

CHAPTER 8.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

Section 21081.6 of the Public Resources Code requires that public agencies adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.

Per the requirements of the *Environmental Impact Report Format and General Content Requirements* (County of San Diego, 2004), the list must include: “1) a comprehensive listing of all mitigation measures proposed for the project; and 2) a listing of all conditions of approval required to ensure that project design considerations that were relied upon to determine an effect to be less than significant are required to be implemented (e.g., applicant proposed open space areas, road improvements, drainage systems).”

Following is a list of the proposed mitigation measures and environmental design considerations to be included as part of the mitigation and monitoring program for the proposed project:

Aesthetics/Visual Quality

○ Mitigation Measures

- 2.1-A(1): As a component of the review of future applications for building permits, the County DPLU shall review proposed architecture plans for consistency with the Project’s MUP plot plan, which includes architectural elevations and site design details found to be consistent with the Spring Valley Design Guidelines.
- 2.1-A(2): A landscaping program shall be implemented as approved by the County of San Diego as part of P02-023. As a component of the review of future landscaping plans, the County DPLU shall review proposed landscaping plans for compliance with the Spring Valley Design Guidelines relating to landscape character. The planting program shall, at a minimum, provide for the following:
- a) A visual transition from natural slopes to developed areas.
 - b) Screening of structures.
 - c) Screening of off-street parking lots.
 - d) Erosion prevention.
 - e) View enhancement and slope beautification by blending landscaping in with the existing vegetation that will remain undisturbed (blending includes consideration of color, texture and placement).
- 2.1-B(1): As a component of the review of future applications for grading permits, the County DPLU shall ensure that proposed grading plans incorporate retaining walls that are composed of plantable keystone materials. In addition, a planting scheme for the retaining walls shall be provided as a component of future landscaping plans. The planting scheme shall incorporate trees and/or shrubs within the 8-foot gap between Retaining Walls 4 and 5 in order to screen these walls from off-site locations.

- 2.1-C(1): Mitigation Measure 2.1-A(2) shall apply.
- 2.1-C(2): Prior to the issuance of grading permits, the County DPLU shall review drainage plans to ensure that practical, drainage devices on graded slopes will be located so as to minimize visibility. Concrete drains shall be color tinted to blend with the natural soil color, and landscaping shall be used to further screen drainage devices, as appropriate.
- 2.1-C(3): As a component of the review of future grading and landscape plans, the County DPLU shall ensure that manufactured slopes adjacent to natural open space areas have been revegetated with native plant species. Areas of cut face shall be serrated to create a “pocket” in which trees and shrubs can take hold. Serration requirements shall be noted on Project grading plans.
- 2.1-D(1): Mitigation Measures 2.1-A(1), 2.1-A(2), 2.1-C(2), and 2.1-C(3) shall apply.
- 2.1-E(1): As a component of the review of building permits, the County DPLU shall review proposed lighting plans to ensure compliance with the Light Pollution Code (San Diego County Code of Regulatory Ordinances, Division 9, Sections 59.101-59.115). In addition, the review of proposed lighting plans also should ensure that proposed lighting elements are consistent with the Project’s MUP plot plan.
- 2.1-E(2) Prior to the approval of building permits, the County DPLU shall review proposed construction materials to verify that windows proposed for residential homes are consistent with the requirements of the MUP plot plans and architectural design guidelines pertaining to window treatments.

Air Quality

○ Mitigation Measures

- 3.1-A: During operation of the on-site rock crusher, the following Best Management Practices (BMPs) shall be implemented during construction activities in order to reduce NO_x emissions:
- Use electricity from power poles rather than temporary diesel power generators for all stationary construction equipment (estimated 50% reduction in emissions).
 - The construction supervisor shall instruct all diesel-fueled construction vehicle operators to restrict idling times to five minutes and to turn off engines when vehicles are not in use. Idling restrictions shall be noted on all grading plans and construction drawings.
 - Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines (estimated 20% reduction in emissions).
 - Daily NO_x monitoring on the project site shall be performed by an Air Quality engineer approved by the County during operation of the rock crusher. Should NO_x levels over the 1-hr CAAQS for NO₂ or 0.25 ppm be identified, use of the rock

crusher shall be temporarily suspended until applicable control measures are implemented as required by the Air Quality engineer.

