

APPENDIX A: MEMORANDUM

TO: Arlyn Purcell, Impact Sciences
FROM: Elizabeth Rush, Mark Spencer
DATE: October 12, 2004
SUBJECT: Traffic Analysis for the Greenhouse Site adjacent to P 02292-000
the City College of San Francisco Main Campus.

This memorandum discusses the potential construction-related and short-term operational traffic impacts of several proposed uses for the existing greenhouse site adjacent to the northern part of the campus. Traffic impacts surrounding the campus are described in the City College of San Francisco Master Plan Final Environmental Impact Report (CCSF Master Plan FEIR).

Only qualitative level discussions are included for the two alternatives for the site, since both alternatives are proposed to be temporary uses. If either use is to become permanent on this site, further environmental analysis may need to be conducted.

Site Description

The Greenhouse site is located along Havelock Street adjacent to West Road / Marston Road on the CCSF Phelan Avenue Campus. The site covers 37,050 square feet and currently has a number of greenhouses on the site. Current access to the site is located on Havelock Street, close to the intersection of East Road and Havelock Street. The site is roughly a rectangle with the longest side along Havelock Street. There is presently no curb along either side of the greenhouse. The site is at grade to Havelock Street. Alongside the greenhouse site, Marston Road / West Road is sloped downhill from Marston Street to Havelock Street.

Surrounding Streets

As stated in the CCSF Master Plan FEIR, all the local roads to the Greenhouse site are considered to be local or collector roads in the City of San Francisco *General Plan: Transportation Element*.



Havelock St –Havelock Street runs from Circular Avenue to the campus in an east-west direction. It is a narrow street with no formal curbs or sidewalks except on the northern side of the street between Edna Street and Circular Avenue. There is an unpaved track adjacent to the northern side of the tennis courts but this track is not at grade to the roadway, nor are people visible when walking along this track. At the eastern end of Havelock Street there is a pedestrian overpass that connects to the eastern side of I-280.

There is some parking on the northern side of the street, between the driveway to the Greenhouse site and Edna Avenue. There is only enough room for approximately 7 cars between Edna Street and the driveway to the Greenhouse site. Parking is allowed between Circular Avenue and Edna Street, but the number of spaces is limited at this point due to the driveways. On the northern side of the street, there are no parking restrictions, except for street cleaning. On the southern side of the road, parking is not permitted at any time.

As stated in the CCSF Master Plan FEIR, approximately 900 vehicles enter the campus and approximately 1,400 vehicles exit the campus using Havelock Street.

Table 1 lists the widths of the roadway at each of the intersections along Havelock.

Table 1
Road width along Havelock Street

Location	Width (in feet)
Havelock Street at West Road (on the campus)	29
Havelock Street at East Road (on the campus)	32
Havelock Street at Edna Street	25
Havelock Street at Circular Avenue	24

Source: DKS Associates, 2004

Havelock Street provides access to four parking lots on the campus that are used by staff during the day and visitors / students after 5:00 PM. This includes access to the parking area adjacent to the Child Care facility to the west of the greenhouse site.

Circular Avenue – Circular Avenue runs north-south between Monterey Boulevard and Havelock Street. Between Judson Avenue / Detroit Street and Havelock Avenue there are residential properties on only one side of the street. Curbs are provided on both sides of the street with sidewalks only provided on the western side adjacent to the residences. The other side of the street faces I-280 with trees screening the road from the freeway below. At Havelock Street there is no intersection, the circular avenue becomes Havelock Street.

Table 2 lists the parking restrictions along Circular Avenue.

Table 2
Parking Restrictions on Circular Avenue

Location	Side of Street	Parking Restriction	Street Cleaning (No Parking)	Additional Notes
Between Judson Street / Detroit Avenue and Marston Avenue	East	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	12:00 PM to 2:00 PM Thursdays	Except Area D Permits
	West (adjacent to the freeway)	N/A	1:00 PM to 3:00 PM Mondays	Commercial Vehicles limited to one hour parking
Between Marston Avenue and Havelock Street	East (adjacent to the freeway)	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	12:00 PM to 2:00 PM Thursdays	Except Area D Permits
	West	N/A	1:00 PM to 3:00 PM Mondays	Commercial Vehicles limited to one hour parking

The street changes in width along its length in the study area. This is shown in Table 3.

Table 3
Road width along Circular Avenue

Location	Width (in feet)
At Judson Avenue / Detroit Street intersection	34
At Marston Street	34
At Havelock Street	32
<i>Source: DKS Associates, 2004</i>	

Edna St – Edna Street runs north-south in the study area between Havelock Street and Monterey Boulevard. From Havelock Street and Marston Street it is a one-way street, widening to two-way from Marston Street to Monterey Boulevard. There are curbs and sidewalks provided on all blocks. Table 4 lists the parking restrictions along Edna Street and Table 5 lists the street width at various locations along Edna Street. It should be noted that similar to other streets in the study area, there are a number of driveways cutting into the curb. Edna Street is uphill from Havelock Street to Judson Avenue.

