

## Parking Plan

CMC is committed to utilizing parking management and mobility best practices to minimize vehicular impacts on its campus and surrounding communities and campuses and to assure compliance with City Code.

The College engaged a traffic and parking consultant, Linscott, Law, and Greenspan (LLG), to conduct a parking inventory and demand study in 2009 (the 2009 Parking Study). The 2009 Parking Study was submitted to the City of Claremont and is available to members of the public. The 2009 Parking Study provided empirical guidance to CMC as it developed the parking and mobility components of this Master Plan.

The 2009 Parking Study and other related feedback from LLG includes the following key findings:

- CMC generally provides parking at convenient locations around the perimeter of the campus creating a pedestrian-friendly campus core, while minimizing impacts on CMC's neighbors.
- Approximately 95% of the student body lives on campus. Because of the residential nature of the campus and the walkability of its surroundings, only about one-half of the students permitted to bring automobiles to campus do so.
- CMC's current parking supply of 1,007 spaces exceeds relevant requirements under the City Code, which mandate 892 spaces before the application of parking demand management reductions authorized by the City and 838 spaces with the Cityapproved reductions. Moreover, CMC's current parking supply of 1,007 spaces well exceeds the actual parking demand of approximately 800 spaces determined in the 2009 Parking Study. Additionally, the determination that CMC has an oversupply of more than 200 spaces was made prior to CMC's implementation of a policy to restrict freshmen from parking on campus, which has resulted in a demand reduction of more than 117 parking spaces.
- CMC currently has a sufficient overall parking supply. However, CMC currently experiences some demand-location pressures, including a limited supply of parking for faculty and staff who work in the west academic campus along the North Mall, and a limited supply of parking for students who live in the North Mall Quadrangle. The Master Plan responds to existing demand-location pressures and anticipated future pressures.

#### **Required Parking based on Current City Parking Code**

		Existing <sup>(1)</sup>		Master Plan	
Description	Ratio Required	Units	Spaces	Units	Spaces
Regularly Enrolled Students	0.5 spaces per student	1,173	587	1,400	700
Parking Restriction for first year students	20% student parking reduction		-117		-140
Faculty and Staff	0.5 spaces per employee	486	243	624	312
Public Assembly Allocation <sup>(2)</sup>	0.2 spaces per seat		179		179
Total Code Requirement (before managment reductions)			892		1,051
		Existing Supply:	1007	Potential Supply:	up to 1,652
Plan Mitigation Approval by Planning Commission <sup>(3)</sup>	6% reduction		-54		-63
Total Code Requirement (with approved reduction)			838		988
		Existing Supply:	1007	Potential Supply:	up to 1,652

[1] Per November 15, 2010 submittal for Fall 2010. Actual parking supply on the CMC campus now totals 1,038 spaces. Existing reported supply of 1,007 spaces does not

include 31 CMC spaces in Lot 89 that by temporary agreement are now being used by Pitzer College faculty / staff.

[2] CMC does not intend to expand its auditorium/public assembly space, so the public assembly parking allocation will remain constant

[3] Parking Management Reductions were approved by Planning Commission Resolution # 2008-20 adopted on June 17, 2008