3.1-B: In conformance with Section 87.101 (et seq.) of the County's Grading Ordinance, the following design control measures shall be implemented into the construction plan in order to reduce the potential for dust generation (i.e., PM₁₀) during construction activities:

- In disturbed areas, ground cover shall be replaced as quickly as possible, in conformance with Section 87.417(a) of the County's Grading Ordinance (estimated 10% reduction in PM₁₀ emissions);
- Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specification to exposed piles (i.e., gravel, sand, and dirt) with 5% silt content, in conformance with Section 87.428 of the County's Grading Ordinance (estimated 30% reduction in PM₁₀ emissions);
- In conformance with Section 87.428 of the County's Grading Ordinance, during construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible (estimated 50% reduction in PM₁₀ emissions);
- Suspend all excavating and grading operations when wind speeds exceed 25 mph (estimated 30% reduction in PM₁₀ emissions);
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (estimated 15% reduction in PM₁₀ emissions);
- Restrict onsite vehicle speeds on unpaved surfaces to 15 miles per hour or less, in conformance with Section 87.428 of the County's Grading Ordinance (estimated 30% reduction in PM₁₀ emissions). Submit to the Director, Department of Planning and Land Use evidence that temporary 15 MPH signs have been placed along unpaved roads and/or haulways before construction occurs. Evidence shall include photographs of the signs placed on the project site and a stamped, signed statement from a California Registered Engineer, or licensed surveyor that 15 MPH speed signs have been placed along these routes;
- Gravel pads must be installed at all access points to prevent tracking of mud on to public roads, in conformance with Section 87.428 of the County's Grading Ordinance (estimated 5% reduction in PM₁₀ emissions);
- In conformance with Section 87.422(a) of the County's Grading Ordinance, the contractor or builder shall designate a person or persons as a "Permit Compliance Engineer" to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone

number of such persons shall be provided to the Air Pollution Control District prior to land use clearance for map recordation and land use clearance for finish grading for the structure;

- In conformance with Section 87.208(b)(7) of the County's Grading Ordinance, prior to land use clearance, the applicant shall include, as a note on a separate informational sheet, these dust control requirements. All requirements shall be shown on grading and building plans;
- In conformance with Section 87.428 of the County's Grading Ordinance, sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommended water sweepers with reclaimed water; estimated 10% reduction in PM₁₀ emissions);
- In conformance with Section 87.428 of the County's Grading Ordinance, apply water three times daily (or as needed) to all unpaved roads and parking or staging areas (estimated 30% reduction in PM₁₀ emissions);
- Periodic (once weekly) PM₁₀ monitoring shall be performed by a County-approved Air Quality engineer to ensure compliance with the County's Grading Ordinance. Should PM₁₀ emissions be found to exceed an ambient air quality concentration increase of 5 parts per billion, grading activities shall be temporarily reduced until control measures are implemented as required by the Air Quality engineer.

Biological Resources

○ Mitigation Measures

- 3.2-A: The impacts to 69.91 acres of coastal sage scrub will be mitigated at a ratio of 1.5:1 providing for the preservation of a total of 104.9 acres of Tier II (coastal sage scrub) habitat within the MSCP Subregion, in compliance with the Biological Mitigation Ordinance.

The conditions of approval will require that prior to issuance of grading permits or improvement plans and prior to approval of the Final Map, the applicant shall (a) grant an open space easement to the County of San Diego preserving 96.3 acres of coastal sage scrub as shown on the Open Space Exhibit or Tentative Map, and (b) provide for the approval of the County DPLU Director evidence that 8.6 acres of Tier II habitat credit has been secured in a County approved mitigation bank within the MSCP Subregion.

- 3.2-B: Mitigation for on-site impacts to 0.36 acres of non-native grassland will be preservation of comparable habitat at a ratio of 0.5:1 providing for the preservation of a minimum of 0.18 acres of Tier III (non-native grassland) habitat, in compliance with the Biological Mitigation Ordinance.

The conditions of approval will require that prior to issuance of grading permits or improvement plans and prior to approval of the Final Map, the applicant shall grant an open space easement to the County of San Diego which preserves approximately 1.6 acres of non-native grassland as shown on the Open Space Exhibit or Tentative Map.

