3. PROJECT DESCRIPTION

This chapter describes the Crystal Springs Uplands School (project) that is evaluated in this Environmental Impact Report (EIR). A description of the project's background, location, components, construction plan and schedule, and objectives is followed by a summary of required approvals.

3.1 PROJECT BACKGROUND

Crystal Springs Uplands School (CSUS) originally proposed the project in 2012. An Initial Study and Mitigated Negative Declaration (IS/MND) was prepared and released for public review on May 9, 2012. However, the IS/MND was not adopted and the 2012 project was ultimately denied by the City Council. The 2012 project and IS/MND received numerous comments at public hearings attended by both supporters and opponents of the project. Since that time, CSUS has revised the plans for the project, including enclosing the open air pool originally proposed in 2012. In 2014, CSUS is moving forward with the revised project that is the subject of this Draft EIR.

3.2 PROJECT LOCATION AND SURROUNDINGS

The project is located in the City of Belmont at 6-8 and 10 Davis Drive. Belmont is located on the San Francisco peninsula, to the west of San Francisco Bay—approximately 20 miles south of San Francisco and 25 miles north of San Jose (Figure 3-1, Regional Location).

Access to the project site is via Ralston Avenue and Davis Drive. The 6.46-acre project site is composed of two separate parcels developed with approximately 84,500 square feet of commercial/office and warehouse buildings, a parking lot for approximately 165 vehicles, and perimeter landscaping. The site is located on the edge of an open space canyon area.

Adjacent land uses include Ralston Middle School to the west, office uses to the north and east, Water Dog Lake Park and an open space canyon area to the south. Trails extend by the project site and through Water Dog Lake Park, connecting with Ralston Middle School and surrounding residential areas. Land uses across Ralston Avenue and south of Water Dog Lake Park are composed of single-family residential uses. More distant surrounding land uses east of the project site include a mix of single-family and condominium residential uses. The project site boundaries and surrounding area land uses are shown in Figure 3-2, Project Site Boundary and Surrounding Land Uses. Existing lands uses on and around the site are shown in Figures 3-3 and 3-4.

The project site is designated as Commercial Office (CO) and is zoned as Executive Office and Warehouse (E2.2).

3.3 PROJECT COMPONENTS

CSUS is proposing to build a new private middle school in the City of Belmont on a 6.46-acre site at 6-8 and 10 Davis Drive (project). The school would serve up to 240 6th, 7th, and 8th grade students and employ up to 43 faculty and staff. The project components are described below.

3.3.1 Campus Facilities

The project would include an Academic Center, Multi-Purpose Building, Gymnasium, Storage Building, landscaping, and site improvements as part of Phase 1. Buildings on the site would total approximately 60,000 square feet. The project site plan is shown in Figure 3-5. A full set of architectural drawings and renderings is included in Appendix B.

In the future (Phase 2), CSUS would construct a fully enclosed swimming pool building in the sports zone (west of the parking facility and north of the gymnasium location). This facility would enable the middle school to add swimming to their sports activities and enable the upper school to host practices and meets at a CSUS facility. Although it is unknown when the funding would be available for this addition, in order to analyze a worst case scenario, this analysis assumes that funding would be received and the pool would be constructed and operational as part of Phase 1.

Academic Center

The 34,000 square-foot Academic Center would consist of two floors of classrooms organized around a central Great Hall in a U-shaped configuration. The Academic Center would be organized so that most of the instructional spaces are facing east or west. This arrangement would minimize the amount of glass that would be facing neighboring homes across the canyon, thus reducing the potential for glare. The potential for glare would be reduced further through the use of a low-e coating on all exterior glazing, which typically reduces reflectivity by 20 percent compared to uncoated clear glass. The primary glass area in the Academic Center would be located on the south side of the Great Hall. The glass would be set back from the main canyon-facing façade, and would also be shielded by a significant overhang, reducing any potential glare towards the canyon.

The interior and exterior lighting of the Academic Center would be designed to reduce glare and light trespass. This would be achieved by using fixtures with cut-offs to restrict the direction of the light and/or the use of indirect fixtures that focus light onto ceilings, floors, walls and other ground surfaces while hiding the lamp from direct view. The Great Hall within the Academic Center and the Multi-Purpose Room would both have interior window shades for use during evening events to contain light within the spaces.

The exterior walls of the Academic Center would be clad in fire-resistant wood siding, stained a medium-toned color to blend with the natural setting and reduce visual impact from across the canyon. The roof would be a medium-colored membrane that blends in with the color of the landscape, thus reducing visibility from neighboring homes. Low reflectivity surface photovoltaic panels would lay flat on the roof. Most of the required mechanical equipment would be located in the ceiling space of the second floor, thus minimizing the amount of rooftop equipment. The few mechanical items placed on the roof would be screened to limit their visibility from neighboring properties.

Multi-Purpose Building

The 6,800 square-foot single-story, Multi-Purpose Building would be located to the east of the Academic Center. It would house the multi-purpose dining room and multi-use music instruction classroom, as well as kitchen support and restrooms.

Windows would be located primarily on the southern and western sides of the building, with an upper row of glass on the north wall of the music classroom. This building would also have significant overhangs on the roof line to reduce glare from all glass surfaces.

This building would be constructed from site-cast concrete tilt-up panels. The entire perimeter of the building would be heavily landscaped, with flowering vines planted on the concrete walls, resulting in a building hidden in the landscape once the vines mature. The roof would consist of a medium-colored membrane that blends in with the color of the landscape, thus reducing visibility from neighboring homes. Photovoltaic panels would lay flat on the roof with a low reflectivity surface. Most of the required mechanical equipment would be located in the ceiling space or on grade in the service yard, thus minimizing the amount of rooftop equipment. The few mechanical items placed on the roof would be screened to limit their visibility from neighboring properties.

Gymnasium

The 8,800 square-foot single-story Gymnasium would be located to the north of the Academic Center. Due to the higher ceiling height required, the Gymnasium would be two-stories in height, with one story of floor area. In addition to housing a regulation high school sized basketball court, this structure would contain space for coaches' offices, restrooms and storage.

Similar to the Multi-Purpose Building, windows would be located primarily on the south with significant overhangs, to limit glare from all glass surfaces. Similar to the Multi-Purpose Building, this building would be constructed from site-cast concrete tilt-up panels and heavily landscaped with flowering vines on the concrete walls. Additionally, the Gymnasium would be set furthest away from the canyon edge; therefore, its presence would be significantly screened by the Academic Center.

The roof would be a medium-colored membrane the color of the landscape, thus reducing visibility from neighboring homes. Photovoltaic panels would lay flat on the roof, with a low reflectivity surface. The mechanical equipment required for this building would be located on the roof; however, it would be screened from view by a mechanical screen.

Storage Building

The 800 square-foot, single-story storage building would be located between the Academic Center and the Gymnasium to house landscape maintenance equipment and sports equipment, as well as the central electrical transformer for the site.

Similar to the Multi-Purpose Building, this building would be constructed from site-cast concrete tilt-up panels and heavily landscaped with flowering vines on the concrete walls. The building would contain no windows.

