CITY OF OAKLAND

AGENDA REPORT

TO: Office of the City Administrator
ATTN: Deborah A. Edgerly
FROM: Community & Economic Development Agency
DATE: May 20, 2008

RE: **A Public Hearing and Resolution Denying the Appeal and Upholding the Planning Commission Approval of a 115-Unit Senior Housing Residential Project at the Southwest Corner of High Street and MacArthur Boulevard.**

SUMMARY

On February 20, 2008, the Planning Commission approved (by a vote of 4 to 0) a Design Review, Conditional Use permit, and Minor Variance to construct a mixed use development containing 115 affordable senior dwelling units over ground floor commercial at 4311-17 MacArthur Blvd. (CMDV06-426)(Project).

On February 29, 2008, Leila Moncharsh, representing Commercial & Retail Attraction for the Laurel (CRADL), filed an appeal of the Planning Commission's Approval of the Project to the City Council (Attachment A).

The CRADL appellant essentially maintains that (a) affordable housing will not contribute significantly to the financial health of the Laurel District and that further affordable housing is not necessary as Oakland has already taken on its "fair share" of Association of Bay Area Governments (ABAG) targets for affordable housing; (b) the use is not compatible with the C-31 zoning, the scale of the district; (c) the project cannot be considered a mixed use project as it contains only "token" retail; (d) the findings for a variance cannot be met; and (e) the project does not qualify for a Categorical Exemption under CEQA because of air, noise and traffic impacts, as well as the need for variances, potential cumulative impacts from the freeway, and potential impacts to views from scenic highways.

The arguments raised by the appellant are summarized below in the Key Issues portion of this report along with staff's response to each argument, as well as addressed in the attached February 20, 2008 Planning Commission Report (Exhibit A). For the reasons stated in this report, and elsewhere in the record, staff recommends the City Council adopt the attached Resolution denying the appeal, thereby upholding the Planning Commission's approval of the project.

FISCAL IMPACT

The project involves a private development and does not request or require public funds and has no direct fiscal impact on the City of Oakland. The applicant has never submitted a Notice of Funding Availability letter (NOFA) which is required for all affordable housing projects seeking City/Agency subsidies. The applicant has informed the city that they do not intend to seek city funding for this project. If constructed, the project would provide a positive fiscal impact through increased property taxes, utility user taxes and business license taxes, while at the same time increasing the level of municipal services that must be provided.

BACKGROUND

PROJECT SITE AND SURROUNDING AREA

Existing Conditions
The proposed development is located at the southwest corner of High Street and MacArthur Boulevard on the edge of the Laurel District. The I-580 freeway runs along the western edge of the project area. The site consists of three parcels totaling .93 acres in size. The site is vacant except for a billboard (which would be removed as a part of this application) and was at one time occupied by a PG&E service yard, an auto repair shop, and a market.

Surrounding Area
Retail/office/food sales uses are located to the east as well as residential land uses. To the north along MacArthur Blvd are a variety of commercial activities. To the southwest is the I-580 freeway. A landscape buffer of approximately 50 feet in width separates the road bed of the freeway from the property line of the project site. The Project site does not contain any immediately adjacent neighbors. Adjacent buildings to the north and east are generally in the one and two story range.

GENERAL PLAN ANALYSIS

The General Plan designation is Neighborhood Center Mixed Use (NCC). The maximum residential density provided in the NCC category is 125 dwelling units per gross acre or 166.67 dwelling units per net acre. This works out to a maximum density of 1 unit per 261 sq. ft. of lot area. The 40,879 sq. ft. project site could support a maximum of 156 units. The 115-unit project on the site is well under the maximum allowable density by 41 units.

The General Plan states that the intent of the NCC designation is to "identify, create, maintain, and enhance mixed use neighborhood commercial centers." Vertical integration of uses, including residential units above street-level commercial space is encouraged."

The following General Plan Land Use and Transportation Policies and Objectives apply to the proposed project:

Objective N3: Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community.

Policy N3.1 Facilitating Housing Construction
Policy N3.2 Encouraging Infill Development
Policy N3.9 Orienting Residential Development

The project is located in the Laurel District of Central Oakland. The Land Use Element considers the construction of new housing to be one of the highest priorities in Oakland to meet the demand of a growing population.

In addition, the Housing Element of the General Plan encourages the construction of affordable senior housing to meet a critical need in both the City of Oakland and the region for providing affordable residences for senior citizens. For instance, the overall goals contained in Goal 2 of the Executive Summary of the Housing Element are meant to promote development of housing for low and moderate income households through such measures as density bonus programs and developing housing for senior citizens. Policy 3.1 seeks to expedite the construction of residential units by simplifying the permit process by assigning priority to affordable housing and expediting environmental review through the use of exemptions. Policy 3.2 of the Housing Element contains action plans to allow for flexible zoning standards for things like open space, parking, and development standards, including height.

The project meets the objectives listed above by providing 115 new residential units on several underutilized parcels. The Land Use Element of the General Plan identifies the major transportation corridors as appropriate places for high density development. The Land Use Element specifically identifies this section of MacArthur Boulevard as a "grow and change" area. "Grow and change" areas are portions of the City of Oakland that the general plan identified as places able to grow beyond the existing density. They already have various positive factors such as good access to transportation, connections to City services, and connections to the region. They are often located along major corridors. This project site meets all of these criteria.

The proposed project meets the referenced objectives, policies, goals, and the general intent of the land use designations, the Land Use and Transportation Element of the General Plan (LUTE), and the Housing Element. Both Staff and the Planning Commission find that the project is a good fit for this area.

ZONING COMPLIANCE

The zoning of the project site is split between C-30 District Thoroughfare Commercial Zone & C-31 Special Retail Commercial Zone with the C-30 portion of the site also containing an S-4

Design Review overlay zone. The C-30 zone is intended to "create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in convenient locations, and is typically appropriate along major thoroughfares." The C-31 zone is intended to "create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in attractive settings oriented to pedestrian comparison shopping, and is typically appropriate along important shopping streets having a special or particularly pleasant character." The C-31 is generally located on the front of the property (the zoning code defines the High Street frontage as the front and the MacArthur frontage as a "corner side") while the C-30 and S-4 portion is to the rear of the triangular shaped project site.

Both zoning districts allow permanent residential uses. The maximum residential density for both these zones is set forth in the R-70 regulations. According to the R-70 zone, the maximum residential is 1 unit per 450 sq. ft. Staff has calculated a maximum density of 91 units. Section 17.106.060 of the Oakland Planning Code allows the density for senior housing to exceed the zoning density by up to 75% with a Conditional Use Permit. This would, in theory, allow 159 units on the property although this would exceed the General Plan cap of 156 which is not permitted. The project (with 115 units) is asking to exceed the zoning density requirements by approximately 26%, well within the allowable range of the CUP.

The S-4 Design Review Combining Zone is an additional zoning designation overlaid on the C-30 portion of the site. The S-4 is intended to create, preserve, and enhance the visual harmony and attractiveness of areas which require special treatment and the consideration of relationships between facilities. In the S-4 zone no building (other than a new Secondary Unit) shall be constructed unless plans for such proposal have been approved pursuant to the design review procedure. As this is a residential project it is already subject to design review.

The following table depicts the project's comparison to zoning requirements.

Zoning Regulation Comparison Table

Criteria	Requirement C- 30 & 31	Proposed	Comment
Yard – Front (High St)	0'	0'-16'6"	Meets the requirements.
Yard- Corner Side Lot Line (MacArthur Blvd)	0'	0'	Meets the requirements.
Yard – Interior Lot Line	10'	10'	Meets the requirements.
Yard - Rear	15'	35'	Meets the requirements.
Height – General	40' (C-30) 35' (C-31)	Varies between 47' & 60', 54' average	Does not meet the requirements. Minor Variance is required.

Criteria	Requirement C- 30 & 31	Proposed	Comment
Height – Adjacent to R-50 Zone	30' with allowed increase of 1' height for every additional 1' of setback up to the general height limit of 35' (40' for the C-30 portion).	Varies between 47' & 60', 54' average	Does not meet the requirements. Minor Variance is required.
Open Space	150 sq. ft. / unit =17,250 sq. ft.	17,461 sq. ft.*	Meets the requirements.
Parking	1 space / unit = 115 spaces 1 space / 600 sq. ft. commercial = 5 spaces	64 spaces	Seeks Conditional Use Permit under Section 17.116.110 to reduce parking requirement.
Loading	50,000--149,999 sq. ft. resid. building = 1 berth	1 berths	Meets the requirements.
Residential density	1 unit / 450 sq. ft. = 91 units	115 units	Seeks Conditional Use Permit under Section 17.106.060 to exceed zoning density.

Table Notes:
* Per Section 17.126.020, each square foot of private usable open space conforming to the provisions of Section 17.126.040 shall be considered equivalent to two square feet of required group usable open space and may be so substituted.

ENVIRONMENTAL DETERMINATION

The Planning Commission determined that the project is exempt from CEQA pursuant to Section 15332 of the CEQA Guidelines (In Fill Development Projects), and, as a separate and independent basis, is also exempt pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning). Based on the size and location of the project site, as well as the findings of the traffic report and historic analysis, the Planning Commission concluded that the project is able to satisfy the in-fill exemption under the CEQA Guidelines section 15332, as detailed in the February 20, 2008 Planning Commission Report (Exhibit A)

Further, as a separate and independent basis from the other CEQA findings, pursuant to Public Resources Code section 21083.3 and CEQA Guidelines section 15183, the City Council will also find, if it approves the project, that: (a) the project is consistent with Land Use and Transportation Element (LUTE) of the General Plan, for which an EIR was certified in March 1998; (b) feasible mitigation measures identified in the LUTE EIR were adopted and have been, or will be, undertaken; (c) the EIR evaluated impacts peculiar to the project and/or project site, as well as off-site and cumulative impacts; (d) uniformly applied development policies and/or standards (Standard Conditions of Approval) have previously been adopted and found to, when applied to future projects, substantially mitigate impacts. To the extent that no such findings were previously made, the City Council hereby finds and determines (in approving the project) that the Standard Conditions of Approval imposed on the Project substantially mitigate environmental impacts; and (e) substantial new information does not exist to show that the Standard Conditions of Approval will not substantially mitigate the project and cumulative impacts.

KEY ISSUES AND IMPACTS

CRADL's February 29, 2008 appeal letter is included as Attachment "A" and described below. The basis for the appeal is shown in bold text and the staff response follows each point in italic type.[1]

1. Oakland does not need any further affordable housing.

This argument is not supported by the information provided by the appellant. Indeed, the Housing Element of the General Plan identifies further housing needs for seniors, particularly those of low income. For instance, the overall goals found in Goal 2of the Executive Summary of the Housing Element are meant to promote development of housing for low and moderate income households through such measures as density bonus programs and developing housing for senior citizens. Policy 3.1 seeks to expedite the construction of residential units by

[1] The first two sections of the Appellants' February 29, 2008 letter relate to issues that are not germane to the appeal. Specifically, section A ("Background") merely recounts what Appellants' perceive to be the history of the project, much of it based upon speculation. Likewise, section B ("City expenses and losses") provides Appellants' views of the economics of the project, again based upon speculation. Staff notes that the property has sat vacant for a number of years during one of the most fantastic housing booms this City has ever seen. Many other sites around the city, often with more severe challenges than this one, were developed during that time period. Thus, the Appellants' higher and better economic use argument does not make sense. In any event, neither section directly addresses the planning and CEQA-related issues before the City Council; thus, these items will not be discussed further.

simplifying the permit process by assigning priority to affordable housing and expediting environmental review through the use of exemptions. Policy 3.2 of the Housing Element contains action plans to allow for flexible zoning standards for things like open space, parking, and development standards.

Discussions with the Housing Division of CEDA indicate that approximately 7-10 times as many seniors applied for affordable units at both Lincoln Court and the Altenheim when those projects opened than there were units available. Both those projects are quite close to this site but opened when the rental market was softer. With the housing bubble burst, the rental market is now tighter, which impacts everybody. As the City and region begin to absorb the aging Baby Boomer population, housing of this type is going to become even more critical than it is today. Logically, a reasonable place to construct senior housing is in settled urban areas with available mass transit that connects them to a broader region. That describes this site.

At its March 20, 2008 meeting, the Executive Board of ABAG held a public hearing on appeals to the draft Regional Housing Needs Allocations (RHNA). The Board approved the recommendations of its Appeals Committee which set the goals for each jurisdiction to provide additional affordable housing. The City of Oakland had the largest requirement for providing affordable housing in all of Alameda County with 14,629 units; 7,000 of those would be for affordable housing, 1900 units for very low income, 2,098 for low income, and 3,142 for moderate income housing. In total, Oakland would be responsible for approximately 30% of the projected affordable housing needs in Alameda County. The argument that the City is doing its "fair share" and that this project isn't needed misstates the issue. There is still a great unmet need, and a growing need, for affordable housing, especially senior housing. The argument that more of this type of housing should be placed in outlying areas also contradicts other city and ABAG policies regarding the location of new housing which seeks to place it in already developed urban areas near mass transit. This brings people closer to jobs or in the case of seniors to social and activity centers and reduces car dependence typically found in suburban developments. This project clearly meets that intent.

2. The appellant argues that the project is much larger and out of scale with the Laurel commercial district and a height variance is not appropriate.

The subject area is designated as a "grow and change" corridor under the Oakland General Plan, and larger buildings are anticipated as the area grows and develops. In this case, the General Plan designation of Neighborhood Center Mixed Use allows residential densities and commercial Floor to Area Ratios (FAR) that exceed those of the zoning regulations and hence it is appropriate to consider variances to allow projects to be developed within General Plan parameters as the City's Planning Code has not yet been updated to conform to the General Plan.

*Further, this project asks for density bonuses under, Section 17.106.060, to exceed the zoning density for **senior housing**. The zoning code also conditionally permits the waiver of some development standards, such as the amount of parking required, for senior housing. Thus, allowing greater height by a minor variance is necessary to achieve the policy goal of providing more senior housing.*

*In addition, the State of California in recent years amended the rules related to affordable housing by allowing developers to ask for even more concessions on height, setbacks, open space, and parking standards for **affordable projects**. While the applicant has not sought to take advantage of such measures for affordable housing, it is clear that some modification of zoning standards is appropriate for projects seeking bonuses for affordable housing, like here. Again, a variance is appropriate to achieve this policy goal.*

The project underwent design review and all the required design review findings were made, supported by substantial evidence. Although the project is larger than other buildings in the area (most are one and two story), the location of the property, adjacent to the Freeway, it's isolation from other contiguous lots (it is bound on all sides by roadways), it's unique and challenging wedge-like shape, the fact that it is on the edge of the Laurel District, as well as the fact that it's in a "grow and change" area, allowed staff to make the findings to approve the design of the structure and recommend the granting of the height variance. MacArthur Boulevard could develop at a much denser pattern than is currently the case and, as discussed in other sections, is one of the goals of the General Plan for this area.

Other options that were studied and rejected involved lowering the height of the building and adding units in the center of the project site where the group open space is located. This resulted in the elimination of all or much of this space and would itself require an open space variance. Staff rejected this alternative because this is the only open space for the residents of the project. The other option was to keep the open space but cut down on the number of units. Staff already pursued this option as the original submittal was for 142 units and the overall building was one story taller than now. A further reduction of one story would bring much of the building into conformance but cut the size of the project to approximately 89 units. This would bring the project into zoning conformance but it would hinder the ability to provide additional senior housing, the need for which is discussed in detail elsewhere. The project, thus reduced both in height and number of units, was well within the density of the general plan. However, as indicated elsewhere in this report, state law, the City's Zoning Regulations, and the General Plan, all encourage the development of low-income and senior housing, by providing density bonuses and waiving of certain development-related standards. Here, granting a height variance was preferable to reducing/eliminating the amount of open space or further reducing the number of units.

This is not a grant of a special privilege inconsistent with the limitations placed on similar properties, nor is it inconsistent with the purposes of the Zoning Regulations (Oakland Planning

Code section 17.148.050(A) (4)). First, this site has unique factors (as explained through-out this report) that must be taken into consideration. The City has taken similar factors into consideration for other similarly zoned properties that have received variances, including height variances, especially where, as here, the general plan allows for greater density than the zoning regulations. For example, the Lincoln Court development received a height variance, although only for three feet. However, in that case the project did not ask for a density bonus. In the Temescal neighborhood several projects have recently received height variances that will allow them to take advantage of the increased density that the General Plan permits over the zoning. This has been common in the City of Oakland as the height limits and setbacks found in the zoning chapters are sized for the densities found in the (1965) zoning code and are not appropriate for the greater densities envisioned in the (1998) general plan.

Second, this proposal meets several important general plan goals, such as increasing the supply of affordable housing for senior citizens, as well as adding density to one of Oakland's urban corridors. State and city policies also allow applicants of affordable senior projects to ask for density bonuses that would allow them to exceed the General Plan density and ask for concessions on development standards such as setbacks, height limit, parking, etc. In 2005, a new state law (SB1818) took effect that made it easier to exceed density and receive concessions for things usually requiring a variance. To take advantage of this, the project would need to exceed the General Plan density. The applicants are not asking for this type of bonus, however granting a variance to allow a taller building and greater density for senior affordable housing is consistent with the overall policies of the City and the past planning practices of granting exceptions for projects such as this. Thus, the granting of the variance is consistent with the purposes of the Zoning Regulations.

Finally, the variance for exceeding the height adjacent to an R-50 zone is appropriate here. The purpose of the regulation is to reduce the bulk and mass of buildings in high density zones that are adjacent to lower density zones to reduce the level of impact on those lower density areas. The goal was not to reduce bulk next to a freeway (indeed, many of the City's freeways cut through areas of high density zoning) and a review of older zoning maps show that the zoning boundaries existed in a similar fashion prior to the freeway being emplaced. Thus, it appears that the R-50 zoning was never amended to reflect the fact that the freeway was constructed; therefore the zoning designation is antiquated and irrelevant to this project.

3. The appellant argues that the project cannot be considered a "mixed use" project as it does not contain more than "token" retail to get around the zoning code's ground floor use restrictions and does not contribute to the intended character of the C-31 zone.

This argument is not supported by the text of the C-31 regulations nor by the zoning regulations definition of "Mixed Use" because there is no regulation that requires the commercial space to be a certain size. This Project provides 3,124 square feet of commercial space.

Planning Code Section 17.09.040 defines "Mixed use development" as "...an integrated development containing residential, commercial and/or industrial activities and adhering to a comprehensive plan and located on a single tract of land, or on two or more tracts of land which may be separated only by a street or other right-of-way, or which may be contained in a single building." Given that this definition would allow comprehensively planned yet distinct elements to be located across lot lines or Rights of Way from one another, this project clearly meets the Mixed Use definition found in the zoning regulations. As for the C-31 zone, this is a relatively restrictive zone as far as commercial zones are in the City of Oakland, but does not contain minimum numeric requirements for commercial space. It contains restrictions on the type of commercial uses that can occupy the ground floor, requires a CUP for all food sales, and requires Design Review for new construction and alterations. Like most commercial zones it also permits residential, and at fairly high densities. This project fully conforms to the C-31 zone with the placement of commercial on the ground floor and residential above. While the appellants are disappointed with the size of the commercial on the ground floor, there is no regulation that requires the commercial space to be a certain size and thus there is no violation of the zoning regulations.

Moreover, this site is on the edge of the C-31 district and begins a transition out of the Laurel district to the Mills College area. It is not in itself a prime pedestrian retail location as the roadbed of MacArthur Boulevard becomes difficult to navigate and there is no reasonable street parking fronting that section of the property (this is where the project approaches the underpass for I-580). Therefore, staff views this as a mediocre location for commercial development, plus the site has been vacant for at least six years due in part to it's lack of connectivity to the Laurel Shopping district. Thus, the amount of retail space proposed here is reasonable.

4. This building could cost the City of Oakland the scenic highway designation I-580 has and open the door for the resumption of big truck traffic on I-580.

This argument is speculative and not supported by information provided by Caltrans, which is the authority in charge of the Scenic Highway program. City staff has spoken, on a number of occasions, with Bryan Walker of Caltrans, the landscape architect responsible for Caltrans District 4 (which includes the greater Bay Area), who oversees the Scenic Highway program for this location. Mr. Walker said that the scenic designation of all highways in the State of California were coming up for review this year (including I-580) but that this was part of a fairly regular pattern of review by Caltrans conducted once every five years or so. This review was not prompted by this or any other specific projects or actions. He stated several times that he does not believe that this building would cause the loss of the scenic highway designation. Mr. Walker stated that the primary concerns for freeways in urban areas of the state were the proliferation of sound walls and the affects of billboards visible from the route. Incidentally, this site contains a billboard which would be eliminated by this building.

Further, according to Caltrans, the freeway is estimated to be 20-30 feet above the height of the project site (with it being taller toward the southern end of the property) while the proposed building varies between 47'-60' feet above the project site grade. The project site is approximately 50' from the freeway roadbed and the area between the freeway roadway and the project site is generously landscaped with trees and shrubbery, with many trees topping 40-50 feet above the freeway roadbed (some trees are rooted in the ground at the level of the freeway, others on a downslope from the freeway to the property). Thus, the trees are about 60-80 feet above the project site and also above the height of the proposed building (Attachment B). Therefore, trees and other plantings are of such height and maturity that they will screen much of this building from freeway views (Attachment C). This building would therefore not impact the Scenic Highway Designation (a) either individually; or (b) cumulatively, if past, current and reasonable foreseeable future projects are considered.

Staff would also note that this is one site of approximately 1,100 properties that abut the scenic portion of I-580 (which extends from the I-980 interchange to the border of San Leandro). Most of those properties are low density residential in nature and the zoning and general plan reflect this. Any proposals to increase density in those areas would be subject to CEQA and the various impacts, including those to scenic highways would be assessed.

The appellant's also make a spurious linkage between the scenic highway program and the truck ban on I-580 as the two issues were never linked. The Caltrans guidelines governing scenic highways say nothing with regards to banning trucks and practically every other highway in California, scenic or not, permit them. History provides further evidence of the separation between the two issues. Truck traffic in the area was banned on MacArthur Boulevard, which was also designated as US 50, many years prior to the freeway's construction in 1951. When the freeway version of US 50 (later I-580) was under construction in 1963, the state and federal government agreed to retain the ban on trucks in part because the ban was already in existence and also because it would introduce noise and congestion to a freeway that was being placed through primarily residential areas of Oakland and San Leandro. After the freeway was constructed, Caltrans periodically reviewed the ban and in every instance decided to uphold it. In these decisions they often consulted with the City of Oakland, although at other times there were lobbying pressures from both the trucking industry and other jurisdictions in Alameda County. In 2000 the situation changed when Assembly Bill 500 (Corbett) was signed by the governor adding Section 35655.5 to the California Vehicle Code (CVC), which eliminated truck use on I-580, rendering further reviews by Caltrans moot.

The truck ban is also recognized by the Federal Government. In 1982 the Federal Government passed the Surface Transportation Assistance Act (STAA) which transferred truck ban authority from Caltrans to the US Department of Transportation. This act was designed to standardize various state laws and ensure open routes for trucks. While freeways such as I-580 are part of the "National Network" that is open to trucks, I-580 is exempted under "grandfathering" provisions as the truck ban had been in place continuously since the STAA was passed. As such I-580 is, according to Caltrans, the only Interstate Freeway not open to trucks.

Given these factors, it clear that the Appellants are mistaken when they assert that this project would lead to the loss of scenic highway designation and also that such a loss would lead to the truck ban being removed. Caltrans has reiterated and clarified previous statements that they do not consider this project a threat to the scenic highway designation. Even in the event that the Scenic Highway designation on I-580 were to be removed the process related to truck bans is completely separate from the Scenic Highway program, as the ability to alter or remove the ban is no longer subject to review by Caltrans but would require a change to state law, which is purely speculative.

5. At least an Initial Study should have been required because of the project's air, noise and traffic impacts.

No environmental mitigation measures were imposed as conditions of approval. The applicant is required to comply with all applicable City regulations, best management practices and operational procedures as part of the issuance of planning and building-related permits, like all other applicants. Standard conditions of approval (uniformly applied development standards) have been imposed for this project, like all projects, and regardless of a project's environmental determination [EIR, (mitigated) negative declaration, or exemption] under CEQA, pursuant to CEQA Guidelines section 15183.

The applicant has proposed an air filtration system, and such is usually not shown on the planning-level type plans, but rather on the detailed set of plans submitted at the building permit stage of development. As also demonstrated in the February 2008 air report (see Exhibit A), there are few DPM/TAC emissions associated with the I-580 Freeway because of the truck ban, which means there appears to be no need for the air filtration system, but it nevertheless is part of the project and required to be constructed, operated and maintained.

The noise study is complete and disclosed that the building, as appropriately constructed with standard conditions of approval, should reduce sound to within City of Oakland thresholds. There was a misstatement in the Planning Commission Report that needs to be corrected -- there are no outside noise standards applicable to this project or to any group or private open space areas in residential developments. Nevertheless, balconies were not placed on units facing the freeway and group open space is shielded by the building from the freeway, to further lessen exterior noise.

The traffic study disclosed that the traffic impact associated with this project would not significantly impact the neighborhood. The intersection at High and MacArthur is currently rated as Level of Service "D" and would remain so when this project is completed. It also studied projected traffic levels in 2025 and found that this same intersection will likely degrade to Level of Service "E" but. that is expected to happen with or without this project. It is expected that the project would not increase the delay time in the short term at this intersection

and would likely increase it by .4 seconds in the AM and 1 second in the PM by the year 2020, changes well within thresholds. The problem, if any, is with existing conditions, not the impacts caused by the project. The Project will not add to the problem.

The right turn only sign is appropriate because of the proximity to the intersection with High Street and is typically imposed on this type of project in an urban setting. The proposed loading zone (condition, COA # 36), will further minimize any potential impacts on traffic by banning deliveries from 6am – 9am and 4pm – 7pm and require a flagman to be present.

There is a slight correction to be made to Condition of Approval #48, which incorrectly mentions safety improvements. Rather, these are more appropriately described as pedestrian improvements, commonplace for larger projects and considered standard conditions.

Finally, it is not unusual to construct housing adjacent to a freeway in the City of Oakland. Along I-580, from the I-980 interchange to the San Leandro border, there are approximately 1,900 lots abutting the freeway, many of them residential. There are about 41.5 miles of freeways through-out Oakland and many thousands of residential properties within close proximity to these freeways.

SUSTAINABLE OPPORTUNITIES

Economic: The project will expand the available housing inventory in the City of Oakland.

Environmental: Developing in already developed urban environments reduce pressure to build on agricultural and other undeveloped land. Sites near mass transit enable residents to reduce dependency on automobiles and further reduce adverse environmental impacts.

Social Equity: The project benefits the community and improves social equity by providing additional available housing to the City of Oakland as well as additional temporary jobs during the construction of the project.

DISABILITY AND SENIOR CITIZEN ACCESS

This project would create 115 affordable senior housing units. The Building Division of the Community and Economic Development Agency will require that the project conform to the Americans with Disability Act in all provisions to ensure equal access to this facility.

RECOMMENDATION(S) AND RATIONALE

Staff recommends that the City Council adopt the attached Resolution denying the appeal, thereby upholding the Planning Commission's approval of the project. Staff recommendation is based on the following reasons: 1) The Project and the approval of the Project comply in all significant respects with applicable general plan policies and review procedures; and 2) the Project meets the CEQA In-Fill exemption requirements and there are no exceptions that would defeat the use of the exemption, and, as a separate and independent basis also exempt pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning).

ALTERNATIVE RECOMMENDATION(S)

The City Council has the option of taking one of the following alternative actions instead of the recommended action above:

1. Uphold the appeal and reverse the Planning Commission's decision thereby denying the project. This option would require the City Council to continue the item to a future hearing so that Staff can prepare and the Council has an opportunity to review the proposed findings and resolution for denial.

2. Uphold the Planning Commission's decision, but impose additional conditions on the project and/or modify the project.

3. Continue the item to a future hearing for further information or clarification.

4. Refer the matter back to the Planning Commission for further consideration on specific issues/concerns of the City Council. Under this option, the item would be forwarded back to the City Council with a recommendation after review by the Planning Commission.

ACTION REQUESTED OF THE CITY COUNCIL

1. Affirm the Planning Commission's environmental determination that the Project is exempt from CEQA review pursuant to CEQA Guidelines sections 15332 (In-Fill exemption) and, as a separate an independent basis, 15183 (projects consistent with community plan, general plan, or zoning).

2. Adopt the attached Resolution denying the appeal, and thereby upholding the Planning Commission's approval of the Project.

Respectfully submitted,

Dan Lindheim
Director
Community and Economic Development Agency

Reviewed by: Scott Miller, Zoning Manager
CEDA

Prepared by:
Robert D. Merkamp, Planner IV
CEDA

APPROVED AND FORWARDED TO THE
CITY COUNCIL:

Office of the City Administrator

Item: _____
City Council
May 20th, 2008

ATTACHMENTS:

A. CRADL appeal submitted February 29, 2008
B. April 28, 2008 Email to Caltrans' Bryan Walker
C. Photographs toward site from freeway

Community and Economic Development Agency

REQUEST FOR APPEAL OF DECISION TO PLANNING COMMISSION OR CITY COUNCIL

(REVISED 8/14/02)

PROJECT INFORMATION

Case No. of Appealed Project: CMDV06-426 AMG + Associates ATTN Robert Merkamp

Project Address of Appealed Project: 4311-4317 MACARTHUR BLVD

APPELLANT INFORMATION:

Printed Name: MAUREEN DORSEY / LEILA MONCHARSH Phone Number: 510 530 1353 - (510) 482-0390 ext. 2

Mailing Address: 4258 MACARTHUR BLVD Alternate Contact Number:

City/Zip Code OAKLAND CA 94619 Representing:

An appeal is hereby submitted on:

☐ AN ADMINISTRATIVE DECISION (TO THE CITY PLANNING COMMISSIO

YOU MUST INDICATE ALL THAT APPLY:

- ☐ Approving an application for an Administrative Project
- ☐ Denying an application for an Administrative Project
- ☐ Administrative Determination or Interpretation by the Zoning Administrator
- ☐ Other (please specify) _____

Pursuant to the Oakland Municipal and Planning Codes listed below:

- ☐ Administrative Determination or Interpretation (OPC Sec. 17.132.020)
- ☐ Determination of General Plan Conformity (OPC Sec. 17.01.080)
- ☐ Design Review (OPC Sec. 17.136.080)
- ☐ Small Project Design Review (OPC Sec. 17.136.130)
- ☐ Minor Conditional Use Permit (OPC Sec. 17.134.060)
- ☐ Minor Variance (OPC Sec. 17.148.060)
- ☐ Tentative Parcel Map (OMC Section 16.304.100)
- ☐ Certain Environmental Determinations (OPC Sec. 17.158.220)
- ☐ Creek Protection Permit (OMC Sec. 13.16.450)
- ☐ Hearing Officer's revocation/impose or amend conditions (OPC Secs. 15.152.150 & 15.156.160)
- ☐ Other (please specify) _____

RECEIVED
FEB 20 2008
City of Oakland
Planning & Zoning Division

☑ A DECISION OF THE CITY PLANNING COMMISSION (TO THE CITY COUNCIL) ☑ Granting an application to: OR ☐ Denying an application to:

Construct Affordable housing project at High St. & MacArthur.

(continued on reverse)

ATTACHMENT A

(Continued)

DECISION OF THE CITY PLANNING COMMISSION (TO THE CITY COUNCIL)

YOU MUST INDICATE ALL THAT APPLY:

Pursuant to the Oakland Municipal and Planning Codes listed below:

- ☒ Major Conditional Use Permit (OPC Sec. 17.134.070)
- ☒ Major Variance (OPC Sec. 17.148.070)
- ☐ Design Review (OPC Sec. 17.136.090)
- ☐ Tentative Map (OMC Sec. 16.32.090)
- ☐ Planned Unit Development (OPC Sec. 17.140.070)
- ☐ Environmental Impact Report Certification (OPC Sec. 17.158.220F)
- ☒ Rezoning, Landmark Designation, Development Control Map, Law Change (OPC Sec. 17.144.070)
- ☐ Revocation/impose or amend conditions (OPC Sec. 17.152.160)
- ☐ Revocation of Deemed Approved Status (OPC Sec. 17.156.170)
- ☐ Other (please specify) minor variance; minor CUP; CEQA exemptions §15332 & 15183.

An appeal in accordance with the sections of the Oakland Municipal and Planning Codes listed above shall state specifically wherein it is claimed there was an error or abuse of discretion by the Zoning Administrator, other administrative decisionmaker or Commission (Advisory Agency) or wherein their/its decision is not supported by substantial evidence in the record, or in the case of Rezoning, Landmark Designation, Development Control Map, or Law Change by the Commission, shall state specifically wherein it is claimed the Commission erred in its decision.

You must raise each and every issue you wish to appeal on this Request for Appeal Form (or attached additional sheets). Failure to raise each and every issue you wish to challenge/appeal on this Request for Appeal Form (or attached additional sheets), and provide supporting documentation along with this Request for Appeal Form, may preclude you from raising such issues during your appeal and/or in court.

The appeal is based on the following: *(Attach additional sheets as needed.)*

The City abused its discretion as described in the letters our attorney submitted to the Planning Commission. The City should have denied the project & ordered an Initial Study under CEQA. Appellants base their appeal on the attached letter and all materials submitted into the record.

☒ Supporting Evidence or Documents Attached. *(The appellant must submit all supporting evidence along with this Appeal Form.)* We are also relying on the materials in the record.

Signature of Appellant or Representative of Appealing Organization

Attorney for Appellant.

2/29/08

Date

2/28/08

Below For Staff Use Only

Date/Time Received Stamp Below:

Cashier's Receipt Stamp Below:

LAW OFFICES
VENERUSO & MONCHARSH
5707 REDWOOD RD., STE 10
OAKLAND, CALIFORNIA 94619
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DONNA M. VENERUSO
LEILA H. MONCHARSH

February 29, 2008

Oakland City Council
City of Oakland
1 Frank Ogawa Plaza
Oakland, CA 94612

RE: Project No. CMDV06-426; AMG & Associates; 4311-4317 MacArthur Blvd.

Dear Council member:

Our law firm represents Commercial & Retail Attraction & Development for the Laurel (CRADL), Citizens4Oakland, David Vahlstrom, Dr. Maureen Dorsey, Lease Wong and Luann Stauss. We have appealed the Planning Commission's approval of a 115 unit senior housing project proposed for the corner of High St. and MacArthur Blvd. in the Laurel District.

A. Background re AMG project

As you probably know, Council member Quan and her chief of staff Richard Cowan feel strongly that this project is a "must have" for them. I have publicly debated their views on legal, economic and moral grounds. The location is horrible, the economic fallout for the citizens of Oakland is significant and morally the project comes very close to nothing more than a land scam with negative impacts for the prospective elderly residents. The only winner seems to be the property owner who stands to make a significant profit from a three year investment in property that is basically worth little, especially in today's market. That purchase is an excellent place to start the story of what has occurred with this project.

In approximately 2005, Alex Hahn invested in three lots collectively located in a triangular shape with one side bordering the I-580 freeway. The other two sides are the very heavily trafficked High St. and MacArthur Blvd. According to the tax assessor records he paid about $1.28 million for the three lots adjacent to one another.

Mr. Hahn had contacted a Southern California affordable housing developer (AMG) and explored with Council member Quan whether it would be possible to get city council approval for basically switching the zoning a la the Tidewater land deal. As you may recall, Tidewater was a piece of property zoned industrial and as such had little value. The owners of the Tidewater property wanted to get the property rezoned residential so that with nearby future development their property would suddenly be worth millions of dollars. The land deal became the topic of extensive suspicion and several exposes in the *East Bay Express* starting late last year.

By convincing the City Council to ignore the retail zoning restrictions and allowing a residential project, Mr. Hahn could effectuate the same result --- take a piece of property zoned for one purpose rendering it without much value and change the use with City Council participation to another much more lucrative use. The drop in the market rate housing market was not a barrier to the plan because affordable housing is funded from a combination of tax credit money and Oakland's affordable housing subsidy funds. Generally, land that is used for affordable housing has a very high acquisition price regardless of the economy. Mr. Hahn has never been willing to reveal his acquisition price that he negotiated for the property but rumors have it at well above $2.0 million, a hefty profit on a three year investment.

The first time the retail merchants heard about the project was at a meeting with Council member Quan who informed them about the proposed project. At that point, the project was nearly 70 feet tall, had absolutely no retail uses and was massive. Council member Quan described the project as "senior residential" without mentioning that it was for very low income seniors. Instead, she represented to the Laurel merchants that the big selling point of this project was that it would "bring lots of people to the Laurel who would be shopping and saving the Laurel business district. We need much more foot traffic along the MacArthur to bring up your business receipts." Further, she represented repeatedly that the project was "free" and AMG representatives also claimed that "absolutely no city money will be needed for this project – it's all tax credits."

The Laurel merchants began questioning why the project was so large and then learned that the massive size was driven by Mr. Hahn's acquisition price. They also pointed out that there was no retail in the project, violating the ground floor retail requirements of the C-31 zoning and complained that the height way exceeded the 35 foot limit. Council member Quan did not immediately respond to any of these criticisms.

Instead, the project showed up in Design Review and that was my first appearance regarding the project. At that time, we briefed the Planning Commission on the legal problems with the project. It disappeared. In fact the project disappeared for months and months.

Council member Quan called a community meeting in February 2007 to talk about what had now become her personal mission with respect to the project. AMG had made some minor changes putting a tiny bit of retail into the project and had removed one floor, still way exceeding the zoning height limits. Council member Quan announced at the outset of the meeting that there was no point in anyone objecting to this project because it was going to be granted no matter what anyone in the community had to say about it. She likened the project to the market rate housing in the Temescal area pointing out how futile community opposition had been there. Council member Quan

still persisted in claiming that the project was going to be a financial boon for the business people due to all the shoppers added to the Laurel business district. Although there was plenty of upset over Council member Quan's project, she printed and disseminated a website claiming that "overall most people who attended supported the project."

Subsequent to the community meeting, the Planning Commission began having hearings regarding the project. At that time, the many problems with the project further raised their heads. During that process, the sad economic truth became evident when the community began investigating Council member Quan's claims that the AMG project was free to the city and would bring much needed retail dollars to the Laurel merchants.

B. The AMG project is going to involve substantial City expenses and losses including to the Laurel retail community.

When the City decides to take an almost one acre piece of property ostensibly out of retail zoning and use it for subsidized affordable housing several major costs to the City occur. For example, I believe based on speaking with affordable housing consultants that AMG will have a non-profit partner who will apply for and who will receive an exemption from property taxation. This land will no longer generate any property taxes for decades. Currently, according to the Assessor's office records, this property without anything on it generates $ 33,017.97 in property taxes annually. (See Exhibit A, attached.)[1] Without computing increases in taxes, $33,000 x the 50 year life of the project means Oakland will have contributed well over $1.6 million in property taxes with the AMG project while even empty, the property will have generated substantial taxes to help pay for basic services.

I also believe that it will be exempt from City rental business taxes because most of the money used to pay for the rents will come from tax subsidies. So even as just an empty piece of land, this property is generating much needed income for Oakland and at a time when the city is woefully underfunded. (I welcome any rebuttal to my beliefs, by the way.)

No evidence supports that the property can't ever be used at any time in the future for purposes that will generate business income and property taxes. It was previously used as a grocery store, a tire store and a PG&E substation with these uses providing direct and indirect income to Oakland for basic services including police and fire. The suggestion that the property might fall into the hands of a fast food restaurant is not

[1] I have included Lincoln Court for comparison at the end of Exhibit A. Parcel # 29-993-20-1 shows the tax exemption.

horrible given the amount of money that this .93 acre would then generate. Nor would it be unthinkable in a few years for some of the property to fall within market rate housing on top of ground floor retail uses assuming that the pollution problem resolves with decreased auto usage, again a much higher and better use financially for this property. In that event, Oakland citizens would see substantial funds as opposed to what AMG will produce.

The single greatest cost to the City in the near term is the affordable housing fund subsidy the project will require. A year ago, Mr. Mark Baldwin, an affordable housing consultant wrote to the planner and pointed out that the project would not "pencil out" without a sizeable subsidy from the City. To give you an idea of the enormity of these subsidies, we have attached as Exhibit B excerpts from the January 27, 2004 City Administrator's report in which she requested (and we believe obtained) over $3.5 million dollars each for Lincoln Court and Altenheim senior subsidized housing projects from our Oakland affordable housing fund.[2]

The total amount of funds available from our affordable housing fund that year was a little over $18 million. Over a third of it went to two projects located less than a half a mile from each other. These are all of the funds we had available that year to pay for all types of affordable housing projects that qualified. Lincoln provided 80 units; AMG is 115 units. Logically, it would be impossible for Lincoln to need a city subsidy of $3.5 million in 2004 and AMG to make all of its construction costs on state tax credits alone in 2008.[3]

Another major cost is to the retail area. The claim by AMG and Council member Quan that the residents will "bring up the Laurel business district" or "buy lots of things from the shops" is belied by the survey completed and attached to this letter. (Please find attached a survey and conclusions from an affordable housing expert attached as Exhibit C.) Ms. Burnett, an appraiser and expert affordable housing consultant who provides analyses for affordable housing projects completed a survey of 11 projects throughout Oakland, including the Altenheim and Lincoln Court. She discovered that the demand for projects such as the AMG project is from individual seniors with incomes between $17,610 and $29,350 with "significant demand" from seniors with income of less than $29,350.

The income levels for potential AMG residents is extremely low. Ms. Burnett found no existing Oakland senior subsidized projects where the demand was from seniors who fell above the $29,350 level. There is no reason to believe that the AMG project

[2] We also included some summary documents in this exhibit.
[3] These subsidies are set up as "loans" for regulatory purposes, but as any Council member knows they in fact are subsidies that the City will not receive back.

which doesn't even provide a few of the services provided by Lincoln Court and suffers from the environmental problems we have discussed during Planning Commission hearings is going to find a different, higher income level in its applicants for subsidized affordable housing.[4]

A huge, massive subsidized housing project at the gateway of the Laurel business district for very low income residents cannot generate the amount of disposable income necessary to have any positive impact on the merchants other than perhaps early bird special dinners and groceries. The project can and will, however, have an impact on the willingness of retail vendors to invest in the Laurel. Just as Ms. Burnett did her homework, so too will business people who are considering where to invest their funds in a retail establishment. The first thing careful business people look at is, "where are my customers going to come from with the funds to buy my products?" If they feel that there isn't much disposable income they won't invest which in turn threatens the future of the Laurel merchants. Less investment, more empty storefronts – less business taxes for Oakland to pay its basic services. (And, it's not as if we have lots of other major sources of business taxes other than our small retail districts.)

Ah, you might say, those business people are heartless and didn't notice the tremendous need for very low income senior housing referenced in Ms. Burnett's survey and report. Here too there is cost.

C. ABAG's housing allocation demonstrates that Oakland has been doing its fair share of affordable subsidized housing and other cities' share as well.

The Association of Bay Area Governments (ABAG) is charged by the state with figuring out how much of each kind of housing each city in California should plan to complete over the next seven years. The latest allocation came out last year and is good for seven years. Attached as Exhibit D is the allocation chart and a news story kind of summarizing what happened with Oakland.

Basically, cities don't like to take land out of taxation and income generation for subsidized affordable housing given all of the reasons mentioned above plus they know that very low income seniors are going to need more public services on average than persons buying market rate housing.[5] So, they don't. Oakland and Antioch were the exceptions over the last seven years – both cities contributed so much land, tax income

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[4] It was interesting to note that when Lincoln Court applied for the City subsidy, it intended to serve primarily people in the 60% AMI level ($35,220), but when Ms. Burnett surveyed them the demand was coming from seniors with a much lower income level.

[5] The number of paramedic trips to overcrowded hospital emergency rooms goes up considerably in the elderly population creating another pull on county and city funds.

and other revenue to the subsidized affordable housing market, it became necessary to use a different formula taking into consideration their past contributions. (The allocations do not distinguish between family versus senior limited housing, incidentally.)

As a result you will notice that Oakland's very low income housing allocation (where AMG fits) is only 1,900 units for the next seven years. All of the rest of our Oakland housing allocation totaling 12,729 housing units is spread over below 80% AMI ($46,960) up through market rate housing, with 7,489 units in the market rate housing category.[6] The goal is to shift the allocations such that other cities will have to start doing their fair share instead of waiting for Oakland and Antioch to always be the "volunteers." Oakland in turn needs to focus on more market rate housing for various reasons discussed in the ABAG report. (As we know, it also needs to focus on increasing its general fund to pay for basic services!)

You'll notice that Ms. Burnett found one project where 20% of the residents came from outside of Oakland to live closer to relatives. (I believe that project may have been Lincoln Court). Other than tapping into Oakland's willingness to expend its resources there is no reason why Oakland residents can't live in a neighboring city that should be providing its share of affordable subsidized housing. There's also no reason why Oakland can't wait until the Altenheim finishes constructing and filling its next 85 units instead of immediately constructing the next subsidized housing project one shopping district over!

With that financial backdrop, it becomes clear that when the City Council grants as many variances as requested here, basically removing a property from income generation the project should be delivering something of substantial value. Further, the developers and property owners who make good money on these projects as opposed to Oakland and the taxpayers who spend for them, should offer a great many benefits for the intended population. Instead, AMG and Mr. Hahn are clear and away the greatest financial winners out of this project and as shown below the intended population the losers.

According to the documents attached as Exhibt A, from the Assessor's office, we see that Mr. Hahn bought the three properties around 2005 for approximately $1.28 million.[7] AMG and Mr. Hahn refuse to tell us how much the land acquisition cost will

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[6] It's important to note that most likely all of the data collection and computer modeling that went into these allocations probably occurred before the subprime meltdown. To date, Oakland has not yet implemented a plan to get block after block of properties back into use. How should we count these empty units – as meeting part of our allocation or not?

[7] I am assuming the purchase year from the sudden 2005 increase in property taxes suggesting a re-assessment event.

be, but rumors have it that Mr. Hahn expects to make well over $2 million on the sale and that has been a reason given to the community for why the building has to be so enormous "to pencil out" the land acquisition cost. If true, that's a pretty good turn around on a three year old investment! (Interestingly, the assessor records show Mr. Hahn hasn't even been paying his property taxes – no doubt he is so sure that the City Council will come through for him that he doesn't feel the need to pay them!)

Similarly, AMG is not willing to divulge their fee although both the land acquisition cost and the developer fee will become public information shortly after the grant of City use permit entitlements when they submit their tax credit application. However, we can look at Lincoln Court for a comparison. There, the property owner scored $2.2 million for what previously was a rundown motel and the developer made a hefty $950,000. (See third page from front of Exhibit B.)

My clients and I don't think that this project comes near to offsetting the costs given its many drawbacks and problems. I will briefly summarize below the issues raised by the community and the legal problems:

D. The community's objections to the proposed project.

1. <u>The project violates zoning in height and ground floor use</u>

The project is huge in comparison with the rest of the neighborhood, towering over every other building in this single level shopping area. The residences surrounding it are also very small, causing the AMG building to look like the elephant in the china shop. The City is recommending giving special privilege to AMG to construct the building at a substantially higher level than other buildings in the same zone in violation of the General Plan and zoning test for granting variances. The findings don't substantiate a valid reason for granting the special privileges.

The retail is a "token" step toward getting around the zoning code's ground floor retail use restrictions. Originally, there was no retail in the project and when the community squawked about the zoning violation, the developer added a tiny bit of retail with inadequate parking to get around the zoning code.

1. <u>The project in conjunction with others threatens the scenic highway designation on I-580 which potentially provides transportation funds to Oakland and opens the door to heavy truck traffic.</u>

Caltrans has written to the City warning that, while the AMG project alone is not enough to cost us the designation, the combination of this project and others in the future

may cost us the designation. (At the time the letter was written Kaiser had not yet started constructing its multi-level parking tower also very close to the freeway.) Besides potentially losing transportation funds hooked to the designation, the loss could open the door to heavy trucks on I-580, a fight that the community has fought with Caltrans for years.

Council member Quan promised to get a written guarantee that this would never happen and that the project would not be part of any decision by Caltrans. The email to Mr. Merkamp attached to the staff report falls far short and really is nothing more than a repeat of what Caltrans already said. In fact, it is somewhat more ominous in that Caltrans states that they are now going to review all of the designations, a review we would rather not have given the amount of construction, past and future along with this project, that has been too close to the freeway.

2. The project violates CEQA in a number of regards

The community raised problems with traffic, noise and air quality in response to the City's decision to use an in-fill exemption and one for projects consistent with the general plan & zoning. These two exemptions should not be used in the face of substantial negative environmental impacts. The City should have conducted at least an initial study.

The City has responded with attempts at reducing the impacts through conditions of approval. However, these conditions belong as mitigations in an environmental document. Further, in some cases the conditions don't adequately address the impacts. For example, the right turn only sign will only cause cars heading toward the Laurel District to try and cross lanes in efforts to turn left instead of heading into the Mills College area. The sound report has never been completed and its recommendations do not appear in the conditions. Also, it assumes a future evaluation of noise impacts instead of doing so now in the environmental document. The air quality has been an admitted problem all along necessitating the filtration system which also does not appear in any environmental document as a mitigation.

The sum total of the environmental problems renders the location obviously unfit for senior residents. The combination of noise that way exceeds Oakland's standards, inability to safely cross High St. to get groceries and a shuttle service that comes potentially only four times a week possibly with no return trip and significant air quality issues with no air conditioning system paint a picture of trying to fit this project into the wrong location.

E. Conclusion.

Depressingly, lack of affordable housing for very low income families, individuals and seniors is a fact for the greater Bay Area, not just Oakland. While the scenario ABAG paints of cities competing to NOT provide very low income subsidized housing is truly horrible, the fact remains that Oakland can't be the volunteer city of last resort. Here, Oakland is giving up property zoned for retail that brings in funding even when empty and can potentially bring in much more if developed to the highest and best possible use even if that means fast food.

Cities ten minutes away like San Leandro with plenty of empty land have managed to build terrific ground floor retail areas (14th St. & for a small one -- Estudillo), adding substantially to their coffers while pulling shoppers from Oakland and avoiding impinging on their retail zoned land for subsidized housing. Oakland is simply not competitive with its neighbor cities who develop their retail areas.

Granting this project's application for many special exceptions to the zoning code accomplishes using nearly an acre of Oakland's Laurel retail zoned area to act on an albeit morally worthy contribution of retail zoned land for very low income subsidized housing at great cost to the City and its citizens.

At the last hearing, someone from an affordable housing non-profit spoke to the Planning Commission about how affordable housing project proponents "have to take what's left and go with properties that are not very desireable." Several times Richard Cowan has argued that if not this AMG project, there won't be anything to fill up the hole on the corner of MacArthur Blvd. and High St. and it will stay empty. Neither of these sentiments justifies the project.

The purpose of the tax credits for affordable housing is to allow people living in poverty to have the SAME access to homes as those who are better off financially. No doubt, that is part of the reason the tax credits pay generously for land acquisition. Dumping poor seniors into a toxic retail zoned piece of property where they can't even cross High St. doesn't even come close to meeting the purpose of the affordable housing statutes. Nor does using poor people to fill up one of Oakland's many empty lots rise to the level of providing decent housing.

The community, including my clients, strongly supported the Lincoln Court and Altenheim senior housing projects because they met the goals of providing good housing to seniors in need who couldn't financially afford housing without them. They are located in residential areas and offer services. The housing looks and functions exactly the same as the surrounding housing. It does not put seniors at risk for toxic problems.

While your denying the AMG project application will definitely deprive Mr. Hahn of a financial windfall, it will leave the tax credits and city subsidies for worthy projects similar to Lincoln Court and the Altenheim.

Thank you for considering our comments.

Very truly yours,

Leila H. Moncharsh, J.D., M.U.P.
Veneruso & Moncharsh

LHM:lm

Clients
Mayor Dellums
Oakland City Council
Eric Angstadt
Robert Merkamp
Dan Lindheim

Prior Year Tax Information

Payments made on secured regular tax bills are displayed below. If your prior year bill status is unpaid and has not yet been redeemed, please contact the Tax Collector's office at 510-272-6800 for current amount due (amounts displayed do not include the redemption charges).

Parcel:	30-1982-121		Property Address:		Display prohibited per CA Gov Code §6254.21				
Tax Year	Tracer Number	Installment	Ad Valorem Tax	Flood Tax	Special Charges	Delinquent Penalty and Cost	Bill Total	Date Paid	Bill Status
2006/07	06351900	1	$1,894.48	$0.00	$3,084.85	$497.93	$5,477.26		Unpaid
		2	$1,894.48	$0.00	$3,084.85	$507.93	$5,487.26		Unpaid
2005/06 *	06292800	1	$1,825.60	$0.00	$500.61	$232.62	$2,558.83		Unpaid
		2	$1,825.60	$0.00	$500.61	$242.62	$2,568.83		Unpaid
2005/06 *	06292885	1	$0.00	$0.00	$180.18	$18.01	$198.19		Unpaid
		2	$0.00	$0.00	$180.18	$28.01	$208.19		Unpaid
2004/05 *	06224400	1	$1,441.49	$0.00	$414.16	$0.00	$1,855.65	11/15/2004	Paid
		2	$1,441.49	$0.00	$414.16	$195.56	$2,051.21	06/13/2005	Paid
2004/05 *	06224410	1	$341.64	$0.00	$0.00	$0.00	$341.64	12/02/2004	Cancelled
		2	$341.64	$0.00	$0.00	$44.16	$385.80		Cancelled
2004/05 *	06224411	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
2003/04 *	06178500	1	$294.02	$0.00	$427.22	$0.00	$721.24	12/08/2003	Paid
		2	$294.02	$0.00	$427.22	$82.12	$803.36		Unpaid
2002/03 *	06159200	1	$652.14	$0.00	$355.51	$0.00	$1,007.65	12/10/2002	Paid
		2	$652.14	$0.00	$355.51	$0.00	$1,007.65	04/10/2003	Paid
2001/02	06151600	1	$649.31	$0.00	$285.35	$0.00	$934.66	12/06/2001	Paid
		2	$649.31	$0.00	$285.35	$0.00	$934.66	04/10/2002	Paid

*** For supplemental tax bill information, please call the Tax Collector's office at 510-272-6800.**

New Query | Current Bill Information

2007 - 2008 Assessment Information

Parcel Number:	30-1982-121
Parcel Map: (Map image is not to scale)	Map Disclaimer
Use Code:	3000
Description	Vacant commercial land (may include misc. imps)
Land	$287,150.00
Improvements	0
Fixtures	0
Household Personal Property	0
Business Personal Property	0
Total Taxable Value	$287,150.00
Exemptions	
Homeowner	0
Other	0
Total Net Taxable Value	$287,150.00

Additional Assessment Information | Property Tax Information

Adobe Acrobat Reader is required to view the maps. Click here to download.

ONLINE SERVICES

Assessor's Office | Treasurer-Tax Collector | New Query

PROPERTY TAX INFORMATION TREASURER-TAX COLLECTOR

2007 - 2008 Tax Information

Parcel	Tracer	Roll Year	Flood Zone	Flood Rate	Tax Rate Area	AV Tax Rate
30-1982-121	06434200	2007	12	0	17001	1.3274

Amounts not valid after June 30	Installment 1 Delinquent after 12/10	Installment 2 Delinquent after 4/10	Total
Ad Valorem Tax	$1,905.81	$1,905.81	$3,811.62
Flood Tax			
SPECIAL CHARGES	$2,393.12	$2,393.12	$4,786.24
Interest			
TOTAL TAXES	$4,298.93	$4,298.93	$8,597.86
Penalty	$429.89		$429.89
Cost			
TOTAL AMOUNT DUE	$4,728.82	$4,298.93	$9,027.75
Date Paid			

Additional Tax Year Information | Property Assessment Information | Prior Year History | Pay Your Taxes

Prior Year Tax Information

Payments made on secured regular tax bills are displayed below. If your prior year bill status is unpaid and has not yet been redeemed, please contact the Tax Collector's office at 510-272-6800 for current amount due (amounts displayed do not include the redemption charges).

Parcel:	30-1982-122		Property Address:		Display prohibited per CA Gov Code §6254.21				
Tax Year	Tracer Number	Installment	Ad Valorem Tax	Flood Tax	Special Charges	Delinquent Penalty and Cost	Bill Total	Date Paid	Bill Status
2006/07	06352000	1	$4,015.49	$0.00	$3,673.13	$768.86	$8,457.48		Unpaid
		2	$4,015.49	$0.00	$3,673.13	$778.86	$8,467.48		Unpaid
2005/06 *	06292900	1	$3,869.48	$0.00	$456.80	$432.62	$4,758.90		Unpaid
		2	$3,869.48	$0.00	$456.80	$442.62	$4,768.90		Unpaid
2005/06 *	06292985	1	$0.00	$0.00	$381.91	$38.19	$420.10		Unpaid
		2	$0.00	$0.00	$381.91	$48.19	$430.10		Unpaid
2004/05 *	06224500	1	$3,128.45	$0.00	$380.49	$0.00	$3,508.94	11/16/2004	Paid
		2	$3,128.45	$0.00	$380.49	$360.89	$3,869.83	06/13/2005	Paid
2004/05 *	06224510	1	$581.24	$0.00	$0.00	$0.00	$581.24	12/02/2004	Cancelled
		2	$581.24	$0.00	$0.00	$68.12	$649.36		Cancelled
2004/05 *	06224511	1	$0.00	$0.00	$0.00	$0.00	$0.00		Cancelled
		2	$9.24	$0.00	$0.00	$10.92	$20.16		Cancelled
2004/05 *	06224512	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
2003/04 *	06178600	1	$1,202.22	$0.00	$415.99	$0.00	$1,618.21	12/08/2003	Cancelled
		2	$1,202.22	$0.00	$415.99	$0.00	$1,618.21		Cancelled
2003/04 *	06178601	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$902.14	$0.00	$415.99	$141.81	$1,459.94		Unpaid
2002/03	06159300	1	$1,148.27	$0.00	$402.43	$0.00	$1,550.70	12/10/2002	Paid
		2	$1,148.27	$0.00	$402.43	$0.00	$1,550.70	04/10/2003	Paid
2001/02	06151700	1	$1,143.28	$0.00	$331.99	$0.00	$1,475.27	12/07/2001	Paid
		2	$1,143.28	$0.00	$331.99	$0.00	$1,475.27	04/10/2002	Paid

* For supplemental tax bill information, please call the Tax Collector's office at 510-272-6800.

New Query | Current Bill Information

ONLINE SERVICES

Assessor's Office | Treasurer-Tax Collector | New Query

PROPERTY TAX INFORMATION — TREASURER-TAX COLLECTOR

2007 - 2008 Tax Information

Parcel	Tracer	Roll Year	Flood Zone	Flood Rate	Tax Rate Area	AV Tax Rate
30-1982-122	06434300	2007	12	0	17001	1.3274

Amounts not valid after June 30	Installment 1 Delinquent after 12/10	Installment 2 Delinquent after 4/10	Total
Ad Valorem Tax	$4,039.50	$4,039.50	$8,079.00
Flood Tax			
SPECIAL CHARGES	$2,248.68	$2,248.68	$4,497.36
Interest			
TOTAL TAXES	$6,288.18	$6,288.18	$12,576.36
Penalty	$628.81		$628.81
Cost			
TOTAL AMOUNT DUE	$6,916.99	$6,288.18	$13,205.17
Date Paid			

Additional Tax Year Information | Property Assessment Information | Prior Year History | Pay Your Taxes

2007 - 2008 Assessment Information

Parcel Number:	30-1982-122
Parcel Map: (Map image is not to scale)	Map Disclaimer
Use Code:	3000
Description	Vacant commercial land (may include misc. imps)
Land	$608,634.00
Improvements	0
Fixtures	0
Household Personal Property	0
Business Personal Property	0
Total Taxable Value	$608,634.00
Exemptions	
Homeowner	0
Other	0
Total Net Taxable Value	$608,634.00

Additional Assessment Information | Property Tax Information

Adobe Acrobat Reader is required to view the maps. Click here to download.

Prior Year Tax Information

Payments made on secured regular tax bills are displayed below. If your prior year bill status is unpaid and has not yet been redeemed, please contact the Tax Collector's office at 510-272-6800 for current amount due (amounts displayed do not include the redemption charges).

Parcel:	30-1982-123		Property Address:		Display prohibited per CA Gov Code §6254.21				
Tax Year	Tracer Number	Install-ment	Ad Valorem Tax	Flood Tax	Special Charges	Delinquent Penalty and Cost	Bill Total	Date Paid	Bill Status
2006/07 *	06352100	1	$2,555.50	$0.00	$2,930.36	$548.58	$6,034.44		Unpaid
		2	$2,555.50	$0.00	$2,930.36	$558.58	$6,044.44		Unpaid
2005/06 *	06293000	1	$2,462.57	$0.00	$408.39	$287.09	$3,158.05		Unpaid
		2	$2,462.57	$0.00	$408.39	$297.09	$3,168.05		Unpaid
2004/05	06224600	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
2003/04	06178700	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
2002/03	06159400	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
2001/02	06151800	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due

*** For supplemental tax bill information, please call the Tax Collector's office at 510-272-6800.**

New Query | Current Bill Information

ONLINE SERVICES

PROPERTY TAX INFORMATION TREASURER-TAX COLLECTOR

2007 - 2008 Tax Information

Parcel	Tracer	Roll Year	Flood Zone	Flood Rate	Tax Rate Area	AV Tax Rate
30-1982-123	06434400	2007	12	0	17001	1.3274

Amounts not valid after June 30	Installment 1 Delinquent after 12/10	Installment 2 Delinquent after 4/10	Total
Ad Valorem Tax	$2,570.76	$2,570.76	$5,141.52
Flood Tax			
SPECIAL CHARGES	$2,564.98	$2,564.98	$5,129.96
Interest			
TOTAL TAXES	$5,135.74	$5,135.74	$10,271.48
Penalty	$513.57		$513.57
Cost			
TOTAL AMOUNT DUE	$5,649.31	$5,135.74	$10,785.05
Date Paid			

Additional Tax Year Information | Property Assessment Information | Prior Year History | Pay Your Taxes

ONLINE SERVICES

PROPERTY ASSESSMENT INFORMATION ASSESSOR'S OFFICE

2007 - 2008 Assessment Information

Parcel Number:	30-1982-123
Parcel Map: (Map image is not to scale)	Map Disclaimer
Use Code:	3000
Description	Vacant commercial land (may include misc. imps)
Land	$387,338.00
Improvements	0
Fixtures	0
Household Personal Property	0
Business Personal Property	0
Total Taxable Value	$387,338.00
Exemptions	
Homeowner	0
Other	0
Total Net Taxable Value	$387,338.00

Additional Assessment Information | Property Tax Information

Adobe Acrobat Reader is required to view the maps. Click here to download.

Prior Year Tax Information

Payments made on secured regular tax bills are displayed below. If your prior year bill status is unpaid and has not yet been redeemed, please contact the Tax Collector's office at 510-272-6800 for current amount due (amounts displayed do not include the redemption charges).

Parcel:	29-993-20-1		Property Address:		Display prohibited per CA Gov Code §6254.21				
Tax Year	Tracer Number	Install-ment	Ad Valorem Tax	Flood Tax	Special Charges	Delinquent Penalty and Cost	Bill Total	Date Paid	Bill Status
2006/07 *	05725600	1	$69,239.01	$0.00	$3,223.05	$0.00	$72,462.06	12/10/2006	Cancelled
		2	$69,239.01	$0.00	$3,223.05	$7,256.20	$79,718.26		Cancelled
2006/07 *	05725601	1	$0.00	$0.00	$0.00	$0.00	$0.00		No Tax Due
		2	$0.00	$0.00	$3,223.05	$332.30	$3,555.35		Unpaid
2005/06 *	05666900	1	$14,842.93	$0.00	$2,877.00	$0.00	$17,719.93	11/29/2005	Paid
		2	$14,842.93	$0.00	$2,877.00	$0.00	$17,719.93	04/10/2006	Paid
2004/05 *	05599500	1	$1,996.99	$0.00	$1,421.83	$0.00	$3,418.82	11/03/2004	Paid
		2	$1,996.99	$0.00	$1,421.83	$0.00	$3,418.82	11/03/2004	Paid
2003/04 *	05553800	1	$7,215.92	$0.00	$6,997.76	$0.00	$14,213.68	11/12/2003	Paid
		2	$7,215.92	$0.00	$6,997.76	$0.00	$14,213.68	04/01/2004	Paid
2002/03	05536200	1	$6,902.88	$0.00	$957.54	$0.00	$7,860.42	11/07/2002	Paid
		2	$6,902.88	$0.00	$957.54	$0.00	$7,860.42	02/27/2003	Paid
2001/02	05528400	1	$6,891.26	$0.00	$1,030.66	$0.00	$7,921.92	11/02/2001	Paid
		2	$6,891.26	$0.00	$1,030.66	$0.00	$7,921.92	12/10/2001	Paid

*** For supplemental tax bill information, please call the Tax Collector's office at 510-272-6800.**

New Query | Current Bill Information

2007 - 2008 Assessment Information

Parcel Number:	29-993-20-1
Parcel Map: (Map image is not to scale)	Map Disclaimer
Use Code:	7500
Description	Restricted residential income property
Land	$2,334,640.00
Improvements	$5,360,000.00
Fixtures	0
Household Personal Property	0
Business Personal Property	0
Total Taxable Value	$7,694,640.00
Exemptions	
Homeowner	0
Other	$7,694,640.00
Total Net Taxable Value	0

Additional Assessment Information | Property Tax Information

Adobe Acrobat Reader is required to view the maps. Click here to download.

Lincoln Court Senior Housing
Project Summary

Address/Location	2400 MacArthur Boulevard
Developer	Self-Help for the Elderly and Domus Development, a joint venture.
Type of Construction	New
Number of Units/ Resident Type	80 units for Seniors
Total Development Cost/ Cost per Unit	$15,009,200/$187,615 per unit $187,615
Agency Site Acquisition Loan	0
Previous Local Development Funding	0
Current Request for Local Funds	$3,500,000
Total City/Agency Funds Requested	$3,500,000
Total City/Agency Funds per Unit	$43,750
Total City/Agency Funds as Percent of Total Cost	23%

	Affordability Level				
	<35% AMI	<50% AMI	<60% AMI	<80% AMI	<100% AMI
0 Bedroom					
1 Bedroom	16 (20%)	8 (10%)	55 (69%)		1 (1%)
2 Bedroom					
3 Bedroom					
4 Bedroom					

Description of Project:

Lincoln Court Senior Housing Project will contain 79 affordable housing units (plus one manager's unit) for seniors on the 2400 MacArthur Boulevard 1.1 acre site. This vacant site was formerly occupied by the Hillcrest Motel which was closed and demolished to rejoicing within the community. The developer has had two community meetings. The first was with the group of neighbors (15) that was involved in ridding the community of the Hillcrest Motel, and the second a general community meeting (34). The 79 units will be affordable to households earning less than 60% of the Area Median Income. Approximately 57,800 square feet will be devoted to residential use and 5,000 gross square feet will be for an adult day care center. The 1.1 acre vacant site is two blocks from Fruitvale Avenue and the Dimond Business District.

The total development cost will be $15,009,200 and the developer has requested a $3,500,000 from the City/Agency. This would result in an overall cost of $187,615 a unit with the

City/Agency share being $43,750 (23%). Tax credit syndication proceeds will generate $5,580,815 (37%), a first mortgage will provide $3,912,000 (26%), the developer will provide $1,066,385 (7%) as equity, and the developer will reinvest/defer the $950,000 (7%) in developer fee. The developer anticipates receiving approval for the non-City/Agency financing by June 2004 with construction to begin by October 2004 with completion by October 2005.

Lincoln Court Senior Housing
Financing Summary

Development Cost

	Total	Per Unit	% of Total
Acquisition	$ 2,200,000	$ 27,500	15%
Off-site Improvements	$ 15,000	$ 188	0%
Hard Costs	$ 9,949,500	$ 124,369	67%
Soft Costs	$ 933,600	$ 11,670	6%
Carrying Costs	$ 789,500	$ 9,869	5%
Syndication Costs	$ 71,600	$ 895	0%
Capitalization of Reserves	$ 75,000	$ 9,375	1%
Developer Fee	$ 950,000	$ 11,875	6%
Furnishings/Other	$ 25,000	$ 3,125	0%
Total Development Costs	**$ 15,009,200**	$ 187,615	100%

Sources of Funds

Sources	Total	% of Dev. Cost
U.S. Bank - First Mortgage	$ 3,912,000	26%
Reinvested/Deferred Developer Fee	$ 950,000	7%
Developer Equity	$ 1,066,385	7%
Tax Credit Syndication Proceeds	$ 5,580,815	37%
Total City/Agency Funds Requested*	$ 3,500,000	23%
Total	**$ 15,009,200**	100%

* Includes previous City/Agency development funds, if any.

Projected Loan Repayment

	Total	Cumulative	% of Total City Loan Repaid
Year 1-5	$ 0	$ 0	0%
Year 6-10	$ 0	$ 0	0%
Year 11-15	$ 87,371	$ 87,371	2%
Year 16-20	$ 490,086	$ 577,457	16%
Year 21-25	$ 590,610	$ 1,168,067	33%
Year 26-30	$ 671,101	$ 1,839,169	53%
Total	**$ 1,839,169**		**53%**

PROJECT DESCRIPTION

Overview

A total of 12 applications were received. A summary of those projects is contained in the table below. Proposed projects include two new homeownership developments, six new rental developments (including conversion of the Altenheim property to rental housing and a request for additional funding for the Seven Directions project), and four projects to rehabilitate and preserve existing assisted rental housing. Four of the rental projects are for seniors, and four are for families.