- 3.2-C: Mitigation for off-site impacts to 1.68 acres of non-native grassland will be preservation of comparable habitat at a ratio of 0.5:1 providing for the preservation of a minimum of 0.84 acres of Tier III (non-native) grassland habitat, in compliance with the Biological Mitigation Ordinance.

The conditions of approval will require that prior to issuance of grading permits or improvement plans and prior to approval of the Final Map, the applicant shall grant an open space easement to the County of San Diego which preserves approximately 1.6 acres of non-native grassland as shown on the Open Space Exhibit or Tentative Map.

- 3.2-D Mitigation for inadvertent damage to the preserve area during construction will be (1) maintaining conspicuous temporary fencing to mark the limits of grading, and (2) employing a project biologist to monitor clearing and grading activities and to provide education to the construction superintendent regarding the sensitivity of the onsite biological resources and the need to prevent any direct construction impacts.

Project Design Elements which reduce the potential for impacts include maintaining compliance with the Stormwater Management Plan and Grading Ordinance, monitoring contractor conduct for site cleanliness (to avoid attracting predators), keeping construction maintenance and storage activities away from the preserve, minimizing night lighting near the preserve, and reporting to the County weekly.

- 3.2-E: Mitigation for indirect impacts to sensitive habitats, plants and wildlife species will be (1) permanent fencing between the development and the preserve boundary to reduce the potential for unauthorized human and domestic animal access, (2) dedicating a limited building zone easement to reduce the risk of fire fuel modification requirements in the preserve, and (3) funding and implementation of a Habitat Management Plan (HMP) that will provide stewardship for the preserve, monitoring and remediation of Project-related indirect impacts in the preserve, and reporting on the status of the preserve, and naming the County as a third party beneficiary to the HMP fund.

- 3.2-F: Mitigation for direct impacts to variegated dudleya will be (1) avoidance of 80% of the population onsite, and (2) additional mitigation at a 2:1 mitigation ratio, in accordance with the Biological Mitigation Ordinance. In addition, the MSCP species management directives to conduct species-specific monitoring and protect the species from edge effects have been incorporated into the Project's HMP [Measure 3.2-D(3)].

The conditions of approval will require (1) avoiding 80% of the onsite population; (2) preservation of an additional 7.2 percent (1,360 plants) of the onsite population; and (3) off-site mitigation of 3,490 variegated Dudleya plants, or other acreage deemed acceptable by the Director of the County Department of Planning and Land Use (which can be included in the total coastal sage scrub mitigation acreage as required by Mitigation Measure No. 3.2-A), to be purchased in a pre-approved mitigation bank within the MSCP Subregion..

- 3.2-G: Mitigation for direct impacts to San Diego goldenstar will be (1) avoidance of 80% of the population onsite, and (2) additional mitigation at a 2:1 mitigation ratio, in accordance with the Biological Mitigation Ordinance. In addition, the MSCP species management

directive to protect the species from edge effects has been incorporated into the Project's HMP [Measure 3.2-E(3)].

The conditions of approval will require (1) avoiding 80% of the onsite population, and (2) preservation of an additional 14 percent (1,981 plants) of the on-site population.

- 3.2-H: Mitigation for direct impacts to coast barrel cactus will be (1) avoidance of 80% of the population onsite, and (2) additional mitigation at a 1:1 mitigation ratio, in accordance with the Biological Mitigation Ordinance. In addition, the MSCP species management directives to protect the species from edge effects, unauthorized collection, and to require fire management to avoid a too frequent fire cycle have been incorporated into the Project's HMP [Measure 3.2-E(3)].

The conditions of approval will include (1) avoiding 80% of the onsite population; (2) preservation of an additional 2.1 percent (20 plants) of the on-site population; and (3) off-site mitigation of 150 coast barrel cactus plants, or other acreage deemed acceptable by the Director of the County Department of Planning and Land Use (which can be included in the total coastal sage scrub mitigation acreage as required by Mitigation Measure No. 3.2-A), to be purchased in a pre-approved offsite mitigation bank within the MSCP Subregion.

