety in the amount of ten percent (10 %) of the engineer's estimate to secure the Developers obligation to repair defects in workmanship and materials which may appear in the work within one year of acceptance by the City.

DISCUSSION BULLETS: The following discussion is offered within Engineering Division areas of purview relative to the proposed Tentative Map:

- The traffic study prepared by Solaegui Engineers dated 2/19/08 failed to consider traffic generated by adjacent commercial property owned by the applicant. Consequently the results and recommendations (levels of service, turn lanes, queing lengths, roadway widths, signalization, etc.) may be unrealistic.
- The traffic study included a vague recommendation to construct a traffic signal at the Flint Drive and Highway 50 East intersection "when warranted". No discussion was provided as to when the traffic engineer thought that the signal might be warranted. However, it was identified in the study that the intersection currently functions at level of service "F" (greater than 80 second delay) during the PM peak. Obviously the level of service will get much worse with the proposed residential development and with any

commercial development on adjacent property owned by the applicant. Consequently, it is Engineering Division recommendation to require the developer to construct the traffic signal prior to recording any final maps for the development.

- Per the geotech report prepared by Pezonella Associates, the native site soils have permeability of slow to very slow. Consequently, it is doubtful that underground infiltration as shown on the tentative map is a viable solution. Keep in mind that above ground detention ponds require significant land area, therefore total lot count may need to be reduced in order to accommodate storm ponds.
- The tentative map showed extending the sewer main to the boundary of the Pick-N-Pull property, but failed to shown extending the water main to the same point. Both water and sewer must be extended to Pick-N-Pull prior to recording of any final maps.

H:\EngDept\P&ESHARE\Engineering\Planning Commission Reports\Tentative Map\TSM 08-043 East Ridge Village - Engineering.doc

**K D PROPERTIES
1345 AIRMOTIVE WAY
RENO, NEVADA 89502**



May 12, 2008

**RE: TSM-08-043
Parcel # 008-011-91
Carson City Planning Division
2621 Northgate Lane Suite 62
Carson City, Nevada 89706**

Dear Planning Commissioners;

We would like this letter to be read at the planning commission meeting.

We have no objection to the above tentative subdivision map amendment.

Our property is located directly north of the subject parcel. We have an auto wrecking yard which has been on our parcel since 2001. This auto wrecking yard is above grade and very visible from the parcel requesting this amendment. We want the owners of this property to be aware of this industrial use as they proceed with this process.

Thanks

A handwritten signature in cursive script, appearing to read "Dick Mills".

**Dick Mills
Partner**

East Ridge Village

INFORMATION BOOKLET IN SUPPORT OF A TENTATIVE SUBDIVISION MAP APPLICATION

TSM - 08 - 043

RECEIVED

JUN 09 2008

CARSON CITY
PLANNING DIVISION



East Ridge Village

OWNER:

**EAGLETECH INDUSTRIAL PARK, LLC
MR. STEVEN V. RYCKEBOSCH
3891 WARREN WAY, RENO, NV 89509**

APPLICANT:

**THE RYCKEBOSCH COMPANIES
MR. STEVEN V. RYCKEBOSCH
3891 WARREN WAY, RENO, NV 89509**

ENGINEER/REPRESENTATIVE:

**WESTERN ENGINEERING & SURVEYING SERVICES
3032 SILVER SAGE DRIVE, CARSON CITY, NV 89701
MR. DENNIS SMITH, P.E. &
MR. DAVID WINCHELL, P.L.S.**



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April 11, 2008

Mr. Walter Sullivan, AICP
Planning Director
Carson City Planning Division
2621 Northgate Lane, Suite 62
Carson City, Nevada 89706

**Re: Application - Tentative Subdivision Map for the Residential Portion of the East Ridge Village Conceptual Review – CSM-08-005
APN 008-011-91; Located at 7201 Hwy 50, Carson City, Nevada**

Dear Mr. Sullivan;

Please accept this correspondence and application materials as a formal submittal of the East Ridge Village residential tentative subdivision map. The residential portion of the original conceptual map project consists of one parcel located on the east side of U.S. Highway 50, just south of the county line between Lyon County and Carson City, at 7201 Hwy 50, Carson City, Nevada. The Assessor's parcel number for the one project parcel is 008-011-91. This parcel site consists of 17.56 acres. The project site has a Master Plan designation of Mixed Use Commercial (MUC) and a Zoning designation of Multi Family Apartments (MFA). The developer, Steven V. Ryckebosch, is proposing 115 lots with this tentative subdivision map application. Lot one will be a multi family apartment development. Lot two will be the open space, common area parcel, for the Townhouse units of Lot three through lot 115. The proposed townhouses will be individual lots, as the developer intends to sell them as individual townhouse units.

This residential tentative subdivision map is part of a project consisting of four parcels. The entire four parcel project was submitted to the Planning Division for a Conceptual Review (CSM-08-005) meeting held on February 13, 2008. Comments were received from Carson City staff on February 25, 2008. Based on these comments, please find the enclosed Tentative Subdivision Map application and required findings for review and approval.

The project site has a master plan designation of Mixed-Use Commercial. Therefore it is necessary to evaluate the project based on the Master Plan and Appendix C: Interim Mixed-Use Evaluation Criteria of the Master Plan. In addition to justifying the project to the master plan and zoning designation of MFA, the tentative subdivision map findings will be addressed along with the project complying with NRS.278.349 (3) for a subdivision map and the criteria of a Common Open Space Development. Also, because of the specific location of the project site, it is necessary to evaluate the applicable policies of the Master Plan (Chapter 8) specifically, that of Eastern Portal – Virginia & Truckee Railroad Gateway Specific Plan Area (V&T –SPA).

The master plan states parcels with the MUC land use designation should incorporate a variety of uses, having the recommended proportions of commercial, retail, office uses with a combination of high-density residential. At this time the developer is proposing a residential tentative subdivision map creating 115 lots, consisting of a defined area for owner occupied town homes and a defined area for rental apartments. The applicant has taken the time to review City Code and provided recreational amenities, such as meandering walking trail paths, swimming pool and recreation buildings. Play ground areas, with barbecue and picnic areas. An abundance of landscaping and natural vegetation has also been designed into this residential area, to take advantage of the natural terrain and hillside environment. The residential units are proposed at two, three, and four story units that will not exceed the allowable maximum height of 45-feet.

The goal of this mixed use residential portion of the conceptual map is to provide the opportunity of high-density residential lots to the commuters and residents along this corridor of Hwy 50, the gateway between Carson City and Lyon County.

HISTORY OF THE SITE:

Prior to 2005, the previous owner utilized the site with industrial uses and residential manufactured homes. Also a private airport with landing strip was located on this site. The site at that time was zoned General Industrial and Mobile Home One Acre.

In 2005 the properties were purchased by Eagle Tech Industrial Park, LLC; c/o Steven V. Ryckebosch, Managing Member.

May 3, 2007 a Record of Survey for a Boundary Line Adjustment (Doc. # 367441) was recorded, adjusting four parcels accordingly, in anticipation of this proposed project.

June 27, 2007 a Zoning Map Amendment (ZMA 07-077) went before the Planning Commission to change the zoning from General Industrial (GI) and Mobile Home One Acre (MH1A) to General Commercial (GC) and Multi-Family Apartments (MFA). The Planning Commission made a recommendation to the Board of Supervisors to approve the amendment.

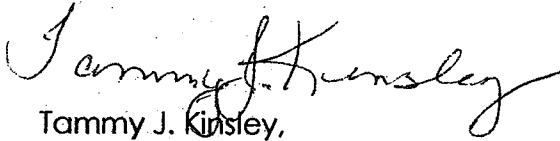
July 19, 2007 The Board of Supervisors heard the first reading of the Ordinance.

August 2, 2007 The Board of Supervisors heard the second reading of the Ordinance, adopting Bill No. 118, changing the zoning of APNs 008-011-88, -89, and -90 from General Industrial (GI) and Mobile Home One Acre (MH1A) to General Commercial (GC) and change the zoning of APN 008-011-91 from General Industrial (GI) and Mobile Home One Acre (MH1A) to Multi-Family Apartment (MFA).

The entire project consisting of four parcels, was submitted to the Planning Division for a Conceptual Review meeting held on February 13, 2008. Comments were received from Carson City staff on February 25, 2008. *(Please refer to the attached Conceptual Review - CSM - 08-005)*

We look forward to working with you and Carson City on this project. If there is more information required for this Tentative Subdivision Map application, please contact me directly at (775) 884 - 3200. Thank you for your time and consideration of this application.

Sincerely,



Tammy J. Kinsley,
Project Manager

Encl: Information Booklet
Tentative Subdivision Map sheets 1 - 9

cc: Mr. Steven V. Ryckebosch
File 05-378



Carson City Planning Division

2621 Northgate Lane, Suite 62

Carson City, Nevada 89706

(775) 887-2180

Plandiv@ci.carson-city.nv.us

www.carson-city.nv.us

February 25, 2008

Tammy Kinsley
Western Engineering
3032 Silver Sage Drive
Carson City, NV 89701

SUBJECT: Conceptual Review- CSM-08-005
East Ridge Village

REVIEW DATE: February, 13, 2008

SITE INFORMATION:

APN(s): 008-011-88, -89, -90 and -91

Parcel Size: 37.31 acres

Master Plan Designation: Mixed Use Commercial (MUC)

Zoning: General Commercial/ Multi Family Apartment (GC/MFA)

The following is a summary of the comments provided from City Staff at the Conceptual Review meeting held on February 13, 2008 regarding East Ridge Village.

PLANNING DIVISION- Contact Jennifer Pruitt, 887-2180 ext. 1007

1. The project is well designed with quality architecture and good pedestrian circulation. The orientation of front porches towards the street and garages at the rear is very good. Guest parking within the town home area is well dispersed and broken into smaller lots.
2. The Master Plan Land Use Map designation for the subject parcel is Mixed-Use Commercial. The applicant will need to address the Mixed-Use Evaluation Criteria of the Master Plan Appendix C as part of the tentative map submittal. Note that the rezoning of the entire property to MFA and GC was considered pursuant to these criteria, but it should be addressed with subdivision.
3. The property is located within the "Eastern Portal/V&T Railroad Gateway" Specific Plan Area (SPA) per the Master Plan (Chapter 8). The applicant should address applicable policies in the SPA with the tentative map application. Primarily, Policy V&T SPA-1.1 states that design standards should protect the scenic quality and experience of the V&T Railroad corridor, which runs approximately 700-800 feet east of the subject parcel. The site will be prominently visible from the proposed V&T Railroad alignment. The architecture for the proposed town homes shows a nice four-sided design with no

"blank" sides. Similar architectural treatments should be used for the multi-family apartment portion of the project, as well.

4. The applicant should note that while the adjoining property to the east and south of the subject parcel is currently BLM land, it is anticipated that this property will be disposed of in the future for development, which may include residential and/or commercial uses. The impacts of future development at the perimeter of the project site are not known at this time. A disclosure to residents of potential for future development on adjacent properties may be warranted.

5. The pedestrian connections in and around the project site are generally very good, but the applicant may consider better connectivity between the apartment and town home portions of the project. The two halves of the project appear to be fenced off, segregating the "renters" from the "owners." I would suggest that some pedestrian connections should be made internally for a more integrated project of mixed housing types pursuant to the Master Plan and the site's Mixed-Use Commercial designation. If there is parking management and amenity use issues that the developer is concerned about, perhaps there are other ways to manage the issues without completely cutting off access.

6. Engineering may address these access issues specifically, but the following may be considered:

- A. "East Ridge Drive" needs to connect to Flint Drive with this project to allow residents to make the left turn onto west-bound Highway 50. This also provides secondary emergency access.
- B. A traffic study should include future commercial development potential to determine if the proposed East Ridge Drive right-of-way of 50 feet is adequate, as well as other road and intersection improvements.

Additionally, the applicant notes that storage units may be considered in the northeast portion of the overall project site, north of the proposed residential area. While this is permitted in the GC zoning district on that portion of the property, the follow should be considered:

1.7. Personal storage facilities are subject to the Development Standards Division 1.10, which includes the provision that architecture and site design are subject to the Director's approval. To be consistent with the Master Plan and the V&T SPA specifically, special attention needs to be given to the architecture and/or screening of any storage units, with special attention given to the view from the V&T Railroad alignment. Architectural elements of adjacent commercial or residential development should be incorporated into the storage unit design (although alternative design themes may be considered).

- 7. Sierra Pacific Power Company offers decorative roadway lighting solutions. These lighting solutions feature 100W and 150W High Pressure Sodium lamps along with both steel and concrete poles. Please address street light treatments with the Tentative Map submittal.
- 8. Provide cluster mail box locations for the Tentative Map submittal. Staff is aware that the proper location of cluster mail box locations and adequate stacking is a must to mitigate pedestrian/vehicular conflicts resulting from improper placement of cluster boxes.

9. The appropriate design for fencing should be determined by its intended function and its location. A fence design should enhance the overall visual presentation of the proposed structures. A fence should also contribute to the character and defining features of any building in a positive manner. Please provide fencing alternatives for the individual units, the multi family apartment portion and perimeter fencing if proposed.
10. Provide possible bus stop bus stop location(s). See attached comments from the Carson City School District.
11. Provide photo simulations from at least two points are required to be submitted as part of the Tentative Map submittal.
12. Provide at least two site sections of the proposed project as part of the Tentative Map submittal.
13. A detailed phasing plan must be provided with the Tentative Map submittal.
14. As part of the Tentative Map submittal please address the criteria noted in CCMC 17.09 Planned Unit Developments. From the discussion at the Conceptual Review, the applicant is interested in the submittal of a Planned Unit Development application for either a portion or the entire subject site at this time.

BUILDING DIVISION- Contact Don Wilkins, 887-2310 ext 1303

1. The demolition of any building or structure, as a part of this project will require a permit issued through the Carson City Building Division
2. As a part of the Tentative Map submittal, provide three (03) copies of the Geotechnical Report with seismic analysis. The Geotechnical Report for the proposed location shall include a complete assessment of the potential consequences of any liquefaction and soil strength loss, including estimation of differential settlement, lateral movement or reduction in foundation soil-bearing capacity, and shall address mitigation measures. ((CCMC 17.05.030 #12 and '06 IBC 1802.2.7 #2)
3. The plan submittals for the future dwellings (Townhouses) shall comply with the Carson City Building Division handout titled: *RESIDENTIAL PLAN SUBMITTAL REQUIREMENTS: One & Two Family Dwellings and Accessory Structures*
4. The separation requirements between individual units shall comply with the prescriptive requirements of either the International Building Code or the International Residential Code, as applicable.
5. The apartment and commercial buildings shall comply with the accessibility requirements of the current adopted versions of the International Building Code, and ICC/ANSI A117.1.

NOTE: These comments do not constitute a complete plan review, but are merely observations based on the information provided.

ENGINEERING DIVISION - Contact Jeff Sharp, 887-2300 ext 1202

This Division has reviewed the conceptual map application for the above referenced project and offers the following comments to assist in preparation of the tentative map.

1. Provide preliminary roadway profiles and cross sections for East Ridge Drive.

2. Provide a permanent cul-de-sac with minimum 45-foot paved radius at the terminus of East Ridge Drive.
3. Provide preliminary roadway plan, profile and cross sections for the extension of East Ridge Drive between Flint Drive and the site boundary.
4. Since the private access road between Brookhaven and East Ridge will be used for primary fire apparatus, the west end should have radius-type curb returns at the intersection with Brookhaven. This access road should also be named at the direction of the Fire Chief.
5. A traffic study is required at the tentative map submittal. The content should be in accordance with Carson City Development Standards (CCDS) 12.13.
6. A conceptual drainage study is required at the tentative map submittal in accordance with CCDS Division 14.
7. Provide conceptual plans for on and off-site water and sewer main extensions. A meeting with Engineering Public Works Utilities staff is highly recommended prior to submitting for tentative map in order to finalize acceptable water and sewer alignments. One of the primary goals is to ensure that water and sewer mains can be readily extended along Highway 50 further to the east without the City having to obtain easements from the owner of the adjacent Pick-N-Pull site.

This completes the list of Engineering Division comments.

FIRE DEPARTMENT - Contact Stacey Giomi, 887-2210 ext 1001

Fire Department Comments relative to the East Ridge Village conceptual map:

1. The applicant shall retain a qualified consultant to prepare a Fuel Management Plan and must submit the plan prior to final map approval. Enforcement of the Fuel Management Plan shall be required of the Homes Owners Association, LMD or legal instrument acceptable to the City as long as the subdivision contains 5 or more habitable lots. The Fuels Management Plan shall include provisions for Defensible Space, Community Defense Zones, Defensible Fuel Profile Zone identification, fire lanes and fuel breaks, as required by the City. The final version of the plan shall be subject to review and approval by the Carson City Fire Department and Planning Division.
2. The applicant shall provide for and maintain two means of ingress/egress prior to construction. The map does not presently demonstrate the means or methods that will be used to connect East Ridge Drive to Flint Drive, this must be addressed before the final map.
3. The applicant shall be required to comply with all codes and ordinances regulated by this department.

HEALTH DEPARTMENT - Contact Teresa Hayes, 887-2190 ext 1024

- No comments regarding this project.

PARKS AND RECREATION- Contact Vern Krahn, 887-2262 ext. 1006

1. It will be "interesting" trying to make a left turn out of the development to head west into Carson City. Our department is assuming a traffic study will be required. This issue was certainly a concern when the city was looking to relocate the Fairgrounds to Flint Drive.
2. Our department recommends all walking trails within the development should be constructed to ASHTO and ADA design standards. In the future the City may want to connect public trails to the development's internal trail system.
3. The site is located in close proximity to the V&T railroad project corridor.
4. The site is adjacent to lands presently under the ownership of BLM, which have been the subject of a transfer in ownership to Carson City through the Federal Lands Bill. Once in Carson City ownership, the lands will be used for open space, trails, and public facilities.
5. The Unified Pathways Master Plan call for an Equestrian Trailhead area in close proximity to the site.
6. The closest park facilities to the proposed project site is John D Winters Centennial Park complex and Pony Express Airpark.
7. It is anticipated this project will contribute to the City's Residential Construction Tax fund based on approximately \$1,000 per unit.
8. All recreation and open space requirements of the proposed development will **NOT** be maintained by the Carson City Parks and Recreation Department.
9. The proposed development should consider the use of fencing to delineated private land vs. public land ownership.
10. Comprehensive Master Plan - Are there any V&T Specific Plan Area issues that need to be addressed as a part of the development?
11. Can East Ridge Drive be used as a public road access to a future trailhead?
12. Our department would recommend all sidewalks on both side of streets need to provide access to public lands.

Please be advised that the comments presented in this letter may not include all the requirements or conditions which may be placed on the project at the time of final review by the Planning Commission and Board of Supervisors.

Thank you for your cooperation and willingness to work with City staff regarding this matter. It appears that this will be an innovative addition to Carson City and I look forward to working with you on the development process. If you have further questions, please contact the Planning Division at your earliest convenience at (775) 887-2180.

Sincerely,
DEVELOPMENT SERVICE, PLANNING DIVISION

Jennifer Pruitt

Jennifer Pruitt, AICP, LEED AP
Senior Planner

/JP

cc: Walter A. Sullivan, Planning Division
Jeff Sharp, Engineering Division
Vern Krahn, Park Planner, Parks and Recreation
Juan Guzman, Parks and Recreation
Stacey Giomi, Fire Department
Don Wilkins, Building Division
Teresa Hayes, Health and Human Services

CARSON CITY SCHOOL DISTRICT

PROPOSED SUBDIVISION PLAN
IMPACT STATEMENT

SUBDIVISION East Ridge Village UNITS 201

NRS 278.349 - Availability of School Services:

This property, East Ridge Village, consists of 201 units. Our impact statement indicates the total number of children that this project generates and which schools are affected.

Transportation: The Transportation Department will not be able to accommodate the projected additional student loads. This will require an additional bus for a one time expenditure of \$93,000.00 and reoccurring yearly cost of a driver at \$14,500.00.

- A. The projected bus stop location will be in the round-about at Village Drive and Ridge Drive.
- A. The project is zone for Fremont Elementary School (a year round school schedule), Carson Middle School and Carson High School.

Staffing/Supplies/Other: As enrollment increases, funds for staffing, materials and other costs are made available through the State of Nevada per pupil funding allocations, 2007-08 allotment is approximately \$6,000 per pupil.

<u>Elementary School</u> (s): Fremont Elementary	# Students <u>37</u>
<u>Middle School</u> : Carson Middle School	# Students <u>29</u>
<u>High School</u> : Carson High School	# Students <u>26</u>

Discussion: Fremont Elementary School will be able to accommodate the students generated by this project. The middle school and high school are currently full and to accommodate these additional students will require increasing either the square footage of the facilities or by increasing the student teacher ratio.

NRS 278.346 - Site Acquisition: Being reviewed by Master Plan Committee.