#### **Existing and Future Parking Inventory**

			CMC EXISTING	POTENTIAL PARKING	POTENTIAL FUTURE
REFERENCE	TYPE	LOCATION	SUPPLY 1	REVISIONS <sup>2</sup>	SPACES <sup>2</sup>
12A	Curb	Amherst Ave, East Side	4	-	4
87N	Lot	North Lot of Keck Center - South Bay	8	-	8
87S	Lot	South of Keck Joint Science (North Side)	23	-14	9
	Lot	South Lot of Keck Joint Science (South Side)	22	-13	9
87E	Curb	Keck East of Keck Center	-	-	-
88N	Curb	Ninth St Adjacent to Bauer Hall	7	-	7
88	Lot	Ninth St East of Bauer Hall	50	-50	-
89	Lot	Ninth St East of Bauer Hall Lot Near Baseball Field	139	-139	-
100A	Curb	Ninth St Columbia Ave. to Amhurst Ave.	15	5	20
101	Lot	Ninth St by Heggblade Center	2	2	4
101E	Lot	Wohlford Hall - just north of building	8	-	8
104B	Curb	Columbia Ave,East Side	-	11	11
106	Curb	Eighth St North Side Near Seaman	16	-11	5
108B	Curb	Eighth St South Side of MMCA	-	-	-
113	Curb	Mills Ave. North of Sixth St West Side by Fawcett & Auen	24	-24	-
114	Lot	Mills Ave North of Sixth by Ducey Gym	36	-36	-
114A	Lot	South of Ducey Gym	16	-11	5
115	Lot	Mills Ave. & Sixth St. (Southeast Corner)	149	-149	-
115E	Curb	Mills Ave East Curb South of Sixth St.	15	-	15
115S	Lot	528-530 Mills Offices Ave.	16	-16	-
117A	Lot	CMC Apts.	104	-104	-
119	Curb	Claremont Blvd Sixth St. to Ninth St., West Side	41	-	41
120	Curb	Claremont Blvd South of Sixth St. to Park, West Side	21	-	21
121	Lot	Children's School	34	-	34
121B (F2)	Lot	Adjoining Children's School Lot (recently completed))	62	-	62
122	Lot	Archery Range	4	-4	-
124	Lot	400 N. Claremont Blvd.	70	-	70
125	Lot	CMC East Lot - Off of Sixth St. by Tennis Center	59	-	59
126	Curb	Brooks Ave East Curb	23	-23	-
127	Curb	Harwood Pl North Curb	21	-	21
128	Curb	Claremont Blvd South of Arrow Route, East Side	18	-	18
		Subtotal	1007	-576	431
F1 (104C)	Subterranean	Kravis Center (under contruction)	-	+55	55
F3	Lot	East Campus (adjoining Claremont Blvd.)	-	+214	214
F4	Subterranean	Academic 1 & 2	-	+150	150
F5	Lot	Alumni & Admissions Gateway	-	+54	54
F6	Subterranean	Student Apartments	-	+200	200
F7	Structure	6th St. (Absorbs Reference #115 Lot)	-	+375	375
F8	Lot	East Campus (adjoining sports field)	-	+154	154
F9	Curb	Mills Ave. East Curb (extends #115E Southward)	-	+5	5
F10	Curb	Harwood PI North Curb (extends #127 Westward)	-	+14	14
		Subtotal	0	1221	1221
		TOTAL	1007	645	1652

[1] Per November, 2010 reporting

[2] Values are preliminary and correspond to a possible future menu of parking facility additions as well as adjustments to existing facilities based on full Master Plan implementation

[3] City Planning Staff has indicated that after the East Campus Sports Complex has been developed and the F3 lot has been made available consideration may be given to prohibiting parking on Claremont Boulevard north of 6th Street. In the event that the City elects to prohibit parking as set forth in this footnote, CMC will continue to provide at least as many parking spaces as are required under City Code



As a result of the findings from the 2009 Parking Study, CMC has developed a Parking Management Plan and taken other steps to address parking needs on campus, including:

means:

- requirements.

- campus.



• The construction of the F2 (121B) surface lot south of Sixth Street, which was completed in the fall of 2010. The F2 lot provides 62 additional parking spaces to allow for additional student parking and for overflow event parking.

The adoption of a parking policy that generally requires faculty and staff members to park in CMC-designated lots as their primary parking location. The purpose of this policy is to direct faculty and staff members in the west academic campus to park in the Bauer East lot or in other CMC-provided parking if parking is not available on the west campus in order to minimize parking impacts on other campuses and on the Claremont Village.

• The adoption of a policy that generally prohibits freshmen students from bringing an automobile to campus.

It is within this context that CMC developed the Parking Plan for the Master Plan. The Parking Plan provides flexible mobility solutions for the campus community and its neighbors utilizing the following

• Providing parking spaces in compliance with City Code

• Adopting parking management strategies that encourage alternative transportation choices.

• Providing, when economically feasible and warranted by demand, structured parking spaces in conjunction with other facilities.

• Adopting parking management strategies that minimize parking and traffic impacts on surrounding campuses and communities.

Preserving a pedestrian-centered campus environment.

• Creating and maintaining automobile, pedestrian, bicycle, skateboard, and other flow patterns through and around the

• Managing parking needs and traffic patterns during campus construction to minimize disruption and inconvenience for the campus and surrounding communities.