- 3.2-I: Mitigation for direct impacts to Munz's sage will be (1) avoidance of 80% of the population onsite, and (2) additional mitigation at a 1:1 mitigation ratio in accordance with the Biological Mitigation Ordinance.

The conditions of approval will include (1) avoiding 80% of the onsite population; (2) preservation of an additional 3.3 percent (0.7 acres) of the on-site population; and (3) off-site mitigation of 2.7 acres of habitat dominated by Munz's sage, or other acreage deemed acceptable by the Director of the County Department of Planning and Land Use (which can be included in the total coastal sage scrub mitigation acreage as required by Mitigation Measure No. 3.2-A), to be purchased in a pre-approved offsite mitigation bank within the MSCP Subregion.

- 3.2-J: Mitigation for direct impacts to western Dichondra is mitigated on a habitat basis in compliance with Mitigation Measure No. 3.2-A. This is because Dichondra is fairly common in the region, but of limited distribution. Because habitat-based mitigation will occur in the MSCP subarea, it will also benefit this species and will mitigate this impact.

- 3.2-K: Mitigation for direct impacts to coastal rosy boa is mitigated on a habitat basis in compliance with Mitigation Measure No. 3.2-A. This is because rosy boa, while not common, is widespread where adequate blocks of habitat are present in the region. Because habitat-based mitigation will occur according to MSCP preserve design criteria, it will benefit this species and will mitigate this impact.

- 3.2-L: Mitigation for direct impacts to orange-throated whiptail is mitigated on a habitat basis in compliance with Mitigation Measure 3.2-A. This is because this whiptail is fairly common where adequate blocks of habitat are present in the region. Because habitat-

- based mitigation will occur according to MSCP preserve design criteria, it will benefit this species and will mitigate this impact. In addition, the MSCP species management directive to protect the species from edge effects has been incorporated into the project's HMP [Measure 3.2-E(3)].
- 3.2-M: Mitigation for direct impacts to California gnatcatcher will be (1) purchase of offsite habitat containing 9 California gnatcatcher individuals, to be secured in a County approved mitigation bank within the MSCP Subregion and (2) implementation of Mitigation Measure 3.2-A(1) which includes preservation of 93.3 acres of coastal sage scrub onsite, currently providing habitat for 19 California gnatcatchers. Mitigation for indirect construction impacts will be (3) the MSCP-required restriction of brushing and clearing of occupied habitat between March 1 and August 15 and (4) providing for a monitoring biologist to be responsible for locating the birds in the clearing area and flushing them from the impact footprint. Long-term indirect impacts will occur with permanent fencing, dedication of a limited building zone, and the projects HMP [Mitigation Measure 3.2-E(3)]. MSCP species management directives apply that require measures to reduce edge effects and minimize disturbance during the nesting period, fire management to avoid a too frequent fire cycle and maintain habitat quality have been incorporated into the project's HMP.
- 3.2-N: Mitigation for direct impacts to coast horned lizard is mitigated on a habitat basis in compliance with Mitigation Measure 3.2-A. This is because coast horned lizard, while not common, is widespread where adequate blocks of habitat are present in the region. Because habitat-based mitigation will occur according to MSCP preserve design criteria, it will benefit this species and will mitigate this impact. In addition, the MSCP species management directives to protect the species from edge effects, including the spread of Argentine ants, has been incorporated into the project's HMP [Measure 3.2-E(3)].
- 3.2-O: Mitigation for direct impacts to Bell's sage sparrow is mitigated on a habitat basis in compliance with Mitigation Measure 3.2-A. This is because sage sparrow, while not common, is widespread where adequate blocks of habitat are present in the region. Because habitat-based mitigation will occur according to MSCP preserve design criteria, it will benefit this species and will mitigate this impact. Mitigation Measures 3.2-M will also benefit this species by reducing the potential for short-term direct impacts from construction.
- 3.2-P: Mitigation for direct impacts to southern California rufous-crowned sparrow is mitigated on a habitat basis in compliance with Mitigation Measure 3.2-A. This is because this sparrow is generally widespread where adequate blocks of habitat are present in the region. Because habitat-based mitigation will occur according to MSCP preserve design criteria, it will benefit this species and will mitigate this impact. In addition, the MSCP species management directive to encourage open phases of coastal sage scrub has been incorporated into the project's HMP [Measure 3.2-E(3)]. Mitigation Measures 3.2-M will also benefit this species by reducing the potential for short-term direct impacts from construction.
- 3.2-Q: Mitigation for direct impacts to black-tailed jackrabbit is mitigated on a habitat basis in compliance with Mitigation Measure No. 3.2-A. This is because jackrabbit, while not