Michael A. Mitchell
Signature

Director of Operations

Title

February 8, 2008

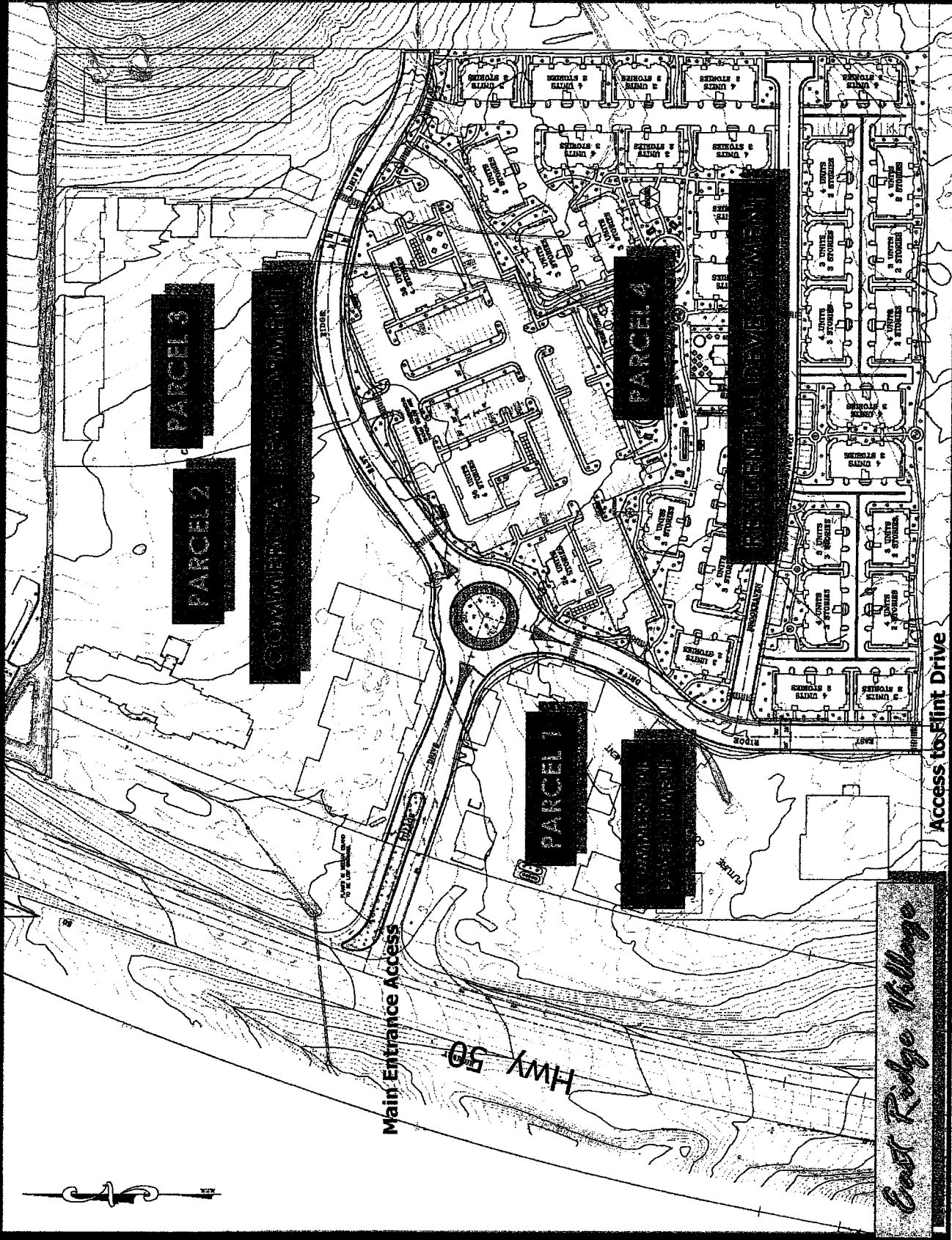
Date

CSM-08-005 East Ridge Village

Sign-in Log

February 13, 2008

NAME	DEPT./AGENCY	PHONE NUMBER	EMAIL ADDRESS
Don Wilkins	Bulldog Dr.	887-2810	Dwilkins@ci.carson-city.nv.us
STACEY GIOMI	FIRE	887-2210	SGiomi@ci.carson-city.nv.us
DENNIS SMITH	WESTERN BNK.	884-3200	DSMITH@WESTERNBANKING.US
TAMMY KINKLEY	WESTERN BNK	884-3200	TKINKLEY@WESTERNBANKING.US
Jill Sharp	CC DS. / Engineering	887-2305 x1202	jsharp@ci.carson-city.nv.us
SHARON FOLEY	PLANNING	884-2180	Sfoley@ci.carson-city.nv.us
WALTER SULLIVAN	PLANNING	887-2180	" " " "
STEVE RICKERBOSCH	OWNER	690-7978	STUE@TRCHOMES.LLC.COM
VERN KRABHORN	PARK & Rec.	887-2118	



Main Entrance Access

HWY 50

Access to Flint Drive

PARCEL 3

PARCEL 2

COMMERCIAL DEVELOPMENT

PARCEL 4

PARCEL 1

East Ridge Village

CONCEPTUAL LAYOUT OF COMMERCIAL AND RESIDENTIAL DEVELOPMENT

Carson City Planning Division
2621 Northgate Lane, Suite 62 • Carson City NV 89706
Phone: (775) 887-2180 • E-mail: plandept@ci.carson-city.nv.us

FOR OFFICE USE ONLY:

TSM-07-

TENTATIVE MAP FOR A
SUBDIVISION

FEES: \$1,500 (plus \$1/lot over 25 lots)

SUBMITTAL PACKET

See checklist.

Application Reviewed and Received By:

PC Date: _____

BOS Date: _____

APPLICANT	PHONE #
Steve Ryckebosch (775) 828-2114	
MAILING ADDRESS, CITY, STATE, ZIP	
3891 Warren Way Reno, NV 89509	
ENGINEER	PHONE #
Western Engineering (775) 884-3200	
MAILING ADDRESS, CITY, STATE, ZIP	
3032 Silver Sage Drive Carson City, NV 89701	
E-MAIL ADDRESS	
hvog1@westernengineering.us	
PROPERTY ADDRESS, CITY, STATE, ZIP	
7201 Hwy 50 East Carson City, NV 89701	
PRESENT ZONING	APN(S)
GC; MFA	008-011-91

REQUEST: In accordance with the provisions of Title 17 of the Carson City Municipal Code, application is hereby made for a Planned Unit Development on property situated at:

The required modifications to Carson City's Land Use Regulations are as follows:

PLEASE SEE ATTACHED.

ACKNOWLEDGMENT OF APPLICANT: (a) I certify that the foregoing statement are true and correct to the best of my knowledge and belief; (b) I agree to fulfill all conditions established by the Board of Supervisors.

Applicant's Signature [Signature] Date 7/9/07

PROPERTY OWNER'S AFFIDAVIT

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

Signature [Signature] Address 3891 WARREN WAY RENO NV 89509 Date 7/9/07

Use additional page(s) if necessary for other names.

STATE OF NEVADA)
COUNTY)

On July 9, 2007, personally appeared before me, a notary public, STEVEN V. RYCKEBOSCH, personally known (or proved) to me to be the person whose name is subscribed to the foregoing document, and who acknowledged to me that he/she executed the foregoing document.

[Signature]
Notary Public
I. PEASE
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 06-107914-2 - Expires July 18, 2010

NOTE: In order to avoid unnecessary time delays in processing your develop project, it is important that it be as complete as possible when submitted. A checklist is available to assist you and your engineer. If you have further questions regarding your application, please call the Planning Division at (775) 887-2180. 01/07



Carson City, Nevada Online

Note: Do not use browser Forward & Back Buttons for Navigation; Use Browser Back Button to Exit.

Secured Property Tax Records

Note: will automatically disconnect if no activity for five minutes

Parcel #	008-011-91	
Property Loc	7201 HWY 50 EAST	2008 Roll #: 004986
Billed to	EAGLETECH INDUSTRIAL PARK LLC 3891 WARREN WAY RENO, NV 89509-0000	Year 2008 Roll # 004986 District 2.4 Tax Service Land Use Code 500

Secured Property Taxes Billed, Paid, and Owing

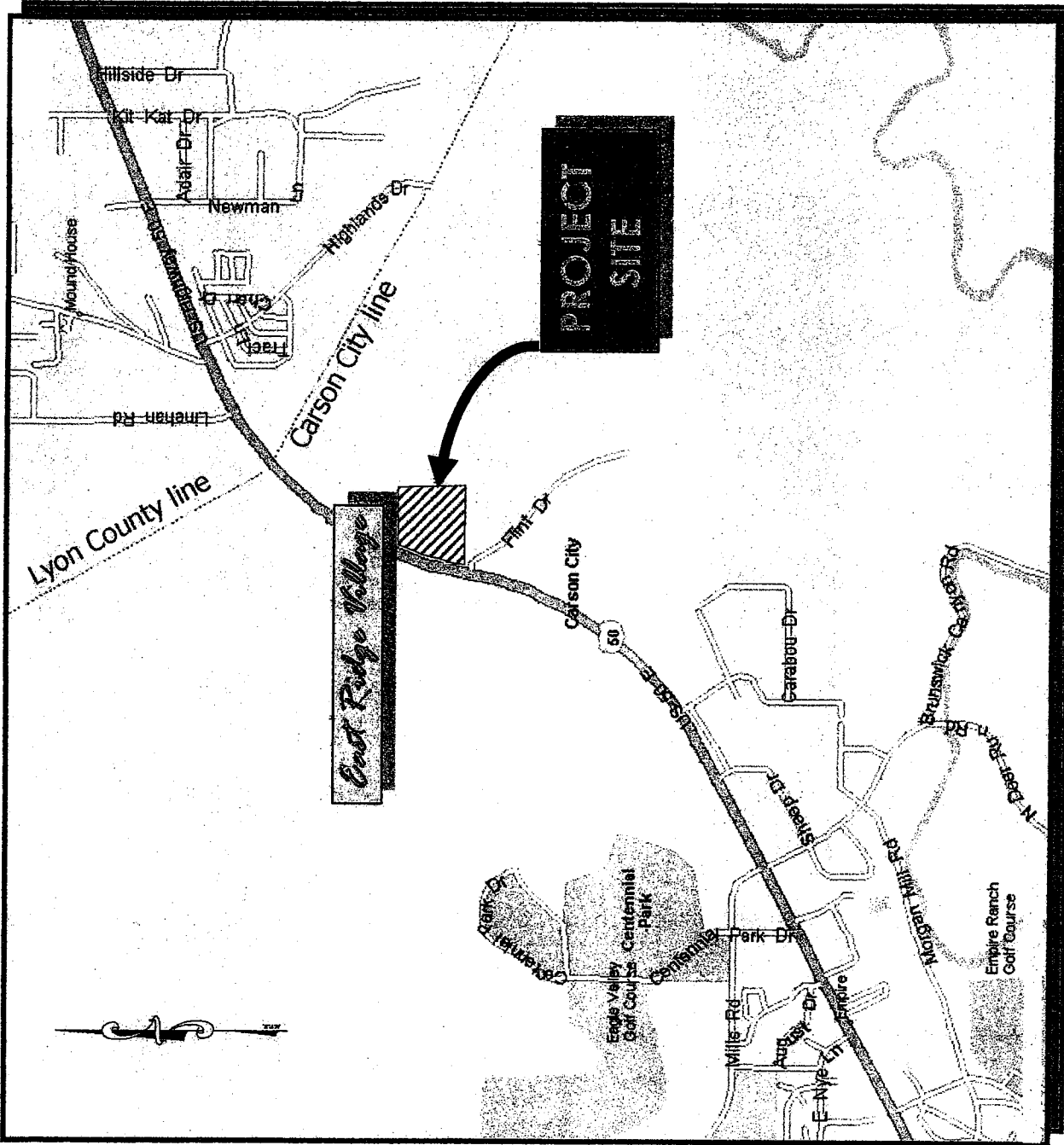
Period Year	Tax Billed	Penalty & Interest	Total	Amount Paid	Cumulative Total Due
Current Year					
08/20	1,466.95		1,466.95	1,466.95	.00
10/01	1,463.00		1,463.00	1,463.00	.00
01/07	1,463.00		1,463.00	1,463.00	.00
03/03	1,463.00		1,463.00	1,463.00	.00
Totals	5,855.95	.00	5,855.95	5,855.95	No Taxes Owing

[New Account Search](#)

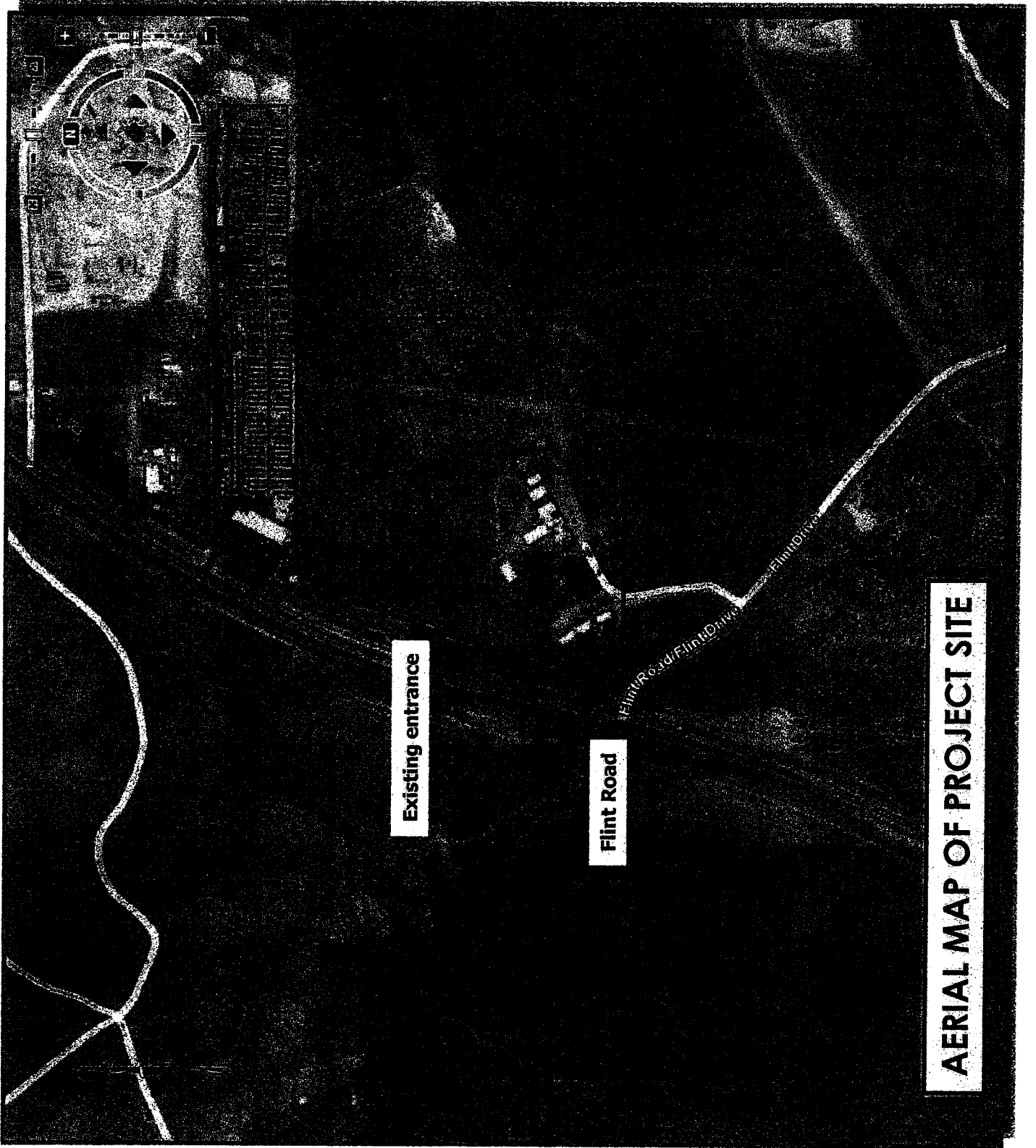
[Next Account](#)

[Account History](#)

Your web browser must have JavaScript enabled to view this page correctly



VICINITY MAP WITHIN THE EASTERN AREA OF CARSON CITY

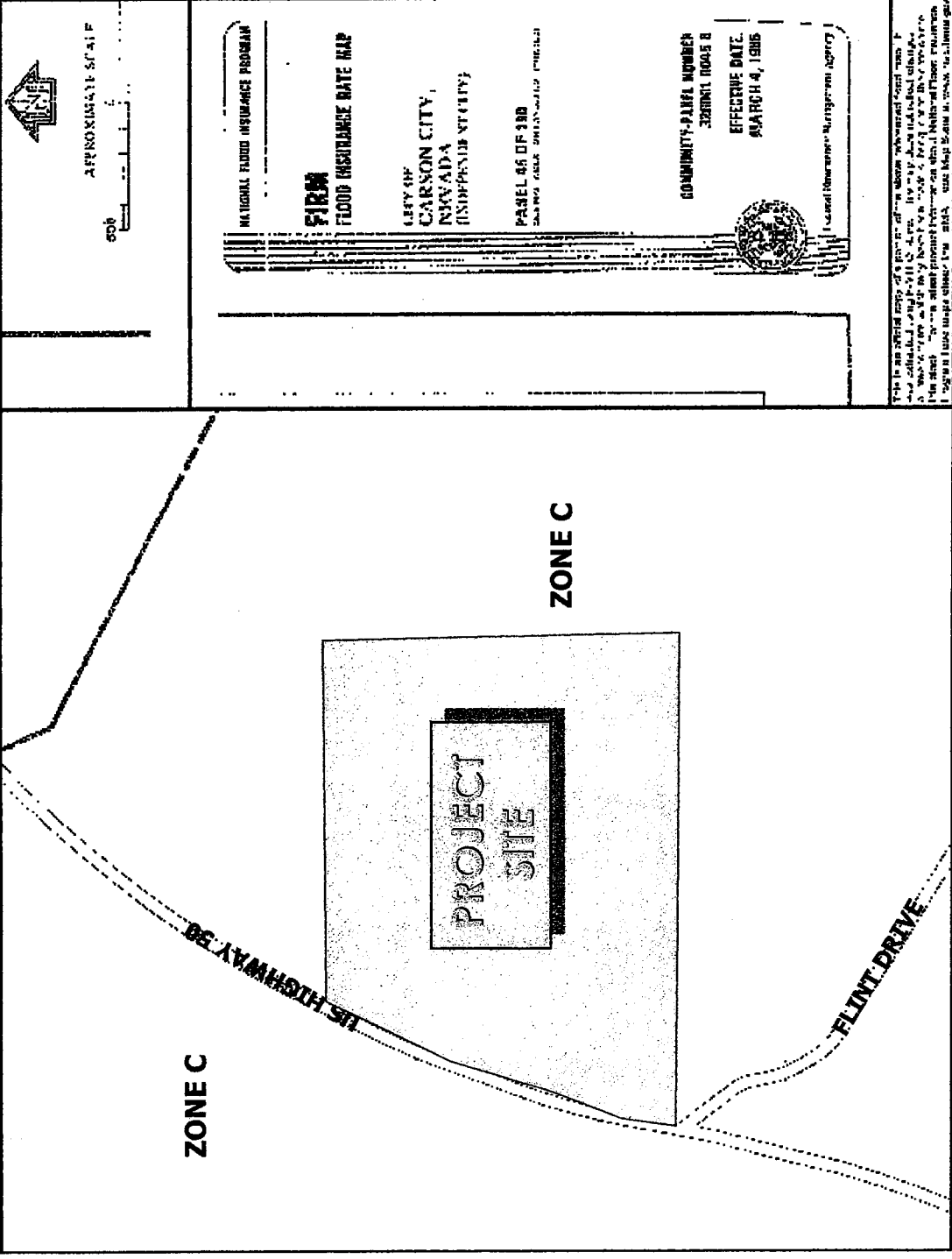


Existing entrance

Flint Road

Flint Road Flint Drive

AERIAL MAP OF PROJECT SITE



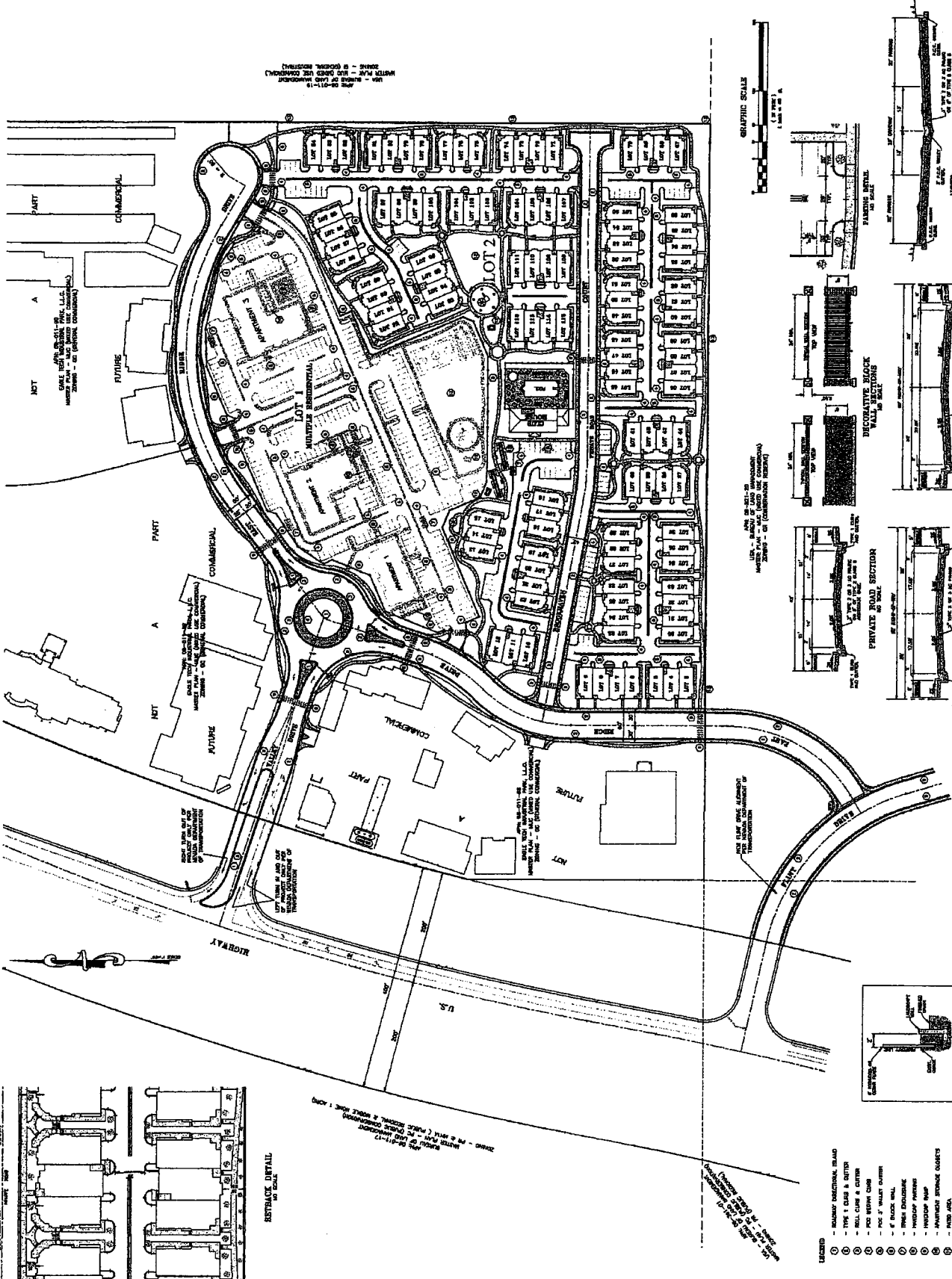
This is an official map of the Federal Emergency Management Agency. It is a map of the United States and is not to be used for any other purpose. It is a map of the United States and is not to be used for any other purpose. It is a map of the United States and is not to be used for any other purpose.