## Proposed Parking & Mobility Plan

Looking forward to the Master Plan, the proposed Parking Plan builds on the findings of the 2009 Parking Study in the following key areas:

### • Faculty and Staff Parking:

Collectively, the subterranean lot under the Kravis Center (FI), the subterranean lot under Academic Buildings I and 2 (F4), and the Ninth Street surface lot (F5), will provide the primary parking to support the College's faculty and staff on CMC's main campus. The addition of each of the potential parking facilities will be tied to the construction of the potential improvement that each facility is intended to serve. Although the College still anticipates demand-location pressures for faculty and staff in the west academic campus, the Master Plan and Parking Plan address this in several ways, including:

- I. The addition of the Kravis Center subterranean lot (FI) (being constructed at this time).
- 2. The potential addition of the Academic Buildings I and 2 subterranean lot (F4) and adjacent Ninth Street surface lot (F5) to offset any loss of spaces in the Bauer Center lots.
- 3. The Campus Center and Sixth Street Administrative Complex will enable a relocation of a significant number of staff from Collins Dining Hall, Story House, Heggblade Center, and the Emett Student Center east to the Mills Avenue corridor, which is more convenient to related parking areas.

### • Student Parking:

Collectively, the F2 (121B) lot south of Sixth Street, the F3 lot along Claremont Boulevard, the potential Sixth Street Parking Structure (F7) and the potential Student Apartment Subterranean lot (F6) provide a range of options to address current and projected needs for student parking. New parking facilities will be added as needed to support specific components of the Master Plan.

### Events / Overflow:

The potential East Campus Sports Complex lot (F8) will provide parking for potential athletic facilities in the East Campus. In addition, depending on the nature of the event, the potential Claremont Boulevard lot (F3), and Sixth Street Parking Structure (F7) together with the recently-completed (F2) lot south of Sixth Street would all provide additional parking that may serve events or other "overflow" conditions, and which could also be utilized for temporary parking or staging related to construction



When added to the existing spaces not planned for demolition, the menu of potential parking additions could result in an overall parking supply of up to 1,652 spaces (see Page 47). The actual number of new spaces constructed will depend on prevailing parking conditions as the Master Plan components are developed, City Code requirements and CMC's parking needs. The 1,652 space potential was calculated by adding together all of the potential new options and does not represent an aspirational goal or a required minimum.

Applying the current City Code to the expected Master Plan enrollment and staffing, plus a public assembly allowance (for overflow parking) of approximately 180 spaces, results in a potential Code requirement of 1,051 spaces, less City authorized parking reductions granted in response to the College's adoption of various demand reduction techniques. Currently, the College has been granted parking managment reductions totaling 54 spaces, and the Code authorized parking reduction may rise to over 63 spaces based on the full master plan. However, even without these reductions, the Master Plan includes parking facilities to meet potential demand and City Code.

As demonstrated above, the parking plan component of the Master Plan assures that campus parking will be used by those it is intended to serve, and demand will not be increased for parking spaces in surrounding parking areas or result in spill-over parking in any surrounding residential neighborhood. Consequently, pursuant to Section 16.069.090.C.2 of City Code, neither provision of Section 16.069.090.C.1 of City Code (as it may be amended) shall restrict CMC from locating parking spaces in the manner described in the Master Plan in the service of buildings or facilities described in the Master Plan.

The figure on page 49 illustrates the parking and circulation aspects of the Master Plan including campus gateways, primary and secondary vehicular circulation elements, existing and future building elements, and expected on-street and off-street parking elements. Full implementation of the Master Plan could involve the absorption of existing surface parking lots into future building sites and/or structured parking elements, with the further addition of parking components in the East Campus Sports Complex.



## Exterior Campus Signage & Identity

One of the ways Claremont McKenna College will express its identity is through its campus signage. The design of the signage will be integrated with the campus architecture and landscape.

A "family" of related signs will be used to address the variety of way-finding needs. The size and detailing of each sign type will relate to the location where it will be installed and the type of information displayed.

The signage will feature natural materials that are compatible with the campus landscape and will be designed in accordance with City of Claremont signage and lighting requirements. Claremont McKenna College will develop a comprehensive sign program for review and approval by the city.