Table 4
Parking Restrictions on Edna Street

Location	Side of Street	Parking Restriction	Street Cleaning (No Parking)	Additional Notes
Between Havelock Street and Marston Avenue	East	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	12:00 PM to 2:00 PM Thursdays	Except Area D permits
	West	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	1:00 PM to 3:00 PM Mondays	Except Area D Permits
Between Marston Street and Judson Avenue	East	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	1:00 PM to 3:00 PM Thursdays	Except Area D Permits
	West	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	1:00 PM to 3:00 PM Mondays	Except Area D Permits

Source: DKS Associates, 2004

Table 5
Road width along Edna Street

Location	Width (in feet)
At Judson Street	24.5
At Marston Street	24.5
At Havelock Street	24.0

Source: DKS Associates, 2004

Marston Avenue (public road) – Marston Avenue runs in an east-west direction between Circular Avenue and the northern portion of the campus. At the campus entrance it is controlled by locked gates designed for emergency access onto the campus. Parking is generally allowed on both sides of the street. Parking spaces are narrow and often are not long enough for a car since they are squeezed between driveways. It was observed during field visits that most driveways have at least two cars using each driveway, with a number of driveways having three cars parked between the sidewalk and the house.

During field visits conducted, it was observed that there are vehicles parking close to the intersections, and trying to “squeeze” into the small spaces between driveways. There are parking restrictions on both sides of the street. Table 6 lists the parking restrictions along Edna Street in the study area.

Table 6
Parking Restrictions on Marston Street

Location	Side of Street	Parking Restriction	Street Cleaning (No Parking)	Additional Notes
Between Circular Avenue and Edna Street	North	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	1:00 PM to 3:00 PM Monday	Except Area D permits
	South	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	12:00 PM to 2:00 PM Thursdays	Except Area D permits
Between Edna Street and emergency access on campus	North	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	1:00 PM to 3:00 PM Monday	Except Area D permits
	South	1 hour parking, 7:00 AM to 8:30 PM Mon to Fri	12:00 PM to 2:00 PM Thursdays	Except Area D permits

Source: DKS Associates, 2004

At the campus end of the street (between Edna Street and the campus), there is very little extra vehicle turning space and parked cars at the end of the street mean that cars are required to use the driveways adjacent to the college to turn. Alternatively, cars that have limited turning abilities reverse into the street in order to park. Field observations show that there is very little parking available during the day (even when college is not in session). It was also observed that vehicles are parked in both directions on both sides of the street.

The street consists of two blocks: between Circular Avenue and Edna Street and between Edna Street and the campus. All blocks, on both sides have curbs and sidewalks. Table 7 lists the street width at various locations along Marston Street.

Table 7
Road width along Marston Avenue

Location	Width (in feet)
Marston Avenue at Circular Avenue	24
Marston Avenue at Edna Street	24

Source: DKS Associates, 2004

East Road / West Road (on campus) – East and West Roads are considered to be on the campus. They form a one-way loop around the north and south gymnasiums. West Road runs alongside the western side of the gymnasiums and past the stadium. East Road runs between the gymnasiums and the tennis courts. Both roads are narrow, with only one travel lane. West Road is only 18 feet wide at the intersection of Havelock Street, and East Road is only 15 feet wide at Havelock Street.

Parking is allowed on both streets alongside the gymnasiums. Pedestrian facilities are available on West Road only and these are not continuous along the entire stretch of the road. There is a stop-controlled intersection from East Road to Havelock Street.

West Road connects to Marston Avenue at the northern end of the campus, which is also a one-way street. The section of West Road between Havelock Street in the south and Marston Street in the north and adjacent to the Greenhouse site is a very short two-way road allowing access to the Campus Child-Care facilities.

Marston Avenue (on campus) – On campus, Marston Road is generally a one-way street that operates past the greenhouse site. Between the child-care facility and Havelock Street, Marston Street is a two-way facility that provides access to the Child-care facility. On campus, it connects to West Road and the emergency access at the end of Marston Street (discussed previously). At the Havelock Street / West Road intersection, Marston Road / West Road on campus is 30 feet wide. On the section of the street, north of the Child-Care facility, angle parking is provided. No Parking is permitted on the two-way section. Class room access is provided adjacent to the two-way section.