**FEMA PANEL 3200010045B DATED 03/04/1986
ZONE C: AREAS LOCATED OUTSIDE OF A 500-YEAR FLOODPLAIN**

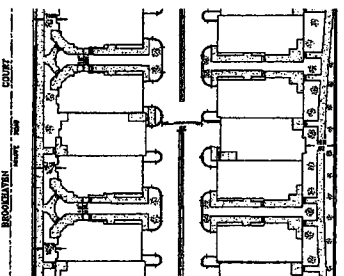
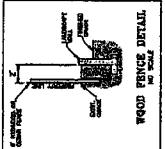
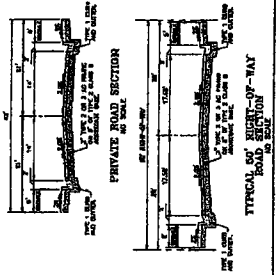
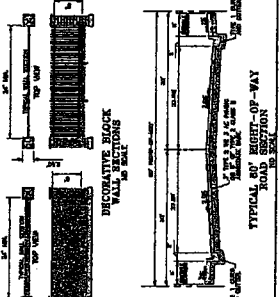
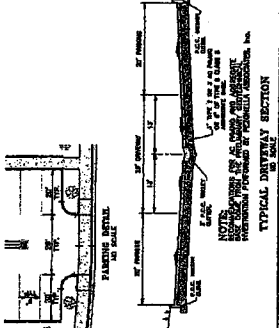


TENTATIVE SUBDIVISION MAP EAST RIDGE VILLAGE PHASE 1

DATE	APRIL 2009
DESIGNED BY	WTC
CHECKED BY	WTC
DATE	APRIL 2009
PROJECT NO.	3
SHEET	9
OF	9



DATE: 02-01-13
 100% - SURVEY OF LAND (AS SHOWN)
 100% - SURVEY OF LAND (AS SHOWN)
 100% - SURVEY OF LAND (AS SHOWN)



- LEGEND
- ① - RAILWAY CROSSING ISLAND
- ② - TYPE 1 CURB & GUTTER
- ③ - ROLL CURB & CURB
- ④ - POE 3" ASPHALT CONCRETE
- ⑤ - POE 7" WALKWAY
- ⑥ - 4" BLOCK WALL
- ⑦ - TRINCH DRAINAGE
- ⑧ - INTERLOCK PAVING
- ⑨ - INTERLOCK PAVING
- ⑩ - PAVED AREA
- ⑪ - RECONSTRUCTION, UNPAVED
- ⑫ - UNPAVED WALL

DATE: 02-01-13
 100% - SURVEY OF LAND (AS SHOWN)
 100% - SURVEY OF LAND (AS SHOWN)
 100% - SURVEY OF LAND (AS SHOWN)



Appendix C: Interim Mixed-Use Evaluation Criteria

PURPOSE:

The implementation of numerous policies contained within the Master Plan hinges on the creation of three mixed-use zoning districts to align with the Mixed-Use Commercial (MUC), Mixed-Use Employment (MUE), and Mixed-Use Residential (MUR) land use categories. Recognizing that mixed-use development proposals have already been and will continue to be submitted within these areas prior to the completion and adoption of the future mixed-use zoning districts, a set of Interim Mixed-Use Evaluation Criteria have been developed to:

- Facilitate higher intensity, mixed-use development in locations designated on the Land Use Plan for mixed-use development, but where mixed-use zoning is not currently in place;
- Encourage the incremental transition of existing uses in locations designated on the Land Use Plan for mixed-use development, recognizing that in some locations, mixed-use development may be perceived as incompatible with existing adjacent uses in the short term;
- Establish a consistent method for reviewing mixed-use development projects until mixed-use zone districts can be established; and
- Ensure that mixed-use development is consistent with the General Mixed-Use policies contained in the Master Plan, as well as with specific MUC, MUE, and MUR policies, as applicable.

The Interim Mixed-Use Evaluation Criteria will continue to be used as a tool to review mixed-use development proposals until mixed-use zone districts can be established.

MIXED-USE EVALUATION CRITERIA:

APPLICABILITY

The following Interim Mixed-Use Evaluation Criteria shall apply to all development proposed within the Mixed-Use Residential (MUR), Mixed-Use Commercial (MUC), and Mixed-Use Employment (MUE) land use categories. The application of these Criteria shall be triggered in one of the following ways:

- *Existing Zoning/Special Use Permit*—Development is proposed within a mixed-use land use category where the underlying zoning may permit the types and mix of uses proposed using



Appendix C: Interim Mixed-Use Evaluation Criteria

the Special Use Permit process as outlined in Section 18.02.80 of the City's Municipal Code. The Interim Mixed-Use Evaluation Criteria are applied in addition to the standard list of Findings outlined in the Code.

Example: If a mixed-use project (commercial/residential) were proposed within the Mixed-Use Commercial land use category on a property that is currently zoned for General Commercial, the residential portion of the project would be considered using the Special Use Permit process under the existing Code. Once the Master Plan is adopted, the project would also be subject to the Interim Mixed-Use Evaluation Criteria as part of the Special Use Permit Process.

- **Re-Zoning/Special Use Permit**—Development is proposed within a mixed-use land use category where the underlying zoning does not permit the types and mix of uses proposed. In this instance, the subject property would need to be re-zoned to the most appropriate zoning district and then followed for the project and combined with a Special Use Permit or Planned Unit Development request to allow the mix of uses desired and to trigger the application of the Interim Mixed-Use Evaluation Criteria.

Example: If a mixed-use project (commercial/residential) were proposed within the Mixed-Use Commercial land use category on a property that is currently zoned for Light Industrial, the residential portion of the project would not be eligible for consideration using the Special Use Permit process under the existing Code. Therefore, the subject property would need to be rezoned to General Commercial prior to beginning the Special Use Permit Process that would allow the residential portion of the project to be considered under the Interim Mixed-Use Evaluation Criteria.

- **Planned Unit Development (PUD)**—Development is proposed within a mixed-use land use category where the underlying zoning does not permit the types and mix of uses proposed. As an alternative to the Re-Zoning/Special Use Permit process outlined above, a Planned Unit Development request could be submitted for the subject property, within which it could be re-zoned to the most appropriate zoning district(s) for the project. As part of the PUD process, the Interim Mixed-Use Evaluation Criteria would be applicable all other conditions of approval outlined in the City's Municipal Code.

GENERAL INTENT

The Mixed-Use Evaluation Criteria provide an overview of key mixed-use development features that should be addressed by proposed mixed-use developments occurring to ensure they are consistent with Master Plan policies. They are intended to be used in conjunction with the land use specific review criteria that follow this section based on the applicable mixed-use land use designation.



PROJECT USES

Background and Intent:

Mixed-use developments should incorporate a variety of uses in a compact, pedestrian-friendly environment. Uses are encouraged to be mixed vertically ("stacked"), but may also be integrated horizontally. Recommended types and proportions of uses vary by mixed-use land use category and will also vary according to a project's location, size, and the surrounding development context. For example, a MUC development located on an individual parcel away from a primary street frontage may reasonably contain a higher percentage of residential development than one that is located with direct access and visibility from the primary street frontage. On some smaller parcels, integrating multiple uses may not be feasible at all, therefore, the consolidation of properties to create larger, mixed-use activity centers is encouraged. These factors should be considered and weighed in conjunction with the evaluation criteria listed below.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED	COMMENTS
1. Are the types of uses and percentages of different uses consistent with the relevant Master Plan policies listed below? (MUC 1.6, MUR 1.5, MUE 1.5)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, per the Master Plan, specifically MUC 1.6, the proposed residential area of the overall conceptual map represents at least 50 percent of the total area of land. It is physically integrated within the future non-residential uses and provides a transition to the commercial uses with the integration of walking paths, and an internal private road system.
2. Are activity generating uses (e.g., retail/commercial) concentrated along primary street frontages and in other locations where they may be easily accessed and may be readily served by transit in the future?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	At this time, this Tentative Subdivision Map is For the residential portion only of the overall Conceptual map for East Ridge Village. The Future Commercial components of the project Will be along Hwy 50, this is consistent with the Policies of the master Plan for the MUC land use.
3. Are large activity generating uses (e.g., retail/commercial) located so as to minimize impacts of loading areas and other facilities on existing neighborhoods?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	At this time, this Tentative Subdivision Map is For the residential portion only of the overall Conceptual map for East Ridge Village. The Future Commercial components of the project Will be along Hwy 50, this is consistent with the Policies of the master Plan for the MUC land use.
4. Are residential uses well-integrated with non-residential uses (either horizontally or vertically) and the surrounding development context?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, per the Master Plan, specifically MUC 1.6, the proposed residential area of the overall conceptual map represents at least 50 percent of the total area of land. It is physically integrated within the future non-residential uses.



Appendix C: Interim Mixed-Use Evaluation Criteria

5. Do the proposed housing types and densities promote activity and support non-residential uses in the development or in close proximity to the development, as applicable?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the developer is proposing a mixed use of multi family units. Lot one is proposed for apartments approximately 96 units. Lot 3-115 are proposed Townhouse units available for individual sale. This provides the flexibility to meet various incomes and housing needs for the public.
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Relevant Master Plan Policies:

- Chapter 3: 2.1b, 2.3b, GMU 1.1, GMU 1.2, MUC 1.56, MUR 1.5, MUE 1.5
- Chapter 6: 7.2a, 7.2b

MIX OF HOUSING TYPES

Background and Intent:

Each of the mixed-use land use categories allow for the incorporation of a variety of housing as a part of a broader mix of uses. Although a mix of housing types and densities is encouraged within each category, the scale, size, type, and location of each development should play a significant role in determining what makes sense. For example, a 200 acre MUR development on a vacant parcel should generally contain a broader mix of housing types and densities than a 10 acre MUR development working within an established development context. However, the MUR development will likely have higher average densities due to its proximity to a primary street frontage and it's more urban context. Given the range of scenarios that may emerge, the evaluation criteria listed below are intentionally broad to allow for maximum flexibility.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED?	COMMENTS
6. Does the development contain a mix of housing types that is compatible with the surrounding neighborhood and planned land use in terms of its scale and intensity?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the developer is proposing a mixed use of multi family units. Lot one is proposed for apartments approximately 96 units. Lot 3-115 are proposed Townhouse units available for individual sale. The intensity of 50 percent of residential to the future commercial and existing location works well at this "Gateway" area of Carson City.
7. Does the development contain a mix of housing types that is appropriate to its scale, location, and land use category?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes, the developer is proposing approximately 96 units on Lot one that is approximately 5.32 Acres. Lot 2 (Open Space parcel) and Lot 3,113 Townhouse units are on approximately 12.24 Acres. The land use category of MUC allows For the mix of housing types, and the gateway location of the site provides an area for residential uses where there is none, but the need is there.

Relevant Master Plan Policies:

- Chapter 3: 2.2a, 2.2b
- Chapter 6: 8.1a



DENSITY RANGE

Background and Intent:

Average densities within mixed-use developments are generally expected to be higher than those typically found within the City today. Recognizing the many factors that influence the ultimate density of a mixed-use development (e.g., location, type), the Master Plan provides a suggested range of floor-area ratios (FAR) and dwelling units/acre for each of the mixed-use land use categories. For the purposes of the evaluation criteria listed below, densities that fall below the low end of a density range for a particular land use category will be strongly discouraged in order to promote the Plan's objective of creating a more compact pattern of development. The Plan also acknowledges that there may be instances where densities that exceed the suggested range are appropriate in some locations, such as within a mixed-use activity center, provided other land use policies are followed. These instances will be evaluated on a project-by-project basis.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED?	COMMENTS
8. Does the development achieve at least the minimum density range for the applicable land use category?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the current zoning designation of MFA allows a minimum parcel size of 6000 square feet. The over all parcel size is 17.56, therefore the total number of units allowed would be 127 units. The developer is proposing approx. 96 apartment units and 113 townhouse units with amenities.
9. Does the development exceed the maximum density range for the applicable land use category?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, because the developer has chosen to develop the project as a common open space development, this allows for a variation in lot size, including the density of the subdivision, in order to preserve or provide open space areas, and utilize a more efficient use of the land.
10. If yes to #9 above, is the development located within a designated mixed-use activity center?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, as is per the master plan guiding principle 7: Compact, mixed-use activity centers, 7.1a - this area along Hwy 50 near the V&T terminal location has been Designated a Mixed-use activity center. As this area is a gateway corridor in to Carson City from Lyon County.
11. If yes to #9 above, is the largest concentration of density concentrated away from primary street frontages and surrounding neighborhoods?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, as designed the concentration of residential density is provided away from Hwy 50, and is established as a walkable community within the overall open space development.

Relevant Master Plan Policies:

- Chapter 3: MUC 1.3, MUR 1.3, MUE 1.3



Appendix C: Interim Mixed-Use Evaluation Criteria

CIRCULATION AND ACCESS

Background and Intent:

Mixed-use developments should be designed using an interconnected network of streets to provide efficient connections between uses and to accommodate vehicular, bicycle, and pedestrian circulation, as well as existing or future transit service. Direct vehicular and pedestrian connections to adjacent neighborhoods, commercial, and civic uses should be provided, as should linkages to existing and planned trail systems.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED?	COMMENTS
12. Do vehicular and pedestrian ways provide logical and convenient connections between proposed uses and to adjacent existing or proposed uses?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, per the Master Plan, specifically MUC 1.6, the proposed residential area of the overall conceptual map represents at least 50 percent of the total area of land. It is physically integrated within the future non-residential uses and provides a transition to the commercial uses with the integration of walking paths, and an internal private road system.
13. Does the hierarchy of perimeter and internal streets disperse development generated vehicular traffic to a variety of access points, discourage through traffic in adjacent residential neighborhoods and provide neighborhood access to on site uses?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the design concept for streets and pedestrians is physically integrated within the future non-residential uses and provides a transition from the residential to the commercial uses with the integration of landscaping, open space areas, park/play areas, walking paths, and an internal private road system. The road system is made up of one main access road that has branches of private roads and then tertiary driveway accesses to the townhouse units.
14. If the development is located along a primary street frontage, have existing or proposed transit routes and stops been incorporated?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The site is located along Hwy 50, north of Flint Road. The developer has met with NDOT to determine that the primary access will be a right-turn in and right-turn out only, with a potential traffic signal at Flint Road, for both ways of traffic.

Relevant Master Plan Policies:

Chapter 3: GMU 1.3, MUC 1.8
Chapter 7: 10.2b, 11.1a, 11.1c



PARKING LOCATION AND DESIGN

Background and Intent:

The visual and physical barriers created by surface parking areas should be minimized within mixed-use developments. To promote a more compact, pedestrian-friendly environment, off-street parking for mixed-use developments should be located behind buildings and away from primary street frontages. The use of on-street parking or shared parking to provide a portion of the required parking for mixed-use developments is strongly encouraged, where feasible, to make the most efficient use of each development site. In addition, structured parking is encouraged where viable, provided it is integrated into the design of the overall development.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED?	COMMENTS
15. Is surface parking distributed between the side and rear of primary buildings and away from primary street frontages?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the parking areas are designed at the rear of the townhouse units. Guest parking areas are designed near the private street accesses, for the convenience of visitors.
16. Are larger parking lots organized as a series of smaller lots with clear pedestrian connections and landscape buffers as dividers?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes, the parking areas have been designed as smaller parking areas within the larger lot areas. Landscaped open space areas and pathways provide buffers between activity areas and living areas.
17. Is surface parking screened from surrounding neighborhoods and pedestrian walkways?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes, the parking areas have been screened by landscaped open space areas and pathways.
18. Is structured parking integrated with adjacent structures in terms of its design and architectural character?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
19. Are structured parking facilities "wrapped" with retail or residential uses at the street level to provide a more inviting pedestrian environment?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	

Relevant Master Plan Policies:

- Chapter 3: GMU 1.4, MUC 1.8



RELATIONSHIP TO SURROUNDING DEVELOPMENT

Background and Intent:

Many of the areas designated for mixed-use development are located within established areas of the City. As a result, much of the mixed-use development that occurs will occur through a combination of infill and redevelopment. Therefore, establishing a strong physical and visual relationship to adjacent neighborhoods and the community will be an important consideration.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED?	COMMENTS
20. Are transitions in building massing and height provided to relate to surrounding development patterns?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the residential element of the project will not exceed the allowable height of 45-feet for the MFA zoning district. The units are designed as three or four units structures each as to not create a Big Box structure for the residential buildings. There are no residential units in this area of the site,
21. Is the new development well-integrated into the surrounding neighborhood, rather than "walled off", consistent with the mixed-use policies contained in the Master Plan?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The project site will not be walled off from Hwy 50. In fact there are two accesses provided to the site. The future commercial areas are designated along Hwy 50, which is consistent with the existing commercial development along this route of Hwy 50.
22. If applicable, are lower intensity uses (e.g., residential) located along the periphery of the site were it adjoins an existing residential neighborhood to provide a more gradual transition in scale and mass and to minimize potential impacts of non-residential uses (e.g., loading areas, surface parking)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	

Relevant Master Plan Policies:

- Chapter 3: MUC 1.7, MUR 1.7, MUE 1.6
- Chapter 6: 8.3b

PUBLIC SPACES, PARKS, OPEN SPACE, AND PATHWAYS

Background and Intent:

Mixed-use developments should be organized around a central gathering space or series of spaces, such as small urban plazas, pocket parks, or active open space areas. These types of public spaces



serve as urban recreational amenities for residents that may not have access to larger community parks or recreational amenities without getting in their cars and generally promote increased levels of pedestrian activity. Larger mixed-use developments, particularly within the MUR and MUE categories, may also need to incorporate more traditional recreational features, such as parks and trails, depending upon their size and location.

Evaluation Criteria:

CRITERIA	CRITERIA SATISFIED?	COMMENTS
23. Does the development provide public spaces to serve residents and the larger community?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the open space development provides walking paths within the residential area. These paths connect to open space areas, park and play areas, the club house and pool area of the townhouse development.
24. Are public spaces appropriate in terms of their size and active vs. passive features provided given the scale and location of the proposed development?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes, the open space development has been designed not only to meet the criteria as per Chapter 17.10 but also the residential portion has been designed to meet the criteria of parking requirements per unit, the open space requirements of common, recreation area, and private for the MFA zoning district.
25. Are public spaces easily accessible to pedestrians and the surrounding community, if applicable?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes, this development is designed as a walk-able community. Providing pedestrian access to all areas of the development and future commercial amenities as well as existing Hwy 50.
26. Are parks and trails provided consistent with the Parks, Recreation, and Unified Pathways Master Plan?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Existing access to public lands such as BLM are accessible and adjacent to this project site.

Relevant Master Plan Policies:

- Chapter 3: MUC 1.6, MUR 1.8, MUE 1.7

As per Chapter 17 of the Carson City development Code, specifically Chapter 17.07.005 Findings, with the Chapter 17.10 Common Open Space Development

In considering parcel maps, planned unit developments and **tentative subdivision maps** the director shall consider the following:

1. Environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal.

The residential project will hook up to Carson City's existing water and sewer systems, within the area of this project site. A utility plan and off-site improvements have been provided with the Tentative Subdivision Map Application.

2. The availability of water which meets applicable health standards and is sufficient in quantity for the reasonably foreseeable needs of the subdivision.

The developer and his engineer have meet with Carson City staff to plan out the availability of water for the development. Please refer to the Conceptual Review (CSM- 08-005) comments attached within this application.

3. The availability and accessibility of utilities,

The applicant has been in contact with Sierra Pacific and Southwest Gas and Verizon regarding the availability of utilities for the site.

4. The availability and accessibility of public services such as schools, police protection, transportation, recreation and parks.