Summary and Ranking of Applications

Points	Project	Project Type	Address	Units	Current Request
Recommended for Funding					
79.50%	Altenheim Senior	Senior Rental, Conversion	1720 MacArthur Blvd	67	$3,680,300
67.37%	Edes Avenue Housing	Family Owner New Constr	10900 Edes Avenue	24	$1,551,000
59.00%	Lincoln Court Senior	Senior Rental, New Constr	2400 MacArthur Blvd	80	$3,500,000
55.15%	Seven Directions Family	Family Rental, New Constr	2946 International Blvd	38	$1,216,600
52.63%	Calaveras Townhomes	Family Owner, New Constr	4856 Calaveras	28	$2,548,500
Not Recommended for Funding					
52.00%	Madison Lofts Senior Hsg	Family Rental, New Constr	10614th Street	71	$5,453,300
51.30%	Eldridge Gonaway	Family Preservation/Rehab	275 E 2nd Street	40	$1,312,000
50.63%	St. Andrew's Manor Senior	Senior Preservation/Rehab	3250 San Pablo	60	$748,000
50.63%	St. Patrick's Terrace Senior	Senior Preservation/Rehab	1212 Center	66	$753,600
48.50%	7th and Campbell	Family Rental, New Constr	7th & Campbell Streets	42	$3,142,000
48.50%	MLK BART Senior	Senior Rental, New Constr	3823-3837 MLK Way	33	$2,511,100
44.38%	Sojourner Truth Senior	Senior Preservation/Rehab	5815 MLK Way	87	$162,100

The total amount requested was over $26 million, ranging from a low of $162,000 to a high of $5.4 million. On a per unit basis, the amount requested ranged from less than $2,000 to close to $138,000.

Matrices IA and IB provide a more complete summary and comparison of 13 projects – the 12 applications received through the NOFA and the Sausal Creek development **Attachment A** provides a ***Project Summary*** for each of the projects that are recommended for funding. **Attachment B** provides a ***Project Summary*** for the projects that are not recommended for funding in this round. Projects are listed in alphabetical order.

In addition to applications submitted in response to the NOFA, staff considered an application submitted to the Oakland Citywide Community Land Trust (OCCLT) by Homeplace Initiatives, a subsidiary of East Bay Asian Local Development Corporation (EBALDC) for the 17-unit Sausal Creek Townhomes. This application had previously been accepted by the Community Land Trust and a formal agreement between OCCLT and EBALDC was pending. Because the OCCLT has ceased operations the agreement between OCCLT and EBALDC will not be executed. In a separate accompanying report to the Redevelopment Agency, staff discusses the dissolution of the community land trust initiative and recommends allocating the available funds of $4,950,000 to other affordable housing activities.

Altenheim Senior Housing
Project Summary

Address/Location	1720 MacArthur Boulevard
Developer	Citizens Housing Corporation
Type of Construction	Reuse
Number of Units/ Resident Type	67 units for Seniors
Total Development Cost/ Cost per Unit	$13,339,028/$199,090 per unit
Agency Site Acquisition Loan	0
Previous Local Development Funding	0
Current Request for Local Funds	$3,680,220
Total City/Agency Funds Requested	$3,680,220
Total City/Agency Funds per Unit	$54,929
Total City/Agency Funds as Percent of Total Cost	28%

	Affordability Level				
	<35% AMI	<50% AMI	<60% AMI	<80% AMI	<100% AMI
0 Bedroom	19(28%)	24(36%)			
1 Bedroom	11(16%)	12 (18%)			1 (2%)
2 Bedroom					
3 Bedroom					
4 Bedroom					

Description of Project:

Altenheim Senior Housing Project will contain 66 affordable housing units (plus one manager's unit) for seniors on the 1720 MacArthur Boulevard site. The Project entails the reuse of the historic facility which provided assisted living for seniors until 2002. The 6.2 acre site is three blocks from Fruitvale Avenue and the Dimond Business District. The overall project will be developed in two phases, the first of which will include six buildings consisting of two stories of housing with a portion over parking, office, and an adult day care center. The developer has been working with the community and has a program to continue to involve the community as the development proceeds. The development will save the century-old, National Register-eligible facility and will ultimately produce a total of 240 affordable units. The Altenheim has a significant presence and the buildings and gardens have been a landmark for generations. The proposed project will preserve this landmark for future generations while providing needed and desirable living accommodations for low income seniors.

The total development cost for the first phase will be $13,339,028 and the developer has requested a $3,680,220 from the City/Agency. This will result in an overall cost of $199,090 a

Altenheim Senior Housing
Financing Summary

Development Cost

	Total	Per Unit	% of Total
Acquisition	$ 2,821,053	$ 42,105	21%
Off-site Improvements	$ 0	$ -	0%
Hard Costs	$ 7,517,550	$ 106,829	56%
Soft Costs	$ 1,014,876	$ 14,147	8%
Carrying Costs	$ 912,741	$ 13,623	7%
Syndication Costs	$ 152,790	$ 2,280	1%
Capitalization of Reserves	$ 74,119	$ 1,106	1%
Developer Fee	$ 846,000	$ 12,627	6%
Furnishings/Other	$ 0	$ 0	0%
Total Development Costs	**$ 13,339,028**	$ 199,090	100%

Sources of Funds

Sources	Total	% of Dev. Cost
Tax Credit Syndication Proceeds	$ 9,238,808	69%
AHP	$ 420,000	3%
Total City/Agency Funds Requested*	$ 3,680,220	28%
Total	**$ 13,339,028**	100%

* Includes previous City/Agency development funds, if any.

Projected Loan Repayment

	Total	Cumulative	% of Total City Loan Repaid
Year 1-30	$ 0	$ 0	0%
Total	**$ 0**		**0%**

Project	Funds Recommended	HOME	ORA	Bond
Altenheim Senior	$3,680,300	1,901,740		1,778,560
Edes Avenue Housing	$1,551,000		1,551,000	
Lincoln Court Senior	$3,500,000	1,500,000	828,560	1,171,440
Seven Directions	$1,216,600	1,216,600		
Calaveras Townhomes	$2,548,500		1,548,500	1,000,000
Sausal Creek Townhomes	$2,329,000		1,329,000	1,000,000
Contract Compliance	96,610		96,610	
Total	**14,922,010**	4,618,340	5,353,670	4,950,000

Funds are currently available from the following sources:

City of Oakland HOME Funds	$4,618,400
Redevelopment Agency Low and Moderate Income Housing Fund	$8,326,236
Redevelopment Agency Land Sales Proceeds (Low-Mod Housing Fund)	$295,284
Redevelopment Agency 2000 Housing Bond Proceeds	$4,950,000
Total Funds Available	**$ 18,189,920**

The remaining $3,267,900 would be reserved for future housing development allocations as described elsewhere in this report.

HOME Funds

A total of $4,618,400 in HOME funds is currently available in Fund 2109 (HUD-HOME Housing Development). This includes funds appropriated in the adopted FY 2003-2004 Policy Budget for housing development activities, and carry-forward of unallocated housing development funds from FY 2002-03. No new appropriation is needed for these funds.

Redevelopment Agency Funds

Low and Moderate Income Housing Fund (Fund 9580)

A total of $8,621,520 is currently available in the Low and Moderate Income Housing Fund. This includes allocation of budgeted funds of $4,064,431 as follows:

- $2,903,437 in funds already appropriated in the adopted FY 2003-04 Policy Budget for housing development activities.
- $213,880 in unallocated funds from FY 2002-03.
- $347,114 in net proceeds from the sale of the Housewives Market site.
- $600,000 to be made available because funds previously reserved for supplemental homebuyer assistance for the Palm Villas project are no longer needed for that project.

A resolution has been prepared to appropriate $4,557,089 in new funding:

- $2,416,805 of funds from FY 2002-03 revenues in excess of the amount budgeted.

PROJECT DESCRIPTION

Overview

A total of 12 applications were received. A summary of those projects is contained in the table below. Proposed projects include two new homeownership developments, six new rental developments (including conversion of the Altenheim property to rental housing and a request for additional funding for the Seven Directions project), and four projects to rehabilitate and preserve existing assisted rental housing. Four of the rental projects are for seniors, and four are for families.

Summary and Ranking of Applications

Points	Project	Project Type	Address	Units	Current Request
Recommended for Funding					
79.50%	Altenheim Senior	Senior Rental, Conversion	1720 MacArthur Blvd	67	$3,680,300
67.37%	Edes Avenue Housing	Family Owner New Constr	10900 Edes Avenue	24	$1,551,000
59.00%	Lincoln Court Senior	Senior Rental, New Constr	2400 MacArthur Blvd	80	$3,500,000
55.15%	Seven Directions Family	Family Rental, New Constr	2946 International Blvd	38	$1,216,600
52.63%	Calaveras Townhomes	Family Owner, New Constr	4856 Calaveras	28	$2,548,500
Not Recommended for Funding					
52.00%	Madison Lofts Senior Hsg	Family Rental, New Constr	10614th Street	71	$5,453,300
51.30%	Eldridge Gonaway	Family Preservation/Rehab	275 E 2nd Street	40	$1,312,000
50.63%	St. Andrew's Manor Senior	Senior Preservation/Rehab	3250 San Pablo	60	$748,000
50.63%	St. Patrick's Terrace Senior	Senior Preservation/Rehab	1212 Center	66	$753,600
48.50%	7th and Campbell	Family Rental, New Constr	7th & Campbell Streets	42	$3,142,000
48.50%	MLK BART Senior	Senior Rental, New Constr	3823-3837 MLK Way	33	$2,511,100
44.38%	Sojourner Truth Senior	Senior Preservation/Rehab	5815 MLK Way	87	$162,100

	Lincoln Court Senior	Madison Lofts	Altenheim Senior	7th & Campbell Family	MLK Bart Senior	Seven Directions	St. Patrick's Terrace	St. Andrew's Manor	Sojourner Truth Manor	Eldridge Gonaway Commons
Address	2400 MacArthur Blvd	160 14th St	1729 MacArthur	7th St & Campbell St	3823 MLK, Jr. Way	2946 Int'l Blvd	1212 Center St	3250 San Pablo Ave	6015 MLK, Jr. Way	275 East 12th St
Location	Dimond	Downtown	Glenview/ Dimond	West Oakland	North Oakland	Fruitvale	West Oakland	West Oakland	North Oakland	San Antonio
Developer	SHE/Domus Dev.(JV)	AHA	Citizens Housing	OCHI	CDCO/OCHI	EBALDC/ NAHC	Satellite Housing	Satellite Housing	CCHNC	OCHI
Tenure	Rental	Rental	Rental	Rental	Rental	Rental	Rental	Rental	Rental	Rental
Household Type	Senior	Family	Senior	Family	Senior	Family	Senior	Senior	Senior	Family
Units	80	71	67	42	33	38	66	60	87	40
Bedrooms	80	102	67	108	34	85	67	61	87	88
Tot. Development Cost (TDC)- Res.	$15,009,200	$20,011,839	$13,339,028	$12,933,665	$6,650,184	$12,121,714	$2,362,254	$2,343,244	$402,782	$6,868,620
Cost/Unit	$187,615	$281,857	$199,090	$307,944	$201,521	$318,992	$35,792	$39,054	$4,630	$171,716
Cost/Bedroom	*$187,615*	*$196,195*	*$199,090*	*$119,756*	*$195,594*	*$142,608*	*$35,258*	*$38,414*	*$4,630*	*$78,053*
Total Local Funds Requested	$3,500,000	$5,453,300	$3,680,300	$3,142,000	$2,511,100	$1,216,600	$753,600	$748,300	$162,100	$1,312,000
Current Request	$3,500,000	$5,453,300	$3,680,300	$3,142,000	$2,511,100	$1,216,600	$753,600	$748,300	$162,100	$1,312,000
Previous Local $*	$0	$1,498,000	$0	$689,499	$52,000	$3,289,000	$0	$0	$0	$822,000
Local Funds/Unit	$43,750	$97,906	$54,930	$91,226	$77,670	$118,568	$11,418	$12,472	$1,863	$53,350
Local Funds/BR	$43,750	$68,150	$54,930	$35,477	$75,385	$53,007	$11,248	$12,267	$1,863	$24,250
% Local $ to TDC	23%	35%	28%	30%	38.5%	37%	32%	32%	40%	31%
Local Funds Recommended	$3,500,000	$5,453,300	$3,680,300	$3,142,000	$2,511,100	$1,216,600	$753,600	$748,300	$162,100	$1,312,000

* For Eldridge Gonaway, previous local funds received represents the balance owed on a 1981 Agency loan.

Item: 4
Community and Economic Development Committee
January 27, 2004

Affordable Housing Developments Underway in Oakland (as of April 2006)

Project Name	Units	Developer (s)	Address (click for map)	Type of Housing	City Funding	Status
Council District 1						
3829 MLK	-	Community Development Corporation of Oakland	3829 MLK Way	-	$ 52,000	Predevelopment (Site Acquisition Loan only)
Sojourner Truth	87	Christian Church Homes	5815, 5915 & 6015 MLK Jr. Way	Senior Rental	$ 162,100	Predevelopment (Rehab only)
Council District 2						
None						
Council District 3						
14th St Apts at Central Station	99	BRIDGE Housing, Inc.	14th Street at Wood Street	Family Rental	$8,379,000	Predevelopment
1574-1590 7th St	5	Community Development Corporation of Oakland	1574-1590 7th St	Family Ownership	$127,327	Predevelopment (Site Acquisition Loan only)
2001 Linden St**	8 (2 restricted)	Community Development Corporation of Oakland	2001 Linden St	Family Ownership	Loan Repaid	Predevelopment (Site Acquisition Loan only)
3701 Martin Luther King, Jr. Way	4	Community Development Corporation of Oakland	3701 Martin Luther King, Jr. Way	Family Ownership	$109,909	Predevelopment (Site Acquisition Loan only)
Campbell and 7th Streets	30	Oakland Community Housing, Inc.	1662, 1664, 1666 7th St., 715 Campbell St.	Family Ownership	$689,598	Predevelopment (Site Acquisition Loan only)
Fox Courts	80	Resources for Community Development	18th st and San Pablo Ave.	Family Rental	$11,250,112	Predevelopment
Jack London Gateway	55	East Bay Asian Local Development Corporation	900 Market St.	Senior Rental	$4,900,000	Predevelopment

Madison Apts	76	Affordable Housing Associates	160 14th St	Family Rental	$6,995,500	Predevelopment
Mandela Townhomes	14	BRIDGE Housing, Inc.	1431 8th St.	Family Ownership	$2,250,400	Predevelopment
Palm Court	12	East Bay Habitat for Humanity	10th & Union St.	Family Ownership	$855,400	Closeout
St. Andrew's Manor	60	Satellite Housing, Inc.	3250 San Pablo Ave	Senior Rental	$748,300	Predevelopment (Rehab only)
St. Patrick's Terrace	66	Satellite Housing, Inc.	1212 Center Street	Senior Rental	$753,600	Predevelopment (Rehab only)
Council District 4						
Altenheim Phase I	93	Citizens Housing	1720 MacArthur	Senior Rental	$ 5,986,400	Predevelopment
Altenheim Phase II	81	Citizens Housing	1720 MacArthur	Senior Rental	$5,338,000	Predevelopment
Redwood Hill	28	Affordable Housing Associates	4858-68 Calaveras	Family Ownership	$3,858,500	Predevelopment
Lincoln Court	80	Domus/SHE	2400 MacArthur	Senior Rental	$3,500,000	Predevelopment
Council District 5						
Orchards on Foothill	64	Affordable Housing Associates	2719 Foothill Blvd	Senior Rental	$4,500,000	Predevelopment
Sausal Creek	17	East Bay Asian Local Development Corporation	2464 26th Avenue	Family Ownership	$2,329,000	Predevelopment
Seven Directions	36	East Bay Asian Local Development Corporation & Native American Health Center	2946 International Blvd	Family Rental	$4,505,600	Predevelopment
Council District 6						
5825 Foothill Blvd**	-	-	5825 Foothill Blvd	-	Loan Repaid	Predevelopment (Site Acquisition Loan only)

Coliseum Gardens Phase I	115	East Bay Asian Local Development Corporation & The Related Companies of California	6610, 6701 & 6733 Olmstead St	Family Rental	$3,000,000	Construction
Coliseum Gardens Phase III	106	East Bay Asian Local Development Corporation & The Related Companies of California	928-998 66th Avenue	Family Rental	$4,600,000	Predevelopment
Foothill Plaza Apts	54	Oakland Community Housing, Inc.	6311 Foothill Blvd	Family Rental	$ 2,664,053	Predevelopment
Council District 7						
10211 Byron Ave	-	BRIDGE Housing, Inc. & Imani	10211 Byron Ave.	-	$386,550	Predevelopment (Site Acquisition Loan only)
Edes Avenue Homes	24	East Bay Habitat for Humanity	10900 Edes Ave.	Family Ownership	$2,075,000	Predevelopment
Edes B Homes	25	East Bay Habitat for Humanity	10800 Edes Ave.	Family Ownership	$2,812,000	Predevelopment
Horizon Townhomes	14	Oakland Community Housing, Inc.	98th Ave. and MacArthur Blvd.	Family Ownership	$ 1,767,000	Predevelopment
Leola Terrace II - Rehab	8	MacArthur Pk. Dev. Assoc	2454 90th Ave.	Family Ownership	$200,000	Predevelopment
Tassafaronga Homeownership	22	East Bay Habitat for Humanity	949 85th Ave	Family Ownership	$1,868,000	Predevelopment
Tassafaronga Village Phase I	60	Oakland Housing Authority	919 85th Ave	Family Rental	$3,000,000	Predevelopment
Toler Heights*	6	Toler Heights Estates LLC	98th Ave. @ Thermal, Stearns	Family Ownership	N/A	Predevelopment
Other Areas/Multiple Locations						

Wang-homeownership*	23	Wang	scattered sites	Family Ownership	N/A	All stages

Total Units:	**1,452**	**Total City Funds:**	**$89,663,349**

*Land provided at no cost to developer as subsidy to enable development of affordable housing.
**Agency loans were repaid. However, the Agency restrictions require 25% of the housing units be set aside for families earning at or below 80%AMI.

Attachment 2. Draft Regional Housing Needs Allocation
July 2007

	Very Low <50%	Low <80%	Mod <120%	Above Mod	Total
ALAMEDA	482	329	392	843	2,046
ALBANY	64	43	52	117	276
BERKELEY	328	424	549	1,130	2,431
DUBLIN	1,092	661	653	924	3,330
EMERYVILLE	186	174	219	558	1,137
FREMONT	1,348	887	876	1,269	4,380
HAYWARD	768	483	569	1,573	3,393
LIVERMORE	1,038	660	683	1,013	3,394
NEWARK	257	160	155	291	863
OAKLAND	1,900	2,098	3,142	7,489	14,629
PIEDMONT	13	10	11	6	40
PLEASANTON	1,076	728	720	753	3,277
SAN LEANDRO	368	228	277	757	1,630
UNION CITY	561	391	380	612	1,944
UNINCORPORATED	536	340	400	891	2,167
ALAMEDA COUNTY	10,017	7,616	9,078	18,226	44,937
ANTIOCH	516	339	381	1,046	2,282
BRENTWOOD	717	435	480	1,073	2,705
CLAYTON	49	35	33	34	151
CONCORD	639	426	498	1,480	3,043
DANVILLE	196	130	146	111	583
EL CERRITO	93	59	80	199	431
HERCULES	143	74	73	163	453
LAFAYETTE	113	77	80	91	361
MARTINEZ	261	166	179	454	1,060
MORAGA	73	47	52	62	234
OAKLEY	219	120	88	348	775
ORINDA	70	48	55	45	218
PINOLE	83	49	48	143	323
PITTSBURG	322	223	296	931	1,772
PLEASANT HILL	160	105	106	257	628
RICHMOND	391	339	540	1,556	2,826
SAN PABLO	22	38	60	178	298
SAN RAMON	1,174	715	740	834	3,463
WALNUT CREEK	456	302	374	826	1,958
UNINCORPORATED	815	598	687	1,408	3,508
CONTRA COSTA COUNTY	6,512	4,325	4,996	11,239	27,072
BELVEDERE	7	6	6	6	25
CORTE MADERA	68	38	46	92	244
FAIRFAX	23	12	19	54	108
LARKSPUR	90	55	75	162	382
MILL VALLEY	74	54	68	96	292
NOVATO	275	171	221	574	1,241
ROSS	8	6	5	8	27
SAN ANSELMO	26	19	21	47	113

InsideBayArea.com

Regional housing plan is unveiled

Officials from wealthier communities say they lack land, funds to build affordable homes

By Katherine Tam, STAFF WRITER

Article Launched: 08/27/2007 02:37:47 AM PDT

For years, Bay Area cities such as Oakland and Antioch supplied a lot of the East Bay's affordable housing, but now more affluent communities are being asked to carry some of the weight.

It would be a dramatic shift in the way housing is divvied up — and one that regional leaders say is critical. The burden of providing housing for the poor must be shared, they say.

"You have a responsibility to make accommodations for all income levels. We need to think in that way," said Arne Simonsen, a councilman in Antioch, which is among the cities providing a larger share of affordable housing.

But officials in some of the East Bay's smaller cities say they lack the land and funds to build the level of affordable housing they would now be asked to produce.

"Even if we took most of our general fund, we don't have the money," said Don Tatzin, Lafayette councilman.

The already-bustling Bay Area expects to grow by 700,000 residents through 2015, and needs to supply at least 214,000 new housing units. About 40 percent of that is slated to be very low-income or low-income.

The Association of Bay Area Governments divided the number among the nine-county region and unveiled a vision for how the region ought to grow: Housing and jobs would be clustered in already-developed areas to protect farmland and green space from sprawl. Cities with a BART station or transit hub would take on more housing to encourage people to drive less, thereby easing traffic congestion and pollution.

Cities have until Sept. 18 to refute the ABAG housing allocation before numbers become final.

But new homes won't start popping up everywhere oncethose numbers are approved. ABAG's report represents a goal for the region that jurisdictions have historically failed to fulfill. Even cities where new construction is almost a daily affair have fallen short. Other jurisdictions seem to ignore the numbers entirely.

Cities that fail to build all or even any of the housing expected of them are neither fined nor punished.

However, there are rewards for meeting the targets. Cities are required by state law to create housing plans for how they will build their fair share of affordable housing, and those that do can nab state or regional grants for everything from planning to transportation.

The East Bay's crippling housing prices have earned it the dubious distinction of being the 19th most expensive metropolitan area in the nation. Los Angeles comes in first.

The median price for a single family home in the East Bay is $685,000, according to the Bay East

Association of Realtors. That's well above the statewide median at $594,260.

It's a price tag that's out of reach for many residents. Donna Zukauckas and her four children rent a Concord house that is partially subsidized by the nonprofit Shelter Inc. The rent is $1,750 a month.

Her retail job and other income, which total about $1,500 a month, isn't enough to cover the rent. She pays $1,050 a month. Shelter Inc. subsidizes the rest.

"The cost of housing is going up higher and higher. You have to have two incomes to afford a place," said Zukauckas, who was homeless for two years.

She's not alone. At least 40 percent of households in Alameda and Contra Costa counties earn less than $66,249, and are considered very low income or low income. That can include teachers, construction workers, social workers, legal clerks and medical aides.

Residents who grew up in the Bay Area and want to stay say they are getting priced out of the housing market.

"You've got to pick another state because you can't afford California," said Francisco Diaz, who works as a carpenter and rents an apartment in San Leandro.

In Contra Costa, nearly 100 people, including children, seek nightly refuge in churches and synagogues that open their doors to the homeless. Many have jobs but they don't earn enough to rent an apartment or buy a house, said Gwen Watson, organizer of the Winter Nights Family Shelter.

"The wages most of our clients earn are $9 an hour, $10 an hour, maybe $12 an hour," Watson said.

"It takes $27 an hour to afford a two-bedroom apartment for a family of four. The lack of affordable housing makes it so difficult."

The Bay Area's housing needs typically spark loud protest from cities and counties that feel they have been unfairly singled out for growth they say they cannot accommodate. This year is no different.

ABAG used to divvy up housing based on population and job growth. But local officials lobbied to change that. In particular, officials in east Contra Costa, where the once-envisioned eBART light rail line has yet to materialize, say they lack sufficient infrastructure and have pushed for new units to be closer to job and transit centers.

The new method strives for a balance between housing and jobs in each jurisdiction, with an eye toward those areas with public transit.

In addition, cities such as Oakland that historically supplied a larger share of affordable housing would be asked to build fewer low-income units and more market-rate housing. Thirty-six percent of Oakland's households are very low income, compared to 23 percent Bay Area-wide.

Conversely, cities that provided less affordable housing would be asked to deliver more. Piedmont, where 9 percent of households are very low income, would supply twice as many very low- and low-income units than before. San Ramon's numbers would double too. The city was asked to build 971 very low- and low-income units from

1999 to 2006. Its new mission: 1,889 units.

"We are now regionally thinking, whether we like it or not," said Councilman David Hudson, who said San Ramon's housing share is largely doable.

Smaller cities with less land to spare have the harder task. Piedmont issued seven new residential building permits since 1999, mostly to homeowners who wanted to expand their house.

"Piedmont is completely built out and has been since 1940," said Kate Black, senior planner. "The city wants to do its part to help the Bay Area solve the housing crunch, but we have physical limitations. We don't have very many vacant lots."

In Orinda, where the median price for a single family house is $1.2 million, building affordable housing is a formidable challenge, city leaders say "Where there are buildable lots, the topography is challenging," said Orinda Mayor Steve Glazer. "Land costs are very high, which makes the ability to construct affordable housing at that level very challenging."

Affordable housing projects often require subsidies from a hodgepodge of local, state and federal funds. In Antioch, where the $13 million West Rivertown II apartments are being built, developer Eden Housing used federal tax credits to finance about 80 percent of the cost, said Woody Karp, project head. The rest came from a mix of city and federal dollars, totaling $2.5 million. Some cities create redevelopment agencies or special funds to make affordable housing possible.

Brentwood, for example, requires developers to include low-income units in new projects or pay the city a fee that is then used to construct affordable housing, said Gina Rozenski, Brentwood's redevelopment director.

The city has helped finance 364 affordable housing units since 2000, pumping in a combined $5 million in redevelopment money or developer fees.

"It's a complex, complicated layering of funds," Rozenski said.

New subdivisions are rapidly changing the East County landscape, but far fewer new homes go up in areas such as Lamorinda. That means the fresh revenue to create affordable housing is harder to find, leaders in these smaller communities say.

Tatzin, the Lafayette councilman, said: "Cities with large sales tax and property tax base might have the additional funds to afford more housing, but Lafayette is not them."

Still, these officials contend they are trying to pull their weight. They negotiate with developers to set aside a portion of the units in new projects for low-income earners.

Lafayette this year selected Eden Housing to build units for seniors downtown and is committing up to $1.8 million in redevelopment funds. The city also has promised speedy permit processing.

But jurisdictions still are not building enough affordable housing to meet the need, residents say.

"Everyone I know is struggling to pay the rent," said Zukauckas, the single mother of four in Concord. "There is not enough supply for families with low incomes."

THE BURNETT COMPANY

13311 CLAIREPOINTE WAY, OAKLAND, CA

VOICE 510-336-0052 FAX 510-336-0069

APPRAISAL, CONSULTING, MARKET STUDIES

February 8, 2008

Ms. Leila Moncharsh, Esquire
Ventuso and Moncharsh

RE: The Hahn Project, SWC of High Street and MacArthur Boulevard, Oakland, CA

Dear Ms. Moncharsh:

At your request we have performed a rent and occupancy survey of Low Income Tax Credit (LIHTC) age and income restricted rental units in Oakland. The survey consisted of in-person and/or telephone surveys of 11 projects comprised of 1,044 studio and one-bedroom units. Ten of the 11 projects serve very low income seniors, that is senior households with incomes at or below 50% of Area Median Income(AMI). The purpose of this survey was to estimate the existing demand based on the restricted income levels and occupancy of these projects. The data utilized to arrive at our conclusions are included with this letter summarizing our findings.

Rental Survey

- Our survey indicated that all of the projects serving senior households with incomes under 50% AMI ($29,350 annually/one person) were 100% occupied, experiencing vacancy only on turnover of units.

- Projects with studios or with units at 50% AMI without rental assistance experienced longer lease up periods and greater vacancy than those that did not. One project with studios with rents based on incomes of 50%AMI had persistent problems with vacancy in those units.

- Ten of the 11 projects had waiting lists ranging from 56 to 400 income and age eligible households.

- Four of the projects were project based Section 8, that is, all of the units in the project had Section 8 rent assistance requiring that all tenants qualify for Section 8. The upper income limit for tenants with Section 8 assistance is 50% AMI ($29,350). However, because of the high demand for Section 8 assistance in Oakland, those receiving it typically have much lower incomes, 30% AMI ($17,610 annually) or less.

- All of the projects accepted Section 8 Vouchers. Vouchers are portable, that is, they go with the tenant and are not attached to the project as is project based Section 8 assistance as described above.

- One project reported that approximately 20% of the tenants came from outside of Oakland to live in the project to be near family members in Oakland.

- Those projects without project based Section 8 served senior households with incomes of 50% AMI ($29,350) or less.

    - One project had income limits of 20% AMI($11,740) and 50% AMI ($29,350) without project based Section 8. 20% of the 50% AMI units had Section 8 vouchers.
    - One project had income limits of 40% AMI ($23,480) with 25% of the units having project based Section 8.
    - One project had income limits at 30% AMI($17,710), without project based Section 8.

Findings:

- We found no existing age and income restricted housing for households above 50% AMI($29,350).

- We found ongoing and significant demand for age restricted housing affordable for households with incomes below 50% AMI($29,350).

- Operators reported that it is difficult to fill studios or older, small one-bedroom units, even at 50% AMI($29,350) without Section 8 or other rental support.

- Phase II of the Altenheim project is about to begin construction. It will consist of 85 one-bedroom units.

Conclusions:

- The lack of age and income restricted housing for households at higher income levels of the low income designation, 60% to 80% AMI, ($35,220 to $46,960) suggests that there is no demand for households at these income levels.

- Low income senior tenants in Oakland require rents at very low income levels, below $29,350 and/or rental assistance such as Section 8 payments.

- The senior population in Oakland prefers and most readily leases one-bedroom units.

- LIHTC projects in Oakland must meet their operating expenses with tenants paying rents at levels at or below 50% AMI that is at or $774 per month or less.

It has been a pleasure assisting you in this assignment. If you have any questions, please contact me at 510.336.0052.

Sincerely,

THE BURNETT COMPANY

BY:

SUSAN M. BURNETT, MAI

Project No.	Name Location	Year Built	Total Units	Dist.	Unit Types and Income Limits Studio	1BR	2BR			Occup'y Rate	Waiting List	AMI Restriction
					LIHTC or Restricted Rent							
LI-1	Oak Center Towers		195		151	44						
	1515 Market Street									100%	150	Sec. 8
	Oakland										Closed	$0 to $29,350
				SF(est)	400	550	0	0	0			
LI-2	Miley Gardens		68		16	52	0	0	0			
	7200 Bancroft Avenue								0	100%	100	30%
	Oakland											$17,610
				SF(est)	400	550	0	0	0			
LI-3	Baywood Apartments		77		5	72	0	0	0			All Sec 8
	225 41st Street									100%	56	$0 to $29,350
	Oakland											
				SF	593	700	0	0	0			
LI-4	Mark Twain Seniors		106		75	31	0	0	0		NA	
	3525 Lyon Ave.									100%	0	$17,610
	Oakland											$23,480
				SF(est.)	400	550	0	0	0			
LI-5	Lake Merritt Apartments		55	0	0	55	0	4	0			Section 8
	1417 First Avenue									100%	400	$0 to $29,350
	Oakland											
				SF		550	0	0				
LI-6	Noble Towers		195		0	195	0	0	0			
	1515 Lakeside Drive									100%	15	Section 8
	Oakland											$0 to $29,350
				SF		660						
LI-7	Lincoln Court		82		2	80	0	0	0			
	2400 MacArthur									100%	100	$11,610
	Oakland											$29,350
				SF(est.)	450	600						
LI-8	Altenheim		92		52	40				89%	23 Section 8 units	
	1720 MacArthur										0	$17,610
	Oakland											$20,545
												$26,010
												$29,350
				SF(est)	350	450						
LI-9	Oak Street Terrace		42		0	42				100%	NA	
	1109 Oak Street										0	NA
	Oakland											
				SF(est)		500						
LI-10	North Oakland Senior Apts.		64		0	64				100%	NA	
	3255 San Pablo Avenue										0	$20,545
	Oakland											$23,480
												$26,010
				SF(est)		600						
L-11	Miley Gardens		68		16	52				100%		Section 8
	7200 MacArthur Boulevard					$0					100	$0 to $29,350
	Oakland											
					450	550						
Total			**1,044**		**317**	**727**					**921**	

CERTIFICATION OF THE ANALYST(S)

Susan M. Burnett, MAI certifies as follows:

1. The statements of fact contained in this report are true and correct.

2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

3. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.

4. I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.

5. My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

6. My analyses, opinions, and conclusions were developed, and this report, to the best of my knowledge, has been prepared in conformity with the requirements of the Code of Professional Ethics and the Standards of the Professional Practice of the Appraisal Institute and the Uniform Standards of Professional Practice of the Appraisal Foundation.

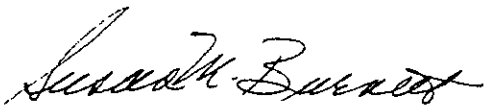
7. Susan M. Burnett, MAI made a personal inspection of the property that is the subject of this report.

8. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives. As of the date of this report, Susan M. Burnett, MAI has completed the requirements of the continuing education program of the Appraisal Institute.

9. The undersigned consider themselves professionally competent to perform this consulting assignment. Please see the analysts' professional qualifications in the Addendum of this report.

10. Susan Sondgroth provided market research data assistance to the person(s) signing this report.

THE BURNETT COMPANY



Susan M. Burnett, MAI

Qualifications of SUSAN BURNETT, MAI

Susan Burnett is a consultant with who specializes in multi-family housing consulting and valuation. Ms. Burnett is an experienced consultant and appraiser in the field of real estate with a specialty in affordable housing with Low Income Housing Tax Credit, and bond financing. She has performed appraisal, market analyses and feasibility studies. She has also appraised troubled and distressed properties of various use types as well as subdivisions, retail centers, office buildings, flex industrial, multi-tenant residential properties, senior housing and retirement facilities. Ms. Burnett has also served as an independent review appraiser. She has had experience as an expert witness.

Ms. Burnett was Principal and Director of the Valuation/Consulting Group for Novogradac & Company, LLP, a national accounting and business consulting firm based in San Francisco that specializes in Low Income Housing Tax Credits. In that capacity she was the first Principal/Director of the Valuation/Consulting Group servicing a nationwide client base in affordable housing from the San Francisco headquarters office. Previously Ms. Burnett was a founding principal in the Sequoia Appraisal Group, a full service, regional real estate consultation and appraisal firm. She served as President of the company for six years. Prior to co-founding Sequoia Appraisal Group, she spent three years directing the Northern California Division of Income Property Appraisal for Gibraltar Savings. In that capacity she supervised both employees and contract fee appraisers, developed and maintained a nationwide fee panel, and wrote review and full appraisal reports. Approximately fifty percent of the appraisal volume was performed outside of California.

Professional Positions

Present	President, The Burnett Company
1995 to 1999	Principal, Novogradac & Company, LLP, and Director of the Valuation/Consulting Group
1989 to 1995	Principal Sequoia Appraisal Group, a regional real estate consultation and appraisal firm
1986 to 1989	Division Manager, Income Property Appraisal, Northern California, Gibraltar Savings
1981 to 1986	Appraiser, Alameda County Assessor's Office

Professional Affiliations and State Certification

MAI Designation	Member, Appraisal Institute
State of California	Certified General Real Estate Appraiser Number AG003382 Exp. 4/30/08

Academic Background

Bachelors Degree	Gonzaga University, Spokane, WA
Masters Degree	Gonzaga University, Spokane, WA

Merkamp, Robert

From: Merkamp, Robert
Sent: Monday, April 28, 2008 4:10 PM
To: 'bryan.walker@dot.ca.gov'
Subject: Thank you

Dear Mr. Walker,

Thank you for speaking with me on Thursday April 17, 2008 and again on Monday April 28, 2008 on the subject of the 115 unit AMG senior housing project located at 4311-4317 MacArthur Blvd. We appreciate you confirming that the purpose for the review of the scenic highway designation is not due to this particular proposal, or other specific development along I-580, but is part of an overall systematic review of all scenic highways and that this review takes place every 5 years or so.

We further acknowledge your confirmation that (a) the project site is about 50 feet from the Freeway roadbed; (b) the height of the freeway roadbed is about 20 to 30 feet higher than the proposed project site; and (c) the trees are as tall as 50 feet above the freeway roadbed. Thank you so much for clarifying these matters with us.

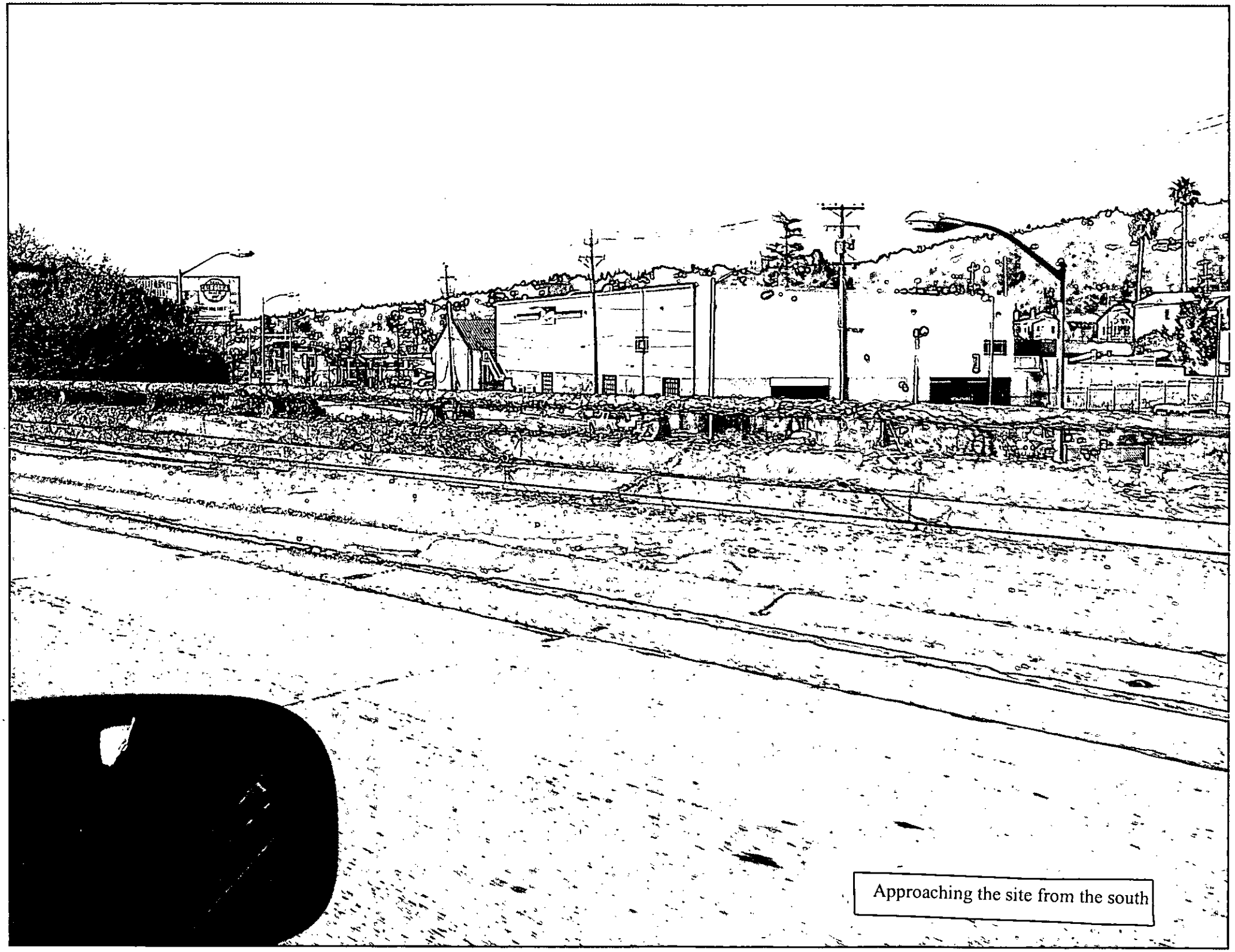
Respectfully,
Robert D. Merkamp
Planner IV
City of Oakland

ATTACHMENT B

ATTACHMENT C

Westbound I-580 next to site (note billboard)

Westbound I-580 next to site



Approaching the site from the south

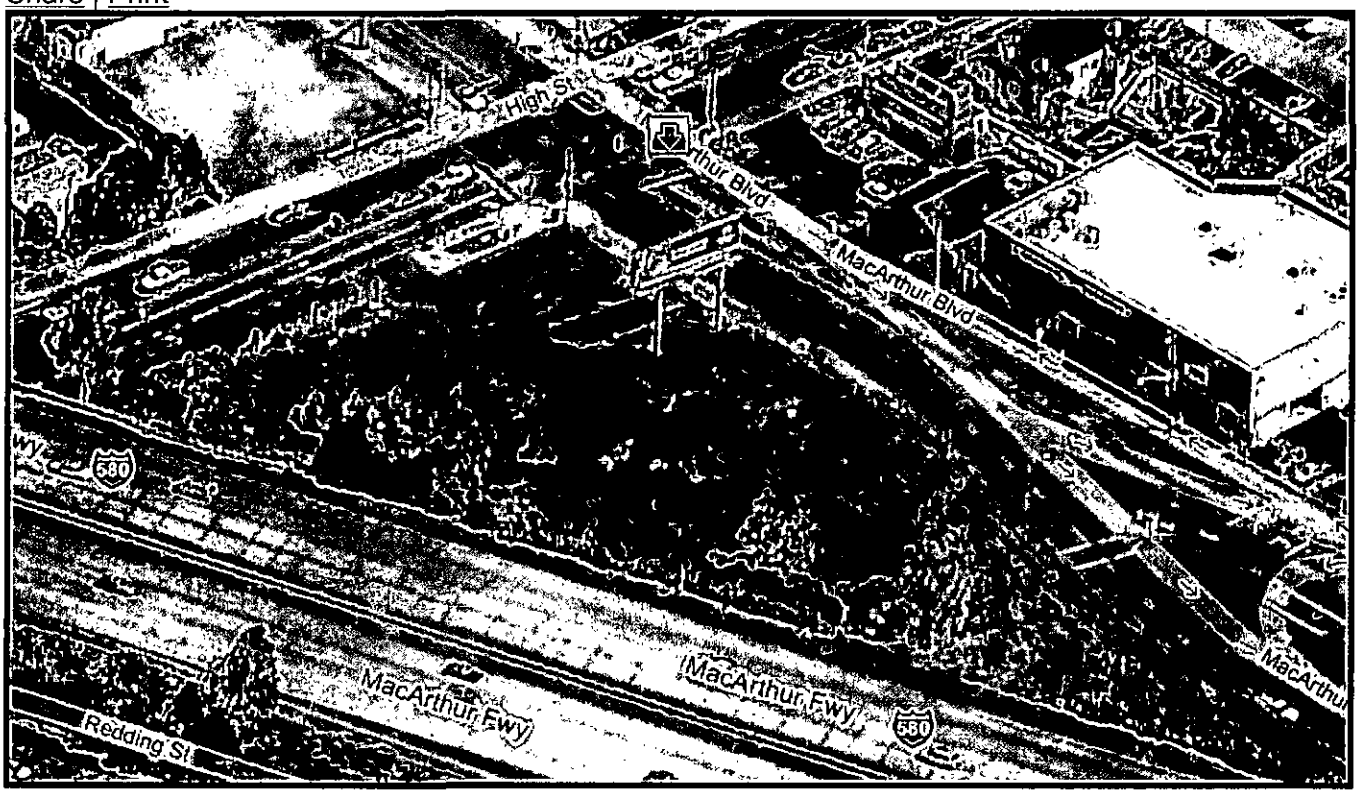
For the best possible print results, click the printer icon on the Live Search Maps page.

4311 Macarthur Blvd, Oa Search Maps Web

Location result for

4311 Macarthur Blvd, Oakland, CA 94619

Share | Print



For the best possible print results, click the printer icon on the Live Search Maps page.

4311 Macarthur Blvd, Oa Search Maps Web
Location result for

4311 Macarthur Blvd, Oakland, CA 94619

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Approved as to Form and Legality
Mark P. Wald
Oakland City Attorney's Office

OAKLAND CITY COUNCIL

Resolution No. _____C.M.S.

Introduced by Councilmember _____

RESOLUTION DENYING THE APPEAL AND SUSTAINING THE DECISION OF THE CITY PLANNING COMMISSION IN APPROVING THE APPLICATION FOR A MAJOR CONDITIONAL USE PERMIT, DESIGN REVIEW, AND MINOR VARIANCE TO ALLOW A 115-UNIT SENIOR HOUSING FACILITY LOCATED AT 4311-17 MACARTHUR BOULEVARD, OAKLAND

WHEREAS, the applicant, AMG Associates, filed an application on August 14, 2006 to construct 141 senior housing units at 4311-17 MacArthur Blvd; and

WHEREAS, due to public and City input, the applicant submitted revised plans reducing the size of the building by one-story and number of units to 115 units; and

WHEREAS, the City Planning Commission held a duly noticed hearing, took testimony and considered the matter at its meeting held February 21, 2007,and then continued the item to review information raised by project opponents; and

WHEREAS, the City Planning Commission again held a duly noticed public hearing, took testimony and considered the matter at its meeting held September 19, 2007, and then referred the item to the Design Review Committee; and

WHEREAS, the Design Review Committee held a duly noticed public hearing on December 12, 2007, in which the applicant unveiled a completely new design of the project, and after comments, the Design Review Committee continued the item to the next Design Review Committee meeting and directed the applicant to hold a meeting with the community; and

WHEREAS, the applicant held a community meeting on the project on January 15, 2008 ; and

WHEREAS, the Design Review Committee again held a duly noticed public hearing, took testimony and considered the matter at its meeting held January 23, 2008, and recommended the project return to the Planning Commission; and

WHEREAS, the City Planning Commission held a duly noticed public hearing, took testimony and considered the matter at its meeting held February 20, 2008, and at the close of the public hearing it voted (4-0) to approve the Project, subject to revised conditions of approval; and

WHEREAS, on February 29, 2008, an appeal of the Planning Commission's decision was filed by Ms. Leila Moncharsh, representing Commercial & Retail Attraction for the Laurel (CRADL)(Appellant); and

WHEREAS, after giving due notice to the Appellant, the Applicant, all interested parties and the public, the Appeal came before the City Council at a duly noticed public hearing on May 20, 2008; and

WHEREAS, the Appellant, the Applicant, supporters of the application, those opposed to the application and interested parties were given ample opportunity to participate in the public hearing by submittal of oral and/or written comments; and

WHEREAS, the public hearing on the Appeal was closed by the City Council on May 20, 2008; now, therefore, be it

RESOLVED: That, the City Council independently finds and determines that this Resolution complies with CEQA and the Environmental Review Officer is directed to cause to be filed a Notice of Exemption with the appropriate agencies, for the reasons stated in the February 20, 2008 Staff Report to the City Planning Commission and the May 20, 2008 City Council Agenda Report; and be it

FURTHER RESOLVED: That the City Council, having heard, considered and independently weighed all the evidence in the record presented on behalf of all parties and being fully informed of the Application, the City Planning Commission's decision, and the Appeal, independently finds that the Appellant has **not** shown, by reliance on evidence already contained in the record before the City Planning Commission that the City Planning Commission's decision was made in error, that there was an abuse of discretion by the Commission or that the Commission's decision was not supported by substantial evidence in the record based on the February 20, 2008 Staff Report to the City Planning Commission (attached as Exhibit "A") and the May 20, 2008, City Council Agenda Report (attached as Exhibit "B"), hereby incorporated by reference as if fully set forth herein. Accordingly, the Appeal is denied, the Planning Commission's findings and decision are upheld, and the Project is approved, subject to the findings and conditions of approval contained in Exhibits "A" and "B", each of which is hereby separately and independently adopted by this Council in full; and be it

FURTHER RESOLVED: That in support of the City Council's decision to approve the Project, the City Council independently affirms and adopts as its own findings and determinations (a) the February 20, 2008 Staff Report to the City Planning Commission [including without limitation the discussion, findings, conclusions and conditions of approval(each of which is hereby separately and independently adopted by this Council in full)] all attached as Exhibit "A", and (b) the May 20, 2008, City Council Agenda Report, attached hereto as Exhibit "B," [including without limitation the discussion, findings, and conclusions

(each of which is hereby separately and independently adopted by this Council in full)], except where otherwise expressly stated in this Resolution; and be it

FURTHER RESOLVED: That, the record before this Council relating to this application and appeal includes, without limitation, the following:

1. the application, including all accompanying maps and papers;

2. all plans submitted by the Applicant and his representatives;

3. the notice of appeal and all accompanying statements and materials;

4. all final staff reports, final decision letters and other final documentation and information produced by or on behalf of the City, including without limitation and all related/supporting final materials, and all final notices relating to the application and attendant hearings;

5. all oral and written evidence received by the City Planning Commission and City Council during the public hearings on the application and appeal; and all written evidence received by relevant City Staff before and during the public hearings on the application and appeal;

6. all matters of common knowledge and all official enactments and acts of the City, including, without limitation (a) the General Plan; (b) Oakland Municipal Code; (c) Oakland Planning Code; (d) other applicable City policies and regulations; and (e) all applicable state and federal laws, rules and regulations; and be it

FURTHER RESOLVED: That the custodians and locations of the documents or other materials which constitute the record of proceedings upon which the City Council's decision is based are respectively: (a) Community & Economic Development Agency, Planning & Zoning Division, 250 Frank H. Ogawa Plaza, 2nd Floor, Oakland CA.; and (b) Office of the City Clerk, 1 Frank H. Ogawa Plaza, 1st floor, Oakland, CA.; and be it

FURTHER RESOLVED: That, the recitals contained in this Resolution are true and correct and are an integral part of the City Council's decision.

IN COUNCIL, OAKLAND, CALIFORNIA, _____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, BRUNNER, CHANG, KERNIGHAN, NADEL, QUAN, REID, AND PRESIDENT DE LA FUENTE

NOES –

ABSENT –

ABSTENTION –

ATTEST:

_____
LATONDA SIMMONS
City Clerk and Clerk of the Council of
the City of Oakland, California

Location:	4311 – 4317 Macarthur Blvd
Assessors Parcel Number:	(APN: 030 -1982-121 through 123) (See map on the reverse)
Proposal:	To construct a mixed use senior housing development containing 115 apartments and approximately 3,124 of ground level commercial space.
Applicant:	AMG Associates
Contact Person / Phone Number:	Kristen Weirick (818)380-2600
Owners:	Hahn Development/Hahn & Kang Equity (510)688-8350
Planning Permits Required:	Major Conditional Use Permit to allow an increase in density for senior housing as per section 17.106.060; Minor Conditional Use Permit for ground level parking in the C-31 zone, Minor Conditional Use Permit to reduce the required amount of parking as per section 17.116.110 of the O.P.C., Minor Variance for building height; Minor Variance for height of building adjacent to R-50 Zone; and Design Review.
General Plan:	Neighborhood Center Mixed Use
Zoning:	C-30 District Thoroughfare Commercial Zone S-4 Design Review Combining Zone C-31 Special Retail Commercial Zone
Environmental Determination:	Infill Exemption (CEQA Guidelines Section 15332) and Projects consistent with general plan and zoning (CEQA Guidelines Section 15183)
Historic Status:	No Historic Record – vacant lots
Service Delivery District:	4
City Council district	4
Date Filed:	August 14, 2006
Staff Recommendation	Decision based on staff report
Finality of Decision:	Appealable to City Council within 10 days
For further information:	Contact case planner **Robert D. Merkamp** at 510 238-6283 or by e-mail at rmerkamp@oaklandnet.com

The project was first presented to the Planning Commission on February 28, 2007. At that hearing, the applicant and city requested more time to study new information presented by interested parties and the Planning Commission voted to continue the hearing after taking public testimony. The issues raised by the public included, in part, traffic impacts, air quality, supposed general plan inconsistencies, the use of minor variances with the infill exemption, and potential impacts to the scenic highway designation of the I-580 freeway. The item returned in September of 2007 and ultimately the Planning Commission continued the item for further discussions on the design of the building and air quality issues. Since the Planning Commission meeting in September the exterior appearance of the building has changed. The color and materials palette has been substantially modified and the building seems better designed, now having a definite base, middle, and top. Breaks in the building walls have been included in an attempt to reduce the bulkiness of the building. New materials such as wood siding along some of the building faces as well as projecting eaves at the top of the roof adds interest and texture to the project.

At the September 2007 meeting, the applicants were instructed by the Planning Commission to work on issues related to design and air quality and return to the Design Review Committee. The applicants returned to the DRC in December of 2007 and unveiled a new design (which served as the basis for the

the following month to allow time for the developer to hold a community meeting to introduce the new design as well as to allow staff to analyze the proposal. The community meeting was held in mid January and the DRC heard the project a little over one week later, providing generally favorable comments on the project and requesting more emphasis on design details.

As summarized in earlier reports, AMG Associates has submitted this application to construct a five story mixed use affordable senior housing project containing 115 one bedroom senior apartments and approximately 3,124 square feet in ground floor commercial space. The commercial space would be in two separate areas with the main commercial area located at the corner of High St and Macarthur Blvd. A separate retail area labeled as a "kiosk" on the floor plans would front on High St. A residential lobby facing High St would be located between the two commercial spaces. Parking would be on the ground floor behind the commercial spaces with access off of Macarthur Blvd. The parking area will be divided by a security gate into two separate areas, one accessible only to residents and the other accessible to residents, visitors, and patrons of the commercial area. The ground level will also include a loading zone on High St adjacent to the freeway, various mechanical/equipment rooms, and an art feature located at the corner of High St and Macarthur Blvd in front of the larger commercial space. Above this will be four stories of residential units with approximately 28-29 units per floor. The building will have a central courtyard. Each unit will average approximately 540 sq. ft. in size.

Overall, staff believes that the project will be a positive contribution to this neighborhood as well as advance important city and regional goals of providing more senior housing. Staff recommends approval of the project subject to the findings and conditions. The required CUP's and variances are justified given the constraints of this site and the nature of the project.

PROJECT SITE AND SURROUNDING AREA

Existing Conditions

The proposed development is located at the southwest corner of High St and Macarthur Blvd on the edge of the Laurel District. The I-580 freeway runs along the western edge of the project area. The site consists of three parcels totaling .93 acres in size. The site is vacant except for a billboard (which would be removed as a part of this application) and was at one time occupied by a PG&E service yard, an auto repair shop, and a market.

Surrounding Area
Retail/office/food sales uses are located to the east as well as residential land uses. To the north along Macarthur Blvd are a variety of commercial activities. To the southwest is the I-580 freeway.

The General Plan designation is Neighborhood Center Mixed Use (NCC). The maximum residential density provided in the NCC category is 125 dwelling units per gross acre or 166.67 dwelling units per net acre. This works out to a maximum density of 1 unit per 261 sq. ft. of lot area. The 40,879 sq. ft. project site could support a maximum of 156 units. The 115-unit project on the site is well under the maximum allowable density by 41 units.

The General Plan states that the *intent* of the NCC designation is to "identify, create, maintain, and enhance mixed use neighborhood commercial centers." Vertical integration of uses, including residential units above street-level commercial space is encouraged."

The following General Plan Land Use and Transportation Policies and Objectives apply to the proposed project:

Objective N3: Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community.

Policy N3.1 Facilitating Housing Construction
Policy N3.2 Encouraging Infill Development
Policy N3.9 Orienting Residential Development
Policy N4.2 Advocating for Affordable Housing

The project is located in the Laurel District of Central Oakland. The Land Use Element considers the construction of new housing to be one of the highest priorities in Oakland to meet the demand of a growing population. In addition, the Land Use Element encourages the construction of affordable senior housing to meet a critical need in both the City of Oakland and the region for providing affordable residences for senior citizens. The project meets the objectives listed above by providing 115 new residential units on several underutilized parcels. The Land Use Element of the General Plan identifies the major transportation corridors as appropriate places for high density development. The Land Use Element specifically identifies this section of Macarthur Blvd as a "grow and change" area. "Grow and change" areas are portions of the City of Oakland that the general plan identified as places able to grow beyond the existing density. They already have various positive factors such as good access to transportation, connections to city services, and connections to the region. They are often located along major corridors. This project site meets all of those criteria.

The Housing element of the General Plan also seeks to encourage the development of low income and senior housing in Oakland. The following goals apply to this project:

Goal 1: *Provide adequate sites suitable for all income groups*
The housing element encourages the identification of sites capable of supporting mixed use development. Action statement 1.3.2 encourages the formulation of policies and the rezoning of commercial boulevards such as San Pablo Ave, Telegraph Ave, and Macarthur Blvd for higher density residential and mixed use development. The element also supports the use of interim design guidelines and best fit zones until this rezoning occurs. This project meets this goal in that it seeks to develop a mixed use project along a major corridor well developed with infrastructure and transit options.

Goal 2: Promote the development of adequate housing for low and moderate income households
The housing element seeks to create more affordable housing through the implementation of policies and regulations such as density bonuses (which this project asks for) as well as providing financial assistance for senior housing developers. This project asks for a density bonus from the Planning code for affordable senior housing. It is noted the applicant has not asked for a number of density concessions and incentives that the law would otherwise entitle them to.

Goal 3: Remove constraints to the availability and affordability of housing for all income groups
The housing element seeks to simplify the permit process for affordable housing through reducing the number of permits required, expediting CEQA review, creating planned unit developments, and applying flexible standards for things such as parking and open space. This project does seek a relaxation of the parking standards for senior housing (this flexibility is found in our code) as well as a relaxation of several other zoning code standards to allow the development to meet the densities envisioned in the LUTE.

Goal 7: Promote sustainable development and smart growth
The housing element recognizes the important impact housing growth policies in cities like Oakland have on urban sprawl and the impact on the region as a whole. The element seeks to promote policies emphasizing smart growth including infill development on corridors, mixed use development, as well as compact building design which seeks to encourage developers to grow vertically. This is a typical in-fill site located at the intersection of two major streets and directly adjacent to the I-580 freeway. It is well served by transit options and development of this will clean up a vacant parcel.

One concern raised at the previous hearing was whether this area really was a "grow and change" area. The Land Use and Transportation Element contains several maps to show which areas are designated as "grow and change." One map labeled the Strategy Diagram on page 122 shows the entire city and in this map it does not show this specific neighborhood as "grow and change." The more specific map of the region stretching from the Laurel to the San Antonio neighborhoods found on page 212 shows that this area is indeed in the "grow and change" section. This seeming inconsistency is easily explained and results from the larger map of the entire city being more illustrative because if all of the specific "grow and change" areas found in each of the specific maps were to be included the larger map would be more difficult, if not impossible, to read. The larger map contains such a disclaimer. It is common when producing maps for the cartographer to simplify the information shown as the scale gets smaller and the corresponding geographic area displayed gets larger (a map of the United States versus a street map for the City of Oakland is a good example of the choice in what details are included or not based on the scale and subject of the map). Likewise, the more specific regulations control over the more general.

As one reads further into the improvement strategies for the Laurel district (found on page 217) it directly encourages the elimination of blight and the development of policies aimed at "encouraging the development of mixed use and housing on Macarthur Boulevard." Currently the property is fenced off, overgrown with weeds, and vacant save for an billboard structure. The proposed project meets the referenced objectives, policies, goals, and the general intent of the land use designations as well as the General Plan's specific visions for the Laurel District and staff finds the project to be appropriate for the area.

Moreover, the fact that a project may appear to not be fully consistent with each and every general plan policy is not a basis to conclude the project is inconsistent with the general plan. Specifically, the Oakland General Plan states the following:

> *The General Plan contains many policies which may in some cases address different goals, policies and objectives and thus some policies may compete with each other. The Planning Commission and City Council, in deciding whether to approve a proposed project, must decide whether, on balance, the project is consistent (i.e., in general harmony) with the General Plan. The fact that a specific project does not meet all General Plan goals, policies and objectives does not inherently result in a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). (City Council Resolution No. 79312 C.M.S.; adopted June 2005)*

ZONING COMPLIANCE

The zoning of the project site is split between C-30 District Thoroughfare Commercial Zone & C-31 Special Retail Commercial Zone. The C-30 zone is intended to "create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in convenient locations, and is typically appropriate along major thoroughfares." The C-31 zone is intended to "create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in attractive settings oriented to pedestrian comparison shopping, and is typically appropriate along important shopping streets having a special or particularly pleasant character." The C-31 is generally located on the front of the property (the zoning code defines the High St frontage as the front and the Macarthur frontage as a "corner side") while the C-30 and S-4 portion is to the rear of the triangular shaped project site.

Both zoning districts allow permanent residential uses. The maximum residential density for both these zones is set forth in the R-70 regulations. According to the R-70 zone, the maximum residential is 1 unit per 450 sq. ft. Staff has calculated a maximum density of 91 units. Section 17.106.060 of the Oakland Planning Code allows the density for senior housing to exceed the zoning density by up to 75% with a Conditional Use Permit. This would, in theory, allow 159 units on the property although this would exceed the General Plan. As it stands, the project is asking to exceed the zoning density requirements by approximately 26%, well within the possible allowable range of the CUP, by seeking approval of 115 units.

Concern about this project has focused on the size of the retail spaces being provided. Project opponents note the C-31 is attempting to create an active retail corridor and that this project should not be approved as it is primarily residential and much of the ground floor is occupied by screened parking. Staff argues, however, that this site is on the edge of the C-31 district and begins a transition out of the Laurel district to the Mills College area. It is not a prime pedestrian retail location as the roadbed of Macarthur Blvd becomes difficult to navigate and there is no reasonable street parking fronting that section of the property (this is where the project approaches the underpass for I-580). Therefore staff views this as a poor place for commercial development and the site has been vacant for a number of years due in part to it's lack of connectivity to the Laurel Shopping district.

The S-4 Design Review Combining Zone is an additional zoning designation overlaid on the C-30 portion of the site. The S-4 is intended to create, preserve, and enhance the visual harmony and attractiveness of areas which require special treatment and the consideration of relationships between facilities. In the S-4 zone no building, other than a new Secondary Unit shall be constructed unless plans

for such proposal have been approved pursuant to the design review procedure. As this is a residential project it is already subject to design review.

The following table depicts the project's comparison to zoning requirements.

Zoning Regulation Comparison Table

Criteria	Requirement C- 30 & 31	Proposed	Comment
Yard – Front (High St)	0'	0'-16'6"	Exceeds the requirements.
Yard- Corner Side Lot Line (Macarthur Blvd)	0'	0'	Meets the requirements.
Yard – Interior Lot Line	10'	10'	Meets the requirements.
Yard - Rear	15'	35'	Exceeds the requirements.
Height - General	40' (C-30) 35' (C-31)	Varies between 47' & 60'. 54' average	Does not meet the requirements. Minor Variance is required.
Height – Adjacent to R-50 Zone	30' with allowed increase of 1' height for every additional 1' of setback	Varies between 47' & 60'. 54' average	Does not meet the requirements. Minor Variance is required.
Open Space	150 sq. ft. / unit =17,250 sq. ft.	17,461 sq. ft.*	Meets the requirements.
Parking	1 space / unit = 115 spaces 1 space / 600 sq. ft. commercial = 5 spaces	64 spaces	Seeks Conditional Use Permit under Section 17.116.110 to reduce parking requirement for senior housing.
Loading	50,000–149,999 sq. ft. resid. building = 1 berth	1 berths	Meets the requirements.
Residential density	1 unit / 450 sq. ft. = 91 units	115 units	Seeks Conditional Use Permit under Section 17.106.060 to exceed zoning density.

Table Notes:

* Per Section 17.126.020, each square foot of private usable open space conforming to the provisions of Section 17.126.040 shall be considered equivalent to two square feet of required group usable open space and may be so substituted.

ENVIRONMENTAL DETERMINATION

Based on the size and location of the project site, as well as the findings of the traffic report and historic analysis, staff has concluded that the project satisfies the in-fill exemption under CEQAGuidelines Section 15332, as well as projects being consistent with the general plan and zoning (Guidelines section 15183). The categorical exemption criterion follows with a brief summary of staff's analysis in bold print:

a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations; **As demonstrated in the General Plan Analysis and findings sections of this report, the application is consistent with applicable General Plan policies and the Neighborhood Center Mixed Use designations. The Zoning Analysis and Required Findings sections demonstrate that, with approval of the CUP's and Variances, the project is consistent with the Zoning Ordinance (as such required findings are a part of that ordinance).**

b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses; **The project site encompasses approximately 0.93 acres (40,879 sq. ft.). The site is located within Oakland's Laurel District and is substantially surrounded by urban, commercial, civic, and residential uses.**

c) The project site has no value as habitat for endangered, rare or threatened species; **The project site is currently vacant with the only structure being a billboard. Previously the site had been used for commercial activities for several decades. The site contains no habitat, nor known endangered, rare, or threatened species.**

d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality;

Traffic

A traffic report by Abrams Associates was completed specifically for this project and submitted in November 2006 (Available at the Planning and Zoning office). Traffic impacts from the project were reviewed at the High and Macacrthur intersection within proximity to the project site. The project is anticipated to generate approximately 538 new net daily trips, 17 AM peak hour trips and 29 PM peak hour trips. Level of Service (LOS) was calculated for this intersection and the report's findings indicate that the High and Macarthur intersection operate at a LOS D or better, which is an acceptable LOS. An analysis of the project indicated that the addition of the 115 unit senior complex would have no net additional impact on the intersection or reduce the operation of that intersection to a lower LOS. To be conservative, the *traffic analysis assumes no decrease in traffic volumes as a result of the project. Therefore the* project will not result in an adverse traffic impact when compared to the existing condition. The traffic report also assessed the cumulative condition (including all past, present, approved, pending and reasonably foreseeable future projects) and also concluded there would be less than significant impacts (as indicated below).

A traffic report prepared by Tom Brohard and Associates was submitted on behalf of the neighborhood group in May of 2007 that analyzed issues of further intersection improvements, shuttle turnouts, signal timing for the elderly, and the possible omission from the analysis of other traffic impacts from projects such as Leona Quarry and Oak Knoll. In May of 2007 Abrams Associates, who prepared the original traffic report for this project, submitted a response to this report and concluded that their original analysis was still valid. The City's Transportation Services Division of CEDA reviewed all the traffic reports and has concluded the applicants' reports are thorough and comply with City requirements.

Noise

A noise report was completed for the project and submitted in January of 2007 (Available at the Planning and Zoning office). The report found that the building itself should, as appropriately constructed, reduce the sound within the units to below the maximum City of Oakland thresholds. Outdoor noise for the units facing the freeway would exceed the City of Oakland standards if balconies were located facing the freeway but the project design avoids this by placing balconies for those units on the interior open courtyard which the report found would be substantially shielded from freeway noise and not require mitigation.

Air Quality

The trips associated with the project would generate far fewer than the 2,000 vehicle trips per day that the Bay Area Air Quality Management District (BAAQMD) considers the normal minimum traffic volume that should require a detailed air quality analysis. The applicant is required to comply with all applicable City regulation and operation procedures as part of the issuance of building or grading permits. Standard and uniformly applied conditions of approval have been imposed for this project regarding air quality, noise, water quality, and cultural resources.

The California Air Resources Board (CARB) has developed guidelines to be considered in the siting of new sensitive land uses (including residential uses) to protect vulnerable populations from the adverse health impacts of traffic-related emissions. These guidelines are not regulatory, nor are they binding on local agencies. Specifically, CARB's advisory recommendation for sensitive land uses proposed near freeways and high-traffic roads is to "[a]void siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day." Sensitive uses would include residences, day care centers, playgrounds or medical facilities. However, CARB also recognizes that there is no "one size fits all" solution to land use planning, and that in addressing housing and transportation needs, the benefits of urban infill, community economic development priorities and other quality of life issues are also important and these must be considered and weighed by local decision makers when siting projects. The primary pollutant of concern for residents that would be living close to the adjacent freeway are diesel particulate matter (DPM) and particulate matter less than 10 microns in size (PM-10). It is important to note that the emissions generated by vehicles moving along the freeway are not the result of the proposed Project, but rather future residents could be exposed to emissions generated by these vehicles due to the proximity of their homes to the existing freeway. There are currently many other residences within 500 feet of I-580 in this portion of Oakland, and many other sensitive uses within 500 feet of freeways throughout Oakland and other communities throughout California.

The applicant submitted a report in February of 2007 that analyzed this potential impact on the future residents. This report was updated on February 8, 2008 (see Attachment G) and supersedes the older report. The revised report includes further analysis of Toxic Air Contaminants (TAC) emitted from diesel engines of large trucks. These trucks are not generally found on I-580 and therefore Toxic Air Contaminants should not be a problem. The report analyzed the impact of being close to the freeway with the planned filtration system that would be incorporated into the building. In order to ensure that residents living at the Project site will not be exposed to excessive levels of DPM or PM-10 in their homes ,the Project will incorporate a centralized ventilation (filtration) system with a minimum efficiency reporting value (MERV) 13 and efficiency consistent with American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) 52.2 standards. Studies have indicated that a

MERV 13 filtration system consistent with ASHRAE 52.2 standards has the potential to remove between 75 percent and 90 percent of particulate emissions[1]. A MERV 13 filtration system is consistent with filtration systems used in hospitals and elementary schools to protect the most vulnerable populations from adverse air quality impacts. Intakes for the filtration system will be located in areas which are physically separated, and as far away as possible, from the Freeway in order to further reduce potential adverse air quality effects to Project residents.