Proposed Campus Gateway at Mills Avenue and Sixth Street

### East Campus and Related Projects

The area that will become the East Campus Sports Complex, located east of Claremont Boulevard, is currently owned by Claremont University Consortium (CUC). CUC is subdividing the East Campus Sports Complex from its inert landfill site, known as the East Campus, located south of Foothill Boulevard, west of Monte Vista Avenue, north of Arrow Route, and east of Claremont Boulevard. The East Campus spans the cities of Claremont and Upland and the counties of Los Angeles and San Bernardino and is located mostly in the City of Upland. The East Campus Sports Complex will be located in both the City of Upland and the City of Claremont.

Although the environmental impact of CMC's East Campus Sports Complex will be analyzed as part of the City of Claremont's environmental review of CMC's Master Plan, those environmental impacts will also be analyzed together with Pitzer College's uses of the East Campus as part of Upland's and Claremont's environmental review of the subdivision and usage of the entirety of the East Campus. The City of Upland will be the Lead Agency with regard to the Environmental review of the East Campus subdivision and has jurisdiction over any improvements to the Upland portion of the East Campus.

The master plans of other members of The Claremont Colleges and other nearby developments may be related projects requiring studies, but are not themselves part of this Master Plan.



III. administrative procedures

### Administrative Procedures

The following administrative provisions shall govern the implementation of the Claremont McKenna College Master Plan:

### A. USES AND DEVELOPMENT PERMITTED WITHIN THE CLAREMONT McKENNA COLLEGE MASTER PLAN **BOUNDARIES**

1) Relationship of the Claremont McKenna College Master Plan to the Claremont Municipal Code Approval Process.

The permitted uses and development within the Master Plan boundaries are governed by the provision set forth in the City's Municipal Code for the Institutional District and AV2 District (as such Code may be amended in accordance with this Master Plan), the City's General Plan (as such General Plan may be amended in accordance with this Master Plan), this Master Plan, and any applicable development agreement.

2) Additional Uses and Development Which May Be Permitted Without an Amendment to the Claremont McKenna College Master Plan.

In addition to the permitted uses outlined in (1) above, special uses or development which are listed in 16.306 of the Municipal Code as permitted in an Institutional District subject to the issuance of a special use and development permit may be permitted within the Master Plan boundaries in accordance with the appropriate review procedures in the Municipal Code.

### **B. DEVELOPMENT REVIEW PROCEDURES**

1) Review Requirements

Unless plans for buildings and structures and all signs, luminaries, landscaping, irrigation and other features of the site for buildings, parking lots, or other structures, have been approved pursuant to the review procedures established in the Municipal Code, no building permits will be issued.

2) Review Responsibilities

All new construction, modifications, and site changes shall be reviewed as set forth in Section 16.300 of the Claremont Municipal Code, as amended from time to time.

3) Scope of Review for Projects Implementing this Master Plan

The City's review of specific projects implementing components of the Claremont McKenna College Master Plan (including parking) shall be limited to the projects' architectural elements, layout, massing, landscaping, lighting, and compliance with Title 16 of the Claremont Municipal Code, the provisions of the Claremont McKenna College Master Plan, and any Development Agreement. Provisions of the Claremont McKenna College Master and any Development Agreement shall take precedence over the provisions of Title 16 of the Claremont Municipal Code in case of conflict. Environmental review of specific projects shall rely on the CEQA documents adopted with the Claremont McKenna College Master Plan. Any subsequent environmental review of a specific project shall be limited to impacts that would occur as a result of the project and which were not examined as part of the CEQA documents adopted with the Claremont McKenna College Master Plan or are more significant than described in the CEQA documents adopted with the Claremont McKenna College Master Plan.

### C. ADMINISTRATION OF THE CLAREMONT MCKENNA COLLEGE MASTER PLAN

1) Administrative Adjustments

The Director of Community Development may administratively approve the following minor adjustments to explicit provisions in the Claremont McKenna College Master Plan:

- area.

c) Modifications in terms of layout or location of structures, fields, parking or other programmatic usages which changes do not have the effect of increasing student enrollment or staffing, creating environmental impacts greater than previously analyzed, the permitted uses, density or intensity of uses, or the maximum height or size of buildings.

If an amendment does not qualify as an Administrative Adjustment, then this plan may be amended in accordance with the plan review provision of Municipal Code Section 16.069.030. Each amendment shall include all sections or portions of the Claremont McKenna College that are affected by the change. All amendments shall be required to be consistent with the General Plan.