The roof would be a medium-colored membrane that blends in with the color of the landscape, thus limiting visibility from neighboring homes. There would be no mechanical equipment or photovoltaic panels on this roof.

Enclosed Pool

In the future (Phase 2), CSUS would add a fully enclosed swimming pool building to the sports zone (west of the parking facility and north of the Gymnasium). During Phase 1, this area would be temporarily planted with lawn, decorative gravel, or ornamental grasses.

Although it is unknown when the funding would be available for this addition, this analysis assumes that funding would be received and the pool would be constructed and operational as part of Phase 1 as this would provide the most conservative analysis of the project impacts.

The project also proposes an amendment to revise the site's General Plan designation from Commercial Office (CO) to Institution (IN) and to amend the zoning designation from Executive Office and Warehouse (E2.2) to Planned District (PD).

Additionally, the project would include a Development Agreement (DA) in conjunction with the project entitlements outlining a guaranteed revenue stream to the City. The DA would provide a guaranteed revenue stream to the City of Belmont, as follows:

- Annual payment of $250,000, adjusted for increase of Consumer Price Index at a maximum of 2 percent per annum for as long as CSUS occupies 6-8 and 10 Davis Drive
- One-time payment of $1,000,000

Project components are shown in Table 3-1.

Table 3-1: Summary of Key Project Components

Component	Relevant Information
Academic Center	2-Story, 34,000 SF (18,000 SF 1st story, 16,000 SF 2nd story). Wood-siding and glass.
Multi-Purpose Building	1-Story, 6,800 SF. Concrete-paneled and glass, vine-landscaped.
Gymnasium	1-Story, 8,800 SF. Concrete-paneled and glass, vine-landscaped.
Storage	1-Story, 800 SF. Concrete-paneled, vine-landscaped.
Enclosed Pool (Phase 2)	8,500 SF
Sports Courts	2 Paved
Soccer Field	Artificial Turf
Entry Plaza	Paved Drop-Off and Pick-Up Area
On-Site Parking Spaces	53 Spaces, including 2 handicapped
Remote Parking (20 Davis Drive)	260 Spaces
Outdoor Spaces and Pedestrian Circulation	Academic Center Terrace, Science Court, decomposed granite and colored concrete paths
Landscaping and Site Furnishings	Lawns, Science and Food Center vegetable gardens, hedges on public side of perimeter fence.
Fencing	6-foot high ornamental (public areas) and chain-link fence.

3.3.2 Sustainability

Cooling and heating of the buildings would be accomplished through zones that utilize radiant floor heating only and/or radiant heating and cooling. Wall radiator heating would also be used in some areas as required, as well as heat recovery ventilation. Air handling units would also be

used, particularly with respect to the kitchen in the multi-purpose building. All designs are an effort to reduce mechanical and electrical loads.

Although no certification would be sought from the U.S. Green Building Council, the project is designed to achieve the equivalent of a LEED® Silver rating. Highlights of sustainable design strategies that may be included are as follows:

- Alternative Transportation – Bicycle Storage and Changing Rooms, Parking Capacity
- Site Development – Maximize Open Space
- Stormwater Design – Quantity Control
- Light Pollution Reduction
- Site Master Plan
- Joint Use of Facilities
- Water Efficient Landscaping, Water Use Reduction
- Optimize Energy Performance
- On-Site Renewable Energy
- Enhanced Refrigerant Management
- Construction Waste Management
- Recycled Content
- Regional Materials
- Outdoor Air Delivery Monitoring
- Increased Ventilation
- Construction Indoor Air Quality Management – Pre-construction, Construction
- Low Emitting Materials – Adhesives and Sealants, Paints and Coatings, Flooring Systems, Composite Wood and Agrifiber Products
- Indoor Chemical and Pollutant Source Control
- Controllability of Systems – Lighting, Thermal Control
- Thermal Comfort – Design, Verification
- Daylight and Views
- Heat Island Effect – Roof

Recycling and composting would be incorporated in the day to day operations of the campus. The following activities would be included:

- Recycling:
    - Recycling bins would be located in all common areas, classrooms and office spaces.

- All recycling items (including plastic, bottles, cans and paper) would be placed in the appropriate dumpsters that are picked up weekly by ReCology.
- Cardboard and wooden crates would be recycled daily and placed in appropriate dumpsters for weekly pick up.
- Routinely take all batteries, CFL bulbs and electronic waste to proper recycling centers.
- Review vendors for office and janitorial supplies regularly to ensure purchasing recycled products whenever feasible; this includes copier/printer paper, pencils and printer ink cartridges.

- Composting:
  - Composting bins in the common areas of the campus and the Cafeteria. All food garbage would be placed in these bins.
  - Most of the kitchen scrap would be used for composting for the Crystal Garden.
  - All of the paper products used in the cafeteria, such as napkins, cups, paper plates and utensils, would be made from materials that can be composted.
  - Landscape clippings would be placed in the compost dumpster, as well as any wood items that are not painted.

3.3.3 Operations

The regular school year would generally begin in late August and end in early June. The school day would consist of two segments: 1) the formal school day that would begin at 7:45 a.m. and end at 3:20 p.m. and; 2) the informal school day that would begin at 3:20 p.m. and end at 6:00 p.m. when many students participate in after-school activities. Student drop-off would occur between 7:15-7:45 a.m. Student pick-up would be spaced throughout the afternoon to accommodate after-school activities. Middle school sports practices would start shortly after the formal school day ends and would usually finish by 5:00 p.m., with occasional practices extending to 6 p.m. Teachers and staff would be expected to work independently outside the school day and have unlimited individual access to school facilities.

Table 3-2: Typical School Operation Hours

Time	Activity
7:25-7:45 a.m.	Drop Off
7:45-8:00 a.m.	Advisory
8:00 a.m.	Period 1
9:15 a.m.	Period 2
10:00 a.m.	Period 3
11:00 a.m.	Lunch
11:30 a.m.	Period 4
12:15 p.m.	Period 5

Time	Activity
1:00 p.m.	Period 6
2:00 p.m.	Period 7
3:00-3:20 p.m.	Consultation and Advisory Check-in
3:20-5:00 p.m.	Student Pick-Up (spaced throughout afternoon to accommodate after school activities)

Athletics

Middle school sports include activities such as flag football, softball, soccer, basketball, volleyball, baseball, cross-country, and track and field. Some games/meets would be held at dedicated facilities elsewhere (i.e. cross-country venues, baseball fields, tracks). Home games would start shortly after the formal school day ends and usually end by 6 p.m. The latest time a middle school game would end is 7:30 p.m.

Attendance at CSUS middle school events would usually be between 10-25 spectators. Opposing teams would generally travel in vans, buses or parent carpools. It is estimated that the school would host an average of approximately three home games per week (approximately 110 total games per year) clustered during each of the four sports seasons.

The CSUS gymnasium would host approximately ten (10) CSUS Upper School sports events or practices (basketball or volleyball games, for example) per year. These games would generally start at 5:00 p.m. and finish by 9:00 p.m. Estimated attendance at these events would be 30-40 people.