Further, the report looks at upcoming regulatory changes on the state level that will begin substantially reducing effluents from both diesel and gasoline engines. The report concludes that the air quality measures designed into the building will lead to a substantially reduced level of impact on the project than would otherwise be the case.

Toxics

The site once contained an automobile repair facility and other auto-related and semi-industrial uses. High concentrations of lead, benzene, motor oil, and other toxins were identified in the soil by the Department of Toxic Substances Control (DTSC) a state agency charged with monitoring toxic sites. The site was cleaned between 2002-3 and approximately 5000 tons of soil were removed and disposed of off-site. On January 24, 2005 the action was considered closed by the state as the cleaning of the site had been completed to the extent of making it safe for residential land uses and the DTSC determined no further action was necessary. Thus, a CEQA exemption is appropriate here.

e) The site can be adequately served by all required utilities and public services. **The project site is located in a highly urbanized area within Oakland and can be adequately served by utility and public services. All services are already in the area and the project would not require the development of new public streets or other infrastructure.**

Cumulative Impacts:

Staff has also concluded that the project would not cause a cumulative impact. The traffic report's findings indicate that although the intersection at High Street and Macarthur Boulevard would operate at a LOS E or worse in the cumulative 2010 and 2025 conditions, the proposed project would not contribute any additional trips to these locations. This intersection is predicted to be at LOS E regardless of whether this project is built or not and the project does not result in exceeding the City's traffic thresholds. Therefore, the project would not cause a significant cumulative impact. For a discussion of cumulative impacts regarding projects along the I-580 corridor please see the next section.

Other Issues

Scenic Highway: Interstate 580 is listed as a Scenic Highway from the I-980/CA-24 interchange in Oakland to the Oakland San Leandro border (the section of I580 in San Joaquin County between the Altamont Pass and I-5 is also a Scenic Highway). Information from the Department of Transportation website shows that I-580 has won several awards for landscaping in this section of Oakland and is known for proving spectacular views of the San Francisco Bay, San Francisco, and Oakland. It states that many

[1] HPAC Engineering, 2006

fine turn of the century architectural pieces are visible between the freeway and the Bay. The proposed project will not impair such views nor will it disturb rock outcrops, trees, or historic buildings.

Further, the city has a scenic highway element of the General Plan. It identifies problems affecting the scenic nature of I-580 as dealing with unsightly billboards and large on-premise business signs, utility poles and lines, and dead vegetation. In particular, the problem area map for the I-580 corridor shows this section of the City to have billboards, large business signs, and unsightly utility poles as the chief impacts on the scenic corridor. Design review for larger buildings is also recommended (the document in question was last updated in 1974 under a much different set of regulations). The site is currently vacant save for a large billboard which would be removed if this project were constructed. Conditions of approval will require undergrounding of utilities for this project. And while this project has no control over the signage on adjacent properties, the business sign regulations were revised in 2004 to substantially reduce the permitted square footage for business signs. The businesses that would inhabit the commercial space of this building would be bound by such regulations and it is expected that as properties redevelop in the neighborhood that further legal non-conforming signs would be eliminated. Design Review is required and the Scenic Highway element talks about view impacts for taller buildings. It acknowledges the difficulties in considering view blockage given that for the motorist the view of a distant object is essentially in motion (indeed, were one to drive by the building at 60 miles per hour it would take slightly more than 3 seconds to pass the longest part of the structure). The freeway approaches this edge shaped parcel at an angle and therefore its mass would be apparent for a fairly short time. As noted above, the primary view reasons that this is a state scenic route are not the views to the east but rather for the views to the west of the freeway, which will not be impaired by this building at all.

Furthermore, the element itself acknowledges that since vistas sweep the landscape the imposition of a single structure would not substantially obstruct the view. The element warns against the development of a "wall" of buildings along the freeway that cumulatively could be considered a significant impact even though the individual structures themselves would not. In this case, the site is fairly uncommon in that it is a high density zone adjacent to the freeway, which is not the predominant pattern along I-580 south of downtown. As the freeway heads north it enters general plan and zoning designations that are of much lower density until it reaches much closer to the downtown starting around Lakeshore Avenue. As it heads south from the project site it encounters Mills College which is heavily landscaped and what is visible of the campus is of suburban character. Continuing south, the freeway passes an area that is almost exclusively low density residential or open space, aside from Leona Quarry (which is currently under construction and, given its past use as a quarry was never a positive element along the scenic highway) and Oak Knoll (which will generally be visually screened from views from the freeway) and both of which were identified as areas acceptable for medium to high density zoning. The rest of the freeway borders low density residential and open space and are not likely to change. If they were to develop at higher densities then they would be required to be rezoned and have the general plan amended to allow such development. It is only here, where the freeway gets close to Macarthur (and at the other interchanges with major streets) that the zoning and general plan along this right of way could allow taller buildings. Therefore, it is unlikely that this project will be a catalyst for the creation of a "wall" of tall buildings along this section of the freeway as the zoning and general plan would not allow such development along most of the route unless the appropriate legislative actions mentioned above were to take place (and this would be wholly speculative). Finally, as noted in the General Plan section, the subject property is vacant except for a billboard. It is currently fenced off and overgrown. The purpose of the scenic corridor element is to improve the visual quality along the corridor and development of this property will remove a number of visual problems from the site. Thus, there will be less than significant cumulative impacts.

City staff received a letter in September of 2007 from Bryan Walker of Caltrans. Mr. Walker is the scenic highway coordinator for this district. In this letter, Mr. Walker spoke generally about the state of the I-580 scenic highway corridor and cautioned that he considers it fragile but that one project is unlikely to alter the designation. In February 2008 city staff spoke again with Mr. Walker who confirmed that, in his opinion, this project would not cause the I-580 corridor to lose its designation as a Scenic Highway, while restating the overall fragility of the corridor.

For these reasons staff does not believe this will have a significant impact on the Scenic Corridor.

Use of Minor Variances

Minor Variances are No Longer Allowed

Opponents argue that minor variances are no longer allowed because Policy N11.3 of the LUTE states that "variances should not be granted lightly and without strict compliance with defined conditions, including evidence of hardship." Thus, the opponents' contend that only Major Variances are allowed to be granted. This argument is wrong.

First, the general plan did not intend to, nor does it do away with Minor Variance findings. The City has been consistently and properly using the minor variances findings (before and) since adoption of the 1998 LUTE. The subject policy simply reinforces the principle that variances should not be granted lightly and without strict compliance with the applicable variance criteria. The policy went on to list some of the existing variance criteria, but it did not do away with any criteria that were not listed. In other words, there was no intent expressed to change the detailed and specific variance criteria contained in the Planning Code.

In Oakland, pursuant to Planning Code Chapter 17.01, the permit approvals must be consistent with the Planning Code unless there is an "express conflict" with the General Plan (Planning Code sections 17.01.110 and 060). Section 17.01.110 states that where the general plan "is silent or not clear as regards conformity," the Planning Code shall apply. Only when the Planning Code is in express conflict with the general plan do the policies of the general plan apply and supersede the Planning Code. Here, the general plan is silent on the issue as to whether the minor variance has been superseded. At best, the general plan is not clear on the issue of the continuing validity of the Minor Variance criteria. In any event, the Planning Code prevails and the minor variance criteria are still applicable.

In addition, the policy also states "in instances where large numbers of variances are being requested, the City should review its policies and regulations and determine whether revisions are necessary." This means that while the City is creating new development standards to comply with the General Plan, we should be looking at past variances that have been granted on a regular basis and possibly modify the regulations so that the proposals are no longer prohibited. Thus, the existing zoning standards may need to be "relaxed" to reflect appropriate development and to reduce the number of variances. It does not mean that variances should not be granted.

Moreover, the General Plan Conformity Guidelines specifically point out which General Plan policies are immediately relevant when there is a Planning and General Plan conflict, and Policy N11.3 is not one of them. Therefore, the minor variance criteria are still valid and allow for the granting of a minor variance without making findings for hardship or special circumstance peculiar to the property.

Because the minor variance criteria are still applicable, and, Oakland as a Charter City can establish its own variance criteria, there is no "special circumstances peculiar to the subject property" finding that has to be met with a minor variance.

Minor Variances cannot be used with Categorical Exemptions

Opponents also contend that the project does not qualify for an in-fill exemption because of the requested variances, and therefore does not comply with the in-fill criteria that a project must be "consistent with the applicable general plan designation and all applicable policies as well as with applicable zoning designation and regulations". They argue that granting a variance would mean the project does not conform to the Planning Code since by definition a variance is an exception to the Code. This argument is incorrect because by meeting the required minor variance findings, which are expressly authorized by the Planning Code Chapter 17.148, the proposed project is indeed consistent with the Planning Code. The City's position has been upheld by the Alameda County Superior Court in Islamic Cultural Center of Northern California v. City of Oakland (Case No. RG03-133394), dealing with the Madison Street Lofts project.

KEY ISSUES

The project is a contemporary, multi-unit senior housing development in a predominantly mixed-use and transitional neighborhood. Staff has identified a number of planning and design issues in the next section of this report.

Minor Variances

- *Overall height limits:* The C-31 zone sets a maximum height of 35' and the C-30 sets a limit at 40'. The applicant is proposing a structure that will vary in height at different points on it's elevation but with a maximum of approximately 60' (including parapets and other architectural details meant to add attractiveness to the building or screen rooftop features) above grade. Most of the building will be in the 52'-55' range and it lowers at the corner of High and Macarthur to approximately 47'.

  One factor concerning this variance is the shape of the lot, which tapers narrowly towards it's rear and this renders that piece of the lot as unreasonable to build upon. This impacts the potential footprint of the project and tends to force the building upwards. Another factor is the need for open space. This is limited to the courtyard and that is really the only reasonable place to put it. Ground open space is not desirable due to the proximity of the freeway and that space would be too noisy to meet the City of Oakland's noise standards (and it would be generally unpleasant in any event). Otherwise, a building not in such proximity to the freeway could accommodate open space on the ground or roof and the units could sit where the open space area now is, substantially reducing the height to meet the code.

  In addition, when considering this variance staff would note that the zoning density is appropriately gauged to coincide with the height limits for those districts. In this case the applicant seeks to exceed the zoning density and reach that of the General Plan. It is reasonable to conclude that additional height will be necessary if the General Plan density is to be achieved. The General Plan identifies the Laurel district as a "grow and change" area. These are areas, typically found along Oakland's corridors that emphasize significant changes in density, activity, or use. It is anticipated that such changes will often result in buildings larger than the base zoning or the existing neighborhood as neighborhoods evolve often at one or two parcels at a time. The policy for grow and change

anticipates the development of larger parcels, in particular those well suited in accommodating significant increases in density. These areas are programmed to receive the bulk of the growth within the City of Oakland unlike the other strategy of "maintain and enhance" which seeks to preserve the existing pattern with only minor and complimentary augmentation.

The City of Oakland also has policies in place to encourage senior housing projects which would substantially exceed the zoning density requirements. Indeed, with a Conditional Use Permit the applicant could ask to exceed the zoning by up to 75% (they are in this case asking to exceed it by 26%). It is logical to assume that granting such a bonus is also going to be made with a request to deviate to waive a zoning standard such as height or setbacks in order to accommodate the additional units.

Finally, the project will develop 115 units of affordable senior housing. The State of California has enacted tough measures to essentially force jurisdictions to grant waivers to zoning standards for projects that provide affordable housing. In this case, if the applicant had applied under those standards (they haven't) they could've exceeded both the zoning and general plan densities as well as asked for concessions in development standards. The General Plan identifies the provision of such housing as a critical goal to fulfill on a local and regional basis and staff believes such benefits help to justify a relaxation of the above zoning standards.

- *30' height limit adjacent to the R-50 Zone:* Section 17.108.090 states that structures in a commercial zone whose side lot line abuts the R-50 zone be set back 10' and limited in height to 30'. This height can then be increased 1' for every additional foot of set back provided (up to the maximum limit of the height). The project is set back 10' from the side lot line but exceeds the 30' height limit at that setback line. In deciding whether to recommend approval of this variance staff in this case notes the original intent of the code requirement was to buffer lower density zoning districts such as the R-50 and below when they abutted higher density zones as well as commercial areas. This would help to preserve solar access for those units and reduce the impact of taller buildings. In this case however staff believes the regulation is not needed. In this case, the I-580 freeway itself is zoned R-50 (the zoning actually follows the roadbed of the freeway north from Mills College to High Street). The freeway itself is not in need of screening and we can be assured that the freeway itself is unlikely to be dismantled and have low density housing constructed on it. Therefore, staff sees this as a special circumstance very unique to this property and that allowing a relaxation of this height limit is justifiable.

Conditional Use Permit for Parking

The applicant is asking for a reduction in the number of parking spaces to be provided. Under Section 17.116 (the parking regulations) 120 spaces are required; 115 for the residential units at a ratio of 1:1 and 5 for the commercial (3,124 sq. ft. requires parking at 1 space per 600 sq. ft. which works out to 5.2 spaces, rounded down to 5). The regulations, however, allow a further reduction of up to 75% of the spaces required for the residential when it's for a senior apartment project, with the granting of a CUP. That would require 34 spaces (29 residential and 5 commercial). The applicant is proposing a total of 64 spaces (approximately a 47% reduction from the 1:1 ratio), near the midpoint of those two extremes. Staff believes that this reduction is acceptable. The 59 spaces proposed for the residential portion would park it at slightly more than 1 space per 2 units. Past experience with such applications such as the nearby Lincoln Court senior housing project approved by the Planning Commission in 2004 (with a .25:1 parking ratio) has indicated this to be a reasonable ratio for senior parking. In that case parking has not

been significantly worsened for the neighborhood by the construction of that project. Staff also notes that Macarthur and High is a major mass transit hub. Currently six AC transit lines run by the proposed site, providing 24 hour service. These lines provide service to numerous important regional destinations including downtown Oakland, downtown San Francisco, downtown Emeryville, Oakland International Airport, the Amtrak station near the Oakland Coliseum, and several BART stations. Therefore, the residents living there will have useful and convenient transit options providing them access to the City of Oakland and the region. Given these factors staff feels the reduction in parking afforded by the conditional use permit process to be appropriate.

Other Parking Issues

One issue raised has been the concern of the possible influx of visitors coming to the apartment building and their impact on parking. While street parking is available there are further concerns that this might not be adequate. Staff recommends the Planning Commission consider the issue and consider conditions of approval as deemed appropriate.

Shuttle Service

Another issue that was raised by the community was that of shuttle service. Project opponents argued that service should be provided 4 times per day. Staff agrees with the need for regular shuttle service but feels that this is excessive in scope Various other senior housing facilities provide a range of shuttle options. Both the Altenheim Senior Home and Lincoln Court provide shuttle services. Lincoln Court provides 2 daily shuttles for various needs including medical and also 1 weekly "shopper" shuttle. The Altenheim provides service as needed, averaging 3 trips a week as well as 1 "shopper" trip per week in addition to other trips. On the other end of the spectrum, Sojurner Truth, a senior facility in North Oakland, provides 1 weekly "shopper" service. Therefore staff recommends shuttle service be provided on the order of at least 4 times per week and have conditions of approval attached for this.

Design Issues

Staff presented the project before the Design Review Committee (DRC) on September 27, 2006, December 12, 2007, and finally January 15, 2008. Both of the earlier meetings have led to changes in the building. The first meeting saw a variety of comments regarding both bulk and materials used. As mentioned previously, the applicant revised the project by removing a story from the building. This decreased the number of units from 142 to 115 although overall look remained the same (albeit lower) with an undulating roof to help break up the mass as well as projecting balconies and walls along the face. The color palette was been softened. The applicant added Laurel leaves to the side of the building facing High St. (at the corner with Macarthur Blvd) as a decorative feature to help tie the building into the Laurel District and relate to the Laurel arch that crosses Macarthur.

The applicant continued to explore design modifications to the project and ultimately did re-design the project and initially unveiled it at the December 2007 DRC hearing. The DRC at that point deferred the item to their January meeting so that staff, the Committee, and the community had adequate time to review it. The general bulk and unit counts did stay the same this time although the exterior appearance has changed in terms of materials, colors, and roof planes. The most significant visual changes have been the introduction of two breaks in the building wall, one facing towards the freeway and the other located above the entrance to the parking entrance on Macarthur Blvd. The gap in the building wall facing Macarthur is approximately 23' wide and the gap facing the freeway is approximately 12'. This gap will help to break up the apparent mass of the building and the style and design of the building alters

subtly on both sides of the break. Roof styles, parapets, materials and colors will be slightly different although still generally complimentary to one another. This will have the effect of making the overall project more interesting as well as making the building look more like two separate buildings as opposed to one. While the proposed building would be the same height as the previously proposed design, the roof plane undulates more than the previous elevation. The tops of the building are more visually interesting with projecting flat eaves and awnings which help to break up the front façade. The portion of the building on the "north-western" portion of the property will use lighter tans as the main body color with widely projecting eaves supported by brackets beneath them. The materials have been changed before. Previously the building was mostly stucco, now composite wood siding is much more prominent on the front façade with stucco being used as an accent feature and as a material change for the top of the building. On the "south-eastern" portion of the building, the color palette will shift to a darker, more maroon color and the roof top eaves will be less pronounced and of a different style. Both sections of the building will change color for the top floor to a lighter cream and white. These factors help give the building a base, middle, and a top.

Staff would recommend that all stucco surfaces including those on the face of the garage be smooth coat stucco as opposed to rough stucco. Staff also is concerned with window detailing. While we have no notes regarding the window types staff is concerned about the look of vinyl windows on larger buildings such as this and recommends a dark, aluminum clad window type recessed from the sill at least 2" in depth. Staff believes the overall design will be attractive and is an improvement over the previous design.

Security

Concerns have been raised about security for the residents on the property. The applicant proposes having the parking area divided into two areas, with a security fence separating the parking garage into two sections, one strictly for residents and one for patrons of the commercial spaces as well as residents. This is in addition to the standard gate located on the front of the building. This system should allow the parking area to function while at the same time providing a secure place for the residents to park. All building doors will have controlled access and cameras will monitor the premises. Staff believes these measures will be sufficient to provide security to the site.

Community Meetings

The project applicant held a community meeting on February 15, 2007. Approximately 50 members of the public attended the meeting. They raised concerns about traffic, parking, density and its impact on the district, height, crime, and the operation of the loading zone and parking. Concerns about the ground floor design and the potential for it to be covered in graffiti were also voiced by several citizens. The applicant has therefore revised the design with the base being a sand finished plaster which should be more attractive than the blank masonry wall. They will also coat it with a graffiti-resistant material to discourage this practice. Overall, the reaction of the community members was mixed with some people showing enthusiasm for the project and others opposed to it.

The applicant held another community meeting prior to returning to the DRC on January 15, 2008 and presented the revised design. There were numerous questions and comments regarding the new design as well as other issues related to the project as a whole such as air quality, traffic, and crime. The meeting was attended by roughly 30 community members.

CONCLUSIONS

In summary, the proposal seeks to develop a mixed-use senior housing project in the Laurel District. The project meets the primary goal of providing new housing units and infill development on underused or vacant parcels. The proposal will enhance the area, strengthen neighborhood identity, and will be a major addition to this neighborhood. Furthermore, the project is clearly in conformance with the General Plan goals and policies. The conditional use permit and variances are warranted and are not anticipated to create adverse impacts, pursuant to the attached Findings and Conditions of Approval.

Thus, staff recommends that the Commission:

1. Affirm staff's environmental determination; and

2. Approve the Conditional Use Permits, Minor Variances, and Design Review subject to the Conditions of Approval based on the attached findings.

Prepared by:

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Planner IV

Approved for forwarding to the
City Planning Commission:

Scott Miller
Zoning Manager
Deputy Director of Development

ATTACHMENTS:

A. Plans and Elevations dated February 4, 2008
B. Abrams Associates (original) Traffic Report dated November 2006
C. Acoustical Study dated January 2007
D. Design Review Staff Report Dated January 23, 2008
E. Tom Brohard Traffic Report dated April 2007
F. Abrams Associates (response) traffic report dated May 2007
G. Revised Air Quality Report dated February 8, 2008
H. Excerpts from Oakland's Scenic Highway Element of the General Plan
I. Excerpts from State Scenic Highways Website
J. Correspondence from Caltrans dated February 8, 2008

K. Received Public Correspondence prior to report printing (comments received after printing are delivered at hearing)

FINDINGS FOR APPROVAL:

The proposed project meets the required findings under Planning Code Section 17.134.050 (Conditional Use Permit criteria), Section 17.136.070A (Residential Design Review findings), Section 17.148.050 (Minor Variance Criteria), Section 17.48.100 (Conditional Use Permit criteria in the C-31 zone), Section 17.116.110 (Exemptions to the Parking Requirements), and Section 17.106.060 (Conditional Use permit for increased density for senior housing findings). Required findings are shown in bold type; explanations as to why these findings can be made are in normal type. Required findings are shown in bold type below and are also contained within other sections of this report and the administrative record; explanations as to why these findings can be made are in normal type.

Section 17.134.050 Conditional Use Permit for density allowed by the zoning but is consistent with the General Plan

A. **That the location, size, design, and operating characteristics of the proposed development will be compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of civic facilities and utilities; to harmful effect, if any, upon desirable neighborhood character; to the generation of traffic and the capacity of surrounding streets; and to any other relevant impact of the development.**

The project applicant is requesting a Major Conditional Use Permit (CUP) for an increase in density for affordable senior housing on a vacant property. Use Permits are also required for having ground level parking as well as a reduction in the zoning district's parking ratio for senior residential activities. There are no abutting properties that will be adversely affected by proposed project, nor will the proposed project negatively affect the neighborhood character. On the contrary, this area of Macarthur Blvd has no identifiable character, architectural style, or scale. The structures in the immediate vicinity include 1-2 story utilitarian commercial buildings, 2-3 story office buildings, and small scale retail/storage. The project's design will emphasize the important corner of Macarthur and High. Furthermore, the landscape improvements and public art at the corner will enhance the streetscape and promote the character of the neighborhood. The traffic analysis concluded the project will not have a significant impact upon surrounding intersections and will not worsen the current or projected levels of service.

B. **That the location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping, or civic environment, and will be as attractive as the nature of the use and its location and setting warrant.**

The project will encourage and promote residential oriented, mixed-use activities in the neighborhood. The project will provide living opportunities convenient to the Laurel Shopping Districts, downtown Oakland, and adjacent to anticipated bicycle routes. The project was designed to promote residential activities in the neighborhood and emphasize the important Macarthur/High corner. The site is well situated for senior housing with respect to transit ridership, being located on a boulevard served by six bus lines with service around the clock. The building materials of siding, stucco, and concrete are attractive and compatible (in a more contemporary way) with the existing building materials.

C. **That the proposed development will enhance the successful operation of the surrounding area in its basic community functions, or will provide an essential service to the community or region.**

The General Plan encourages several policies that promote the construction of housing on infill sites and underutilized properties in all areas of the city. The General Plan also promotes the construction of new senior housing in areas within walking distance of services and shops and that are well served by mass transportation. The proposed development will promote more residential activities in an area that is dominated with vacant lots, auto repair activities, and storage facilities. The project will essentially buffer the existing smaller single-family neighborhood to the east from the freeway. In addition, the project will support basic community functions by providing new residents who will enliven this transitional area.

D. **That the proposal conforms to all applicable design review criteria set forth in the design review procedure at Section 17.136.070.**

The proposed project conforms to all applicable design review criteria including the residential design review findings as outlined later in this section.

E. **That the proposal conforms in all significant respects with the Oakland Comprehensive Plan and with any other applicable plan or development control map which has been adopted by the City Council.**

The proposed project conforms in all significant respects with the "Neighborhood Center Mixed Use General Plan land use designation. The project will support the objectives and policies of the Land Use and Transportation Element (LUTE) including: encouraging the construction, conservation, and enhancement of housing resources (Objective N3); facilitating housing construction (Policy N3.1); encouraging infill housing (Policy N3.2); and orienting residential development (Policy N3.9). The project is located on the Macarthur Blvd corridor in the Laurel District. This corridor is identified as a "grow and change" area in the General Plan. Such areas are where the General Plan seeks to encourage further growth and development, often at higher densities than currently exist as the plan attempts to focus the bulk of residential development to our corridors, downtown, and other special areas such as Jack London Square.

Section 17.136.070A (Residential Facilities Design Review Findings)

1. **That the proposed design will create a building or set of buildings that are well related to the surrounding area in their setting, scale, bulk, height, materials, and textures;**

As stated above in the report, the proposed project is located in a transitional neighborhood with many low rise commercial activities, small utilitarian buildings, and vacant lots. There is no specific architectural character or massing except in the lower scale neighborhood to the north-west. The building would be a taller and denser although it has been articulated with varying roof heights as well as a stepped down roof (and a deeper setback) as it approaches the corner of High and Macarthur to reduce the apparent bulk and mass of the building. While it will be larger than most buildings currently there staff notes the General Plan calls for this section to "grow and change." It identifies the whole stretch of Macarthur running from 35th Ave to the freeway underpass as an underdeveloped area that could stand to see an increase in density as the plan seeks to focus development along the city's existing corridors. While respecting the existing context in terms of

scale is important in much of Oakland, the General Plan identifies certain areas where the existing context is actually viewed as something to exceed and expand past and this is one of those areas.

2. **That the proposed design will protect, preserve, or enhance desirable neighborhood characteristics;**

   Staff believes that a vital and healthy residential neighborhood is the more important and desirable characteristic for this neighborhood. Currently, the neighborhood is mix of commercial uses and vacant lots. The proposed project would fill in one such vacant lot, encourage further beneficial change in the neighborhood, and promote more residential and pedestrian activities. It would bring new residents to the Laurel District who would help contribute to the economic health of the businesses in the area as customers and potentially stimulate further revitalization on other nearby vacant lots which are a blight on the district.

3. **That the proposed design will be sensitive to the topography and landscape;**

   The proposed project site is flat and is currently vacant save for a billboard. The site contains no notable landscaping. Therefore, the project will have no affect on the existing topography or landscape.

4. **That, if situated on a hill, the design and massing of the proposed building relates to the grade of the hill;**

   See response #3

5. **That the proposed design conforms in all significant respects with the Oakland Comprehensive Plan and with any applicable district plan or development control map which has been adopted by City Council.**

   The proposed project is consistent with the General Plan land use designation for the site, with Conditional Use Permit, and Variance findings, and with the Design Review Criteria as discussed in more detail throughout the report.

Section 17.148.050 Variances Findings

1. **That strict compliance with the specified regulation would result in practical difficulty or unnecessary hardship inconsistent with the purposes of the zoning regulations, due to unique physical or topographic circumstances or conditions of design; or as an alternative in the case of a minor variance, that such strict compliance would preclude an effective design solution improving livability, operational efficiency, or appearance.**

- *Overall height limits:* The C-31 zone sets a maximum height of 35' and the C-30 sets a limit at 40'. The applicant is proposing a structure that will vary in height at different points on it's elevation but with a maximum of approximately 60' (including parapets and other architectural details meant to add attractiveness to the building or screen rooftop features) above grade. Most of the building will be in the 52'-55' range and it lowers at the corner of High and Macarthur to approximately 47'.

One factor concerning this variance is the shape of the lot, which tapers narrowly towards it's rear and this renders that piece of the lot as unreasonable to build upon. This impacts the potential footprint of the project and tends to force the building upwards. Another factor is the need for open space. This is limited to the courtyard and that is really the only reasonable place to put it. Ground open space is not desirable due to the proximity of the freeway and that space would be too noisy to meet the City of Oakland's noise standards (and it would be generally unpleasant in any event). Otherwise, a building not in such proximity to the freeway could accommodate open space on the ground or roof and the units could sit where the open space area now is, substantially reducing the height to meet the code. The project is hindered by the lot shape but also the need to provide usable open space that is attractive and livable and placing it in the center with the building shielding it is the most efficient way of dealing with this issue.

- *30' height limit adjacent to the R-50 Zone:* Section 17.108.090 states that structures in a commercial zone whose side lot line abuts the R-50 zone be set back 10' and limited in height to 30'. This height can then be increased 1' for every additional foot of set back provided (up to the maximum limit of the height). The project is set back 10' from the side lot line but exceeds the 30' height limit. In deciding whether to recommend approval of this variance staff in this case notes the original intent of the code requirement was to buffer lower density zoning districts such as the R-50 and below when they abutted higher density zones as well as commercial areas. This would help to preserve solar access for those units and not giving them the feeling that they were being overwhelmed by tall buildings. In this case however staff believes the regulation is not needed. Strangely, the I-580 freeway itself is zoned R-50 (the zoning actually follows the roadbed of the freeway north from Mills College to High Street). The freeway itself is not in need of screening and we can be assured that the freeway itself is unlikely to be dismantled and have low density housing on it. Therefore, staff sees this as a special circumstance fairly unique to this property and that allowing a relaxation of this height limit is justifiable.

2. **That strict compliance with the regulations would deprive the applicant of privileges enjoyed by owners of similarly zoned property; or, as an alternative in the case of a minor variance, that such strict compliance would preclude an effective design solution fulfilling the basic intent of the applicable regulation.**

Overall Height: As stated above, granting the Minor Variance for the overall height is reasonable given the site constraints and the need to provide open space that is both attractive and useful to the residents. This need requires the building to wrap around the open space, shielding it from the vehicular noise coming off the freeway. This combined with the roughly triangular shape of the property forces the building upwards as much of the lower (southern) portion of the lot is not practical for development. Few if any lots in the district are impacted in these ways, they are either not abutting the freeway which adds constraints as to where needed components of the development can be placed or they are more regularly shaped, rectangular lots for the most part.

30' height limit adjacent to the R-50 Zone: This is a unique situation as the R-50 zone bordering the western edge of the freeway covers the freeway only. It is unusual to have a freeway zoned something different than the zoning on either side of it (often if the freeway splits the zoning the boundary line will run down the middle of the roadbed) and due to this the increased setback does not make sense. The purpose of the increased setback is to transition the height of buildings in high density districts adjacent to low density districts to avoid them towering over the lower density houses. In this case, there are no houses and it's reasonable to conclude there never shall be any.

3. **That the variance, if granted, will not adversely affect the character, livability, or appropriate development of abutting properties or the surrounding area, and will not be detrimental to the public welfare or contrary to adopted plans or development policy.**

Overall Height: There are no abutting properties and this is unlikely to affect neighbors in terms of the livability of their lots. This will provide 115 units of senior housing which should have far fewer impacts for traffic or noise as 115 regular non age restricted apartments would. It would actually contribute towards adopted plans and development policy in that it would A) bring a blighted parcel back into circulation through in-fill development; B) add higher density mixed use development to a commercial corridor identified in the General Plan as a "grow and change" area; C) encourage more development along an important transit corridor (Macarthur has multiple bus lines running 24 hours per day and serving the region); and D) create affordable senior housing which is a critical need for both the City of Oakland and the region at large.

30' height limit adjacent to the R-50 Zone: This is a unique situation as the R-50 zone bordering the western edge of the freeway covers the freeway only. It is unusual to have a freeway zoned something different than the zoning on either side of it (often if the freeway splits the zoning the boundary line will run down the middle of the roadbed) and due to this the increased setback does not make sense. The purpose of the increased setback is to transition the height of buildings in high density districts adjacent to low density districts to avoid them towering over the lower density houses. In this case, there are no houses and it's reasonable to conclude there never shall be any. Thus it shall not impact the livability of the adjacent R-50 zone or be detrimental to public welfare.

4. **That the variance will not constitute a grant of special privilege inconsistent with limitations imposed on similarly zoned properties or inconsistent with the purposes of the zoning regulations.**

The project meets the intent of the zoning regulations by supporting appropriate development that will enhance and benefit the surrounding neighborhood, while meeting the goals of the General Plan. The variances can be supported and meet the general intent of the zoning regulations. The ground floor elevations retail is well articulated and will provide for a successful and active street front. The parking is well screened behind the building and will not impact the pedestrian corridor. Indeed it is being located in a section of the property not really a part of the active commercial district and given the site would not become part of it in the future. The project site has the constraints of being a roughly triangular lot that narrows as it parallels Macarthur Blvd on the one hand and the other in that it has the I-580 freeway pressing against it on its western flank. These factors squeeze the parcel in that it A) compresses the area that's truly build able by the dimensions of the lots and B) requires a design that can shelter areas such as open space from the noise and other unpleasant aspects of the freeway. These conditions are generally unique to this parcel and not a common element in this neighborhood. It is particularly uncommon for properties to have both factors of unusual shape and a noisy freeway next to them at once. The City of Oakland concludes that granting the two variances would not be a grant of special privilege inconsistent with limitations on similarly zoned properties as this project site has unique characteristics that need to be accounted for. The City of Oakland has been willing to contemplate relaxation of the zoning standards before for other such projects that have unusually shaped lots or other factors to consider.

CUP Findings for the C-31 Special Retail Commercial Zone:

1. **The proposal will not detract from the character desired for the area:**

   The C-31 is attempting to create a vigorous and active commercial district focused on pedestrian movement and a de-emphasis on auto usage. Pure commercial and mixed use projects are encouraged in this district. The project would fill in a vacant lot at the edge of this district (indeed about half the site is outside the C-31 zoning district) and add ground floor retail and new residents to the neighborhood. These new residents will be set aside for senior citizens and comes with a density bonus and parking reduction. This will contribute to the goals of the district as it will help de-emphasize personal auto travel and encourage pedestrians and transit usage. It will add to the commercial district by bringing it south of the High and Macarthur intersection and create a building frontage along the street, adding to the visual urban form which is another goal of the C-31 (previously more suburban style commercial uses with heavy auto dependency had occupied this property).

2. **The proposal will not impair a generally continuous wall of building facades:**

   The proposed project will fill in a vacant lot and generally serve to create a continuous façade of building wall. The project would cover the bulk of three properties (to be merged separately) and will require one driveway to provide parking. Currently the site is vacant save for a billboard, not in keeping with the goals of the C-31 zone. This project will add retail to the ground floor of the project at the corner of High and Macarthur and directly contribute to the creation of a wall of building facades which is not yet common in this C-31 district.

3. **The proposal will not weaken the concentration and continuity of retail facilities at ground level, and will not impair the retention or creation of an important shopping frontage:**

   The current site is vacant save for a billboard and does not contribute to a shopping frontage. Indeed, the proposal will add approximately 3,100 sq. ft. of commercial space to this vacant lot and create ground floor retail on a site otherwise devoid of such things.

4. **The proposal will not interfere with the movement of people along an important pedestrian street:**

   This section of Macarthur is not an important pedestrian section. The property is vacant and has nothing to attract pedestrians to it. The project serves to strengthen the goals of the C-31 district by creating retail on the street. It does so in a manner that will allow the pedestrians to move easily within the rest of the C-31 district. While it introduces a driveway this new entrance to the building does not bisect the new commercial from the existing C-31 district to the northwest.

5. **No driveway shall connect directly with the area's principal commercial street unless:**

   a. **Vehicular access cannot reasonably be provided from a different street or other way:**

      The other option for vehicular access would be to have the driveway on High St. This is not the ideal location as the frontage is narrower. The access off of Macarthur is workable as this section of Macarthur (where the driveway is) has begun to split and has no significant retail on it. This is different than if the driveway were along a section of Macarthur Blvd in the heart of the district where retail surrounds it.

b. **Every reasonable effort has been made to share means of vehicular access with abutting properties:**

There are no abutting properties to share vehicular access with.

6. **The amount of off-street parking, if any, provided in excess of the requirements of this code will not contribute significantly to an increased orientation of the area to automobile movement:**

The amount of parking is actually less than the 1:1 code requirement, being reduced by approximately 46%. This is in keeping with section 17.116.110 of the Oakland Planning Code which conditionally permits a parking reduction up to 75% for senior housing when the required findings can be met (see below).

7. **The proposal will conform in all significant respects with any applicable district plan which has been adopted by the City Council:**

The proposal adds affordable senior housing to a major corridor of the City of Oakland. The provision of more affordable senior housing is identified as an important city and regional goal and the General Plan considers the corridors the ideal places for further, higher density developments due to their existing infrastructure and levels of existing commercial and residential development and their potential for further growth.

Section 17.106.060 Conditional Use Permit for increased senior housing bonus Findings

A. **That such occupancy is guaranteed, for a period of not less than fifty (50) years, by appropriate conditions incorporated into the permit;**

Conditions guaranteeing such occupancy have been included in this permit.

B. **That the impact of the proposed facilities will be substantially equivalent to that produced by the kind of development otherwise allowed within the applicable zone, with consideration being given to the types and rentals of the living units, the probable number of residents therein, and the demand for public facilities and services generated.**

This facility, while larger than the code stipulates is unlikely to have the same impacts as 115 units of housing for the general population. Senior housing often will have lesser traffic impacts due to the lower rates of car ownership and driving. 115 market rate units would usually be of varying sizes in a typical apartment complex, leading to more people living in the units and therefore a higher population density. City services are unlikely to be affected in a significant way. On site shuttles will provide transportation options for residents and the existing county bus system provides six lines in front of the building allowing the residents access to the greater region.

Section 17.116.110 Conditional Use Permit for reduction in parking for senior housing

1. **In the case of senior citizen housing where living units are regularly occupied by not more than two individuals at least one of whom is sixty (60) years of age or older or is physically handicapped regardless of age, that such occupancy is guaranteed, for a period of not less than fifty (50) years, by appropriate conditions incorporated into the permit;**

   Conditions guaranteeing such occupancy have been included in this permit.

2. **In the case of a dormitory, fraternity, or similar facility, that the occupants are prevented from operating a motor vehicle because they are not of driving age or by other special restriction, which limitation of occupancy by nonqualifying drivers is assured by appropriate conditions incorporated into the permit;**

   This is not a dormitory or fraternity so this finding does not apply.

3. **That due to the special conditions referred to above, and considering the availability, if any, of public transportation within convenient walking distance, the reduced amount of parking will be adequate for the activities served, and that the reduction will not contribute to traffic congestion or impair the efficiency of on-street parking.**

   This site is located on two major streets and is served by six AC Transit bus lines. These lines provide 24-hour service. Service destinations include downtown Oakland, downtown San Francisco, downtown Emeryville, the Oakland International Airport, several BART stations, and the Amtrak station near the Oakland Coliseum. Bus stops are located in front of the building on both High and Macarthur as well as directly across the street on Macarthur. Such high levels of transit service ensures that the residents at this facility will have ample opportunities and options for mass transit usage going to many convenient locations at all times of day. The existing site has minimal on street parking as it is but given the nature of the use (senior housing) and the accessibility of mass transit options the City of Oakland believes that a 46% reduction in the amount of required parking is reasonable to grant.

Modifications to the conditions of approval as directed by the City Planning Commission at the **February 20, 2008** meeting or clarification made by staff are indicted in underlined type for additions and ~~cross-out type~~ for deletions.

CONDITIONS OF APPROVAL

1. Approved Use
   Ongoing
   a) The project shall be constructed and operated in accordance with the authorized use as described in the application materials, **this staff report**, the plans dated **February 4, 2008** and submitted on **February 5, 2008**, the Air Quality Report dated and submitted on **February 8, 2008** and as amended by the following conditions. Any additional uses or facilities other than those approved with this permit, as described in the project description and the approved plans, will require a separate application and approval. Any deviation from the approved drawings, Conditions of Approval or use shall required prior written approval from the Director of City Planning or designee.

   b) This action by the **City Planning Commission** ("this Approval") includes the approvals set forth below. This Approval includes: **Major Conditional Use Permit to allow an increase in density for senior housing as per section 17.106.060; Minor Conditional Use Permit for ground level parking in the C-31 zone, Minor Conditional Use Permit to reduce the required amount of parking as per section 17.116.110 of the O.P.C., Minor Variance for building height; Minor Variance for height of building adjacent to R-50 Zone; and Design Review.**

2. Effective Date, Expiration, Extensions and Extinguishment
   Ongoing
   Unless a different termination date is prescribed, this Approval shall expire **two calendar years** from the approval date, unless within such period all necessary permits for construction or alteration have been issued, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this permit, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit for this project may invalidate this Approval if the said extension period has also expired.

3. Scope of This Approval; Major and Minor Changes
   Ongoing
   The project is approved pursuant to the **Planning Code** only. Minor changes to approved plans may be approved administratively by the Director of City Planning or designee. Major changes to the approved plans shall be reviewed by the Director of City Planning or designee to determine whether such changes require submittal and approval of a revision to the approved project by the approving body or a new, completely independent permit.

4. **Conformance with other Requirements**

Prior to issuance of a demolition, grading, P-job, or other construction related permit

a) The project applicant shall comply with all other applicable federal, state, regional and/or local codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Building Services Division, the City's Fire Marshal, and the City's Public Works Agency.

b) The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, and vegetation management for preventing fires and soil erosion.

5. **Conformance to Approved Plans; Modification of Conditions or Revocation**

Ongoing

a) Site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within 60-90 days of approval, unless an earlier date is specified elsewhere.

b) The City of Oakland reserves the right at any time during construction to require certification by a licensed professional that the as-built project conforms to all applicable zoning requirements, including but not limited to approved maximum heights and minimum setbacks. Failure to construct the project in accordance with approved plans may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension or other corrective action.

c) Violation of any term, **Conditions** or project description relating to the Approvals is unlawful, prohibited, and a violation of the Oakland Municipal Code. The City of Oakland reserves the right to initiate civil and/or criminal enforcement and/or abatement proceedings, or after notice and public hearing, to revoke the Approvals or alter these **Conditions** if it is found that there is violation of any of the **Conditions** or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it, limit in any manner whatsoever the ability of the City to take appropriate enforcement actions.

6. **Signed Copy of the Conditions**

With submittal of a demolition, grading, and building permit

A copy of the approval letter and **Conditions** shall be signed by the property owner, notarized, and submitted with each set of permit plans to the appropriate City agency for this project.

7. **Indemnification**

a) ***Ongoing*** The project applicant shall defend (with counsel reasonably acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the City of Oakland Redevelopment Agency, the Oakland City Planning Commission and their respective agents, officers, and employees (hereafter collectively called the City) from any claim, action, or proceeding (including legal costs and attorney's fees) against the City to attack, set aside, void or annul this Approval, or any related approval by the

City. The City shall promptly notify the project applicant of any claim, action or proceeding and the City shall cooperate fully in such defense. The City may elect, in its sole discretion, to participate in the defense of said claim, action, or proceeding. The project applicant shall reimburse the City for its reasonable legal costs and attorney's fees.

b) Within ten (10) calendar days of the filing of a claim, action or proceeding to attack, set aside, void, or annul this Approval, or any related approval by the City, the project applicant shall execute a Letter Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations and this condition of approval. This condition/obligation shall survive termination, extinguishment, or invalidation of this, or any related approval. Failure to timely execute the Letter Agreement does not relieve the project applicant of any of the obligations contained in 7(a) above, or other conditions of approval.

8. **Compliance with Conditions of Approval**

Ongoing

The project applicant shall be responsible for compliance with the recommendations in any submitted and approved technical report and all the Conditions of Approval set forth below at its sole cost and expense, and subject to review and approval of the City of Oakland.

9. **Severability**

Ongoing

Approval of the project would not have been granted but for the applicability and validity of each and every one of the specified conditions, and if any one or more of such conditions is found to be invalid by a court of competent jurisdiction this Approval would not have been granted without requiring other valid conditions consistent with achieving the same purpose and intent of such Approval.

10. **Job Site Plans**

Ongoing throughout demolition, grading, and/or construction

At least one (1) copy of the stamped approved plans, along with the Approval Letter and Conditions of Approval, shall be available for review at the job site at all times.

11. **Special Inspector/Inspections, Independent Technical Review, Project Coordination and Management**

Prior to issuance of a demolition, grading, and/or construction permit

The project applicant may be required to pay for on-call special inspector(s)/inspections as needed during the times of extensive or specialized plancheck review, or construction. The project applicant may also be required to cover the full costs of independent technical and other types of peer review, monitoring and inspection, including without limitation, third party plan check fees, including inspections of violations of Conditions of Approval. The project applicant shall establish a deposit with the Building Services Division, as directed by the Building Official, Director of City Planning or designee.

12. **Landscape Requirements for Downslope Lots.**
Prior to issuance of a final inspection of the building permit
On downslope lots where the height of the rear elevation of the primary Residential Facility exceeds twenty-eight (28) feet, landscaping that meets the following requirements shall be planted to screen the rear face of the building:
a) A minimum of one (1) fifteen-gallon tree or five (5) five-gallon shrubs, or substantially equivalent landscaping as approved by the Director of City Planning, shall be provided for each fifteen (15) feet of lot width, measured at the rear face of the residence.
b) The landscape screening shall be elected and maintained such that it is sufficient in size within five (5) years of planting to screen, at a minimum, the lower ten (10) feet of the structure.

13. **Underground Utilities**
Prior to issuance of a building permit
The project applicant shall submit plans for review and approval by the Building Services Division and the Public Works Agency, and other relevant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other wiring, conduits, and similar facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.

14. **Improvements in the Public Right-of-Way (General)**
Approved prior to the issuance of a P-job or building permit
a) The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements- located within the public ROW.

b) Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition.

c) The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit.

d) The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.

15. **Improvements in the Public Right-of Way (Specific)**

Approved prior to the issuance of a grading or building permit
Final building and public improvement plans submitted to the Building Services Division shall include the following components: **Examples Include**:

a) Remove and replace any existing driveway that will not be used for access to the property with new concrete sidewalk, curb and gutter.
b) Reconstruct drainage facility to current City standard.
c) Provide separation between sanitary sewer and water lines to comply with current City of Oakland and Alameda Health Department standards.
d) Construct wheelchair ramps that comply with Americans with Disability Act requirements and current City Standards at **all entrances.**
e) Remove and replace deficient concrete sidewalk, curb and gutter within property frontage **as needed.**
f) Provide adequate fire department access and water supply, including, but not limited to currently adopted fire codes and standards.

16. **Payment for Public Improvements**
Prior to issuance of a final inspection of the building permit.
The project applicant shall pay for and install public improvements made necessary by the project including damage caused by construction activity.

17. **Compliance Plan**
Prior to issuance of a demolition, grading, or building permit
The project applicant shall submit to the Planning and Zoning Division and the Building Services Division a **Conditions** compliance plan that lists each condition of approval, the City agency or division responsible for review, and how/when the project applicant has met or intends to meet the conditions. The applicant will sign the Conditions of Approval attached to the approval letter and submit that with the compliance plan for review and approval. The compliance plan shall be organized per step in the plancheck/construction process unless another format is acceptable to the Planning and Zoning Division and the Building Services Division. The project applicant shall update the compliance plan and provide it with each item submittal.

18. **Dust Control**
Prior to issuance of a demolition, grading or building permit
During construction, the project applicant shall require the construction contractor to implement the following measures required as part of Bay Area Air Quality Management District's (BAAQMD) basic and enhanced dust control procedures required for construction sites. These include:

a) Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
c) Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
d) Sweep daily (with water sweepers using reclaimed water if possible) all paved access roads, parking areas and staging areas at construction sites.
e) Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.
f) Limit the amount of the disturbed area at any one time, where feasible.
g) Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
h) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
i) Replant vegetation in disturbed areas as quickly as feasible.
j) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).
k) Limit traffic speeds on unpaved roads to 15 miles per hour.
l) Clean off the tires or tracks of all trucks and equipment leaving any unpaved construction areas.

19. **Construction Emissions**
Prior to issuance of a demolition, grading or building permit
To minimize construction equipment emissions during construction, the project applicant shall require the construction contractor to:
a) Demonstrate compliance with Bay Area Air Quality Management District (BAAQMD) Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. BAAQMD Regulation 2, Rule 1 provides the issuance of authorities to construct and permits to operate certain types of portable equipment used for construction purposes (e.g., gasoline or diesel-powered engines used in conjunction with power generation, pumps, compressors, and cranes) unless such equipment complies with all applicable requirements of the "CAPCOA" Portable Equipment Registration Rule" or with all applicable requirements of the Statewide Portable Equipment Registration Program. This exemption is provided in BAAQMD Rule 2-1-105.

b) Perform low- NOx tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) shall be performed for such equipment used continuously during the construction period.

20. **Days/Hours of Construction Operation**
Ongoing throughout demolition, grading, and/or construction

The project applicant shall require construction contractors to limit standard construction activities as follows:

a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c) Construction activity shall not occur on Saturdays, with the following possible exceptions:

i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e) No construction activity shall take place on Sundays or Federal holidays.

f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

g) Applicant shall use temporary power poles instead of generators where feasible.

21. **Noise Control**

Ongoing throughout demolition, grading, and/or construction

To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake

silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

b) Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

22. Noise Complaint Procedures

Ongoing throughout demolition, grading, and/or construction

Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c) The designation of an on-site construction complaint and enforcement manager for the project;

d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

23. **Interior Noise**

Prior to issuance of a building permit

If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval. Final recommendations for sound-rated assemblies will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phase.

24. **Construction Traffic and Parking**

Prior to the issuance of a demolition, grading or building permit

The project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division . The plan shall include at least the following items and requirements:

a) A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.
b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
c) Location of construction staging areas for materials, equipment, and vehicles at an approved location.).
d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.
e) Provision for accommodation of pedestrian flow.

Major Project Cases:

f) Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.

25. **Hazards Best Management Practices**

Prior to commencement of demolition, grading, or construction

The project applicant and construction contractor shall ensure that construction best management practices are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

a) Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;

b) Avoid overtopping construction equipment fuel gas tanks;
c) During routine maintenance of construction equipment, properly contain and remove grease and oils;
d) Properly dispose of discarded containers of fuels and other chemicals.
e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building.
f) If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in Standard Conditions of Approval 50 and 52, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

26. Waste Reduction and Recycling

The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

Prior to issuance of demolition, grading, or building permit

Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at **www.oaklandpw.com/Page39.aspx** or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

Ongoing

The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review

and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.

27. **Pile Driving and Other Extreme Noise Generators**
Ongoing throughout demolition, grading, and/or construction

To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity:

a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

b) Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d) Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and

e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.

28. **Lighting Plan**
Prior to the issuance of an electrical or building permit

The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.

29. Archaeological Resources

Ongoing throughout demolition, grading, and/or construction

a) Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

b) In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out.

c) Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center.

30. Human Remains

Ongoing throughout demolition, grading, and/or construction

In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native

American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

31. **Paleontological Resources**

Ongoing throughout demolition, grading, and/or construction

In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

32. **Erosion and Sedimentation Control Plan**

Prior to any grading activities

a) The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

Ongoing throughout grading and construction activities

b) The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

33. **Site Design Measures for Post-Construction Stormwater Pollution Management**

Prior to issuance of building permit (or other construction-related permit)

The project drawings submitted for a building permit (or other construction-related permit) shall contain a final site plan to be reviewed and approved by Planning and Zoning. The final site plan shall incorporate appropriate site design measures to manage stormwater runoff and minimize impacts to water quality after the construction of the project. These measures may include, but are not limited to, the following:

i. Minimize impervious surfaces, especially directly connected impervious surfaces;
ii. Utilize permeable paving in place of impervious paving where appropriate;
iii. Cluster buildings;
iv. Preserve quality open space; and
v. Establish vegetated buffer areas.

Ongoing

The approved plan shall be implemented and the site design measures shown on the plan shall be permanently maintained.

34. **Source Control Measures to Limit Stormwater Pollution**

Prior to issuance of building permit (or other construction-related permit)

The applicant shall implement and maintain all structural source control measures imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.

Ongoing

The applicant, or his or her successor, shall implement all operational Best Management Practices (BMPs) imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.

35. **Loading Zone operation**

a. Ongoing.

Loading/unloading shall be prohibited during peak commute periods (6:00 am to 9:00 am and 4 pm to 7 pm). A traffic flagger shall be provided to direct traffic on High Street if backing maneuver into the loading berth is required. A loading management to ensure safety and minimize disruption to operations on High Street shall be established for review and approval by Transportation Services Division.

36. **Shuttle Turnout**

a. Prior to Certificate of Occupancy.

The design of the shuttle turnout shall maintain a minimum sidewalk width of 13 feet, and maintain predictable routing to facilitate wayfinding by the disabled. More comments on the design details will arise during the review of the project improvement plans as part of the City

P-Job Permit process. If any of the improvements fall within the Caltrans ROW, then Caltrans must also review the plans.

37. Turning Restrictions

a. Prior to application for a building permit.
The driveway shall be designed for outbound right-turns only.

38. Restrictions of Occupancy.

a. Prior to the issuance of occupancy permit for the first unit.
The applicant shall submit for review and approval by the Planning and Zoning Division proof of filing of a deed restriction with the Alameda County Recorder. Said restriction shall including the following: That the targeted units shall be occupied by not more than two individuals, at least one of whom is sixty (60) years of age or older or is physically handicapped regardless of age; and that such occupancy is guaranteed, for a period of not less than fifty (50) years.

39. Windows.

a. Prior to application for a building permit.
The applicant shall submit for review and approval by the Planning and Zoning Division plans showing the depth of all windows from the face of the building wall material to have a minimum recess of 2".

b. Prior to application for a building permit.
The applicant shall submit for review and approval by the Planning and Zoning Division plans showing the window materials to be darkened aluminum windows.

40. Art Feature

a. Prior to issuance of Building Permits.
The applicant shall work with the City of Oakland's Planning Division on the final design of the art feature at the corner of High and Macarthur.

41. Kiosk

a. Prior to issuance of Building Permits.
The kiosk shall be limited to the following retail uses: flower shop or magazine shop. Any other proposed uses would be require a revision of this permit.

42. Main Commercial Space

a. Ongoing.
Any proposed commercial occupancy will be subject to zoning review and an applicant will responsible for obtaining any and all necessary permits prior to the commencement of operations.

43. Stucco Siding

a. Ongoing.
Any stucco siding on the building shall be smooth coat stucco applied at the site.

44. Shuttle Bus

a. Prior to issuance of Building Permits.
The applicant shall submit to the Planning Division a shuttle bus plan for review and approval with details of the shuttle operation including frequency, operator information, hours of operation and proposed route(s). The shuttle bus service shall operate at least 4 times per week. The applicant shall implement the approved plan.

45. **MERV Filtration System**

a. Ongoing.

The applicant shall perform regular maintenance, and repairs/replacement as necessary, on the MERV filtration system to ensure its full functionality at all times, in accordance with standard industry practices. Any repairs/replacement shall be executed by the applicant promptly.

46. Air Conditioning System

a. Ongoing.

The applicant shall install and perform regular maintenance, and repairs/replacement as necessary, on air conditioning units for all apartments. Any repairs/replacement shall be executed by the applicant promptly.

47. Entrance Gate Safety Measures

a. Ongoing.

The applicant shall install and perform regular maintenance, and repairs/replacement as necessary, on a buzzer and a flashing light system at the vehicular entrance gate designed to warn pedestrians of oncoming cars. Any repairs/replacement shall be executed by the applicant promptly.

48. ***Pedestrian Improvements at the southwest corner of High St and Macarthur Blvd***

The applicant shall explore with City staff (and Caltrans, as necessary) the feasibility of providing bulb outs, widened sidewalks, or other improvements at the intersection prior to submittal for a building permit. The applicant then shall submit a detailed plan, for city review and approval which outlines the safety measures that are appropriate. The applicant shall implement the approved plan prior to the Certificate of Occupancy.

49. Entry Gate

a. Prior to submittal for a building permit.

The applicant shall submit revised elevations to zoning for review and approval showing a decorative front entry gate over the vehicular access drive.

50. Commercial Storefront

a. Prior to submittal for a building permit.

The applicant shall submit revised elevations to zoning for review and approval showing a revised and detailed elevation of the storefront. Applicant shall take steps to maximize glazing along the street. Durable materials shall be used. No stucco shall be used on storefronts.

51. Balcony details

a. Prior to submittal for a building permit.

The applicant shall submit revised elevations to zoning for review and approval showing the balcony details clearly on each elevation.

52. Landscaping

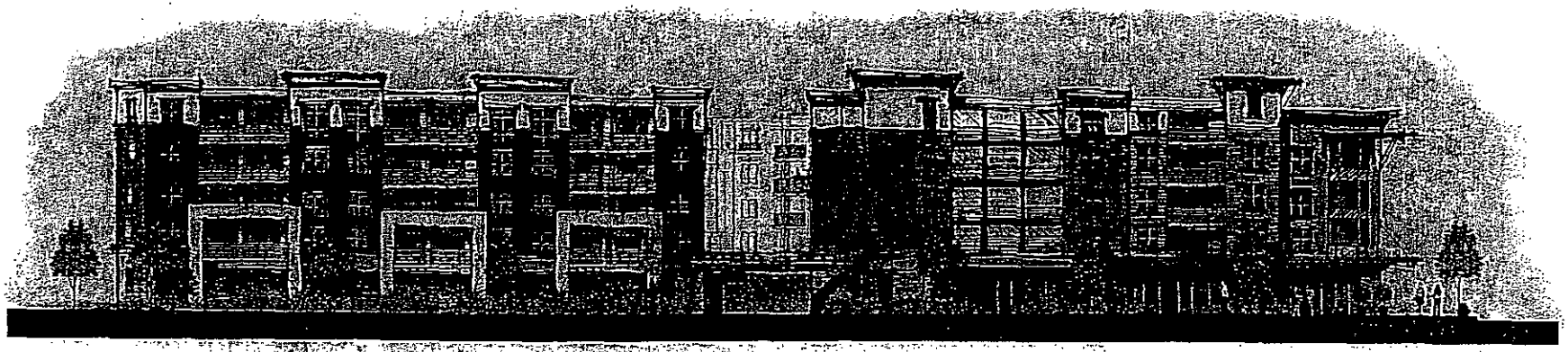
a. Prior to submittal for a building permit.

The applicant shall submit revised elevations to zoning for review and approval showing an overhead landscape treatment on the podium level, including cascading plants near the vehicular driveway.

APPROVED BY:
City Planning Commission: February 20, 2008 (date) (4-0) (vote)
~~_____ (date) _____ (vote)~~
City Council: _____ (date) _____ (vote)

Applicant and/or Contractor Statement
I have read and accept responsibility for the Conditions of Approval, as approved by Planning Commission action on February 20, 2008. I agree to abide by and conform to these conditions, as well as to all provisions of the Oakland Zoning Code and Municipal Code pertaining to the project.

Signature of Owner/Applicant: _____ (date)
Signature of Contractor _____ (date)



High and MacArthur Senior Community

Oakland, California

SHEET INDEX

A.1	SITE PLAN / PROJECT SUMMARY	A.7	LIGHTING PLAN
A.2	GARAGE PLAN	A.8	BUILDING SECTION / TYP. UNIT PLAN
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A.4	3RD FLOOR PLAN	A.10	ROUTE 580 ELEVATION
A.5	4TH FLOOR PLAN	A.11	MATERIALS AND DETAILS
A.6	ROOF PLAN	A.12	MATERIALS AND DETAILS

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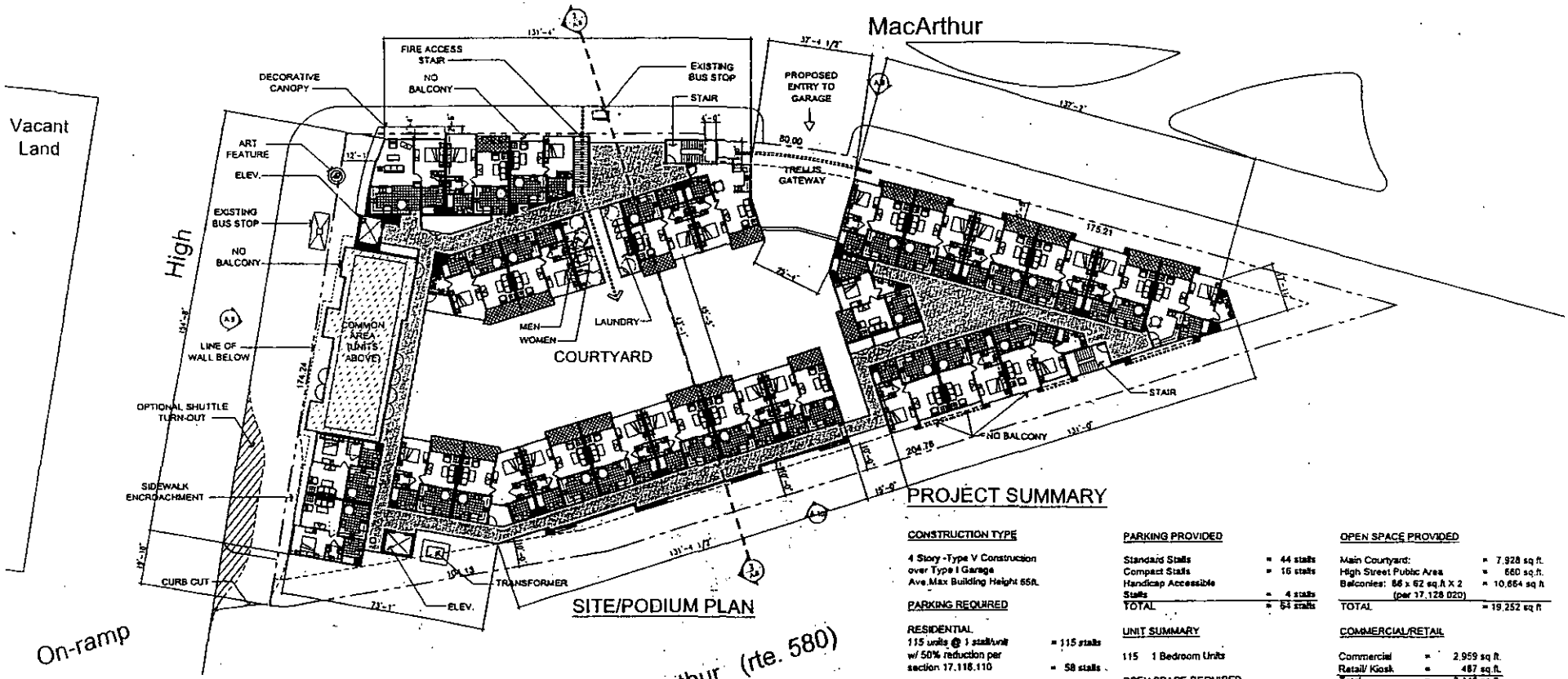
Project # 20050854.00 02/04/08

A.0



"APPLICANT SHALL CONFORM TO THE CITY OF OAKLAND'S GREEN WASTE RECYCLING PROGRAM"

PROJECT SUMMARY

CONSTRUCTION TYPE

4 Story -Type V Construcion over Type I Garage
Ave.Max Building Height 65ft.

PARKING REQUIRED

RESIDENTIAL
115 units @ 1 stall/unit = 115 stalls
w/ 50% reduction per section 17.116.110 = 58 stalls

RETAIL/COMMERCIAL
3,220 sq.ft. @ 1 stall/600 sq.ft = 5 stalls

Total Stalls Required = 63 stalls

PARKING PROVIDED

Standard Stalls	=	44 stalls
Compact Stalls	=	16 stalls
Handicap Accessible Stalls	=	4 stalls
TOTAL	=	64 stalls

UNIT SUMMARY

115 1 Bedroom Units

OPEN SPACE REQUIRED

115 Units x 150 sq. ft. = 17,250 sq.ft.

OPEN SPACE PROVIDED

Main Courtyard:	=	7,928 sq.ft.
High Street Public Area	=	660 sq.ft.
Balconies: 86 x 62 sq.ft X 2 (per 17.128.020)	=	10,664 sq.ft
TOTAL	=	19,252 sq.ft

COMMERCIAL/RETAIL

Commercial	=	2,959 sq.ft.
Retail/ Kiosk	=	487 sq.ft.
Total	=	3,446 sq.ft.