PROPOSED PROJECT

There are two proposed alternatives for the greenhouse site studied in this analysis. (The third possible use, the temporary storage of landscaping materials, would have minimal impacts, and was not included in this analysis). These include one or more portable classroom facilities and temporary parking that offsets on-campus parking to be used for construction vehicles. These options are discussed in further detail below.

Total demolition and site preparation activities would take no more than 15 to 17 days, over a span of approximately one month. Demolition of the existing structures would take approximately seven working days; excavation would take one day; remediation would take one to two days; the laying of gravel would take several days; and the installation of the portable classroom(s) would take one day. Construction / demolition would occur between normal working hours with no work on weekends or during the nights.

It was assumed that vehicular access to the site would be from Havelock Street using the existing driveway facilities, close to East Road. Pedestrians and bicyclists could access the site from either Havelock Street or the internal roads on the campus.

Classroom Facility

The proposed classroom facilities would consist of one or more portable buildings relocated to the site from other locations on the Main Campus. These facilities would not create any additional classroom capacity over the Master Plan, and would complement the existing classrooms nearby. The classroom facilities would not have any new trips associated with them, as they would accommodate trips that are already going to the campus.

The relocation of portable classrooms to the greenhouse site from other spots on the campus might represent a minor change in the distribution of classroom locations on the campus, depending on the current locations of the portable buildings. However, the number of students associated with this change would be minimal compared with the projected change in enrollment analyzed in the Master Plan EIR, and would not affect the number of trips or the routes that vehicles use.

No additional intersection impacts, other than those identified in the Final CCSF Master Plan EIR, are anticipated as a result of using the site as a classroom facility, since no additional trips are anticipated to the site.

As the students using these classrooms would already be attending the campus, it was assumed that there would be no additional trips to the campus. This means that there would be no transit impacts as a result of using this site as classroom facilities. Similar to the Final CCSF Master Plan EIR no mitigation is required if this site is to be used as classroom facilities.

Using this site as a classroom facility would not impact parking in the local area. Access to and from the site is assumed to be the same as for the Master Plan. No additional parking is proposed as part of the classroom facility. No mitigation for this site is required if this site is to be used as classroom facilities.

Since the classroom facilities would be complementary to the existing classroom facilities nearby, students would not change their access to and from the area. It should be noted that there are no existing pedestrian or bicycle facilities along this section of Havelock Street, with the exception of the below-street-level track alongside the tennis courts. Field observations observed that vehicles park on the northern side of Havelock Street between the existing driveway to the greenhouse site and Edna Street.

Issues concerning pedestrian movements along Havelock Street were addressed in the CCSF Master Plan EIR. The Final CCSF Master Plan Mitigation Measure **Traffic-9a** states that "CCSF shall work with the City of San Francisco to improve conditions along Havelock Street. Possible improvements include the installation of a sidewalk or path. Consideration shall be given to the extent of public right-of-way, land ownership and use, location of utilities, and presence of physical opportunities or obstacles." No further mitigation is required. The Final Master Plan EIR also states that "construction of sidewalks on Havelock Street would help to minimize pedestrian-vehicle conflicts, but is within the jurisdiction of the City and County of San Francisco."

As identified in the Master Plan and the Master Plan EIR, bicycling is not a prevalent transportation mode to and from the campus. The use of this site as classroom facilities would not cause any impacts to existing or planned bicycle facilities on the campus, for the reasons noted above. No mitigation measures are required.

There are no freight facilities anticipated for this site if it is used for portable classrooms. The impacts identified in the Final CCSF Master Plan EIR would remain unchanged and no mitigation is required. (If the site were used for landscaping storage, only one set of trips would be made to deliver and pick up the materials over the life of the project.)

As previously stated, no additional trips are anticipated to this site if the site is to be used as classroom facilities. Consequently, there would be no additional impacts to the local freeway system and no mitigation measures are required.

No additional access and circulation impacts are identified with the use of this site as classroom facilities other than those identified in the Final Master Plan EIR. No further mitigations, other than those identified in the Final Master Plan EIR are required if this site is to be used as classroom facilities.

Temporary Parking

The second alternative for the site is for temporary parking. It is proposed that this parking will be used both for construction workers working on other parts of the campus and for any parking that is displaced as part of the construction process. As agreed upon in the FEIR and Mitigation Monitoring report (and adopted by CCSF as part of the Master Plan), no net increase in parking is allowed until all the trip reduction strategies are in place. Consequently, this parking area would only provide temporary parking facilities during the construction process. This would help to minimize the intrusion of Master Plan construction related parking in the immediate neighborhood, where several blocks are already at capacity in terms of parking.