The CSUS upper school swim team would utilize the middle school swim facilities, once constructed, for weekday practices. Students and coaches would travel to the Belmont campus in a bus or shuttles. In addition, the school would potentially hold three to four swim meets per year. The meets would take place after school or on weekends. Estimated maximum attendance for the largest meet would be 100 swimmers and coaches, and 25 spectators. The teams would arrive via buses and vans and the spectators would likely drive individually. Swimmers and coaches would start arriving at 3 p.m., with spectators arriving by 4pm for weekday meets. The events would be over by 6-6:30 p.m. Weekend meets would be held during the day on Saturdays.

The CSUS parking lot would accommodate attendee parking for all sporting events (estimated at no more than 30-40 cars per game).

3.3.3.1 Special Activities and Programs

Activities that have the largest attendance outside of the regular school day are described below. Parking for these activities would be accommodated in the CSUS parking lot and in a neighboring parking lot, as described below.

Table 3-3: Special Activities and Programs

Activity/Program	Time	Events/ Year	Estimated Attendees
Summer Programs	7:30 a.m.-4 p.m. (Weekdays)	June-Aug	240
Faculty Professional Development	8:30 a.m.-5 p.m.	5	25
Parent Orientation Breakfast	9-11 a.m.	1	100
Parent Welcome Reception	6-9 p.m.	1	100
Parent Luncheons	11 a.m.-1 p.m.	3	60
Curriculum Night	5:30-9 p.m.	1	300
8th Grade Fundraiser	2:30-4 p.m.	1	30
Parent Association General Meeting	8-10 a.m.	1	40
Fundraising Dinner	6-9 p.m.	1	100
Club Activity/Competition	8 a.m.-4 p.m. (Weekend)	3	50
Admission Open House	9 a.m.-12 p.m., 9 a.m.-1 p.m., 12-4 p.m. (Weekend)	3	250
Conference Day	8 a.m.-4 p.m.	2	50
Parent/Child Social	6-10 p.m. (Weekend)	2	200
Middle School Play	7-10 p.m.	1	150
Dance	7-10 p.m.	3	200
ISEE Testing	8 a.m.-12 p.m. (Weekend)	3	75
Diversity Potluck	6-9 p.m.	1	30
Holiday Program	7-9 p.m.	1	200
Friends and Family Day	8 a.m.-4 p.m.	1	200
Applicants of Color Event	6:30-8:30 p.m.	1	40
Middle School Social	7-9 p.m. (Weekend)	1	200
Student Projects	6-8 p.m.	2	150
Admission Welcome Event	6-9 p.m.	1	150
Spring Concert	7-9 p.m.	1	250
Admission Tour	9 a.m.-12 p.m.	2	30
Travel Information Meeting	6-8 p.m.	3	75
Musical	7-9 p.m.	1	250

Fundraising Dinner	6:30-9 p.m.	1	25
Board Meeting	4-6 p.m.	3	30
8th Grade Projects	8 a.m.-4 p.m.	1	20
8th Grade Awards/Graduation	7-9 p.m.	1	250

3.3.3.2 City of Belmont Joint Use Agreement

CSUS intends for its all-weather soccer field to be shared by the Belmont community, through a joint-use agreement with the Belmont Parks & Recreation Department. CSUS would collaborate with the City, neighbors and community sports groups to ensure that use of the soccer field is sensitive to the concerns of the school's immediate and across-canyon neighbors.

Additionally, once constructed, CSUS would allow the City use of the pool for 20 mutually agreeable days during the CSUS summer break, with hours of use to be at off-commute times.. Shared use activities scheduling, number of events and attendees are shown in Table 3-4.

Table 3-4: Crystal Springs Uplands School/City of Belmont Parks & Recreation Joint Use Agreement Activities and Programs

Type of Facility/Event	Occurrence	Hours	Number of Events	Attend	Total
Fields/Games	Saturday (Year round)	9 & 11 a.m.-1, 3, & 5 p.m. (5 p.m. is Daylight permitting)	4-5 Games/Day	50-70	500/day
Fields/Camps	Summer/July	8 a.m.-12 p.m., 8 a.m.-6 p.m.	15 days	30-50	30-50/day
Pool	Summer/July	Weekday—Off Commute Weekends—8 a.m.-6 p.m.	20 Days	100	100/day

3.3.4 Vehicular and Pedestrian Circulation

Vehicular circulation would be limited to the perimeter of the site. Parking and drop off areas would be located along the Davis Drive edge of the site and would be heavily screened by landscaping. The drop-off and pick-up area is 909 feet in length and is contained within the project site. By keeping the cars at the edge of the site, potential auto/pedestrian interactions would be minimized.

Both drop-off and pick-up would be self-contained on the campus to minimize spillover onto Davis Drive. Students would be dropped off and picked up in accordance with the following plans:

- Drop off plan:

- 6th, 7th, and 8th graders would be dropped off at the main front door by bus, shuttle, or car. A drop-off line would form within the parking lot of the campus to prevent potential back-up along Davis Drive. After dropping off, cars would exit back onto Davis Drive and rejoin regular traffic.

- Pick-up plan:
  - For cars arriving prior to school dismissal, a waiting line would form as follows:
    - 6th graders would be picked up at the main door. Cars would queue within the internal campus road while waiting for students.
    - 7th and 8th graders would wait along the edge of the gymnasium (also on the internal campus road but in the parking lot).

Pedestrian circulation would be organized into two primary routes; an informal path along the canyon edge that links all buildings, and a more formal path that links the multiple building entries with the entry court and drop-off.

3.3.5 Parking

The project would provide a total of 53 parking spaces, including two handicapped parking spaces, in conformance with Belmont's Zoning Ordinance (Section 8.4.6(i)), which requires intermediate schools to provide one parking space for each school employee.

For evening and weekend events, as well as a few daytime events requiring some additional parking, CSUS has established an agreement with a neighboring property owner to use adjacent parking lots for overflow parking.

3.3.6 Transportation Demand Management

CSUS would implement a Transportation Demand Management (TDM) program as part of the project. The purpose of the TDM program is to reduce the number of vehicular trips to and from the project in order to minimize traffic congestion along the Ralston Avenue corridor and reduce overall vehicle emissions. The TDM program would be a comprehensive program requiring buses, van shuttles, and carpools to ensure that 70 percent of trips to the project would be undertaken by ride-sharing or transit in order to reduce solo vehicle trips to and from the school. Specific details of the TDM program are discussed in 4.7.4.4, Transportation.

3.3.7 Outdoor Spaces and Landscaping

Since the project site is located adjacent to an open space area, site landscaping would include a defensible space plan. Proposed project buildings would be sited to create fire breaks. The landscaping plan for the project is shown in Figure 3-5.

3.3.7.1 Entry Plaza

The Entry Plaza would be composed of colored concrete paving for both a vehicular drop-off circle and a pedestrian walkway. A contrasting concrete paving color would designate the front entrance to the Academic Building while bands of a third paving color would provide visual interest and spatial cohesion. A rolled curb and a ring of trees would line the western edge of the

driveway, and a large bio-swale area would be located to the east. Benches would provide seating for waiting students.