The developer has submitted for Conceptual Review of the project and public service comments have been provided. The developer will provide for these public services where applicable to the timing and development of the project.

5. Access to public lands. Any proposed subdivision that is adjacent to public lands shall incorporate public access to those lands or provide an acceptable alternative.

Access to Public lands exists adjacent to the project site. If the city would require an easement at the rear of the parcel be provide for further access to the BLM/public lands behind the site the developer will provide such an easement access to public lands.

6. Conformity with the zoning ordinance and land use element of the city's master plan.

The project site has a Master Plan designation of Mixed Use Commercial (MUC) and a Zoning designation of Multi Family Apartments (MFA). The proposed Multi family apartments and townhouse units are consistent with this zoning and master plan designations.

7. General conformity with the city's master plan for streets and the need for new streets or highways.

All proposed public and private streets will be designed per Carson City Code. Any improvements within the NDOT right-of-way, specifically at Flint Drive and the improvements to the existing entrance off of Hwy 50 will also meet those standards and regulations as put forth by NDOT.

8. The effect of the proposed subdivision on existing public streets and the need for new streets or highways to serve the subdivision.

All proposed public and private streets will be designed per Carson City Code. Any improvements within the NDOT right-of-way, specifically at Flint Drive and the improvements to the existing entrance off of Hwy 50 will also meet those standards and regulations as put forth by NDOT. A Traffic Report prepared by Solaegui Engineers has been provided with this application.

9. The physical characteristics of the land such as flood plains, earthquake faults, slope and soil.

The project site is not located in a primary floodplain. Per FEMA the flood zone designation for this parcel is Zone C: areas located outside the 500-year floodplain. A Soils Report prepared by Pezonella Associates, Inc has been provided with this application that addresses earthquake faults, slope and soils.

10. The recommendations and comments of those entities reviewing the subdivision request pursuant to NRS 278.330 thru 278.348, inclusive.

The entire project consisting of four parcels, was submitted to the Planning Division for a Conceptual Review meeting held on February 13, 2008. Comments were received from Carson City staff on February 25, 2008. (Please refer to the attached Conceptual Review - CSM - 08-005)

11. The availability and accessibility of water and services for the prevention and containment of fires including fires in wild lands.

Comments from the Carson City Fire division were received with the Conceptual Review (CSM-08-005) The developer will adhere to those recommendations as development occurs on the site, through the improvement plan permitting process.

12. Recreation and trail easements.

Access to Public lands exists adjacent to the project site. If the city would require an easement at the rear of the parcel be provide for further access to the BLM/public lands behind the site the developer will provide such an easement access to public lands.

NRS 278.349 Action on tentative map by governing body; considerations in determining action on tentative map; final disposition.

3. The governing body, or planning commission if it is authorized to take final action on a tentative map, shall consider:

- (a) Environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal;

The residential project will hook up to Carson City's existing water and sewer systems, within the area of this project site. A utility plan and off-site improvements have been provided with the Tentative Subdivision Map Application.

- (b) The availability of water which meets applicable health standards and is sufficient in quantity for the reasonably foreseeable needs of the subdivision;

The developer and his engineer have meet with Carson City staff to plan out the availability of water for the development. Please refer to the Conceptual Review (CSM- 08-005) comments attached within this application.

- (c) The availability and accessibility of utilities;

The applicant has been in contact with Sierra Pacific and Southwest Gas and Verizon regarding the availability of utilities for the site.

- (d) The availability and accessibility of public services such as schools, police protection, transportation, recreation and parks;

The developer has submitted for Conceptual Review of the project and public service comments have been provided. The developer will provide for these public services where applicable to the timing and development of the project. With regard to the school comments, as requested, a school bus stop location will be provided at the "Round About" location. The applicant will be working with Carson City Post Office for the exact location of the cluster mailboxes. These locations have been indicated on the Open Space Plan.

- (e) Conformity with the zoning ordinances and master plan, except that if any existing zoning ordinance is inconsistent with the master plan, the zoning ordinance takes precedence;

The project site has a Master Plan designation of Mixed Use Commercial (MUC) and a Zoning designation of Multi Family Apartments (MFA). The proposed Multi family apartments and townhouse units are consistent with this zoning and master plan designations.

- (f) General conformity with the governing body's master plan of streets and highways;

As per the Master Plan the East Ridge Village is a connect city within Carson City. The project is made up of two primary entrances connecting to a major collector road. Off of this road are two secondary private roads that have branches of driveway accesses to the individual units and guest parking areas. This project site is located off of Hwy 50, a major improved road, maintained by NDOT. This project will also access Flint Road, A Carson City, paved road. Any improvements required by NDOT and Carson City for access into the project Site will conform to all City, State, and Federal Regulations for improvements and permitting.

- (g) The effect of the proposed subdivision on existing public streets and the need for new streets or highways to serve the subdivision;

All proposed public and private streets will be designed per Carson City Code. Any improvements within the NDOT right-of-way, specifically at Flint Drive and the improvements to the existing entrance off of Hwy 50 will also meet those standards and regulations as put forth by NDOT. A Traffic Report prepared by Solaegui Engineers has been provided with this application.

- (h) Physical characteristics of the land such as floodplain, slope and soil;

The project site is not located in a primary floodplain. Per FEMA the flood zone designation for this parcel is Zone C: areas located outside the 500-year floodplain. A Soils Report prepared by Pezonella Associates, Inc has been provided with this application that addresses earthquake faults, slope and soils.

- (i) The recommendations and comments of those entities and persons reviewing the tentative map pursuant to NRS 278.330 to 278.3485, inclusive; and

The entire project consisting of four parcels, was submitted to the Planning Division for a Conceptual Review meeting held on February 13, 2008. Comments were received from Carson City staff on February 25, 2008. (Please refer to the attached Conceptual Review – CSM – 08-005)

- (j) The availability and accessibility of fire protection, including, but not limited to, the availability and accessibility of water and services for the prevention and containment of fires, including fires in wild lands.

Comments from the Carson City Fire division were received with the Conceptual Review (CSM-08-005) The developer will adhere to those recommendations as development occurs on the site, through the improvement plan permitting process.

Additional Findings, with the Chapter 17.10 Common Open Space Development

Provisions for the common open space development shall be conditioned upon the approval of the tentative subdivision or parcel map and shall, at a minimum, include the following:

1. Three-year Maintenance Plan. Provisions shall be made to monitor and maintain, for a period of three (3) years regardless of ownership, a maintenance plan for the common open space area. The maintenance plan for the common open space area shall, at a minimum, address the following:
 - a. Vegetation management;
 - b. Watershed management;
 - c. Debris and litter removal;
 - d. Fire access and suppression;
 - e. Maintenance of public access and/or maintenance of limitations to public access; and
 - f. Other factors deemed necessary by the commission or the board.

With the recording of the Final Subdivision Map a Three-year Maintenance plan will be drawn up addressing the above components, and be recorded with the final map.

2. Permanent Preservation and Maintenance. Provisions shall be made for the permanent preservation and ongoing maintenance of the common open space and other common areas using a legal instrument acceptable to the city.

The applicant has provided a "DRAFT" copy of the CC&R's that will be the instrument for recordation of the above required permanent preservation and maintenance of the open space areas in this residential project.

3. Screening and buffering of existing and potential developments adjoining the proposed common open space development.

The majority of the common open space is located internally on the site, i.e. the parks, play areas, pool and club house. The walking paths that meander throughout the development do go to the perimeter of the site, and these areas are buffered by landscaping and block walls. There currently are no existing developments adjacent to the site, as these parcels are currently owned by BLM.

4. Common Open Space Restrictions. Designated common open space shall not include areas devoted to public or private vehicular streets or any land which has been, or is to be, conveyed to a public agency via a purchase agreement for such uses as parks, schools or other public facilities.

The common open space proposed with this Tentative Subdivision Map does not include public or private roadways. There are no public parks, schools or public facilities conveyed to public agencies with this map.

5. To encourage public/private partnerships to facilitate economic development and public purpose uses.

As stated above the project consists of a well defined definite gateway project of commercial and residential needs, at the eastern area of Carson City. The proposed variety of residential units will provide opportunities to a variety of people with a variety of housing needs. With the development of future commercial amenities, these will provide employment and recreational opportunities as is requested in the SPA for the V&T portal.

6. To encourage public/private cooperation in creating public access, trails and recreational opportunities.

The residential portion of the project provides a walk-able community within the project site, as well as to the adjacent BLM property that the V&T corridor is a part. This project provides recreational opportunities within the site and well as providing future recreational access to adjacent lands.

The specific location of the project site is located within the Eastern Portal of the Virginia and Truckee Railroad Gateway Specific Plan Area (V&T-SPA), approximately 700 to 800 feet west of the existing V & T railroad corridor. Therefore, it is necessary to evaluate the applicable policies of the Master Plan (Chapter 8) specifically, that of Eastern Portal – Virginia & Truckee Railroad Gateway Specific Plan Area (V&T –SPA).

Per the Master Plan the purpose of the Eastern Portal- Virginia & Truckee Railroad Gateway Specific Plan Area (V&T-SPA) is:

1. To provide for cohesive development within the area.

The concept of the proposed development is, to provide upscale amenities for commuters and residents along this corridor of Hwy 50, the gateway between Carson City and Lyon County. The entire project consisting of four parcels, three commercial and one Multi family residential, was submitted to the Planning Division for a Conceptual Review meeting held on February 13, 2008. Comments were received from Carson City staff on February 25, 2008. The comments received from staff is that, "the proposed overall project is well designed with quality architecture and good pedestrian circulation."

2. To create a "gateway" into Carson City.

In keeping with the goals of the V&T-SPA this project is an example of a well defined definite gateway at the eastern area of Carson City. The proposed variety of residential units will provide opportunities to a variety of people with a variety of housing needs. With the development of future commercial amenities, these will provide employment and recreational opportunities as is requested in the SPA for the V&T portal.

3. To protect economic development opportunities along the highway corridor, particularly in conjunction with development of the V&T Railroad.

The development of future commercial amenities, within this project, will provide employment and recreational opportunities along this corridor of Highway 50 at the Carson City, Lyon county line. This area may be stopping point for V&T passengers to take the opportunity to stop, shop, and rest, before continuing on to Carson City historic downtown area.

4. To protect visual resources associated with the V&T Railroad route and terminal location.

The project site will adhere to the MFA design standards for the height of 45-feet and the rear setbacks of 20-feet to the property line from the structures. Although the railroad corridor is 700 to 800 feet from the project site, the visual impact will be minimal as the view of the sierras to the west will not be blocked. In addition the residential portion will be providing approximately 4.5 acres of open space that will include landscaping and natural vegetation native to the site.

5. To encourage public/private partnerships to facilitate economic development and public purpose uses.

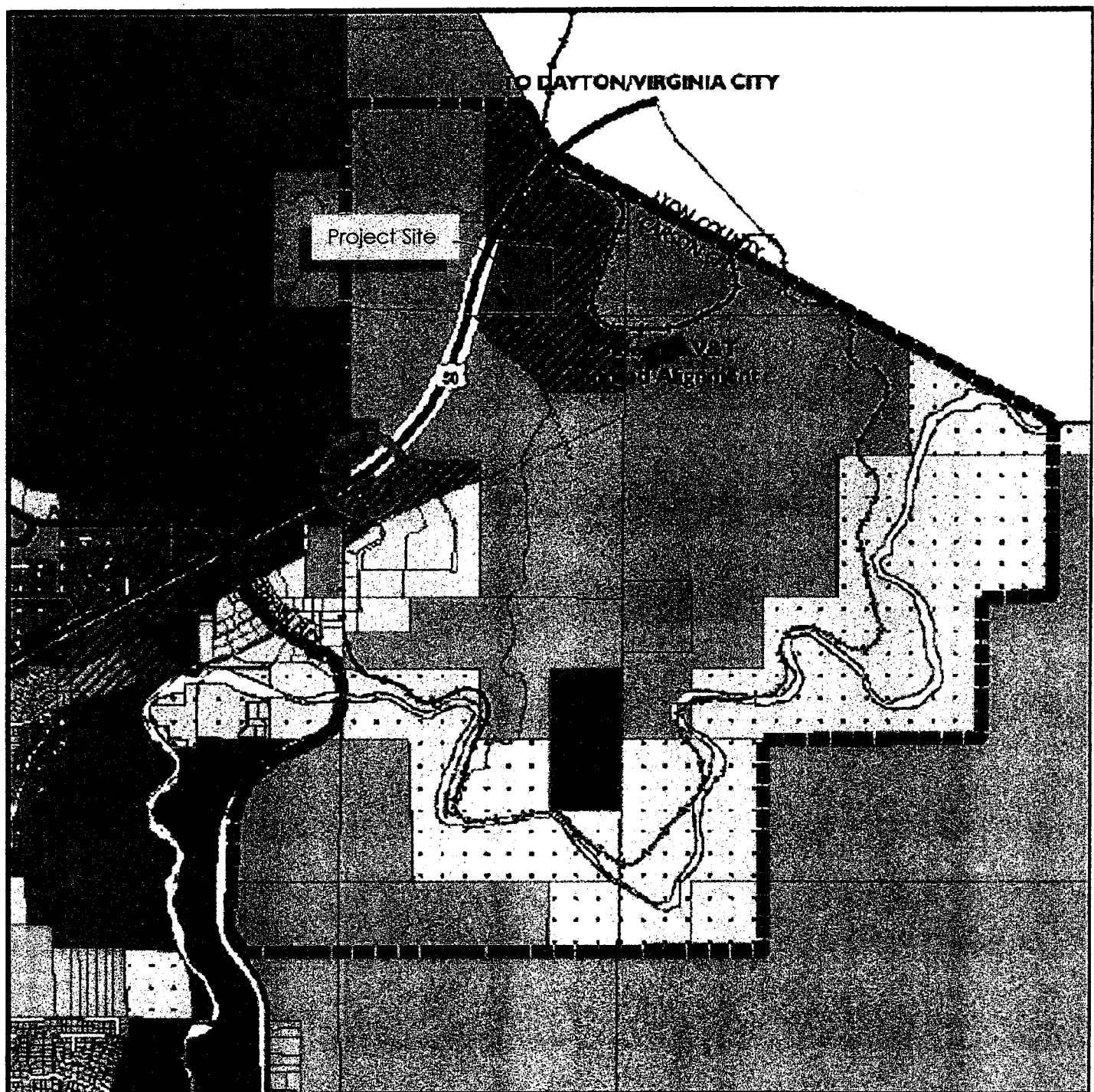
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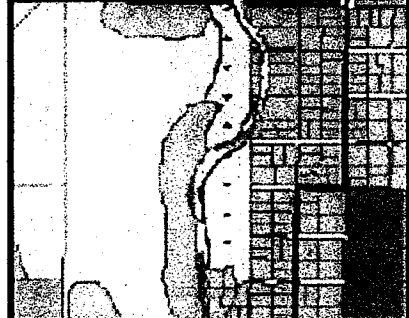
TO DAYTON/VIRGINIA CITY

Project Site



V&T SPA Land Use Map

- | | | |
|-------------------------------------------------------|--------------------------------|---------------------------|
| Conservation/Regional Commercial | Mixed-Use Residential | Fitness Roadway Corridor |
| Industrial | Public Corporation | Mixed-Use Activity Center |
| Rural Residential (5-20 ac/lot) | Open Space | V&T SPA Boundary |
| Low Density Residential (0.1-3 ac/lot or 5-33 ac/lot) | Parks and Recreation | |
| Medium Density Residential (3-8 ac/lot) | Public/Quasi-Public | |
| High Density Residential (5-35 ac/lot) | Construction Reserve (Private) | |
| Mixed-Use Commercial | | |



Topography:

The existing topography of the site slopes northeast toward the southwest. The natural fall is toward Hwy 50. There is undulating high and low terrain across the parcel. A hill raises at the most northeast corner of the project site. The site is covered with natural vegetation. A soils report, prepared by Pezonella Associates, Inc has been provided with this application submittal.

Access & Circulation:

The applicant and the applicant's representative have met with both, Carson City staff and NDOT (Nevada Department of Transportation) staff, to discuss access into the project site. The applicant has also hired Solaegui Engineers to evaluate and provide recommendations on the traffic impacts the project will have at this area of Hwy 50. Based on these meetings and evaluations, it has been recommended that the main entrance will be a Right turn in and Right turn out only on to Hwy 50. This main access into the site will be designed at a width of 80-feet. There will be a median in this entrance that will have low growing landscape vegetation not to exceed 2-feet, 6-inches in height, in order to maintain vehicular visibility. Also an access at Flint Drive, just south of the project site is proposed. At this access, left and right turn movement on to Hwy 50 can occur. The main road in and around the Village is proposed at 60- feet in width. This road will provide access to the commercial and residential areas, and connect south to the existing Flint Drive at Hwy 50. The residential areas will have further internal access made up of a 50-foot wide street that will have minor streets branching off to the specific town home units. A traffic Report prepared by Solaegui Engineers has been provided with this application submittal.

Drainage:

Drainage for the project site will be made up of a detention pond system that will follow the natural topography of the site. These proposed detention areas will incorporate existing and new landscaping. The streets and landscape areas will direct the flow of drainage to the detention pond areas, away from structures and public common areas. A Drainage Report, prepared by Western Engineering and Surveying Services has been provided with this application submittal.

Sewer and Water:

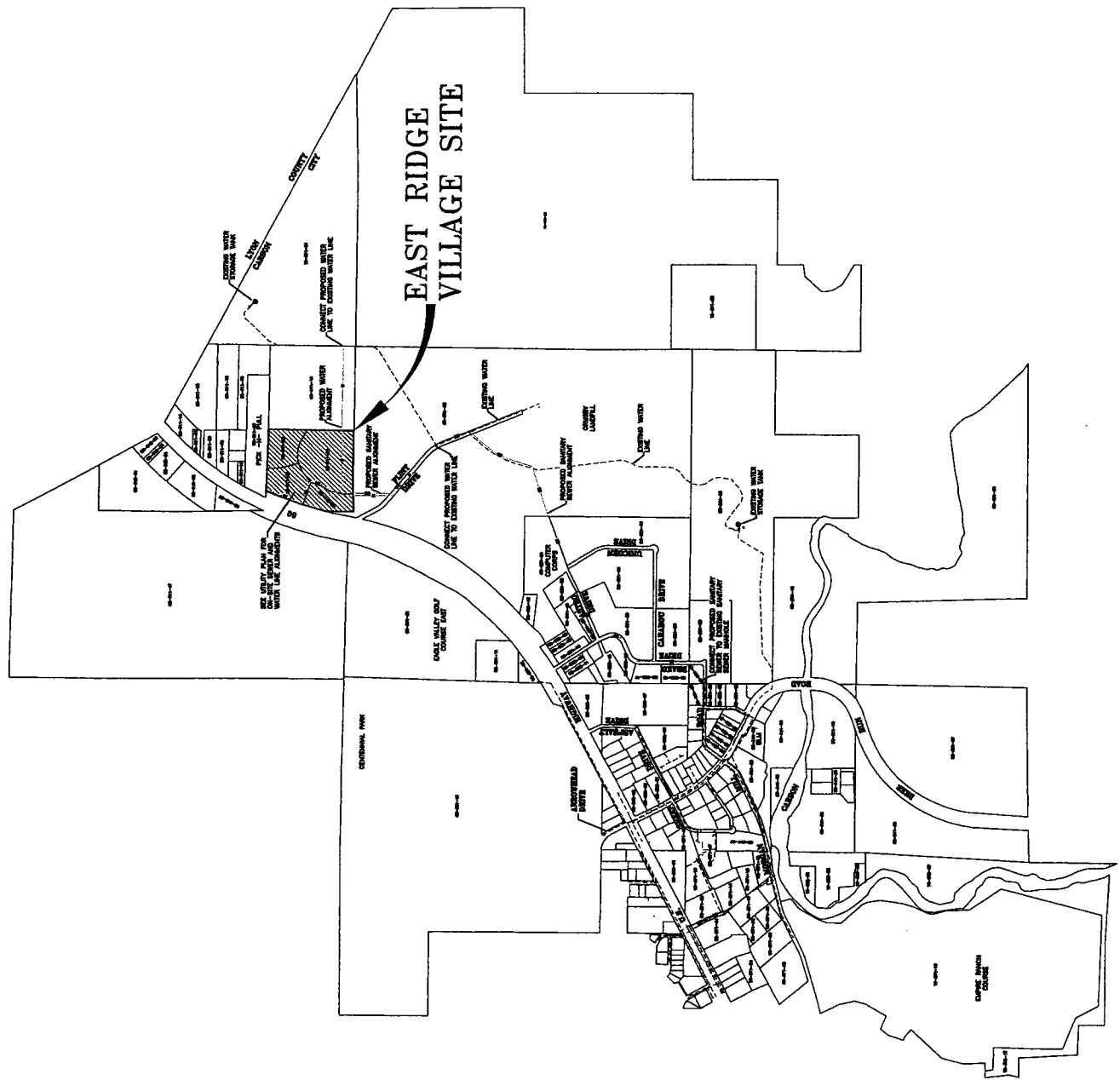
The applicant and the applicant's representative have met with Carson City staff regarding the connections of sewer and water. The proposal at this time is to bring sewer service at the south from Morgan Mill Road. Across the project site and stub the sewer at the north property boundary to the Pick-n-Pull site. The water will be brought from the south as well, from Flint Road, loop within the site and back to the water Tank Alignment east of the site.