- common, is widespread where adequate blocks of habitat are present in the region. Because habitat-based mitigation will occur according to MSCP preserve design criteria, it will benefit this species and will mitigate this impact.
- 3.2-R: Mitigation for indirect impacts to nesting raptors will be a prohibition on grading or clearing allowed within 500 feet of the eucalyptus woodland habitat between February 15 and July 15. This measure can be waived by the Director of Planning and Land Use if pre-grading surveys show that no active raptor nests are present.
- 3.2-S: Mitigation for direct impacts to northern harrier and other raptors is mitigated on a habitat basis in compliance with Mitigation Measure 3.2-A. This is because raptor foraging habitat is widespread where adequate blocks of habitat is present in the region. Because habitat-based mitigation will occur according to MSCP preserve design criteria, it will provide raptor foraging habitat and will mitigate this impact. Mitigation Measures 3.2-M will reduce the potential for short-term direct impacts from construction.

Hydrology and Water Quality

- 3.3-A: Prior to the recordation of the first Final Map for the Project, a Final Drainage Study shall be submitted to the Department of Public Works for review and approval. The Final Drainage Study shall depict the locations of proposed on-lot vegetated swales and ponding trenches and shall demonstrate that these features will attenuate anticipated increase of runoff within drainage basins N1, N2, W1, W2, W3, S1, S2, E1 and E2 to pre-development levels. In addition, the Final Drainage Study shall provide for a detention basin within the eastern park site, and shall further demonstrate that the combination of vegetated swales, ponding trenches, and a detention basin will reduce post-development peak runoff volumes within Basin S3 to below pre-development levels. The final design, configuration, and location of the detention basin within drainage basin S3 shall be depicted on the Final Map.

Noise

o Mitigation Measures

- 3.4-A(1): Implementation of Mitigation Measure No. 3.2-R which includes a prohibition on grading or clearing within 500 feet of the eucalyptus habitat between February 15 and July 15 (unless waived by the Planning Director if pre-grading surveys are negative), would mitigate potential indirect impacts to nesting raptors to below a level of significance.
- 3.4-A(2) The following requirement shall be imposed if construction is planned to occur between March 1 and August 15, the breeding season of the coastal California gnatcatcher: Prior to initiating construction activity, a qualified biological monitor shall survey and map all California gnatcatchers onsite. The biological monitor shall meet with the construction foreman and a County approved acoustical consultant to determine appropriate noise avoidance measures, if any. This may include avoidance or implementation of suitable noise reduction features such as temporary attenuation barriers constructed from hay bales or ¾-inch thick exterior plywood. If gnatcatchers are identified, start up noise

monitoring shall be conducted at appropriate boundary locations and weekly noise monitoring shall be conducted at the edge of occupied habitat by a County approved acoustical consultant and documentation for the monitoring shall be submitted to the County to verify that noise levels within occupied habitat do not exceed 60 dBA hourly average. The effective 60 decibel noise contour from construction activities in a worst case scenario for indirect impacts to sensitive avian habitat is approximately 1100 feet in radius. If noise levels exceed 60 decibels Leq hourly, the monitor shall notify the contractor, and construction activities in the area shall cease until adequate attenuation can be achieved as directed by the qualified acoustician or until the end of the breeding season (August 16).