3.3.7.2 Terrace

A terrace would be located behind the main classroom building, using the same colored concrete paving as the entry plaza—creating continuity between the two sides of the building. This colored concrete would delineate the edge of the terrace. A single specimen oak would anchor the terrace space, and five benches would be provided for seating or outdoor classes.

3.3.7.3 Soccer Field and Soccer Field Seating

The approximately 60,000 square foot soccer field will utilize artificial turf for its playing surface. The artificial turf system includes three main components: Fiber, Backing, and Infill. Infill provides the cushioning to absorb impact, as well as offering the foundation to traction. The infill is made from a layer of sand and a layer of recycled rubber tire granules. The backing is comprised of a primary and secondary backing working together to provide dimensional stability. The primary backing is comprised of woven polypropylene fabrics that allow the artificial turf fibers to be tufted into the material in rows and facilitate seaming between panels. The secondary backing is a urethane coating and is applied to the reverse side of the primary backing in order to lock the tufted fibers into place. Below the artificial turf would be a free draining stone base rock with geotextile fabric and an underdrain system.

The hill area to the west side of the soccer field would be planted with groundcover. Water flow from the hillside would be captured in a bio-swale at the base of the hill. To the east of the field, aluminum benches would be located between the trees for seating and viewing opportunities.

3.3.7.4 Sports Courts

Two courts, paved with colored concrete or another playing surface, would be located between the lawn and the soccer field, creating play space for basketball and wall-ball. A storage building would be adjacent to the wall-ball court. A large sliding gate to the north of the wall-ball court would provide large-scale access between the school and turf field, when open.

3.3.7.5 Science Court

Outdoor classrooms paved with colored concrete would be located along the east side of the Academic Center, extending from the interior science rooms. A lawn would be located adjacent to these outdoor classrooms. Deciduous trees would be planted for shading the building and the lawn area. Bio-swale and hedge plantings would separate the classroom-focused areas of the Science Court from the dining terrace and Multi-Purpose Building beyond.

3.3.7.6 Vegetable Gardens

Raised beds of vegetable gardens would be situated adjacent to the dining terrace.

3.3.7.7 Lawns

A lawn would connect the Academic Center and the sports area. The ground surface would be reinforced with Grasspave, to allow emergency vehicles access to the lawn area. The edge along the Academic Building would be marked by a row of deciduous trees to shade the building in the hotter months while letting sunlight reach the classrooms in the winter. A bio-swale would filter and hold water from roof leaders and adjacent paved areas. A path from the stair would cross the

bio-swale, either via a bermed earth or culvert condition. A seating area for students to gather informally or for classes to meet would be located to the northwest of the lawn and would include planting and a few benches.

3.3.7.8 Perimeter Path

A perimeter path of decomposed granite or colored concrete paving would connect the dining terrace at the northeast of the site to the terrace, continuing along the edge of the canyon, and extending to the bleachers at the soccer field.

3.3.7.9 Parking Area

Asphalt driving lanes and parking spaces in the parking area would drain into the adjacent bio-swale. Four benches would be set among the trees to seat waiting students. The site of the future enclosed swimming pool building area would be temporarily planted with lawn, decorative gravel, or ornamental grasses.

3.3.8 Defensible Space Plan

The Defensible Space Plan was developed in light of the site's location within an Area of Wildland-Urban Interface and Very High Fire Hazard Severity Zone (VHFHZ), as defined by the City of Belmont. The plan seeks to meet the guidelines described in "General Guidelines for Creating Defensible Space" published by State Board of Forestry and Fire Protection and recommendations provided by the City of Belmont Fire Marshall.

The Vegetation Management Plan (VMP) (see Figure 3-6) is an overlay to the Defensible Space Plan and both plans should be considered as a single, inseparable document. The VMP was developed with the input from the Deputy Fire Chief of Belmont and the Park and Recreation Director to manage the fire risk in a more site specific approach. The primary goals of the VMP are to balance fire safety with scenic quality, preservation of existing trees, reducing erosion and maintaining wildlife habitat. The physical outline of the VMP follows more closely the contours and natural features of the site, reflecting actual conditions, as opposed to the rectilinear offsets of the Defensible Space Plan.

The Defensible Space Plan has been divided into the following zones along the canyon edge:

- Zone A, within 20 feet of building, is the most restrictive zone and allows for only fire resistive plants. Tree canopies shall maintain a 10' separation. No tree canopy with 10' of the new building. All new plantings would be irrigated. No overlap with the Vegetation Management Plan.
- Zone B, within 50 feet of building-only fire resistive plants. Tree canopies shall maintain a 10' separation. All new planting would be irrigated. Overlaps with Vegetation Management Plan – Ornamental Landscape Zone.
- Zone C, within 75 feet of building, new planting to be irrigated and fire resistive. Existing vegetation shall be maintained per the Vegetation Management Plan. Overlaps with Ornamental Landscape Zone, Chaparral Landscape Zone and Oak Woodland Landscape Zone.
- Zone D – Within 100 feet of building, new planting to be irrigated and fire resistive. Existing vegetation shall be maintained per the Vegetation Management Plan. Overlaps

with Ornamental Landscape Zone, Chaparral Landscape Zone and Oak Woodland Landscape Zone.

Proposed plants for the new landscape improvements within Zones A through D have been selected from the Diablo Firesafe Council – Plants with a Favorable Fire Performance Rating.

3.3.9 Site Fencing

A 6-foot tall perimeter fence would enclose the entire site. Ornamental fencing would be located in the more public areas, while chain link would be utilized elsewhere. Fencing along the canyon side would include fine mesh at the bottom to prevent wildlife intrusion. Additionally, fencing would divide the site into two zones—one containing the school and classroom functions and the other containing the gym, soccer field, and future swimming pool.

Strategically located gates would allow the two halves of the site to be secured separately. This would allow the school area to be locked during weekend and off-hours, but still allow use of the sports zone. Hedge planting on the public side of the perimeter fence would screen the fence, softening the view of the enclosure from the exterior. A sign wall would be located to the east of the main vehicular entrance at Davis Drive.

3.3.10 Site Lighting

The interior and exterior lighting of the campus, and the main academic center in particular, would be designed to limit glare and light trespass. This would be achieved by using fixtures with cut-offs to restrict the direction of the light and/or the use of indirect fixtures that focus light onto ceilings, floors, walls and other ground surfaces while hiding the lamp from direct view.

3.3.11 Utilities

The project would include the installation of electrical, gas, telecommunication, water, and stormwater drainage facilities. The project site is served with existing utilities and all new utilities would connect with existing services on the site.

3.3.12 Pervious/Impervious Surfaces

The project would increase the pervious area and decrease the impervious area, as compared with the existing site. Existing and proposed pervious and impervious surfaces on the site are shown in Table 3-5. The percentage of the site planted with a sod lawn would be 16 percent of the planted area of the site or 7 percent of total site square footage.

Table 3-5: Pervious/Impervious Surfaces

Existing		**Proposed**	
Type	**Acreage**	**Type**	**Acreage**
Impervious	3.61 Acre	Impervious	2.81 Acre
Pervious	2.85 Acre	Pervious	3.65 Acre

3.3.13 Storm Water and Drainage

The project's stormwater would drain into several bio-retention areas located throughout the site. Storm water flows and project drainage from the project's impervious surfaces would be conveyed into an existing 24-inch storm drain pipe to the southeast of the property, running north to south. The project would include bio-retention areas designed to treat run-off prior to discharging to the existing public 24-inch storm drain line.