3) Enforcement

The Claremont McKenna College Master Plan, and/or conditions of approval shall be administered and enforced by the City of Claremont, Community Development Department and subject to the administrative fines program of Chapter 1.14 of the Claremont Municipal Code.

a) The addition of new information to the Claremont McKenna College Master Plan maps or text that does not change the effect of any regulations or guidelines.

b) Minor expansion in the boundaries of the Claremont McKenna College Master Plan, provided the area of the expansions does not exceed 5% of the total Master Plan

2) Claremont McKenna College Master Plan Amendments

### 4) Duration

The Claremont McKenna College Master Plan shall be valid 30 years from the date of Planning Commission approval. At the conclusion of the 30-year period, the Claremont McKenna College Master Plan will expire unless the approval of the Master Plan is formally extended.

Once the Master Plan expires, all planned improvements on private property which were not implemented prior to the Master Plan's expiration shall not be constructed unless such improvements are approved pursuant to a new Master Plan or other applicable City regulations in effect at the time. If there are remaining public improvements for which permits have been issued and bonds collected but not constructed prior to expiration, then these improvements shall be completed in a timely manner.



IV. appendices

# Appendix A

## Utility Infrastructure

The purpose of this analysis is to address the existing utility infrastructure of Claremont McKenna College (CMC) in order to develop an accurate assessment of potential future system upgrades. All existing on-site utility information has been provided by the Claremont University Consortium (CUC), while the City of Claremont has provided as-built information for all off-site public utilities including sewer and storm drain.

## Sanitary Sewer System

### Existing Sanitary Sewer System

Sanitary sewer service to the streets surrounding the Campus is provided by the City of Claremont Public Works Department. The main sewer trunks collecting discharge from the CMC campus are located in Sixth Street, Mills Avenue, and Amherst Avenue.

There is an 8" vitrified clay pipe (VCP) sewer line in Mills Avenue and Amherst Avenue, flowing north to south. Both these sewer lines start just south of Twelfth Street and at the downstream end connect to the 8" VCP sewer trunk line in Sixth Street, which flows from east to west. According to Campus records the sewer line connecting from Mills Avenue appears to bypass the intersection of Sixth Street and Mills Avenue. A bypass has been installed so that the Mills Avenue sewer line detours from the Sixth Street sewer trunk and continues south in Mills Avenue towards First Street.

Based on guidelines outlined in the City of Los Angeles, Bureau of Engineering Sewer Design Manual, the average daily flow was determined for each existing building as gallons per day (GPD) and then converted into cubic feet per second (CFS) for input into the Bentley Flowmaster program. Flow capacities for each sanitary sewer system were then determined using this program. Based on the available information, it is determined that the 8" sewer system in Amherst is currently flowing 24% full, and the 8" sewer system in Mills, 19% full. There are several residence halls that connect directly into the 8" sewer pipe in Sixth Street. As a result of the current discharge from the CMC campus buildings (plus additional ones to the north), the 8" sewer main in Sixth Street appears to be currently flowing approximately 35% full.



\* The existing sanitary sewer system and its adequacy to serve the planned East Campus Sports Complex is analyzed in Appendix B to this Master Plan.

### Future Sanitary Sewer System

Based on requirements provided by the City of Claremont, an 8" sanitary sewer system can typically be designed to a 50% capacity while any larger pipe can be designed to a 75% capacity. Therefore, it is possible that some future projects may require upgrades to the existing sewer system, depending on the proposed building program. Upgrades to the public sewer system will need to be approved by the City of Claremont. Graywater recycling is an option to consider for reducing sewer discharge into the public system. Additionally, there will be connection fees associated with any new connections into the public sewer system.

administrative / academic buildings

student life building

Mills 8" (s



### Domestic Water and Fire Service System

#### Existing Domestic / Fire Water System

Water service is provided to the CMC campus by Golden State Water Company (GSWC). GSWC currently maintains 8" water lines in Sixth Street, Amherst Avenue, and Ninth Street. There is also a 10" water main in Mills Avenue and a 12" main in Claremont Boulevard. Additionally, there is a 6" privately owned water main that runs north-south through the CMC campus.

Based on campus utility records, it appears that the CMC campus is served by a looped domestic/fire water system. Fire flow tests have been performed on all existing hydrants on and neighboring the CMC campus. There are at least 14 existing hydrants servicing the CMC campus, 8 of which appear to be public hydrants. It is our understanding that the jurisdiction responsible for reviewing any future hydrant and access improvements is the County of Los Angeles Fire Department (LACFD).