EAST RIDGE VILLAGE PHASE 1

OFF-SITE SEWER AND WATER
FOR

DATE	APRIL 2008
CHECKED BY	DWG
DRAWN BY	WFB
SCALE	
PROJECT NO.	
SHEET NO.	6
OF	9
SHEET	



EAST RIDGE
VILLAGE SITE

PRELIMINARY GEOTECHNICAL INVESTIGATION

PROPOSED EAST RIDGE VILLAGE

7200 HIGHWAY 50 EAST

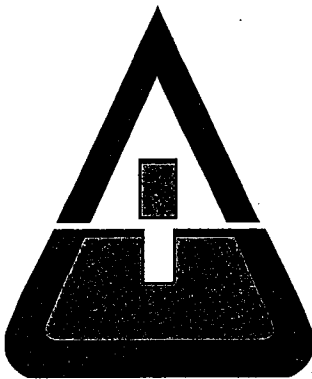
CARSON CITY, NEVADA

Prepared For

The Ryckebosch Companies
50 Continental Drive
Reno, NV 89509

Attention: Mr. Steven V. Ryckebosch, President

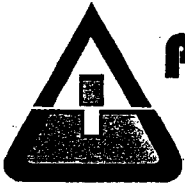
December 15, 2006
Job No. 5765.01-A



**Pezonella
Associates, Inc.**

Consulting Engineers and Geologists

520 EDISON WAY • RENO, NEVADA 89502 • (775) 856-5566



Pezonella Associates, Inc.

Geotechnical & Environmental Engineers & Geologists

520 EDISON WAY • RENO, NEVADA 89502 • (775) 856-5566
FAX • (775) 856-6042
www.pezonella.com

December 15, 2006
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The Ryckebosch Companies
50 Continental Drive
Reno, NV 89509

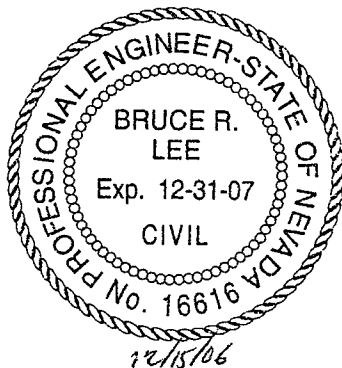
Attention: Mr. Steven V. Ryckebosch
President

Preliminary Geotechnical Investigation
Proposed East Ridge Village
7200 Highway 50 East
Carson City, Nevada

This report presents results of our preliminary geotechnical investigation and provides general recommendations for design and construction of a Mixed Use Commercial (MUC) project. This report should be reviewed by us when actual development is known and specific recommendations provided, or additional work performed, if necessary.

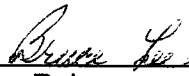
Based on the results of our investigation, knowledge of the area and understanding of project development, we conclude that the primary concerns to be considered in the design and construction of the project are the **existing structures and improvements, the dense to very dense sand-silt mixtures with gravel and cobbles, the two existing 550-gallon underground fuel tanks, the two water wells, the low to moderate load bearing capacity, and the slow permeability.**

We appreciate having been selected to perform this investigation and trust that the results will fulfill project design requirements at this time. If you, or any of your design consultants, have any questions, please contact us.



Respectfully,

PEZONELLA ASSOCIATES, INC.



Bruce R. Lee
Civil Engineer - 16616

PRELIMINARY GEOTECHNICAL INVESTIGATION

PROPOSED EAST RIDGE VILLAGE

7200 HIGHWAY 50 EAST

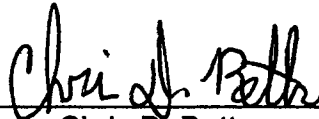
CARSON CITY, NEVADA

Prepared For

The Ryckebosch Companies
50 Continental Drive
Reno, NV 89509

Attention: Mr. Steven V. Ryckebosch, President

By



Chris D. Betts
Engineering Geologist



Bruce R. Lee
Civil Engineer - 16616

Pezonella Associates, Inc.
520 Edison Way
Reno, Nevada 89502
(775) 856-5566

December 15, 2006
Job No. 5765.01-A

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I. INTRODUCTION

This report presents results of the preliminary geotechnical investigation our firm performed to characterize the nature of the subsurface earth materials for the proposed development of the East Ridge Village. The property to be developed is approximately 37.31-acres in area (gross) and is comprised of 4 parcels (APN's 08-011-71, -72, -73, and -74) that essentially encompass the SW¼ of the SE¼ of Section 36, T16N, R20E, M.D.B.M., near the intersection of Flint Road and U.S. Highway 50 East, in east Carson City. This report is geotechnical in nature and not intended to identify other site constraints such as environmental or wetland concerns. Because the development is conceptual at this time, recommendations included in this report are preliminary for the anticipated development within the limits of the property and may not be adequate for specific design and actual on-site construction. Additionally, the recommendations are not intended for off-site development. The work was authorized by Mr. Steven V. Ryckebosch, representing The Ryckebosch Companies, and included:

- Site reconnaissance
- Drilling 6 borings
- Obtaining samples for laboratory testing
- Performing the laboratory testing and analyses, and
- Preparing this report presenting our conclusions and recommendations regarding:
 - Potential geologic hazards,
 - Site preparation and grading,
 - Soil engineering criteria for foundation design,
 - Support of slabs-on-grade, and
 - Support and design of flexible pavement sections.

A. Documents Received and Reviewed

We initially received and reviewed an aerial photo of the site dated May, 2005, that was used to locate boring sites. We also reviewed the Phase 1 Environmental report prepared by our firm for the site. After the field and laboratory work had been completed, and during the process of preparing this preliminary geotechnical report, we received Preliminary Site Layouts "A - D" from Cathexes Unexpected Architecture dated November 30, 2006.

B. Anticipated Project Development

Our initial understanding of the development indicated the construction of a mix of commercial and residential uses. From this understanding we anticipated that construction would include slab-on-grade single- and 2-story structures, with paved on-site parking and streets, landscaping, and trash enclosures. We further anticipated that grading would result in both cut and fill slopes to 5 or more feet in height with some retaining walls. Underground improvements including electric, sanitary sewer, water, gas, and storm drain were expected to be at a minimum depth of 4 feet. We also anticipated foundation loads would be normal (relatively light) for the type of construction proposed, that shallow conventional spread foundations that bottom at least 24 inches below lowest exterior ground surface would be used, and that structural design would be in accordance with the 2003 edition of the International Building Code (IBC). This preliminary geotechnical report has been prepared to reflect this initial understanding of project development.

Our review of the Preliminary Site Layouts from Cathexes indicates that, if approved by the City, the planned development could include up to 215 multi-family units with a community center and play park, a 100-room hotel, a gaming facility, a 6-screen movie theater, a gas/car wash facility, a drugstore, a restaurant, and several commercial/retail buildings. Interior paved streets and parking areas are shown with an entry from Highway 50 East.

II. FIELD EXPLORATION AND LABORATORY TESTS

To attain a general overview of the subsurface conditions at the subject property, we drilled 6 test borings with a Central Mine Equipment (CME) truck-mounted drill-rig using hollow-stem auger equipment to depths ranging from 15 to 24½ feet below the existing ground surface. The test borings, located in the field using pace and compass, and with respect to the aerial plan provided, are depicted (approximate locations) on Plate 1. No greater accuracy is implied.

Our field geologist logged and visually classified the materials encountered, and recorded the location of each test boring using the global positioning system (GPS). Relatively undisturbed

samples were collected from the test borings in a split spoon sampler utilizing a 140-pound hammer with a 30-inch drop. Logs of the test borings are presented on Plates 2 through 7. The materials encountered are classified in accordance with the Unified Soil Classification System, which is explained on Plate 8.

Our staff geologist examined the soils in our laboratory and selected samples were tested to confirm their field classifications and to determine engineering properties for design. Additional subsurface exploration, laboratory testing and engineering analyses will be required to address the development as shown on the layouts from Cathexes.

Results of in-situ dry unit weight and moisture content determinations, particle size analysis, Atterberg limits, resistance R-value tests, expansion index, and compaction test data, are presented on the logs and on Plates 9 through 14. Additional tests for Resistivity, pH and SO₄, were performed by an independent laboratory on a selected sample to evaluate the corrosion potential, and the results are presented on the logs. The results of the above testing are summarized below:

Moisture-Dry Unit Weight

The dry unit weight of the soils encountered in the upper 5 feet ranges from 80 pcf (disturbed?) to 105 pcf for an unweighted average of 93 pcf. The moisture content of the soils ranged from 8% to 14%. The unweighted average relative compaction of the soils is in the range of 90%.

Particle Size Distribution

The soil in the upper 3 feet near Boring B1 is a brown silty sand with gravel (SM) with a D₅₀ of 0.207 mm and 31.6% passing the #200 sieve. The soil in the upper 3 feet near Boring B5 is a non-plastic, brown well graded sand with silt (SW-SM) with a D₅₀ of 1.07 mm, a C_u of 15.46, a C_c of 2.00, and 9.1% passing the #200 sieve.

Expansion Index

The expansion index of the sand in the upper 3 feet in Boring B5 is 12.4. The potential expansion of this soil is Very Low (non-expansive in accordance with the IBC).

R-Value

The R-value of the silty sand from the upper 4 feet in Boring B3 is 21 with an expansion pressure of 41 psf at 300 psi exudation pressure.

Resistivity, pH and SO₄

The soil from Boring B4, at a depth of 4 feet has a resistivity of 7937 ohm-cm, a pH of 6.55 and a SO₄ content of 25.2 ppm.

III. SITE AND SOIL CONDITIONS

Development currently includes two unpaved runways of the short take off and landing Parker Carson Stolport, a rental hangar, commercial spaces at 7201 Highway 50 East that are occupied by Parker Album Company and Tactical Networks Technologies, Inc., and four mobile homes close to the highway in the southwest corner of the property. Access to the property from Highway 50 East is from Flint Road south of the Property, and a driveway that enters near the northwest corner of parcel 008-011-74. Water is provided by two wells, and on-site systems are used for sewage disposal. The rental hangar is situated near the southeastern property corner. Two smaller hangars, now used for storage, are located near the southern property boundary near the residential structures. The main commercial structure is north of the small hangars, on the north side of the main runway. A steel-arch structure is present near the main driveway into the property. There is a small "well-house" south of the steel-arch structure, near the southwestern corner of the commercial buildings. An abandoned corral is present north of the development mostly on parcel 008-011-73, with a small portion on parcel 008-011-72. From our Phase 1 report, two 550-gallon underground tanks were used to store and dispense fuel for vehicles other than planes and were closed in place with an inert material (slurry or sand) in 2003.

Development of nearby and adjacent parcels includes a mixture of commercial development and vacant land. U.S. Highway 50 East passes adjacent to the western property boundary, and commercial development is present to the west toward central Carson City and to the east toward Moundhouse. The municipal landfill is on the east side of the highway, southeast of the property.

Mapping by the U.S. Department of Agriculture, Soil Conservation Service (*Soil Survey of Carson City Area, Nevada*, Sheet No. 2, August 1979), indicates the site is underlain by the units described below. The Reno cobbly fine sandy loam (#54) underlies the majority of the site with the Deven-Rock outcrop complex (#14) occurring along the north central and east central margins of the site.

Reno cobbly fine sandy loam, 4 to 8 percent slopes (#54): This moderately deep, well drained soil is on slightly undulating alluvial fans. It formed in alluvium from basaltic rock. Typically, the surface layer is a grayish brown cobbly fine sandy loam about 3 inches thick. The next layer is a dark brown to light gray clay and sandy clay about 21 inches thick. The next layer is a strongly cemented hardpan about 5 inches thick. Below this to a depth of 60 inches is a light brownish gray, stratified gravelly and very gravelly loamy sand and sandy loam. Permeability is very slow; the available water capacity is low; effective rooting depth is about 24 inches; surface runoff is medium; and the hazard of water erosion is slight.

Deven-Rock outcrop complex, 4 to 15 percent slopes (#14): This moderately sloping to strongly sloping complex is on uplands. Areas are irregular in shape. The complex is about 70 percent Deven very cobbly loam and about 15 percent Rock outcrop. Rock outcrop is on ridges and steeper side slopes throughout areas of the Deven soil. Included soils make up about 15 percent of the total acreage. The Deven soil is shallow and well drained. It formed in residuum from andesite. Typically the soil has a surface layer of light brownish gray very cobbly loam about 3 inches thick. The next layer is a brown gravelly clay and clay about 6 inches thick. Andesite is at a depth of 9 inches. Permeability is slow, the available water capacity is very low, the effective rooting depth is about 9 inches, surface runoff is medium and the hazard of soil erosion is moderate. The potential is poor for community development and sanitary facilities. Excavations for houses and access roads expose bedrock.

Geologic mapping completed by E.C. Bingler (*New Empire Geologic Map*, Nevada Bureau of Mines and Geology, Map 59, dated 1977), shows the materials underlying the southwestern ½ of the site and a small area along the northeastern margin consist of Pliocene alluvial-fan deposits of Morgan Mill with Holocene alluvial deposits underlying the northeastern ½ of the site. These materials are described below:

Holocene alluvial deposits, undifferentiated (Qa). Unbedded to poorly bedded, poorly sorted silty gravelly sand and sandy pebble to cobble gravel.

Pliocene alluvial-fan deposits of Morgan Mill (Qta). Yellowish-brown to yellowish-gray, well-bedded sandy pebble to cobble gravel and pebbly coarse sand, 0-20 m (approximately 65 feet) thick.

Although we did not encounter any clay (as noted in the SCS mapping), our subsurface exploration generally confirms the soil and geologic mapping with the native soils consisting of brown silty sand with gravel (SM) and brown well-graded sand with silt (SW-SM) underlain by clayey sand with gravel (SC) and silty gravel with sand (GM). These soils are typically very dense with sampler refusal and difficulty obtaining relatively undisturbed samples frequently encountered due to the very dense nature and presence of oversize material (i.e. gravel and possibly cobbles) associated with the underlying materials. Groundwater was not encountered in any of the borings.

The native soils exhibit a low - moderate supporting capability (resistance R-value for roadways and Modulus of Subgrade Reaction for slab design), and the pH, SO₄, and resistivity results indicate that the native soils are not corrosive to uncoated steel or metal, and are not corrosive to concrete

IV. GEOLOGIC AND SEISMIC CONSIDERATIONS

To determine the potential for geologic hazards on the site, our investigation included a review of available geological literature and maps.

A. Geologic Setting

The site is located in eastern Eagle Valley, in the foothills of the Pine Nut Mountains. Eagle Valley is located at the western edge of the Basin and Range physiographic province, with the Carson Range of the Sierra Nevada to the west, the Pine Nut Mountains to the east and southeast, and the Virginia Range to the north. The Basin and Range physiographic province is characterized by high angle extensional normal faults trending in a north-northeast direction.

B. Faulting and Seismicity

Geologic mapping completed by E.C. Bingler (reference above) indicates no fault crosses the site, although a northwest trending fault trace is shown at the southwestern most corner of the site. The nearest Quaternary fault traces are associated with the Kings Canyon fault zone, approximately 3 miles to the west. The USGS Earthquake Hazards Program indicates that the Kings Canyon fault zone is related to the Mt. Rose fault zone, capable of producing an earthquake magnitude of 7.1, with an estimated return period for a seismic event of this magnitude on the order of 250 to 1200 years (The Nevada Seismological Laboratory).

From the USGS Earthquake Hazards Program, the interpolated probabilistic ground motion values at the project site for an earthquake of this magnitude include a Peak Ground Acceleration (PGA) of 0.63g with a 2% PE in 50 years, an S_s at 2% PE in 50 years of 1.50g; and an S_1 at 2%PE in 50 years of 0.60g.

Although a complete assessment of the Soil Profile Type in accordance with Table 1615.1.1 (Site Class Definitions) of the 2003 International Building Code would require drilling to a depth of 100 feet, from the standard penetration resistance, the subsurface soils most closely approximate a Site Class of C (very dense soil and soft rock) as defined in the referenced table. From Tables 1615.1.2(1) and 1615.1.2(2), the Site Coefficient F_a is 1.0 and the Site Coefficient F_v is 1.3. The maximum considered earthquake spectral response acceleration for short period (S_{MS}) is 1.50 g, and for 1-second period (S_{M1}) is 0.78 g, and the resulting design spectral response acceleration at short periods (S_{DS}) is 1.00g, and at 1-second period (S_{D1}) is 0.52g. From Table 1604.5, the Seismic Use Group is I (Light Commercial and Single Family Residential use), and from Tables 1616.3(1) and 1616.3(2), the resulting Seismic Design Category is D.

C. Liquefaction

Liquefaction is the loss of soil shear strength of cohesionless soils undergoing seismic stress when the pore water pressure induced in the soils becomes equal to the overburden pressure. There

are a large number of factors that significantly affect the liquefaction characteristics of any given sand. These include: relative density, grain structure or fabric, length of time the sand is subjected to sustained pressure, the value of the lateral earth pressure coefficient, and prior seismic or other shear strains to which the sand may have been subjected. The liquefaction potential is generally considered greatest in saturated, loose, poorly graded fine sands with a mean grain size (D_{50}) in the range of 0.075 to 0.2 mm. Recent studies, by others, have shown that liquefaction may occur under certain conditions in fine-grained soils with a mean grain size (D_{50}) as small as 0.02 mm.

The soils underlying the site are mostly dense to very dense silty sand with gravel and cobbles (SCS mapping) and well graded sand with silt to the depths investigated. Even with the potential for significant ground shaking associated with a seismic event, the probability of liquefaction at the site is negligible. A detailed analysis of the liquefaction potential would require additional drilling to depths of up to 50 feet, or more, plus detailed laboratory testing and engineering analysis. Generally, these evaluations are reserved for public safety facilities such as fire, police and hospitals or other buildings with high occupancy such as schools. If future information is requested, our office can be of assistance.

D. Slope Stability

Our subsurface investigation reveals that the materials underlying the site are dense to very dense silty sand and well graded sand with gravel, and based on the SCS mapping, cobbles are present. Grading is anticipated to result in cuts and fills of 5 feet, or more, for the proposed development, with the major cuts anticipated along the northern portion of the site. Slope stability analyses of permanent 2:1 (H:V) cut slopes using the Janbu method indicate the materials are expected to be stable to a height of 20 feet. Temporary slopes created during utility trench excavations up to 6 feet in depth are expected to be grossly stable, although some raveling, overbreak, and slumping may occur.

E. Radon

Radon, a colorless, odorless radioactive gas derived from the natural decay of uranium, is found in nearly all rocks and soils. The Environmental Protection Agency suggests that remedial action be taken to reduce radon in any structure with average indoor radon of 4.0 pCi/L or more. Studies completed by the Nevada Bureau of Mines and Geology with the Nevada Division of Health and U.S. Environmental Protection Agency (Nevada Bureau of Mines and Geology, *Radon In Nevada*, Bulletin 108, 1994) indicate that the Carson City area, as well as much of northern Nevada, is in an area where average indoor radon concentrations could exceed 4.0 pCi/L. Actual radon concentration measurement tests included in the report and conducted within the immediate project site vicinity, however, do not, in our opinion, indicate the presence of radon gas.

F. Flooding

Flood Hazard studies completed by the Federal Emergency Management Agency (FEMA), Community Panel Number 3200010045B, dated March 4, 1986, indicate that the site is located within Flood Hazard Zone C (unshaded). Flood Hazard Zone C (unshaded) represents areas of minimal flooding.

V. CONCLUSIONS

Based on the results of our preliminary investigation, knowledge of the area and understanding of project development, we conclude that the primary geotechnical concerns to be considered in the design and construction of the project are the **existing structures and improvements, the dense to very dense sand-silt mixtures with gravel and cobbles, the two existing 550-gallon underground fuel tanks, the two water wells, the low to moderate load bearing capacity, and the slow permeability.**

Several buildings and structures exist on the parcel and utilize on-site septic systems that will need to be properly abandoned and any contaminated soil removed from the site. All structures will ultimately require removal from the site for complete development.

Portions of the underlying materials contain dense to very dense sand-silt mixtures and oversize material such as gravel and possibly cobbles. Consideration should be given to the difficulty of earthwork associated with these materials and the fact that excavation depths can be limited. Based on the results of our field exploration, we believe that excavations limited to the upper 15 feet can be excavated, overall, with a 225 track-mounted Caterpillar Backhoe, D8 Caterpillar tractor, or equivalent earthmoving equipment.

Where encountered, removal of gravel and cobbles can result in undercutting of excavation sidewalls. The resulting trench width could be increased substantially and overbreak can occur. Additionally, as the presence of oversize material will affect fine grading, a leveling course could be needed to maintain structural sections.

Consideration should also be given to the subsequent reduction of the quantity of material available for use as fill as oversize material, which will require screening, will be generated during grading operations. Screening of oversize material will reduce the volume of material available for reuse unless sufficiently large equipment designed for compacting rock fill is utilized. Compaction approval will be based on visual performance specifications established by the Geotechnical Engineer

and based on a performance specification with sufficient on-site observation. Technician time will be increased using a performance procedure which will increase the cost of inspection services. Screened rock could require off-hauling, thus requiring import material to balance earthwork quantities or to attain proposed grades. Screened oversize material may be stockpiled for use within landscape areas or possibly as rip rap. Oversize material may be incorporated into the proposed landscaping.

Two 550-gallon fuel storage tanks were identified in our Phase I Environmental report as having been abandoned in place and filled with an inert material. Because of the nature of the proposed development, these tanks and the potentially fuel-contaminated soil surrounding them could pose an environmental concern. This can be mitigated by proper removal and decontamination (if needed).

Two water wells have been identified on the site. These wells may require abandonment following State regulations.

Portions of the native soils contain fine-grained particles such as silts and possibly clays that exhibit lower supporting capability (Resistance Value for roadways and Modulus of Subgrade Reaction for slab-on-grade design) than granular material and are potentially susceptible to frost heave.