The project would be designed to comply with the City of Belmont's Grading Ordinance, the City's NPDES Phase II Permit (i.e., Storm Water Management Plan), the City's Stormwater Management and Pollution Control Ordinance, and San Mateo County's Standard Urban Storm Water Mitigation Plan (SUSMP).

3.4 PROJECT CONSTRUCTION PLAN AND SCHEDULE

Construction activities would include clearing and grading, utility installation, building and site improvements construction, and landscaping. Construction specifications would include requirements that the contractor comply with a variety of measures for the excavating, stockpiling, transporting, placing, and disposing of materials on the site.

The project would require grading for installation of utilities, buildings, and roadways. Cut and fill would be balanced for construction of the academic buildings and facilities. The project would require approximately 1,400 cubic yards of cut and no fill for construction of the pool.

The project would require an estimated maximum of 140 truck trips to remove cut required for the swimming pool. The City would require that the contractor develop a Transportation Management Plan (TMP), which would be implemented during the construction phase to minimize any temporary delays and inconvenience to the traveling public.

3.4.1 Demolition

Depending on the project timeline, the demolition phase is expected to begin in April 2016 (or possibly as early as October 2015) and is anticipated to take two to three months. Two existing buildings totaling 84,500 square feet would be demolished and approximately 80,000 square feet of paved parking and hardscape area would be removed. The General Contractor would remove any building and/or finish materials that require special handling and would recycle and sort remaining building materials.

Equipment on site would include one excavator with hoe-ram and crusher attachments, two loaders, one water truck, one dozer and one scraper. It would take about 35 trips for a 10-yard dump truck to haul demolition debris from the site; the remainder of material would be recycled. It is expected that more than 90 percent of the existing site materials would be recycled.

3.4.2 Tree Removal

The project site contains trees that were planted on the site as part of the landscaping for the previous development. The project would require the removal of approximately 77 trees considered protected under the 2011 City of Belmont Tree Ordinance (greater than 10-inches diameter at breast height [DBH]) on the site. Trees not removed would be protected during

construction to maintain their health. Additionally, there is the potential for the transplant of several trees. See Figure 3-7 for the tree removal plan.

3.4.3 Hazardous Materials Abatement

The General Contractor would engage a hazardous materials abatement specialist to appropriately remove any materials in the existing structures prior to any demolition occurring. This specialist would comply with all California OSHA and EPA regulations regarding handling and disposal of these hazardous materials.

3.4.4 Storm Water Pollution Prevention Plan (SWPPP)

CSUS would engage a qualified SWPPP designer to prepare a plan prior to beginning any demolition or construction activities. The SWPPP would have a site map showing the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP would list Best Management Practices (BMPs) the General Contractor would use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP would contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. As directed by California State Water Resources Control Board, no storm water would be discharged from the construction site. The General Contractor would retain all water on site using appropriate storage systems.

3.4.5 Demolition and Construction Heavy Equipment

Construction would begin upon completion of demolition, likely the summer of 2016, and continue for 14 months, ending approximately August 2017 (this timetable could move forward if demolition can begin in October 2015). Approximately 68,900 square feet of buildings would be constructed. Foundations and building undergrounding work would take approximately 26 weeks to complete. Backhoes and concrete trucks would be required. Steel erection and structural deck slab construction would take approximately two months. A 160-ton mobile crane would be needed for steel, stairs, decking, and other heavy building components. It is expected the crane would be onsite for about 6 months. Several JLG-type telehandlers and forklifts would be utilized for moving and lifting building materials and would be on site for most of the 14-month construction period. A water truck would also be onsite for most of the construction period for dust control. Exterior walls, roofing, and remaining exterior building work would take approximately three months to complete. Undergrounding of utilities and repaving the site would require approximately 12 weeks. Equipment that would be used includes one excavator and loader, two dump trucks, and one compactor. Final site preparation phase is expected to take about three months. A grader would be used for spreading and leveling soil along with soil compactors. Street sweepers would clean up at the end of each construction day to ensure mud and dirt would not be pulled out onto the city streets. Construction equipment type and duration of use is shown in Table 3-6.

3.4.6 Construction Personnel

The General Contractor expects to have a range of construction personnel, including a superintendent, project manager, project engineers and laborers from the General Contractor's shop, as well as various tradespeople, on site from April 2016 through August 2017. During the abatement and demolition phases, a maximum of about 15 to 20 people would be on site. Construction phase staffing would begin with about 30 to 40 people coming to the site. At the peak of construction—when interior finishing is being done—there would be approximately 100 people on site. Toward the completion of construction, the numbers coming to site would dwindle back to about 20 people.

3.4.7 Construction Staging Areas

The on-site staging areas would allow for storage, maintenance, and preparation of construction equipment and materials.

3.4.8 Construction Equipment and Hours

Table 3-6 lists the project's construction equipment and the estimated duration of use.

Work would be in compliance with the City of Belmont's Noise Ordinance and would not begin until 8:00 a.m. and would be complete by 5:00 p.m. on weekdays. Work on Saturdays would not begin until 10:00 a.m., would conclude by 5:00 p.m, and no grading would be allowed. No work would occur on Sundays.

The General Contractor would comply with all City of Belmont noise regulations during the demolition and construction phases. In addition, the Bay Area Air Quality Management District (BAAQMD) requires that all heavy equipment maintain appropriate air filters as a standard operating practice. The General Contractor would comply with the Belmont Municipal Code and all BAAQMD regulations.

Table 3-6: Potential Construction Equipment and Estimated Duration of Use

Construction Equipment	Duration of use (months)
Front loader	16
Backhoes	12
Dozers	3
Scrapers	4
Graders	4
Truck	17
Pavers	1
Concrete pump	6
Crane	6
Generators	1
Compressors	10
Pile drills	2
Jackhammers	2

Construction Equipment	Duration of use (months)
Pneumatic tools	17
Saws	17

3.5 PROJECT OBJECTIVES

The project objectives are to:

- Construct a new middle school campus near the existing campus in Hillsborough, California with appropriate academic and athletic facilities that can accommodate existing and projected enrollment.
- Design high-quality buildings with architectural features that blend with the natural setting and reduce the potential for glare, visual and sound impact from across the canyon, and are energy-efficient and sustainable.
- Create a pedestrian-friendly environment that minimizes auto/pedestrian conflicts and allows the academic areas to be separated from facilities that are open to the community.
- Reduce project-related vehicle trips by establishing a robust Transportation Demand Management Program.
- Provide a guaranteed revenue stream to the City.