1/16" = 1'-0"

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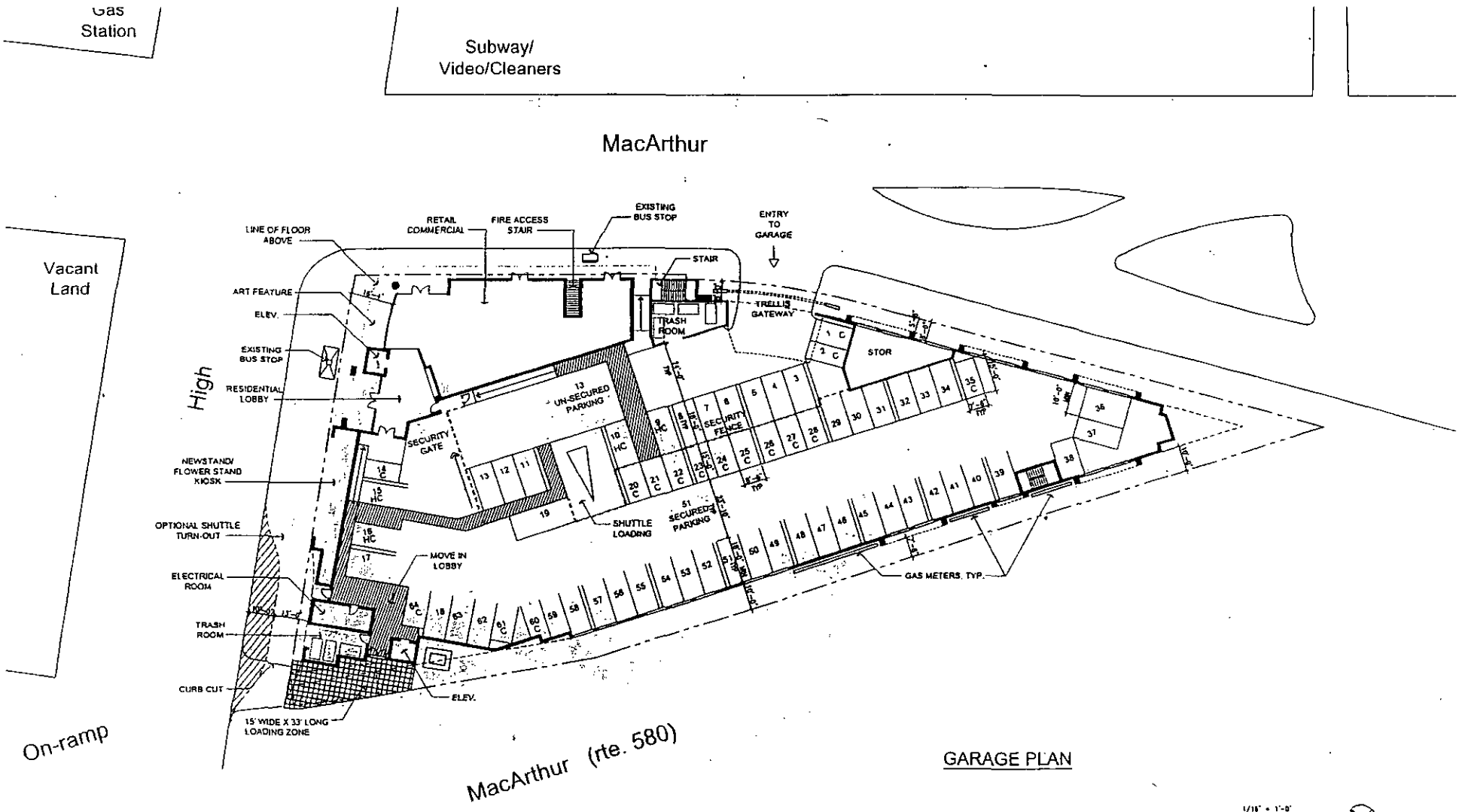
Project # 2005085400 02/04/08

A.1



GARAGE PLAN

1/16" = 1'-0"

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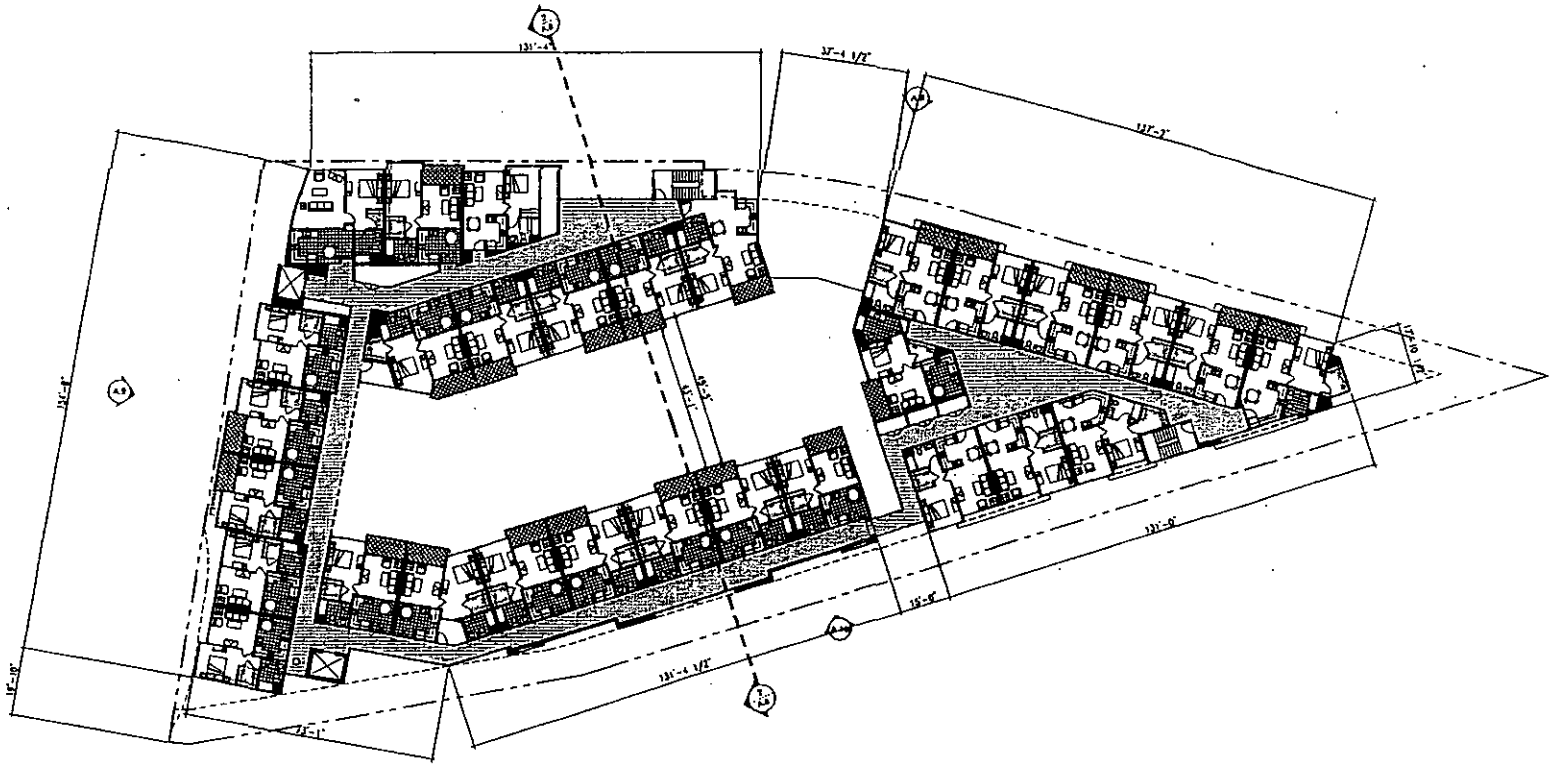
A.2



SECOND FLOOR PLAN

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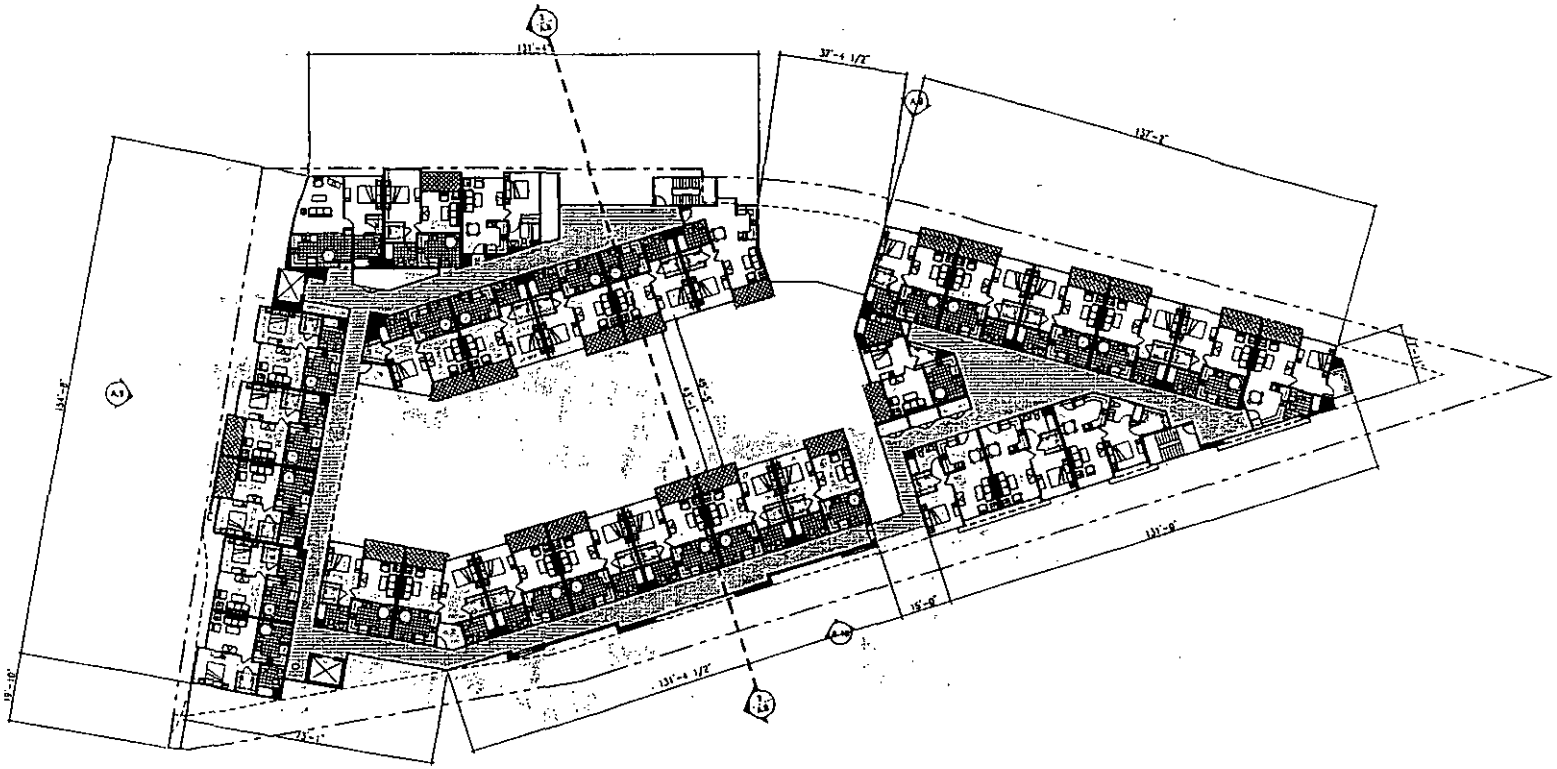

THIRD FLOOR PLAN

1/16" = 1'-0"

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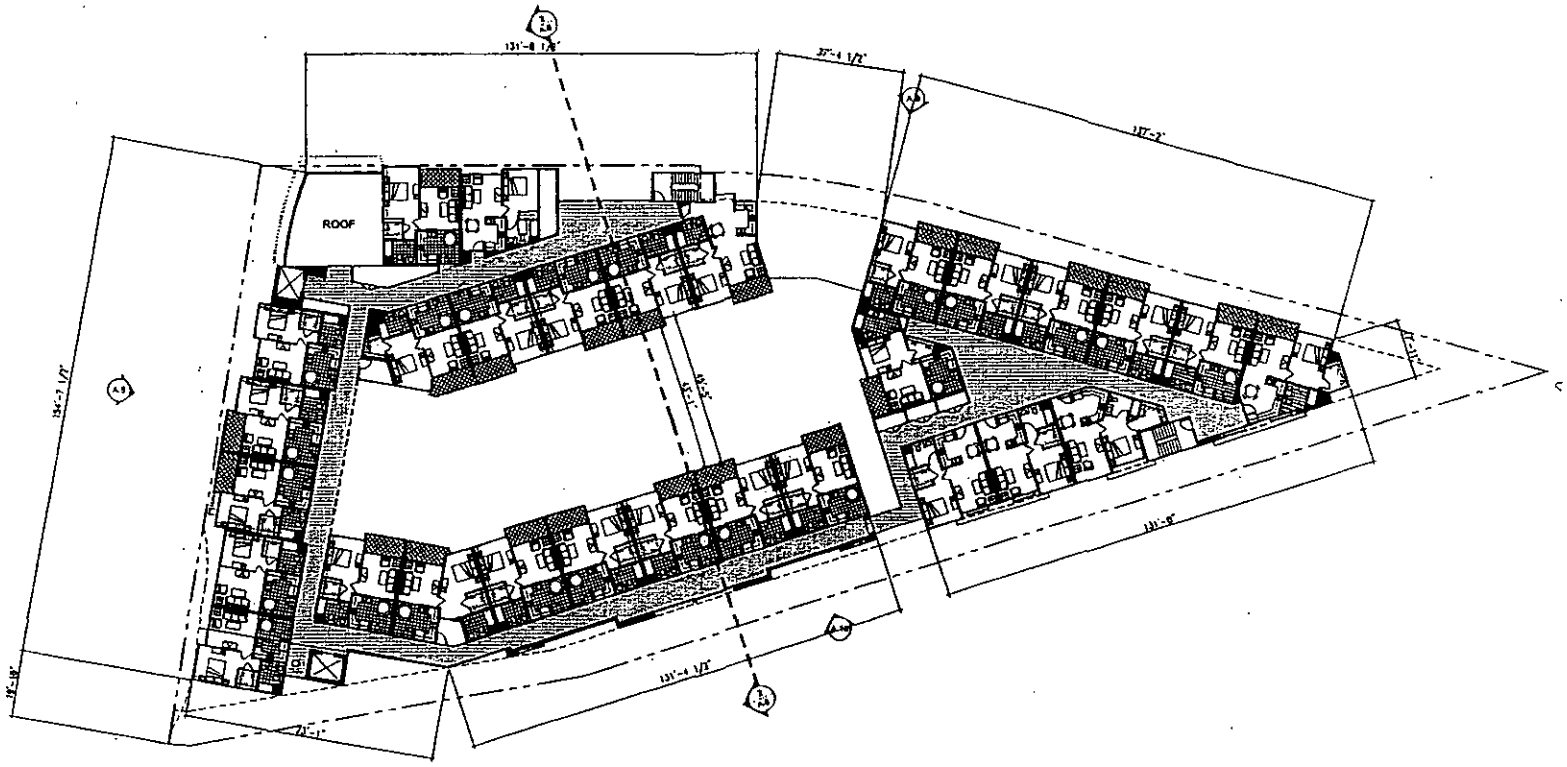
A.4



FOURTH FLOOR PLAN

1/16" = 1'-0"

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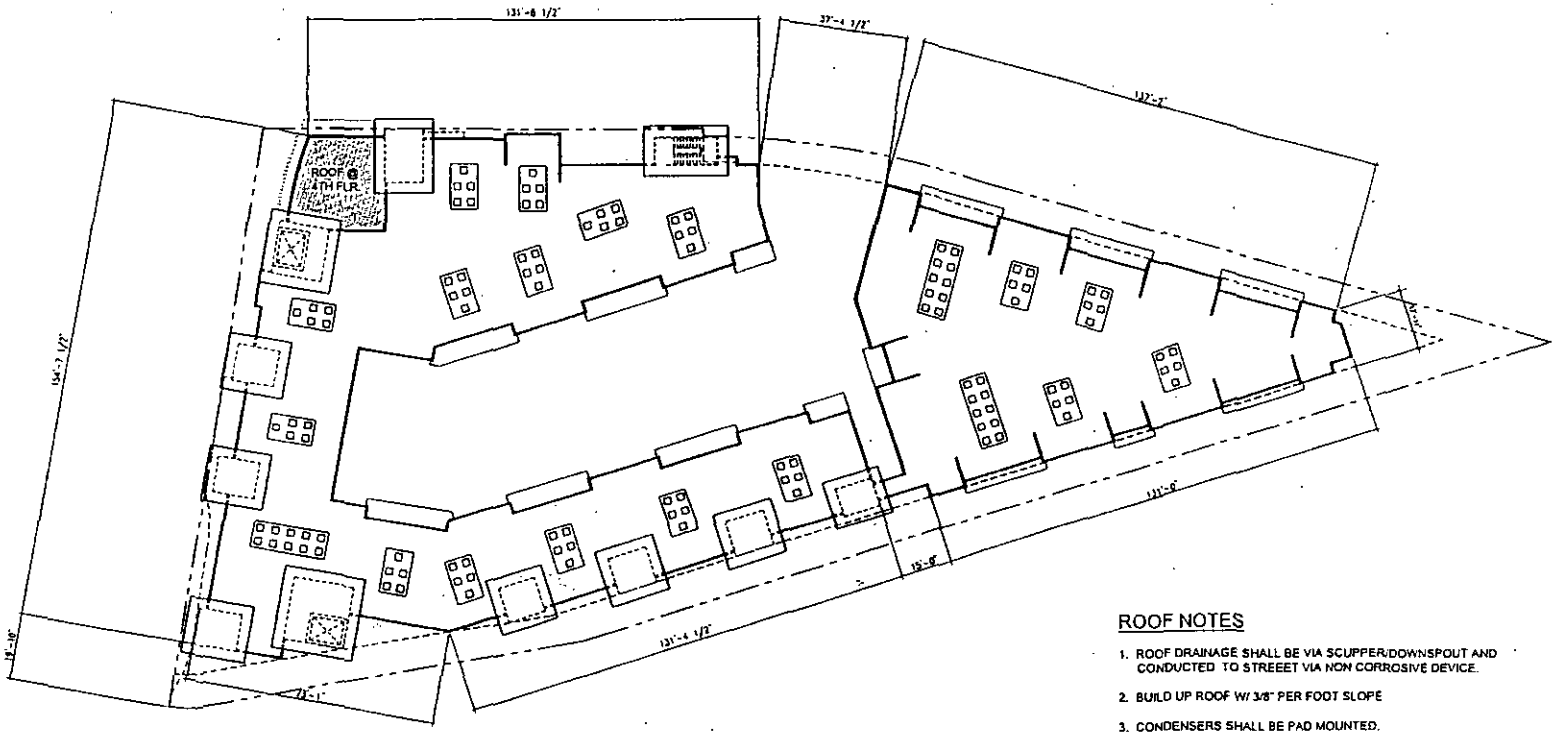
A.5



ROOF NOTES

1. ROOF DRAINAGE SHALL BE VIA SCUPPER/DOWNSPOUT AND CONDUCTED TO STREEET VIA NON CORROSIVE DEVICE.
2. BUILD UP ROOF W/ 3/8" PER FOOT SLOPE
3. CONDENSERS SHALL BE PAD MOUNTED.

ROOF PLAN

1/16" = 1'-0"

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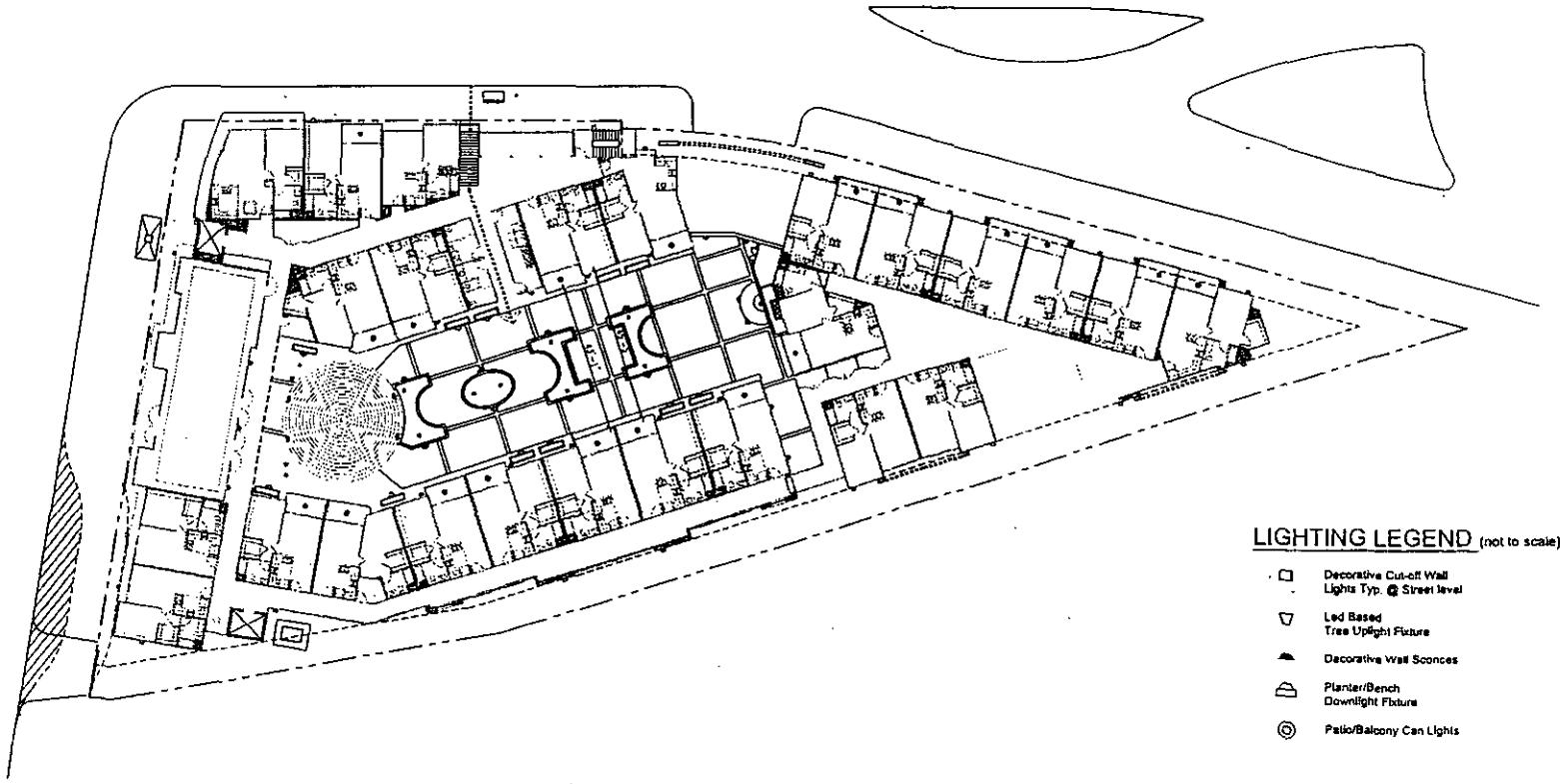
Project # 20050854.00 02/04/08

A.6



LIGHTING LEGEND (not to scale)

- Decorative Cut-off Wall Lights Typ. @ Street level
- Led Based Tree Uplight Fixture
- Decorative Wall Sconces
- Planter/Bench Downlight Fixture
- Patio/Balcony Can Lights

LIGHTING PLAN

1/16" = 1'-0"

0 8 16 32

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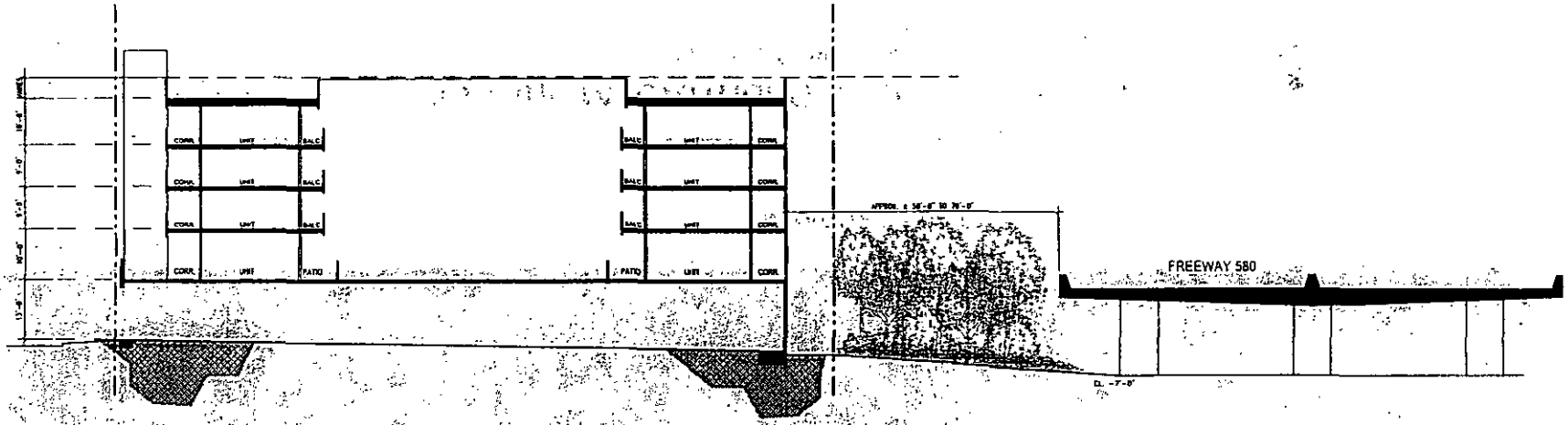
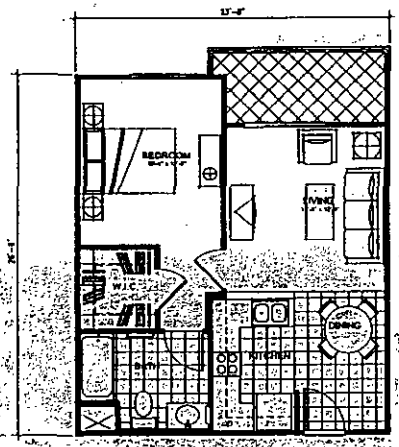
Project # 2005065400 02/04/06

A.7



2. TYPICAL BUILDING SECTION



1. TYPICAL UNIT PLAN (approx. 540 s.f.)

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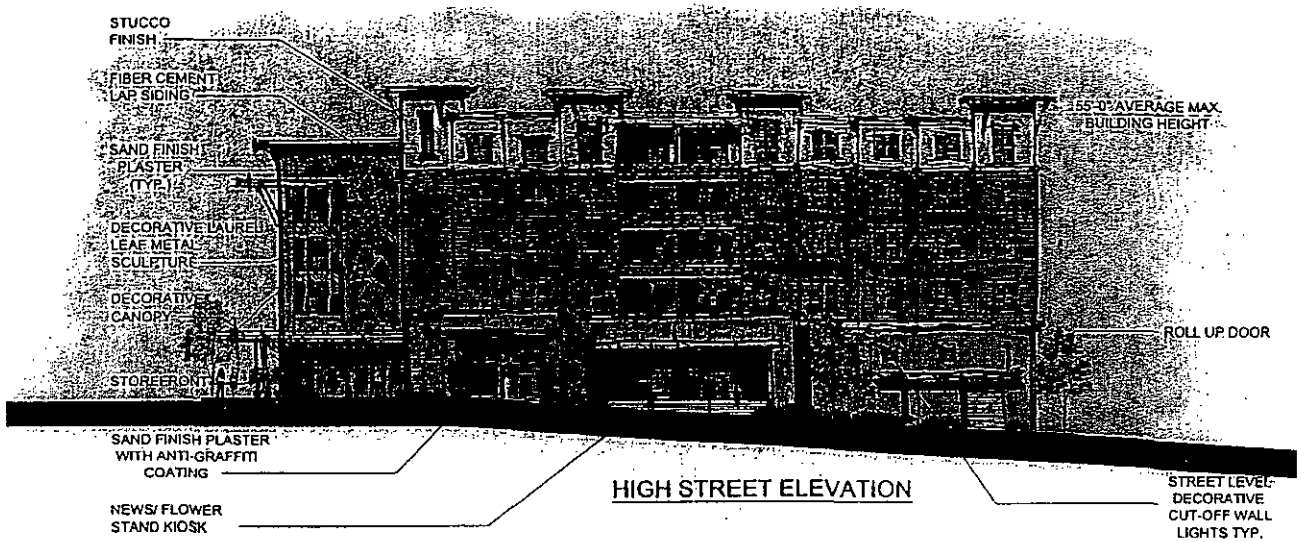
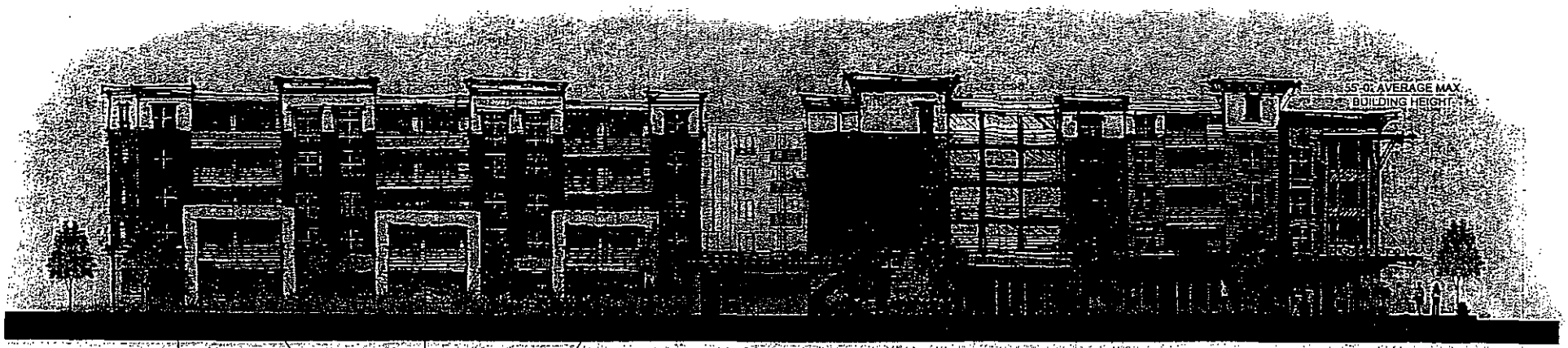
Project # 2005085.00 02/04/08



HIGH STREET ELEVATION



MacARTHUR STREET ELEVATION

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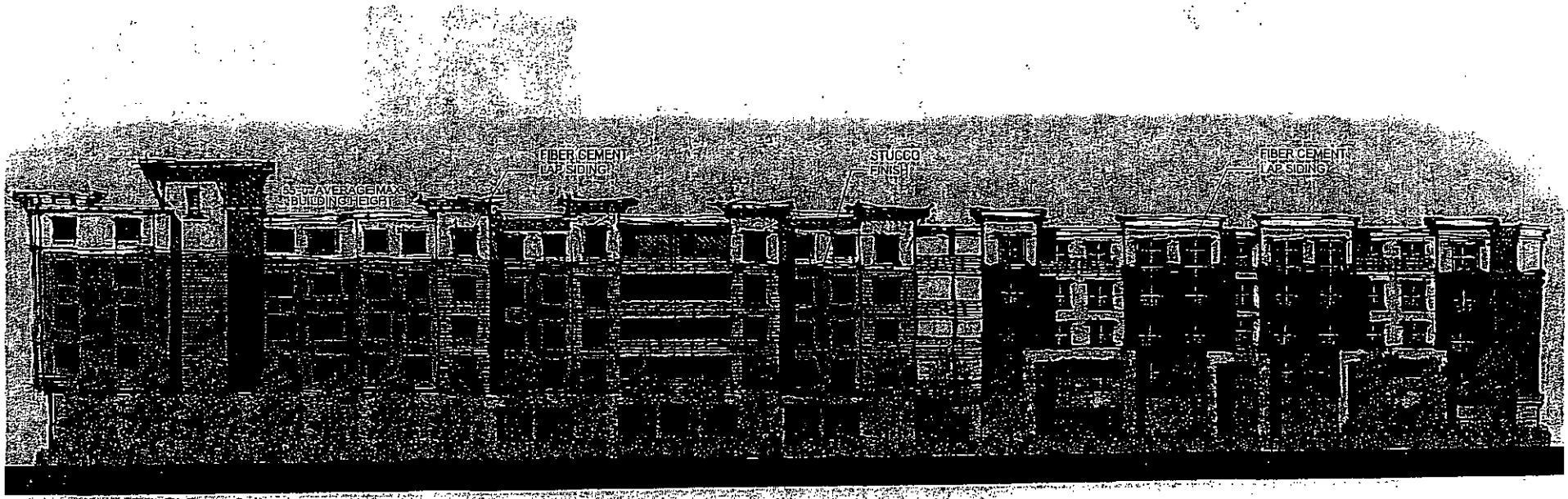
Project # 200508.54.00 02/04/08



MacARTHUR (RTE. 580) ELEVATION

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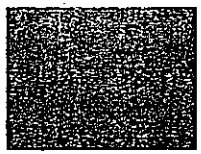
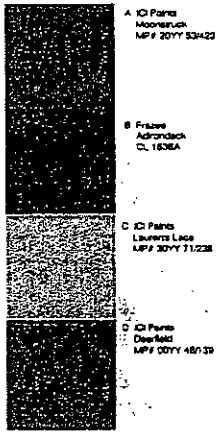
Project # 200508540.00 02/04/08

1. SAND FINISH PLASTER



2. PAINT SELECTIONS



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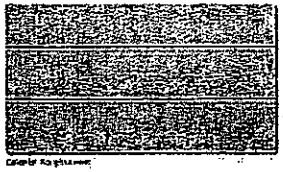

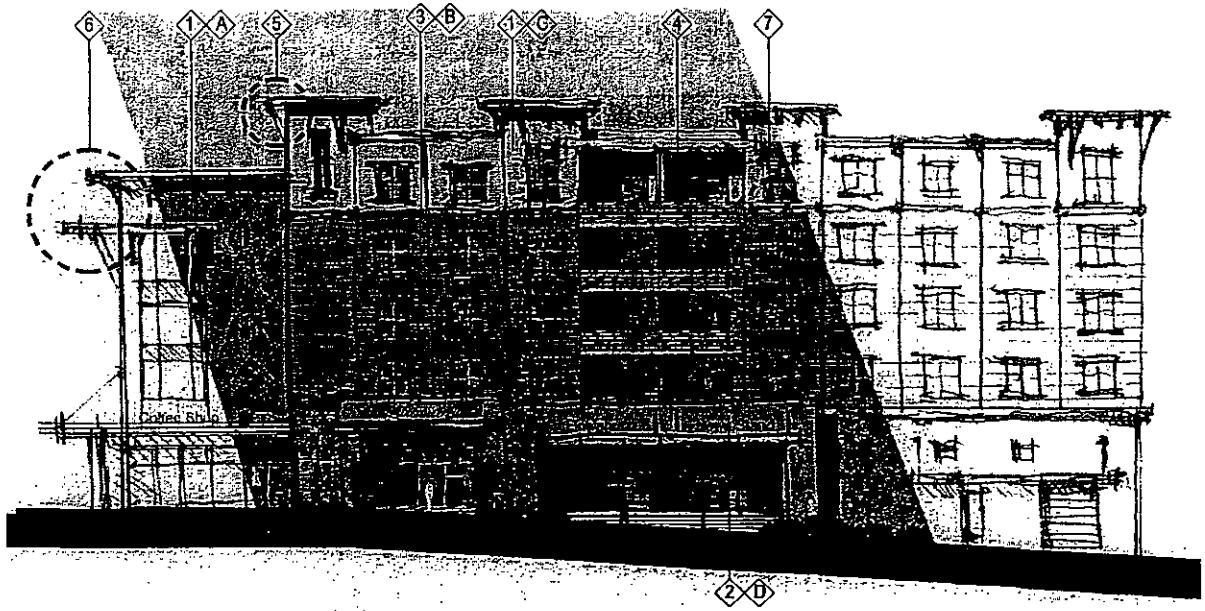

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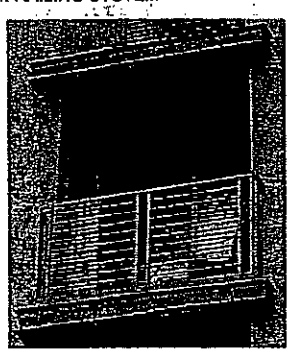

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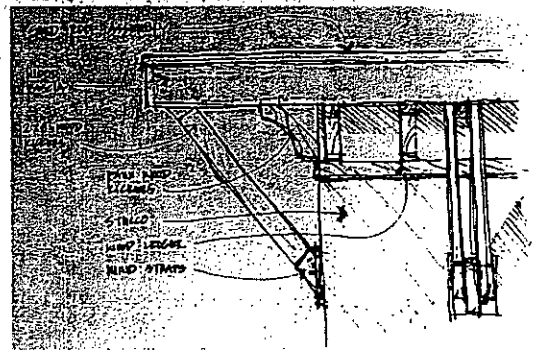
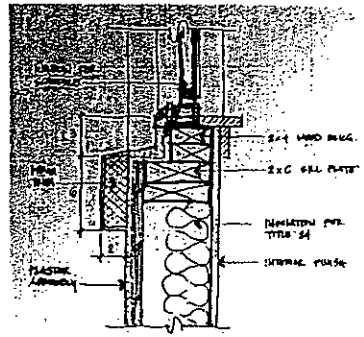


SEE SHEET A.12 FOR ADDITIONAL INFORMATION

7. RECESSED VINYL WINDOW



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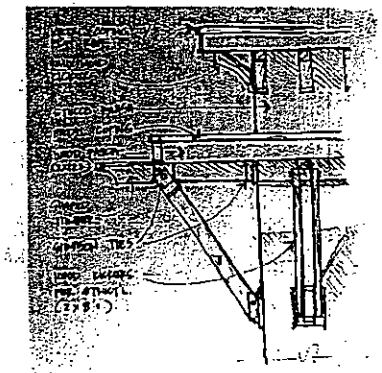

MATERIALS AND DETAILS

SCALE: 1/8" = 1'-0"

High and MacArthur Senior Community

OAKLAND, CALIFORNIA

KTGY GROUP, INC.
Architecture ▪ Planning
1411 5th St., Suite 300 Santa Monica, CA 90401
Main: 310.394.2623 Fax: 310.394.2625
Irvine ▪ Santa Monica ▪ Oakland ▪ Denver

Project # 20050854.00 02/04/08

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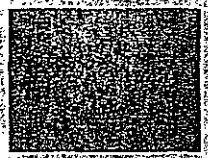
1. SAND FINISH PLASTER



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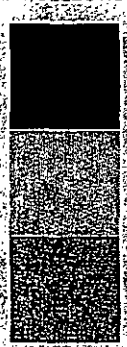

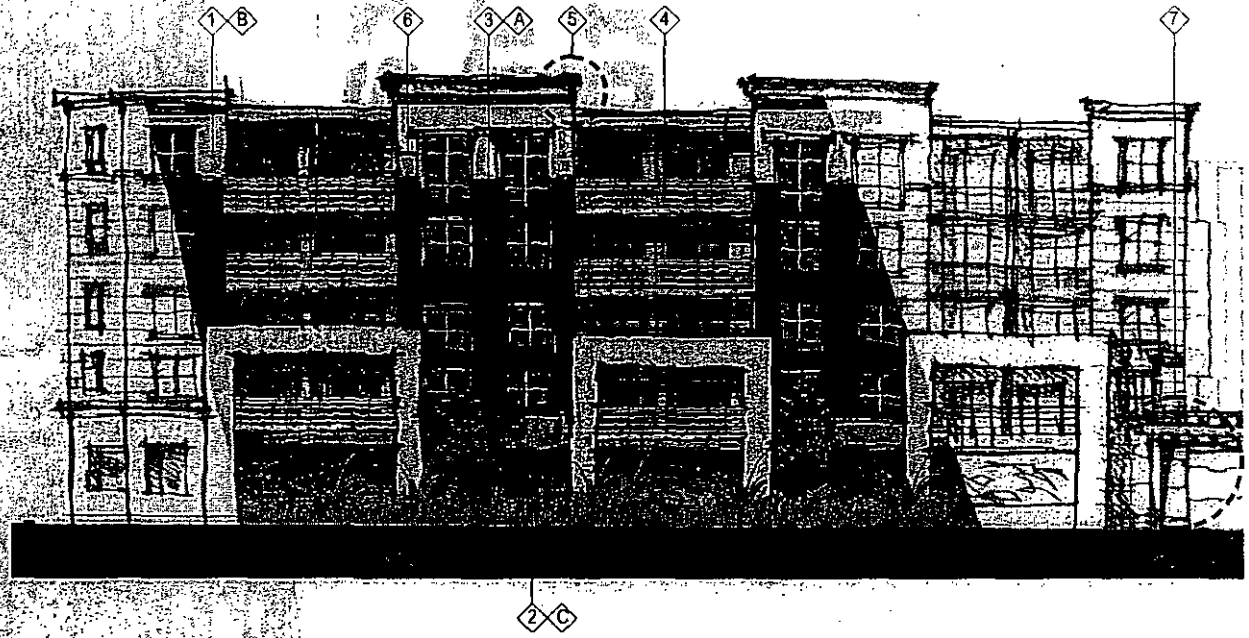

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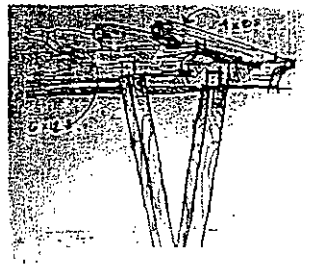

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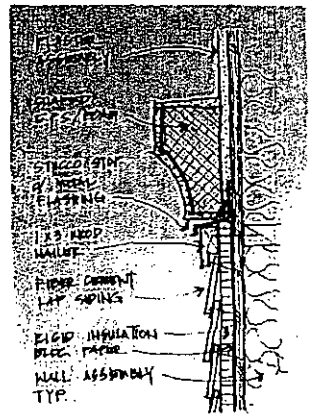

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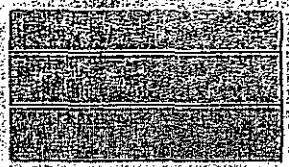

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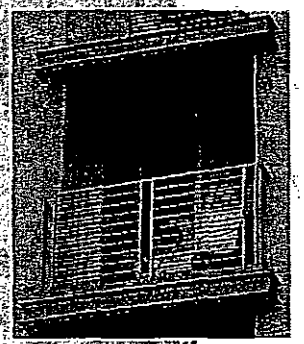

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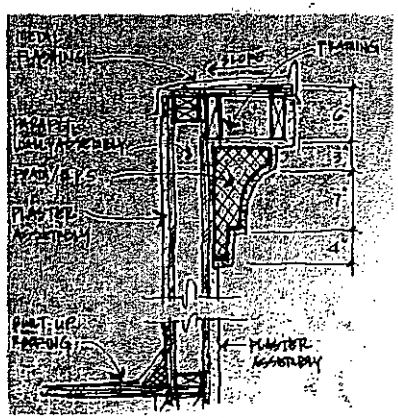

MATERIALS AND DETAILS

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OAKLAND, CALIFORNIA

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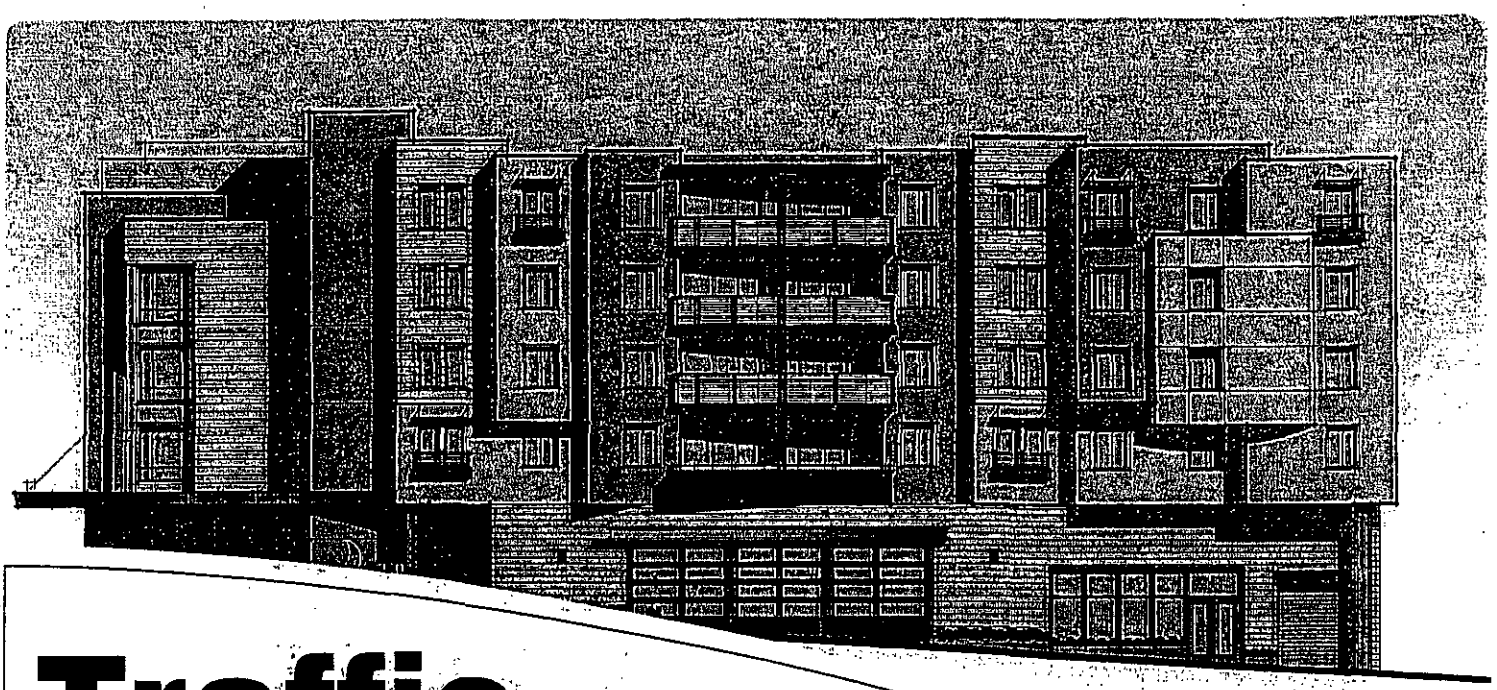


Traffic Impact Study

PROPOSED SENIOR HOUSING PROJECT ON MACARTHUR AVE.

CITY OF OAKLAND

Prepared for:

AMG & Associates LLC
16633 Ventura Blvd. #1014
Encino, CA 91436
Attn: Kristen Weirick

Prepared by:

Abrams Associates
1660 Olympic Boulevard, Suite 210
Walnut Creek, CA 94596
Tel: 925.945.0201

Abrams Associates
TRAFFIC ENGINEERING, INC.

NOVEMBER, 2006

Traffic Impact Study

for the

MacArthur Ave Senior Housing Project

In the

City of Oakland

Prepared by:
Abrams Associates
November, 2006

INTRODUCTION

The proposed project would be located directly east of Interstate 580 (I-580) at the southwest corner of the intersection of High Street and MacArthur Boulevard. Figure 1 shows the location of the project site in relationship to the nearby roadway system. The project would include 115 units of age restricted (senior) housing but would also include a small ground floor retail space (3,124 square feet) on the street frontage on MacArthur Boulevard. The building would be four stories and would include on-site parking with about 64 parking spaces. All access to the site will be from a single driveway onto MacArthur Boulevard. Figure 2 shows the site plan and project summary information and Figure 3 shows the proposed parking plan.

The purpose of this traffic study is to determine whether the project will have an adverse impact on the City's transportation network, and what mitigation measures might be required. The City of Oakland's Transportation Impact Study Guidelines (Alameda CMA guidelines) generally require that a traffic study be performed for all projects that generate 10 or more peak hour trips at a single intersection. This project would generate about 30 peak hour vehicle trips, with about 20 trips per hour through the nearest signalized intersection - High Street and MacArthur Boulevard. Based on the trip generation it was determined that this would be the only intersection where detailed level-of-service (LOS) calculations would be required for this project.

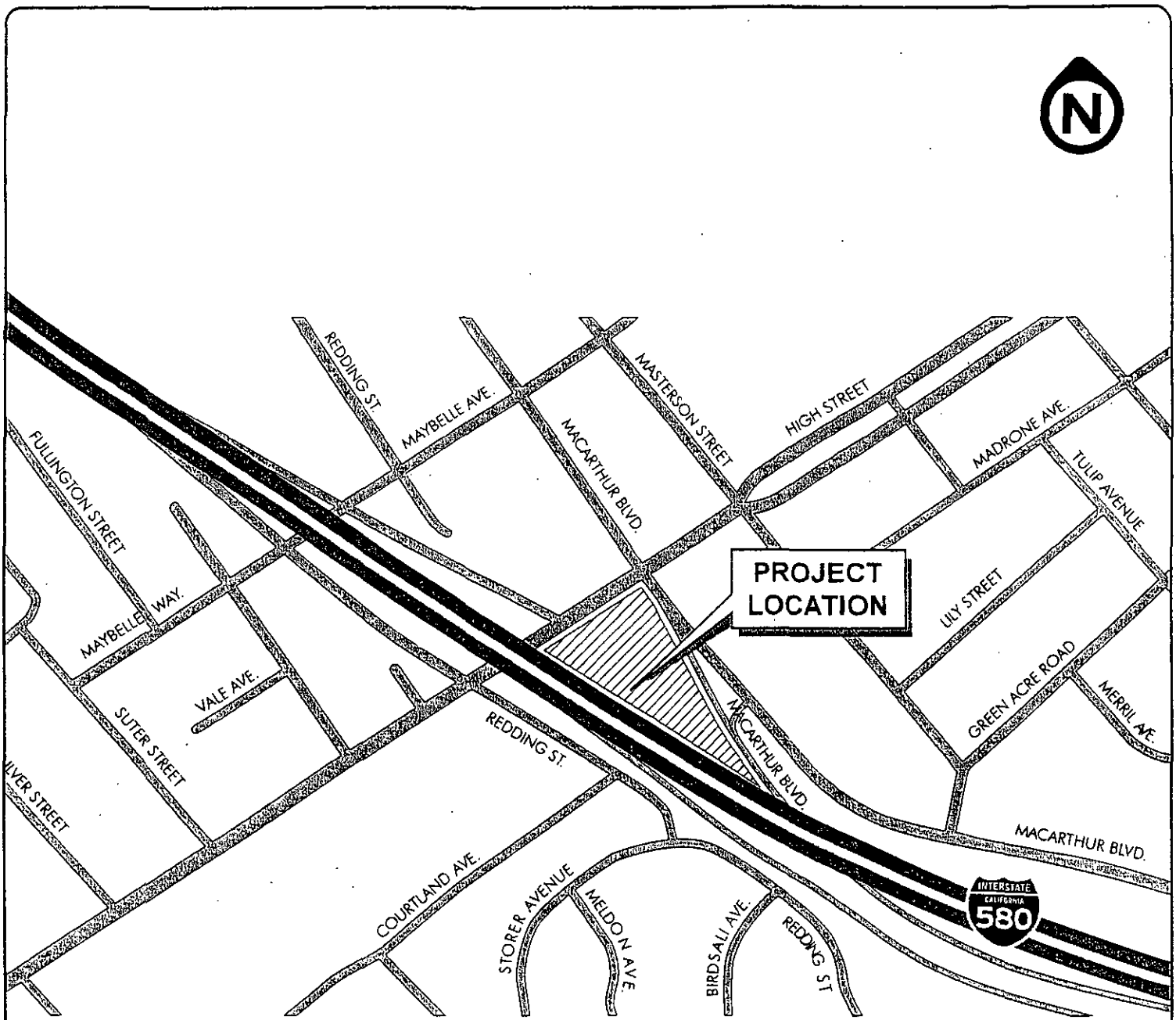
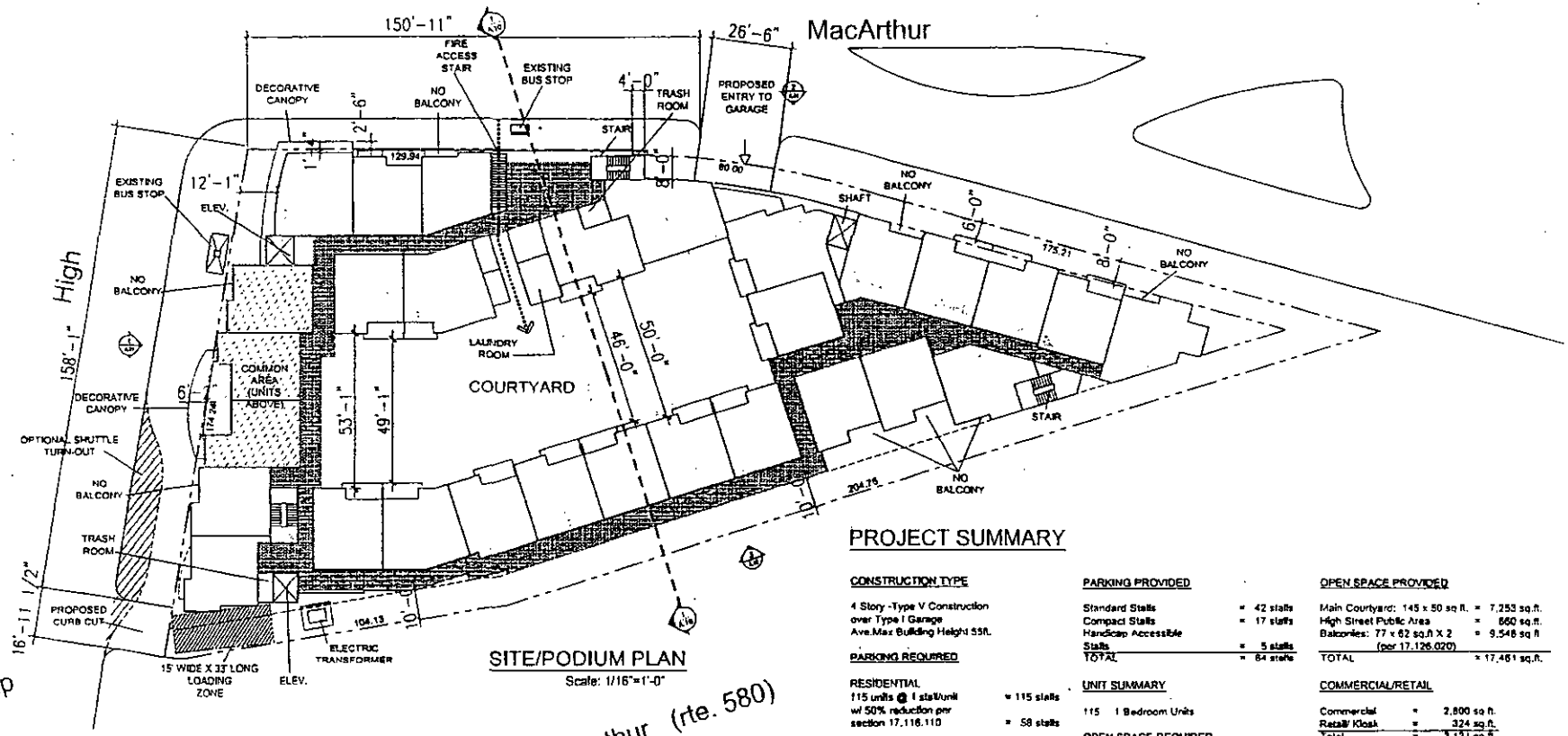


FIGURE 1 | PROJECT LOCATION
TRAFFIC IMPACT STUDY
Proposed Senior Housing Project on MacArthur Ave.
City of Oakland

Abrams Associates
TRAFFIC ENGINEERING, INC.

Gas Station

Subway/ Video/Cleaners



SITE/PODIUM PLAN

Scale: 1/16"=1'-0"

"APPLICANT SHALL CONFORM TO THE CITY OF OAKLAND'S GREEN WASTE RECYCLING PROGRAM"

PROJECT SUMMARY

CONSTRUCTION TYPE

4 Story -Type V Construction over Type I Garage
Ave.Max Building Height 55ft.

PARKING REQUIRED

RESIDENTIAL	
115 units @ 1 stall/unit	= 115 stalls
w/ 50% reduction per section 17.116.110	= 58 stalls
RETAIL/COMMERCIAL	
3,124 sq.ft. @ 1 stall/600 sq.ft	= 5 stalls
Total Stalls Required	= 63 stalls

PARKING PROVIDED

Standard Stalls	= 42 stalls
Compact Stalls	= 17 stalls
HandiCap Accessible Stalls	= 5 stalls
TOTAL	= 64 stalls

UNIT SUMMARY

115 1 Bedroom Units

OPEN SPACE REQUIRED

115 Units x 150 sq. ft. = 17,250 sq.ft.

OPEN SPACE PROVIDED

Main Courtyard: 145 x 50 sq ft.	= 7,253 sq.ft.
High Street Public Area	= 660 sq.ft.
Balconies: 77 x 62 sq.ft X 2 (per 17.126.020)	= 9,548 sq ft
TOTAL	= 17,461 sq.ft.

COMMERCIAL/RETAIL

Commercial	= 2,800 sq ft.
Retail/ Kiosk	= 324 sq.ft.
Total	= 3,121 sq ft.

1/16" = 1'-0"

URE 2| SITE PLAN
FFIC IMPACT STUDY
)posed Senior Housing Project on MacArthur Ave.
of Oakland

Abrams Associates
TRAFFIC ENGINEERING, INC.

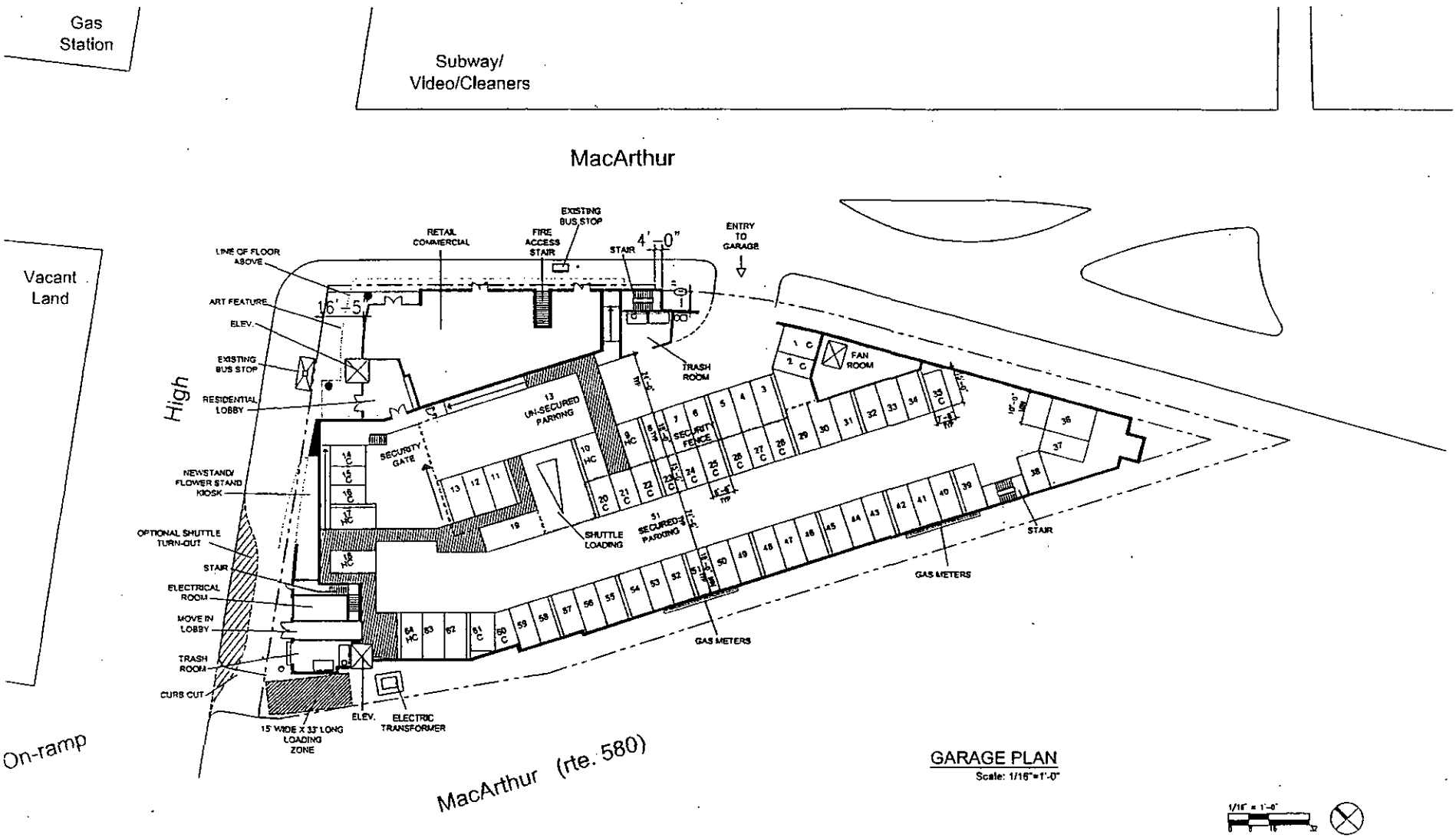


FIGURE 3| PARKING PLAN
TRAFFIC IMPACT STUDY
Proposed Senior Housing Project on MacArthur Ave.
City of Oakland

Abrams Associates
TRAFFIC ENGINEERING, INC.

SETTING

Roadways

Abrams Associates conducted an analysis of the existing roadways in the vicinity of the project site. The principal roadways affected by the project are High Street and MacArthur Boulevard. Because of the low trip generation that has been shown to take place at senior housing, the project traffic will not have a significant affect any other nearby streets.

Existing Traffic Operations

During the AM peak hour, the primary direction of traffic in the vicinity of the project is northbound as commuters head towards downtown Oakland and the Oakland-San Francisco Bay Bridge. In the evening the primary direction of traffic is southbound as workers return to their homes. This results in a number of special traffic conditions adjacent to the project. These are discussed in detail below.

Freeway Bypass Traffic

Conditions on I-580 are often congested during the peak hours in the vicinity of the High Street interchange. As a result, motorists often exit the freeway at either High Street (southbound) or MacArthur Boulevard (northbound) to bypass this congestion using by MacArthur Boulevard and other surface streets. This increases the normal volumes and generally uses up any extra capacity available at the High Street/MacArthur Boulevard intersection. For example, when the freeway is heavily congested in the morning there can be queues of over 15 cars on northbound Mac Arthur Boulevard approaching the High Street intersection. Freeway congestion in the afternoon does not affect the intersection as significantly as the morning traffic but increased queues do take place on southbound MacArthur and eastbound High Street when there is afternoon congestion.

Impromptu Carpool Pick-Up Area

An impromptu car-pool pick up area has apparently started on the north side of High Street between MacArthur Boulevard and the I-580 Westbound On-Ramp (across High Street from the proposed project). The pick-up of passengers takes place adjacent to a driveway to a mobile homes sales business (3521 High Street) and the vacant lot on the northwest corner of the High Street and MacArthur Boulevard intersection. There is no parking permitted in this area because there is a bus stop and there is not enough width to accommodate parked vehicles. Motorists pull over in this area to take on passengers so that they can utilize the carpool lanes to avoid congestion through the Oakland-San Francisco Bay Bridge toll area.

During our traffic counts and observations we observed numerous vehicles pulling up with one wheel on the sidewalk to pick up passengers along with other dangerous maneuvers that reduce safety for both motorists and pedestrians in the area. It should be noted that if the City were to explore formalizing the carpool pick up in this area it is expected that the roadway would need to be widened to safely accommodate the stopped vehicles in this area. Any attempt to eliminate the car pool pick-up taking place in this area would probably require removal of the bus stop at this location. It is recommended that the City consult with AC Transit regarding the need for this bus

stop since it may not be required with the many other bus stops at this intersection. It should be noted that information is provided of background purposes only. The carpool activities do not take place along the project frontage and the proposed senior housing would not have any affect on them.

Existing Intersection Operations

AM and PM peak-hour vehicle turning movement counts were conducted by Abrams Associates in November of 2006 at the intersection of High Street and MacArthur Boulevard. Surveys of pedestrian and bicycle volumes were also conducted and the data summaries for all count are included in the appendix. The results of the traffic counts for the AM and PM peak hour are presented in Figure 4. The existing ADT on High Street in the vicinity of I-580 has been estimated by the City of Oakland estimated to be 16,000 vehicles per day and MacArthur Boulevard is estimated to be about 15,000 vehicles per day. The results of the existing intersection LOS analyses are summarized in Table 1.

TABLE 1: Existing Intersection Operations

			Existing Conditions	
Intersection	Control	Peak Hour	Delay	LOS
High St and MacArthur Blvd	Traffic Signal	AM	41.4 Sec	D
		PM	43.6 Sec	D

Note: Capacity calculation results are expressed in terms of average delay per vehicle and Level of Service for signalized intersections.

All of the streets and intersections in the vicinity currently have acceptable operations and Levels of Service. The intersection of High Street and MacArthur Boulevard operates at LOS "D" during both the AM and PM peak hours.

Potential Improvements at High Street and MacArthur Boulevard

Although this intersection currently meets the City LOS standards there are often substantial queues during the peak periods due to freeway bypass traffic. As part of our analysis we reviewed the potential for improvements to the traffic signal phasing and the intersection lane configurations. During our review we identified two improvements that could significantly improve operations at this intersection.

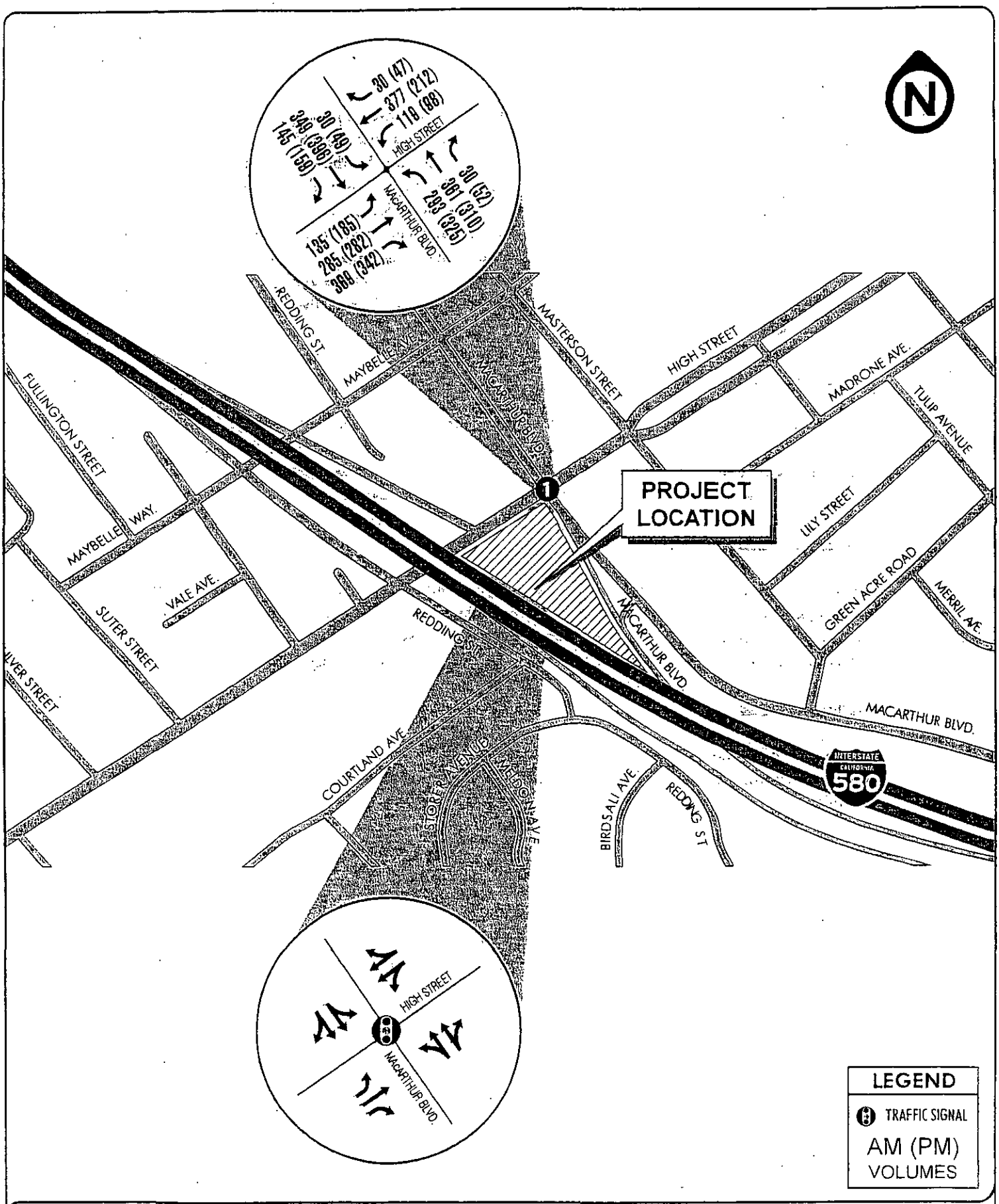


FIGURE 4 | AM (PM) EXISTING VOLUMES AND LANE CONFIGURATIONS
TRAFFIC IMPACT STUDY
Proposed Senior Housing Project on MacArthur Ave

Abrams Associates
TRAFFIC ENGINEERING, INC.

The first option would be to implement protected/permitted left-turn phasing for northbound MacArthur Boulevard. This would provide a protected left-turn onto High Street for the first part of the northbound signal phase and would allow permissive left-turns for the remainder of the phase. Our analysis indicates that this could reduce the average vehicle delay at this intersection by as much as 15 second per vehicle. The second improvement would involve widening the southbound MacArthur Boulevard approach to include a separate right-turn lane adjacent to the vacant lot on the corner. Our analysis indicates that this additional lane would reduce the average delay by up to 7 second per vehicle. The combination of both improvements would be estimated to reduce the average delay by up to 19 second per vehicle. The LOS calculations showing the potential effects of these improvements in more detail are included in the appendix.

Bus Transit Facilities

AC Transit provides bus service on High Street and MacArthur Boulevard. Routes 48, 57 and NX operate at about 30 minute headways throughout the day, and provide convenient bus transit through Oakland, with connections to the BART system. The AC Transit system would be very convenient to the residents of this project, as well as for the employees.

Pedestrian/Bicycle Conditions

There are sidewalks on all of the nearby streets in the vicinity of the project along with crosswalks at all signalized intersections. There are also crosswalks near the I-580 Eastbound On-Ramp just east of the project that provide access to a pedestrian bridge over the freeway to Redding Street. There are no special reserved bicycle lanes on MacArthur Boulevard or High Street.

Accident Analysis

Three years of accident data in the vicinity of the High Street/MacArthur Boulevard intersection was obtained from the City and reviewed for any unusual patterns. No existing problems or notable collision patterns were identified in the area.

Baseline Conditions

Baseline traffic conditions (estimated to be in 2007) have been estimated to include all reasonably foreseeable projects that are currently under construction or will likely be completed within the next two years, or by 2007. No significant projects have been identified in the study area. Table 2 shows the results of the LOS analysis of baseline intersection operations. With the addition of baseline traffic, all of the study intersections continue to have acceptable traffic operations and Levels of Service that are within the City of Oakland standards.

TABLE 2: Baseline Intersection Operations

			Existing Conditions	
Intersection	Control	Peak Hour	Delay	LOS
High St and MacArthur Blvd	Traffic Signal	AM	42.3 Sec	D
		PM	44.2 Sec	D

Note: Capacity calculation results are expressed in terms of average delay per vehicle and Level of Service for *signalized intersections.*

IMPACT ANALYSIS

Standards of Significance

Based on the adopted policies of Caltrans, the City of Oakland, and Alameda County a traffic impact would be considered significant if any of the following conditions, or potential thereof, would result from implementation of the proposed project:

1. Cause an increase in traffic that is substantial in relation to the existing or future baseline traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on the roads, or congestion at intersections), or change the condition of an existing street (i.e., street closures, changing direction of travel) in a manner that would substantially impact access or traffic load and capacity of the street system. Specifically, a project would have a significant effect on the environment if it would:

   - Cause the existing or future baseline level of service (LOS) to degrade to worse than LOS D (i.e., E) at a signalized intersection;

   - Cause the total intersection average vehicle delay to increase by four (4) or more seconds, or degrade to worse than LOS E (i.e., F) at a signalized intersection outside the lower Downtown where the existing or future baseline level of service is LOS E;

   - At a signalized intersection for all areas where the existing or future baseline level of service is LOS F, cause:

     (a) The total intersection average vehicle delay to increase by two (2) or more seconds,
     (b) An increase in average delay for any of the critical movements of four (4) seconds or more, or
     (c) The volume-to-capacity ("V/C") ratio exceeds three (3) percent (but only if the delay values cannot be measured accurately);

   - Add ten (10) or more vehicles and after project completion satisfy the Caltrans peak hour volume warrant at an unsignalized intersection for all areas;

2. Cause a roadway segment on the Metropolitan Transportation System to operate at LOS F without the project;

3. Substantially increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature that does not comply with Caltrans design standards (e.g., sharp curves or potentially hazardous intersections) or incompatible uses (e.g., large trucks on neighborhood-serving streets);

4. Result in less that two emergency access routes for streets exceeding 1,000 feet in length;

5. Result in inadequate parking capacity or increase the number and incidence of large vehicles parking within surrounding communities or on streets not designated for such uses. Inadequate parking capacity would result in a parking demand (both project-generated and project-displaced) that would not be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site. Project-displace parking results from the project's removal of standard on-street parking and legally required off-street parking (non-public parking which is legally required);

6. Fundamentally conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks);

7. Generate added transit ridership that would:

    a. Increase the average ridership on AC Transit lines by three (3) percent or more where the average load factor with the project in place would exceed 125 percent over a peak thirty minute period;

    b. Increase the peak hour average ridership on BART by three (3) percent or more where the passenger volume would exceed the standing capacity of BART trains;

    c. Increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates would exceed one minute.

Analysis Methodology

This report is intended to quantify the traffic impacts of the project and to address the circulation and roadway improvements needed to mitigate these impacts. The analysis, summarized herein, addresses traffic conditions occurring during the morning and evening peak hours, and the area studied encompasses all of the major intersections that would be affected by the proposed project. The analysis considers the project's impacts on the baseline traffic conditions as well as conditions occurring in the future under the City of Oakland and Alameda County General Plans.

Levels of Service Evaluation Scenarios

Levels of service at each of the intersections studied were evaluated to demonstrate how the proposed project would impact the transportation and circulation system. Three near-term and two long-term cumulative scenarios were considered:

- *Existing Conditions* – The current (2007) traffic volumes and roadway conditions were evaluated.

- *Existing-Plus-Approved-Projects (Baseline) Conditions* – This scenario evaluates conditions that would result when adding traffic generated by already approved projects that might affect the study intersections to existing traffic conditions.

- *Baseline-Plus-Project Conditions* – This scenario begins with the conditions determined for the existing-plus-approved-projects scenario and adds traffic that would be generated by the proposed proposed project.

- *Year 2025 Conditions* – Future traffic conditions at the study intersections were projected based on Oakland's General Plan and Alameda County's Travel Demand Forecasting Model.