Consideration should be given to permeability rates where retention/detention basins are proposed. The Developer may want to have percolation testing performed to provide design data.

There are no other apparent geologic hazards that would place unusual constraints on the project.

In addition to the primary concerns listed above, other design and construction considerations include seismicity, liquefaction, slope stability, and radon. The USGS Earthquake Hazards Program indicates that the Kings Canyon fault zone, the nearest Quaternary fault trace, is capable of producing an earthquake magnitude of 7.1. The interpolated probabilistic ground motion values at the project site for an earthquake of this magnitude include a Peak Ground Acceleration (PGA) of

0.63g with a 2% PE in 50 years, an S_s at 2% PE in 50 years of 1.50g; and an S_1 at 2%PE in 50 years of 0.60g. The subsurface soils most closely approximate a Site Class of C (very dense soil and soft rock) as defined in Table 1615.1.1 (Site Class Definitions) of the 2003 International Building Code. The Seismic Use Group is I (Light Commercial and Single Family Residential use), and the resulting Seismic Design Category is D.

The liquefaction potential is considered negligible based on the encountered soil conditions and the lack of groundwater to the depth of this investigation.

Slope stability analyses of permanent 2:1 (H:V) cut slopes indicate the materials are expected to be stable to a height of 20 feet. Temporary slopes created during utility trench excavations up to 6 feet in depth are expected to be grossly stable, although some raveling, overbreak, and slumping may occur.

Although the site is in an area where average indoor radon concentrations could exceed 4.0 (pCi/L), actual radon concentration measurement tests conducted within the area, do not, in our opinion, indicate the presence of radon gas.

For the residential and light commercial foundations considered as part of our initial understanding of project development, we judge that the maximum post construction settlement associated with anticipated foundation loads will be about 1/2-inch and that differential settlement will be approximately 1/4-inch, provided the foundations are designed and supported as recommended. Once a grading plan has been prepared and reviewed by us and actual foundation loads are made known, a detailed settlement analysis will be needed.

VI. RECOMMENDATIONS

The following recommendations are made on the basis of the limited data collected during this preliminary investigation and should be used with caution. While we believe the data are representative to evaluate the general nature of the subsurface materials, additional field work, laboratory testing, and analyses may be necessary to prepare recommendations for specific buildings and sites.

A. Site Preparation and Grading

All debris, concrete, gravel, and/or rubbish material remaining after removal of the existing structures and improvements (including the abandoned fuel tanks and on-site sewage disposal systems) should be cleared from all areas to be developed, and should be removed from the site. Interfering portions of the existing wells that are to be abandoned, should be capped in accordance with State regulations. Any remaining surface vegetation should be mowed and may be stockpiled for possible reuse within landscape areas. Subsequently, as directed by the Geotechnical Engineer (or his representative in the field), roots and/or organic matter should be stripped and evenly blended with soil and mowed vegetation for reuse in landscape areas. Minor root systems remaining after stripping can be disked or tilled in-place through the use of a disk harrow or equivalent equipment.

Following placement and compaction of any native soil or imported select fill, the stockpiled evenly blended mowed vegetation, roots, organic matter and soil to be wasted in landscape or designated "non-structural" areas should be moisture conditioned, placed in 8-inch loose lifts and compacted to provide a surface that is firm. Delineation of any designated "non-structural" area where blended vegetation and organics are placed should be illustrated on "As-Built" plans in order to assist where future development (i.e. phased development, additions, roads, walkways) is proposed.

To minimize the potential for movement to occur within development areas, the following recommendations are made:

Transition areas: To mitigate the potential for differential settlement to occur where spread footings bottom on a combination of cut native material and compacted fill material, the native

materials should be removed (overexcavated) a sufficient depth in order to provide for at least 18 inches of approved, compacted fill material below the bottom of all planned footing grades, interior slabs-on-grade, exterior flatwork, and pavement subgrade. In lieu of removal and re-compaction, the footings may be deepened to bottom in cut, native soils.

All-cut and all-fill areas: Where spread footings are founded on either an all-cut or an all-fill surface, the native materials should be removed (overexcavated) a sufficient depth in order to provide for at least 12 inches of approved, compacted fill material below the bottom of all planned footing grades, interior slabs-on-grade, exterior flatwork, and pavement subgrade.

To reduce the thickness of aggregate base to the minimum requirements of Carson City for on site access streets and NDOT for the encroachment onto US Highway 50 East, materials with an R-value of less than 30 within pavement subgrade should also be removed and replaced with approved, compacted, structural fill material as subsequently recommended.

The surfaces exposed by clearing, stripping, removal or overexcavation should be observed by the Geotechnical Engineer (or his representative in the field) to document that the conditions are as anticipated and that no objectionable materials exist. Approved surfaces should be scarified to a depth of 6 inches, moisture conditioned to near optimum (2 to 4 percent over optimum if fine grained) and compacted to at least 90 percent relative compaction¹. Where compaction is inhibited, such as due to the presence of high gravel content, compaction of the exposed surface with sufficiently large and appropriate equipment (approved by the Geotechnical Engineer) may be performed. The number of compaction passes will be determined by the Geotechnical Engineer (or his representative in the field) based on the condition of the exposed surface and the equipment used.

The Earthwork Contractor is responsible for obtaining approval for each prepared surface prior to proceeding with placement of structural components and/or fill.

¹ Relative compaction refers to the in-place dry unit weight of soil expressed as a percentage of the maximum dry unit weight of the same material, as determined by the laboratory procedure ASTM D 1557.

B. Material Quality and Reuse

Native soil and select fill materials (with the exception of structural fill material to be placed within public improvement areas) should be free of organic matter, have low to negligible expansion potential, and conform, in general, to the following requirements:

<u>Sieve Size</u>	<u>Percent Passing (by dry weight)</u>
6 Inch	100
3/4 Inch	70 - 100
No. 4	50 - 100
No. 200	15 - 35
<hr/>	
Liquid Limit =	40 Maximum
Plasticity Index =	15 Maximum
R Value =	30 Minimum
Expansion Index =	20 Maximum

Our investigation indicates that the shallow native soils are generally suitable for reuse as select fill but may not meet the requirements for structural fill (Section 304.03 of the latest edition of the *Standard Specifications for Public Works Construction*)². Generally, materials not meeting the requirements for either select or structural fill may be reused as mass fill outside the defined structural zones with approval of the Geotechnical Engineer (or his representative in the field).

If select fill is proposed to balance the earthwork quantities, the Earthwork Contractor shall ensure that the Geotechnical Engineer (or his representative in the field) approves all proposed materials to be used as select fill. Select fill sources shall be identified at least 10 working days prior to use to allow for testing.

²

Sieve Size	Percent Passing. (by dry weight)
4 inch	100
3/4 inch	70 - 100
No. 40	15 - 70
No. 200	5 - 25
<hr/>	
Liquid Limit	40 maximum
Plasticity Index	12 Maximum
R-Value	30 Minimum

Select or native fill material should be conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction. Within private areas, mass fill or trench and wall backfill should be conditioned to near optimum moisture content (2 to 4 percent over optimum if fine grained) and compacted to at least 90 percent relative compaction.

The thickness of all lifts will be restricted to a maximum of 8 inches (loose), and individually tested, unless the Earthwork Contractor can demonstrate his ability to uniformly achieve the required compaction for the entire layer of material placed. If any surface or layer becomes frozen, earthwork construction cannot proceed until it is allowed to thaw. The Earthwork Contractor shall obtain approval from the Geotechnical Engineer (or his representative in the field) of each lift prior to placement of subsequent fill and is responsible for maintaining moisture content during construction.

The recommendations for select fill are intended as a guideline and to define a readily attainable acceptable material. Adjustments to the specified gradation limits to address the use of other potentially acceptable materials, such as those containing oversize particles (typically, material retained on the $\frac{3}{4}$ -inch sieve), or which deviate from the classification requirements, may be made provided: 1) the Earthwork Contractor can demonstrate his ability to place and compact the material in substantial conformance with industry standards to achieve an equivalent finished product as that specified; 2) the Geotechnical Engineer gives his written approval (requires a minimum of 10 working days from request); 3) the Geotechnical Engineer (or his representative) directly observes and approves the placement method; and 4) all parties understand that the standard ASTM compaction test procedures are invalid when the oversize fraction retained on the $\frac{3}{4}$ -inch sieve is 30%, or more, or the oversize fraction retained on the #4 sieve is 40%, or more. Where select fill containing oversize particles is allowed, compaction approval will be based on other criteria such as a performance specification with sufficient on-site observation. This will result in a substantial increase of Technician time and the subsequent cost of inspection services.

C. Site Drainage and Landscape

The ground surface for a distance of at least 5 feet from any structure should be permanently sloped (at least 1 percent for concrete pavement, 2 percent for asphaltic pavement and 4 percent for soil) to drain away from any structure so that water is not allowed to pond against perimeter walls and to restrict infiltration within exterior flatwork and flexible pavement areas. Consideration should be given to chemical constituents that may inhibit establishment of landscaping, such as lawns, plants and other vegetation growth, not indigenous to the area. Laboratory testing to determine the agronomic characteristics of the native soils should be considered.

D. Foundation and Slab-on-Grade Support

The previously specified minimum section (18 inches for transition areas, 12 inches elsewhere) of approved compacted select or native fill material (see Subsections A and B) will provide adequate support for foundations. In preparation for foundation construction, the Earthwork Contractor shall ensure that field density tests have been performed to document the relative compaction of the upper 18 inches (transition areas) or 12 inches (non-transition areas) of exposed native soils and all new fill. Preparation of these materials shall be documented prior to placement of structural components.

For adequate confinement and frost protection, footings should be bottomed at least 18 inches below lowest adjacent exterior grade. Foundations in native or select fill soils, supported in accordance with our recommendations, can be designed to impose dead plus long-term live load bearing pressures of 2000 pounds per square foot (psf). The bearing pressure can be increased by 1/3 when considering total design loads, including wind or seismic forces. Resistance to lateral loads can be obtained from passive earth pressures and soil friction. We recommend the use of a coefficient of friction of 0.30 for foundations in native or select fill and a passive pressure of 240 pounds per cubic foot (equivalent fluid pressure).

The previously specified minimum sections of approved compacted native or select fill material (see Subsections A and B) will likewise provide adequate support for exterior concrete flatwork, such as driveways, patios and walkways. In preparation for slab or flatwork construction, the Earthwork Contractor shall ensure that field density tests have been performed to document that the relative compaction of at least the upper 6 inches of exposed native soils has been properly compacted. Preparation of these materials shall be documented prior to placement of aggregate, structural components and/or fill.

We understand that fill materials, which do not conform strictly to the gradation requirements contained in Section 304.03 of the latest edition of the *Standard Specifications for Public Works Construction*, proposed to be placed within public improvement areas, will require review and approval by the governing agency prior to use.

All exterior flatwork within public rights-of-way should conform to standards provided by the governing agency including section composition, supporting material thickness and any requirements for reinforcing steel.

Interior slabs-on-grade and all private exterior slabs should be underlain by at least 4 inches of free draining, crushed rock or gravel (compacted with a vibratory plate) or Type 2, Class B aggregate base material compacted to at least 95 percent relative compaction. Private exterior flatwork, such as walkways, should consist of at least 4 inches of type II portland cement concrete with a minimum 28-day compressive strength of 4000 pounds per square inch (psi) with entrained air. Portland cement concrete with a lesser compressive strength may be used within private areas; however, the Owner should weigh the benefits associated with more durable concrete. For slab-on-grade design, a Modulus of Subgrade Reaction (k) of 150 pounds per square inch per inch may be used for materials meeting the requirement for select or structural fill.

Due to the potential for lateral vapor migration to occur associated with seasonal moisture change and differences between the building interior and exterior ambient conditions, a vapor

inhibitor should be placed below the gravel layer and covered with sand. The vapor inhibitor should be placed beneath all areas where a moisture sensitive floor covering is proposed, and should be installed with at least 12 inches of overlap (see Plate 15).

Concrete mix proportions and construction techniques, including the addition of water and improper curing, can adversely affect the finished quality of the concrete and result in cracking and spalling of the slabs. We recommend that all placement and curing be performed in accordance with procedures outlined by the Portland Cement Association and American Concrete Institute. Special consideration should be given to concrete placed and cured during hot or cold weather conditions. Proper control joints and reinforcing steel should be provided to minimize any damage resulting from shrinkage.

E. Trench Excavation and Backfilling

We believe that excavations limited to the upper 15 feet can be made with a Caterpillar 225 track-mounted backhoe or D8 dozer, or equivalent earthmoving equipment. Overbreak of vertical trench walls can occur; therefore, for safety, the sides of the trench should be sloped or shoring should be used.

The Earthwork Contractor must comply with the *Safety and Health Regulations for Construction* as directed by the Occupational Safety and Health Act (OSHA Standards, Volume 11, Part 1926, Subpart P) while excavating and backfilling. The Earthwork Contractor is also responsible for providing a Competent Person, as defined by the OSHA standards, to ensure excavation safety.

Outside the pipe zone, native clayey soils may be used for utility trench backfilling. We recommend the use of fine grained (less permeable) soils, within areas where they are naturally occurring, instead of the typical clean backfill material, to minimize the potential for subsurface water migration through the utility trenches. Native backfill materials should be moisture conditioned to near optimum and compacted to at least 90 percent relative compaction. Lift thickness shall be restricted

to 8 inches (loose) maximum, unless the Contractor can demonstrate his ability to achieve the required compaction uniformly throughout the entire layer placed.

F. Permanent Cut and Fill Slopes

All permanent cut and fill slopes shall be constructed with maximum inclinations of two horizontal to one vertical (2:1). The Contractor shall overfill and trim the face of all fill slopes or compact them to provide a firm surface, free of loose soil that would be subject to erosion and sloughing. Where three to one (3:1) or flatter slopes are proposed, the face of the slope should be planted with dense-rooted, rapid growing vegetation.

Where fill is to be placed on natural slopes of 5:1 or steeper, keying and benching shall be provided along the fill/native soil interface. A keyway, located at the base of the slope, shall be at least 2 feet in depth (or into competent material) and 10 feet in width. Additionally, a perforated pipe should be installed within the keyway area to allow for drainage of any migrating (seepage) water. The pipe should extend the length of the keyway and daylight at a suitable low point to allow for disposal. The pipe should be completely encapsulated with crushed, 3/4-inch gravel and a filter fabric (i.e. Mirafi 140 N or equal) material should be placed above the gravel layer prior to placing fill material. In general, a rock lined drainage swale with positive drainage sufficient to divert runoff and suspended material down and away from the slope should be considered at the top of any slope in excess of 10 feet in height.

The Contractor shall overfill and trim the face of all fill slopes or compact them to provide a firm surface, free of loose soil that would be subject to erosion and sloughing. To further minimize erosion potential and future maintenance, upon completion of grading, all two to one (2:1) slopes should be protected, in general, with a vegetative cover or a 12- to 18-inch layer of riprap stabilization. Riprap material should be competent and consist of 8- to 12-inch angular rock fragments from an approved source, exhibit a minimum specific gravity of at least 2.5, and an absorption of less than 4 percent.

All slopes should be evaluated by the Geotechnical Engineer in the field to document that the conditions are as anticipated and that our recommendations concerning bench height and width are appropriate.

G. Retaining Structures

For design of unrestrained walls founded on and supporting native soil, the following values may be used:

Dry Unit Weight	115 pcf
Allowable Soil Bearing Capacity	2000 psf
Friction Angle	30 degrees
Cohesion	150 psf
Coefficient of Soil Friction	0.30
Passive Soil Pressure	240 pcf
Active Soil Pressure	40 pcf

H. Flexible Pavement Sections

The previously specified 18-inch minimum section of approved, compacted select or structural material (see Subsection A) will provide adequate support for flexible pavement sections. In addition to meeting the fill requirements, the upper 6 inches of subgrade/subbase should exhibit a minimum R-value of at least 30. Generally, materials that meet the requirement for select or structural fill will exhibit a R-value of at least 30.

As previously mentioned, we understand that fill materials, which do not conform strictly to the gradation requirements contained in Section 304.03 of the latest edition of the *Standard Specifications for Public Works Construction*, proposed to be placed in public improvement areas, may require review and approval by the governing agency (City and State) prior to use.

For design purposes, we believe that a flexible pavement section consisting of 3 inches of bituminous course (Type 2 or 3) over 6 inches of Type 2 Class B aggregate base underlain by the previously specified minimum section is adequate for private parking areas. Within private accessways and/or designated delivery truck traffic lanes, the aggregate base layer should be increased to 8 inches. Unless otherwise specified by the Owner, the aggregate should conform to the requirements

contained in Section 200 of the latest edition of the *Standard Specifications for Public Works Construction*.

Regardless of our recommended pavement sections, all dedicated sections must conform to standards provided by the governing agency, including section composition, supporting material thickness and any requirements for reinforcing steel.

The paved areas in the loading vicinity of "dumpster" type garbage containers experience increased stresses from the dynamic effect of the trash hauling vehicles. We recommend the use of a 6-inch thick steel-reinforced portland cement concrete slab over 6 inches of aggregate base material in the loading vicinity of a dumpster.

In preparation for placement of the pavement section, the Earthwork Contractor shall ensure that proposed subgrade materials have been observed and/or tested by the Geotechnical Engineer (or his representative in the field) to document conformance with the R-value requirements. Generally, at least the upper 6 inches of subgrade should be scarified, moisture conditioned and compacted to at least 95 percent relative compaction. Subsequently, aggregate base materials should be placed in thin lifts and compacted to at least 95 percent relative compaction. All subgrade and final grades should be rolled to provide a uniform surface that is smooth, firm, and non-yielding.

A bituminous concrete mix design should be submitted to the Geotechnical Engineer for approval prior to paving. During paving, the bituminous mixture should be sampled and tested by the Geotechnical Engineer to ensure materials quality and compaction.

Periodic crack sealing and surface sealing must be implemented to increase service life of the pavement.

I. Additional Geotechnical Engineering Services

Results included in the text of this report reflect our original understanding of project development and, as such, should be used as general guidelines for project development including

lightly loaded foundations, slab-on-grade construction, exterior flatwork, pavement and public improvement areas.

This report is geotechnical in nature and not intended to identify other site constraints such as environmental hazards, wetlands determinations and/or the potential presence of buried utilities. We can assist in evaluating these considerations should further information be requested.

All plans and specifications under the jurisdiction of Carson City should be reviewed for conformance with this geotechnical report and approved by the Geotechnical Engineer prior to submitting it to the Building Department for review.

The recommendations presented in this report are based on the assumption that sufficient field inspection and construction review will be provided during all phases of construction. Prior to construction, a pre-job conference should be scheduled to include, but not be limited to, the Owner, Architect, Civil Engineer, General Contractor, Earthwork and Materials Sub-Contractors, Building Official and Geotechnical Engineer. The recommendations presented in this report should be reviewed by all parties to discuss applicable specifications and testing requirements. At this time, any applicable material quality and mix design reports should be submitted for approval by the Geotechnical Engineer.

We should provide on-site observations and testing during site preparation and grading, excavation, fill placement, foundation installation and paving. These observations would allow us to document that the soil conditions are as anticipated, and that the Contractor's work is in conformance with the intent of our recommendations and the approved plans and specifications.

When conceptual plans have been approved through the Project Review process of the City, we should review and evaluate the adequacy of the recommendations in this preliminary report. At that time, the need for additional subsurface drilling, laboratory testing, and analysis will likewise be evaluated.

VII. GLOSSARY OF TEST PROCEDURES

ASTM Test Designation: C 136: *Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates*

ASTM Test Designation: D 420: *Standard Guide to Site Characterization for Engineering, Design, and Construction Purposes.*

ASTM Test Designation: D 1557: *Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ [2,700 KN-m/m³]).*

ASTM Test Designation: D 1586: *Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils.*

ASTM Test Designation: D 2216: *Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock.*

ASTM Test Designation: D 2487: *Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).*

ASTM Test Designation: D 2844: *Standard Test Method for Resistance R-Value and Expansion Pressure of Compacted Soils.*

ASTM Test Designation: D 4318: *Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.*

ASTM Test Designation: D 4829: *Standard Test Method for Expansion Index of Soils.*

VIII. DISTRIBUTION

One unbound wet stamped original and two bound wet stamped copies to:

The Ryckebosch Companies
50 Continental Drive
Reno, NV 89509

Attention: Mr. Steven V. Ryckebosch, President

One unbound wet stamped copy and two bound wet stamped copies to:

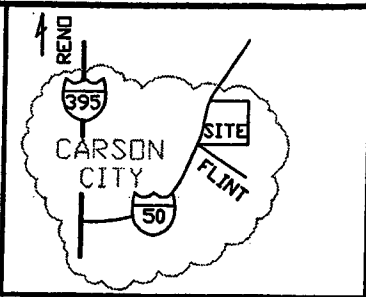
Western Engineering & Surveying Services
3032 Silver Sage Dr.
Carson City, NV 89701

Attention: Mr. Dennis Smith, P.E.