3.4-B(1): Pursuant to the Major Use Permit 02-023, the applicant shall:

1. Be prohibited from operating portable hoe rams and jackhammers on the project site during mass grading and blasting operations.
2. Be prohibited from operating rock drills within 200 feet of any occupied residential property.
3. For any on-site rock-crushing and related materials handling operations, provide evidence to the satisfaction of the Director of the Department of Planning Land Use that:
 - a) Specifies one Kobelco 309 brake-horse power unit or an equivalently sized rock crusher producing no more than 87 decibels (A) at a reference distance of 50 feet.
 - b) Specify the location of any rock-crushing equipment and related materials handling activities shall be conducted on Lot 870 of the project site.
 - c) Prior to the onset of mass grading and blasting activities, construct a temporary open enclosure for noise reduction purposes on Lot 870 for both rock crushing and materials handling equipment on the project site. The minimum height of this earthen berm enclosure shall be 16 feet tall with respect to the level of the crusher pad. The configuration of the enclosure for this crusher pad is shown on Figure 9 of the Acoustical and Vibration Site Assessment (#03-068) by Investigative Science and Engineering, Inc. dated February 28, 2007.
 - d) Specify that the above applicable conditions be implemented prior to the onset of mass grading and blasting activities and will remain in place until they are completed subject to final inspected by the County of San Diego.

3.4-B(2): Pursuant to the Major Use Permit 02-023, the applicant shall not be issued any Certificates of Occupancy for any phase of this development prior to the completion of all mass grading activities and their final inspection by the County of San Diego.

3.4-C: Prior to recordation of any Final Map, a Noise Protection Easement shall be granted to the County of San Diego over the entire area of Lots 29-54, 71-92, 99-101, 116-118, 125-128, 136-149, and 190-211 of Tentative Map 5299RPL6. This easement is for the

mitigation of present and anticipated future excess noise levels including traffic flow on Pointe Parkway for residential use of these affected Lots. The easement shall require the following:

Prior to the issuance of any building permit for any residential use within the Noise Protection Easement, the applicant shall:

1. Complete to the satisfaction of the Director of the Department of Planning and Land Use, an acoustical analysis performed by a County approved acoustical engineer, demonstrating that the present and anticipated future noise levels for exterior and interior noise sensitive land uses will not exceed the allowable sound level limit of the Noise Element of the San Diego County General Plan [exterior (60 dBA CNEL) and interior (45 dBA CNEL)].
2. Incorporate to the satisfaction of the Director of the Department of Planning and Land Use all of the recommendations or mitigation measures of the acoustical analysis into the project design and building plans.

Traffic and Transportation

○ Mitigation Measures

- 3.5-A(1): Improvements to Jamacha Blvd. from Omega to Pointe Parkway are under construction to widen the roadway to a four-lane roadway segment within a Prime Arterial roadbed(County Project #CG-4476/Log 89-19-105E. Prior to approval of a Final Map, the Highlands Ranch project applicant shall contribute a fair share of cost needed for these improvements. Prior to issuance of occupancy permits, planned improvements to Jamacha Boulevard (County Project #CG-4476/Log 89-19-105E) shall be completed.
- 3.5-A(2): At the time of building permit issuance, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to the following segments of Jamacha Blvd.: 1) from Jamacha Road (Maya) to Whitestone; and 2) from Whitestone to Pointe Parkway.
- 3.5-B At the time of building permit issuance, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to these roadway segments.
- 3.5-C(1): At the time of building permit issuance, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to the intersections of Jamacha Blvd/Sweetwater Springs.
- 3.5-C(2): For the intersection of Jamacha Blvd./Pointe Parkway, prior to issuance of the first building permit, the Project shall ensure that the following improvements are included as part of The Pointe Development ultimate configuration, or the Project will be required to pay a fair share of additional improvements not included in the current design plan.

These improvements, listed below, shall be constructed prior to issuance of the Project's first occupancy permit.

- Eastbound: (2) lefts, (2) through, (1) right;
- Westbound: (1) left, (2) through, (1) right;
- Northbound: (1) left, (1) through, (1) right;
- Southbound: (2) left, (1) through, (1) right.
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3.5-C(3): The Project shall contribute to the County's traffic signal fee program for modification of the traffic signal at Jamacha Blvd./Pointe Parkway.

3.5-C(4): In the event that prior to issuance of building permits improvements to the intersection of Sweetwater Springs/State Route 94-Westbound are not identified and fully funded by the TIF program, then the applicant shall assure the construction of an additional dedicated left turn lane. The Project's obligation may be met through a fair-share contribution toward the improvement (if constructed by others), or through direct construction of this improvement with reimbursement by others.