- *Year 2025 Plus Project Conditions* – This scenario begins with the conditions determined for the year 2025 conditions above and adds traffic that would be generated by the proposed project.

Trip Generation

Trip generation is defined as the number of one-way vehicle trips produced by a particular land use or study site. Trips generated by the proposed senior housing project were estimated using the rates contained in *Trip Generation, Seventh Edition,* published by the Institute of Transportation Engineers.

Trip Distribution and Assignment

Trip distribution is the process of determining in what proportion vehicle trips will travel between different locations within a traffic study area. Trip assignment is the allocation of vehicle trips to available routes (local streets) between locations in the traffic study area. Traffic was distributed to the roadway system manually based on existing travel patterns. Future traffic generated by approved and buildout developments was distributed and assigned to the local street system using information from the City of Oakland and Alameda County General Plans and from the existing traffic counts.

Intersection Capacity Analysis

The level of service (LOS) measurement is a qualitative description of traffic operating conditions for intersections and roadways. Levels of service describe these conditions in terms of such factors as speed, travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Levels of service are given letter designations ranging from A to F, which are defined in Tables 3 and 4 below. The LOS measurement that is used to determine the significance of any impacts a project might have on traffic and circulation is an intersection's *overall* LOS. Separate methodologies are used to determine levels of service at signalized and unsignalized intersections.

Signalized Intersections

The operating conditions at the signalized study intersections were evaluated using the methodologies set forth in the 2000 Highway Capacity Manual that is based on average total delay (seconds/vehicle). The capacity of each approach is estimated as a function of the proportion of traffic on each approach, the number of lanes on each approach, and the proportion of turning movements on the opposing and conflicting approaches. With the average total delay for each approach the levels of service for each and for the entire intersection can then be determined. The level of service at each intersection was analyzed using the Synchro 6.0. The LOS definitions for signalized intersections are included in Table 3.

Unsignalized Intersections

For unsignalized intersections the methodology set forth in Chapter 10 of the 2000 Highway Capacity Manual was used. This methodology is based on average total delay (seconds/vehicle). The HCM analysis for unsignalized intersections was also conducted using Synchro 6.0 and the level-of-service calculations are included in the appendix to this report. As with signalized intersections, there are six levels of service for unsignalized intersections, A through F, which represent conditions from best to worst, respectively. Table 4 shows the corresponding average total delay per vehicle at unsignalized intersections for each LOS category from A to F.

Table 3
Level of Service for Signalized Intersections

The 2000 HIGHWAY CAPCITY MANUAL methodology for analyzing signalized intersections measures the performance by the control delay per vehicle in seconds. The CRITICAL MOVEMENT ANALYSIS METHODOLOGY[1], required by the CCTA is described in Transportation Research Board's Circular 212, defines Level of Service (LOS) for signalized intersections in terms of the ratio of critical movement traffic volumes to an estimate of the maximum capacity for critical volume at an intersection. Critical movements at an intersection are calculated by determining the maximum traffic volumes for conflicting traffic movements (i.e., left-turns plus opposing through traffic) per single stream of traffic (by lane). For the Critical Movement Methodology the LOS for intersections is determined by the ratio of critical movement volume to critical movement capacity (volume-to-capacity ratio = V/C) for the entire intersection. Six categories of LOS are defined, ranging from LOS "A" with minor delay to LOS "F" with delays averaging more than 40 seconds during the peak hour.

Level-of-Service		Description
LOS "A"		Free flow. If signalized, conditions are such that no vehicle phase is fully utilized and no vehicle waits through more than one red indication. Very slight or no delay.
V/C Range	0.00 - 0.60	
Average Stop Delay (seconds)	0.0 - 10.0	
LOS "B"		Stable flow. If signalized, an occasional approach phase is fully utilized; vehicle platoons are formed. Slight delay.
V/C Range	0.61 - 0.70	
Average Stop Delay (seconds)	10.1 - 20.0	
LOS "C"		Stable flow or operation. If signalized, drivers occasionally may have to wait through more than one red indication. Acceptable delay.
V/C Range	0.71 - 0.80	
Average Stop Delay (seconds)	20.1 – 35.0	
LOS "D"		Approaching unstable flow or operation; queues develop but quickly clear. Tolerable delay.
V/C Range	0.81 - 0.90	
Average Stop Delay (seconds)	35.1 - 55.0	
LOS "E"		Unstable flow or operation; the intersection has reached ultimate capacity; Congestion and intolerable delay.
V/C Range	0.91 - 1.00	
Average Stop Delay (seconds)	55.1 - 80.0	
LOS "F"		Forced flow or operation. Intersection operates below capacity. Jammed
V/C Range[2]		
- Measured	1.00 or less	
- Forecast	1.01 or more	
Average Stop Delay (seconds)	> 80	

[1] Source: "Planning Level Methodology - Signalized Intersections" *Circular 212*, Transportation Research Board, Washington D.C., January, 1980

[2] While forecast demands can exceed maximum capacity, actual measured volumes theoretically cannot. Since traffic inefficiencies arise at capacity demand conditions, the calculated V/C ratios for LOS "F" conditions can be substantially below a V/C of 1.00.

Table 4
Level-of-Service for Unsignalized Intersections

Level of Service (LOS)	Ave Total Delay (sec/veh)	Traffic Condition
A	< 10	No Delay
B	>10 - 15	Short Delay
C	>15 – 25	Moderate Delay
D	>25 – 35	Long Delay
E	>35 – 50	Very Long Delay
F	> 50	Volume>Capacity

Project Trip Generation

As noted previously, the project will have a total of 115 units of age restricted (senior) housing and would also include a small ground floor retail space (3,124 square feet). The trip generation estimates shown in Table 5 below are taken from the ITE Trip Generation Manual, and are consistent with the data from other senior housing projects. These data show a trip rate of 3.7 trips per unit for a 24-hour period. During the PM peak hour, senior projects will generate about 0.11 vehicle trips per unit, with most of these trips being made by staff and visitors.

TABLE 5
Project Trip Generation

ITE Trip Generation Rates (Trips per Unit)							
		AM Peak Hour (8:00-9:00 AM)			PM Peak Hour (5:00-6:00 PM)		
Development	Daily Trips	In	Out	Total	In	Out	Total
Senior Housing (ITE Code 252)	3.48	0.04	0.04	0.08	0.07	0.04	0.11
Trip Generation from 115 units	400	4	5	9	8	5	13
Specialty Retail (ITE Code 814)	44.3	1.30	1.41	2.71	2.81	2.21	5.02
Trip Generation from 3,124 sq. ft.	138	4	4	8	9	7	16
Totals	538	8	9	17	17	12	29

Trip Distribution

The trips that would be generated by the Senior Housing Project in the AM and PM peak hours are shown on Figure 5.

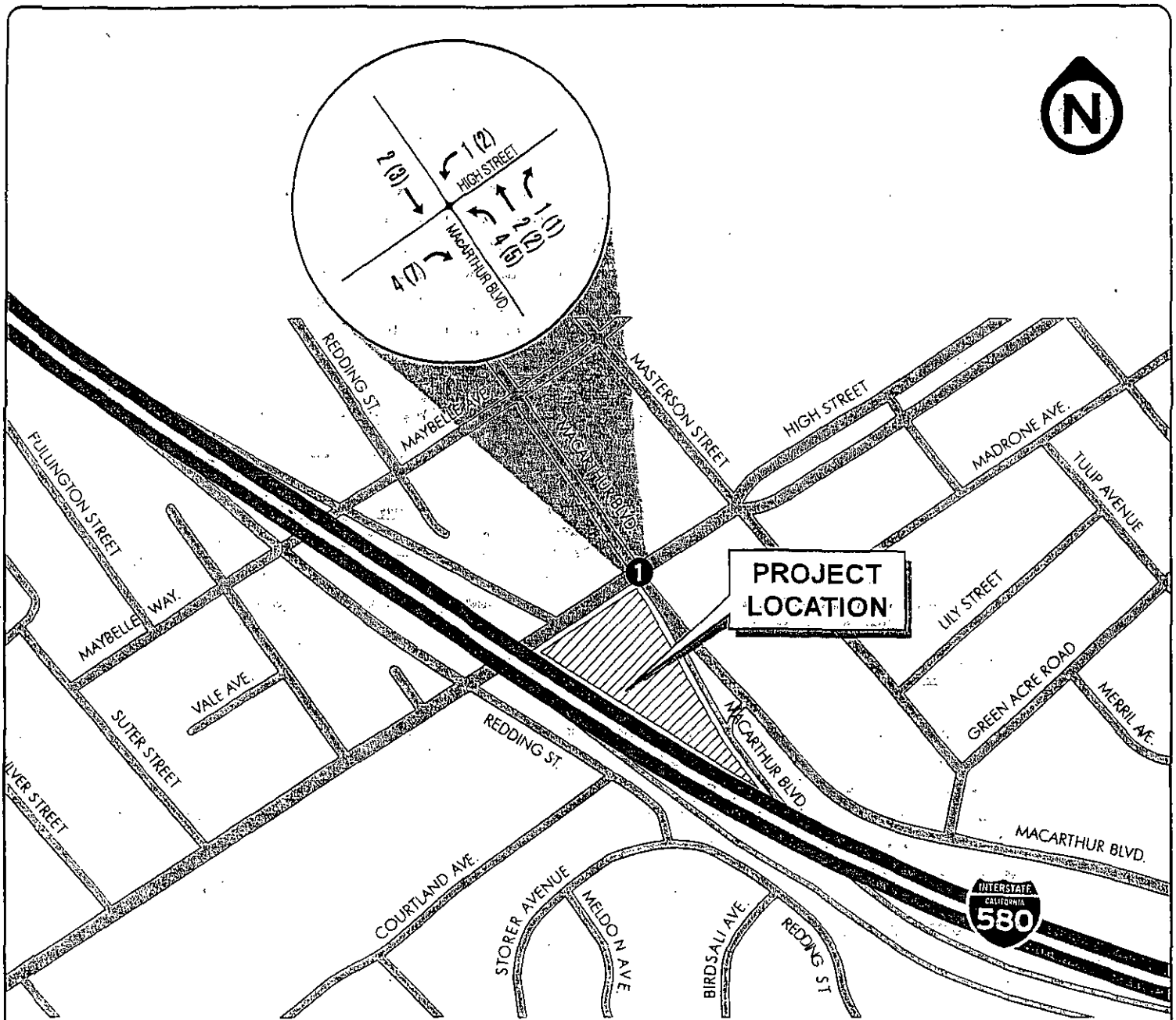


FIGURE 5| AM (PM) PROJECT TRIP GENERATION
TRAFFIC IMPACT STUDY
Proposed Senior Housing Project on MacArthur Ave.

Abrams Associates
TRAFFIC ENGINEERING, INC.

Roadway Capacity Impacts

The capacity calculations for the conditions where the project has been implemented are shown in Table 6. It is assumed that there are no roadway changes to be implemented as part of this development. As shown in Table 6, with the addition of traffic from the project and other approved developments, the intersection of High - MacArthur will continue to have acceptable operations. The project contribution would increase the average delay by less than one second per vehicle. This would be too small to have a measurable effect on the traffic capacity conditions. The complete LOS calculations are included in the appendix.

TABLE 6: Baseline plus Project Intersection Operations

			Project Conditions	
Intersection	Control	Peak Hour	Delay	LOS
1. High St and MacArthur Blvd	Traffic Signal	AM	42.3 Sec	D
		PM	44.2 Sec	D

Note: Capacity calculation results are expressed in terms of average delay per vehicle and Level of Service for signalized intersections.

Site Access and Circulation

The proposed senior housing development would have one entrance on MacArthur Boulevard. In general, the proposed site plan should function well and would not cause any safety or operational problems. The project site design has been required to conform to City design standards and would not create any significant impacts to pedestrians, bicyclists or traffic operations. Based on our preliminary review of the site plan for truck access, all necessary truck turning movements can be accommodated from the proposed loading zone.

Left Turns From the Project Driveway onto MacArthur Boulevard

With the trip generation as shown in Table 6, the project will not cause any impacts to traffic safety on MacArthur Boulevard. There are several unrestricted driveways on the east side of MacArthur Boulevard with traffic volumes very similar to the proposed project. Based on our review of the driveway location there is adequate sight distance and it would not be necessary to restrict any of the driveway traffic movements based on sight distance. However, in consultation with City staff it was agreed that outbound traffic at the driveway would be restricted to right turns only, in part due to the queues that often form on northbound MacArthur Boulevard adjacent to the site. A stop sign and a right-turn only sign will be placed on the project driveway approach to MacArthur Boulevard.

Emergency Vehicle Access

Factors such as number of access points, roadway width, and proximity to fire stations determine whether a project has sufficient emergency access. In this case the proposed project would have multiple access points from the existing roadway network in the area. Therefore, if one of the roadways was blocked or obstructed, an emergency vehicle could use an alternate roadway to access the project. Based on these considerations, there would be no significant impacts associated with the planned emergency vehicle access.

Parking

The proposed project is expected to provide a minimum of 64 off-street parking spaces to meet City standards, with five of these reserved for the retail space. Given the awkward dimensions and shape of the site, the parking layout is designed as efficiently as possible. The parking required by the City of Oakland is 0.5 stalls per unit for this type of senior housing, which would be 58 parking spaces plus five for the retail space for a total requirement off 63 spaces. The parking also includes the required number of accessible handicap parking spaces.

A review of other similar senior housing facilities in the East Bay shows that the amount of parking proposed is above average, and will be more than sufficient to accommodate all tenant, staff and visitor parking. In addition, it should also be noted that there will also be no on-street parking spaces removed as part of the project. Therefore the proposed project is not expected to create negative parking impacts on the surrounding area.

Traffic Signal Warrants

Traffic signal warrants have been checked at the unsignalized intersections in the study area, including the project entrance on MacArthur Boulevard. Traffic signals are not warranted at any of these locations.

Pedestrian/Bicycle Conditions

There would be no new impacts to pedestrians or bicycles associated with the proposed project. The project will result in some additional pedestrian traffic, but the High Street/MacArthur Blvd. intersection already has crosswalks and pedestrian displays on all four legs. Although the project would generate some pedestrian trips, particularly towards the Laurel District north of High Street, the current pedestrian crossing times have been properly set so that there should be no issue with use by seniors in this area. There is existing AC bus transit service on High Street with bus stops located at the MacArthur Boulevard intersection. The senior facility can be expected to contribute some new riders to the system, primarily during off-peak hours. Based on the size of this project the number of transit riders added would not be considered a significant impact according to the City's standards.

Cumulative Conditions

Cumulative traffic forecasts for this study were based on information obtained from Alameda County's Travel Demand Forecasting Model. In consultation with City staff a growth rate of 1 percent per year was used for this area. This increase is generally consistent with the growth and

land use changes that are expected in the City of Oakland General Plan. With these changes, the estimated cumulative intersection volumes would be as shown in Figure 6.

Cumulative (Year 2025) Without Project Scenario

The results of the Year 2020 (No Project) levels of service are shown in Table 7.

TABLE 7: Cumulative Intersection Operations

			Cumulative	
Intersection	Control	Peak Hour	Delay	LOS
High St and MacArthur Blvd	Traffic Signal	AM	58.0 Sec	E
		PM	70.1 Sec	E

Note: Capacity calculation results are expressed in terms of average delay per vehicle and Level of Service for signalized intersections.

As seen in Table 7 with the forecast increases in traffic the intersection of High Street and MacArthur Boulevard would exceed the City's LOS standard (LOS D) if no improvements are made. However, as discussed previously, as part of our analysis we reviewed the potential for improvements to the traffic signal phasing and the intersection lane configurations at this intersection. The two improvements that could significantly improve operations at this intersection are described below.

The first option would be to implement protected/permitted left-turn phasing for northbound MacArthur Boulevard. This would provide a protected left-turn onto High Street for the first part of the northbound signal phase and would allow permissive left-turns for the remainder of the phase. Our analysis indicates that this could reduce the average vehicle delay at this intersection under cumulative conditions by as much as 25 second per vehicle and would bring the intersection back into compliance with the City's LOS standards (LOS D) during both the AM and PM peak hours.

The second improvement would involve widening the southbound MacArthur Boulevard approach to include a separate right-turn lane adjacent to the vacant lot on the corner. Our analysis indicates that this additional lane would reduce the average delay under cumulative conditions by up to 15 second per vehicle but this improvement alone would not bring the intersection back into compliance with the City's LOS standards. The combination of both improvements would be estimated to reduce the average delay by up to 30 seconds per vehicle. The LOS calculations showing the potential effects of these improvements in more detail are included in the appendix.

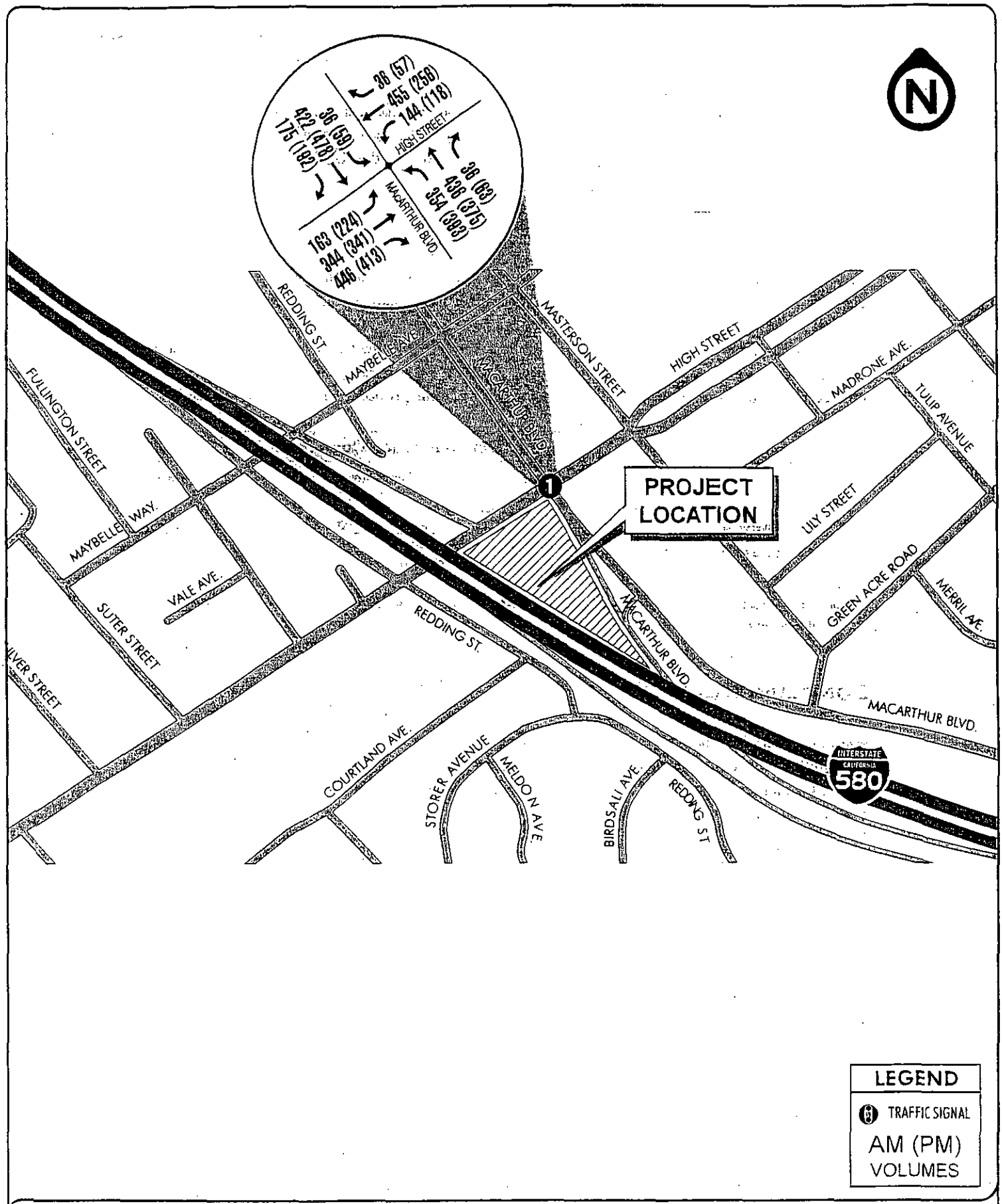


FIGURE 6 | AM (PM) CUMULATIVE 2025 PEAK HOUR VOLUMES
TRAFFIC IMPACT STUDY
Proposed Senior Housing Project on MacArthur Ave

Abrams Associates
TRAFFIC ENGINEERING, INC.

It should be noted that the City Traffic Model assumes land uses for this property that are somewhat higher trip generators than the proposed project. For a property of this size, the trip generation for the proposed project is very low in comparison to other land uses that could be developed.

Cumulative (Year 2025) With Project Scenario

The Cumulative (2020) traffic volumes with the addition of traffic from the proposed project are shown in Figure 6. The resulting levels of service for the "Cumulative plus Project" scenario are compared to the "No Project" scenario in Table 9. As seen in this table the project would add less than one second of average delay at High Street and MacArthur Boulevard that would have little or no measurable effect on the cumulative traffic operations. Any operational problems at this intersection would take place regardless of whether or not the proposed project is implemented.

TABLE 9: Cumulative Plus Project Intersection Operations

			Cumulative		Cumulative Plus Project	
Intersection	Control	Peak Hour	Delay	LOS	Delay	LOS
High St and MacArthur Blvd	Traffic Signal	AM	58.0 Sec	E	58.4 Sec	E
		PM	70.1 Sec	E	71.0 Sec	E

Note: Capacity calculation results are expressed in terms of average delay per vehicle and Level of Service for signalized intersections.

CONCLUSIONS

Based on this traffic analysis it has been determined that the proposed project would not result in any significant traffic capacity problems, or any violation of traffic standards, as established by the City of Oakland or Caltrans. The project is estimated to generate about 538 vehicle trips on a typical weekday. During the AM peak hour the project would generate about 18 trips, while the PM peak hour would generate 29 trips. This amount of traffic is very low and can be readily accommodated on the surrounding roadway system. There will no environmental impacts to traffic and transportation facilities that will be caused by the project.

Roadway Capacity Impacts

With the addition of traffic from the project and other approved developments all intersections in the area, including the intersection of High Street and MacArthur Boulevard, will continue to have acceptable operations. The project contribution would increase the average delay at High Street and MacArthur Boulevard by less than one second per vehicle. This increase would be too small to have a measurable effect on the traffic capacity conditions.

Potential Improvements at High Street and MacArthur Boulevard

Although this intersection would continue to meet the City LOS standards with the addition of project traffic there are sometimes substantial queues during the peak periods due to freeway bypass traffic.

During our review we identified two improvements that could significantly improve operations at this intersection. These are summarized below.

The first option would be to implement protected/permitted left-turn phasing for northbound MacArthur Boulevard. This would provide a protected left-turn onto High Street for the first part of the northbound signal phase and would allow permissive left-turns for the remainder of the phase. Our analysis indicates that this could reduce the average vehicle delay at this intersection by as much as 15 second per vehicle. The second improvement would involve widening the southbound MacArthur Boulevard approach to include a separate right-turn lane adjacent to the vacant lot on the corner. Our analysis indicates that this additional lane would reduce the average delay by up to 7 second per vehicle. The combination of both improvements would be estimated to reduce the average delay by up to 19 second per vehicle.

Traffic Safety Impacts

The project will not cause any significant impacts to traffic safety on High Street or MacArthur Boulevard. Based on our review of the driveway location there is adequate sight distance and it would not be necessary to restrict any of the driveway traffic movements based on sight distance. However, in consultation with City staff it was agreed that outbound traffic at the driveway would be restricted to right turns only. A stop sign and a right-turn only sign will be placed on the project driveway approach to MacArthur Boulevard.

Pedestrian/Bicycle Conditions

There would be no new impacts to pedestrians or bicycles associated with the proposed project. The project will result in additional pedestrian traffic, but the High Street/MacArthur Blvd. intersection already has crosswalks and pedestrian displays on all four legs. Although the project would generate some pedestrian trips, particularly towards the Laurel District north of High Street, the current pedestrian crossing times have been properly set so that there should be no issue with use by seniors in this area. There is existing AC bus transit service on High Street with bus stops located at the MacArthur Boulevard intersection. The senior facility can be expected to contribute some new riders to the system, primarily during off-peak hours. Based on the size of this project the number of transit riders added would not be considered a significant impact according to the City's standards.

Parking

The proposed project is expected to provide a minimum of 64 off-street parking spaces to meet City standards, with five of these reserved for the retail space. The parking required by the City of Oakland is 0.5 stalls per unit for this type of senior housing, which would be 58 parking spaces plus five for the retail space for a total requirement off 63 spaces. The parking also includes the required number of accessible handicap parking spaces. There will also be no on-street parking spaces removed as part of the project. Therefore the proposed project is not expected to create negative parking impacts on the surrounding area.

Appendix

- MacArthur Blvd at High Street Traffic Count
- Capacity and Level of Service Calculations

Intersection No: 1
Location: MacArthur Blvd. at High St.
AM Start Time 7:00 AM
PM Start Time 4:00 PM
Date: Tuesday, November 14, 2006
Collected By: Cameron Clark

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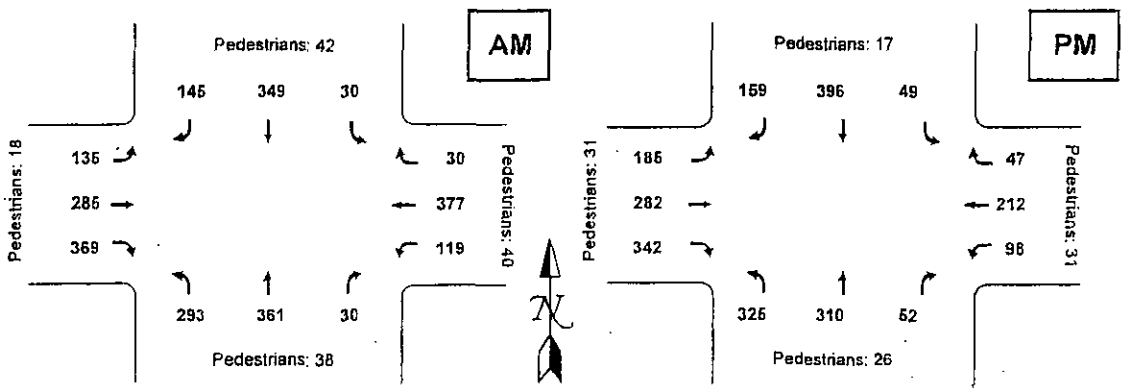
RSECTION TURNING MOVEMENT SUMMARY

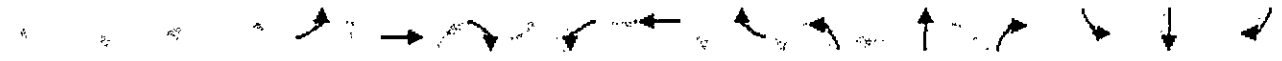
Location: MacArthur Blvd. at High St.							Date: Tuesday, November 14, 2006						AM				
1	MacArthur Blvd. SOUTHBOUND			High Street WESTBOUND			MacArthur Blvd. NORTHBOUND			Hight Street EASTBOUND				Pedestrians and Bikes			
Time	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Total Cars	SB	WB	NB	EB
7:00 AM	19	51	6	6	45	16	9	24	76	77	28	15	372	9	15	7	13
7:15 AM	20	64	4	4	68	23	5	47	83	84	40	28	470	10	9	5	1
7:30 AM	26	71	2	2	64	25	4	67	67	83	60	38	509	15	10	16	1
7:45 AM	28	83	11	11	84	25	5	88	72	98	65	36	606	8	6	10	3
8:00 AM	35	71	9	9	105	45	12	94	72	88	82	32	654	6	9	3	3
8:15 AM	35	96	3	3	102	26	8	96	71	93	78	32	643	1	3	19	3
8:30 AM	47	99	7	7	86	23	5	83	78	90	60	35	620	4	3	7	3
8:45 AM	44	63	15	15	69	20	9	91	88	80	50	39	563	3	4	9	6
Total	254	598	57	57	623	203	57	590	587	693	463	255	4437	56	59	76	33

Location: MacArthur Blvd. at High St.							Date: Tuesday, November 14, 2006						PM				
1	MacArthur Blvd. SOUTHBOUND			High Street WESTBOUND			MacArthur Blvd. NORTHBOUND			Hight Street EASTBOUND				Pedestrians and Bikes			
Time	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Total	SB	WB	NB	EB
4:00 PM	50	98	9	15	48	27	18	57	55	50	54	43	524	2	8	4	9
4:15 PM	41	90	12	13	42	20	16	63	58	55	60	46	516	9	2	9	9
4:30 PM	44	90	10	16	47	18	14	76	72	75	77	50	589	5	11	10	7
4:45 PM	43	101	12	13	54	27	13	84	84	80	81	48	640	1	13	3	6
5:00 PM	38	119	12	7	53	29	8	78	85	95	63	45	632	1	11	1	11
5:15 PM	34	86	15	11	58	24	17	72	84	92	61	42	596	1	5	4	2
5:30 PM	37	80	7	6	68	22	14	92	82	82	64	38	592	3	6	3	8
5:45 PM	27	120	9	7	57	33	10	77	81	85	72	39	617	7	12	3	2
Total	314	784	86	88	427	200	110	599	601	614	532	351	4706	29	68	37	54

HOUR VOLUMES																	
Location: MacArthur Blvd. at High St.							Date: Tuesday, November 14, 2006						AM				
1	MacArthur Blvd. SOUTHBOUND			High Street WESTBOUND			MacArthur Blvd. NORTHBOUND			Hight Street EASTBOUND				Pedestrians and Bikes			
Time	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Total	SB	WB	NB	EB
7:45 AM	28	83	11	11	84	25	5	88	72	98	65	36	606	9	15	7	13
8:00 AM	35	71	9	9	105	45	12	94	72	88	82	32	654	10	9	5	1
8:15 AM	35	96	3	3	102	26	8	96	71	93	78	32	643	15	10	16	1
8:30 AM	47	99	7	7	86	23	5	83	78	90	60	35	620	8	6	10	3
Total	145	349	30	30	377	119	30	361	293	369	285	135	2523	42	40	38	18

HOUR VOLUMES																	
Location: MacArthur Blvd. at High St.							Date: Tuesday, November 14, 2006						PM				
1	MacArthur Blvd. SOUTHBOUND			High Street WESTBOUND			MacArthur Blvd. NORTHBOUND			Hight Street EASTBOUND				Pedestrians and Bikes			
Time	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Rt	Thru	Lt	Total	SB	WB	NB	EB
4:30 PM	44	90	10	16	47	18	14	76	72	75	77	50	589	2	8	4	9
4:45 PM	43	101	12	13	54	27	13	84	84	80	81	48	640	9	2	9	9
5:00 PM	38	119	12	7	53	29	8	78	85	95	63	45	632	5	11	10	7
5:15 PM	34	86	15	11	58	24	17	72	84	92	61	42	596	1	13	3	6
Total	159	396	49	47	212	98	52	310	325	342	282	185	2457	17	34	26	31

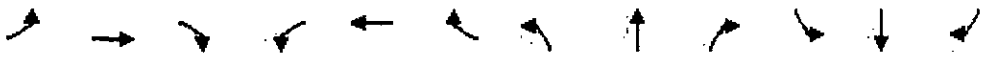




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.92		1.00			1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.99			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1725	1818	1427		3386			3389			3299	
Flt Permitted	0.18	1.00	1.00		0.79			0.98			1.00	
Satd. Flow (perm)	326	1818	1427		2720			3389			3299	
Volume (vph)	135	285	369	119	377	30	293	361	30	30	349	145
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	310	401	129	410	33	318	392	33	33	379	158
RTOR Reduction (vph)	0	0	220	0	5	0	0	4	0	0	48	0
Lane Group Flow (vph)	147	310	181	0	567	0	0	739	0	0	522	0
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	39.0	39.0	39.0		19.0			19.9			15.6	
Effective Green, g (s)	39.0	39.0	39.0		19.0			19.9			15.6	
Actuated g/C Ratio	0.45	0.45	0.45		0.22			0.23			0.18	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	406	820	643		597			780			595	
v/s Ratio Prot	0.07	0.17						c0.22			c0.17	
v/s Ratio Perm	0.10		0.28		c0.21							
v/c Ratio	0.36	0.38	0.28		0.95			0.95			0.88	
Uniform Delay, d1	15.6	15.7	14.9		33.3			32.8			34.5	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.3	0.2		24.5			20.3			13.8	
Delay (s)	16.1	16.0	15.2		57.8			53.1			48.3	
Level of Service	B	B	B		E			D			D	
Approach Delay (s)		15.6			57.8			53.1			48.3	
Approach LOS		B			E			D			D	

Intersection Summary			
HCM Average Control Delay	41.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	86.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

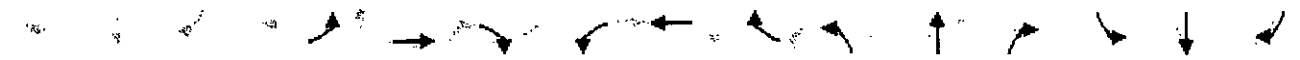
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.93		0.99			0.99			0.99	
Flpb, ped/bikes	0.99	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.98			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1546	1636	1292		2982			3019			2969	
Flt Permitted	0.28	1.00	1.00		0.77			0.98			1.00	
Satd. Flow (perm)	463	1636	1292		2332			3019			2969	
Volume (vph)	185	282	342	98	212	47	825	310	52	49	396	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	307	372	107	230	51	553	337	57	53	430	173
RTOR Reduction (vph)	0	0	230	0	11	0	0	6	0	0	34	0
Lane Group Flow (vph)	201	307	142	0	377	0	0	741	0	0	622	0
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	40.1	40.1	40.1		19.9			28.3			24.5	
Effective Green, g (s)	40.1	40.1	40.1		19.9			28.3			24.5	
Actuated g/C Ratio	0.38	0.38	0.38		0.19			0.27			0.23	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	344	625	494		442			814			693	
v/s Ratio Prot	0.09	0.19						c0.25			c0.22	
v/s Ratio Perm	0.13		0.29		c0.17							
v/c Ratio	0.58	0.49	0.29		0.85			0.91			0.90	
Uniform Delay, d1	23.7	24.6	22.5		41.1			37.1			39.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	2.6	0.6	0.3		14.6			14.2			14.3	
Delay (s)	26.3	25.3	22.8		55.7			51.3			53.3	
Level of Service	C	C	C		E			D			D	
Approach Delay (s)		24.5			55.7			51.3			53.3	
Approach LOS		C			E			D			D	

Intersection Summary			
HCM Average Control Delay	43.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	104.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



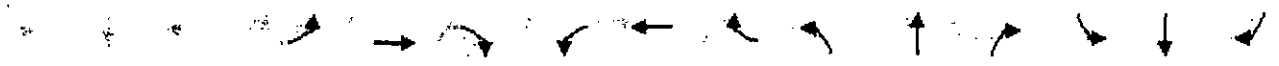
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.92		1.00			1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.99			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1725	1818	1427		3386			3388			3300	
Flt Permitted	0.18	1.00	1.00		0.79			0.98			1.00	
Satd. Flow (perm)	324	1818	1427		2717			3388			3300	
Volume (vph)	135	285	373	120	377	30	297	368	31	30	361	145
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	310	405	130	410	33	323	395	34	33	382	158
RTOR Reduction (vph)	0	0	223	0	5	0	0	4	0	0	47	0
Lane Group Flow (vph)	147	310	182	0	568	0	0	748	0	0	526	0
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	39.0	39.0	39.0		19.0			20.0			15.6	
Effective Green, g (s)	39.0	39.0	39.0		19.0			20.0			15.6	
Actuated g/C Ratio	0.45	0.45	0.45		0.22			0.23			0.18	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	405	819	643		596			782			594	
v/s Ratio Prot	0.07	0.17						c0.22			c0.17	
v/s Ratio Perm	0.10		0.28		c0.21							
v/c Ratio	0.36	0.38	0.28		0.95			0.96			0.89	
Uniform Delay, d1	15.6	15.8	15.0		33.4			32.9			34.6	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	0.6	1.0	0.2		25.4			22.0			14.8	
Delay (s)	16.2	16.1	15.2		58.7			54.9			49.4	
Level of Service	B	B	B		E			D			D	
Approach Delay (s)		15.7			58.7			54.9			49.4	
Approach LOS		B			E			D			D	
Intersection Summary												
HCM Average Control Delay			42.3		HCM Level of Service			D				
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			86.6		Sum of lost time (s)			16.0				
Intersection Capacity Utilization			78.8%		ICU Level of Service			D				
Analysis Period (min)			15									

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.93		1.00			1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.99			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1725	1818	1443		3392			3383			3302	
Flt Permitted	0.22	1.00	1.00		0.79			0.56			0.88	
Satd. Flow (perm)	407	1818	1443		2724			1943			2917	
Volume (vph)	135	285	378	120	377	30	297	369	31	30	351	145
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	310	411	130	410	33	323	401	34	33	382	158
RTOR Reduction (vph)	0	0	190	0	5	0	0	5	0	0	42	0
Lane Group Flow (vph)	147	310	221	0	568	0	0	747	0	0	573	0
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	38.6	38.6	38.6		18.5			26.2			19.5	
Effective Green, g (s)	38.6	38.6	38.6		18.5			26.2			19.5	
Actuated g/C Ratio	0.53	0.53	0.53		0.25			0.36			0.27	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	507	964	765		692			758			781	
v/s Ratio Prot	0.06	0.17						c0.04				
v/s Ratio Perm	0.09		0.28		c0.21			c0.32			0.20	
v/c Ratio	0.29	0.32	0.28		0.82			1.84dl			0.68	
Uniform Delay, d1	9.8	9.7	9.4		25.6			23.2			23.9	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	0.3	0.2	0.2		7.7			30.6			2.4	
Delay (s)	10.1	9.9	9.6		33.3			53.8			26.3	
Level of Service	B	A	A		C			D			C	
Approach Delay (s)		9.8			33.3			53.8			26.3	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM Average Control Delay	30.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.92		1.00			1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	1.00
Satd. Flow (prot)	1725	1818	1429		3387			3388			3483	1475
Flt Permitted	0.18	1.00	1.00		0.79			0.98			1.00	1.00
Satd. Flow (perm)	332	1818	1429		2718			3388			3483	1475
Volume (vph)	135	285	373	120	377	30	297	363	31	30	351	145
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	310	405	130	410	33	323	395	34	33	382	158
RTOR Reduction (vph)	0	0	220	0	5	0	0	4	0	0	0	132
Lane Group Flow (vph)	147	310	185	0	568	0	0	748	0	0	415	26
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		Perm
Protected Phases	7	4		8			2	2		6	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	38.9	38.9	38.9		18.9			19.9			14.2	14.2
Effective Green, g (s)	38.9	38.9	38.9		18.9			19.9			14.2	14.2
Actuated g/C Ratio	0.46	0.46	0.46		0.22			0.23			0.17	0.17
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	414	832	654		604			795			582	246
v/s Ratio Prot	0.07	0.17						c0.22			c0.12	
v/s Ratio Perm	0.10		0.28		c0.21							0.11
v/c Ratio	0.36	0.37	0.28		0.94			0.94			0.71	0.11
Uniform Delay, d1	14.9	15.1	14.4		32.5			32.0			33.5	30.0
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	0.5	0.3	0.2		22.5			19.4			4.1	0.2
Delay (s)	15.5	15.4	14.6		55.0			51.4			37.6	30.2
Level of Service	B	B	B		E			D			D	C
Approach Delay (s)		15.0			55.0			51.4			35.6	
Approach LOS		B			E			D			D	

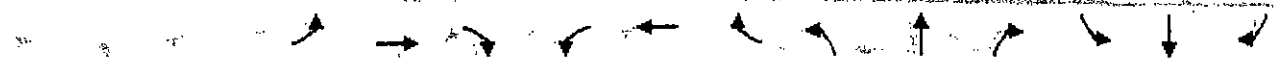
Intersection Summary			
HCM Average Control Delay	37.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.93		1.00			1.00			1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	1.00
Satd. Flow (prot)	1725	1818	1443		3392			3380			3479	1483
Flt Permitted	0.22	1.00	1.00		0.79			0.59			0.86	1.00
Satd. Flow (perm)	407	1818	1443		2724			2046			3004	1483
Volume (vph)	135	285	378	120	377	30	297	663	31	30	351	145
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	310	405	130	410	33	323	395	34	33	382	158
RTOR Reduction (vph)	0	0	190	0	5	0	0	5	0	0	0	116
Lane Group Flow (vph)	147	310	215	0	568	0	0	747	0	0	415	42
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		Perm
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	38.6	38.6	38.6		18.5			26.2			19.5	19.5
Effective Green, g (s)	38.6	38.6	38.6		18.5			26.2			19.5	19.5
Actuated g/C Ratio	0.53	0.53	0.53		0.25			0.36			0.27	0.27
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	507	964	765		692			786			805	397
v/s Ratio Prot	0.06	0.17						c0.04				
v/s Ratio Perm	0.09		0.28		c0.21			c0.31			0.14	0.11
v/c Ratio	0.29	0.32	0.28		0.82			1.53dl			0.52	0.11
Uniform Delay, d1	9.8	9.7	9.4		25.6			22.7			22.6	20.1
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	0.3	0.2	0.2		7.7			20.8			0.6	0.1
Delay (s)	10.1	9.9	9.6		33.3			43.5			23.2	20.2
Level of Service	B	A	A		C			D			C	C
Approach Delay (s)		9.8			33.3			43.5			22.4	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.93		0.99			0.99			0.99	
Flpb, ped/bikes	0.99	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.98			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1546	1636	1292		2981			3018			2969	
Flt Permitted	0.28	1.00	1.00		0.77			0.98			1.00	
Satd. Flow (perm)	459	1636	1292		2327			3018			2969	
Volume (vph)	185	282	349	100	212	47	330	512	53	49	598	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	307	379	109	230	51	359	557	58	53	650	173
RTOR Reduction (vph)	0	0	235	0	11	0	0	6	0	0	33	0
Lane Group Flow (vph)	201	307	144	0	379	0	0	750	0	0	843	0
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	40.2	40.2	40.2		20.0			28.7			24.6	
Effective Green, g (s)	40.2	40.2	40.2		20.0			28.7			24.6	
Actuated g/C Ratio	0.38	0.38	0.38		0.19			0.27			0.23	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	342	623	492		441			821			692	
v/s Ratio Prot	0.09	0.19						c0.25			c0.22	
v/s Ratio Perm	0.13		0.29		c0.17							
v/c Ratio	0.59	0.49	0.29		0.86			0.91			0.90	
Uniform Delay, d1	24.0	24.9	22.8		41.4			37.2			39.3	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	2.6	0.6	0.3		15.2			14.5			15.5	
Delay (s)	26.6	25.5	23.1		56.6			51.7			54.6	
Level of Service	C	C	C		E			D			D	
Approach Delay (s)		24.7			56.6			51.7			54.6	
Approach LOS		C			E			D			D	

Intersection Summary			
HCM Average Control Delay	44.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	105.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.94		0.99			0.99			0.99	
Flpb, ped/bikes	0.99	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.98			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1546	1636	1310		2994			3016			2973	
Flt Permitted	0.32	1.00	1.00		0.77			0.54			0.84	
Satd. Flow (perm)	521	1636	1310		2344			1662			2503	
Volume (vph)	185	282	349	100	212	47	330	312	53	49	398	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	307	379	109	230	51	359	339	58	53	433	173
RTOR Reduction (vph)	0	0	205	0	11	0	0	7	0	0	27	0
Lane Group Flow (vph)	201	307	174	0	379	0	0	749	0	0	632	0
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)	37.8	37.8	37.8		17.6			36.5			29.9	
Effective Green, g (s)	37.8	37.8	37.8		17.6			36.5			29.9	
Actuated g/C Ratio	0.46	0.46	0.46		0.21			0.44			0.36	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	241	751	602		501			780			909	
v/s Ratio Prot	0.09	0.19						c0.03				
v/s Ratio Perm	0.12		0.09		c0.17			c0.40			0.26	
v/c Ratio	0.46	0.41	0.29		0.76			2.39dl			0.69	
Uniform Delay, d1	14.4	14.8	13.9		30.3			22.2			22.5	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	0.7	0.4	0.3		6.4			22.6			2.1	
Delay (s)	15.1	15.2	14.1		36.8			44.8			24.6	
Level of Service	B	B	B		D			D			C	
Approach Delay (s)		14.7			36.8			44.8			24.6	
Approach LOS		B			D			D			C	

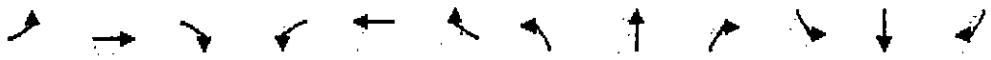
Intersection Summary			
HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	82.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.93		0.99			0.99			1.00	0.95
Flpb, ped/bikes	0.99	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.98			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			0.99	1.00
Satd. Flow (prot)	1546	1636	1296		2984			3019			3130	1320
Flt Permitted	0.29	1.00	1.00		0.77			0.98			0.99	1.00
Satd. Flow (perm)	474	1636	1296		2331			3019			3130	1320
Volume (vph)	185	282	349	100	212	47	330	312	53	495	398	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	307	379	109	230	51	359	339	58	538	433	173
RTOR Reduction (vph)	0	0	228	0	11	0	0	6	0	0	0	138
Lane Group Flow (vph)	201	307	151	0	379	0	0	750	0	0	486	35
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		Perm
Protected Phases	7	4			8		2	2		6		
Permitted Phases	4		4	8								6
Actuated Green, G (s)	39.8	39.8	39.8		19.5			27.8			20.5	20.5
Effective Green, g (s)	39.8	39.8	39.8		19.5			27.8			20.5	20.5
Actuated g/C Ratio	0.40	0.40	0.40		0.19			0.28			0.20	0.20
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	363	650	515		454			838			641	270
v/s Ratio Prot	0.09	0.19						c0.25			c0.16	
v/s Ratio Perm	0.13		0.29		c0.17							0.13
v/c Ratio	0.55	0.47	0.29		0.83			0.90			0.76	0.13
Uniform Delay, d1	21.5	22.4	20.6		38.7			34.8			37.5	32.5
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	1.8	0.5	0.5		12.4			12.0			5.1	0.2
Delay (s)	23.4	22.9	20.9		51.2			46.8			42.6	32.7
Level of Service	C	C	C		D			D			D	C
Approach Delay (s)		22.2			51.2			46.8			40.0	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	37.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

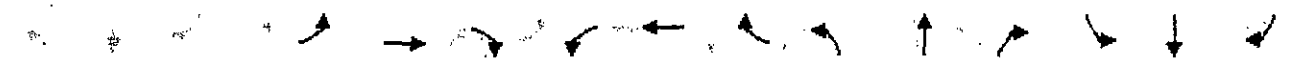
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.94		0.99			0.99			1.00	0.96
Flpb, ped/bikes	0.99	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.98			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			0.99	1.00
Satd. Flow (prot)	1546	1636	1311		2994			3013			3124	1331
Flt Permitted	0.52	1.00	1.00		0.77			0.58			0.81	1.00
Satd. Flow (perm)	523	1636	1311		2346			1776			2552	1331
Volume (vph)	185	282	349	100	212	47	330	512	53	49	398	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	307	379	109	230	51	359	339	58	53	433	173
RTOR Reduction (vph)	0	0	202	0	11	0	0	7	0	0	0	112
Lane Group Flow (vph)	201	307	177	0	379	0	0	749	0	10	486	61
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		Perm
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	37.8	37.8	37.8		17.4			35.3			28.7	28.7
Effective Green, g (s)	37.8	37.8	37.8		17.4			35.3			28.7	28.7
Actuated g/C Ratio	0.47	0.47	0.47		0.21			0.44			0.35	0.35
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	451	763	611		503			815			906	471
v/s Ratio Prot	0.09	0.19						c0.03				
v/s Ratio Perm	0.12		0.29		c0.17			c0.38			0.19	0.13
v/c Ratio	0.45	0.40	0.29		0.75			1.63dl			0.54	0.13
Uniform Delay, d1	13.6	14.2	13.4		29.8			21.6			20.9	17.7
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	0.7	0.3	0.3		6.3			15.6			0.6	0.1
Delay (s)	14.5	14.6	13.6		36.2			37.2			21.5	17.9
Level of Service	B	B	B		D			D			C	B
Approach Delay (s)		14.2			36.2			37.2			20.6	
Approach LOS		B			D			D			C	

Intersection Summary			
HCM Average Control Delay	25.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	81.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.88		1.00			1.00			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.99			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1727	1818	1366		3367			3385			3282	
Flt Permitted	0.17	1.00	1.00		0.76			0.98			1.00	
Satd. Flow (perm)	305	1818	1366		2598			3385			3282	
Volume (vph)	168	344	446	144	455	36	354	436	36	36	422	175
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	374	485	157	495	39	385	474	39	39	459	190
RTOR Reduction (vph)	0	0	283	0	3	0	0	2	0	0	29	0
Lane Group Flow (vph)	177	374	202	0	688	0	0	896	0	0	659	0
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	58.4	58.4	58.4		40.4			41.6			28.0	
Effective Green, g (s)	58.4	58.4	58.4		40.4			41.6			28.0	
Actuated g/C Ratio	0.42	0.42	0.42		0.29			0.30			0.20	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	269	758	570		750			1006			656	
v/s Ratio Prot	0.07	0.21						c0.27			c0.21	
v/s Ratio Perm	0.21		0.35		c0.27							
v/c Ratio	0.66	0.49	0.35		0.92			0.89			1.00	
Uniform Delay, d1	29.5	29.9	27.9		48.2			47.0			56.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	5.7	0.5	0.4		16.0			11.8			36.3	
Delay (s)	35.2	30.5	28.3		64.2			58.8			92.3	
Level of Service	D	C	C		E			E			F	
Approach Delay (s)		30.3			64.2			58.8			92.3	
Approach LOS		C			E			E			F	

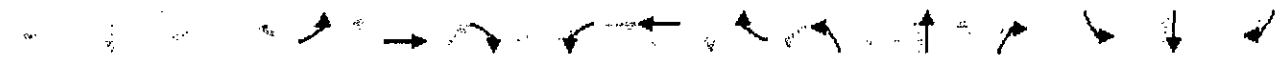
Intersection Summary			
HCM Average Control Delay	58.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.92		1.00			1.00			0.99	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.99			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1725	1818	1423		3396			3385			3297	
Flt Permitted	0.22	1.00	1.00		0.65			0.53			0.86	
Satd. Flow (perm)	403	1818	1423		2236			1837			2841	
Volume (vph)	163	344	446	144	455	36	354	436	36	36	422	175
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	374	485	157	495	39	385	474	39	39	459	190
RTOR Reduction (vph)	0	0	253	0	5	0	0	3	0	0	37	0
Lane Group Flow (vph)	177	374	232	0	686	0	0	895	0	0	651	0
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)	43.0	43.0	43.0		25.0			39.0			32.0	
Effective Green, g (s)	43.0	43.0	43.0		25.0			39.0			32.0	
Actuated g/C Ratio	0.48	0.48	0.48		0.28			0.43			0.36	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	398	869	680		621			848			1010	
v/s Ratio Prot	0.07	0.21						c0.04				
v/s Ratio Perm	0.14		0.34		c0.31			c0.42			0.24	
v/c Ratio	0.44	0.43	0.34		1.10			2.12dl			0.64	
Uniform Delay, d1	25.3	15.4	14.7		32.5			25.5			24.2	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	0.8	0.3	0.3		68.2			46.4			1.4	
Delay (s)	26.1	15.8	15.0		100.7			71.9			25.7	
Level of Service	C	B	B		F			E			C	
Approach Delay (s)		17.2			100.7			71.9			25.7	
Approach LOS		B			F			E			C	

Intersection Summary			
HCM Average Control Delay	51.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.88		1.00			1.00			1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	1.00
Satd. Flow (prot)	1727	1818	1366		3367			3385			3483	1444
Flt Permitted	0.17	1.00	1.00		0.76			0.98			1.00	1.00
Satd. Flow (perm)	305	1818	1366		2598			3385			3483	1444
Volume (vph)	168	344	446	144	455	36	354	436	36	36	422	175
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	374	485	157	495	39	385	474	39	39	459	190
RTOR Reduction (vph)	0	0	271	0	3	0	0	2	0	0	0	157
Lane Group Flow (vph)	177	374	214	0	688	0	0	896	0	0	498	33
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		Perm
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	61.8	61.8	61.8		40.4			41.6			24.6	24.6
Effective Green, g (s)	61.8	61.8	61.8		40.4			41.6			24.6	24.6
Actuated g/C Ratio	0.44	0.44	0.44		0.29			0.30			0.18	0.18
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	311	803	603		750			1006			612	254
v/s Ratio Prot	0.07	0.21						c0.27			c0.14	
v/s Ratio Perm	0.18		0.35		c0.27							0.13
v/c Ratio	0.57	0.47	0.36		0.92			0.89			0.81	0.13
Uniform Delay, d1	27.4	27.5	25.9		48.2			47.0			55.5	48.7
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	2.4	0.4	0.4		16.0			11.8			8.2	0.2
Delay (s)	29.8	27.9	26.3		64.2			58.8			63.6	48.9
Level of Service	C	C	C		E			E			E	D
Approach Delay (s)		27.5			64.2			58.8			59.6	
Approach LOS		C			E			E			E	

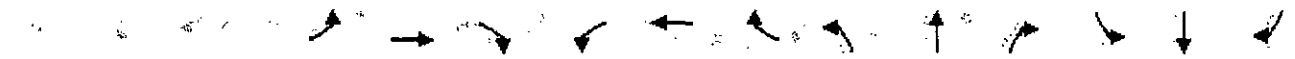
Intersection Summary			
HCM Average Control Delay	50.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.92		1.00			1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.99			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	1.00
Satd. Flow (prot)	1727	1818	1423		3388			3380			3480	1474
Flt Permitted	0.18	1.00	1.00		0.77			0.58			0.83	1.00
Satd. Flow (perm)	327	1818	1423		2637			1987			2915	1474
Volume (vph)	163	344	446	144	455	36	354	456	36	36	422	175
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	374	485	157	495	39	385	474	39	39	459	190
RTOR Reduction (vph)	0	0	247	0	5	0	0	3	0	0	0	125
Lane Group Flow (vph)	177	374	238	0	686	0	0	895	0	0	498	65
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		Perm
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	44.1	44.1	44.1		26.1			37.9			30.9	30.9
Effective Green, g (s)	44.1	44.1	44.1		26.1			37.9			30.9	30.9
Actuated g/C Ratio	0.49	0.49	0.49		0.29			0.42			0.34	0.34
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	378	891	697		765			838			1001	506
v/s Ratio Prot	0.07	0.21						c0.03				
v/s Ratio Perm	0.16		0.34		c0.26			c0.39			0.17	0.13
v/c Ratio	0.47	0.42	0.34		0.90			1.98dl			0.50	0.13
Uniform Delay, d1	15.0	14.7	14.1		30.7			26.0			23.4	20.3
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	0.9	0.5	0.3		13.1			331.6			0.4	0.1
Delay (s)	15.9	15.1	14.3		43.8			59.6			23.8	20.4
Level of Service	B	B	B		D			E			C	C
Approach Delay (s)		14.9			43.8			59.6			22.9	
Approach LOS		B			D			E			C	

Intersection Summary			
HCM Average Control Delay	34.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

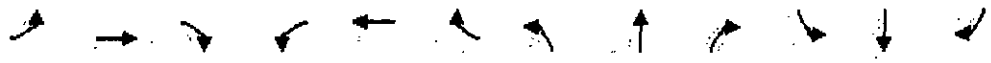
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.91		0.99			0.99			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.98			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1554	1636	1265		2969			3015			2959	
Flt Permitted	0.25	1.00	1.00		0.75			0.98			1.00	
Satd. Flow (perm)	415	1636	1265		2197			3015			2959	
Volume (vph)	224	341	413	118	256	57	398	375	63	59	478	192
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	371	449	128	278	62	427	408	68	64	520	209
RTOR Reduction (vph)	0	0	289	0	9	0	0	4	0	0	26	0
Lane Group Flow (vph)	243	371	160	0	459	0	0	899	0	0	767	0
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	50.0	50.0	50.0		32.0			44.0			34.0	
Effective Green, g (s)	50.0	50.0	50.0		32.0			44.0			34.0	
Actuated g/C Ratio	0.36	0.36	0.36		0.23			0.31			0.24	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	262	584	452		502			948			719	
v/s Ratio Prot	0.09	0.23						c0.30			c0.27	
v/s Ratio Perm	0.24		0.35		0.21							
v/c Ratio	0.93	0.64	0.35		0.91			0.95			1.07	
Uniform Delay, d1	38.5	37.4	33.1		52.7			46.9			53.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	36.3	2.3	0.5		21.1			19.1			52.9	
Delay (s)	74.8	39.7	33.6		73.7			66.0			105.9	
Level of Service	E	D	C		E			E			F	
Approach Delay (s)		45.2			73.7			66.0			105.9	
Approach LOS		D			E			E			F	

Intersection Summary			
HCM Average Control Delay	70.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.91		0.99			0.99			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.98			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1554	1636	1265		2969			3015			2955	
Flt Permitted	0.25	1.00	1.00		0.73			0.52			0.78	
Satd. Flow (perm)	415	1636	1265		2197			1611			2309	
Volume (vph)	224	341	413	118	256	57	393	375	63	59	478	192
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	371	449	128	278	62	427	408	68	64	520	209
RTOR Reduction (vph)	0	0	289	0	9	0	0	4	0	0	16	0
Lane Group Flow (vph)	243	371	160	0	459	0	0	899	0	0	777	0
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)	50.0	50.0	50.0		32.0			82.0			74.8	
Effective Green, g (s)	50.0	50.0	50.0		32.0			82.0			74.8	
Actuated g/C Ratio	0.36	0.36	0.36		0.23			0.59			0.53	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	262	584	462		502			1976			1234	
v/s Ratio Prot	0.09	0.23						c0.02				
v/s Ratio Perm	0.24		0.35		0.21			c0.52			0.34	
v/c Ratio	0.93	0.64	0.35		0.91			3.14dl			0.63	
Uniform Delay, d1	68.5	37.4	33.1		52.7			26.1			22.9	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	36.3	2.5	0.5		21.1			13.6			1.0	
Delay (s)	74.8	39.7	33.6		73.7			39.7			23.9	
Level of Service	E	D	C		E			D			C	
Approach Delay (s)		45.2			73.7			39.7			23.9	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM Average Control Delay	42.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		

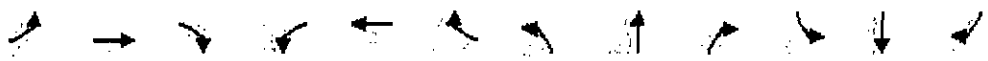
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.91		0.99			0.99			1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.98			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			0.99	1.00
Satd. Flow (prot)	1554	1636	1265		2968			3015			3130	1300
Flt Permitted	0.25	1.00	1.00		0.74			0.98			0.99	1.00
Satd. Flow (perm)	415	1636	1265		2241			3015			3130	1300
Volume (vph)	224	341	413	118	256	57	393	375	63	59	478	192
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	371	449	128	278	62	427	408	68	64	520	209
RTOR Reduction (vph)	0	0	277	0	9	0	0	4	0	0	0	164
Lane Group Flow (vph)	243	371	172	0	459	0	0	899	0	0	584	45
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		Perm
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	53.7	53.7	53.7		32.0			44.0			30.3	30.3
Effective Green, g (s)	53.7	53.7	53.7		32.0			44.0			30.3	30.3
Actuated g/C Ratio	0.38	0.38	0.38		0.23			0.31			0.22	0.22
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	303	628	485		512			948			677	281
v/s Ratio Prot	0.10	0.23						c0.30			c0.19	
v/s Ratio Perm	0.21		0.35		0.21							0.16
v/c Ratio	0.80	0.59	0.36		0.90			0.95			0.86	0.16
Uniform Delay, d1	33.0	34.4	30.8		52.4			46.9			52.8	44.5
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	14.1	1.5	0.4		18.0			19.1			11.0	0.3
Delay (s)	47.2	35.9	31.2		70.4			66.0			63.8	44.8
Level of Service	D	D	C		E			E			E	D
Approach Delay (s)		36.5			70.4			66.0			58.8	
Approach LOS		D			E			E			E	

Intersection Summary			
HCM Average Control Delay	55.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

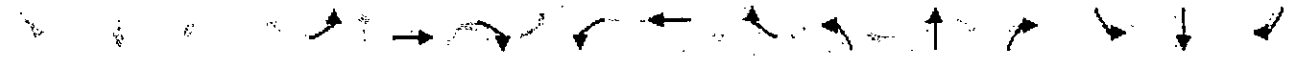
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.91		0.99			0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.98			0.99			1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99			0.98			0.99	1.00
Satd. Flow (prot)	1554	1636	1265		2968			3005			3124	1301
Flt Permitted	0.25	1.00	1.00		0.75			0.56			0.73	1.00
Satd. Flow (perm)	408	1636	1265		2241			1730			2307	1301
Volume (vph)	224	341	418	118	256	57	393	376	63	59	478	192
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	371	449	128	278	62	427	408	68	64	520	209
RTOR Reduction (vph)	0	0	230	0	9	0	0	4	0	0	0	104
Lane Group Flow (vph)	243	371	219	0	459	0	0	899	0	0	584	105
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm		pm+pt			Perm			Perm
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	54.5	54.5	54.5		31.5			77.5			70.3	70.3
Effective Green, g (s)	54.5	54.5	54.5		31.5			77.5			70.3	70.3
Actuated g/C Ratio	0.39	0.39	0.39		0.22			0.55			0.50	0.50
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	314	637	492		504			987			1158	653
v/s Ratio Prot	0.10	0.23						c0.02				
v/s Ratio Perm	0.20		0.35		0.21			c0.49			0.25	0.16
v/c Ratio	0.77	0.58	0.45		0.91			1.41 dl			0.50	0.16
Uniform Delay, d1	32.5	29.8	31.6		52.9			28.1			23.2	18.9
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	1.00
Incremental Delay, d2	11.3	1.4	0.6		20.7			192.2			0.3	0.1
Delay (s)	43.7	35.1	32.2		73.6			40.4			23.6	19.0
Level of Service	D	D	C		E			D			C	B
Approach Delay (s)		35.9			73.6			40.4			22.4	
Approach LOS		D			E			D			C	

Intersection Summary			
HCM Average Control Delay	39.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

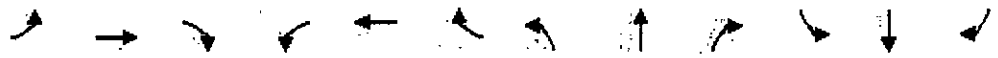
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.88		1.00			1.00			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.99			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1727	1818	1366		3367			3384			3283	
Flt Permitted	0.17	1.00	1.00		0.76			0.98			1.00	
Satd. Flow (perm)	306	1818	1366		2596			3384			3283	
Volume (vph)	163	344	450	145	455	36	358	438	37	36	424	175
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	374	489	158	495	39	389	476	40	39	461	190
RTOR Reduction (vph)	0	0	285	0	3	0	0	2	0	0	28	0
Lane Group Flow (vph)	177	374	204	0	689	0	0	903	0	0	662	0
Confl. Peds. (#/hr)	20		40	40		20	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	58.5	58.5	58.5		40.5			41.5			28.0	
Effective Green, g (s)	58.5	58.5	58.5		40.5			41.5			28.0	
Actuated g/C Ratio	0.42	0.42	0.42		0.29			0.30			0.20	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	270	760	571		751			1003			657	
v/s Ratio Prot	0.07	0.21						c0.27			c0.21	
v/s Ratio Perm	0.21		0.36		c0.27							
v/c Ratio	0.66	0.49	0.36		0.92			0.90			1.01	
Uniform Delay, d1	29.5	29.9	27.9		48.1			47.8			56.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	5.6	0.5	0.4		16.0			12.6			37.0	
Delay (s)	35.1	30.4	28.3		64.1			59.9			93.0	
Level of Service	D	C	C		E			E			F	
Approach Delay (s)		30.2			64.1			59.9			93.0	
Approach LOS		C			E			E			F	

Intersection Summary			
HCM Average Control Delay	58.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.91		0.99			0.99			0.98	
Flpb, ped/bikes	1.00	1.00	1.00		0.99			1.00			1.00	
Frt	1.00	1.00	0.85		0.98			0.99			0.96	
Flt Protected	0.95	1.00	1.00		0.99			0.98			1.00	
Satd. Flow (prot)	1554	1636	1265		2969			3014			2959	
Flt Permitted	0.25	1.00	1.00		0.73			0.98			1.00	
Satd. Flow (perm)	415	1636	1265		2195			3014			2959	
Volume (vph)	224	341	420	120	256	57	398	377	64	59	480	192
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	371	457	130	278	62	433	410	70	64	522	209
RTOR Reduction (vph)	0	0	293	0	8	0	0	4	0	0	26	0
Lane Group Flow (vph)	243	371	164	0	462	0	0	909	0	0	769	0
Confl. Peds. (#/hr)	30		30	30		30	20		20	20		20
Confl. Bikes (#/hr)			2			2			2			2
Bus Blockages (#/hr)	6	6	6	6	6	6	6	6	6	6	6	6
Turn Type	pm+pt		Perm	Perm			Split			Split		
Protected Phases	7	4			8		2	2		6	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	50.2	50.2	50.2		32.2			43.8			34.0	
Effective Green, g (s)	50.2	50.2	50.2		32.2			43.8			34.0	
Actuated g/C Ratio	0.36	0.36	0.36		0.23			0.31			0.24	
Clearance Time (s)	4.0	4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)	263	587	454		505			948			719	
v/s Ratio Prot	0.09	0.23						c0.30			c0.27	
v/s Ratio Perm	0.24		0.36		0.21							
v/c Ratio	0.92	0.63	0.36		0.91			0.96			1.07	
Uniform Delay, d1	38.4	37.2	33.1		52.5			47.8			53.0	
Progression Factor	1.00	1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2	35.6	2.2	0.5		21.0			21.8			53.8	
Delay (s)	73.9	39.5	33.6		73.6			69.1			106.8	
Level of Service	E	D	C		E			E			F	
Approach Delay (s)		44.8			73.6			69.1			106.8	
Approach LOS		D			E			E			F	

Intersection Summary			
HCM Average Control Delay	71.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

ACOUSTICAL ANALYSIS

OF THE HIGH AND MACARTHUR SENIOR COMMUNITY

IN THE CITY OF OAKLAND

Prepared for:

AMG and Associates, LLC

January 29, 2007

Prepared by:

BALLARD W. GEORGE, acoustical engineer
1367 Bobolink Circle
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408/736-7182

BWG205

1. EXISTING SETTING

The proposed project site is located in Oakland, California. The project site is bounded on the north by High Street, on the west by Interstate 580 and on the east by MacArthur Boulevard. The neighborhood land use is mixed. The site is undeveloped. The proposed project consists of four stories of residential units over a garage, as shown on the architectural drawings (KTGY, 2006). (See Figure 1). Ingress and egress is to be by way of MacArthur Street.

The charter for this study addresses noise from the various roadway traffic sources and potential impact of project generated traffic on the neighborhood consistent with CEQA criteria. Other acoustical issues such as inter-unit insulation and plumbing noise control and other interior noise considerations as appropriate will be addressed when additional plans are available.

Sources. Noise sources contributing to the existing noise environment on the project site include vehicle traffic on High Street and on MacArthur Street and on Interstate 580 (I-580). The existing site is generally at grade with High street and MacArthur Street, but the terrain is uneven. I-580 is elevated by some 15 feet relative to the west side of the site. High Street and MacArthur Street presently carry average daily traffic volumes (ADT) of approximately 24,500 and 17,000 vehicles, respectively as reported by the City of Oakland (Sobrero, 2006). Interstate 580 carries a daily volume of approximately 150,000 vehicles as shown by the CalTrans web site. The street traffic on High Street and on MacArthur Street consists very largely of automobiles, but there are also buses.

Measurements. On April 7, 12 and 14, 2006, sound levels were monitored on the project site. The measurements were taken by Ballard W. George, INCE Board Cert., telephone 408/736-7182. Measurements with total duration 49 minutes were performed in the afternoon period on April 7. The measurement locations were: (1) 10 feet from the curb of High Street and west of the existing bus stop; and (2), 20 feet from the west property line along I-580 and approximately 100 feet south of the property line along High Street. At the second location, the noise from High Street traffic was partly shielded by an existing fence along the north property line. (See Figure 1). The measured sound levels were 73 dBA equivalent energy level (Leq) at location (1) and 71 dBA Leq at location (2). The specific measurement times in some cases were determined partly by the weather.

The L_{eq} (energy average sound level) is the level of a steady noise which has the same sound energy as a given time-varying noise.