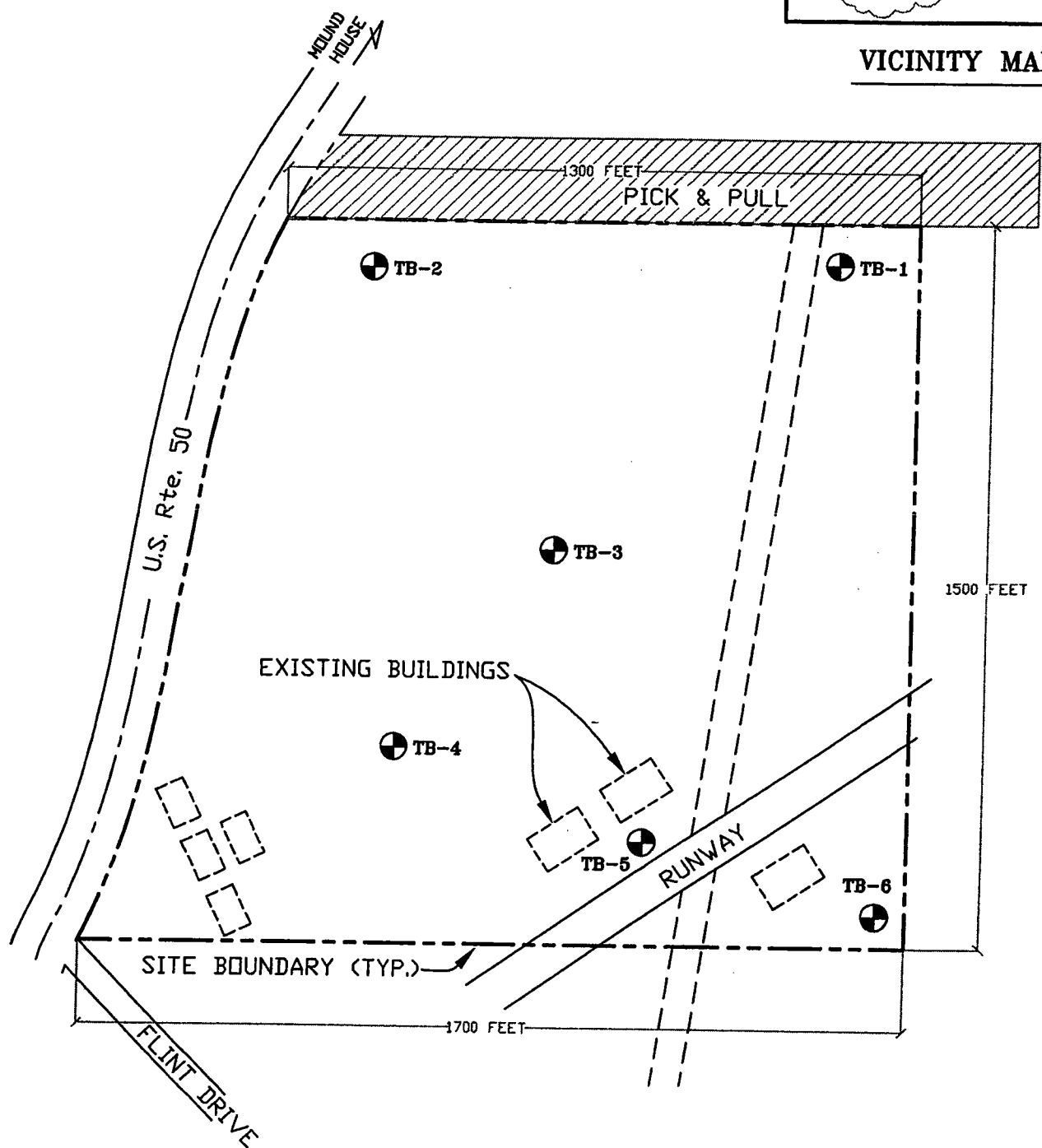
APPENDIX A

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VICINITY MAP



Remarks: Not To Scale

  = Test Boring Location

Job No. 5765.01-A	SITE AND EXPLORATION PLAN	11-13-06
 Pezonella Associates, Inc Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 856-5500 FAX (775) 856-0148	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 1

LOG OF BORING 1

Equipment CME 55 Hollow Stem Auger


Elevation 4944 Date 09-28-06

Laboratory Tests and (Other Information)	Driving Resistance Blows/Ft.	Moisture Content (%)	Dry Density (pcf)	Depth (ft) Sample	
* Particle Size Distribution Report (See Plate 9) Compaction Test Report (See Plate 13)	54/2"			*	BROWN SILTY SAND WITH GRAVEL (SM) very dense, moist becoming loose below 18 inches and dense below 24 inches
	36	14.4	80	5	sampler refusal at 3.5 feet becoming medium dense below 4.5 feet (disturbed?)
	54/5"			10	becoming very dense below 8.0 feet sampler refusal at 9.5 feet
	54/6"			15	LIGHT BROWN SILTY GRAVEL WITH SAND (GM) very dense, moist sampler refusal at 14.5 feet
	38/5"			20	sampler refusal at 20.5 feet
	54/5"			25	sampler refusal at 24.5 feet No Free Water Encountered

Elevation Reference:

Topographical information from Google Earth web site

GPS: 39°12.264'N
119°40.972'W

Job No. 5765.01-A	BORING LOG	11-13-06
 Pezonella Associates, Inc <small>Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 858-8888 FAX (775) 858-8048</small>	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 2

LOG OF BORING 2

Equipment CME 55 Hollow Stem Auger


Elevation 4918 Date 09-28-06

Laboratory Tests and (Other Information)	Driving Resistance Blows/Ft.	Moisture Content (%)	Dry Density (pcf)	Depth (ft) Sample	
	59/4"			5	<p>BROWN SILTY SAND WITH GRAVEL (SM) very dense, moist</p> <p>sampler refusal at 3.0 feet</p> <p>sampler refusal at 5.0 feet</p> <p>sampler refusal at 10.0 feet</p> <p>sampler refusal at 15.0 feet</p> <p>No Free Water Encountered</p>
	72/3"			10	
	65/6"			15	
	41/6"				

Elevation Reference:

See Log Of Boring 1

GPS: 39°12.248'N
119°41.135'W

Job No. 5765.01-A	BORING LOG	11-13-06
 Pezonella Associates, Inc <small>Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 856-5566 FAX (775) 856-6043</small>	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 3

LOG OF BORING 3


Equipment CME 55 Hollow Stem Auger

Elevation 4929 Date 09-29-06

Laboratory Tests and (Other Information)	Driving Resistance Blows/Ft.	Moisture Content (%)	Dry Density (pcf)	Depth (ft) Sample		
* R-Value Test Report (See Plate 12)	54/3"	8.3	105	*	X	BROWN SILTY SAND WITH GRAVEL (SM) very dense, moist
	69/6"			5	■	sampler refusal at 3.0 feet
	54/5"			10	X	sampler refusal at 4.5 feet
	68/6"			15	■	sampler refusal at 10.0 feet
	65/3"			20	X	sampler refusal at 14.5 feet
				25		sampler refusal at 19.5 feet
					No Free Water Encountered	

Elevation Reference:
See Log of Boring 1

GPS: 39°12.188'N
119°41.064'W

Job No. 5765.01-A	BORING LOG	11-13-06
 Pezonella Associates, Inc Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 856-6566 FAX (775) 856-8048	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 4

LOG OF BORING 4

Equipment CME 55 Hollow Stem Auger


Elevation 4920 Date 09-29-06

Laboratory Tests and (Other Information)	Driving Resistance Blows/Ft.	Moisture Content (%)	Dry Density (pcf)	Depth (ft) Sample	
* pH=6.55 SO ₄ =25.2 ppm Resistivity=7937 Ohm-cm.	32/3"			5	BROWN SILTY SAND WITH GRAVEL (SM) very dense, moist sampler refusal at 2.5 feet
	60/4"			5	sampler refusal at 4.5 feet
	70/6"			10	sampler refusal at 10.0 feet
	39/6"			15	sampler refusal at 15.0 feet No Free Water Encountered

GPS: 39°12.126'N
119°41.173'W

Elevation Reference:

See Log Of Boring 1

Job No. 5765.01-A	BORING LOG	11-13-06
 Pezonella Associates, Inc Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 866-5666 FAX (775) 866-5048	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 5

LOG OF BORING 5


Equipment CME 55 Hollow Stem Auger

Elevation 4929 Date 09-28-06

Laboratory Tests and (Other Information)	Driving Resistance Blows/Ft.	Moisture Content (%)	Dry Density (pcf)	Depth (ft) Sample	
* Expansion Index (See Plate 11) Compaction Test Report (See Plate 14) Non-plastic material (will not roll) ** Particle Size Distribution Report (See Plate 10)				*	BROWN WELL-GRADED SAND WITH SILT (SW-SM) very dense, moist
	41/6"	19.0	84	*	sampler refusal at 3.0 feet
	54/4"			5	sampler refusal at 5.0 feet
	81/6"			10	sampler refusal at 10.0 feet
	54/4"			15	sampler refusal at 15.0 feet
	54/5"			20	sampler refusal at 20.0 feet No Free Water Encountered
				25	

GPS: 39°12.057'N
119°41.077'W

Elevation Reference:
See Log of Boring 1

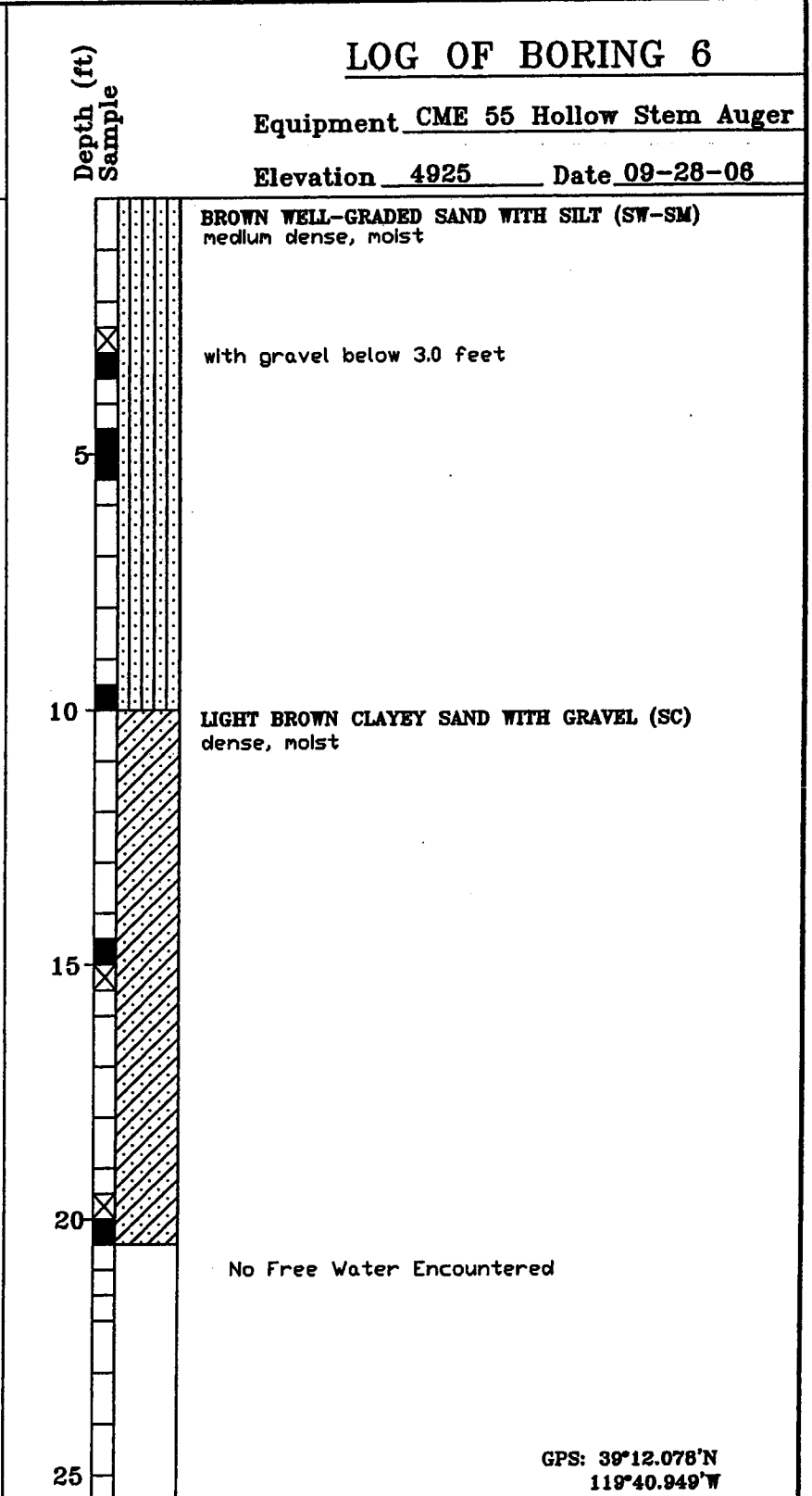
Job No. 5765.01-A	BORING LOG	11-13-06
 Pezonella Associates, Inc Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 866-8666 FAX (775) 866-8048	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 6

LOG OF BORING 6

Equipment CME 55 Hollow Stem Auger

Elevation 4925 Date 09-28-06

Laboratory Tests and (Other Information)	Driving Resistance Blows/Ft.	Moisture Content (%)	Dry Density (pcf)
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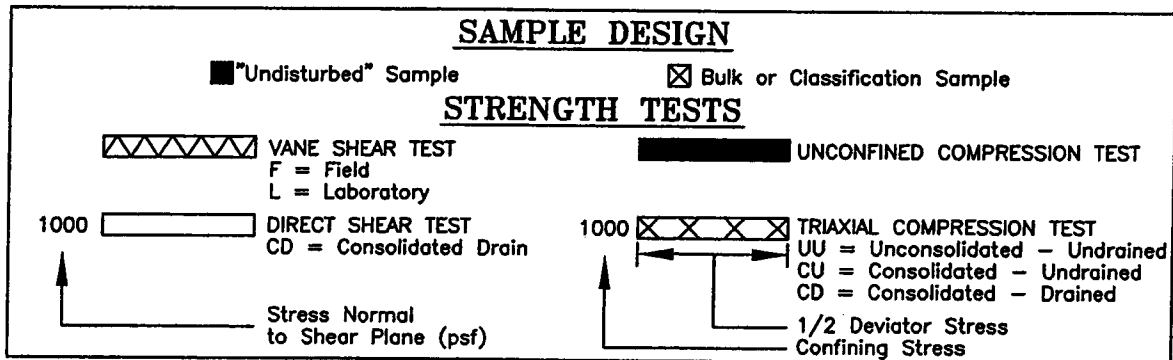
Elevation Reference:
See Log of Boring 1

GPS: 39°12.078'N
119°40.949'W


Job No. 5765.01-A	BORING LOG	11-13-06
Pezonella Associates, Inc <small>Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 556-5666 FAX (775) 556-6043</small>	EAST RIDGE VILLAGE CARSON CITY, NEVADA	Plate No. 7

MAJOR DIVISIONS				TYPICAL NAMES		
COARSE GRAINED SOILS MORE THAN HALF IS LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COURSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES		
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES		
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVELS, POORLY GRADED GRAVEL-SAND SILT MIXTURES		
			GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES		
	SANDS MORE THAN HALF COURSE FRACTION IS SMALLER THAN No. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS		
			SP	POORLY GRADED SANDS, GRAVELLY SANDS		
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES		
			SC	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES		
			FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN #200 SIEVE	SILTS AND CLAY LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS SILTY CLAYS, LEAN CLAYS
OL	INORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY					
SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS				
	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS				
	OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS				
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS		

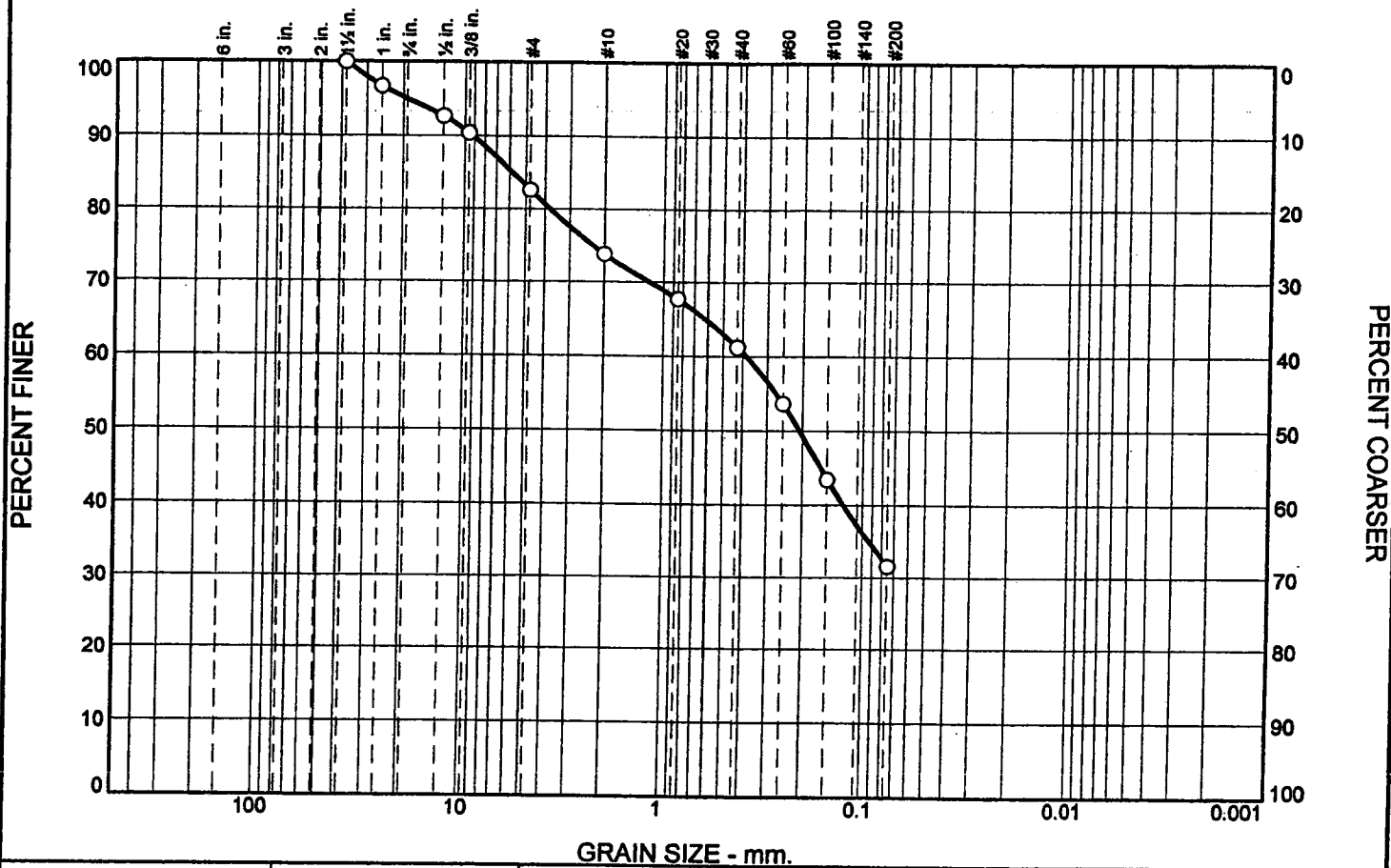
UNIFIED SOIL CLASSIFICATION SYSTEM



KEY TO TEST DATA

Job No. 5765.01-A	EAST RIDGE VILLAGE	11-13-06
 Pezonella Associates, Inc Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (775) 856-5556 FAX (775) 856-8043	SOIL CLASSIFICATION CHART AND KEY TO TEST DATA	Plate No. 8

Particle Size Distribution Report



GRAIN SIZE - mm.