### Future Domestic / Fire Water System

Any future water systems shall provide adequate water supply for operation of the proposed building's domestic water requirements, irrigation demands, fire sprinkler systems, and on-site hydrants (if required by LACFD). Additionally, GSWC requires that all proposed fire and domestic water lines include approved backflow prevention device.



**Fire Water System Appurtenances** 



There are many options for storm water management on the Claremont McKenna College (CMC) campus. According to SUSMP regulations, the College is required to pre-treat the first  $\frac{3}{4}$ " of rain water prior to discharge into the public system. Additionally, based on geotechnical investigations, the existing soils are favorable for infiltration. Therefore, the implementation of an infiltration system is recommended to provide for the capture of on-site stormwater runoff.

### Existing Site Hydrology

Site hydrology determines the amount of rainfall expected throughout the campus over a given period. The overall existing drainage pattern of the CMC campus is in the southwest direction. Storm water appears to collect in multiple drainage inlets throughout campus and is channeled through underground storm drain conduits to connect to the public storm drain system in Mills Avenue and Sixth Street. General drainage patterns for the campus have been determined from a study of available topographic information.

### Existing Storm Drain Systems

There are three (3) main public storm drain lines collecting runoff from the CMC campus. There is a 51" reinforced concrete pipe (RCP) in Mills Avenue, which is owned by the Los Angeles County Flood Control District (LACFCD). However, based on the LACFCD record drawings, there does not appear to be any direct connections to this line within the boundaries of the campus. If proposed development requires future connections to this line, CMC will be required by the LACFCD to apply for an allowable discharge flow limit and provide retention of on-site stormwater in order to reduce the amount of outflow discharging into the public main.

On the west side of the CMC campus, there is a private 24" RCP storm drain in Amherst Avenue, maintained by the Claremont College Facilities. This storm drain line has been designed for connections from the CMC campus. At the southwest corner of the site is where the upstream end of the Sixth Street storm drain line starts. There is a 24" RCP storm drain line in Sixth Street, owned and maintained by the LACFCD.

### Future Storm Drain Systems and Proposed Storm Water **Treatment Systems**

Storm water treatment – Based on guidelines outlined in the National Pollutant Discharge Elimination System (NPDES) Permit, the Regional Water Quality Board requires that all new projects develop and implement the Best Management Practices (BMP's) for storm water management within the County of Los Angeles. All future developments at the campus that fall within one of the nine prescribed thresholds will be subject to these requirements, including developing a Standard Urban Stormwater Mitigation Plan (SUSMP) which justifies proposed BMP's for the project. The State of California Regional Water Quality Board (CRWQB) is considering revisions to the statewide permit that will require among other things, project developments to limit their stormwater runoff to predevelopment condition levels, potentially requiring more detention/retention. KPFF will review all opportunities to treat/capture and infiltrate stormwater where feasible.

Proposed BMP systems shall be designed to the level of sustainability desired by CMC. A combination of underground and surface level BMP systems is recommended for the CMC campus, including implementation of bioswales and underground infiltration trenches.

Existing storm drain systems will not be drastically affected by the proposed development to the CMC campus. CMC would like to implement BMP systems that detain/retain the on-site stormwater runoff collected from surface and building runoff prior to discharge into the public storm drain system. Any overflow drains will connect into the public system, in the event of a large storm event.

\* The storm water management for the East Campus Sports Complex is discussed in Appendix B to this Master Plan."





Bioswale in parking lot application



Parkway drain to bioswale application

Concrete gutter bioswale application



## Storm Water Management and Storm Drain System (cont.)

### Proposed Hydrology

Site hydrology affects the amount of runoff to the site by the site slope and grading and runoff coefficients. CMC desires to implement storm water treatment systems including infiltration within the campus in order to utilize the existing soils which are favorable for infiltration as a storm water management solution. Geotechnical investigations in the area have indicated a high percolation rate in the existing soils. CMC would like to set storm water goals such as on-site storm water detention and infiltration. Such goals can be achieved by utilizing the permeable existing soils for infiltration, as well as utilizing the proposed landscaping for use as a bioswale system and also possible irrigation reuse via graywater treatment system.