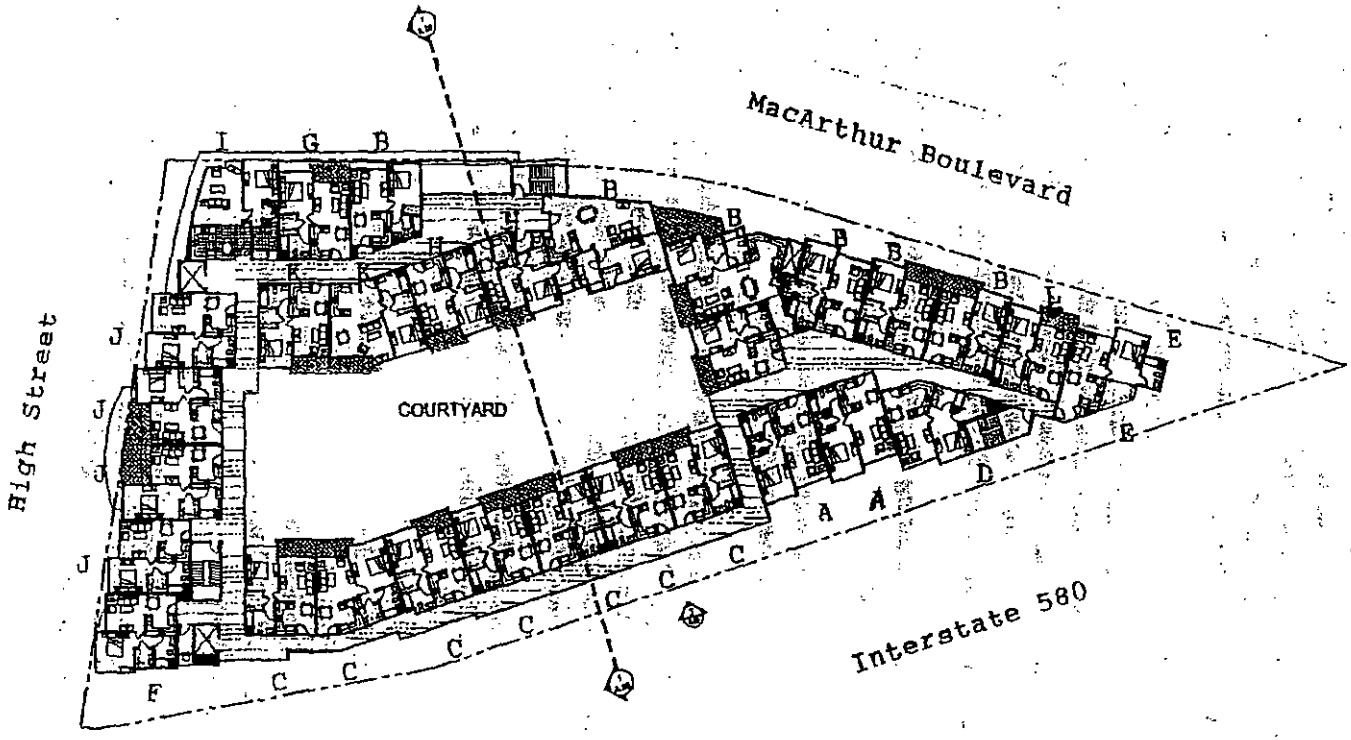

Figure 1. Floor plan showing acoustical window performance requirements, coded - see text.

SECOND FLOOR PLAN
Scale: 1/16"=1'-0"

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High and MacArthur Senior Community

Oakland, California

KTGY GROUP, INC.
Architecture + Planning

Project # 2005065A00 11/27/06

A.4

On April 12, measurements were taken in the afternoon period for a duration of 20 minutes. The measurement location was at the bus stop at a distance of 16 feet from the curb along High Street. The Leq sound level for the first 10 minutes was 79 dBA. The primary contributor to the Leq for this period was a fire engine on call. The Leq for the second ten minutes was 74 dBA . Weather conditions were light to moderate rain.

Measurements were taken in the afternoon period on April 14 at the following locations: at the corner of High Street and MacArthur Street, 11 feet from the curb along High Street and 10 feet from the curb of MacArthur; and 20 feet from the curb of MacArthur approximately midway along the east frontage of the property. Measurement duration in each case was 25 minutes. The measured sound levels were 75 dBA Leq at the street corner and 74 dBA Leq along MacArthur Street near the middle of the site.

In general, each of the roadways abutting the site contributed in some degree or other to each of the sound measurements.

The measurements described above were taken using a Bruel & Kjaer Type 2230 Precision Integrating Sound Level Meter type 2230.

In addition, a 22 hour measurement was made on April 6 and April 7, 2006, using a Metrosonics sound logger type 3080. The microphone was at a secure reference location near the northwest corner of the site, 20 feet from (south of) the opening in the existing fence along High Street and 15 feet from the west property line along I-580. The logger data were used to assist in establishing the 24 hour variation of sound for the site.

Based on the sound measurement data, the existing Day and Night Average Sound Level (Ldn) used in the City of Oakland standards has been calculated in accordance with the following:

$Ldn = [(L_d + 10 \log 15) \,\&\, (L_n + 10 + \log 9] - 10 \log 24$
$= [(L_d + 12) \,\&\, (L_n + 10 + 9.5)] - 14$
Where: L_d = daytime Leq (7:00 am to 10:00 p.m., 15 hours)
L_n = nighttime Leq (10:00 p.m. to 7:00 a.m., 9 hours)
& = decibel addition

The existing Day and Night Average Sound Level (Ldn) value at the planned building location along High Street was calculated from the measurement data to be 73 dBA, applicable at the first floor level. The existing Ldn value at the planned building location along MacArthur Street was calculated to be 71 Ldn. At the planned units nearest I-580, the Ldn is calculated to be

73 dBA at the first floor level and progressively higher at higher floor levels, with a level of 80 Ldn applicable at the fourth floor level. Adjustments for distance have been made in each case where applicable in accordance with the planned setback location. Modeling calculations of traffic noise were used to supplement the measurement data.

Applicable Regulations and Guidelines. The City of Oakland noise standards identify the outdoor sound level goal for residential areas as 60 dBA on the Day and Night Average Noise Level (Ldn) scale (Barger, Rod, 2006). The City of Oakland and California Title 24 Noise Insulation standards prescribe the maximum sound level allowed indoors for residential units as 45 dBA on the Ldn scale. The Ldn averaging system accounts for the greater annoyance potential of nighttime noise by weighting nighttime sound levels, from 10:00 pm to 7:00 am, 10 dB greater than daytime levels.

2. IMPACTS

Traffic noise at project. Future sound levels, due to vehicle traffic, on the proposed project site in the year 2015 due to surface street traffic are predicted to remain approximately at the present values. The prediction is based on information provided by the City of Oakland (Sobrero, 2006). Future Ldn sound levels on the site due to I-580 sources are also predicted by Ballard W. George to remain generally the same, consistent with the trend for the surface streets. (It is understood that CalTrans no longer provides traffic projections for developer projects).

CEQA Standards for project-generated impact. The applicable CEQA standards for the project state that a project will have a significant noise impact on the neighborhood if it will: result in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project. In reference to project traffic noise, it is estimated that somewhat less than 142 vehicles in the peak traffic hour will enter or leave by way of MacArthur Street, whereas the existing volume on that street at peak hour is calculated to be approximately 1,700 vehicles. The calculated sound level increase due to the project traffic will be less than 0.5 dB and will be well within the allowable amount stated in the CEQA standards used by the City of Oakland.

Construction noise. Construction activities can produce temporary high noise level impacts. Construction noise can be mitigated by measures such limiting construction hours, using quiet equipment as feasible, location of equipment away from sensitive locations where applicable, and using temporary noise barriers such as material stockpiles.

3. EVALUATION OF BUILDING PLANS

Intruding Noise. Future exterior noise levels on the proposed project site are predicted to

be up to 75 L_{dn} at the first floor level in front of the building structures nearest the roadways. To comply with City of Oakland standards related to the sound insulation from exterior noise sources, the building envelopes of the structures on the site should provide sound insulation adequate to attain an interior L_{dn} of 45 dBA.

Based on the expected building design, all exterior walls and roof designs will typically provide a sound insulation of at least 35 dB, which would be sufficient sound insulation for all the units within the project. This includes stucco exterior building wall material at a number of locations, assumed to be 3/4"or 7/8" thick. It is understood that there will not be open-beam ceilings.

Inter-unit Noise. The California Administrative Code, Title 24, and the Uniform Building Code, Chapter 35, require that party walls between units, and between units and common space, provide an airborne sound insulation equal to that required to meet an STC of 50 as tested in the laboratory. The standards require that common floor ceilings provide an STC rating of 50, and provide an Impact Insulation Class (IIC) rating of 50 over occupied space for impact sound. The ratings shown are minimum values.

Evaluation of and recommendations for the party/common walls and common floor/ceiling assemblies will be made at a later date when additional drawings are available.

4. INTERNAL STRUCTURAL CHANGES

Outdoor sound. The following comments on internal structural changes where appropriate for the building. It is noted that sound levels at the inner courtyard will be significantly reduced by the shielding effect of the buildings and are considered to be consistent with the objectives of the Noise Element..

Exterior-to-interior sound. The following measures are recommended to achieve requirements and objectives for exterior-to-interior sound levels. The measures are based on the current plans and information provided by e-mail. For this purposes, the dwelling "stacks" are identified by letters on Figure 1. Stucco exterior wall finish is assumed to be 3/4" or 7/8' thick. The window ratings and wall improvements quoted are in conjunction with use of a solid parapet at all roof edges with a minimum height of two feet as reported by the architect. The parapet is assumed to be solid with no openings.

Where acoustically rated windows are specified (as they are at all locations), sliding glass doors also need to be acoustically rated but can use a sound insulation rating three STC points lower than the corresponding windows as a result of shielding by

the recommended solid deck railings where these occur.

In general, windows are assumed to occur on only one wall of a living space.

WI1a. Glass section assemblies in this group of units (group "A" along I-580, middle region, units facing the freeway), should provide a sound insulation equal to that required to meet an STC (Sound Transmission Class) rating as follows, applicable to windows having a direct or side orientation toward I-580: at the first floor: STC 31; at the second floor, STC 34; at the third floor, STC 37; at the fourth floor, STC 40. This is in conjunction with stucco exterior wall surface as shown on the plans for various locations.

The window rating is also, for the fourth floor, in conjunction with improvements to the roof/ceiling assembly as follows: for spaces directly adjacent to I-580, install a second (room side) ½" or 5/8" gypsum board layer, with spot adhesive attachment. The gypsum board should be held back ¼" at the perimeter and at any required penetrations, and the clearance space sealed with resilient ("permanently non-hardening") caulking. (Alternatively, install the (single gypsum board) ceiling on resilient channels).

Where the exterior wall surface is wood siding, in the "A" group, the following sound rating applies for first floor windows facing I-580: STC 32.

Where the exterior wall surface is wood siding in the "A" group, the following sound rating applies for second floor, third floor and fourth floor windows, respectively, facing I-580: STC 34, STC 38, and STC 40 This is in conjunction with improvement of the exterior wall for living spaces on these floor levels and directly (or obliquely) exposed to I-580. The wall improvement could consist of : installing a second layer of ½" or 5/8" gypsum board on the room side of the exterior wall along I-580, attached adhesively to the first layer in a spot arrangement. It is further recommended that the wall panels (room side panels) be held back ¼" at the perimeter and any required penetrations and the clearance space be sealed with resilient caulking. (Alternatively, a staggered stud exterior wall could be used, with R11 or somewhat thicker insulation).

The window sound ratings specified for the fourth floor are in conjunction with roof/ceiling improvement and with a parapet as described previously in this section.

WI1b. Group "B." The following apply for windows with direct or side orientation toward MacArthur Street.

For living spaces in this group of units (group "B" along MacArthur Street, middle area), the following window ratings are recommended in conjunction with stucco exterior walls: STC 28 (except STC 30 at the fourth floor).

For glass section assemblies in this group of units (group "B" along MacArthur Street), the following window rating applies in conjunction with exterior siding finish material: STC 30 (except STC 32 at the fourth floor).

WI1c. Group "C" - with corridors. For glass section assemblies in the group (group "C" along I-580), windows at the corridors (exterior side of the corridors) are recommended to provide a sound insulation rating as follows: STC 27.

WI1d. Group "D." For glass section assemblies -window and sliding glass doors - in this stack (group "D" along I-580, near south end), the following window rating applies: STC 28. (The west building face is blank, with stucco exterior surface, and with no windows having a view of any part of I-580, as shown on the elevation drawing).

WI1e. Group "E." For glass section assemblies in this stack (group "E" along I-580 and MacArthur Street at the south end of the site), the following ratings apply for windows and sliding doors having a view of some part of I-580 or MacArthur Street: STC 31; second floor, STC 34; third floor, STC 37; fourth floor, STC 40. This is based on the use of stucco exterior wall finish throughout for this group as is understood from the drawings.

WI1f. Group "F." For glass section assemblies in this stack (group "F" along I-580 and High Street at the northwest corner of the site), the following ratings apply for windows having a view of some part of I-580 or of High Street: first floor, STC 34; second floor, STC 36; third floor, STC 38; fourth floor, STC 40. (Exterior wall material exposed to the roadways is stucco, as indicated by the drawings)

It is further recommended that the roof/ceiling assembly be improved acoustically as follows: for spaces directly adjacent to I-580 or High Street, install a second (room side) gypsum board layer, with spot adhesive attachment, or use resilient channels, as described more fully under group A.

WI1g. Group "G." For glass section assemblies in this stack (group "G" along

MacArthur Street near High Street), the following window sound rating applies for the building faces exposed to MacArthur Street in conjunction with exterior siding finish: at the first, second and third floors, STC 30; at the fourth floor, STC 32.

For glass section assemblies in this group (stack "G", along MacArthur Street near High Street), the following window sound rating applies for the building faces exposed to MacArthur Street in conjunction with stucco exterior wall finish: at the first, second and third floors, STC 28; at the fourth floor, STC 30.

WI1h. Group "H." For glass section assemblies in this stack (group "H" generally near MacArthur Street on the northerly half of the site), the following window sound rating applies for the east, north and south (as applicable) building faces: STC 27.

WI1i. Group "I." It is understood from the information provided that this stack is three stories high (first through third floor levels), and the exterior wall surface is stucco. For glass sections in this group (northeast corner of the site at the street corner), the following window sound ratings apply for the building faces having a direct or side exposure to High Street of MacArthur Street: first floor: STC 37; second floor, STC 38; third floor, STC 38.

WI1j. For glass sections in this unit group (group "J," along High Street including middle part of the frontage), the following window sound ratings apply for the north building face : first floor: STC 34; second floor: STC 36, third floor, STC 38; fourth floor, STC 40; These values are based on stucco exterior wall. For windows not directly along High Street, but with a view of some part of it, the ratings can be three points lower.

Where exterior siding is used at the third and fourth floor levels on building faces exposed to some part of High Street, it is recommended that a staggered stud exterior wall design be used at that location (single 2x6" plate with double row of staggered 2x4" wood studs, with 3-1/2", or somewhat thicker, glass fiber insulation in the stud cavities). Alternatively a second layer of ½" or 5/8" gypsum board can be installed at that location , with adhesive spot attachment, on the room side of the exterior wall.

WI1k. For glass sections in this unit group (group "K" near MacArthur and High Streets), the following window sound ratings apply: for east, north and any south building faces: STC 27.

WI1l. For glass section assemblies in this stack (group "L" along MacArthur near south end), the following window sound ratings apply for the east building face: first floor: STC 32; second floor: STC 34; third floor, STC 36; fourth floor: STC 39.

WI1m. For other glass sections at the development, the following window and sliding glass door sound rating applies: STC 28.

WI2. It is recommended that windows generally be operable but be kept closed by the residents in each unit as needed for sound control, with mechanical ventilation for the whole unit, acceptable to the Building Department, provided to assure habitability in accordance with the Uniform Building Code and Title 24.

WI3. It is assumed that carpeting, which affects interior sound absorption, is used in living spaces except for normally hard-floor spaces as kitchens and bathrooms. Also carpet is recommended (and planned) for use in the corridor along I-580.

WI4. The window rating applies to the complete operable (or fixed) assembly including frames and seals.

WI5. Ballard W. George, acoustical engineer, would be available to review submittals for windows.

Per the suggestion of Harris (1997), a check should be made to ensure that the acoustical test(s) were made in the last several years by an NVLAP-approved laboratory. If the unit (window) is intended to be operable, look for a statement that the unit was opened and closed at least five times prior to the acoustical test.

WI6. If laminated window glass is used, the acoustically preferred type is the ESCL, in view of its reported better resistance to degradation with colder weather. (And the laminated lite could advantageously be on the inside of a double pane assembly).

WI7. Exterior doors in general should be one and three-quarter inch thick solid core doors or acoustically equivalent metal doors with full perimeter seals and with no openings. Door frames should be true; doors and frames should be carefully matched. Door frames should be of substantial solid construction.

Doors to the corridor along I-580 should be 1-3/8" or thicker solid core wood

doors 1-3/8" or thicker per California Title 24 noise insulation standards; these affect noise from the corridor and in this case also noise from outside.

WI8. The building shell should be of airtight construction on the inside and outside except for required ventilation openings. All frames and junctions and any required penetrations of the building shell should be thoroughly caulked with resilient durable caulking and weather stripped to prevent air leaks. Window and exterior door frames should be thoroughly sealed against the building structure before trim is applied.

WI9. All roof/wall and floor/wall junctions should be thoroughly sealed and caulked. Caulking is to be a resilient, durable acoustical type appropriate to the application.

WI10. R30 insulation should be installed in the attic or roof/ceiling space. The roofing should incorporate solid sheathing. It is understood that there will not be open beam ceilings. It is assumed that attic access panels where applicable at relatively less sensitive locations. The panels should fit snugly. Recessed ceiling lights at the top level should be avoided or minimized.

WI11. Ceilings and wall skins on resilient channels, where applicable, should not be in rigid contact with any other part of the building structure. Thus, care should be taken to ensure that screws do not connect through from the ceilings or wall skins into the joists or studs. The gypsum board should be cut short about one-quarter inch at the perimeter of the ceiling or wall panel that is on resilient channels, also the channels held back one-half inch, and the clearance space around the gypsum board fully sealed with resilient caulking. The baseboard should be similarly held back and sealed with resilient caulking. Resilient channels should be installed in accordance with procedures of the supplier.

It is recommended that one or more "push" tests be performed, with some care, to check that the panels on resilient channels are in fact flexing (yielding), thus indicating no rigid attachments.

Heavy objects should not be supported by wall panels or ceilings on resilient channels.

Resilient channels should provide acoustical performance equivalent to that formerly provide by USG channels, as confirmed by laboratory test.

WI12. Kitchen and bathroom vents should be provided with exterior or interior dampers. Other required vents if any from occupied space to the exterior should be provided with appropriate dampers or sound traps. Ducting connecting occupied space directly or indirectly with the exterior should be fitted with interior acoustical absorptive lining. Through the wall air-conditioning units are not to be used. Chimneys if used should be provided with effective steel dampers.

It is assumed that there are not vent openings between floor levels, and that there are not skylights at living units.

WI13. Vent openings at units along I-580 should be on the side away from the freeway, and at units along High Street should be on the side away from that street, or else incorporate appropriate sound traps in each case.

5. REFERENCES

Davy, Bruce, personal communication, 1996

Harris, Cyril, Editor, Noise Control in Buildings, McGraw-Hill, 1994

Harris, David, Noise Control in Residential Buildings, McGraw-Hill, 1997

KTGY, Santa Monica, High and MacArthur Senior Community, Oakland, California, for AMG & Associates LLC

Sobrero, Richard, City of Oakland, Traffic Department, telephone communication, 2006

Oakland City Planning Commission STAFF REPORT

Design Review Committee

Case File Number: CMDV06-426 **January 23, 2008**

Location:	**4311 – 4317 Macarthur Blvd**
Assessors Parcel Number:	**(APN: 030 -1982-121 through 123)** **(See map on the reverse)**
Proposal:	To construct a mixed use senior housing development containing 115 apartments and approximately 3,124 of ground level commercial space. *Please note this item was continued from the Design Review Committee meeting of December 12, 2007. The applicant proposed a new design scheme at that meeting.*
Applicant:	AMG Associates
Contact Person / Phone Number:	Kristen Weirick (818)380-2600
Owners:	Hahn Development/Hahn & Kang Equity (510)688-8350
Planning Permits Required:	Major Conditional Use Permit to allow an increase in density for senior housing as per section 17.106.060; Minor Conditional Use Permit for ground level parking in the C-31 zone, Minor Conditional Use Permit to reduce the required amount of parking as per section 17.116.110 of the O.P.C., Minor Variance for building height; Minor Variance for height of building adjacent to R-50 Zone; and Design Review.
General Plan:	Neighborhood Center Mixed Use
Zoning:	C-30 District Thoroughfare Commercial Zone S-4 Design Review Combining Zone C-31 Special Retail Commercial Zone
Environmental Determination:	Infill Exemption; CEQA Guidelines Section 15332
Historic Status:	No Historic Record – vacant lots
Service Delivery District:	4
City Council district	4
For further information:	Contact case planner **Robert D. Merkamp** at **510-238-6283** or by email: rmerkamp@oaklandnet.com

SUMMARY

AMG Associates has submitted an application to construct a five story mixed use affordable senior housing project containing 115 one bedroom senior apartments and approximately 3,124 square feet in ground floor commercial space. The commercial space would be in two separate areas with the main commercial area located at the corner of High St and Macarthur Blvd. A separate retail area labeled as a "kiosk" on the floor plans would front on High St. A residential lobby facing High St would be located between the two commercial spaces. Parking would be on the ground floor behind the commercial spaces with access off of Macarthur Blvd. The parking area will be divided by a security gate into two separate areas, one accessible only to residents and the other accessible to residents, visitors, and patrons of the commercial area. The ground level will also include a loading zone on High St adjacent to the freeway, various mechanical/equipment rooms, and an art feature located at the corner of High St and Macarthur Blvd in front of the larger commercial space. Above this will be four stories of residential units with approximately 28-29 units per floor. The building will have a central courtyard. Each unit will average approximately 540 sq. ft. in size.

This item was heard by the Design Review Committee at their December 2007 meeting. At the meeting the applicants unveiled a new design for the project and the DRC continued this item so the applicants would have a chance to present it to the neighborhood and so planning staff could review the new changes (analyzed below). The applicant did hold a community meeting on January 15, 2008 and presented the design. There were numerous questions and comments regarding the new design as well as other issues related to the project as a whole such as air quality, traffic, and crime. Briefly, the applicants have changed both the colors and materials of the project as well as the overall architectural style. They have introduced physical breaks in the structure in two places to essentially create two separate buildings sitting atop a common parking podium. Each section will have it's own design style while still retaining common elements allowing them to compliment each other. Staff believes this will create a good deal more visual interest than the previous design and is interested in comments from the DRC.

PROJECT SITE AND SURROUNDING AREA

Existing Conditions
The proposed development is located at the southwest corner of High St and Macarthur Blvd on the edge of the Laurel District. The I-580 freeway runs along the western edge of the project area. The site consists of three parcels totaling .93 acres in size. The site is vacant except for a billboard (which would be removed as a part of this application) and was at one time occupied by a PG&E service yard, an auto repair shop, and a market.

Surrounding Area
Retail/office/food sales uses are located to the east as well as residential land uses. To the north along Macarthur Blvd are a variety of commercial activities. To the southwest is the I-580 freeway.

KEY ISSUES

Building Location: One key concern was the building's location relative to the freeway. It is located on a fairly unusually shaped "wedge-like" site and is bounded by High Street, Macarthur Boulevard, and the I-580 freeway. The longest of the two sides of this triangular shaped lot run parallel to Macarthur Blvd and the I-580 freeway. On the Macarthur Blvd side the building would be built right up to the property line for the commercial element near the corner at High and Macarthur. Then the building will step in 8' back from the public right of way. The area in between the right of way and the building wall is proposed to be landscaped with a variety of trees and shrubs. On the I-580 edge the building wall of the garage will be setback 10' from the property line facing the freeway. The applicant proposes landscaping in this 10' setback as well. The living space above will in parts step in a further 6' from the facing of the garage. The freeway itself is approximately 48' – 68' away from the property line (58'- 78' away from the building) and it is separated from the freeway by a dense landscape buffer of large trees and shrubs (see aerial image below courtesy of Google Earth) in the Caltrans right of way (earlier statements that the project was 22' from the physical edge of the freeway were based on inaccurate drawings provided by the applicant). The project site's property lines run along the northeastern tree line as shown in the photo on the next page.

This landscaping buffer is quite dense and is in part a reason why this freeway has a scenic highway designation. Due to the lot dimensions and due to the way it tapers significantly to the southeast staff has been reluctant to require further setbacks for the building. At the PC hearing in September discussions focused on perhaps moving those units closest to the freeway further back from the shared property line. This leads to several difficulties however as there are few alternative places on the lot for these units. Placing them into the open space pocket of the project would force the group open space closer to the freeway, which is not necessarily desirable. A second option would be to remove some units and place them on top of the portion of the structure fronting Macarthur and High. This would reduce the number of units closer to the freeway but would increase the height of the project on the other side of the property. Height along this section of Macarthur and High has been controversial with some in the community. An earlier design was actually taller and this height was reduced at the request of the community. Furthermore, the building as currently proposed requires a height variance so moving the density of the project from one area of the building to another would increase the degree of the height variance being requested. One final option would be to remove units from the side of the building facing the freeway and not replacing them anywhere on the site, thus lowering the height of the building for the portion of the project facing the freeway structure as well as decreasing the number of units provided. At the PC hearing, the Commission expressed general satisfaction with the density of the project.

Design Issues

Staff presented the project before the Design Review Committee (DRC) on September 27, 2006 as well as on December 12, 2007. Both of those meetings have led to changes in the building. The first meeting saw a variety of comments regarding both bulk and materials used. As mentioned previously, the applicant revised the project by removing a story from the building. This decreased the number of units from 142 to 115 although overall look remained the same (albeit lower) with an undulating roof to help break up the mass as well as projecting balconies and walls along the face. The color palette was been softened. The applicant added Laurel leaves to the side of the building facing High St. (at the corner with Macarthur Blvd) as a decorative feature to help tie the building into the Laurel District and relate to the Laurel arch that crosses Macarthur.

That project went to the Planning Commission in September of 2007 for review and possible action. At the hearing, the project applicant requested a delay as there were still concerns on the part of the Planning Commission about potential health issues due to it's proximity to the freeway as well as the design of the project. The Planning Commission gave the applicant direction on design issues and then referred the case to the Design Review Committee to review further. Between the time of the Planning Commission and December Design Review the staff discovered an inaccuracy in the applicant's drawing incorrectly depicted the proposed building being much closer to the freeway than would actually be the case.

The applicant also continued to explore design modifications to the project and ultimately did re-design the project. The general bulk and unit counts did stay the same this time although the exterior appearance has changed in terms of materials, colors, and roof planes. The most significant visual changes have been the introduction of two breaks in the building wall, one facing towards the freeway and the other located above the entrance to the parking entrance on Macarthur Blvd. The gap in the building wall facing Macarthur is approximately 23' wide and the gap facing the freeway is approximately 12'. This gap will help to break up the apparent mass of the building and the style and design of the building alters subtly on both sides of the break. Roof styles, parapets, materials and colors will be slightly different although still generally complimentary to one another. This will have the effect of making the overall project more interesting as well as making the building look more like two separate buildings as opposed to one. While the proposed building would be the same height as the previously proposed design, the roof plane undulates more than the previous elevation. The tops of the building are more visually interesting with projecting flat eaves and awnings which help to break up the front façade. The portion of the building on the "north-western" portion of the property will use lighter tans as the main body color with widely projecting eaves supported by brackets beneath them. The materials have been changed before. Previously the building was mostly stucco, now composite wood siding is much more prominent on the front façade with stucco being used as an accent feature and as a material change for the top of the building. On the "south-eastern" portion of the building, the color palette will shift to a darker, more maroon color and the roof top eaves will be less pronounced and of a different style. Both sections of the building will change color for the top floor to a lighter cream and white. These factors help give the building a base, middle, and a top.

There is some confusion between the elevations and the site plan drawings. The elevations show numerous pop-outs from the building wall, mainly associated with the vertical elements. Distinct shadow lines are visible as well. The site plan however shows a smooth wall (particularly along the I-580 freeway). The applicants addressed this concern in the neighborhood meeting, describing that the

building will be articulated and that it the site plan drawing was not modified. This will be corrected for the plans presented to the full Planning Commission.

Staff would recommend that all stucco surfaces including those on the face of the garage be smooth coat stucco as opposed to rough stucco. Staff also is concerned with window detailing. While we have no notes regarding the window types staff is concerned about the look of vinyl windows on larger buildings such as this and recommends a dark, aluminum clad window type. Staff believes the overall design will be attractive and is an improvement over the previous design. Staff is interested in any other design related comments the Committee might have.

RECOMMENDATIONS

Staff recommends the Committee review the proposed project and provide comments on the design prior to returning it to the full Planning Commission for a decision.

Prepared by:

ROBERT D MERKAMP
Planner IV

Approved:

SCOTT MILLER
Zoning Manager

ATTACHMENTS: Project plans

Tom Brohard and Associates

ATTN: Robert Merkamp

April 24, 2007

Leila H. Moncharsh
Veneruso & Moncharsh
5707 Redwood Road, Suite 10
Oakland, California 94619

SUBJECT: Review of Traffic/Circulation for the Proposed Senior Housing Project on MacArthur Boulevard at High Street in the City of Oakland

Dear Ms. Moncharsh:

As requested, Tom Brohard and Associates has reviewed the February 28, 2007 Staff Report to the City of Oakland Planning Commission regarding the Proposed Senior Housing Project on MacArthur Boulevard at High Street. In addition, the November 2006 Traffic Impact Study for the proposed project prepared by Abrams Associates has also been reviewed.

As explained in this letter, there are four issues and concerns that require further analysis, evaluation, and/or explanation as follows:

1) Signal Timing for Elderly Pedestrians – Page 17 of the Traffic Impact Study indicates the pedestrian crossing times at the traffic signal on MacArthur Boulevard at High Street are "properly set" but none of the traffic signal timing parameters were provided in the Traffic Impact Study. It is critically important that sufficient time be provided for elderly walking pedestrians or those in wheelchairs to be able to safely cross at the traffic signal on MacArthur Boulevard at High Street adjacent to the proposed senior housing project.

   The pedestrian crossing interval (when the Don't Walk indications flash) should be sufficient to allow a pedestrian in the crosswalk leaving the curb during the Walking Person signal indication to reach the far side of the traveled way. While a normal walking speed of 4 feet per second is commonly used for the pedestrian clearance interval, Page 4E-9 of the national Manual on Uniform Traffic Control Devices states "Where pedestrians who walk slower than 4 feet per second or pedestrians who use wheelchairs routinely use the crosswalk, a walking speed of less than 4 feet per second should be considered in determining the pedestrian clearance time."

   A number of agencies in California provide additional time at traffic signals by using reduced walking speeds for elderly pedestrians or those who use wheelchairs to complete their crossing of the roadway at traffic signals. The City of Oakland should review the pedestrian crossing intervals at the traffic signal on MacArthur Boulevard at High Street to make sure that sufficient time to safely cross is provided for elderly pedestrians and those in wheelchairs.

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2) Shuttle Service for the Project – Condition 33 on Page 29 of the Staff Report requires construction of a shuttle turnout which has been illustrated on Figure 2 of the Traffic Impact Study on the south side of High Street near the west property line. However, the Staff Report and the Traffic Impact Study do not provide any information regarding the shuttle service itself. This leads to a number of unanswered questions that should be addressed regarding the shuttle service including:

- Will the developer be required to institute shuttle service for the project?
- Is the City planning shuttle service in this area?
- Who will pay for the capital cost of the shuttle vehicles?
- Who will pay the regular operating and maintenance costs of the shuttle?
- Will the developer be required to pay a "fair share" of the shuttle costs?
- What is the frequency of shuttle service?
- What are the routes for the shuttle?

3) MacArthur Boulevard at High Street Improvements – In summarizing its conclusions, Pages 20 and 21 of the Traffic Impact Study describe two improvements that would significantly improve traffic operations at MacArthur Boulevard at High Street including:

a) Protected/Permitted Left Turn Phasing for Northbound Traffic – This traffic signal modification would provide a left turn green arrow at the beginning of the northbound MacArthur Boulevard green phase, facilitating these left turns and reducing "...the average vehicle delay at this intersection by as much as 15 seconds per vehicle." With this operation, northbound left turns would be made from the existing inside through lane under either the green arrow or in the gaps in southbound traffic under the green ball.

b) Southbound Right Turn Lane – This improvement involves widening the southbound MacArthur Boulevard approach to add a separate right turn lane adjacent to the vacant lot at the corner. This additional lane would "...reduce the average delay by up to 7 seconds per vehicle."

The Traffic Impact Study indicates that the two improvements together would "...reduce the average delay by up to 19 seconds per vehicle." These improvements would have a significant positive benefit to the peak hour intersection operations on MacArthur Boulevard at High Street as follows:

a) Opening Day Conditions - In Table 6 on Page 16, the Traffic Impact Study forecasts 42.3 seconds of delay/Level of Service "D" in the AM and 44.2 seconds of delay/Level of Service "D" in the PM on opening day of the project. With these two improvements, this intersection would experience 23.3 seconds of delay/Level of Service "C" in the AM and 25.2 seconds of delay/Level of Service "C" in the PM.

b) Cumulative (2020) Conditions - In Table 9 on Page 20, the Traffic Impact Study forecasts 58.4 seconds of delay/Level of Service "E" in the AM and 71.0 seconds of delay/Level of Service "E" in the PM under cumulative conditions in 2020 with the project. With these two improvements, this intersection would experience 39.4 seconds of delay/Level of Service "D" in the AM and 52.0 seconds of delay/Level of Service "D" in the PM.

4) Reasonably Foreseeable Projects Omitted – Page 8 of the Traffic Impact Study states "Baseline traffic conditions (estimated to be in 2007) have been estimated to include all reasonably foreseeable projects that are currently under construction or will likely be completed within the next two years, or by 2007. No significant projects have been identified in the study area."

It is my understanding that one large residential project has been approved and is under construction. I have been informed that the Leona Quarry project permit allows approximately 482 homes and is in its fourth phase of a total number of 13 phases. The other major project has gone through redevelopment review and is on its way to completing permit approval shortly – the Oak Knoll project contemplates over 900 homes. Trip forecasts for both of these "reasonably foreseeable" projects must be added in to the analysis of baseline traffic conditions on MacArthur Boulevard at High Street. The Traffic Impact Study should provide a map showing the location of these projects together with the trip generation forecasts for each project.

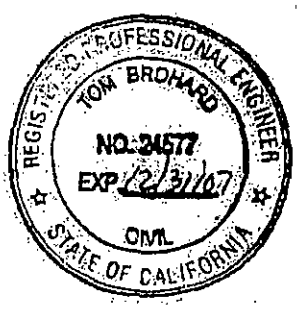
In sum, the four issues and concerns described in this letter require further analysis, evaluation, and/or explanation before the Planning Commission considers the proposed senior housing project on MacArthur Boulevard at High Street. If you have questions regarding these comments, please call me at your convenience.

Respectfully submitted,

Tom Brohard and Associates

Tom Brohard

Tom Brohard, PE
Principal



Tom Brohard, PE

Licenses:	1975 / Professional Engineer / California – Civil, No. 24577
	1977 / Professional Engineer / California – Traffic, No. 724
	2006 / Professional Engineer / Hawaii – Civil, No. 12321
Education:	BSE / Civil Engineering / Duke University / 1969
Experience:	36 Years
Memberships:	Institute of Transportation Engineers – Fellow, Life
	Orange County Traffic Engineers Council - Chair 1979-1980
	American Public Works Association - Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. Since May 2005, he has served Indio as City Traffic Engineer three days per week. He also provides "on call" Consulting Traffic and Transportation Engineer services to the Cities of Big Bear Lake and San Fernando as well as to Riverside County. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in these communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Huntington Beach ..... 1998 - 2004
- Lawndale ..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside ..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Marcos 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $5 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

Since forming Tom Brohard and Associates in 2000, Tom has also reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients. Some of these significant accomplishments during the last five years include the following:

- Prepared critique of the traffic impacts identified in the Addendum to the Program EIR and Transportation Analysis for the Davidon Homes Project in the City of Antioch for Adams Broadwell Joseph & Cardozo (1/2007)

- Prepared critique of the traffic and circulation impacts identified in the Monterey County 2006 General Plan Final EIR for Mark R. Wolfe & Associates (12/2006)

- Provided expert witness evaluation of traffic and circulation impacts identified in the EIS, Traffic Impact Report, and Updates for the Turtle Bay Resort Expansion Project on the North Shore of Oahu for Alston Hunt Floyd & Ing (9/2006 to 11/2006)

- Prepared trip generation study for a bank and separate drive through bank facility in Century City in the City of Los Angeles for Tract No. 7260 Association (11/2006)

- Prepared preliminary critique of the traffic impacts identified in the Draft EIR and Traffic Impact Study for the Rio Vista Riverwalk Project in the City of Rio Vista for Adams Broadwell Joseph & Cardozo (11/2006)

- Prepared critique of traffic and parking impacts identified in the Traffic Impact Analysis for the Providence Medical Center Expansion Project in the City of Los Angeles for Weinberg, Roger & Rosenfeld (11/2006)

- Prepared critique of the traffic impacts identified in the Draft EIR and Traffic Impact Analysis for the Chula Vista Bayfront Master Plan (Gaylord Resort Project) in the City of Chula Vista for Adams Broadwell Joseph & Cardozo (10/2006 to 11/2006)

- Prepared critique of the traffic impacts identified in the Draft EIR and Traffic Impact Study for the Antioch Wal-Mart Expansion Project in the City of Antioch for Mark R. Wolfe & Associates (6/2006 to 8/2006); prepared rebuttal to responses to comments in the Final EIR (9/2006 to 10/2006)

- Prepared critique of traffic and parking impacts identified in the Draft EIR and various supporting technical studies for the Solana Beach Train Station Mixed Use Project in the City of Solana Beach for area residents (6/2006 to 9/2006)

- Prepared critique of the traffic and circulation impacts identified in the Revised Partial Draft EIR and the Traffic Study for the Gregory Canyon Landfill Project in San Diego County (7/2006 to 8/2006)

- Prepared critique of the traffic and circulation impacts identified in the Conditional Use Permit Application for Altamont Motorsports Park in Alameda County for Mark R. Wolfe & Associates (6/2006).

- Prepared preliminary critique of the traffic impacts identified in the Draft EIR for the Delano Marketplace Project in the City of Delano for Mark R. Wolfe & Associates (5/2006).

- Prepared response to Initial Study/Notice of Preparation of a Draft EIR for 483 condominiums proposed in three high rise towers in Century City in the City of Los Angeles for Tract No. 7260 Association (6/2005); prepared critique of the Draft EIR for the 10131 Constellation Boulevard Project proposed by JMB (12/2005 to 1/2006); reviewed responses to comments in the Final EIR (5/2006)

- Conducted study which developed traffic engineering measures as well as potential enforcement and legislative actions to deter excessive speeding on Stunt Road adjacent to Calabasas in Los Angeles County for area residents (9/2005 to 4/2006)

- Prepared critique of the Draft EIR and Traffic Impact Analysis for the Rancho Santa Fe Elementary School Project in San Diego County for Coast Law Group (9/2005); prepared rebuttal to responses to comments in the Final EIR (2/2006 to 3/2006)

- Prepared critique of the traffic, circulation, and parking impacts identified in the Traffic Impact Analysis for Los Angeles Unified School District Valley Elementary School #8 in the City of San Fernando (1/2006)

- Prepared critique of the traffic impacts identified in the Focused EIR and Traffic Impact Analysis for the Temecula Regional Hospital Project in the City of Temecula for Adams Broadwell Joseph & Cardozo (10/2005); prepared rebuttal to responses to comments in the Final EIR (1/2006).

- Prepared critiques of the traffic impacts identified in the Draft EIR and in the Revised Draft EIR for the Central Larkspur Specific Plan in the City of Larkspur and prepared responses to comments in the Final EIR for Shute, Mihaly, & Weinberger (7/2002 to 8/2002, 12/2003 to 2/2004, 1/2005 to 3/2005, and 12/2005 to 1/2006).

- Conducted Traffic Impact Analyses for the Sacred Heart Church and School Master Plan in the City of Palm Desert including presentations to community residents and testimony at Public Hearings before the City Council (3/2005 to 12/2005).

- Prepared critique of traffic impacts identified in the Final EIR and Traffic Study for the Preserve at San Marcos Project in Santa Barbara County for the San Marcos Foothill Coalition (10/2005 to 11/2005)

- Prepared critique of the traffic impacts identified in the Draft EIR and the Traffic Impact Analysis for the Borden Ranch Surface Mining Project in Sacramento County for Weinberg, Roger & Rosenfeld (11/2005)

- Prepared critiques of the Mitigated Negative Declaration and Traffic Impact Analysis and of these documents as revised for the Providence Center Specific Plan in the City of Fullerton for Shute, Mihaly, & Weinberger (6/2005 to 7/2005; 11/2005)

- Prepared critique of the traffic impacts identified in the Draft EIR for the Blue Rock Quarry Expansion near the Town of Forestville in Sonoma County for Weinberg, Roger & Rosenfeld (10/2005)

- Prepared critique of the traffic impacts identified in the Draft EIR and Traffic Study for the Oak to Ninth Project in the City of Oakland for Mark R. Wolfe & Associates (9/2005 to 10/2005)

- Prepared critique of the traffic impacts identified in the Draft EIR for the East Cypress Corridor Specific Plan Project adjacent to the City of Oakley in Contra Costa County for Adams Broadwell Joseph & Cardozo (9/2005 to 10/2005)

- Prepared critique of the Mitigated Negative Declaration for the Providence Medical Center Expansion Project in the City of Los Angeles for Shute, Mihaly, & Weinberger (9/2005)

- Prepared critique of the traffic impacts identified in the Draft EIR for the University District Specific Plan Project adjacent to the City of Rohnert Park in Sonoma County for Mark R. Wolfe & Associates (9/2005)

- Prepared preliminary critique of the traffic impacts identified in the Draft Subsequent EIR for the Mare Island Specific Plan Project in the City of Vallejo for Adams Broadwell Joseph & Cardozo (9/2005)

- Prepared critique of the traffic portions of the Revised EIR and the traffic study of the Deer Creek Park 2 Project in the County of Nevada for Shute, Mihaly, & Weinberger and the City of Nevada City (8/2005 to 9/2005)

- Prepared preliminary critique of the traffic impacts identified in the Draft EIR and traffic study for the Prewett Ranch Project in the City of Brentwood for Adams Broadwell Joseph & Cardozo (7/2005)

- Prepared critique of the traffic and circulation sections of the Draft Subsequent EIR of the County of Ventura Focused General Plan Update and prepared rebuttal to responses for Shute, Mihaly, & Weinberger and the Community of Somis (12/2004 to 1/2005; 6/2005)

- Prepared critique of the traffic and parking impacts identified in the Draft EIR and Traffic Impact Analysis for the Long Beach Memorial Medical Center Expansion in the City of Long Beach for Weinberg, Roger & Rosenfeld (2/2005 to 5/2005)

- Prepared critique of the Draft EIR and traffic study for the Villages at Fairfield Project in the City of Fairfield for Adams Broadwell Joseph & Cardozo (4/2005 to 5/2005)

- Prepared critique of the traffic, circulation, and parking impacts identified in the Traffic Impact Analysis for Los Angeles Unified School District Valley High School #5 in the City of San Fernando (4/2005)
- Prepared critique of the transportation, circulation, and parking impacts identified in the Draft EIR and the Final EIR for the Wood Street Project in the City of Oakland for the East Bay Community Law Center (3/2005)
- Conducted City wide engineering and traffic surveys confirming enforceable speed limits on 31 street segments for the City of San Fernando (1/2005 to 3/2005)
- Checked plans for traffic signal installations and modifications as well as signing and striping revisions for various projects for Engineering Resources of Southern California and the Cities of Hemet and Palm Springs (12/2003 to 3/2005)
- Prepared critique of the Initial Study and traffic study prepared for the Hidden Canyon (Greenfield) Quarry Use Permit and Reclamation Plan in Monterey County for Weinberg, Roger & Rosenfeld (2/2005)
- Prepared critiques of the traffic impacts identified in the Los Angeles International Airport Master Plan Draft EIS/EIR for Alternatives A, B, and C and in the Supplement Draft EIS/EIR for Alternative D; prepared responses to comments in the Final EIS/EIR, and reviewed Addendum #3 for Shute, Mihaly, & Weinberger and the City of El Segundo (2/2001 to 7/2001, 7/2003 to 10/2003, 11/2004, and 12/2004)
- Prepared critique of the Traffic Study for the 450-460 North Palm Drive Senior Housing Residential Project in the City of Beverly Hills for Luna & Glushon (11/2004)
- Prepared critique of the Draft EIR and traffic study and provided testimony at a public hearing regarding the West Los Angeles College Facilities Master Plan in Los Angeles County for Culver Crest Neighborhood Association (10/2004 to 12/2004)
- Prepared critique of the Draft EIR and the associated traffic impact analysis as well as subsequent rebuttal to responses to these comments in the Final EIR for The Ranch Plan in the County of Orange for the Endangered Habitats League (6/2004 to 7/2004 and 10/2004)
- Prepared preliminary critique of the Draft EIR and traffic study for the Chandler Ranch Specific Plan Project in the City of Paso Robles for Adams Broadwell Joseph & Cardozo (9/2004)
- Prepared critique of the Draft EIR and traffic report associated with the Magnolia Park Project in the City of Oakley for Adams Broadwell Joseph & Cardozo (9/2004)
- Prepared critique of the traffic impacts identified in the Recirculated Draft EIR and traffic study for the McKean Road Sports Complex in Santa Clara County for Shute, Mihaly, & Weinberger (9/2004)

- Prepared critique of the Environmental Assessment for Robie Ranch Reclamation Project in Calaveras County for Weinberg, Roger & Rosenfeld (9/2004)

- Provided expert assistance to residents in the City of La Mirada during settlement negotiations regarding litigation involving the Big T Residential Development Project in the City of Buena Park (6/2004 to 9/2004)

- Prepared critique of the traffic impacts identified in the Recirculated Draft EIR and the associated traffic study for the Lake Jennings Ralph's Shopping Center in San Diego County for SOFAR and Shute, Mihaly, & Weinberger (8/2004)

- Reviewed Traffic Impact Study prepared for the San Fernando Corridors Specific Plan for the City of San Fernando (7/2004 to 8/2004)

- Prepared critique of the Negative Declaration for the Brisbane Recycling Project in the City of Brisbane for Weinberg, Roger & Rosenfeld (6/2004)

- Reviewed various alternative alignments for the extension of Lexington Drive from Cerritos Avenue to Katella Avenue, a proposed secondary highway, for the City of Los Alamitos; provided expert assistance to the City of Los Alamitos during settlement negotiations regarding litigation of the proposed Cottonwood Christian Center Project in the City of Cypress (4/2004 to 6/2004)

- Prepared critique of the Draft EIR and the associated traffic impact study for the Jaxon Enterprises Mine and Reclamation Expansion Project in the County of Merced for Weinberg, Roger & Rosenfeld (5/2004)

- Prepared critique of the Environmental Secondary Study for the Santa Fe Parcel 6 Mixed Use Project in the City of San Diego for Adams Broadwell Joseph & Cardozo (4/2004 to 5/2004)

- Prepared critique of the Draft EIR and the associated traffic impact analysis for the for the San Mateo Rail Corridor Plan & Bay Meadows Specific Plan Amendment in the City of San Mateo for Adams Broadwell Joseph & Cardozo (3/2004 to 5/2004)

- Reviewed the Edinger Corridor Specific Plan Traffic Analysis for the proposed redevelopment and intensification of adjacent land uses for the City of Huntington Beach (12/2003, 4/2004, and 5/2004)

- Conducted the Traffic Impact Study of the San Fernando Regional Pool Facility Project and the associated street improvements for the City of San Fernando (3/2004 to 4/2004)

- Prepared critique of the Initial Study/Mitigated Negative Declaration and the associated traffic study for the Pixar Headquarters Expansion in the City of Emeryville for Shute, Mihaly, & Weinberger (3/2004 to 4/2004)

- Prepared critique of the Draft EIR and the associated traffic impact analysis for the Lower Lagoon Valley Specific Plan in the City of Vacaville for Adams Broadwell Joseph & Cardozo (3/2004 to 4/2004)

- Conducted the Traffic Study of Two Parking Alternatives for the City of San Dimas to provide on-street parking to complement potential retail/residential development on the east side of San Dimas Avenue north of Arrow Highway (12/2003 to 4/2004)

- Prepared trip generation calculations for various retail and "Big Box" stores in conjunction with a March 2004 ballot measure in Contra Costa County for Mark R. Wolfe & Associates (1/2004 to 2/2004)

- Prepared critique of the Initial Study/Mitigated Negative Declaration and the associated transportation impact analysis for the S&S Farms and Hancock Property Residential Development Plan in the City of Brentwood for Adams Broadwell Joseph & Cardozo (2/2004)

- Prepared critiques of the traffic impacts identified in the Mitigated Negative Declarations as well as subsequent rebuttal to responses to these comments for the Bayfront Live Work Project in the City of Hercules for Adams Broadwell Joseph & Cardozo (4/2003, 10/2003, and 2/2004)

- Conducted the City Wide Traffic Calming Study of Residential Streets in the City of San Fernando including development of traffic calming guidelines and specific recommendations addressing over 70 "Hot Spots" throughout the City including monthly presentations at Transportation & Safety Commission meetings and a presentation of the Final Report to the City Council (5/2003 to 1/2004)

- Prepared critique of the Initial Study/Mitigated Negative Declaration and the associated transportation analysis for the Cottonwood Christian Center in the City of Cypress for the City of Los Alamitos (1/2004)

- Prepared critique of the Recirculated Draft EIR and the associated transportation analysis for the Sand Creek Specific Plan in the City of Antioch for Adams Broadwell Joseph & Cardozo (1/2004)

- Prepared critique of the Initial Study and the associated traffic impact studies for the West Dublin Transit Village in the City of Dublin for Adams Broadwell Joseph & Cardozo (11/2003 to 1/2004)

- Prepared critiques of the Initial Study and the Recirculated Initial Study/General Plan Amendment and Rezoning for the Jack Parker Trucking Site in the City of San Pablo for Adams Broadwell Joseph & Cardozo (9/2003 and 11/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR and rebuttal to responses to comments in the Final EIR for the proposed Wal-Mart in the City of Fremont for Mark R. Wolfe & Associates (7/2002 to 10/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR, rebuttal to responses in the Final EIR, and testimony at a public hearing regarding the Alpine Village Shopping Center in San Diego County for Shute, Mihaly, & Weinberger (6/2002 to 10/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR, rebuttal to responses in the Final EIR, testimony at public hearings, and assistance during settlement negotiations regarding the 2000 Avenue of the Stars Project in Century City in the City of Los Angeles for Tract No. 7260 Association (9/2002 to 10/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR for the Glen Loma Ranch Project in the City of Gilroy for Adams Broadwell Joseph & Cardozo (9/2003)

- Prepared critique of the traffic impacts identified in the Initial Study and the Traffic Impact Analysis for the Ryder Homes Project in the City of Oakley for Adams Broadwell Joseph & Cardozo (9/2003)

- Prepared critique of the traffic impacts identified in the Initial Study and the Traffic Impact Analysis for the Ravenswood Residential Project in Contra Costa County for Adams Broadwell Joseph & Cardozo (8/2003 to 9/2003)

- Prepared critique of the traffic impacts identified in the Draft Subsequent EIR for the proposed Boronda Crossing Commercial Project in the City of Salinas for Mark R. Wolfe & Associates (8/2002 to 9/2003)

- Prepared four grant applications to Caltrans for $1,115,000 of Hazard Elimination Safety funding to modify traffic signals and to upgrade regulatory, warning, and street name signs in the City of Santa Ana (3/2003 to 8/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR and the Traffic Impact Analysis for the Bluerock Business Center Project in the City of Antioch for Adams Broadwell Joseph & Cardozo (8/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR for the Clark Road Residential Project in the City of Richmond for Adams Broadwell Joseph & Cardozo (8/2003)

- Prepared critique of the traffic impacts identified in the Initial Study and the Traffic Impact Analysis for the Sky Ranch Residential Project in the City of Antioch for Adams Broadwell Joseph & Cardozo (7/2003 to 8/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR for the Cal Poly Student Housing North Project in the City of San Luis Obispo for Adams Broadwell Joseph & Cardozo (7/2003)

- Prepared critique of the traffic impacts identified in the Final EIR for the Lake Jennings Ralph's Shopping Center in San Diego County for SOFAR and Shute, Mihaly, & Weinberger (3/2003 to 7/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR for the Cypress Grove Residential Project in the City of Oakley for Adams Broadwell Joseph & Cardozo (6/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR for the McKean Road Sports Complex in Santa Clara County for Shute, Mihaly, & Weinberger (5/2003)

- Prepared grant application to Caltrans for $448,000 of Safe Route to School funding to upgrade all school signs at 68 public and private schools in the City of Santa Ana (3/2003 to 5/2003)

- Prepared critique of the traffic impacts identified in the Traffic Impact Analysis for the Blossom Valley Middle School for the Dunbar Lane Task Force in San Diego County (4/2003 to 5/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR and the Traffic Impact Analysis for the Bettencourt Ranch Aggregate Mining Project in Merced County for Weinberg, Roger & Rosenfeld (4/2003)

- Conducted a complete review of the General Plan Circulation Element for the City of Huntington Beach including comparisons to the Orange County Transportation Authority's Master Plan of Arterial Streets and drafted a Request for Proposal to update the City's Circulation Element (8/2002 to 4/2003)

- Prepared critique of the traffic impacts identified in the Traffic Impact Analysis for the proposed Wal-Mart in the City of Gilroy for Mark R. Wolfe & Associates (2/2003 to 3/2003)

- Prepared critique of the traffic impacts identified in the Draft EIR for the Waterfront/Downtown Mixed Use Project in the City of Vallejo for Adams Broadwell Joseph & Cardozo (2/2003)

- Provided expert witness evaluation of the traffic impacts caused by simultaneous construction of various Alameda Corridor Transportation Authority projects for Sullivan, Workman, & Dee (12/2002 to 2/2003)

- Conducted 12 training sessions in Urban Street Design Fundamentals for the Engineering Department staff in the City of Torrance (4/2001 to 4/2002 and 10/2002 to 12/2002)

- Prepared critique of the traffic impacts identified in the Transportation Impact Study for the Western Research Campus in the City of Richmond in Contra Costa County for Adams Broadwell Joseph & Cardozo (11/2002)

- Evaluated Conditions of Approval for the proposed intersection of Mulholland Highway and Hazel Nut Court in Los Angeles County and provided testimony to the Board of Supervisors for Seminole Springs Mobile Home Park (11/2002)

- Reviewed the Traffic Impact Analysis prepared for the Pacific City Project for the City of Huntington Beach (9/2002)

- Prepared critique of the traffic impacts identified in the Draft EIR for North Yorba Linda Estates in the City of Yorba Linda for Shute, Mihaly, and Weinberger (9/2002)

- Conducted the Hacienda Road Traffic Calming Study and presented the final report at locally televised meetings of the Traffic Committee and the City Council in the City of La Habra Heights (10/2001 to 9/2002)

- Prepared critique of the traffic impacts identified in Initial Studies with Traffic Impact Analyses for three residential subdivisions in the City of Pittsburg for Adams Broadwell Joseph & Cardozo (8/2002)

- Conducted the City Wide Traffic Safety Study and presented the final report at meetings of the Traffic Committee and the City Council in the City of Rolling Hills Estates (4/2001 to 5/2002)

- Prepared critique of the traffic impacts identified in the Draft EIR, rebuttal to responses, and testimony at a public hearing regarding extensions of Corona and Valley View Avenues in the City of Norco for C. Robert Ferguson (1/2002 to 4/2002)

- Prepared critique of the traffic impacts identified in the Draft Initial Study and Environmental Assessment, rebuttal to responses, and testimony at public hearings before the Ventura County Board of Supervisors regarding intersection improvements proposed by Caltrans at State Route 118/State Route 34 in Ventura County for the Community of Somis (12/2000 to 10/2001)

Abrams Associates
TRAFFIC ENGINEERING, INC.

May 29, 2007

Mr. Robert Merkamp
Planning and Zoning
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612

Re: Response to Comments from Tom Brohard and Associates on the Proposed Senior Housing Project on MacArthur Boulevard in the City of Oakland

Dear Mr. Merkamp:

The purpose of this letter is to respond to the comments you forwarded to us contained in a letter from Tom Brohard and Associates dated April 24, 2007. This letter has been prepared to provide additional information and specific discussion on the issues that have been raised. We understand that there may be other questions so please don't hesitate to call us at (925) 945-0201 for any other information you may need.

The following summarizes our response to the comments on transportation and traffic:

Response to Comment # 1 – A review of the exact traffic signal timing parameters (or suggested changes to them) is beyond the scope of an environmental review and is not something that is normally required for the planning commission to make a decision about a project. Whether or not the City chooses to modify the pedestrian clearance times would not affect any of the conclusions contained in our traffic study.

The City's traffic engineering staff has already made it clear that improved pedestrian safety has been established as a goal for this area. There is no reason to assume the City would ever allow less than adequate pedestrian clearance times at this intersection. For example, as discussed later, the City has also indicated that widening this intersection is unlikely to be acceptable due to the fact that pedestrian crossing distances would be increased (which would conflict with goal of making the Laurel commercial district more pedestrian friendly).

In summary, no additional analyses would be required for the traffic study on this issue since the City is the agency that is responsible for maintaining proper signal timing and pedestrian clearances. At this point it would be speculative to assume changes will be made to the timing since there is absolutely no standard or requirement specifying that the suggested changes would be required. The Manual on Uniform Traffic Control Devices (MUTCD) only states that use of lower walking speeds should be "considered" so further analysis of this issue should not be required.

Response to Comment # 2 – At this time the project contains an optional shuttle turn-out on High Street and a shuttle loading space is also proposed on the garage level. To

account for this the traffic report assumed the shuttle frequency could be two trips per day. While such a system is not yet in place it is expected that the frequency of shuttle stops would be very low – probably no more than a couple times per day and possibly as low as only a couple times per week. With the extensive AC Transit bus service currently operating in the area there is no reason to assume that the presence of some senior shuttle buses would introduce any new traffic impacts.

It should be noted that we are limiting our response to issues related to traffic operations. The other questions in Comment #2 regarding shuttle maintenance, funding, etc. are not relevant to our traffic analysis and will not being addressed as part of the traffic study unless it is specifically requested. In general, no significant impacts have been identified with the potential shuttle buses or the construction of the shuttle turnout and no additional analysis is recommended at this time.

Response to Comment #3 – This comment summarizes the Level-of-Service (LOS) effects of the two options we identified for improving operations at High Street and MacArthur Boulevard. Since no particular questions are raised it is assumed that some additional explanation is what is being requested.

At the intersection in question there were no project mitigations required but it was shown to be approaching the LOS standards and, as a result, the traffic study analyzed numerous potential options improve the traffic operations. The two improvements described were the two that we identified as having the most potential to improve traffic operations. It is common practice for traffic studies to identify some options for improving conditions at an intersection even if they are not required to meet LOS Standards or to mitigate project impacts. The improvement options in the traffic study are simply recommendations we are making for the City to consider.

The City could certainly choose to disregard the improvement recommendations and, in fact, that is likely to be the case with the second option (the southbound right-turn lane). Fortunately, the southbound right-turn lane clearly provides less substantial benefits to traffic operations than the proposed protected/permitted left-turn phasing for northbound traffic. The City traffic engineering department informed us that the potential for a separate southbound right-turn lane had been considered and it was determined that the right turn lane would conflict with the goal to improve pedestrian safety in the area. An additional right turn lane would increase the crossing distance for pedestrians and thereby increase the time pedestrians spend in the crosswalk. Since the City has made it clear that they the goal is to make this area as safe as possible for pedestrians, it is expected that the City will probably not choose to implement this improvement option.

On the other hand, the first improvement option (the proposed protected/permitted left-turn phasing for northbound traffic) does not require any additional right-of-way and would not result in any negative impacts on pedestrians. Although it is speculative at this point, it is expected that the City will choose to implement this improvement since it would provide a noticeable reduction in delay at the intersection and would only require modifying the existing traffic signal.

Response to Comment # 4 – There is no evidence that either of the projects mentioned would significantly affect traffic volumes or LOS conditions at the project study intersections. Because both of these projects have direct access to the I-580 freeway there is no reason to assume that a substantial portion of these trips would travel through the High Street/MacArthur Boulevard intersection. The majority of trips from these projects to the study area would be to patronize businesses in the Laurel District. In the traffic study the additional trips generated by the growth of businesses in the area have already been accounted for with the growth that was assumed for background traffic.

In summary, once the traffic from the two projects in question is distributed onto the various freeways and other local roadways surrounding them, the remaining portion of traffic that would be added at High Street and MacArthur Boulevard is relatively small. These increases have been accounted for with the growth assumed under the Cumulative scenario. It should also be noted that the project's contribution to the total traffic at High Street and MacArthur Boulevard would still remain small (and less than significant) even if there were increases to the background volumes under the various scenarios studied. In other words, even if the two projects in question did substantially increase the traffic volumes in the study area (which they won't) it would still not change any of the conclusions of the traffic study. The project's contribution to traffic in this busy area would still be relatively small. Therefore, we do not recommend that additional trip generation studies of these projects be conducted since it would not yield any meaningful information.

Please let us know if you require any additional information to resolve these issues to your satisfaction.

Sincerely yours,

Stephen C. Abrams
President, Abrams Associates
Registered Traffic Engineer
T.E. License No. 1852

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February 8, 2008

Mr. Kristen Weirick
AMG & ASSOCIATES
16633 Ventura Boulevard, #1014
Encino, CA 91436

Subject: **High Street and MacArthur Senior Housing Project Supplemental Air Quality Evaluation**

Dear Ms. Weirick

Purpose

The firm of Urban Crossroads, Inc. is pleased to submit the following qualitative analysis to address the potential air impacts to future residents associated with the operation of the adjoining Interstate 580 (I-580) Freeway. It should be noted that this evaluation supersedes the previous evaluation that was conducted. The primary changes to this evaluation are the additional discussion on diesel particulate matter, inclusion of truck traffic data, an update to the standard regulatory requirements section, additional discussion regarding indoor versus outdoor activity, refined discussion on the MERV 13 air filtration system, and a summary of projected emissions reductions due to currently adopted regulatory requirements.

Project Description

The mixed-use development consists of developing 115 units of age restricted (senior) housing and ground floor retail space (3,220 square feet) on the street frontage on High Street and MacArthur Boulevard. The building is planned to be four stories over on-grade parking that will include approximately 64 parking spaces. The proposed project would be located east of the I-580 Freeway at the southwest corner of the intersection of High Street and MacArthur Boulevard in the City of Oakland. Exhibit "A" presents the project location and surrounding roadway network, the project site plan is presented on Exhibit "B".

Diesel Particulates and PM10

The California Air Resources Board (CARB) has identified diesel particulate matter (DPM) as a Toxic Air Contaminant (TAC) and a known carcinogen (CARB 1998). The primary source of DPM as it relates to potentially impacting the residents at the proposed project site, is the operation of diesel-fueled truck engines. Diesel engines emit a complex mixture of air pollutants, mainly composed of gaseous and solid material during the combustion process. The visible emissions that can be seen in diesel exhaust are known as particulate matter. DPM consists of fine particulates typically less than 2.5µg/m^3 in size (U.S. EPA, May 2002).

The primary sources of Particulate Matter less than 10 microns (µg/m^3) in size (PM_{10}) includes wind-blown dust, secondary particles resulting from combustion sources, and entrained road dust generated by vehicles traveling on both paved and unpaved roads. The size of PM_{10} allows it to easily enter the lungs where it may be deposited, resulting in adverse health effects.

I-580 Freeway Emissions and Truck Traffic

Due to the proximity of the proposed project to the adjacent freeway (the approximate distance for the nearest proposed residence to I-580 is between 50 to 100 feet horizontally) there is potential that future residents of the proposed project may be subject to pollutant concentrations. The primary pollutants of concern are DPM and PM_{10} generated due to vehicular (heavy-truck) travel along the adjacent I-580 Freeway. It should be noted however, that the I-580 does not serve a significant amount of truck traffic. In fact only 0.42% of the total traffic (609/145,000 average daily traffic) along the I-580 adjacent to the project site constitutes truck traffic, of the 0.42% of trucks, 93% are 2-axel (delivery) trucks. Thus the majority of the nominal truck trips along the I-580 adjacent to the project are not considered to be heavy-duty trucks typically associated with emitting the most DPM. It is extremely important to note that the emissions being generated in the project vicinity due to the operation of the adjoining freeway are not a result of the proposed project. This analysis serves to discuss the background existing emissions, and projected future emissions with respect to the proposed project. It should also

be noted that the land use for the proposed project is consistent with adjacent residential land uses that are also currently in close proximity to the I-580 Freeway.

It should be noted that there is a grade and horizontal separation between the I-580 Freeway and the proposed project. It is estimated that the project's courtyard opening (from the top of the building structure) is elevated approximately 40-50 feet above the I-580 Freeway. In 1973/74 a Caltrans study conducted along a section of the Santa Monica Freeway in Los Angeles, concluded that the channeling and eddying effects of pollutant dispersal effectively decreased the rate of pollutant transport out of the depressed section mixing zone and increased the pollutants residence time. In other words, the change in elevation allowed more time for the pollutants to be dispersed, thus pollutant concentrations were reduced at the residential areas (*Air Pollution and Roadway Locations, Design, and Operation—Project Overview*, November 1976). In other words, pollutants from the I-580 freeway need to travel vertically approximately 40-50 feet, and then traverse horizontally over the building roofline, before they can encroach the courtyard opening at the top of the building structure.

Thus, emissions generated from travel along the I-580 Freeway are greatest along the depressed roadway segment and are effectively lower outside the depressed section (where residents are to be located).

Project Design Measures

The proposed project calls for an air ventilation (filtration) system with a minimum efficiency reporting value (MERV) 13 and efficiency consistent with American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) 52.2 standards.

Studies indicate that a MERV 13 filtration system consistent with ASHRAE 52.2 standards has the potential to remove between 75 percent (%) and 90% of particulate emissions (HPAC Engineering, 2006). A MERV 13 filtration system is consistent with filtration systems used in

hospitals and elementary schools in order to protect the most vulnerable persons in a population from air quality impacts (Collaborative for High Performance Schools, 2004.)

Standard Regulatory Measures

In California, the California Air Resources Board (CARB) has the primary responsibility for control of air pollution resulting from mobile sources. CARB along with the United States Environmental Protection Agency (USEPA) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have adopted/proposed numerous regulations that have/will result in reducing particulate matter (PM), nitrogen oxides (NOx), and sulfur oxides (SOx) emissions from diesel fueled engines.

In October 2000, the USEPA published the final rule for new diesel engine standards beginning in 2004 for all diesel vehicles over 8,500 pounds. Additional diesel standards and test procedures in this rule will begin in 2007. The new standards require diesel trucks to be more than 40 percent cleaner than year 2000 models (USEPA 2000). In December 2000, the USEPA established a comprehensive national control program that will regulate the heavy-duty vehicle and its fuel as a single system. New emission standards will begin to take effect in model year 2007 and will apply to heavy-duty highway engines and vehicles. The new standards for PM will take full effect for diesels in the 2007 model year. Gasoline engines will also be subject to these standards, requiring full compliance in the 2009 model year. In addition, the level of sulfur in highway diesel fuel will be reduced by 97 percent to no more than 15 parts per million (ppm) as currently in effect.

In October 2000, CARB completed a risk reduction plan (CARB 2000) to reduce diesel PM emissions throughout the state. The plan proposes measures which will require all new diesel fueled vehicles and engines to use state of the art catalyzed diesel PM filters and very low sulfur diesel fuel. In addition, all existing vehicles and engines should be evaluated, and wherever technically feasible and cost-effective, retrofitted with diesel PM filters. It is estimated that full implementation of the plan, including proposed federal measures, will result in reductions in diesel PM emissions and associated cancer risks of 75 percent by 2010 and 85 percent by

2020. On February 27, 2004, CARB announced the approval of five diesel air toxic control measures (ATCMs) which will limit DPM (CARB 2004).

More specific regulations applicable to heavy-duty diesel vehicles are as follows:

1. In August 14, 2004, CARB adopted low-sulfur diesel fuel regulations. The regulation calls for a substantial reduction in the sulfur content of diesel fuel, the reduced sulfur content translates into reduced emissions of SO_x, DPM, and NO_x.§ 2281 (Sulfur Content *of Diesel Fuel) of the California Code of Regulations indicates that Starting June 2006* no person shall sell, offer for sale, supply or offer for supply any vehicular diesel fuel having a sulfur content exceeding 15 parts per million by weight. It should be noted that the previous regulation for sulfur content allowed for 500 parts per million by weight.

2. CARB is developing a regulation to reduce in-use heavy-duty diesel powered engines operating in California. The proposed regulations are expected to focus on a phase-in approach utilizing the Best Available Control Technologies (BACT) for PM and NOx. The three-step options that CARB has identified are as follows: retrofit, repower with cleaner engine, or replace with newer vehicle.

3. On October 20 2005, the Air Resources Board approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new heavy-duty diesel vehicles. The regulation states that; on or after February 1, 2005, the driver of any vehicle subject to the section: (1) shall not idle the vehicle's primary diesel engine for greater than 5 (five) minutes at any location and (2) shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 (five) minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it is within 100 feet of a restricted area (i.e., homes and schools)

4. In October of 2000, the United States Environmental Protection Agency (U.S. EPA) adopted a rule that reaffirmed lowered emission standards for 2004 and subsequent model year heavy-duty diesel engines (65 FR 59896, October 6, 2000). Notably, the rule reduced the current oxides of nitrogen emissions standard by 50 percent.