3.6 REQUIRED PERMITS AND APPROVALS

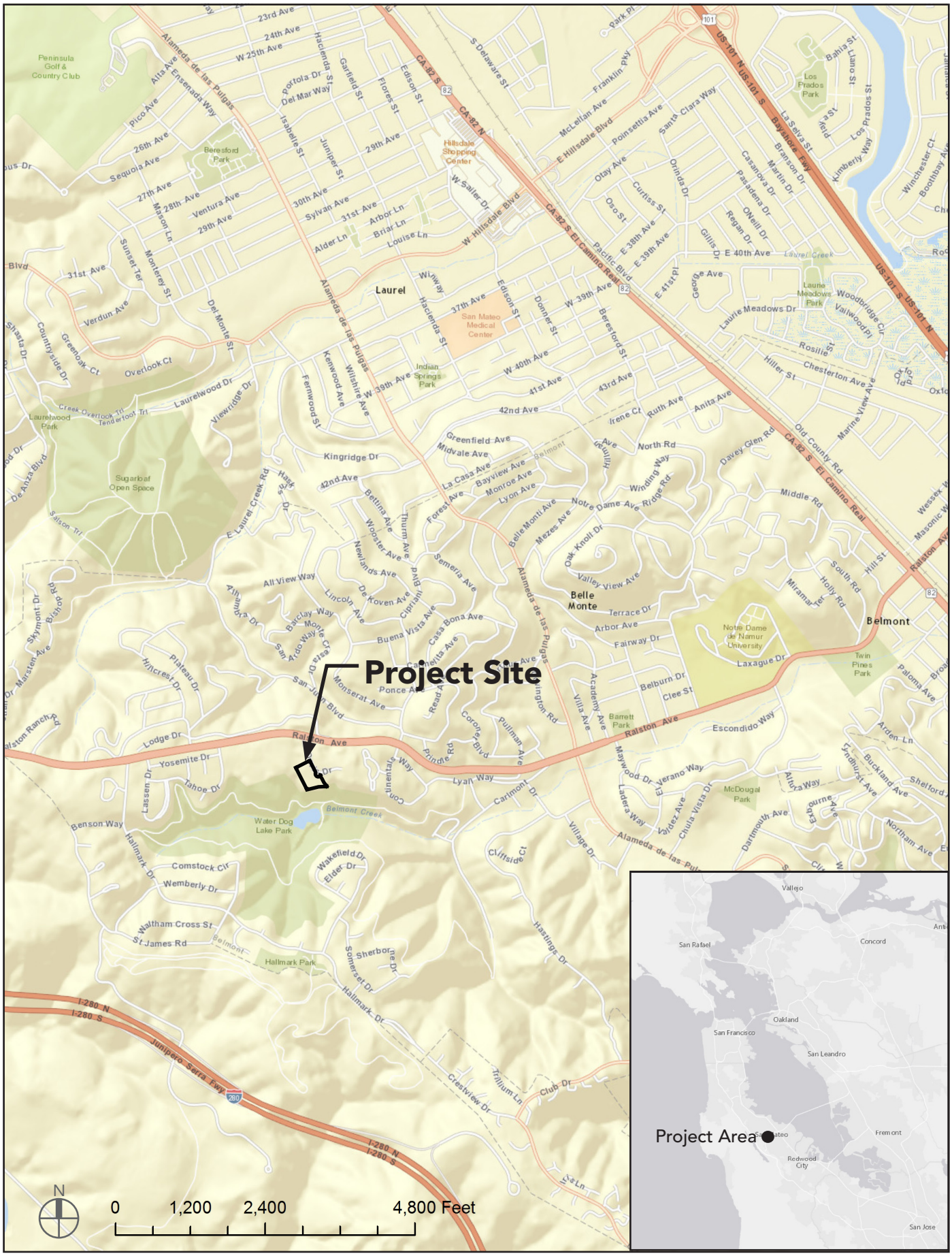
Project implementation would require approvals from the City of Belmont and state agencies prior to construction. Table 3-7 identifies permits and approvals that may be required from these agencies.

Table 3-7: Potential Permits and Approvals

Lead Agency	Permit/Approval
Local	
City of Belmont	• Demolition Permit • Grading Permit • General Plan Amendment • Rezoning • Conditional Use Permit • Lot Line Adjustment • Tree Removal Permit • Conceptual Development Plan • Detailed Development Plan • Development Agreement • Sign Program
State Agencies	

Table 3-7: Potential Permits and Approvals

Lead Agency	Permit/Approval
San Mateo County Flood Control District	Design approval for on-site flood control
Bay Area Regional Water Quality Control Board (RWQCB)	National Pollution Discharge Elimination System (NPDES) Permit for construction activities disturbing more than 1 acre and approval of operational stormwater treatment



Belmont Crystal Springs School
Belmont, CA

Figure 3-1
Regional Location

Belmont Crystal Springs School
Belmont, CA

Figure 3-2
Project Site Boundary and Surrounding Land Uses

Views of 6-8 Davis Drive

Views of parking area and 10 Davis Drive

View of back side of 10 Davis Drive

View of 10 Davis Drive

MIG Belmont Crystal Springs School
Belmont, CA

Figure 3-3
Existing Land Uses

Views from project site

Views from back of 10 Davis Drive to the south-east

Views of surrounding parking and commerical uses

Views from project site

M I G Belmont Crystal Springs School
Belmont, CA

Figure 3-4
Surrounding Land Uses

Belmont Crystal Springs School
Belmont, CA

Figure 3-5
Project Site Plan

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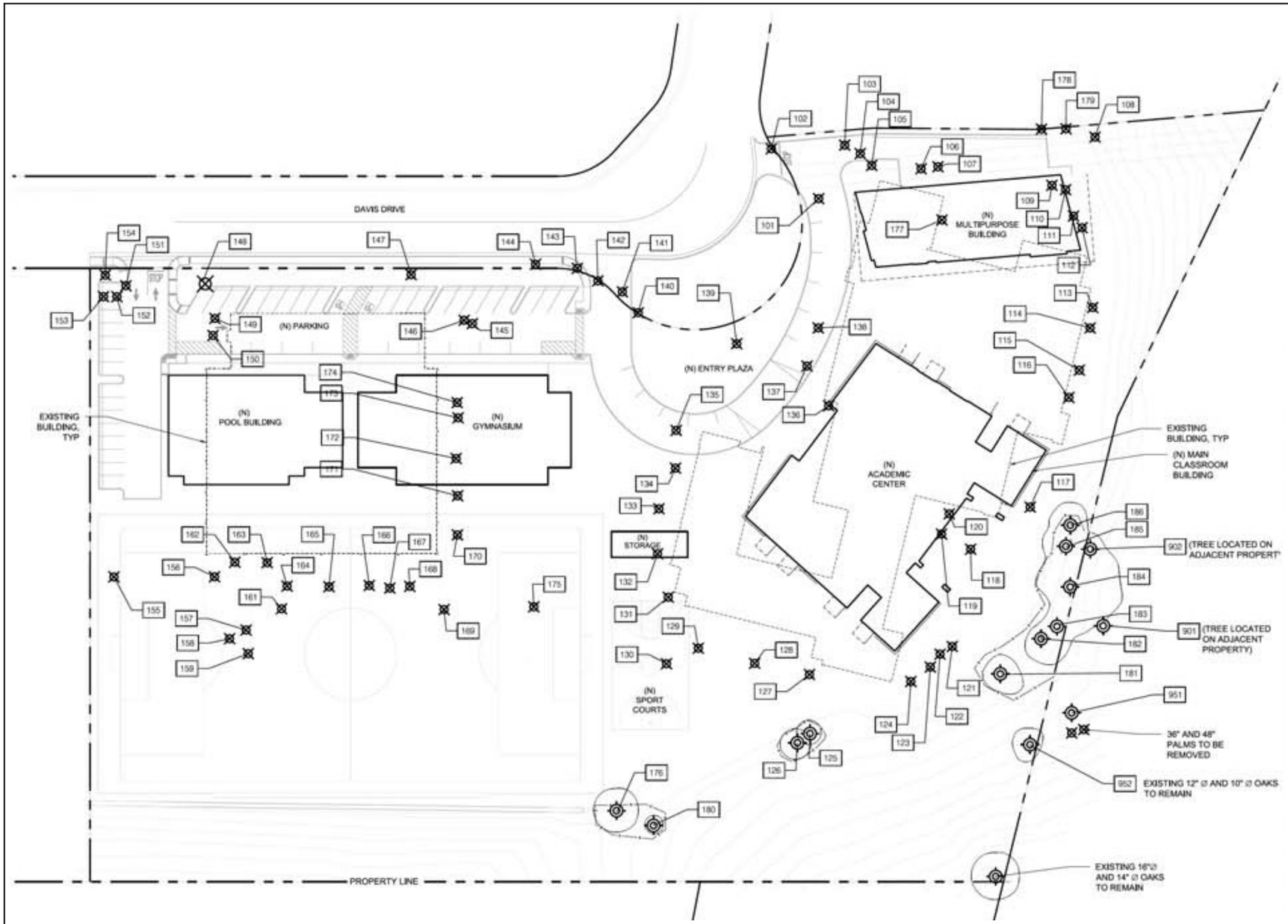
OVERVIEW