#### Bioswale

A bioswale is a landscape element designed to collect stormwater surface runoff and "treat" that water by removing its sediments and silts. It is a type of stormwater filtration system. The proposed development of CMC's campus allows for the implementation of multiple bioswale systems throughout the campus due to the future open space design combined with the existing soil conditions. The landscape design shall be integrated with the bioswale component as a way to utilize the site's natural elements and implement a sustainable feature to the campus.



Proposed bioswale



north - south infrastructure corridors



flow arrow

# Existing Site Hydrology

\* The existing site hydrology for the East Campus Sports Complex is discussed in Appendix B to this Master Plan.



## Infrastructure

#### Electrical Infrastructure

Electrical power originates from The Claremont Colleges substation located at the southwest corner of Sixth Street and Mills Avenue which supplies power to the five undergraduate colleges. There are nine feeder lines distributing power between the colleges. The campus is predominantly fed from three feeders at 4160 V. The proposed buildings will largely be fed from the existing feeder lines where buildings are being replaced. New construction may require feeder upgrades to accommodate increased capacity needs.

Master Plan.



**Existing Site Electrical Distribution** 

\* The current electrical infrastructure and its adequacy to serve the East Campus Sports Complex is analyzed in Appendix B to this

# Appendix B

# East Campus Sports Facilities

### Claremont Colleges East Campus Project Description

The Claremont University Consortium (CUC) East Campus project site consists of approximately 75 acres, with 30 acres in the City of Claremont and the remaining 45 acres in the City of Upland. The site is located south of Foothill Boulevard, east of Claremont Boulevard, north of Arrow Route and west of Monte Vista Avenue. The jurisdictional boundary, between the City of Claremont in Los Angeles County and the City of Upland in San Bernardino County, transverses the project site diagonally (northeast to southwest) from Foothill Blvd. to Arrow Route.

Formerly a aggregate quarry, the CUC East Campus site currently contains the Claremont McKenna College archery range along the western edge of the site. The remainder of the site is being used for construction parking and a landfill.

The CUC site is being subdivided into three (3) parcels in Claremont and six (6) parcels in the City of Upland in order to provide land for Pitzer College (17 acres) and Claremont McKenna College (41 acres) uses. Uses for the remainder of the site will be determined at a later time.

### Claremont Mckenna College (CMC) East Campus Project Description

The portion of the site being allocated for CMC use sits astride the boundary line between the two cities and is thus on two parcels: Parcel 2 of Parcel Map 70243 in the City of Claremont and Parcel 4 of Parcel Map 18989 in the City of Upland. The CMC parcels will be developed with the following uses:

- NCAA regulation size baseball field with bleachers to hold 500 spectators.
- Softball field with bleachers to hold 500 spectators.
- Football field and track with bleachers to hold 3,500 spectators.
- Archery range.
- Argentinean paddle tennis court.
- Golf practice area.
- A 30,000 square foot field house containing offices, locker rooms, classrooms, restrooms, equipment storage rooms, and a concession stand.
- A 207 space parking lot along Claremont Boulevard and a 141 space parking lot at the field level.
- Field Lighting.

The baseball field, softball field, football field and track, and the archery range are all facilities that are being relocated from other areas of the CMC campus.

The East Campus Site Plan has been designed, where possible, to utilize the existing topography and land forms of the former quarry, in order to minimize cut and fill operations and to take advantage of the natural grade elevations to develop the athletic fields and spectator areas.



### East Campus Utility Infrastructure

### Sanitary Sewer Services (Wastewater Services)

### City of Upland

The City of Upland Public Works Department maintains sewer mains within its jurisdiction. Existing off-site sewer mains in the project vicinity include an 8-inch vitrified clay pipe (VCP) under Monte Vista Avenue between Foothill Boulevard and Arrow Route and a sewer stub for an 8-inch VCP to the project site under College Park Drive to the north side of Arrow Route. Per the City of Upland Public Works Department, the sewer line was designed with the intent that it be utilized by the new development "at the Quarry site." Wastewater treatment is provided to Upland by the Inland Empire Utilities Agency (IEUA).

### **City of Claremont**

The City of Claremont Engineering Division maintains sewer mains within its jurisdiction. Two sewer mains currently exist within the project vicinity. One is located on the Pitzer College campus immediately west of the project site. The other is located under 6th Street, approximately 2,000 feet from the southwest corner of the project site. Either sewer main has capacity to serve the project site. Wastewater treatment is provided by the Los Angeles County Sanitation District (LASD) No. 21.