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	5.0	12.4	8.8	12.6	29.6	31.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0		
1	96.7		
.5	92.7		
.375	90.4		
#4	82.6		
#10	73.8		
#20	67.7		
#40	61.2		
#60	53.6		
#100	43.4		
#200	31.6		

* (no specification provided)

Soil Description

Brown silty sand with gravel (SM)

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 5.8206 D₆₀= 0.3843 D₅₀= 0.2071

D₃₀= D₁₅= D₁₀=

C_u= C_c=

Classification

USCS= (SM) AASHTO=

Remarks

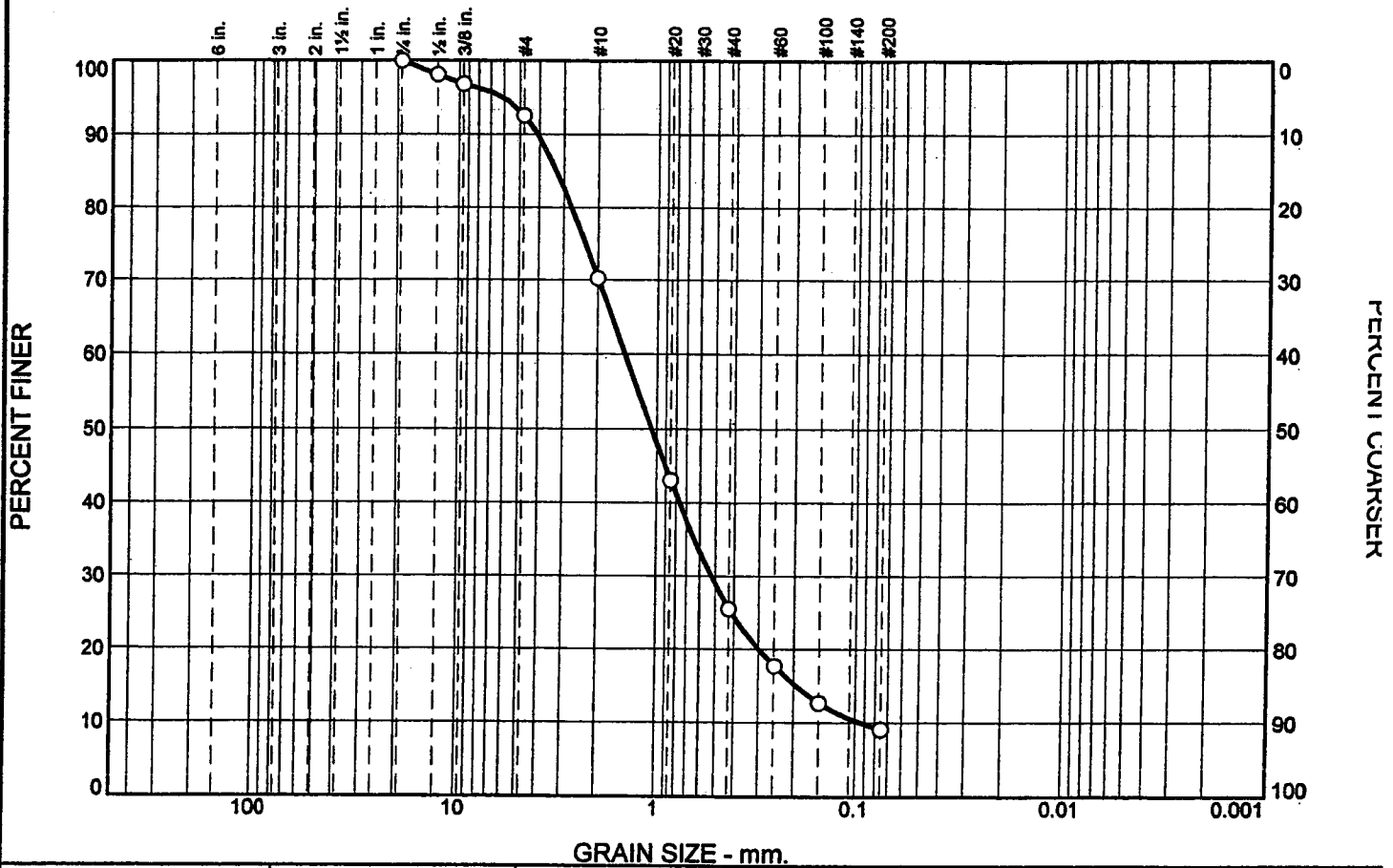
Sample No.: 793
Location:

Source of Sample: TB-1

Date: 10-19-06
Elev./Depth: 0.0 to 3.0 feet

PEZONELLA ASSOCIATES, INC. Reno, Nevada	Client: Project: East Ridge Village Carson City, Nevada Project No: 5765.01-A
Plate 9	

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	7.4	22.4	44.7	16.4	9.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
.5	98.1		
.375	96.9		
#4	92.6		
#10	70.2		
#20	43.0		
#40	25.5		
#60	17.7		
#100	12.6		
#200	9.1		

Soil Description
Brown well-graded sand with silt (SW-SM)

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 3.2831 D₆₀= 1.4596 D₅₀= 1.0680
 D₃₀= 0.5250 D₁₅= 0.1956 D₁₀= 0.0939
 C_u= 15.54 C_c= 2.01

Classification
 USCS= (SW-SM) AASHTO=

Remarks

* (no specification provided)

Sample No.:
Location:

Source of Sample: TB-5

Date: 10-19-06
Elev./Depth: 2.0 to 2.5 feet

**PEZONELLA
ASSOCIATES, INC.
Reno, Nevada**

Client:
Project: East Ridge Village
Carson City, Nevada
Project No: 5765.01-A

Plate 10

Sample Location: TB-5

Depth: 0.0 to 5.0 feet

Soil Classification: Brown well-graded sand with silt (SW-SM)

Test Specification: ASTM D4829

I.B.C. Criteria (¶1802.3.2)

Soils meeting all 4 of the following provisions shall be considered expansive, except that tests to show compliance with items 1, 2 and 3 shall not be required if the test provided in item 4 is conducted.

1. PI > 15 (ASTM D4318)
2. > 10% smaller than 75 microns (ASTM D422)
3. > 10% smaller than 5 microns (ASTM D422)
4. EI > 20 (ASTM D4829)

S.G. 2.7

Degree of Saturation (S_{meas}) 56.61

EI_{meas} 9.4

EI₅₀* 12.4

CLASSIFICATION OF POTENTIALLY EXPANSIVE SOIL (ASTM D4829; ¶5.3)

EXPANSION INDEX	POTENTIAL EXPANSION
0-20	VERY LOW
21-50	LOW
51-90	MEDIUM
91-130	HIGH
>130	VERY HIGH


EXPANSION INDEX 12.4
POTENTIAL EXPANSION VERY LOW

* Expansion Index (EI₅₀) calculated by using EI_{meas} within 40 and 60% saturation in accordance with ASTM D4829, ¶10.1.2

Job No. 5765.01-A

EXPANSION INDEX REPORT

Date:
11-13-06

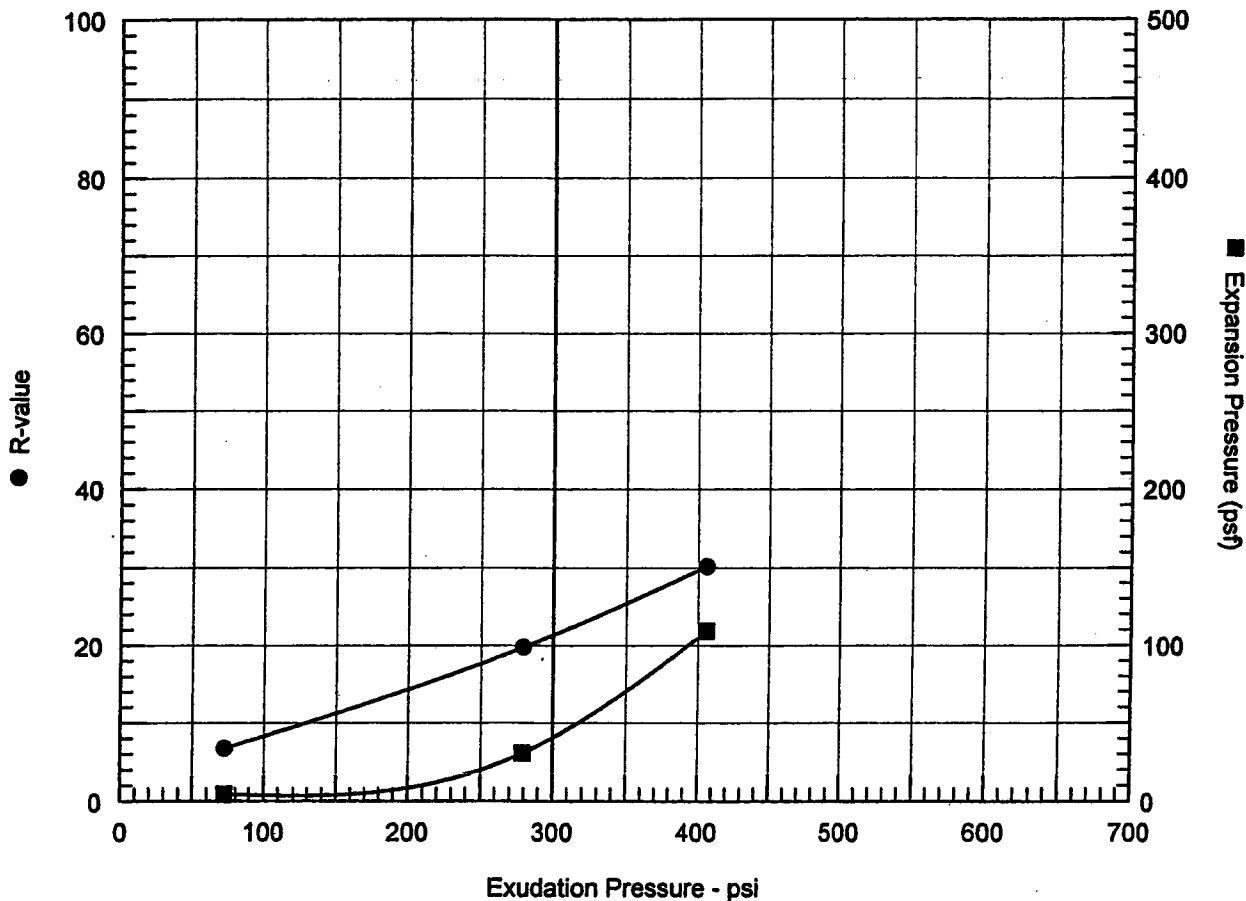
 **Pezonella Associates, Inc**
Consulting Engineers
520 Edison Way Reno, Nevada 89502
PHONE (775) 866-5566 FAX (775) 866-5048

**EAST RIDGE VILLAGE
CARSON CITY, NEVADA**

Plate No.

11

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D 2844

No.	Compact Pressure psi	Density pcf	Moist. %	Expansion Pressure psf	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	30	108.9	16.0	4	136	2.51	72	6.7	6.7
2	125	116.8	13.9	31	112	2.47	279	19.8	19.8
3	250	111.1	11.5	109	91	2.57	406	28.8	30.2

Test Results

Material Description

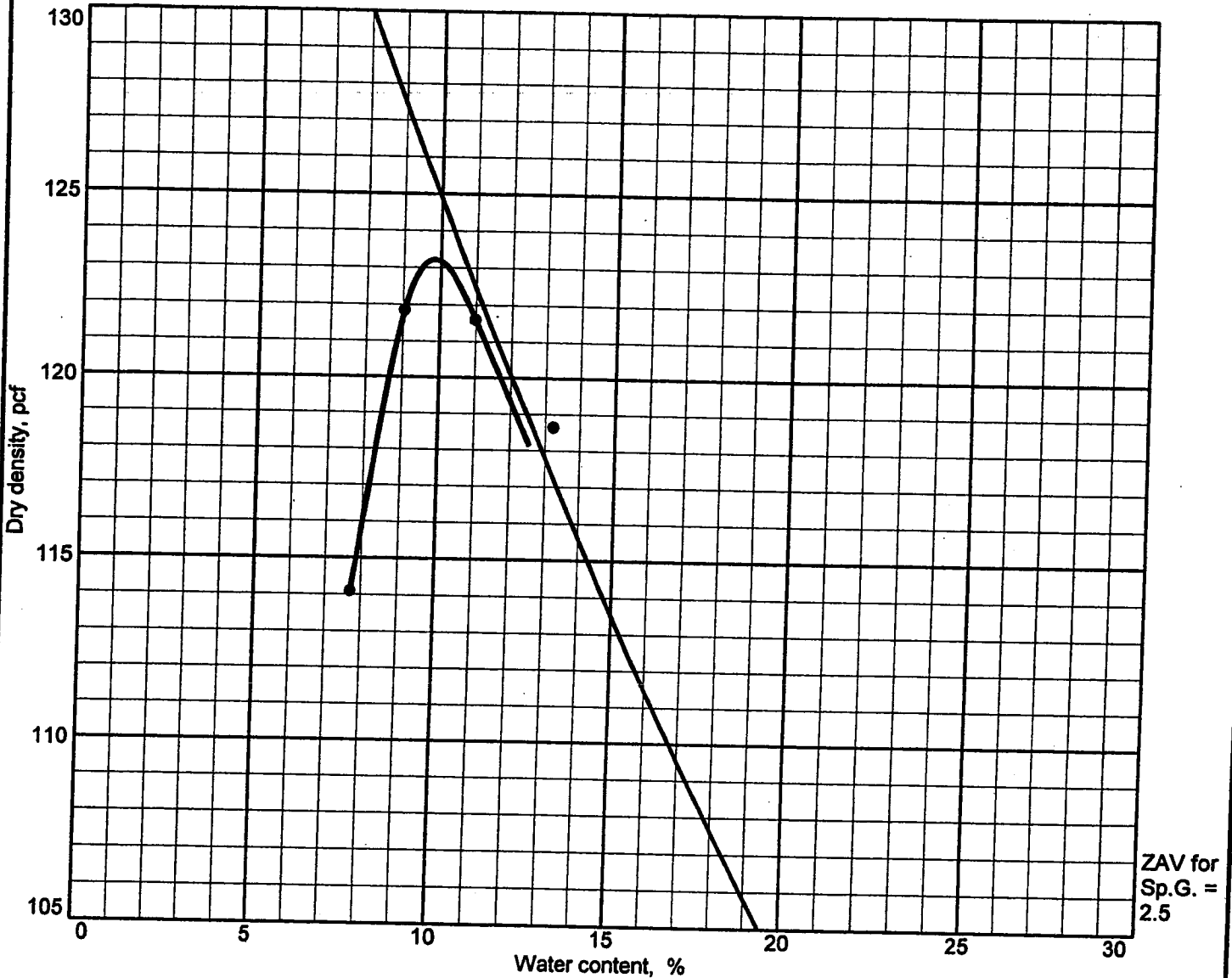
R-value at 300 psi exudation pressure = 21.4
 Exp. pressure at 300 psi exudation pressure = 41 psf

Brown silty sand with gravel (SM)

Project No.: 5765.01-A
 Project: East Ridge Village
 Source of Sample: TB-3 Depth: 0.0 to 3.0 feet
 Sample Number: 794
 Date: 12/8/2006

Tested by:
 Checked by:
 Remarks:

COMPACTION TEST REPORT

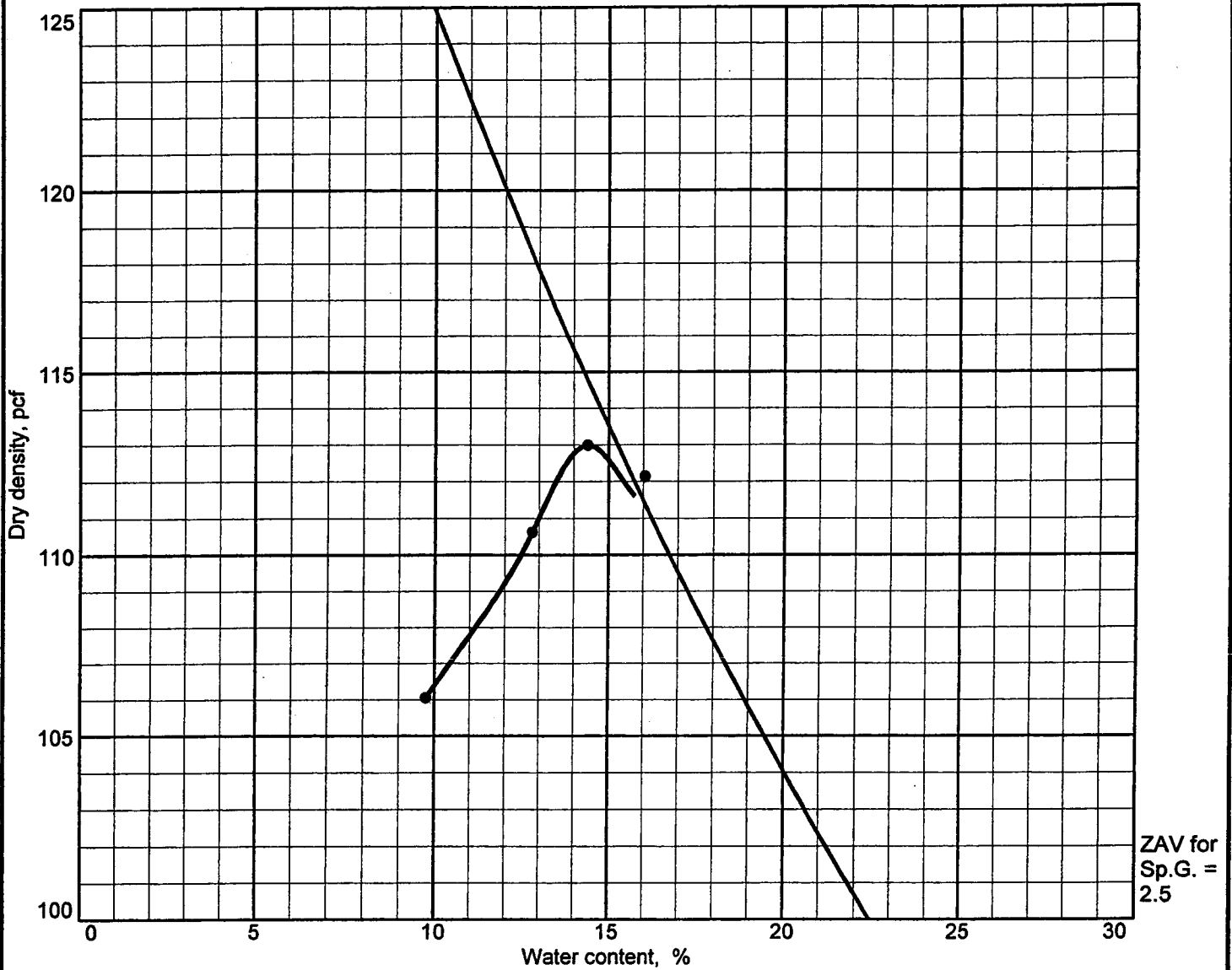


Test specification: ASTM D 1557-00 Method C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
0.0 to 3.0 feet	(SM)						5.0	31.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 123 pcf Optimum moisture = 10 %	Brown silty sand with gravel (SM)
Project No. 5765.01-A Client: Project: East Ridge Village Carson City, Nevada Date: 10-19-06 • Source: TB-1 Sample No.: 793 Elev./Depth: 0.0 to 3.0 feet	Remarks:
PEZONELLA ASSOCIATES, INC. Reno, Nevada	

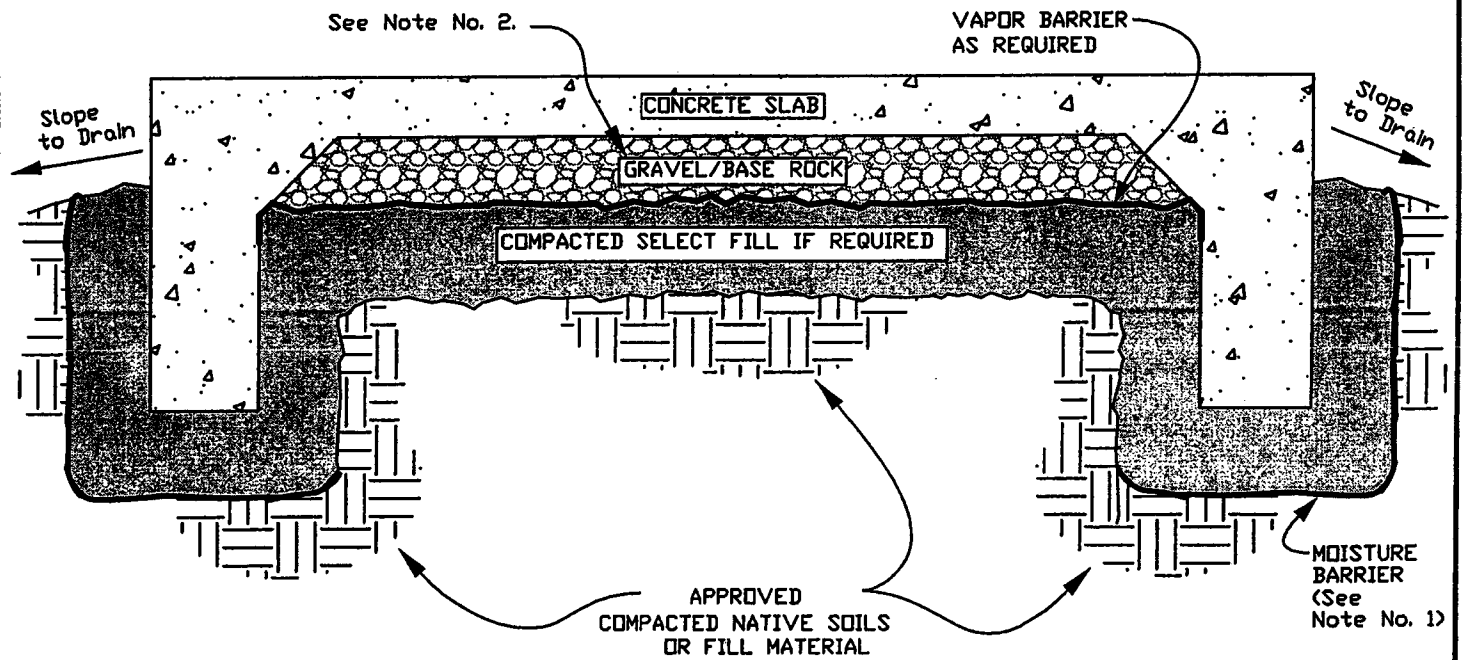
COMPACTION TEST REPORT



Test specification: ASTM D 1557-00 Method C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
0.0 to 5.0 feet	(SW-SM)							


TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 113 pcf Optimum moisture = 14 %	Brown well-graded sand with silt (SW-SM)
Project No. 5765.01-A Client: Project: East Ridge Village Carson City, Nevada Date: 10-19-06 • Source: TB-5 Sample No.: 795 Elev./Depth: 0.0 to 5.0 feet	Remarks:
PEZONELLA ASSOCIATES, INC. Reno, Nevada	
Plate 14	



NOTES:

- 1.) A moisture barrier shall be provided.
- 2.) Thickness of gravel/base rock shall be 4 inches or as determined by a structural engineer.

Not to Scale

<p>Job No. 5765.01-A</p>	<p>SLAB-ON-GRADE AND BACKFILL DETAIL</p>	<p>11-13-06</p>
<p> Pezonella Associates, Inc Consulting Engineers 520 Edison Way Reno, Nevada 89502 PHONE (776) 856-5566 FAX (776) 856-6042</p>	<p>EAST RIDGE VILLAGE CARSON CITY, NEVADA</p>	<p>Plate No. 15</p>