3.5-C(5): In the event that prior of the issuance of building permits the TIF program has been updated to include funding for a dedicated left turn lane at the intersection of Sweetwater Springs/State Route 94-Westbound, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to this intersection.

Hazards and Hazardous Materials

A number of design recommendations were made in the Fire Protection Plan (SEIR Appendix J) to avoid potentially significant impacts associated with fire hazards. These recommendations are listed below:

- Pointe Parkway shall have an unobstructed improved width of 32 feet and all interior streets and all interior streets shall be 32 feet in width.
- All roads and streets shall be constructed with an all-weather paved surface capable of supporting 50,000 pounds.
- All roads and streets shall meet the 28-foot turning radius as measured from the inside edge of the improvement width.
- All dead end streets and driveways exceeding 150 feet in length shall have a cul-de-sac. Cul-de-sacs shall be designed with a minimum radius width of 36 feet.
- The angle of departure and the angle of approach of a fire access roadway shall not exceed 7 degrees or 12%. All roadways shall meet the requirements of the County Fire Code and shall be less than 15%.
- Electric access gates shall be equipped with an approved emergency key-operated switches (KNOX) overriding all command functions. Additionally, all electric access gates shall be equipped with an approved emergency traffic-control vehicle strobe sensor. Gates shall also be equipped with approved means to disconnect gates in case of power failure.
- Fire hydrants shall be placed every 350 feet. Fire hydrants shall be centered on a three foot by three foot concrete pad for weed control, and shall have the blue reflective marker in the

center of the road. Hydrants shall meet the minimum requirements of the San Miguel Fire Protection District (Local Ordinance 2002-02, Section 903.42 and Table 903.4.2-B).

- Curbs shall be painted red in front of all hydrants; paint shall extend 15 feet on each side of the hydrants.
- The developer shall also provide an additional fire hydrant to be located on Ivy Street.
- Due to the fact that the Highlands Ranch Development is within a Wildland Urban Interface Area, “basic” and “enhanced” fire construction and design features shall be required for all structures within the Project boundaries. All structures shall be in compliance with San Diego County Fire Code (Ordinance 9669) and San Diego County Building Code (Ordinance 9670).
- Within the 50-foot zone closest to the structure (Zone 1), all vegetation capable of readily transmitting fire shall be removed and replanted with fire-resistive groundcovers, shrubs and trees. The replacement plants shall be taken from the County approved fire-resistive plant list and shall be permanently irrigated.
- In the 50-foot zone beyond Zone 1, native vegetation shall either be removed entirely or thinned by a minimum of 50% of its original fuel loading. Where necessary to stabilize the soil, grasses and other vegetation may be maintained at 18” or less above the ground. Individual isolated fire resistive tree and brush specimens may be retained, provided they do not provide a means of rapidly transmitted fire from the native growth to any structure.
- The Highlands Ranch individual property owners shall be required to maintain and irrigated their yards. Shrubs and trees shall be annually maintained free of dead material. Trees shall be placed and maintained so that their crown cover at maturity shall be more than 10-feet away from any structure.
- The Highlands Ranch HOA shall be responsible for all irrigated Zone 1 fuel treatment measures within the entire development. The Highlands Ranch HOA shall have the responsibility and authority for enforcing Zone 1 fuel treatment measures on any privately owned yards. The Highlands Ranch HOA is responsible to the San Miguel Consolidated Fire Protection District Fire Marshal for the annual completion of all designated fuel modification (weed abatement) prior to June 15th of each year.
- A six foot tall non-combustible, contiguous fire wall (concrete block and tempered glass) shall be constructed along the northern project boundary and along lots 145 through 148.
- A fire emergency irrigation system, with long and short spray heads, shall be installed along the fire walls. The location of sprinkler heads shall be so as to provide uninterrupted coverage of open space natural vegetation out to 100 feet beyond the proposed structures. The emergency irrigation system shall be maintained by the Highlands Ranch HOA.

Recreation

An on-site trails system is provided to minimize the Project’s impacts to recreation facilities. Please refer to Chapter 2 of the Highlands Ranch Specific Plan Amendment (included as Appendix K to this SEIR) for a description of the proposed trail system, and EIR Figure 1-6, *Trails Plan*, for the alignment of the proposed trail system.