### **Cross-Jurisdictional Wastewater Treatment**

Development of the East Campus site may benefit from crossjurisdictional wastewater treatment services from either IEUA or LASD. The entire build-out of the project is estimated to discharge 3,253.5 gallons per day (GPD). This would be less than one percent of the current and planned treatment capacity of capacity of servicing IEUA treatment plants. 3.253.5 GPD is also less than one percent of the Pomona wastewater treatment plant (WRP) treatment capacity. Based on this analysis, should wastewater treatment services be provided to the project site singularly by the IEUA or LASD, there is sufficient capacity in both systems without the need for either operator to expand treatment capacity.

### **Domestic Water Service**

### City of Upland

The City of Upland provides water to customers within its jurisdiction. The City of Upland maintains a 10-inch steel water main under Arrow Route between College Park Drive and Monte Vista Avenue with a stub that connects to the north side of Arrow Route. The existing water main located under Arrow Route was constructed with a stub for connection to the project site. Similarly,

the sewer main under College Park Drive was constructed with a stub for connection to the project site. The project public utilities report indicates that these service lines were installed with the intent to serve the project site; therefore, expansion of these facilities is not anticipated in order to serve the project site. Recycled water is available in portions of the City of Upland and may be available at such time of development.

### **City of Claremont**

Golden State Water Company (GSWC) provides water to the majority of the City of Claremont, including the project site. GSWC maintains an 8-inch polyvinyl chloride (PVC) water main under Foothill Boulevard between Claremont Boulevard and Monte Vista Avenue. The project utilities report indicates that GSWC confirmed that the 8-inch main will have adequate capacity to serve project water demand and fire flow requirements. Recycled water is not available in the Claremont System.

### **Cross-Jurisdictional Water Service**

Development of the East Campus site may benefit from crossjurisdictional water service from either the City of Upland or GSWC. The entire build-out of the project is estimated to use 204.09 AFY of water. This would be 0.4 percent of the City of Upland's total water supply in 2025. 204.09 AFY is approximately one percent of GSWC's future total supply. The urban water management plans (UWMP) for both water purveyors indicate that sufficient water supply is available to serve each district over the log-term. Should water service be provided to the project site singularly by the City of Upland or GSWC, neither purveyor will need to increase or expand their water supplies.

### Storm Water and Storm Drain System

The project vicinity is completely urbanized with a fully developed storm drainage system. Curb and gutters are constructed on all streets around the perimeter of the project site to convey drainage to multiple side inlets in the area and eventually to subsurface storm drains. In addition, the proposed subdivision and Conceptual Master Site Plan include a retention basin in the southwest portion of the site. This retention basin will be designed to retain all on-site drainage from the future sports facilities up to and including the 100-year flood (1% annual flood).

### Solid Waste Services

### City of Upland

The City of Upland contracts with Burrtec Waste Industries for commercial and residential solid waste disposal. The majority of Upland's solid waste is disposed of at the Mid-Valley Sanitary Landfill (SLF). Other landfills serving Upland include Colton SLF, Puente Hills SLF, San Timoteo SLF, and Victorville SLF.

### **City of Claremont**

The Claremont Colleges currently contracts with the City of Claremont for solid waste disposal serves. The City of Claremont is primarily served by Puente Hills Sanitary Landfill (SLF). Other landfills serving Claremont include Colton SLF, Lancaster Landfill and Recycling Center, Mid-Valley SLF, and Victorville SLF

### **Cross-Jurisdictional Landfill Service**

Most of the landfills that serve Claremont also serve Upland. The combined remaining capacity of the landfills serving Upland is 410,217,733 CY, approximately 60 percent of total capacity. This is comparable to remaining capacity serving Claremont. With remaining capacity between 60 and 61 percent between the respective jurisdictions, adequate capacity remains to serve the long-term disposal needs of the project.

### **Electrical Infrastructure**

Southern California Edison Company provides both the City of Claremont and the City of Upland with electrical service. Southern California Edison's office in San Dimas provides service to the City of Claremont, while the Ontario office provides service to the City of Upland. Existing Southern California Edison Company power poles and lines surround the site.