   In January of 2001, the U.S. EPA promulgated a Final Rule to reduce emission standards for 2007 and subsequent model year heavy-duty diesel engines (66 FR 5002, January 18, 2001). These emission standards represent a 90 percent reduction of oxides of nitrogen emissions, 72 percent reduction of non-methane hydrocarbon emissions, and 90 percent reduction of particulate matter emissions compared to the 2004 model year emission standards. In addition to the reduced emission standards, the U.S. EPA adopted minor changes to the previously adopted supplemental test procedures, the Not-to-Exceed test and the European Stationary Cycle test. The ARB is proposing to adopt similar emission standards and test procedures to reduce emissions from 2007 and subsequent model year heavy-duty diesel engines and vehicles. The proposal also includes the U.S. EPA's modifications to the previously adopted supplemental test procedures.

Additionally, the U.S. FHWA published guidance on Air Toxics Analysis in the NEPA process for highways. Guidance indicates that emissions of total Mobile Source Air Toxics (MSAT) are predicted to decrease by 56% in 2030 from 2005 levels. More specifically, FHWA guidance indicates that diesel particulates are predicted to decrease by 46% in 2010 from 2005 levels, and 88% in 2030 from 2005 levels.

The reduction of SO_x, DPM, and NO_x yields an overall health benefit to sensitive receptors exposed to these pollutants. Adverse health effects resulting from SO_x and NO_x are typically associated with respiratory deficiencies and increased lung disease. In addition DPM is listed by the state of California as a known carcinogen (can cause cancer) if exposed to over a long-term duration. Thus, the aforementioned regulatory requirements serve to reduce the adverse impact

resulting from heavy-duty diesel fueled vehicles by reducing the associated SO_x, DPM, and NO_x emissions.

Indoor vs. Outdoor Activity

In May, 1991 the CARB Research Division in association with the University of California, Berkeley published research findings entitled: *Activity Patterns of California Residents*. The findings of that study indicate that on average, adults in California spent almost 15 hours per day inside their homes, and six hours in other indoor locations, for a total of 21 hours (87% of the day). About 2 hours per day were spent in transit, and just over 1 hour per day was spent in outdoor locations.

Long-term (chronic) health effects are typically associated with exposure to a particular pollutant for a number of years. It should be noted that the cancer-risk calculations currently adopted by the Office of Environmental Health and Hazard Assessment (OEHHA) conservatively assume exposure to carcinogens over a 70-year period (7 days a week, 365 days a year). And as a conservative measure these calculations *do not* recognize for indoor adjustments for residents and therefore residents are assumed to remain outdoors for 24 hours a day, 365 days a year.

Future Reductions in Air Pollutants from Vehicular Exhaust

The California Air Resources Board (CARB) has recently released an emissions inventory model (EMFAC2007) that provides an average of past, present, and future emissions that are expected from vehicular exhaust. Results of EMFAC2007 model runs indicate that there is a substantial decrease in emissions generated from vehicles as the years progress due to more stringent regulatory requirements and the phase-out of the older vehicle fleet. For purposes of the proposed project, we have run the EMFAC2007 emissions inventory model to determine background and future potential emissions that will be generated from mobile source activity at the adjacent I-580 freeway. A summary of Year 1994, 2000, 2009, 2016, and 2020 for vehicle profiles traveling 20 MPH and 70MPH are presented below:

YEAR	SPEED (MPH)	CO (all)	NOx (all)	PM10 (diesel)
1994	20	20.057	2.859	1.483
2000	20	11.517	2.116	1.152
2009	20	4.478	1.317	0.603

2016	20	2.391	0.688	0.269
2020	20	1.756	0.479	0.169
YEAR	**SPEED (MPH)**	**CO(all)**	**NOx(all)**	**PM10(diesel)**
1994	70	19.767	3.361	1.006
2000	70	9.948	2.475	0.892
2009	70	3.359	1.512	0.655
2016	70	1.566	0.74	0.363
2020	70	1.084	0.491	0.249

Source: EMFAC2007 (See Attachment "A" for more details)

The results of the EMFAC2007 model run clearly indicates that there is a substantial reduction from year 1994 and 2000 levels to the anticipated project buildout year (2009). Furthermore, results indicate that emissions continue to decrease as the analysis year increases due to more stringent regulatory requirements and technological advancements.

Conclusion

The proposed project, including the standard existing and future regulatory requirements, will substantially reduce air quality impacts to future residents of the proposed project to less than significant levels.

If you have any questions or require any additional information regarding this letter, please don't hesitate to give me a call at (949) 660-1994.

Sincerely,

URBAN CROSSROADS, INC.

Haseeb Qureshi,
Air Quality Specialist

HQ
JN:04714-08

Exhibits, Attachment

REFERENCES

1. American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), 1999. ANSI/ASHRAE Standards 52.2.

2. *California Air Resources Board, 2000. Risk Reduction Plan to Reduce Particulate Matter* Emissions from Diesel-Fueled Engines and Vehicle.

3. California Air Resources Board, 2003. Emfac2002 (Version 2.2) – Calculating Emission Inventories for Vehicles in California.

4. California Air Resources Board, 2006. Emfac2007 (Version 2.3) – Calculating Emission Inventories for Vehicles in California.

5. Collaborative for High Performance Schools (CHPS), 2004. CHPS Best Practices Manual, Volume IV—Maintenance & Operations

6. Heating Piping Air Conditioning (HPAC) Engineering, 2006. Interpreting Filter Performance.

7. Office of Environmental Health Hazard Assessment, 2005. Toxicity Criteria Database. Website: http://www.oehha.org/risk/chemicaldb/index.asp.

8. Office of Environmental Health Hazard Assessment, 2000. Technical Support Document for Exposure Assessment and Stochastic Analysis.

9. United States Environmental Protection Agency (U.S. EPA), 2002. Health Assessment Document For Diesel Exhaust.

10. U.S. Department of Transportation Federal Highway Administration, February 3, 2006. Interim Guidance on Air Toxic Analysis in NEPA Documents.

11. The New England Journal of Medicine, September 9, 2004. The Effects of Air Pollution on Lung Development from 10 to 18 Years of Age.

12. University of California Berkeley in association with California Environmental Protection Agency—Air Resources Board Research Division, May, 1991. Activity Patterns of California Residents.

EXHIBIT A

LOCATION MAP

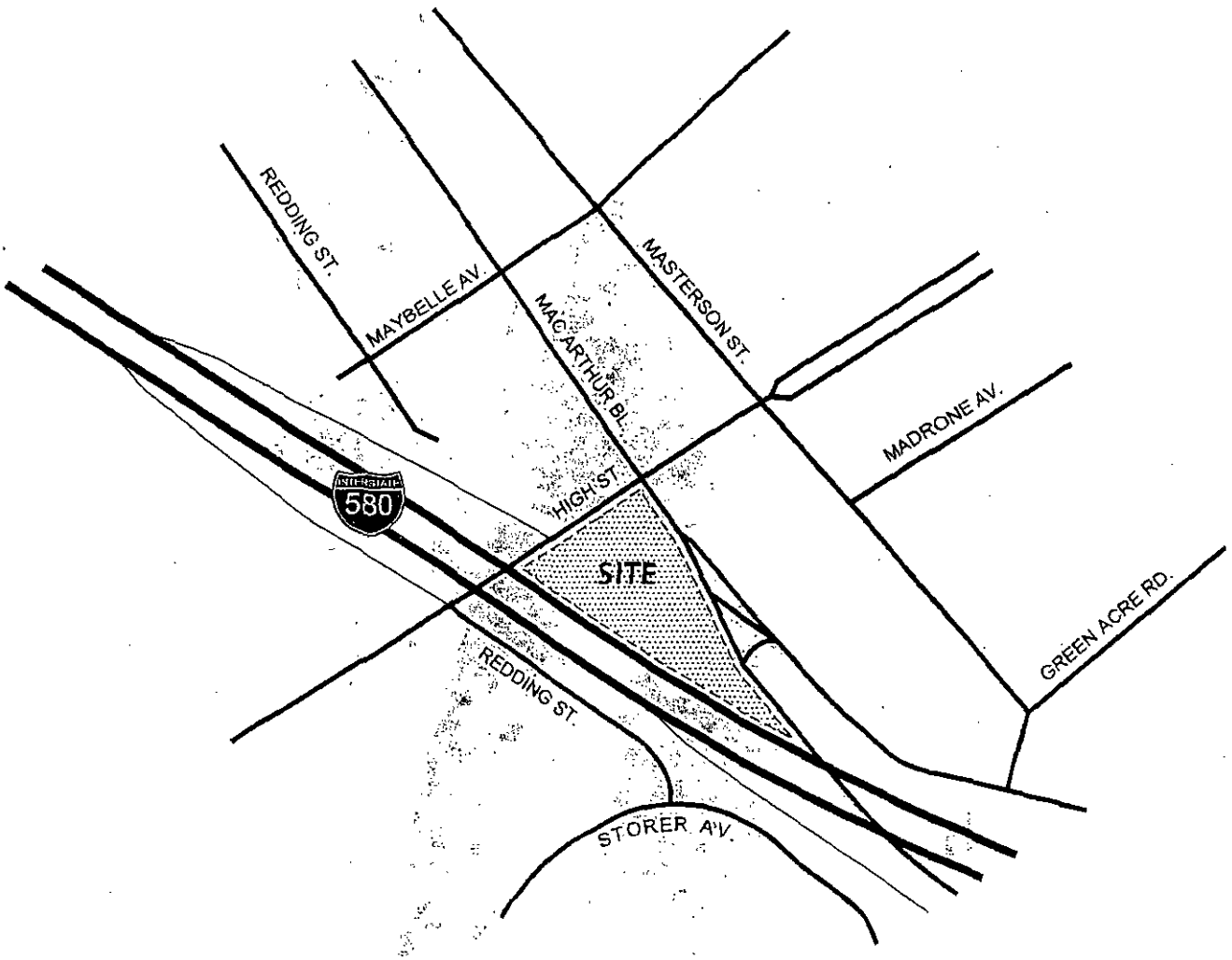

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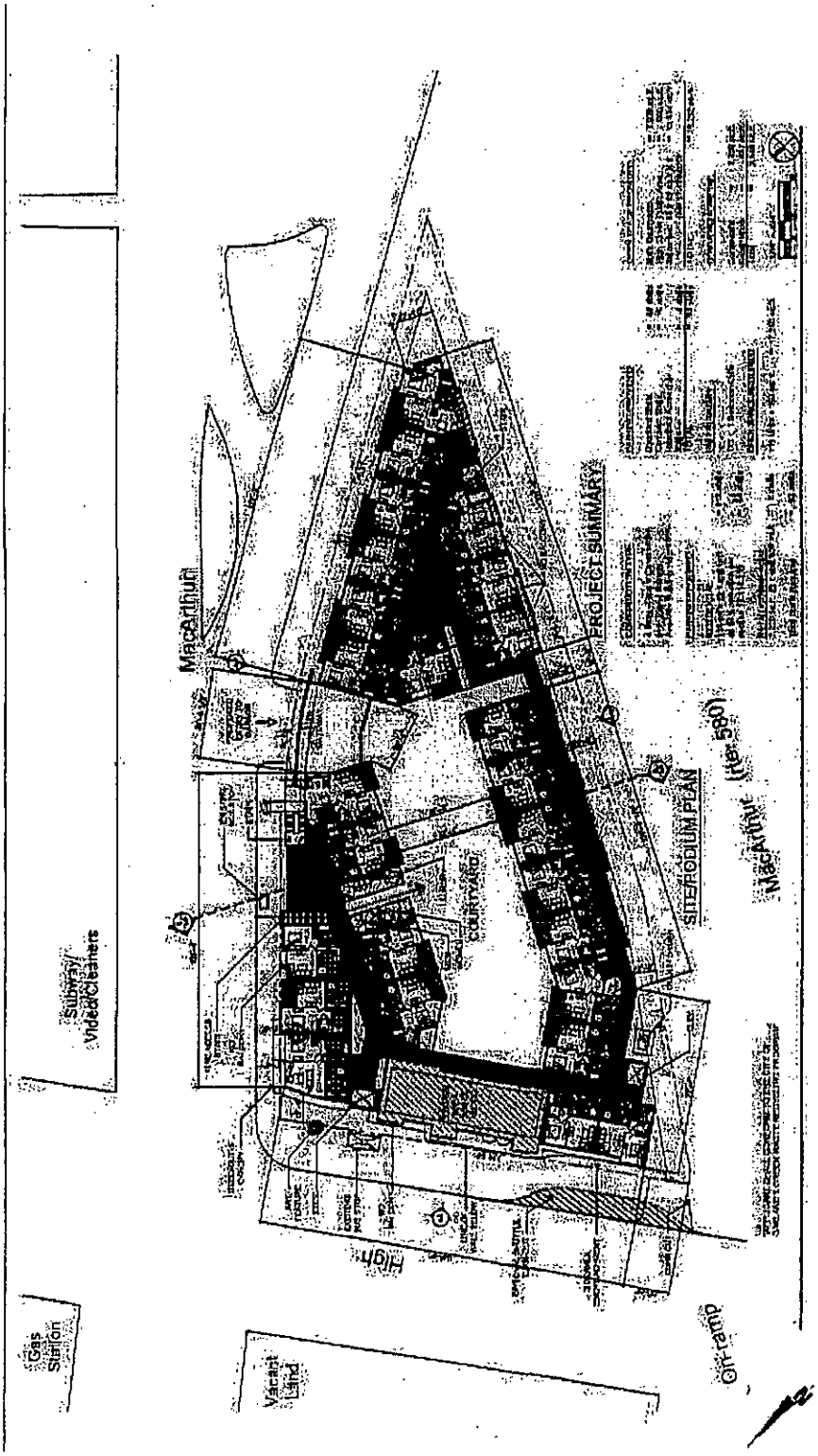
EXHIBIT B

SITE PLAN



ATTACHMENT A

EMFAC 2007 EMISSIONS FACTORS
(1994-2020 Profile—Statewide Average)

YEAR	SPEED	CO (all)	NOx (all)	PM10 (diesel)
1994	20	20.057	2.859	1.483
2000	20	11.517	2.116	1.152
2009	20	4.478	1.317	0.603
2016	20	2.391	0.688	0.269
2020	20	1.756	0.479	0.169

YEAR	SPEED	CO (all)	NOx (all)	PM10 (diesel)
1994	70	19.767	3.361	1.006
2000	70	9.948	2.475	0.892
2009	70	3.359	1.512	0.655
2016	70	1.566	0.74	0.363
2020	70	1.084	0.491	0.249

Title : 1984-2020 Run
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2007/05/17 13:54:41
Scen Year: 1994 -- All model years in the range 1965 to 1994 selected
Season : Annual
Area : Statewide totals

Year 1994 -- Model Years 1965 to 1994 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

State Average State Average State Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	79.18	12.496	1.271	15.81	81.884	21.111	1.317	28.311	77.697	16.879	1.303	18.872	184.557	17.371	1.287	28.925	148.549	29.882
25	67.404	11.135	1.005	14.009	69.706	18.615	1.041	24.63	64.142	15.071	1.029	17.585	140.044	15.233	1.017	25.031	116.561	23.275
30	60.428	10.101	0.831	12.87	63.491	18.819	0.851	23.183	59.296	13.648	0.851	15.868	125.585	13.763	0.841	22.537	96.832	19.295
35	57.05	9.334	0.72	11.782	58.898	15.563	0.746	20.883	55.982	12.534	0.737	14.731	118.583	12.604	0.728	21.103	84.84	16.901
40	56.722	8.762	0.652	11.217	58.859	14.751	0.675	19.17	55.66	11.886	0.668	14.025	117.884	12.279	0.66	20.563	78.329	13.641
45	59.397	8.393	0.611	11.013	61.418	14.375	0.64	23.014	58.279	11.417	0.633	13.738	123.431	13.154	0.629	20.893	78.586	15.293
50	65.189	8.216	0.613	11.17	67.725	14.419	0.633	20.882	64.263	11.293	0.621	13.883	136.104	12.472	0.621	22.187	79.116	15.788
55	76.049	8.251	0.637	11.782	78.845	14.964	0.66	22.774	74.624	11.408	0.652	14.573	158.049	13.329	0.645	24.707	86.35	17.242
60	93.001	8.547	0.693	12.937	98.176	16.183	0.717	24.86	91.259	11.882	0.709	15.65	193.29	14.92	0.707	28.89	89.573	19.883
65	119.773	9.201	0.787	14.968	123.863	18.297	0.818	31.501	117.529	13.067	0.806	18.343	248.918	17.598	0.797	34.803	121.318	24.225
70	119.772	9.201	0.937	14.97	123.862	18.297	0.971	31.507	117.529	13.067	0.96	18.343	248.918	17.598	0.949	35.004	198.185	31.163

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	1.183	35.478	145.328	27.138	1.907	26.809	220.305	54.572	4.172	34.35	932.019	94.129	15.901	26.117	93.652	15.425	9.958	20.057
25	0.935	27.837	114.833	21.294	0.796	21.038	172.888	42.821	3.297	28.988	731.318	73.858	13.384	21.955	78.921	13.882	8.447	17.416
30	0.773	23.078	94.838	17.853	0.858	17.44	143.311	35.5	2.729	23.354	606.284	61.231	11.589	18.189	70.113	12.239	7.178	15.803
35	0.67	20.214	82.804	15.463	0.57	15.274	125.526	31.084	2.361	19.861	531.048	53.632	8.874	15.852	65.853	11.278	6.125	14.412
40	0.607	18.706	78.629	14.31	0.516	14.13	118.185	29.775	2.139	18.072	491.445	49.633	8.453	13.836	64.609	10.573	5.273	13.735
45	0.575	18.289	74.934	13.991	0.489	13.81	113.581	28.125	2.029	17.827	480.51	48.529	7.325	12.638	67.418	10.249	4.614	13.533
50	0.571	18.893	77.399	14.453	0.486	14.259	117.333	29.065	2.013	18.153	496.384	50.132	6.482	12.037	73.907	10.153	4.144	13.832
55	0.593	20.818	84.477	15.775	0.504	15.553	128.062	31.722	2.09	19.741	541.774	54.716	5.854	12.064	85.375	10.372	3.862	14.735
60	0.644	23.779	97.415	18.181	0.548	17.923	147.675	36.581	2.271	22.871	624.749	63.096	5.709	12.818	103.916	10.981	3.77	16.448
65	0.735	28.988	118.688	22.163	0.623	21.83	178.92	44.589	2.583	27.487	761.184	76.873	5.758	14.478	133.268	12.108	3.877	19.349
70	0.872	37.286	152.777	28.529	0.742	28.069	231.881	57.37	3.075	35.226	979.881	98.954	6.101	17.398	136.090	12.419	4.193	19.787

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	4.417	1.349	1.319	1.511	4.475	2.111	1.154	2.377	4.347	2.388	1.218	2.458	8.348	2.57	1.168	3.02	2.775	3.497
25	4.826	1.244	1.217	1.423	4.834	1.953	1.065	2.27	4.552	2.164	1.124	2.282	8.742	2.398	1.078	2.483	2.897	3.681
30	4.838	1.174	1.183	1.364	4.847	1.852	1.018	2.213	4.781	2.026	1.073	2.188	9.143	2.288	1.031	2.824	3.019	3.809
35	5.053	1.133	1.153	1.341	5.083	1.795	1.008	2.196	4.973	1.955	1.065	2.108	9.549	2.23	1.022	2.802	3.141	3.958
40	5.27	1.117	1.183	1.338	5.25	1.784	1.038	2.314	5.186	1.927	1.093	2.082	9.96	2.215	1.049	2.831	3.263	4.112
45	5.489	1.125	1.259	1.357	5.499	1.804	1.102	2.218	5.402	1.839	1.163	2.111	10.374	2.242	1.115	2.878	3.385	4.268
50	5.71	1.156	1.387	1.399	5.71	1.872	1.214	2.352	5.619	1.995	1.282	2.178	10.791	2.311	1.229	2.978	3.507	4.42
55	5.931	1.213	1.584	1.468	5.942	1.979	1.387	2.477	5.837	2.101	1.464	2.288	11.21	2.426	1.404	3.118	3.629	4.574
60	6.153	1.3	1.875	1.563	6.164	2.134	1.641	2.646	6.056	2.265	1.732	2.456	11.629	2.597	1.661	3.306	3.752	4.729
65	6.375	1.427	2.298	1.694	6.386	2.344	2.012	2.882	6.273	2.506	2.124	2.686	12.047	2.836	2.037	3.562	3.874	4.882
70	6.375	1.427	2.93	1.705	6.386	2.364	2.555	2.904	6.273	2.508	2.698	2.7	12.047	2.838	2.587	3.566	3.996	5.035

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	4.702	3.49	2.774	3.35	5.536	4.124	4.161	5.671	15.839	12.428	26.49	14.833	22.588	22.29	4.725	1.803	15.957	2.859
25	4.34	2.822	2.898	2.499	5.109	4.054	4.344	5.93	14.936	11.877	27.835	15.298	21.338	21.11	4.945	1.679	15	2.705
30	4.15	3.77	3.018	3.645	4.888	4.06	4.528	6.17	13.995	11.32	28.821	15.943	20.34	20.204	5.171	1.588	14.308	2.606
35	4.111	3.917	3.14	3.783	4.841	4.133	4.711	6.419	13.866	11.306	29.986	16.587	19.801	19.541	5.399	1.554	13.868	2.555
40	4.221	4.068	3.262	3.94	4.969	4.272	4.894	6.669	14.235	11.633	31.152	17.232	19.119	19.122	5.63	1.542	13.675	2.547
45	4.41	4.223	3.384	4.087	5.198	4.46	5.077	6.919	15.143	12.321	32.317	17.877	18.984	18.947	5.863	1.559	13.739	2.581
50	4.948	4.384	3.506	4.235	5.526	4.773	5.26	7.168	15.888	13.441	33.483	18.522	18.828	19.014	6.098	1.606	14.079	2.658
55	5.651	4.551	3.629	4.382	6.053	5.173	5.443	7.417	19.058	15.117	34.649	19.166	19.215	19.328	6.333	1.686	14.735	2.783
60	6.666	4.727	3.75	4.53	7.672	5.72	5.626	7.667	22.55	17.552	35.814	19.811	19.761	19.881	6.568	1.806	15.769	2.966
65	8.197	4.916	3.873	4.677	9.681	6.478	5.809	7.917	27.848	21.07	36.98	20.456	20.584	20.879	6.803	1.975	17.262	3.221
70	10.419	5.124	3.994	4.825	12.29	7.548	5.992	8.166	35.118	26.194	38.145	21.101	21.624	21.721	6.815	1.981	19.435	3.361

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	0.043	0.013	0.301	0.018	0.043	0.014	0.187	0.027	0.043	0.026	0.243	0.028	0.044	0.025	0.187	0.028	0.032	0.013
25	0.035	0.01	0.252	0.014	0.034	0.013	0.163	0.022	0.035	0.021	0.204	0.023	0.036	0.02	0.165	0.022	0.024	0.01
30	0.03	0.008	0.218	0.012	0.029	0.011	0.142	0.019	0.03	0.017	0.175	0.019	0.031	0.017	0.141	0.018	0.019	0.008
35	0.027	0.007	0.189	0.01	0.026	0.009	0.124	0.016	0.027	0.015	0.153	0.016	0.027	0.014	0.124	0.016	0.015	0.006
40	0.025	0.007	0.17	0.009	0.025	0.008	0.111	0.015	0.025	0.013	0.137	0.015	0.026	0.013	0.111	0.014	0.013	0.005
45	0.024	0.006	0.155	0.009	0.024	0.008	0.102	0.014	0.025	0.012	0.126	0.014	0.025	0.012	0.102	0.014	0.011	0.005
50	0.025	0.006	0.145	0.008	0.025	0.008	0.095	0.014	0.025	0.012	0.118	0.014	0.028	0.012	0.095	0.013	0.01	0.004
55	0.027	0.006	0.139	0.009	0.026	0.008	0.091	0.014	0.027	0.012	0.113	0.014	0.028	0.012	0.091	0.014	0.01	0.004
60	0.03	0.007	0.136	0.009	0.03	0.008	0.089	0.014	0.03	0.013	0.11	0.015	0.031	0.013	0.089	0.015	0.009	0.004
65	0.035	0.007	0.136	0.01	0.035	0.009	0.089	0.018	0.036	0.014	0.11	0.018	0.036	0.014	0.089	0.017	0.01	0.004
70	0.035	0.007	0.139	0.01	0.035	0.009	0.091	0.018	0.036	0.014	0.113	0.018	0.036	0.014	0.091	0.017	0.011	0.004

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	0.219	0.02	0.032	0.012	0.154	0.087	0.032	0.019	0.772	0.528	0.032	0.031	2.299	2.18	0.042	0.017	1.483	0.109
25	0.183	0.015	0.024	0.009	0.179	0.053	0.024	0.014	0.648	0.443	0.024	0.023	2.046	1.941	0.034	0.013	1.31	0.094
30	0.157	0.012	0.019	0.007	0.111	0.047	0.019	0.011	0.553	0.379	0.019	0.018	1.838	1.741	0.029	0.011	1.186	0.083
35	0.130	0.01	0.016	0.006	0.087	0.041	0.016	0.009	0.487	0.332	0.016	0.014	1.666	1.58	0.026	0.009	1.056	0.075
40	0.123	0.009	0.013	0.005	0.087	0.036	0.013	0.007	0.436	0.297	0.013	0.012	1.536	1.458	0.024	0.008	0.971	0.069
45	0.113	0.008	0.011	0.004	0.08	0.033	0.011	0.006	0.399	0.272	0.011	0.01	1.451	1.375	0.024	0.008	0.913	0.065
50	0.108	0.007	0.01	0.004	0.074	0.031	0.01	0.006	0.374	0.255	0.01	0.01	1.406	1.332	0.024	0.008	0.881	0.062
55	0.101	0.007	0.01	0.004	0.071	0.029	0.01	0.006	0.358	0.244	0.01	0.009	1.401	1.328	0.026	0.008	0.875	0.062
60	0.098	0.007	0.009	0.004	0.07	0.029	0.009	0.006	0.35	0.239	0.009	0.009	1.437	1.363	0.029	0.008	0.893	0.064
65	0.098	0.007	0.01	0.004	0.07	0.029	0.01	0.006	0.35	0.239	0.01	0.009	1.516	1.437	0.034	0.008	0.937	0.068
70	0.101	0.007	0.011	0.004	0.071	0.03	0.011	0.006	0.358	0.244	0.011	0.01	1.635	1.55	0.034	0.009	1.006	0.072

Title : 1994-2030 Run
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2007/05/17 15:54:41
Scen Year: 2000 -- All model years in the range 1965 to 2000 selected
Season : Annual
Area : Statewide totals

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

State Average State Average State Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	78.832	2.372	1.233	8.424	78.743	11.878	0.984	15.307	75.191	10.173	1.766	11.421	150.647	8.763	0.996	13.856	140.37	16.893	1.372	23.174	138.2	14.337	1.112	12.048	209.478	31.907	3.466	14.494	832.864	73.943	12.437	18.206	68.764	9.336	8.47	12.517
25	65.406	6.389	0.874	8.384	87.032	10.552	0.777	13.471	84.009	9.108	0.922	10.157	135.053	8.707	0.787	12.153	110.144	14.825	1.084	17.389	108.441	11.25	0.879	8.453	184.369	25.036	2.755	11.389	731.937	57.707	11.377	15.864	75.721	8.296	7.118	10.097
30	56.636	6.387	0.806	7.613	80.094	9.562	0.643	12.185	57.384	8.275	0.762	9.214	133.624	7.903	0.651	10.969	91.313	12.32	0.897	14.424	88.801	9.326	0.727	7.836	136.287	20.758	2.379	9.437	606.798	47.841	9.596	13.306	67.338	7.507	5.991	9.077
35	56.358	5.672	0.690	7.053	54.735	8.834	0.557	11.31	84.176	7.63	0.66	8.921	114.307	7.319	0.564	10.237	79.861	10.786	0.776	12.834	75.764	8.169	0.629	6.662	119.352	18.14	1.973	8.248	531.486	41.904	8.985	11.361	63.116	6.93	5.068	8.36
40	58.04	5.435	0.632	6.669	58.409	8.325	0.504	10.834	53.865	7.142	0.598	8.035	113.649	6.919	0.511	9.832	74.016	9.967	0.793	11.891	72.872	7.56	0.57	6.345	110.496	16.874	1.787	7.803	491.881	38.775	6.873	9.826	62.352	6.47	4.334	7.893
45	57.83	5.193	0.539	6.45	59.063	8.015	0.478	10.717	56.4	6.794	0.587	7.748	118.898	6.691	0.484	9.768	72.369	8.74	0.657	11.431	71.251	7.232	0.54	6.187	107.898	16.45	1.696	7.393	480.817	37.816	6.83	8.953	64.911	6.169	3.781	7.856
50	63.847	4.993	0.595	6.4	55.137	7.908	0.474	10.984	62.18	6.579	0.563	7.836	131.215	6.638	0.48	10.045	74.76	10.082	0.662	11.800	73.004	7.636	0.536	6.382	111.566	16.993	1.682	7.563	496.804	39.163	5.266	8.431	71.206	6.003	3.407	7.657
55	73.793	4.884	0.617	6.549	75.633	8.023	0.493	11.721	72.318	6.508	0.584	7.786	182.372	6.793	0.498	10.777	81.598	10.882	0.687	12.607	80.335	8.334	0.557	6.885	121.768	18.547	1.746	8.207	542.333	42.75	4.881	8.378	82.384	5.969	3.209	7.833
60	90.247	4.809	0.671	6.957	82.427	8.424	0.636	12.096	88.318	6.807	0.835	8.203	188.337	7.214	0.542	12.121	94.092	12.884	0.747	14.859	92.839	9.611	0.805	8.018	140.417	21.389	1.898	9.374	625.273	49.293	4.778	8.849	100.234	6.14	3.182	8.575
65	116.22	5.04	0.763	7.736	119.11	9.224	0.609	15.414	113.739	6.929	0.722	9.824	238.877	8.017	0.617	14.377	114.639	15.43	0.849	18.102	112.868	11.708	0.688	8.746	171.076	26.058	2.159	11.3	761.809	60.062	4.949	9.853	128.608	6.536	3.381	8.734
70	116.22	5.04	0.909	7.736	119.11	9.224	0.725	15.42	113.739	6.929	0.96	9.824	239.377	8.017	0.734	14.378	147.587	19.002	1.011	23.3	145.286	15.077	0.819	12.517	220.218	33.543	2.57	14.383	980.83	77.314	5.407	11.892	131.021	6.673	3.776	9.948

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	3.632	0.847	1.303	0.923	3.648	1.232	1.259	1.391	3.716	1.54	1.237	1.582	6.866	1.765	1.257	1.903	2.3	3.153	5.373	2.336	2.252	1.711	6.474	3.722	3.428	3.939	13.419	11.318	23.258	12.22	22.265	21.813	4.076	1.183	15.748	2.116
25	4.034	0.774	1.203	0.856	4.03	1.13	1.182	1.306	3.891	1.406	1.142	1.453	7.19	1.62	1.16	1.771	2.402	2.247	4.959	2.318	2.351	1.796	5.975	3.537	3.577	4.113	12.394	10.549	24.281	12.758	21.517	21.129	4.289	1.074	15.078	2
30	4.315	0.727	1.15	0.815	4.214	1.062	1.111	1.254	4.07	1.312	1.092	1.368	7.52	1.523	1.109	1.686	2.503	2.342	4.741	2.406	2.46	1.882	5.713	3.492	3.728	4.288	11.842	10.164	25.306	13.295	20.951	20.615	4.483	1.014	14.627	1.924
35	4.407	0.696	1.139	0.789	4.402	1.023	1.101	1.23	4.25	1.254	1.082	1.315	7.854	1.463	1.099	1.637	2.604	2.437	4.696	2.497	2.549	1.937	5.661	3.514	3.878	4.453	11.733	10.116	26.328	13.833	20.589	20.283	4.68	0.978	14.386	1.882
40	4.596	0.68	1.17	0.779	4.591	1.007	1.13	1.229	4.433	1.228	1.111	1.289	8.193	1.437	1.128	1.621	2.706	2.532	4.823	2.592	2.648	2.013	5.811	3.622	4.029	4.633	12.045	10.397	27.351	14.371	20.369	20.12	4.88	0.963	14.351	1.872
45	4.787	0.675	1.344	0.783	4.782	1.015	1.202	1.251	4.616	1.226	1.181	1.294	8.532	1.442	1.2	1.636	2.808	2.628	5.13	2.692	2.747	2.087	6.181	3.821	4.18	4.808	12.813	11.033	28.375	14.908	20.352	20.132	5.081	0.968	14.521	1.892
50	4.88	0.693	1.371	0.802	4.874	1.048	1.325	1.296	4.803	1.258	1.302	1.328	8.875	1.478	1.323	1.682	2.908	2.721	5.654	2.797	2.846	2.163	6.813	4.131	4.331	4.978	14.121	12.091	29.398	15.446	20.518	20.318	5.283	0.981	14.846	1.944
55	5.173	0.722	1.568	0.836	5.107	1.103	1.515	1.369	4.99	1.319	1.487	1.389	9.219	1.55	1.511	1.761	3.009	2.816	6.456	2.909	2.945	2.236	7.78	4.58	4.482	5.153	16.126	13.682	30.421	15.984	20.867	20.677	5.466	1.036	15.635	2.032
60	5.366	0.77	1.653	0.889	5.36	1.181	1.751	1.471	5.176	1.412	1.753	1.489	9.564	1.662	1.787	1.88	3.11	2.911	7.639	3.031	3.044	2.313	9.225	5.222	4.632	5.328	19.06	16.034	31.445	16.522	21.398	21.211	5.67	1.106	16.881	2.163
65	5.559	0.841	2.272	0.965	5.553	1.318	2.136	1.619	5.383	1.535	2.157	1.634	9.909	1.825	2.191	2.05	3.211	3.006	9.368	3.163	3.143	2.388	11.285	6.139	4.783	5.498	23.392	19.434	32.468	17.059	22.113	21.918	5.873	1.204	18.123	2.349
70	5.559	0.841	2.686	0.958	5.553	1.318	2.769	1.645	5.383	1.535	2.74	1.837	9.908	1.825	2.783	2.053	3.313	3.1	11.897	3.319	3.242	2.484	14.336	7.463	4.934	5.673	28.715	24.403	33.491	17.597	23.01	22.798	5.882	1.211	20.182	2.475

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	0.043	0.016	0.271	0.018	0.042	0.017	0.112	0.023	0.043	0.032	0.18	0.033	0.044	0.03	0.119	0.031	0.032	0.016	0.198	0.021	0.032	0.013	0.187	0.053	0.032	0.019	0.575	0.453	0.032	0.03	1.78	1.704	0.042	0.02	1.152	0.089
25	0.035	0.012	0.228	0.014	0.034	0.013	0.094	0.019	0.035	0.025	0.158	0.028	0.036	0.023	0.099	0.024	0.024	0.012	0.164	0.018	0.024	0.01	0.09	0.044	0.024	0.014	0.482	0.38	0.024	0.022	1.547	1.469	0.035	0.016	0.99	0.075
30	0.03	0.01	0.195	0.011	0.029	0.011	0.081	0.016	0.03	0.02	0.136	0.021	0.031	0.019	0.085	0.02	0.019	0.009	0.141	0.013	0.019	0.007	0.077	0.037	0.019	0.011	0.414	0.325	0.019	0.017	1.345	1.29	0.029	0.013	0.861	0.064
35	0.027	0.008	0.171	0.01	0.026	0.009	0.071	0.013	0.027	0.017	0.119	0.018	0.027	0.018	0.075	0.017	0.015	0.009	0.123	0.011	0.015	0.006	0.068	0.032	0.016	0.009	0.362	0.289	0.016	0.014	1.184	1.137	0.026	0.011	0.763	0.056
40	0.025	0.007	0.153	0.008	0.025	0.008	0.063	0.012	0.025	0.015	0.107	0.016	0.026	0.018	0.067	0.018	0.012	0.008	0.111	0.009	0.013	0.005	0.061	0.029	0.013	0.006	0.325	0.258	0.013	0.012	1.091	1.038	0.024	0.01	0.695	0.051
45	0.024	0.007	0.14	0.008	0.024	0.008	0.058	0.011	0.025	0.014	0.098	0.015	0.026	0.014	0.061	0.014	0.011	0.008	0.101	0.008	0.011	0.004	0.055	0.026	0.011	0.007	0.297	0.233	0.011	0.01	1.035	0.965	0.024	0.009	0.657	0.048
50	0.025	0.007	0.131	0.008	0.025	0.008	0.054	0.011	0.025	0.014	0.092	0.015	0.029	0.012	0.057	0.014	0.01	0.007	0.095	0.007	0.01	0.004	0.052	0.024	0.01	0.006	0.279	0.219	0.01	0.009	1.027	0.917	0.024	0.009	0.647	0.048
55	0.027	0.007	0.125	0.008	0.026	0.008	0.052	0.011	0.027	0.014	0.088	0.015	0.026	0.014	0.055	0.014	0.01	0.005	0.091	0.007	0.01	0.004	0.05	0.023	0.01	0.006	0.266	0.209	0.01	0.009	1.068	1.015	0.026	0.009	0.686	0.049
60	0.03	0.008	0.123	0.009	0.03	0.008	0.051	0.012	0.03	0.015	0.086	0.015	0.029	0.015	0.054	0.015	0.009	0.006	0.089	0.007	0.009	0.004	0.049	0.023	0.009	0.006	0.261	0.206	0.009	0.009	1.153	1.097	0.029	0.01	0.713	0.052
65	0.035	0.008	0.123	0.01	0.035	0.009	0.051	0.013	0.036	0.017	0.086	0.016	0.031	0.017	0.054	0.017	0.01	0.005	0.089	0.007	0.01	0.004	0.049	0.023	0.01	0.006	0.261	0.205	0.01	0.009	1.286	1.225	0.034	0.011	0.788	0.058
70	0.035	0.009	0.126	0.01	0.035	0.009	0.052	0.013	0.036	0.017	0.088	0.018	0.036	0.017	0.055	0.017	0.011	0.005	0.091	0.008	0.011	0.004	0.05	0.023	0.011	0.006	0.266	0.208	0.011	0.01	1.47	1.398	0.034	0.011	0.892	0.064

Title : 1984-2020 Run
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2007/05/17 15:54:41
Scen Year: 2009 -- All model years in the range 1965 to 2009 selected
Season : Annual
Area : Statewide totals

Year 2009 -- Model Years 1965 to 2009 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

State Average State Average State Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Carbon Monoxide Temperature: 80F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL
20	73.973	3.092	1.104	3.683	79.826	4.819	0.842	6.087	77.19	3.438	0.894	4.2	137.806	3.812	0.806	4.877
25	67.228	2.814	0.872	3.315	67.275	4.336	0.685	5.379	65.71	3.48	0.789	3.787	117.311	3.649	0.639	4.185
30	60.263	2.54	0.722	3.028	60.311	3.934	0.55	4.982	58.908	3.164	0.652	3.498	105.183	3.345	0.528	3.827
35	58.901	2.382	0.623	2.806	58.94	3.811	0.477	4.532	55.816	2.933	0.563	3.197	99.29	2.999	0.457	3.549
40	58.574	2.215	0.566	2.630	58.813	3.417	0.432	4.305	55.298	2.735	0.512	2.994	98.72	2.799	0.414	3.347
45	58.236	2.075	0.537	2.52	58.227	3.314	0.409	4.195	57.898	2.569	0.488	2.943	103.369	2.64	0.383	3.316
50	65.318	1.961	0.532	2.455	65.363	3.13	0.408	4.294	63.843	2.438	0.481	2.742	113.818	3.031	0.39	3.16
55	75.849	1.871	0.553	2.449	75.902	3.08	0.422	4.369	74.137	2.342	0.5	2.858	132.353	2.444	0.405	3.19
60	92.757	1.807	0.601	2.519	92.823	3.107	0.458	4.727	90.663	2.283	0.543	2.723	181.859	2.416	0.44	3.334
65	119.459	1.775	0.683	2.898	119.542	3.238	0.521	5.373	116.761	2.27	0.616	2.841	208.452	2.452	0.5	3.841
70	119.459	1.775	0.814	2.697	119.542	3.238	0.621	5.38	116.761	2.27	0.738	2.841	208.452	2.452	0.596	3.841

Speed MPH	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	132.872	4.831	1.133	4.396	132.287	5.251	1.311	4.013	198.493	12.932	3.922	5.809	906.888	63.896	8	9.966	88.482	3.883	5.43	4.418
25	104.339	3.876	0.898	3.372	103.765	4.12	1.038	3.152	156.535	10.818	2.31	4.412	713.178	49.882	8.758	8.389	74.817	3.324	4.543	3.964
30	88.499	3.006	0.741	2.786	88.041	3.416	0.857	2.612	129.772	8.803	1.811	3.854	591.247	41.436	5.705	8.872	66.871	2.028	3.825	3.54
35	73.788	2.633	0.641	2.449	73.363	2.992	0.742	2.294	113.868	7.71	1.654	3.164	517.875	38.294	4.843	1.957	62.808	2.789	3.256	3.269
40	70.119	2.437	0.581	2.281	69.742	2.769	0.672	2.107	105.181	7.135	1.498	2.92	479.255	23.568	4.172	5.21	61.95	2.597	3.025	3.075
45	68.885	2.383	0.561	2.208	68.182	2.707	0.637	2.05	102.881	6.977	1.421	2.817	469.592	32.84	3.89	4.715	64.588	2.448	2.525	2.935
50	70.82	2.481	0.547	2.273	70.444	2.796	0.633	2.106	108.249	7.207	1.41	2.863	484.072	33.925	3.369	4.463	70.947	2.333	2.353	2.868
55	77.295	2.606	0.568	2.474	76.888	3.052	0.657	2.262	115.964	7.886	1.464	3.06	528.336	37.037	3.298	4.476	82.104	2.281	2.31	2.886
60	88.134	3.088	0.617	2.844	88.681	3.62	0.714	2.611	133.724	8.871	1.581	3.447	609.253	42.838	3.388	4.757	100.088	2.233	2.396	3.007
65	106.598	3.774	0.702	3.453	106.83	4.288	0.812	3.153	162.924	11.052	1.81	4.092	742.285	52.022	3.687	5.344	128.599	2.263	2.618	3.373
70	139.709	4.858	0.835	4.478	139.048	5.52	0.967	4.021	206.722	14.226	2.154	5.12	955.499	66.964	4.137	6.315	130.34	2.314	2.985	3.359

Pollutant Name: Oxides of Nitrogen Temperature: 80F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL
20	3.833	0.292	1.383	0.312	3.776	0.424	1.305	0.534	3.712	0.501	1.273	0.519	6.018	0.597	1.317	0.631
25	4.014	0.258	1.164	0.29	3.984	0.388	1.204	0.5	3.887	0.458	1.174	0.477	6.302	0.546	1.218	0.583
30	4.198	0.242	1.132	0.275	4.136	0.365	1.152	0.479	4.066	0.427	1.172	0.447	6.397	0.511	1.183	0.549
35	4.385	0.231	1.127	0.265	4.318	0.348	1.147	0.468	4.248	0.407	1.133	0.429	6.884	0.487	1.152	0.527
40	4.573	0.224	1.152	0.26	4.505	0.342	1.172	0.468	4.429	0.396	1.142	0.418	7.18	0.474	1.183	0.518
45	4.764	0.227	1.235	0.26	4.693	0.341	1.246	0.473	4.613	0.392	1.215	0.415	7.479	0.471	1.258	0.513
50	4.955	0.223	1.35	0.263	4.881	0.344	1.373	0.49	4.798	0.397	1.339	0.422	7.779	0.478	1.388	0.524
55	5.147	0.23	1.543	0.271	5.07	0.363	1.568	0.517	4.985	0.411	1.529	0.436	8.081	0.494	1.583	0.543
60	5.34	0.241	1.825	0.285	5.26	0.388	1.858	0.557	5.171	0.435	1.808	0.461	8.383	0.523	1.873	0.574
65	5.532	0.257	2.237	0.304	5.449	0.421	2.275	0.614	5.357	0.47	2.216	0.498	8.685	0.566	2.297	0.62
70	5.532	0.257	2.842	0.305	5.449	0.471	2.89	0.648	5.357	0.47	2.818	0.5	8.685	0.586	2.917	0.622

Speed MPH	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	2.017	0.664	4.254	1.531	1.988	0.788	8.21	2.013	2.026	3.435	6.449	7.497	20.815	10.453	17.756	12.574	3.982	0.414	12.6	1.317
25	2.108	0.694	3.926	1.480	2.088	0.833	4.806	2.739	3.158	2.542	7.795	6.966	21.731	10.913	17.023	16.873	4.18	0.384	11.887	1.247
30	2.194	0.723	3.754	1.473	2.174	0.868	4.397	2.857	3.282	2.648	7.454	6.896	22.647	11.373	16.447	16.324	4.371	0.363	11.57	1.196
35	2.283	0.752	3.72	1.487	2.262	0.903	4.555	2.656	3.426	2.766	7.365	6.658	23.562	11.833	16.027	15.927	4.564	0.349	11.308	1.163
40	2.371	0.781	3.818	1.534	2.349	0.938	4.678	2.732	3.558	2.883	7.582	6.837	24.479	12.293	15.783	15.682	4.75	0.342	11.209	1.156
45	2.46	0.81	4.062	1.618	2.437	0.974	4.974	2.893	3.691	2.971	8.063	7.261	25.395	12.753	15.655	15.569	4.957	0.341	11.28	1.182
50	2.549	0.84	4.477	1.74	2.525	1.009	5.482	3.154	3.825	3.078	8.888	7.871	26.31	13.213	15.702	15.643	5.156	0.346	11.535	1.187
55	2.638	0.869	5.112	1.918	2.613	1.044	6.26	3.545	3.958	3.185	10.15	9.05	27.226	13.673	15.908	15.857	5.355	0.358	12.001	1.232
60	2.726	0.898	6.049	2.171	2.701	1.079	7.408	4.112	4.091	3.292	12.01	10.632	28.142	14.133	16.368	16.272	5.555	0.376	12.722	1.303
65	2.815	0.927	7.416	2.529	2.789	1.114	9.082	4.931	4.224	3.399	14.724	12.933	29.058	14.593	16.764	16.737	5.754	0.404	13.769	1.404
70	2.904	0.957	9.42	3.043	2.877	1.149	11.536	6.122	4.357	3.506	18.704	16.299	29.974	15.053	17.497	17.404	5.78	0.409	15.254	1.517

Pollutant Name: PM10 Temperature: 80F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL
20	0.043	0.017	0.186	0.018	0.043	0.021	0.074	0.024	0.043	0.037	0.123	0.036	0.044	0.036	0.067	0.038
25	0.035	0.013	0.198	0.014	0.034	0.016	0.062	0.019	0.035	0.029	0.103	0.029	0.036	0.028	0.057	0.029
30	0.03	0.011	0.134	0.011	0.029	0.013	0.053	0.015	0.03	0.023	0.089	0.023	0.031	0.022	0.048	0.022
35	0.027	0.009	0.117	0.009	0.026	0.011	0.046	0.013	0.027	0.02	0.078	0.02	0.027	0.019	0.042	0.019
40	0.025	0.008	0.105	0.008	0.026	0.01	0.043	0.012	0.025	0.017	0.07	0.018	0.026	0.017	0.038	0.017
45	0.024	0.007	0.096	0.008	0.024	0.008	0.038	0.011	0.025	0.016	0.064	0.016	0.025	0.016	0.035	0.016
50	0.025	0.007	0.09	0.008	0.025	0.009	0.036	0.011	0.025	0.016	0.06	0.016	0.026	0.015	0.033	0.016
55	0.027	0.008	0.086	0.008	0.028	0.009	0.034	0.011	0.027	0.017	0.057	0.017	0.029	0.018	0.031	0.018
60	0.03	0.008	0.084	0.009	0.03	0.01	0.033	0.012	0.03	0.018	0.056	0.018	0.031	0.018	0.031	0.018
65	0.035	0.01	0.084	0.01	0.035	0.012	0.033	0.013	0.035	0.021	0.056	0.021	0.036	0.03	0.031	0.02
70	0.035	0.01	0.086	0.01	0.035	0.012	0.034	0.013	0.035	0.021	0.057	0.021	0.036	0.02	0.031	0.02

Speed MPH	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	0.032	0.012	0.058	0.022	0.032	0.014	0.076	0.044	0.032	0.017	0.399	0.338	0.032	0.032	0.88	0.858	0.043	0.025	0.803	0.088
25	0.024	0.009	0.049	0.019	0.024	0.01	0.063	0.038	0.024	0.013	0.334	0.283	0.024	0.024	0.739	0.719	0.035	0.019	0.806	0.054
30	0.019	0.007	0.042	0.016	0.019	0.008	0.054	0.03	0.019	0.01	0.287	0.243	0.019	0.019	0.631	0.615	0.03	0.016	0.433	0.045
35	0.015	0.006	0.036	0.013	0.015	0.006	0.048	0.026	0.015	0.008	0.251	0.213	0.015	0.015	0.56	0.546	0.026	0.013	0.383	0.04
40	0.013	0.005	0.033	0.012	0.013	0.005	0.043	0.023	0.013	0.007	0.225	0.19	0.013	0.013	0.525	0.511	0.025	0.011	0.357	0.038
45	0.011	0.004	0.03	0.01	0.011	0.005	0.039	0.021	0.011	0.006	0.209	0.174	0.011	0.011	0.524	0.511	0.024	0.011	0.332	0.039
50	0.01	0.004	0.029	0.01	0.01	0.004	0.037	0.02	0.01	0.005	0.193	0.163	0.01	0.01	0.56	0.548	0.025	0.011	0.369	0.038
55	0.01	0.004	0.027	0.009	0.01	0.004	0.035	0.019	0.01	0.005	0.185	0.156	0.01	0.01	0.631	0.615	0.028	0.011	0.409	0.04
60	0.009	0.004	0.026	0.009	0.009	0.004	0.034	0.018	0.009	0.005	0.181	0.153	0.009	0.01	0.737	0.719	0.029	0.013	0.469	0.045
65	0.01	0.004	0.026	0.009	0.01	0.004	0.034	0.019	0.01	0.005	0.181	0.153	0.01	0.01	0.879	0.857	0.034	0.014	0.551	0.052
70	0.011	0.004	0.027	0.01	0.011	0.005	0.036	0.019	0.011	0.006	0.185	0.156	0.011	0.011	1.057	1.03	0.034	0.014	0.653	0.06

Title : 1984-2020 Run
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2007/05/17 15:54:41
Scen Year: 2016 -- All model years in the range 1972 to 2016 selected
Season : Annual
Area : Statewide totals

Year 2016 -- Model Years 1972 to 2016 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

State Average State Average State Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Carbon Monoxide Temperature: 80F Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL
20	73.231	1.726	1.01	1.785	75.577	2.544	0.818	3.04	74.915	2.528	0.933	2.596	139.515	2.88	0.768	3.143
25	62.34	1.578	0.739	1.628	64.337	2.368	0.647	2.73	63.691	2.302	0.729	2.38	118.767	2.604	0.623	2.843
30	55.488	1.448	0.66	1.492	57.478	2.347	0.535	2.489	57.099	2.11	0.603	2.182	106.175	2.386	0.515	2.602
35	52.784	1.337	0.571	1.379	54.434	2.187	0.463	2.301	53.807	1.948	0.522	1.997	100.322	2.206	0.446	2.41
40	52.461	1.247	0.518	1.283	54.141	2.034	0.42	2.18	53.507	1.811	0.473	1.88	99.545	2.053	0.404	2.297
45	54.929	1.16	0.491	1.204	56.682	1.912	0.398	2.06	56.12	1.695	0.448	1.749	104.648	1.879	0.383	2.14
50	60.563	1.091	0.487	1.14	62.509	1.832	0.395	2.003	61.881	1.598	0.443	1.656	115.352	1.829	0.38	2.061
55	70.335	1.034	0.506	1.091	72.568	1.786	0.41	1.992	71.838	1.522	0.462	1.589	133.997	1.748	0.396	2.033
60	88.013	0.99	0.55	1.06	88.758	1.776	0.445	2.04	87.877	1.466	0.507	1.548	162.887	1.698	0.429	2.035
65	110.773	0.958	0.635	1.049	114.322	1.817	0.507	2.17	113.174	1.433	0.571	1.54	211.835	1.682	0.488	2.118
70	110.773	0.959	0.744	1.049	114.322	1.817	0.603	2.173	113.174	1.432	0.68	1.54	211.038	1.662	0.581	2.118

Speed MPH	LHD1 NCAT	LHD1 CAT	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	125.117	2.222	1.164	2.141	125.117	1.871	1.185	1.635	187.875	5.315	2.339	3.073	862.438	55.659	3.423	4.349	91.5	2.237	2.875	2.391
25	98.174	1.751	0.92	1.681	98.174	1.498	0.921	1.298	147.262	4.17	1.849	2.423	678.724	43.674	2.898	3.719	77.278	2.023	2.42	2.148
30	87.389	1.452	0.761	1.392	81.39	1.217	0.762	1.065	122.464	3.457	1.529	2.006	561.024	36.207	2.449	3.244	88.785	1.848	2.116	1.951
35	71.389	1.373	0.658	1.319	71.389	1.486	0.659	0.829	106.934	3.028	1.324	1.743	491.402	31.714	2.278	2.898	84.529	1.703	1.893	1.795
40	65.973	1.177	0.587	1.125	65.873	0.967	0.587	0.854	98.98	2.802	1.198	1.592	454.757	29.349	2.183	2.665	63.795	1.564	1.724	1.672
45	64.505	1.151	0.568	1.088	64.505	0.965	0.568	0.827	96.758	2.74	1.137	1.527	444.939	28.696	2.066	2.639	68.454	1.466	1.637	1.576
50	68.638	1.168	0.582	1.127	68.638	0.997	0.582	0.844	99.954	2.831	1.128	1.539	459.327	29.644	2.026	2.516	72.948	1.41	1.604	1.513
55	71.729	1.287	0.583	1.224	71.729	1.088	0.584	0.908	109.084	3.089	1.172	1.63	501.729	32.354	2.084	2.6	84.366	1.353	1.639	1.478
60	83.884	1.498	0.634	1.403	83.858	1.254	0.634	1.029	125.802	3.563	1.273	1.816	578.109	37.309	2.178	2.8	102.798	1.32	1.74	1.478
65	102.181	1.823	0.721	1.696	102.181	1.526	0.721	1.231	153.272	4.34	1.446	2.125	704.347	45.458	2.37	3.132	131.955	1.315	1.91	1.522
70	121.522	2.346	0.858	2.17	131.532	1.967	0.859	1.553	197.207	5.567	1.774	2.619	906.636	58.513	2.929	3.827	134.13	1.341	2.194	1.586

Pollutant Name: Oxides of Nitrogen   Temperature: 80F   Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	3.659	0.143	1.288	0.147	3.596	0.235	1.313	0.278	3.599	0.264	1.291	0.288	6.19	0.357	1.323	0.372	1.797	0.386
25	3.832	0.132	1.187	0.136	3.786	0.218	1.212	0.255	3.789	0.26	1.182	0.264	6.483	0.327	1.221	0.343	1.878	0.363
30	4.008	0.123	1.136	0.127	3.938	0.202	1.159	0.241	3.942	0.242	1.13	0.247	6.78	0.306	1.168	0.321	1.958	0.399
35	4.186	0.117	1.125	0.121	4.114	0.193	1.148	0.232	4.117	0.231	1.12	0.235	7.061	0.291	1.157	0.306	2.034	0.415
40	4.366	0.113	1.164	0.118	4.291	0.189	1.178	0.23	4.294	0.224	1.15	0.229	7.366	0.283	1.188	0.3	2.113	0.431
45	4.548	0.112	1.228	0.117	4.469	0.184	1.253	0.232	4.473	0.221	1.223	0.227	7.693	0.281	1.263	0.298	2.182	0.447
50	4.73	0.113	1.353	0.118	4.648	0.191	1.381	0.239	4.652	0.224	1.348	0.229	8.002	0.284	1.392	0.303	2.271	0.463
55	4.914	0.115	1.546	0.121	4.829	0.199	1.578	0.252	4.833	0.23	1.539	0.236	8.313	0.292	1.59	0.312	2.351	0.479
60	5.098	0.12	1.829	0.128	5.01	0.211	1.867	0.272	5.014	0.242	1.821	0.249	8.623	0.308	1.881	0.328	2.43	0.495
65	5.281	0.128	2.242	0.134	5.19	0.229	2.289	0.302	5.194	0.261	2.233	0.267	8.934	0.332	2.307	0.354	2.509	0.512
70	5.281	0.128	2.848	0.135	5.19	0.229	2.907	0.319	5.194	0.261	2.838	0.268	8.934	0.332	2.93	0.356	2.588	0.528

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	2.83	0.91	1.787	0.377	2.101	1.812	2.696	1.023	4.133	3.614	18.606	7.338	8.341	8.325	4.053	0.235	6.555	0.688
25	2.512	0.874	1.878	0.393	2.882	1.513	2.814	1.068	3.814	3.358	19.427	7.65	7.808	7.807	4.244	0.206	6.121	0.641
30	2.497	0.862	1.958	0.41	2.737	1.483	2.933	1.113	3.647	3.225	20.245	7.963	7.371	7.382	4.436	0.197	5.792	0.607
35	2.474	0.87	2.034	0.427	2.711	1.483	3.051	1.158	3.614	3.205	21.064	8.306	7.031	7.053	4.634	0.189	5.563	0.583
40	2.54	0.897	2.113	0.443	2.783	1.525	3.17	1.203	3.71	3.292	21.883	8.629	6.787	6.818	4.833	0.185	5.434	0.57
45	2.702	0.945	2.192	0.46	2.961	1.594	3.289	1.248	3.946	3.497	22.701	8.952	6.639	6.677	5.033	0.184	5.407	0.568
50	3.078	1.018	2.271	0.476	3.365	1.74	3.407	1.293	4.349	3.84	23.52	9.278	6.587	6.632	5.234	0.188	5.49	0.576
55	3.401	1.124	2.351	0.493	3.728	1.96	3.526	1.338	4.968	4.361	24.339	9.598	6.631	6.68	5.437	0.192	5.697	0.597
60	4.024	1.273	2.43	0.509	4.409	2.278	3.644	1.383	5.878	5.127	25.158	9.92	6.771	6.824	5.639	0.201	6.05	0.631
65	4.933	1.488	2.509	0.526	5.406	2.739	3.763	1.428	7.205	6.24	25.976	10.243	7.008	7.062	5.841	0.215	6.586	0.683
70	6.267	1.782	2.588	0.543	6.867	3.41	3.882	1.473	9.182	7.868	26.795	10.566	7.341	7.395	5.848	0.218	7.342	0.74

Pollutant Name: PM10   Temperature: 80F   Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	0.043	0.017	0.144	0.018	0.041	0.021	0.069	0.023	0.044	0.044	0.097	0.044	0.044	0.045	0.062	0.045	0.032	0.014
25	0.035	0.013	0.121	0.013	0.034	0.018	0.058	0.018	0.036	0.033	0.081	0.033	0.036	0.034	0.052	0.034	0.024	0.011
30	0.03	0.011	0.103	0.011	0.029	0.013	0.049	0.014	0.031	0.027	0.07	0.027	0.031	0.027	0.045	0.027	0.019	0.008
35	0.027	0.008	0.091	0.008	0.026	0.011	0.043	0.012	0.027	0.023	0.061	0.023	0.028	0.023	0.038	0.023	0.015	0.007
40	0.025	0.008	0.081	0.008	0.024	0.01	0.039	0.011	0.026	0.02	0.055	0.02	0.026	0.021	0.035	0.021	0.013	0.006
45	0.024	0.008	0.074	0.008	0.024	0.008	0.038	0.01	0.025	0.019	0.05	0.019	0.025	0.019	0.032	0.019	0.011	0.005
50	0.025	0.007	0.07	0.008	0.024	0.008	0.033	0.01	0.026	0.019	0.047	0.018	0.026	0.019	0.03	0.018	0.01	0.004
55	0.027	0.008	0.067	0.008	0.026	0.01	0.032	0.01	0.027	0.019	0.045	0.019	0.029	0.02	0.029	0.02	0.01	0.004
60	0.03	0.009	0.065	0.009	0.029	0.01	0.031	0.011	0.031	0.021	0.044	0.021	0.031	0.022	0.028	0.022	0.009	0.004
65	0.035	0.01	0.065	0.01	0.034	0.013	0.031	0.013	0.036	0.025	0.044	0.025	0.036	0.025	0.025	0.025	0.01	0.004
70	0.035	0.01	0.067	0.01	0.034	0.013	0.032	0.013	0.036	0.025	0.045	0.025	0.036	0.079	0.079	0.025	0.011	0.005

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	0.048	0.022	0.032	0.014	0.053	0.031	0.032	0.016	0.27	0.228	0.032	0.03	0.333	0.318	0.042	0.027	0.289	0.045
25	0.04	0.017	0.024	0.01	0.044	0.028	0.024	0.012	0.227	0.181	0.024	0.022	0.279	0.275	0.034	0.021	0.231	0.036
30	0.034	0.014	0.019	0.008	0.036	0.022	0.019	0.009	0.194	0.183	0.019	0.017	0.249	0.246	0.029	0.017	0.204	0.03
35	0.03	0.012	0.015	0.006	0.033	0.018	0.015	0.008	0.17	0.143	0.015	0.014	0.233	0.23	0.026	0.014	0.189	0.027
40	0.027	0.01	0.013	0.005	0.03	0.018	0.013	0.006	0.153	0.128	0.013	0.012	0.232	0.229	0.024	0.012	0.184	0.025
45	0.025	0.009	0.011	0.005	0.027	0.015	0.011	0.006	0.14	0.117	0.011	0.01	0.244	0.241	0.024	0.012	0.189	0.025
50	0.023	0.009	0.01	0.004	0.025	0.014	0.01	0.006	0.131	0.11	0.01	0.009	0.271	0.267	0.024	0.013	0.204	0.026
55	0.022	0.008	0.01	0.004	0.024	0.013	0.01	0.005	0.125	0.105	0.01	0.009	0.312	0.307	0.028	0.013	0.229	0.028
60	0.022	0.008	0.009	0.004	0.024	0.013	0.009	0.005	0.122	0.103	0.009	0.009	0.368	0.362	0.028	0.013	0.264	0.031
65	0.022	0.008	0.01	0.004	0.024	0.013	0.01	0.005	0.122	0.103	0.01	0.009	0.437	0.43	0.034	0.015	0.309	0.037
70	0.022	0.009	0.011	0.005	0.024	0.014	0.011	0.005	0.125	0.105	0.011	0.01	0.521	0.512	0.034	0.015	0.363	0.04

Title : 1994-2020 Run
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2007/08/17 15:54:41
Scen Year: 2020 -- All model years in the range 1976 to 2020 selected
Season : Annual
Area : Statewide totals

Year: 2020 -- Model Years 1976 to 2020 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

State Average   State Average   State Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Carbon Monoxide   Temperature: 80F   Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	33.349	1.283	0.947	1.287	52.181	2.072	0.816	2.086	52.345	2.03	0.898	2.034	167.888	2.388	0.779	2.498	122.081	1.812
25	28.539	1.175	0.749	1.176	44.353	1.878	0.645	1.889	44.56	1.882	0.7	1.885	142.847	2.189	0.615	2.27	95.8	1.187
30	25.883	1.06	0.619	1.081	39.782	1.717	0.533	1.798	39.940	1.7	0.579	1.703	127.882	1.983	0.509	2.082	79.421	0.984
35	24.172	0.987	0.538	0.996	37.54	1.586	0.463	1.576	37.715	1.57	0.501	1.572	120.734	1.833	0.441	1.928	69.585	0.862
40	24.033	0.928	0.486	0.927	37.324	1.477	0.416	1.47	37.488	1.457	0.454	1.46	120.04	1.704	0.398	1.797	64.378	0.787
45	25.164	0.864	0.461	0.863	39.08	1.391	0.397	1.385	39.263	1.361	0.431	1.364	125.889	1.594	0.379	1.692	62.945	0.78
50	27.748	0.81	0.457	0.812	43.093	1.324	0.394	1.32	43.294	1.28	0.427	1.283	138.394	1.503	0.378	1.611	65.025	0.805
55	32.272	0.765	0.475	0.767	50.041	1.279	0.409	1.276	50.274	1.215	0.444	1.218	160.94	1.43	0.39	1.596	70.871	0.879
60	39.404	0.728	0.516	0.73	61.195	1.258	0.444	1.259	61.481	1.155	0.483	1.164	196.515	1.375	0.424	1.531	81.84	1.014
65	50.747	0.698	0.587	0.702	78.811	1.282	0.505	1.271	79.179	1.12	0.548	1.127	253.472	1.343	0.482	1.544	98.71	1.238
70	50.747	0.698	0.698	0.702	78.811	1.282	0.600	1.273	79.179	1.12	0.653	1.137	253.472	1.343	0.574	1.845	128.351	1.89

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	1.158	1.453	122.081	1.802	1.009	1.847	183.136	2.377	2.111	2.293	847.901	51.146	2.13	2.803	112.841	1.719	1.874	1.758
25	0.915	1.19	95.8	0.786	0.861	0.824	143.7	2.236	1.669	1.802	665.318	40.132	1.922	2.447	95.505	1.559	1.721	1.586
30	0.757	0.983	79.421	0.852	0.712	0.682	119.132	1.836	1.38	1.491	551.569	33.271	1.759	2.192	85.18	1.425	1.537	1.447
35	0.655	0.833	69.585	0.871	0.616	0.598	104.348	1.696	1.195	1.294	483.13	29.142	1.64	2.016	80.051	1.314	1.409	1.334
40	0.594	0.768	64.378	0.528	0.558	0.545	96.568	1.57	1.083	1.179	447.092	26.968	1.565	1.914	78.285	1.22	1.329	1.247
45	0.563	0.747	62.945	0.516	0.528	0.525	94.418	1.535	1.026	1.128	437.145	26.369	1.534	1.876	82.631	1.143	1.294	1.187
50	0.558	0.767	65.025	0.534	0.529	0.533	97.537	1.585	1.019	1.129	451.596	27.24	1.544	1.901	92.883	1.08	1.301	1.111
55	0.6	0.831	70.871	0.582	0.546	0.57	106.454	1.73	1.056	1.167	492.88	29.731	1.606	1.983	109.276	1.031	1.35	1.071
60	0.631	0.95	81.84	0.671	0.593	0.641	122.76	1.995	1.149	1.311	568.365	34.284	1.709	2.156	128.347	0.997	1.443	1.051
65	0.717	1.147	98.71	0.818	0.674	0.76	149.985	2.431	1.307	1.52	692.47	41.77	1.855	2.404	164.907	0.992	1.582	1.053
70	0.854	1.462	128.351	1.063	0.803	0.949	192.526	3.129	1.566	1.851	891.378	53.768	2.046	2.757	164.896	1	1.775	1.084

Pollutant Name: Oxides of Nitrogen   Temperature: 80F   Relative Humidity: 70%

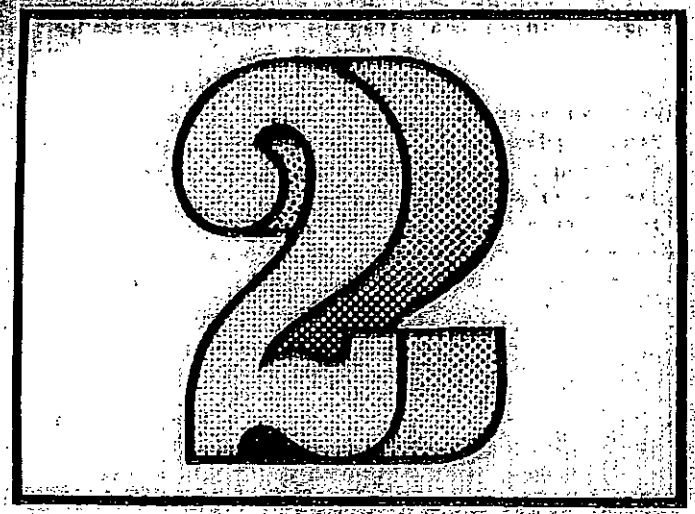
Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	2.335	0.104	1.297	0.105	2.111	0.187	1.313	0.187	2.249	0.21	1.298	0.211	7.315	0.262	1.328	0.269	1.738	0.274
25	2.445	0.095	1.197	0.096	2.21	0.163	1.212	0.172	2.44	0.192	1.198	0.193	7.66	0.24	1.224	0.247	1.814	0.296
30	2.557	0.089	1.145	0.09	2.312	0.149	1.158	0.161	2.573	0.179	1.144	0.18	8.011	0.224	1.17	0.231	1.891	0.289
35	2.67	0.085	1.134	0.085	2.414	0.137	1.148	0.155	2.687	0.171	1.134	0.171	8.367	0.213	1.16	0.221	1.967	0.31
40	2.785	0.082	1.164	0.082	2.518	0.133	1.179	0.152	2.803	0.165	1.164	0.166	8.727	0.207	1.19	0.218	2.044	0.322
45	2.901	0.081	1.229	0.081	2.623	0.133	1.254	0.152	2.92	0.163	1.23	0.164	9.09	0.205	1.266	0.212	2.12	0.334
50	3.018	0.081	1.365	0.082	2.728	0.135	1.382	0.157	3.037	0.165	1.364	0.166	9.458	0.206	1.395	0.216	2.197	0.346
55	3.135	0.083	1.559	0.084	2.834	0.14	1.578	0.165	3.156	0.169	1.558	0.17	9.832	0.213	1.594	0.222	2.273	0.358
60	3.252	0.088	1.844	0.087	2.94	0.148	1.867	0.178	3.273	0.175	1.843	0.178	10.19	0.223	1.886	0.234	2.349	0.37
65	3.369	0.092	2.261	0.093	3.046	0.161	2.289	0.197	3.391	0.191	2.26	0.192	10.556	0.24	2.312	0.251	2.426	0.382
70	3.369	0.092	2.872	0.093	3.046	0.161	2.906	0.209	3.391	0.191	2.871	0.192	10.559	0.24	2.937	0.252	2.502	0.394

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	2.27	0.885	1.738	0.242	2.27	1.136	2.807	0.587	2.685	2.324	18.105	5.753	5.51	5.514	4.006	0.164	4.485	0.479
25	2.095	0.867	1.814	0.252	2.095	1.067	2.721	0.613	2.477	2.157	18.902	6.007	5.075	5.068	5.032	0.151	4.132	0.442
30	2.003	0.854	1.891	0.263	2.003	1.032	2.838	0.639	2.389	2.071	19.699	6.26	4.714	4.735	5.262	0.143	3.856	0.414
35	1.985	0.863	1.967	0.274	1.985	1.03	2.951	0.664	2.347	2.038	20.495	6.513	4.439	4.453	5.495	0.137	3.650	0.394
40	2.038	0.884	2.044	0.284	2.037	1.069	3.065	0.69	2.41	2.114	21.292	6.766	4.212	4.247	5.731	0.134	3.535	0.382
45	2.168	0.721	2.12	0.295	2.167	1.123	3.18	0.716	2.563	2.246	22.089	7.019	4.073	4.113	5.969	0.133	3.487	0.378
50	2.389	0.777	2.197	0.305	2.389	1.228	3.296	0.742	2.825	2.467	22.885	7.272	4.007	4.051	6.208	0.134	3.521	0.382
55	2.728	0.858	2.273	0.316	2.728	1.382	3.41	0.768	3.226	2.803	23.682	7.525	4.014	4.062	6.446	0.138	3.640	0.394
60	3.228	0.973	2.349	0.327	3.228	1.609	3.524	0.793	3.817	3.297	24.479	7.779	4.086	4.146	6.688	0.145	3.877	0.417
65	3.957	1.138	2.426	0.337	3.957	1.938	3.639	0.819	4.68	4.018	25.275	8.032	4.251	4.303	6.928	0.154	4.230	0.452
70	5.027	1.371	2.502	0.348	5.026	2.418	3.754	0.845	5.945	5.067	26.072	8.285	4.48	4.532	6.935	0.155	4.788	0.491

Pollutant Name: PM10   Temperature: 80F   Relative Humidity: 70%

Speed MPH	LDA NCAT	LDA CAT	LDA DSL	LDA ALL	LDT1 NCAT	LDT1 CAT	LDT1 DSL	LDT1 ALL	LDT2 NCAT	LDT2 CAT	LDT2 DSL	LDT2 ALL	MDV NCAT	MDV CAT	MDV DSL	MDV ALL	LHD1 NCAT	LHD1 CAT
20	0.043	0.018	0.122	0.018	0.032	0.021	0.068	0.022	0.049	0.045	0.087	0.045	0.045	0.046	0.06	0.048	0.032	0.015
25	0.035	0.013	0.102	0.013	0.026	0.016	0.057	0.017	0.04	0.034	0.073	0.034	0.037	0.035	0.05	0.035	0.024	0.011
30	0.03	0.011	0.088	0.011	0.022	0.013	0.049	0.014	0.034	0.027	0.062	0.027	0.031	0.028	0.043	0.028	0.019	0.008
35	0.027	0.008	0.077	0.009	0.02	0.011	0.043	0.011	0.031	0.023	0.055	0.023	0.029	0.024	0.038	0.024	0.015	0.007
40	0.025	0.008	0.069	0.008	0.019	0.01	0.038	0.01	0.029	0.021	0.049	0.021	0.026	0.021	0.034	0.021	0.013	0.006
45	0.024	0.008	0.063	0.008	0.018	0.009	0.035	0.01	0.028	0.019	0.045	0.019	0.026	0.02	0.031	0.02	0.011	0.005
50	0.025	0.008	0.059	0.008	0.018	0.009	0.033	0.009	0.029	0.019	0.042	0.019	0.026	0.02	0.029	0.02	0.01	0.005
55	0.027	0.008	0.056	0.008	0.02	0.009	0.031	0.01	0.031	0.02	0.04	0.02	0.028	0.021	0.028	0.021	0.01	0.005
60	0.03	0.009	0.055	0.009	0.022	0.01	0.031	0.011	0.034	0.023	0.039	0.023	0.031	0.023	0.027	0.023	0.009	0.004
65	0.035	0.01	0.055	0.01	0.026	0.012	0.031	0.012	0.04	0.026	0.039	0.026	0.037	0.026	0.027	0.026	0.01	0.005
70	0.035	0.01	0.056	0.01	0.026	0.012	0.031	0.012	0.04	0.026	0.04	0.026	0.037	0.026	0.026	0.026	0.011	0.005

Speed MPH	LHD1 DSL	LHD1 ALL	LHD2 NCAT	LHD2 CAT	LHD2 DSL	LHD2 ALL	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	ALL NCAT	ALL CAT	ALL DSL	ALL ALL
20	0.044	0.021	0.032	0.014	0.043	0.027	0.032	0.017	0.226	0.18	0.032	0.03	0.177	0.175	0.042	0.028	0.169	0.038
25	0.037	0.017	0.024	0.01	0.036	0.023	0.024	0.012	0.189	0.159	0.024	0.022	0.159	0.157	0.034	0.021	0.148	0.03
30	0.031	0.014	0.019	0.008	0.031	0.018	0.019	0.01	0.162	0.136	0.019	0.017	0.147	0.146	0.029	0.017	0.135	0.025
35	0.027	0.011	0.015	0.007	0.027	0.016	0.015	0.008	0.142	0.119	0.015	0.014	0.144	0.142	0.026	0.014	0.128	0.023
40	0.025	0.01	0.013	0.006	0.025	0.014	0.013	0.006	0.127	0.107	0.013	0.011	0.149	0.147	0.024	0.013	0.129	0.021
45	0.023	0.008	0.011	0.005	0.022	0.013	0.011	0.006	0.117	0.098	0.011	0.01	0.161	0.159	0.024	0.012	0.135	0.021
50	0.021	0.008	0.01	0.004	0.021	0.012	0.01	0.005	0.109	0.091	0.01	0.009	0.18	0.178	0.024	0.012	0.145	0.021
55	0.02	0.008	0.01	0.004	0.02	0.011	0.01	0.005	0.104	0.087	0.01	0.009	0.208	0.205	0.028	0.012	0.162	0.023
60	0.02	0.006	0.009	0.004	0.02	0.011	0.009	0.005	0.102	0.085	0.009	0.009	0.243	0.24	0.029	0.014	0.185	0.026
65	0.02	0.006	0.01	0.004	0.02	0.011	0.01	0.005	0.102	0.085	0.01	0.009	0.286	0.283	0.034	0.016	0.214	0.03
70	0.02	0.008	0.011	0.005	0.02	0.011	0.011	0.005	0.104	0.087	0.011	0.01	0.337	0.333	0.034	0.016	0.249	0.033



The MacArthur Freeway

Basic Information

BACKGROUND

The MacArthur Freeway has been rightly called one of the most beautiful urban freeways in California. A lavishly landscaped highway, it is uniquely sited in a corridor that is primarily residential in character. The MacArthur Freeway won first prize in the United States Department of Transportation's Second Annual Highway Beauty Awards Competition in 1969. Upon receipt of the award, the freeway was described as "a harmonious and integral part of the City that provides a pleasant driving experience along with safety and efficiency in an urban area."