THIS LANDSCAPE MANAGEMENT PLAN WAS DEVELOPED BASED ON THE INPUT FROM DEPUTY FIRE CHIEF, MICHAEL GAFFNEY AND THE DIRECTOR OF PARKS AND RECREATION, JONATHAN GERVAIS. THE GOAL OF THIS PLAN IS TO PROVIDE A MORE COMPREHENSIVE APPROACH TO THE MANAGEMENT OF THE NATIVE HILLSIDE LANDSCAPE THAT IS SITE-SPECIFIC AND BALANCES THE NEED FOR FIRE SAFETY, PRESERVATION OF THE SCENIC QUALITY OF THE CANYON, PRESERVATION OF NATIVE AND MATURE TREES, EROSION CONTROL AND MAINTAINING WILDLIFE HABITAT. WHILE THE DEFENSIBLE SPACE PLAN ON SHEET L100 AND L101 CLEARLY DELINEATES THE CURRENT FIRE SAFETY REGULATIONS AND SET BACK ZONES, THIS VEGETATION MANAGEMENT PLANS SEEKS TO ACT AS AN OVERLAY WHICH IS MORE SITE SPECIFIC, REFLECTING EXISTING THE TOPOGRAPHY AND PLANT COMMUNITIES DESCRIBED BELOW.

LEGEND

SYMB.	NAME	DESCRIPTION
	ORNAMENTAL LANDSCAPE ZONE	THIS ZONE IS COMPOSED OF NEWLY PLANTED ORNAMENTAL LANDSCAPE PLANTS. THE LANDSCAPE IMPROVEMENTS WILL BE MAINTAINED, IRRIGATED AND PLANTED PER THE PROVISIONS DESCRIBED IN THE DEFENSIBLE SPACE PLAN SHEET L100 and L101. THE INTENT IS TO DEVELOP MAINTAINED LANDSCAPE SPACES FOR ACTIVE AND PASSIVE USES ASSOCIATED WITH THE SCHOOL. FUEL LOADS AND FIRE HAZARD WILL BE MANAGED PER THE LOCAL FIRE CODE REQUIREMENTS FOR NEW CONSTRUCTION AND LANDSCAPE IMPROVEMENTS IN BELMONT.
	CHAPARRAL LANDSCAPE ZONE	THE CHAPARRAL LANDSCAPE IS A VALUABLE NATURAL RESOURCE THAT PROVIDES IMPORTANT HABITAT AND SERVES TO STABILIZE CANYON SLOPES. THIS ZONE IS CHARACTERIZED AS LOW, DENSE SHRUBLAND AND IS CONSIDERED HIGHLY FLAMMABLE. WITHIN THE VEGETATION MANAGEMENT LIMIT OF WORK, THE CHAPARRAL LANDSCAPE IS DIVIDED INTO TWO ZONES, SEPARATED BY THE OAK WOODLAND LANDSCAPE ZONE. THE MANAGEMENT OF THE CHAPARRAL LANDSCAPE ZONES SHALL BE PERFORMED AS DESCRIBED BELOW: • BALANCING THE NATURAL CHAPARRAL ECOSYSTEM WITH THE NEED FOR MANAGEMENT AND FIRE SAFETY. • REDUCING THE FUEL LOAD BY REMOVING DEAD AND DRY VEGETATION WHILE PRESERVING VIABLE PLANT LIFE AND THE CHAPARRAL ECOSYSTEM. • PROVIDING CLEARINGS BETWEEN PLANTS BY THINNING OF PLANT MATERIAL BETWEEN LARGE GROUPS OF SHRUBS. NATURAL SEPARATIONS SHOULD BE IDENTIFIED IN THE FIELD. • MANAGEMENT OF THE CHAPARRAL LANDSCAPE SHALL BE PERFORMED IN COORDINATION WITH THE BELMONT FIRE DEPARTMENT AND THE DEPARTMENT OF PARKS AND RECREATION. • ALL NECESSARY PERMITS SHALL BE OBTAINED BY THE SCHOOL FOR MANAGEMENT OF THE CHAPARRAL LANDSCAPE ZONE BEYOND THE SCHOOL PROPERTY.
	OAK WOODLAND LANDSCAPE ZONE	OAK WOODLAND LANDSCAPE ZONE THE OAK WOODLAND LANDSCAPE WITHIN THE VEGETATION MANAGEMENT LIMITS OF WORK IS CHARACTERIZED BY A STAND OF COAST LIVE OAK THAT EXTEND UP FROM THE CANYON TO THE TOP OF THE SLOPE ADJACENT TO THE PROPOSED ACADEMIC CENTER. THE OAK WOODLAND ZONE PLAYS AN IMPORTANT PART IN THE LARGER ECOSYSTEM AND DEFINES THE CHARACTER AND SCENIC QUALITY OF THE CANYON. THE MANAGEMENT OF THE OAK WOODLAND LANDSCAPE ZONE SHALL BE PERFORMED AS DESCRIBED BELOW: • TREES SHALL BE PRUNED AND LIMBED-UP TO REDUCE FUEL LOAD AND FIRE LADDERS. • TREE PRUNING AND THINNING SHALL BE OVERSEEN BY A CERTIFIED ARBORIST, COORDINATED WITH THE PROJECT FIRE CONSULTANT, CITY OF BELMONT DEPUTY FIRE CHIEF AND DIRECTOR OF PARKS AND RECREATION. • OAKS SHALL BE MAINTAINED TO PROMOTE THE HEALTH AND S • ALL SHRUBS BELOW OAKS SHALL BE REMOVED. • ALL LEAF LITTER SHALL BE REMOVED AND SHALL NOT EXCEED 3" IN DEPTH. • ALL WOODY VEGETATION DEBRIS SHALL BE REMOVED.
- - -	LIMIT OF WORK	VEGETATION MANAGEMENT PLAN LIMIT OF WORK
•	EXISTING TREE TO REMAIN	CANOPIES SHOWN IN FUTURE PRUNED CONDITION, VIF