Allowing for between 300 and 325 square feet per parking space (which includes provision for driveways) the entire site would have room for between 114 and 123 cars. If an attendant is on duty in the parking area, far more cars could be parked in the area if needed. However, CCSF is proposing that only a portion of the site be used for parking, allowing for a maximum of 35 parking spaces on the site.

It is assumed that most of the vehicles that would access this temporary parking would travel along Havelock Street (from Circular Avenue). This traffic is likely to be in addition to the 2,500¹ vehicles per day that already use this section of the road.

The approved Master Plan includes an 800 space parking garage just south of Havelock Street. Based on the Final Master Plan EIR, any increase in traffic on Havelock Street and nearby roads could create localized congestion and annoyance to campus neighbors and could lead to hazardous conditions for vehicles and pedestrians.

¹ Data collected for the CCSF Master Plan FEIR.

Any traffic circulation changes associated with the parking on the greenhouse site would only be temporary and not considered a significant impact. Since some of this parking is potentially in replacement for displaced parking as a result of construction activities on the rest of the campus, some of these trips are likely already included in the traffic along Havelock Street. Providing temporary parking on-site at this location would not increase the amount of traffic along Havelock Street compared to the projected impacts from the Master Plan.

As discussed above, most of the streets surrounding the northern part of the campus are narrow and have parking restrictions during the day. However, based on anecdotal discussions in the CCSF Master Plan FEIR, parking in this area is already at a maximum and measures should be taken to avoid adding extra parking demand in the area. An advantage of using the site as construction parking and for displaced parking is that while traffic in the area would be slightly increased, extra parking in the area would not be needed.

Using the site for temporary parking would not change the mode share to the site. As stated, since the parking would replace some of the parking that would be temporarily lost on the campus, many of the trips to this site are likely to already be included as trips to the campus. As such, there would be no impacts on transit services, pedestrian facilities and bicycle facilities in the area. No additional mitigation measures for these facilities are required. In addition, there would be no additional impacts to the local intersections that were included in the FEIR. Also, there would be no additional freeway impacts as a result of using this greenhouse site as temporary parking. No loading zones are proposed on this site as part of a parking use and consequently, impacts on loading zones and facilities would not occur.

CONSTRUCTION IMPACTS ON THE GREENHOUSE SITE

Construction period trip generation estimates were based on the number of construction employees traveling to CCSF and the use of trucks to lay gravel down and carry soil to and/or from the site for site remediation. It was assumed that all construction workers would work the same eight hour shift, and arrive or depart during off-peak hours to avoid conflicts with adjacent street peak traffic conditions. It was also assumed that truck trips would be evenly spaced throughout the day such that ten percent of truck trips would arrive or depart during each peak hour of construction activity.

Trucks to and from this site would use Circular Drive and Havelock Street to access the site.

The maximum workforce estimate of five daily workers is estimated to result in a maximum of 10 daily vehicle trips. However, assuming a vehicle occupancy of 1.23² people per vehicle there would be a maximum of eight daily trips (four inbound and four outbound) In addition, it is expected that there would be approximately 40 daily truck trips

² The Planning Department, City and County of San Francisco, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002

(20 inbound and 20 outbound) to the site in order to lay the gravel, and 80 daily truck trips during the one to two days of site remediation (40 inbound and 40 outbound).

Under the worst-case scenario, if all workers arrived and left at the AM and PM peak hours and 10 percent of the truck trips occurred at these same times, construction of the project would result in 12 additional AM and PM peak-hour trips (one every five minutes). However, truck movements would generally not occur during the AM or PM peak hour. In addition, construction workers would generally leave the site prior to the PM peak hour.

Parking would be required for construction related activities, including workers and trucks. Using similar assumptions to the trip generation analysis, as many as five parking spaces would be needed to accommodate the short-term construction activity.

Short-Term Construction Impacts

The duration of worst case short-term project construction on this site is expected to take no more than 15 to 17 days , with the highest levels of construction traffic (during remediation and gravel laying) occurring over several days. There would be short-term impacts to local intersections, local traffic conditions on Havelock Street, and to parking as a result of construction activity. According to the City's significance criteria, these impacts would not be considered "significant" under CEQA. In addition, the levels of construction traffic that would occur would be within (and likely, well below) those described in the Master Plan EIR. As stated in the EIR, CCSF plans to develop and implement a construction plan to address construction-related traffic. The measures identified below are proposed as part of the project and are considered part of that plan.

Proposed Construction Plan Measures for Greenhouse Site

A construction plan consisting of at least the following elements would alleviate short-term construction transportation impacts.

- Construction employee arrival and departure schedules should be staggered so they do not coincide with adjacent street peak hours (7:00 AM – 9:00 AM, and 4:00 PM – 6:00 PM).
- All construction parking should be accommodated on site once the greenhouses have been demolished.

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