Figure 3-6
Vegetation Management Plan



Tree Tag #	Trunk Diameter	Trunk Diameter	Trunk Diameter	Trunk Diameter	Total Sum of Trunk Diameters	Common Name	Botanical Name
101	19.2				19	Chinese elm	*Ulmus parvifolia*
102	21.9				22	Italian stone pine	*Pinus pinea*
103	29.4				29	Monterey pine	*Pinus radiata*
104	38.3				38	Monterey pine	*Pinus radiata*
105	48.6				49	Monterey pine	*Pinus radiata*
106	18				18	Pinus species	*Pinus sp.*
107	27.2				27	incense cedar	*Calocedrus decurrens*
108	11.4				11	coast live oak	*coast live oak*
109	18.7				19	incense cedar	*Calocedrus decurrens*
110	24.4				24	incense cedar	*Calocedrus decurrens*
111	27				27	incense cedar	*Calocedrus decurrens*
112	21.5				22	incense cedar	*Calocedrus decurrens*
113	18.4	18			37	incense cedar	*Calocedrus decurrens*
114	9.3	13	10		32	incense cedar	*Calocedrus decurrens*
115	15.4	7.7	6.8		30	incense cedar	*Calocedrus decurrens*
116	24.1				24	incense cedar	*Calocedrus decurrens*
117	16.3	9.5	13		39	coast live oak	*Quercus agrifolia*
118	16				16	Italian stone pine	*Pinus pinea*
119	27				27	Italian stone pine	*Pinus pinea*
120	22.2				22	Italian stone pine	*Pinus pinea*
121	23.8				24	Italian stone pine	*Pinus pinea*
122	21.3				21	Italian stone pine	*Pinus pinea*
123	21.3				21	Italian stone pine	*Pinus pinea*
124	26.5				27	Italian stone pine	*Pinus pinea*
125	6.8	6			13	coast live oak	*Quercus agrifolia*
126	12.5				13	coast live oak	*Quercus agrifolia*
127	20.5				21	Italian stone pine	*Pinus pinea*
128	9.5				10	coast live oak	*Quercus agrifolia*
129	16				16	deodar cedar	*Cedrus deodara*
130	12.8				13	deodar cedar	*Cedrus deodara*
131	10.5				11	Victorian box	*Pittosporum undulatum*
132	11.8				12	evergreen pear	*Pyrus kawakamii*
133	11.3				11	evergreen pear	*Pyrus kawakamii*
134	12.5				13	evergreen pear	*Pyrus kawakamii*
135	12.6				13	evergreen pear	*Pyrus kawakamii*
136	4.2	3.5	2.4		10	weeping bottlebrush	*Callistemon viminalis*
137	29.8				30	Italian stone pine	*Pinus pinea*
138	47.4				47	Italian stone pine	*Pinus pinea*
139	13.5	12			26	coast live oak	*Quercus agrifolia*
140	22.4				22	Italian stone pine	*Pinus pinea*
141	12.2	24			36	Italian stone pine	*Pinus pinea*
142	20				20	Italian stone pine	*Pinus pinea*
143	9.8	8.9	22		41	Italian stone pine	*Pinus pinea*
144	28	15	7.5		50	Italian stone pine	*Pinus pinea*
145	14.1				14	European white birch	*Betula pendula*
146	9.8				10	European white birch	*Betula pendula*
147	43				43	Monterey pine	*Pinus radiata*
148	26.4	36	35		97	Monterey pine	*Pinus radiata*
149	25.5				26	Monterey pine	*Pinus radiata*
150	25.6				26	Monterey pine	*Pinus radiata*
151	5.5	3.5	3.2		12	weeping bottlebrush	*Callistemon viminalis*
152	¥10.6	¥6.2			17	weeping bottlebrush	*Callistemon viminalis*

Tree Tag #	Trunk Diameter	Trunk Diameter	Trunk Diameter	Trunk Diameter	Total Sum of Trunk Diameters	Common Name	Botanical Name
153	¥6.3	¥4.2	3.5		14	weeping bottlebrush	*Callistemon viminalis*
154	¥7	¥8	¥5.3		20	weeping bottlebrush	*Callistemon viminalis*
155	13.2				13	Italian stone pine	*Pinus pinea*
156	5.5	2.6	2		10	coast live oak	*Quercus agrifolia*
157	14.9				15	deodar cedar	*Cedrus deodara*
158	8.5	9.2			18	deodar cedar	*Cedrus deodara*
159	16.1				16	deodar cedar	*Cedrus deodara*
160	9.7				10	coast live oak	*Quercus agrifolia*
161	19.4				19	flooded gum	*Eucalyptus rudis*
162	5.1	4.1	2.9		12	coast live oak	*Quercus agrifolia*
163	5.7	4.1	2		12	coast live oak	*Quercus agrifolia*
164	11.5				12	flooded gum	*Eucalyptus rudis*
165	15.3				15	flooded gum	*Eucalyptus rudis*
166	18.7				19	flooded gum	*Eucalyptus rudis*
167	17.7				18	flooded gum	*Eucalyptus rudis*
168	8.6	9.7			18	flooded gum	*Eucalyptus rudis*
169	¥24				24	Italian stone pine	*Pinus pinea*
170	18.5				19	flooded gum	*Eucalyptus rudis*
171	17				17	flooded gum	*Eucalyptus rudis*
172	5.7	5.2	5.5		16	flooded gum	*Eucalyptus rudis*
173	15				15	flooded gum	*Eucalyptus rudis*
174	11.4				11	flooded gum	*Eucalyptus rudis*
175	17				17	coast live oak	*Quercus agrifolia*
176	17				17	coast live oak	*Quercus agrifolia*
177	3.3	3	2.8	1.9	11	Australian willow	*Geijera parviflora*
178	14.9	11			26	coast live oak	*Quercus agrifolia*
179	42				42	Monterey pine	*Pinus radiata*
180	12				12	coast live oak	*Quercus agrifolia*
181	6	6			12	coast live oak	*Quercus agrifolia*
182	16.2	10	9.5		36	coast live oak	*Quercus agrifolia*
183	13.5	14			27	coast live oak	*Quercus agrifolia*
184	15	14	11		39	coast live oak	*Quercus agrifolia*
185	11.4				11	coast live oak	*Quercus agrifolia*
186	12	10	6	6	34	coast live oak	*Quercus agrifolia*
901	.				.	coast live oak	*coast live oak*
902	.				.	coast live oak	*coast live oak*