The MacArthur Freeway was completed in May, 1966. Due to the effective organization of concerned citizens, trucks were banned on 580 from Grand Avenue to San Leandro. This was possible because the Nimitz Freeway (Route 17) provides a relatively level and parallel route which is equally convenient for industrial through traffic. The result of the ban is a scenic highway that is much more attractive due to the absence of large trucks.

DESIGNATION

The State Scenic Highway Law of 1963 provides that any highway included in the State Master Plan for Scenic Highways is eligible for designation as an "Official State Scenic Highway."[1] Route designation, however, depends upon the completion of procedures prescribed by the State to preserve and protect the natural and man-made amenities of the route and its scenic corridor. The responsibility for the initiation of the designation procedure rests with the legislative body of the county or city having jurisdiction over lands adjacent to eligible scenic highways.

Route 580 in its entirety was included in the State Scenic Highways System in 1970 by an act of the State legislature. In turn, the Oakland City Council resolved in 1971 to conduct the appropriate studies to qualify that portion of Route 580 within the Oakland city limits as an "Official Scenic Highway."

This Scenic Highways Element is a major step in the qualifying procedure because it enumerates the development policies which will protect the distinct character of the MacArthur Freeway.

The designation of Route 580 as an Official Scenic Highway will provide several benefits to the City

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[1] Assembly Bill 2472, now pending approval in the State legislature, will revamp the eligibility procedure. Routes listed as scenic in local general plan elements will qualify for designation in addition to those listed in the State's Master Plan. If there is a provision in the element to add the names of the routes at a future time, then the list of potential scenic routes is not closed with the completion and adoption of the Scenic Highways Element.

of Oakland:

1. Any improvements in the route or construction on any new future alignment will be done to the highest design standards of the California Department of Transportation. Special attention will be given to the highway's visual appearance.

2. Signs identifying the MacArthur Freeway as an Official State Scenic Highway will be posted along the route and may help to bolster Oakland's image. The logo on the sign is the California poppy seen against the Mount Shasta ridgeline. The State also prepares a map of California which is oriented toward recreational and environmental attractions, including official scenic highways. The map too, would increase Oakland's tourist potential.

3. Continued improvement in the environmental quality along the 580 corridor would result from the more stringent design controls.

4. A program to fund roadside rests, vista points, and the like on State scenic highways will eventually be funded by the State government. Once designated, 580 will be entitled to embellishments financed by this program.

DESCRIPTION

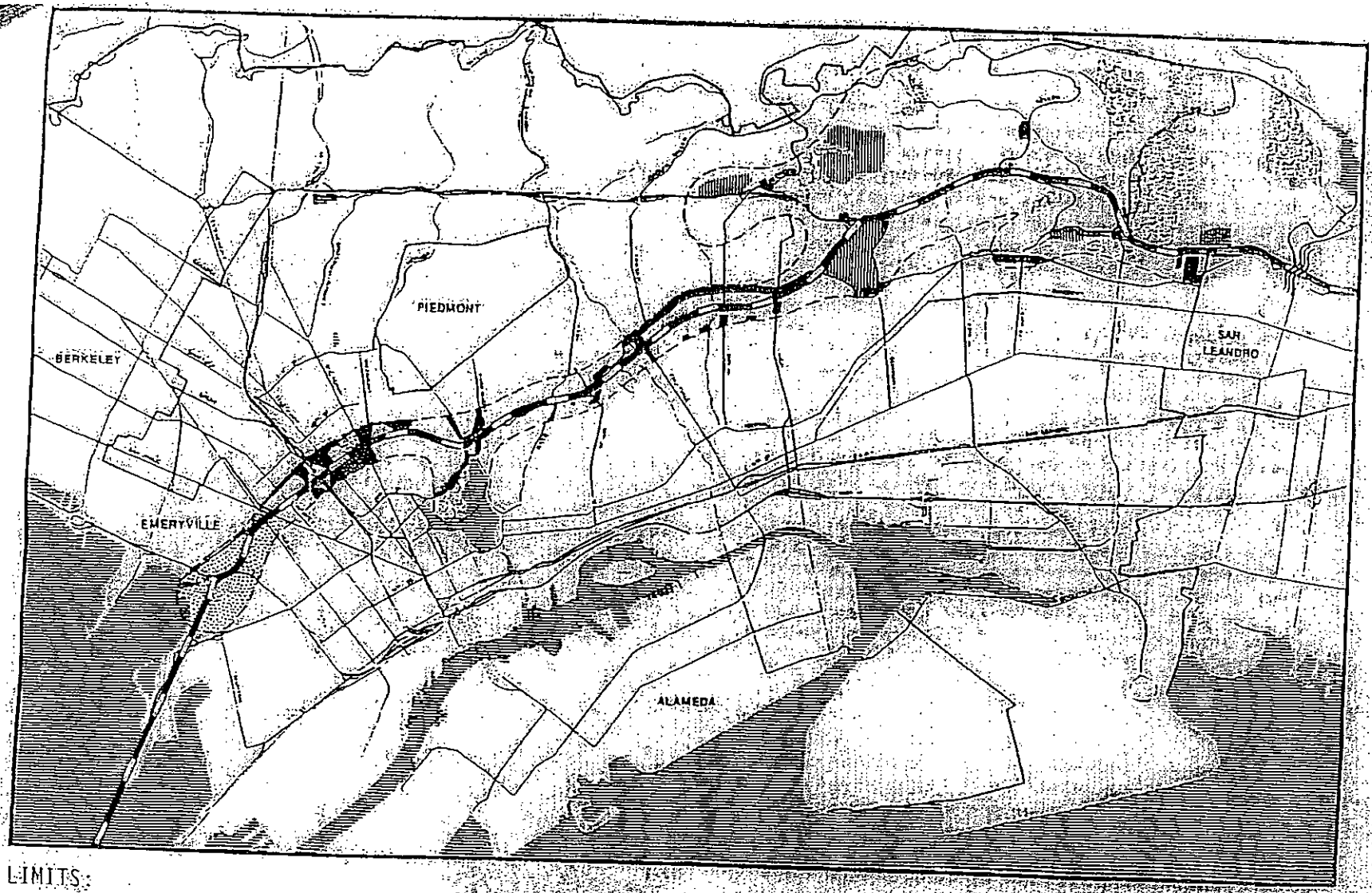
The MacArthur Freeway runs 12.4 miles in Oakland, from the San Leandro City limits to the San Francisco-Oakland Bay Bridge approach (see Map 2). It has an eight-lane roadway, a total of 104 feet wide in each direction and there are four foot shoulders on either side. Nearly 1.5 million dollars was spent on landscaping this freeway, with roughly 400,000 dollars per year spent on maintenance.

The average number of daily car trips on 580 in Oakland varies from 87,000 to 138,000. This means that well over 100,000 people a day experience the ride at roughly 55 miles per hour.

A combination of factors makes the MacArthur Freeway especially attractive and notable. The districts through which it passes are primarily residential in character and the dense clusters of pastel homes on irregularly platted streets create an appealing, almost Mediterranean pattern. The route traces, in a rough sense, the base of the Oakland hills, so the contours of the drive are neither tedious nor repetitive. The undisturbed native hillsides offer a visual counterpoint to the urban development--a contrast which is present both adjacent to the highway and in the more distant views. Similarly, the taller buildings of the intervening commercial areas frame and highlight scenic vignettes.

The views from the highway, although not spectacular, are continuously satisfying. At the western end of the route, the motorist can see across Mosswood Park, the Rockridge neighborhood and the City of Berkeley up into the hills. To the south rises downtown Oakland, and the observant traveler can spot Lake Merritt. Passing Mills College the motorist can sense the dirt roads and native vegetation that once determined the configuration of Oakland. The juncture with the Warren Freeway (Route 13) is visually clued by the plane cut through the hills. At the eastern end of the MacArthur Freeway the motorist travels tangent to the rhyolite hillsides which appear to rise from the roadbed itself. The pines along Foothill Boulevard create an attractive edge effect, lining the freeway with mature forty foot specimens. Hailed by an enormous American flag, mysterious for its size, but in fact hoisted from the gas station at Foothill Shopping Center, the driver approaches the San Leandro City limit.

In addition to the scenic qualities of the surrounding cityscape, the freeway itself was designed and built in an exemplary manner. The sequence of cut and fill necessitated by the rolling topography provides an interesting progression of expansive and enclosed spaces. On the fill segments the motorist achieves a unique vantage point to survey the surrounding landscape; in the cut segments, planted slopes and textured retaining walls reorient the focus to the roadway straight ahead.



LIMITS:
- Corridor Boundary
- MacArthur Freeway
- Truck Ban

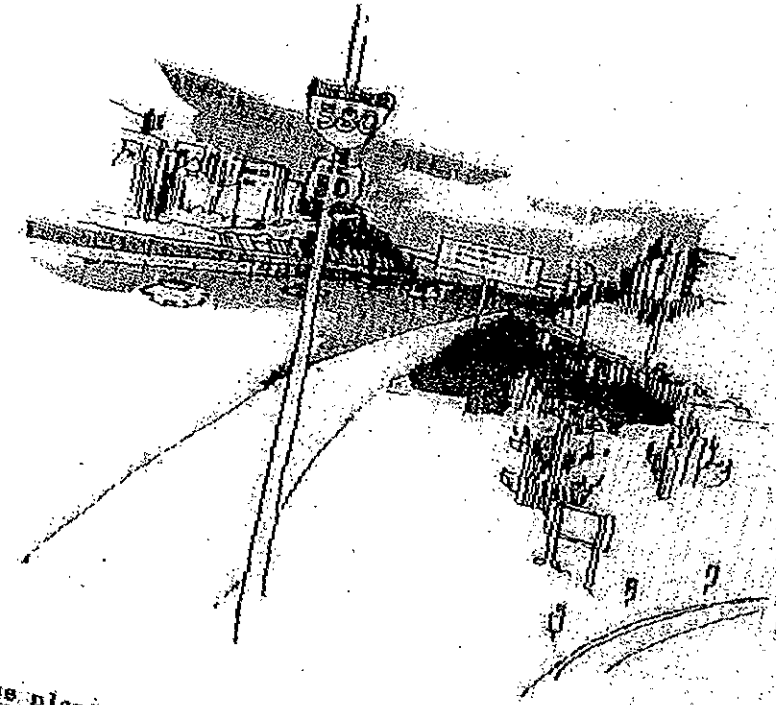
ZONING:
- Residential
- Special
- Industrial
- Commercial

CIVIC FACILITIES:
- Colleges
- Parks & Golf Courses

MAP 2

Existing Conditions in the MacArthur Freeway Scenic Corridor

OAKLAND CITY PLANNING DEPARTMENT



The plant materials were expertly chosen for striking effects of foliage and flora and their demonstrated stamina in the face of automotive exhaust and reflective surfaces. The road is well maintained so that the scenic quality of the route is not blemished by neglect.

Although there are some specific problem areas along the MacArthur Freeway, the incidence of visual conflict is surprisingly low. The features that most detract from an optimized scenic corridor include the quarry at Edwards Avenue and billboards at Enos Avenue. There are remedies, perhaps ever cures, for the few existing problems, and these are addressed in the discussion of specific concerns and action programs.

THE CORRIDOR

The California Department of Transportation has designated a scenic corridor to circumscribe the MacArthur Freeway as part of a preliminary planning study. The boundaries of the corridor are meant to define the area most critical to the scenic quality of the route in question. However, in the case of distant panoramas, no corridor could be wide enough.

The corridor flanking Route 580 west of the Route 13 interchange is basically a strip two blocks wide on either side of the freeway, flaring out to include Lake Merritt. East of the Route 13 interchange the limits of the corridor extend north to the City boundary that separates Oakland proper from the East Bay Regional park land. The limits also encompass several major educational institutions, including Mills College, Holy Redeemer College, Holy Names College, Golden Gate Academy and Merritt College.

ZONING

The zoning pattern within the State designated scenic corridor is primarily a residential one, with commercial service areas interlaced and special use facilities dispersed throughout the corridor. At the convergence of the MacArthur with the Nimitz and the Eastshore Freeways the land is zoned for industrial use.

The predominant residential zones are R-30 Single Family and R-50 Medium Density. Between the Grove-Shafter Freeway and Lakeshore Avenue the land is zoned R-70 High Density and R-80 High Rise. The segment between Grove and San Pablo is zoned R-40 Garden Apartment, as is a small area at Fontaine Street north of the freeway. East of Knowland State Park the residential area is zoned R-10 Estate.

The commercial zone between Piedmont Avenue and Grove Street inclusive is C-40 Community Thoroughfare. The predominant commercial zone between Piedmont Avenue and Mills College is C-30 District Thoroughfare, and east of Mills College, C-10 Local Retail. There is one C-20 Shopping Center, and that is on Lakeshore Avenue north of the freeway.

The area surrounding the juncture of Route 80 and 580 is zoned for M-30 Ge[illegible]

Use east of the Nimitz and M-40 Heavy Industrial Use west of the Nimitz.

There are S-1 Medical Center districts at the Kaiser Hospital, on Pill Hill and at the Highland Hospital. (Kaiser and County are just beyond the boundary of the corridor.) At the San Leandro end of the MacArthur Freeway there is an S-3 *Research Center Zone* just east of Knowland State Park.

Specific Concerns and Existing Protective Measures

In the publication The Scenic Route, A Guide for the Official Designation of Eligible Scenic Highways the State of California outlines the recommended treatment of scenic routes and scenic corridors in light of particular land use and site planning considerations. The status of existing regulations in the City of Oakland that pertain to development within the scenic corridor are discussed below.

ENVIRONMENTAL PROTECTION POLICY

The minimum state requirement calls for the enunciation of an environmental protection policy in an adopted General Plan. The Oakland Policy Plan includes the following statement as one of its basic goals: "To improve Oakland's physical environment and to preserve the natural qualities of Oakland's setting." The policies which support this goal are itemized in the Conservation Element and cover such categories as Creeks, Soils, Minerals, Wildlife, Fisheries and Water Resources. These policies clearly demonstrate Oakland's committment to a program of environmental protection.

SIGNS

There are three sets of controls which govern the construction of signs within the scenic corridor of the MacArthur Freeway.

1. The Oakland Sign Code states in chapter 14 that "no sign shall be erected, constructed, relocated or maintained in the City of Oakland if such sign is designed to have or has the advertising thereon maintained primarily to be viewed from a freeway." The following exceptions are permitted for on-premise signs: the name of the person, firm or corporation occupying the premises; the type of business conducted and the name of product manufactured on the premises; a sign pertaining to the lease, sale, hire or display of the premises; and, time and temperature units. The Sign Code proceeds to spell out the expiration dates and removal requirements for non-conforming signs. See Appendix I.

2. In the commercial and industrial zones, where all types of signs are permitted, the Oakland Zoning Regulations control the size, height, and type of on-premise signs.

3. The Outdoor Advertising Act, passed by the California legislature in 1970 states that no advertising display is permitted within 660 feet of the right of way of any inter-

state or primary highway. Further no advertising display beyond 660 feet shall be permitted if it is designed to be viewed primarily by persons traveling on any interstate or primary highway. The exceptions, which are similar to those defined by the City ordinance, are listed in Appendix 2. In addition, it should be noted that areas zoned for industrial or commercial use are exempt from the provisions of Section 5405.

Together, these regulations are sufficient to satisfy the billboard treatment demanded by the State's guidelines for scenic highways, except that there are no restrictions on the number of on-premise signs or the design quality of on-premise signs. These two loopholes allow options that may be detrimental to the scenic quality of the corridor.

UTILITIES

The City of Oakland participates with Pacific Gas and Electric Company and the Telephone Company in an on-going program to underground utility lines. They have been progressing at the rate of several miles a year since the 1940's. Many of the arterial streets that intersect the MacArthur Freeway have had their utility lines buried, an action which is entirely consistent with the scenic nature of the corridor. The streets include adjacent sections of Grove, Telegraph, Broadway, Piedmont, MacArthur Boulevard west of Oakland Avenue, Grand Avenue, Lakeside Drive, Park Boulevard, Fruitvale Avenue, Seminary Avenue and Golf Links Road. Other utility lines within the corridor that are being considered for future conversion by the Underground Coordinating Committee are Fruitvale Avenue south of 580 and 35th Avenue south of 580.

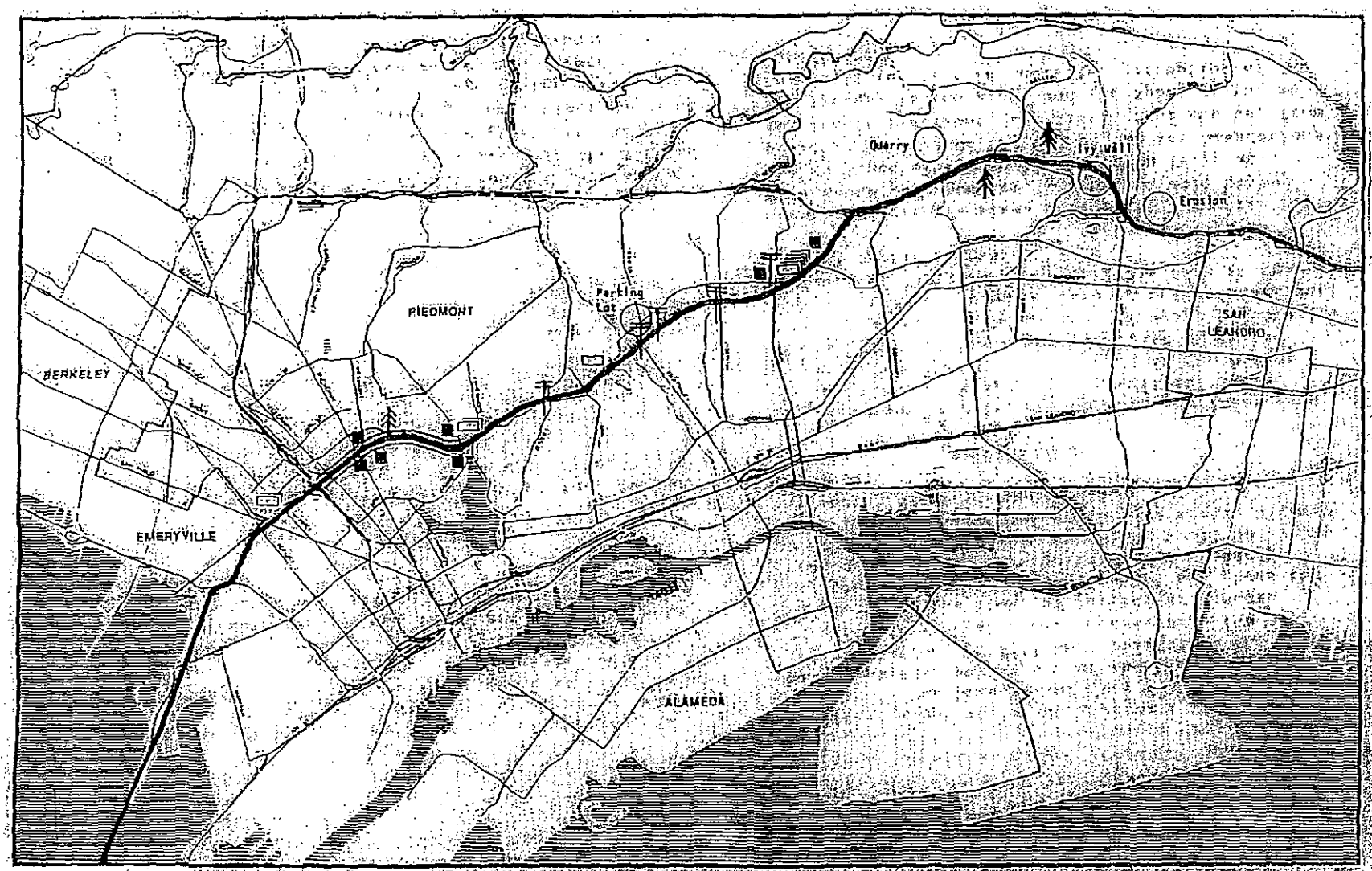
However, there are problem areas that merit further attention. The utility lines that traverse vehicular overpasses, never having been buried during the original construction, are very apparent to the motorist on the scenic highway. There is also the problem of obtrusive utility poles on several streets adjacent to the freeway.

Since the utilities conversion fund can only finance undergrounding on major thoroughfares, most existing residential areas must apply for a self-imposed utility undergrounding assessment district. For this reason, none of the non-arterial streets visible from MacArthur Freeway have had their utilities undergrounded.

The progress in undergrounding made to date is admirable and thoroughly in keeping with the State's guidelines for utility lines in official scenic highway corridors, however additional work is needed to attain exceptional quality.

SCREENING

Section 7100 of the Oakland Planning Code-Zoning Regulations establishes buffer controls to insure the orderly relationship of land uses. The code requires either landscaping or fencing to buffer parking, loading, open storage and illuminated areas from all abutting lots, streets and alleys;



- Oversized On-Premise Signs
- Billboards
- Unsightly Utility Poles & Lines
- Visual Problem Areas
- Dead Vegetation
- Truck Traffic

MAP 3

Problem Areas in the MacArthur Freeway Scenic Corridor

OAKLAND CITY PLANNING DEPARTMENT

paths, private streets or other ways. This would include freeways in general and the MacArthur in particular. The planting or the fencing must be a minimum of 5½ feet high.

With one or two exceptions, there are no glaring problems areas that currently require screening for the aesthetic protection of the S80 scenic corridor. However, there are no provisions to assure that adequately high screening devices will be installed to screen unusual intrusion in the future.

MAINTENANCE

The Oakland Housing Code has stipulations to ensure that properties are maintained in safe condition, but there are no provisions applying to visual appearance. The premises abutting the MacArthur Freeway are currently maintained in a suitable manner, but there are no measures to guarantee a continued high calibre of exterior maintenance.

DESIGN REVIEW

Three zones within the scenic corridor include design review in their basic provisions: C-20 Shopping Center, S-1 Medical Center and S-3 Research Center. As elaborated upon in the section on zoning, the occurrence of these zones within the corridor is infrequent.

There are no S-4 Design Review zones within the MacArthur corridor, and the S-10 Scenic Route Combining Zone (which includes design review provisions) is inappropriate here.

VIEWS

Aside from the S-10 Scenic Route Combining Zone, there are no specific provisions in the Oakland Zoning Regulations that are geared to the protection of views, although the subject would be one considered by a thorough design review procedure. As explained above, the segments of the MacArthur corridor covered by zones with design review provisions are too intermittent to be effective.

EARTHWORK AND VEGETATION

The existing regulations pertaining to grading permits are written solely with safety in mind, omitting features that would assure environmental integrity or scenic character. There are no provisions in the grading ordinance which would apply specifically to a scenic corridor.

A new grading ordinance has been proposed which is clearly sensitive to environmental quality. Section 2-6.06 of the new ordinance provides that all applications for grading permits are to be referred to the Director of City Planning. He shall report on any aspect of the proposed grading, excavation, or fill that relates to the preservation of natural scenic character. The ordinance lists the items of particular concern (vegetation, soils, streams, rocks) and gives the Director the power to require that a landscape plan be submitted. This ordinance would be highly significant for the protection of a scenic highway corridor. Refer to Appendix 3.

WATER BODIES

The treatment of water bodies that are related to the MacArthur Freeway is not a critical issue. Although Lake Merritt is included in the bounds of the corridor, the motorist's view of it is fleeting at best. The glimpse of water is so brief that it would be inappropriate to pursue additional development controls for the lake's edge in the name of scenic highways.

There are definite views of the San Francisco Bay from Route 580; however, the bay is well beyond the confines of the corridor. Even if it were possible to include the bay in the recommendations for scenic treatment, the distance of the bay from the freeway is too great and the speed of the motorist is too fast for detailed perception of the water's edge.

Problem Areas

Existing Oakland ordinances do not satisfactorily safeguard certain important visual characteristics of the scenic corridor. The following problems arise because of this deficiency.

SIGNS

On-Premise Signs

On-premise signs are regulated for size, height and type by the Zoning Regulations applicable to the district at hand. There are no limits, however, to the number of on-premise signs permitted. Ideally, the number of on-premise signs that are primarily viewable from the Freeway would be the minimum necessary to identify the establishment since the purpose of the signing is information, not advertising. The lack of control on the number of signs permitted has already created several distractions along the MacArthur Freeway, and there is no promise that it will stop here.

Similarly, many on-premise signs conform to the letter of the law, but far exceed the minimum size necessary for identification. Since the only signs that are subject to design review are those within certain limited use zones, there is no existing regulation or procedure to monitor the size of on-premise signs that are primarily viewable from the MacArthur Freeway.

Specific examples of on-premise signs that are larger or more numerous than is necessary for identification include Neptune Moving, Vail Strough Chevrolet, Berman's Furniture, Albert Brown Mortuary, Long's Drugstore, Kentucky Fried Chicken, Safeway, Powerine Coin Power Press, Exxon, Shell, Dave's Color TV and two motels (see Map 3).

The problem, then, with the on-premise signs that are clearly viewable from the scenic highway is that there is no limit to the number of signs, an overly generous limit on the size of the signs, and no provision for design review of the signs.

Off-Premise Signs

Although the prohibition of billboards in the Route 580 corridor is clearly stated, there has not been strict implementation of the Oakland Sign Code or the Outdoor Advertising Act. There are a number of blatant offenders. Five billboards in the Enos Avenue, MacArthur Boulevard neighborhood; two billboards west of the interchange of 580 and 24; two billboards at Grand Lake and one on MacArthur near 14th Avenue.

The problem is not an absence of restrictions but rather a lack of strict enforcement.

UTILITIES

There are three locations in the scenic corridor where utility poles are visibly obtrusive. These are Montana Street, a residential block between two freeway ramps; Wesley Street, a commercial area near Lucky Market; and High Street, at the MacArthur intersection north of the freeway.

There is a problem of utility lines that traverse the vehicular overpasses which cross the freeway. Since there was no provision to place these lines in a conduit within the structure of the bridge during the original construction, it may prove awkward to correct the error.

SCREENING

There are two areas that require screening for the aesthetic protection of the 580 scenic corridor. However, the real problem lies in the fact that there are no protective measures to screen potential visual intrusions in the future. The buffering provisions in the zoning regulations are ineffective in establishing visual breaks.

The Edwards Avenue quarry is the outstanding "sore thumb" within the MacArthur Scenic Corridor. Due to its massive intrusion on the hillside, there is no hope of properly screening the entire 110 acre scar. The only true remedy would be to reshape the hill and aspire toward as natural a state as possible. Currently some ornamental shrubbery and Monterey pines decorate the edge of the operation; these measures are insufficient. It would be desirable to at least have some additional screening at eye level for the motorist on 580, and, if at all possible, there should be taller, denser landscape treatment to hide more of the machinery, even if the entire face of the slope cannot be camouflaged.

The Shell/Lucky/Longs Complex near Fruitvale Avenue could use some landscape screening to separate it from the freeway. The massive commercial structures and the expansive parking area are inconsistent with the scenic character sought within the corridor; however, the harsh effect could be softened with some well-planned vegetation to intercede between the scenic highway and the shopping plaza.

EARTHWORK

The proposed grading ordinance would successfully handle any future conflict between earthwork and visual quality in the scenic corridor. If the new regulations are not adopted, the surrounding landforms, the hillsides in particular, may be subject to cut and fill that could seriously affect the environmental integrity as well as the visual quality of the resultant landform.

Again the Edwards Avenue quarry is a case in point. The ravaged hillside is indisputably contrary to the concern for environmental quality in a scenic corridor. The best recommendation at this time is to screen the scars as well as possible. When quarry use is terminated, all attempts should be made to restore the hillside to a more natural state.*[2]

On the north face of the freeway embankment adjacent to the Golf Links Road exit, the cut slope is barren and the erosion is quite severe. The situation is dangerous and wasteful and should be remedied by the State Department of Transportation as soon as possible.

VEGETATION

As a result of the freeze of 1972, many specimens used in the freeway planting program were killed. Much of this dead plant material has not yet been removed or replaced, giving a shabby appearance to the affected embankments. There are dead eucalyptus trees near the Naval Hospital, near Golf Links Road and near Edwards Avenue. There is also a large embankment of frost-killed iceplant between Edwards Avenue and Keller Avenue and another embankment of dead ornamental shrubbery at the Harrison Street exit.

Although not categorized as a problem, there is

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[2]Conceptual reclamation plans have been prepared by a landscape architect who was hired in 1968 by Gallagher and Burke, owners of the quarry, as a stipulation of a conditional use permit to construct an additional storage structure on the site. The storage structure was never built.

design interest in the 30 foot high retaining wall that raps around the curve of the roadway just west of 98th Avenue. The wall supports a spill of Algerian Ivy (Hedera canariensis) which virtually curtains the concrete surface. Although more than half of the ivy has grown all the way down to the freeway from the planting beds thirty feet above, many of the vines have grown only half way down the wall. The wind catches these shorter branches and tosses them gingerly, creating a delightful, but not distracting event. The concern is that these shorter vines will be permitted to grow to the freeway as well, creating one vertical mass of Hedera canariensis. Attractive as this would be, the impression created by the shorter vines is far superior. It is recommended that a third of the ivy vines be pruned at a variety of mid-wall levels for the optimum aesthetic treatment, if this can be worked into the maintenance program. This recommendation also applies to the ivy wall west of the Park Boulevard exit.

DESIGN REVIEW

With minor exceptions, there are currently no procedures to review the design, construction, alteration or demolition of structures within the scenic highway corridor. The exceptions are the C-20 District Thoroughfare Zone which exists on the east side of Lakeshore Drive, north of the freeway; the S-1 Medical Center district which appears at the Kaiser Hospital and at Pill Hill; and the S-3 Research Center District which is the zoning for the facilities at Peralta Oaks. These zones include design review procedures in their basic stipulations.

Since the greater portion of the corridor is already developed in residential land use, design review would not be critical for the entire stretch. However, there are specific critical areas where design review would be highly desirable because the construction of new buildings would clearly affect the character of the scenic route. These are the districts in which the zoning permits buildings taller than 40 feet to be constructed. Buildings of this height are permitted in the C-30, C-40, R-70, and R-80 zones along the MacArthur Freeway Scenic corridor. The massing of any building in these zones could be great enough to affect the visual quality of the corridor. It would be desirable, therefore, to institute design review proceedings for any buildings exceeding a specified size at these locations, if a workable set of regulations can be developed.

VIEWS

There are no regulations in existence to safeguard the views from scenic Route 580. It is difficult to specify the exact perimeters of scenic vantage points on the freeway since the vistas are taken in at high speeds and the scenery, in a sense, is always moving. To complicate the discussion further, the fact that the views are, more often than not, distant panoramas, makes it harder to control the quality of the view itself. A third point is that since the vistas sweep the landscape, the imposition of a single structure would not substan-

tially obstruct the view.

The problem lies in the threat of a wall of buildings circumscribing segments of the MacArthur Freeway, totally obscuring the panorama from the road. Although individual buildings may be attractive, in fact desirable because they frame a particular view and bring it into focus, an uncontrolled massing of high-rise structures should be avoided.

The design review procedure above could include an analysis of the effect of a proposed structure on the motorists' view from the freeway. The eye of the analyst could be sensitive to the accretion of several structures that would be detrimental to the panorama from the scenic highway.

The area subject to these regulations would be extensive, and, therefore, a heavy administrative work load would result. In addition, it may be extremely difficult, if not impossible, to develop a set of workable regulations to control height, bulk and mass of buildings in critical view corridors. Nevertheless, the development of possible regulations should be explored as soon as possible to determine their feasibility.

NOISE

The truck ban on the MacArthur Freeway begins at the San Leandro City limits and ends at Grand Avenue. Trucks are permitted on the remaining stretch, but their presence is inappropriate from Grand Avenue to the Route 24 interchange for two reasons:

1. The absence of large trucks is one of the major reasons the other portion of the MacArthur Freeway is so attractive to drive on.

2. More important, however, is that the corridor adjacent to the stretch between Grand Avenue and the Route 24 interchange includes the Pill Hill hospitals and a great deal of high density housing. These two land uses are among the most sensitive to the noise and fumes of truck traffic.

McCullen, Leigh

From: McCullen, Leigh
Sent: Tuesday, April 22, 2008 9:52 AM
To: 'lisheng fu'; 'Bill Phua'; 'Ken Phares'
Subject: FW: Case # CDV08-004/ PMW 07-001

For your information I've attached the comments I've received on the project (see below).

The installation of a fence (not necessarily brick) as requested by the neighbors seems reasonable. I'll include a fencing requirement as a condition in the final decision letter. In terms of exterior material details, we will probably include conditions such a smooth coat stucco finish and an upgrade in the exterior trim material from foam to wood, a high density exterior plastic trim or a similar material that would be more durable than foam. I'll be working on the letter this week for review by the Zoning Manager when he returns from vacation next week.

Bill: As I mentioned yesterday, it may be helpful if you discuss the project with Mario. I believe you have his contact information.

Leigh

From: Mario Juarez
Sent: Wednesday, April 16, 2008 1:55 PM
To: McCullen, Leigh
Subject: RE: Case # CDV08-004/ PMW 07-001

Leigh,

Thank you for the plans. After speaking to several of the neighbors from the area. We are thinking in requesting that you ask the developer to comply with the set back of the front of their proposed building A to the 10 feets are required.

Also, the neighbors would like to request a taller brick fence - 10 to 12 feet tall. On the back of the property.

We continue to have concerns about the materials given the past developments of this developer.

Please advise of this can be arranged before the appeal date expires.

Mario

Route 580 Photo Album

Alameda County - From San Leandro city limit to State Route 24 in Oakland.

Located within the city of Oakland, this beautifully landscaped freeway gives the motorist a spectacular view of the San Francisco Bay with the San Francisco peninsula and its cities lying beyond. Between the freeway and the bay can be seen many fine examples of the architecture prevalent around the turn of the century.

This recessed freeway has received several aesthetic awards for attractive landscaping.

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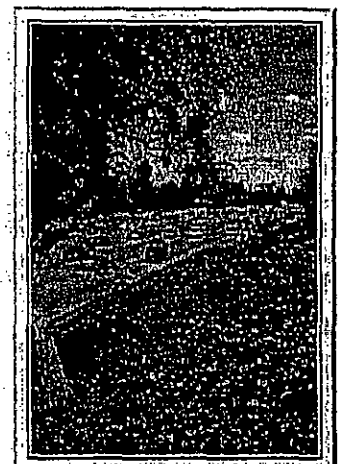

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Alameda and San Joaquin Counties - From Interstate 5 to State Route 205.
This route traverses the edge of the Coast Range to the west and Central Valley to the east.

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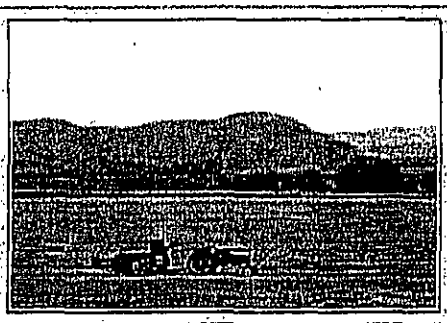

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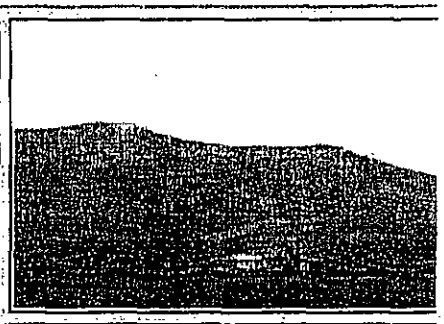

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Any questions, comments, or suggestions should be email

ATTACHMENT I

dennis_cadd@dot.ca.gov

Merkamp, Robert

From: Bryan Walker [bryan_walker@dot.ca.gov]
Sent: Friday, February 08, 2008 1:08 PM
To: Merkamp, Robert; Miller, Scott
Subject: Fw: Scenic Highway status of I-580

Hello Robert,

Your summarization of our phone conversation this morning is accurate. The proposed senior housing project at High and Macarthur would not result in de-designation of the current Scenic Highway status of Route I-580.
However, as I mentioned, Caltrans will be conducting an evaluation this year of all of the scenic highways in the District to determine whether
scenic degradation has occurred. This evaluation will be based on the
cumulative effects of urban development (visual intrusion) within the scenic corridor and not on specific actions. Our recommendations for retaining or revoking the current scenic designation will be based on the findings prepared by an outside Consultant.

Bryan Walker
Senior Landscape Architect.
(510) 286-4833
---- Forwarded by Bryan Walker/D04/Caltrans/CAGov on 02/08/2008 10:43 AM

"Merkamp, Robert" <RMerkamp@oaklandnet.com> To "'bryan.walker@dot.ca.gov'" <bryan.walker@dot.ca.gov>
02/08/2008 10:10 AM cc "Miller, Scott" <SMiller@oaklandnet.com>
Subject Scenic Highway status of I-580

Hi Bryan,

This email is just to summarize our telephone conversation about the project at High and Macarthur and its potential to impact the Scenic Highway designation of I-580. In that conversation you stated it was your belief and determination that this project in and of itself would not cause the loss of the Scenic Highway designation for I-580.

We did discuss that there are other factors affecting the overall viability of this corridor including elements such as future soundwalls and additional buildings that may visually encroach on the highway corridor and it is

ATTACHMENT J

your determination that these factors may negatively impact the future viability the scenic highway status of I-580.

Please confirm that this is indeed correct.

Respectfully,

Robert D. Merkamp
Planner IV
City of Oakland

CITY OF OAKLAND
AGENDA REPORT

TO: Office of the City Administrator
ATTN: Deborah A. Edgerly
FROM: Community & Economic Development Agency
DATE: May 20, 2008

RE: **A Public Hearing and Resolution Denying the Appeal and Upholding the Planning Commission Approval of a 115-Unit Senior Housing Residential Project at the Southwest Corner of High Street and MacArthur Boulevard**

SUMMARY

On February 20, 2008, the Planning Commission approved (by a vote of 4 to 0) a Design Review, Conditional Use permit, and Minor Variance to construct a mixed use development containing 115 affordable senior dwelling units over ground floor commercial at 4311-17 MacArthur Blvd. (CMDV06-426)(Project).

On February 29, 2008, Leila Moncharsh, representing Commercial & Retail Attraction for the Laurel (CRADL), filed an appeal of the Planning Commission's Approval of the Project to the City Council (Attachment A).

The CRADL appellant essentially maintains that (a) affordable housing will not contribute significantly to the financial health of the Laurel District and that further affordable housing is not necessary as Oakland has already taken on its "fair share" of Association of Bay Area Governments (ABAG) targets for affordable housing; (b) the use is not compatible with the C-31 zoning, the scale of the district; (c) the project cannot be considered a mixed use project as it contains only "token" retail; (d) the findings for a variance cannot be met; and (e) the project does not qualify for a Categorical Exemption under CEQA because of air, noise and traffic impacts, as well as the need for variances, potential cumulative impacts from the freeway, and potential impacts to views from scenic highways.

The arguments raised by the appellant are summarized below in the Key Issues portion of this report along with staff's response to each argument, as well as addressed in the attached February 20, 2008 Planning Commission Report (Exhibit A). For the reasons stated in this report, and elsewhere in the record, staff recommends the City Council adopt the attached Resolution denying the appeal, thereby upholding the Planning Commission's approval of the project.

FISCAL IMPACT

The project involves a private development and does not request or require public funds and has no direct fiscal impact on the City of Oakland. The applicant has never submitted a Notice of Funding Availability letter (NOFA) which is required for all affordable housing projects seeking City/Agency subsidies. The applicant has informed the city that they do not intend to seek city funding for this project. If constructed, the project would provide a positive fiscal impact through increased property taxes, utility user taxes and business license taxes, while at the same time increasing the level of municipal services that must be provided.

BACKGROUND

PROJECT SITE AND SURROUNDING AREA

Existing Conditions
The proposed development is located at the southwest corner of High Street and MacArthur Boulevard on the edge of the Laurel District. The I-580 freeway runs along the western edge of the project area. The site consists of three parcels totaling .93 acres in size. The site is vacant except for a billboard (which would be removed as a part of this application) and was at one time occupied by a PG&E service yard, an auto repair shop, and a market.

Surrounding Area
Retail/office/food sales uses are located to the east as well as residential land uses. To the north along MacArthur Blvd are a variety of commercial activities. To the southwest is the I-580 freeway. A landscape buffer of approximately 50 feet in width separates the road bed of the freeway from the property line of the project site. The Project site does not contain any immediately adjacent neighbors. Adjacent buildings to the north and east are generally in the one and two story range.

GENERAL PLAN ANALYSIS

The General Plan designation is Neighborhood Center Mixed Use (NCC). The maximum residential density provided in the NCC category is 125 dwelling units per gross acre or 166.67 dwelling units per net acre. This works out to a maximum density of 1 unit per 261 sq. ft. of lot area. The 40,879 sq. ft. project site could support a maximum of 156 units. The 115-unit project on the site is well under the maximum allowable density by 41 units.

The General Plan states that the intent of the NCC designation is to "identify, create, maintain, and enhance mixed use neighborhood commercial centers." Vertical integration of uses, including residential units above street-level commercial space is encouraged."

The following General Plan Land Use and Transportation Policies and Objectives apply to the proposed project:

Objective N3: Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community.

Policy N3.1 Facilitating Housing Construction
Policy N3.2 Encouraging Infill Development
Policy N3.9 Orienting Residential Development

The project is located in the Laurel District of Central Oakland. The Land Use Element considers the construction of new housing to be one of the highest priorities in Oakland to meet the demand of a growing population.

In addition, the Housing Element of the General Plan encourages the construction of affordable senior housing to meet a critical need in both the City of Oakland and the region for providing affordable residences for senior citizens. For instance, the overall goals contained in Goal 2 of the Executive Summary of the Housing Element are meant to promote development of housing for low and moderate income households through such measures as density bonus programs and developing housing for senior citizens. Policy 3.1 seeks to expedite the construction of residential units by simplifying the permit process by assigning priority to affordable housing and expediting environmental review through the use of exemptions. Policy 3.2 of the Housing Element contains action plans to allow for flexible zoning standards for things like open space, parking, and development standards, including height.

The project meets the objectives listed above by providing 115 new residential units on several underutilized parcels. The Land Use Element of the General Plan identifies the major transportation corridors as appropriate places for high density development. The Land Use Element specifically identifies this section of MacArthur Boulevard as a "grow and change" area. "Grow and change" areas are portions of the City of Oakland that the general plan identified as places able to grow beyond the existing density. They already have various positive factors such as good access to transportation, connections to City services, and connections to the region. They are often located along major corridors. This project site meets all of these criteria.

The proposed project meets the referenced objectives, policies, goals, and the general intent of the land use designations, the Land Use and Transportation Element of the General Plan (LUTE), and the Housing Element. Both Staff and the Planning Commission find that the project is a good fit for this area.

ZONING COMPLIANCE

The zoning of the project site is split between C-30 District Thoroughfare Commercial Zone & C-31 Special Retail Commercial Zone with the C-30 portion of the site also containing an S-4

Design Review overlay zone. The C-30 zone is intended to "create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in convenient locations, and is typically appropriate along major thoroughfares." The C-31 zone is intended to "create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in attractive settings oriented to pedestrian comparison shopping, and is *typically appropriate along important shopping streets having a special or particularly pleasant* character." The C-31 is generally located on the front of the property (the zoning code defines the High Street frontage as the front and the MacArthur frontage as a "corner side") while the C-30 and S-4 portion is to the rear of the triangular shaped project site.

Both zoning districts allow permanent residential uses. The maximum residential density for both these zones is set forth in the R-70 regulations. According to the R-70 zone, the maximum residential is 1 unit per 450 sq. ft. Staff has calculated a maximum density of 91 units. Section 17.106.060 of the Oakland Planning Code allows the density for senior housing to exceed the zoning density by up to 75% with a Conditional Use Permit. This would, in theory, allow 159 units on the property although this would exceed the General Plan cap of 156 which is not permitted. The project (with 115 units) is asking to exceed the zoning density requirements by approximately 26%, well within the allowable range of the CUP.

The S-4 Design Review Combining Zone is an additional zoning designation overlaid on the C-30 portion of the site. The S-4 is intended to create, preserve, and enhance the visual harmony and attractiveness of areas which require special treatment and the consideration of relationships between facilities. In the S-4 zone no building (other than a new Secondary Unit) shall be constructed unless plans for such proposal have been approved pursuant to the design review procedure. As this is a residential project it is already subject to design review.

The following table depicts the project's comparison to zoning requirements.

Zoning Regulation Comparison Table

Criteria	Requirement C- 30 & 31	Proposed	Comment
Yard – Front (High St)	0'	0'-16'6"	Meets the requirements.
Yard- Corner Side Lot Line (MacArthur Blvd)	0'	0'	Meets the requirements.
Yard – Interior Lot Line	10'	10'	Meets the requirements.
Yard - Rear	15'	35'	Meets the requirements.
Height – General	40' (C-30) 35' (C-31)	Varies between 47' & 60', 54' average	Does not meet the requirements. Minor Variance is required.

Criteria	Requirement C- 30 & 31	Proposed	Comment
Height – Adjacent to R-50 Zone	30' with allowed increase of 1' height for every additional 1' of setback up to the general height limit of 35' (40' for the C-30 portion).	Varies between 47' & 60', 54' average	Does not meet the requirements. Minor Variance is required.
Open Space	150 sq. ft. / unit =17,250 sq. ft.	17,461 sq. ft.*	Meets the requirements.
Parking	1 space / unit = 115 spaces 1 space / 600 sq. ft. commercial = 5 spaces	64 spaces	Seeks Conditional Use Permit under Section 17.116.110 to reduce parking requirement.
Loading	50,000--149,999 sq. ft. resid. building = 1 berth	1 berths	Meets the requirements.
Residential density	1 unit / 450 sq. ft. = 91 units	115 units	Seeks Conditional Use Permit under Section 17.106.060 to exceed zoning density.

Table Notes:
* Per Section 17.126.020, each square foot of private usable open space conforming to the provisions of Section 17.126.040 shall be considered equivalent to two square feet of required group usable open space and may be so substituted.

ENVIRONMENTAL DETERMINATION

The Planning Commission determined that the project is exempt from CEQA pursuant to Section 15332 of the CEQA Guidelines (In Fill Development Projects), and, as a separate and independent basis, is also exempt pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning). Based on the size and location of the project site, as well as the findings of the traffic report and historic analysis, the Planning Commission concluded that the project is able to satisfy the in-fill exemption under the CEQA Guidelines section 15332, as detailed in the February 20, 2008 Planning Commission Report (Exhibit A)

Further, as a separate and independent basis from the other CEQA findings, pursuant to Public Resources Code section 21083.3 and CEQA Guidelines section 15183, the City Council will also find, if it approves the project, that: (a) the project is consistent with Land Use and Transportation Element (LUTE) of the General Plan, for which an EIR was certified in March 1998; (b) feasible mitigation measures identified in the LUTE EIR were adopted and have been, or will be, undertaken; (c) the EIR evaluated impacts peculiar to the project and/or project site, as well as off-site and cumulative impacts; (d) uniformly applied development policies and/or standards (Standard Conditions of Approval) have previously been adopted and found to, when applied to future projects, substantially mitigate impacts. To the extent that no such findings were previously made, the City Council hereby finds and determines (in approving the project) that the Standard Conditions of Approval imposed on the Project substantially mitigate environmental impacts; and (e) substantial new information does not exist to show that the Standard Conditions of Approval will not substantially mitigate the project and cumulative impacts.

KEY ISSUES AND IMPACTS

CRADL's February 29, 2008 appeal letter is included as Attachment "A" and described below. The basis for the appeal is shown in bold text and the staff response follows each point in italic type.[1]

1. Oakland does not need any further affordable housing.

This argument is not supported by the information provided by the appellant. Indeed, the Housing Element of the General Plan identifies further housing needs for seniors, particularly those of low income. For instance, the overall goals found in Goal 2of the Executive Summary of the Housing Element are meant to promote development of housing for low and moderate income households through such measures as density bonus programs and developing housing for senior citizens. Policy 3.1 seeks to expedite the construction of residential units by

[1] The first two sections of the Appellants' February 29, 2008 letter relate to issues that are not germane to the appeal. Specifically, section A ("Background") merely recounts what Appellants' perceive to be the history of the project, much of it based upon speculation. Likewise, section B ("City expenses and losses") provides Appellants' views of the economics of the project, again based upon speculation. Staff notes that the property has sat vacant for a number of years during one of the most fantastic housing booms this City has ever seen. Many other sites around the city, often with more severe challenges than this one, were developed during that time period. Thus, the Appellants' higher and better economic use argument does not make sense. In any event, neither section directly addresses the planning and CEQA-related issues before the City Council; thus, these items will not be discussed further.

simplifying the permit process by assigning priority to affordable housing and expediting environmental review through the use of exemptions. Policy 3.2 of the Housing Element contains action plans to allow for flexible zoning standards for things like open space, parking, and development standards.

Discussions with the Housing Division of CEDA indicate that approximately 7-10 times as many seniors applied for affordable units at both Lincoln Court and the Altenheim when those projects opened than there were units available. Both those projects are quite close to this site but opened when the rental market was softer. With the housing bubble burst, the rental market is now tighter, which impacts everybody. As the City and region begin to absorb the aging Baby Boomer population, housing of this type is going to become even more critical than it is today. Logically, a reasonable place to construct senior housing is in settled urban areas with available mass transit that connects them to a broader region. That describes this site.

At its March 20, 2008 meeting, the Executive Board of ABAG held a public hearing on appeals to the draft Regional Housing Needs Allocations (RHNA). The Board approved the recommendations of its Appeals Committee which set the goals for each jurisdiction to provide additional affordable housing. The City of Oakland had the largest requirement for providing affordable housing in all of Alameda County with 14,629 units; 7,000 of those would be for affordable housing, 1900 units for very low income, 2,098 for low income, and 3,142 for moderate income housing. In total, Oakland would be responsible for approximately 30% of the projected affordable housing needs in Alameda County. The argument that the City is doing its "fair share" and that this project isn't needed misstates the issue. There is still a great unmet need, and a growing need, for affordable housing, especially senior housing. The argument that more of this type of housing should be placed in outlying areas also contradicts other city and ABAG policies regarding the location of new housing which seeks to place it in already developed urban areas near mass transit. This brings people closer to jobs or in the case of seniors to social and activity centers and reduces car dependence typically found in suburban developments. This project clearly meets that intent.

2. The appellant argues that the project is much larger and out of scale with the Laurel commercial district and a height variance is not appropriate.

The subject area is designated as a "grow and change" corridor under the Oakland General Plan, and larger buildings are anticipated as the area grows and develops. In this case, the General Plan designation of Neighborhood Center Mixed Use allows residential densities and commercial Floor to Area Ratios (FAR) that exceed those of the zoning regulations and hence it is appropriate to consider variances to allow projects to be developed within General Plan parameters as the City's Planning Code has not yet been updated to conform to the General Plan.

*Further, this project asks for density bonuses under, Section 17.106.060, to exceed the zoning density for **senior housing**. The zoning code also conditionally permits the waiver of some development standards, such as the amount of parking required, for senior housing. Thus, allowing greater height by a minor variance is necessary to achieve the policy goal of providing more senior housing.*

*In addition, the State of California in recent years amended the rules related to affordable housing by allowing developers to ask for even more concessions on height, setbacks, open space, and parking standards for **affordable projects**. While the applicant has not sought to take advantage of such measures for affordable housing, it is clear that some modification of zoning standards is appropriate for projects seeking bonuses for affordable housing, like here. Again, a variance is appropriate to achieve this policy goal.*

The project underwent design review and all the required design review findings were made, supported by substantial evidence. Although the project is larger than other buildings in the area (most are one and two story), the location of the property, adjacent to the Freeway, it's isolation from other contiguous lots (it is bound on all sides by roadways), it's unique and challenging wedge-like shape, the fact that it is on the edge of the Laurel District, as well as the fact that it's in a "grow and change" area, allowed staff to make the findings to approve the design of the structure and recommend the granting of the height variance. MacArthur Boulevard could develop at a much denser pattern than is currently the case and, as discussed in other sections, is one of the goals of the General Plan for this area.

Other options that were studied and rejected involved lowering the height of the building and adding units in the center of the project site where the group open space is located. This resulted in the elimination of all or much of this space and would itself require an open space variance. Staff rejected this alternative because this is the only open space for the residents of the project. The other option was to keep the open space but cut down on the number of units. Staff already pursued this option as the original submittal was for 142 units and the overall building was one story taller than now. A further reduction of one story would bring much of the building into conformance but cut the size of the project to approximately 89 units. This would bring the project into zoning conformance but it would hinder the ability to provide additional senior housing, the need for which is discussed in detail elsewhere. The project, thus reduced both in height and number of units, was well within the density of the general plan. However, as indicated elsewhere in this report, state law, the City's Zoning Regulations, and the General Plan, all encourage the development of low-income and senior housing, by providing density bonuses and waiving of certain development-related standards. Here, granting a height variance was preferable to reducing/eliminating the amount of open space or further reducing the number of units.

This is not a grant of a special privilege inconsistent with the limitations placed on similar properties, nor is it inconsistent with the purposes of the Zoning Regulations (Oakland Planning

Code section 17.148.050(A) (4)). First, this site has unique factors (as explained through-out this report) that must be taken into consideration. The City has taken similar factors into consideration for other similarly zoned properties that have received variances, including height variances, especially where, as here, the general plan allows for greater density than the zoning regulations. For example, the Lincoln Court development received a height variance, although only for three feet. However, in that case the project did not ask for a density bonus. In the Temescal neighborhood several projects have recently received height variances that will allow them to take advantage of the increased density that the General Plan permits over the zoning. This has been common in the City of Oakland as the height limits and setbacks found in the zoning chapters are sized for the densities found in the (1965) zoning code and are not appropriate for the greater densities envisioned in the (1998) general plan.

Second, this proposal meets several important general plan goals, such as increasing the supply of affordable housing for senior citizens, as well as adding density to one of Oakland's urban corridors. State and city policies also allow applicants of affordable senior projects to ask for density bonuses that would allow them to exceed the General Plan density and ask for concessions on development standards such as setbacks, height limit, parking, etc. In 2005, a new state law (SB1818) took effect that made it easier to exceed density and receive concessions for things usually requiring a variance. To take advantage of this, the project would need to exceed the General Plan density. The applicants are not asking for this type of bonus, however granting a variance to allow a taller building and greater density for senior affordable housing is consistent with the overall policies of the City and the past planning practices of granting exceptions for projects such as this. Thus, the granting of the variance is consistent with the purposes of the Zoning Regulations.

Finally, the variance for exceeding the height adjacent to an R-50 zone is appropriate here. The purpose of the regulation is to reduce the bulk and mass of buildings in high density zones that are adjacent to lower density zones to reduce the level of impact on those lower density areas. The goal was not to reduce bulk next to a freeway (indeed, many of the City's freeways cut through areas of high density zoning) and a review of older zoning maps show that the zoning boundaries existed in a similar fashion prior to the freeway being emplaced. Thus, it appears that the R-50 zoning was never amended to reflect the fact that the freeway was constructed; therefore the zoning designation is antiquated and irrelevant to this project.

3. **The appellant argues that the project cannot be considered a "mixed use" project as it does not contain more than "token" retail to get around the zoning code's ground floor use restrictions and does not contribute to the intended character of the C-31 zone.**

This argument is not supported by the text of the C-31 regulations nor by the zoning regulations definition of "Mixed Use" because there is no regulation that requires the commercial space to be a certain size. This Project provides 3,124 square feet of commercial space.

Planning Code Section 17.09.040 defines "Mixed use development" as "...an integrated development containing residential, commercial and/or industrial activities and adhering to a comprehensive plan and located on a single tract of land, or on two or more tracts of land which may be separated only by a street or other right-of-way, or which may be contained in a single building." Given that this definition would allow comprehensively planned yet distinct elements to be located across lot lines or Rights of Way from one another, this project clearly meets the Mixed Use definition found in the zoning regulations. As for the C-31 zone, this is a relatively restrictive zone as far as commercial zones are in the City of Oakland, but does not contain minimum numeric requirements for commercial space. It contains restrictions on the type of commercial uses that can occupy the ground floor, requires a CUP for all food sales, and requires Design Review for new construction and alterations. Like most commercial zones it also permits residential, and at fairly high densities. This project fully conforms to the C-31 zone with the placement of commercial on the ground floor and residential above. While the appellants are disappointed with the size of the commercial on the ground floor, there is no regulation that requires the commercial space to be a certain size and thus there is no violation of the zoning regulations.

Moreover, this site is on the edge of the C-31 district and begins a transition out of the Laurel district to the Mills College area. It is not in itself a prime pedestrian retail location as the roadbed of MacArthur Boulevard becomes difficult to navigate and there is no reasonable street parking fronting that section of the property (this is where the project approaches the underpass for I-580). Therefore, staff views this as a mediocre location for commercial development, plus the site has been vacant for at least six years due in part to it's lack of connectivity to the Laurel Shopping district. Thus, the amount of retail space proposed here is reasonable.

4. This building could cost the City of Oakland the scenic highway designation I-580 has and open the door for the resumption of big truck traffic on I-580.

This argument is speculative and not supported by information provided by Caltrans, which is the authority in charge of the Scenic Highway program. City staff has spoken, on a number of occasions, with Bryan Walker of Caltrans, the landscape architect responsible for Caltrans District 4 (which includes the greater Bay Area), who oversees the Scenic Highway program for this location. Mr. Walker said that the scenic designation of all highways in the State of California were coming up for review this year (including I-580) but that this was part of a fairly regular pattern of review by Caltrans conducted once every five years or so. This review was not prompted by this or any other specific projects or actions. He stated several times that he does not believe that this building would cause the loss of the scenic highway designation. Mr. Walker stated that the primary concerns for freeways in urban areas of the state were the proliferation of sound walls and the affects of billboards visible from the route. Incidentally, this site contains a billboard which would be eliminated by this building.

Further, according to Caltrans, the freeway is estimated to be 20-30 feet above the height of the project site (with it being taller toward the southern end of the property) while the proposed building varies between 47'-60' feet above the project site grade. The project site is approximately 50' from the freeway roadbed and the area between the freeway roadway and the project site is generously landscaped with trees and shrubbery, with many trees topping 40-50 feet above the freeway roadbed (some trees are rooted in the ground at the level of the freeway, others on a downslope from the freeway to the property). Thus, the trees are about 60-80 feet above the project site and also above the height of the proposed building (Attachment B). Therefore, trees and other plantings are of such height and maturity that they will screen much of this building from freeway views (Attachment C). This building would therefore not impact the Scenic Highway Designation (a) either individually; or (b) cumulatively, if past, current and reasonable foreseeable future projects are considered.

Staff would also note that this is one site of approximately 1,100 properties that abut the scenic portion of I-580 (which extends from the I-980 interchange to the border of San Leandro). Most of those properties are low density residential in nature and the zoning and general plan reflect this. Any proposals to increase density in those areas would be subject to CEQA and the various impacts, including those to scenic highways would be assessed.

The appellant's also make a spurious linkage between the scenic highway program and the truck ban on I-580 as the two issues were never linked. The Caltrans guidelines governing scenic highways say nothing with regards to banning trucks and practically every other highway in California, scenic or not, permit them. History provides further evidence of the separation between the two issues. Truck traffic in the area was banned on MacArthur Boulevard, which was also designated as US 50, many years prior to the freeway's construction in 1951. When the freeway version of US 50 (later I-580) was under construction in 1963, the state and federal government agreed to retain the ban on trucks in part because the ban was already in existence and also because it would introduce noise and congestion to a freeway that was being placed through primarily residential areas of Oakland and San Leandro. After the freeway was constructed, Caltrans periodically reviewed the ban and in every instance decided to uphold it. In these decisions they often consulted with the City of Oakland, although at other times there were lobbying pressures from both the trucking industry and other jurisdictions in Alameda County. In 2000 the situation changed when Assembly Bill 500 (Corbett) was signed by the governor adding Section 35655.5 to the California Vehicle Code (CVC), which eliminated truck use on I-580, rendering further reviews by Caltrans moot.

The truck ban is also recognized by the Federal Government. In 1982 the Federal Government passed the Surface Transportation Assistance Act (STAA) which transferred truck ban authority from Caltrans to the US Department of Transportation. This act was designed to standardize various state laws and ensure open routes for trucks. While freeways such as I-580 are part of the "National Network" that is open to trucks, I-580 is exempted under "grandfathering" provisions as the truck ban had been in place continuously since the STAA was passed. As such I-580 is, according to Caltrans, the only Interstate Freeway not open to trucks.

Given these factors, it clear that the Appellants are mistaken when they assert that this project would lead to the loss of scenic highway designation and also that such a loss would lead to the truck ban being removed. Caltrans has reiterated and clarified previous statements that they do not consider this project a threat to the scenic highway designation. Even in the event that the Scenic Highway designation on I-580 were to be removed the process related to truck bans is completely separate from the Scenic Highway program, as the ability to alter or remove the ban is no longer subject to review by Caltrans but would require a change to state law, which is purely speculative.

5. At least an Initial Study should have been required because of the project's air, noise and traffic impacts.

No environmental mitigation measures were imposed as conditions of approval. The applicant is required to comply with all applicable City regulations, best management practices and operational procedures as part of the issuance of planning and building-related permits, like all other applicants. Standard conditions of approval (uniformly applied development standards) have been imposed for this project, like all projects, and regardless of a project's environmental determination [EIR, (mitigated) negative declaration, or exemption] under CEQA, pursuant to CEQA Guidelines section 15183.

The applicant has proposed an air filtration system, and such is usually not shown on the planning-level type plans, but rather on the detailed set of plans submitted at the building permit stage of development. As also demonstrated in the February 2008 air report (see Exhibit A), there are few DPM/TAC emissions associated with the I-580 Freeway because of the truck ban, which means there appears to be no need for the air filtration system, but it nevertheless is part of the project and required to be constructed, operated and maintained.

The noise study is complete and disclosed that the building, as appropriately constructed with standard conditions of approval, should reduce sound to within City of Oakland thresholds. There was a misstatement in the Planning Commission Report that needs to be corrected -- there are no outside noise standards applicable to this project or to any group or private open space areas in residential developments. Nevertheless, balconies were not placed on units facing the freeway and group open space is shielded by the building from the freeway, to further lessen exterior noise.

The traffic study disclosed that the traffic impact associated with this project would not significantly impact the neighborhood. The intersection at High and MacArthur is currently rated as Level of Service "D" and would remain so when this project is completed. It also studied projected traffic levels in 2025 and found that this same intersection will likely degrade to Level of Service "E" but that is expected to happen with or without this project. It is expected that the project would not increase the delay time in the short term at this intersection

and would likely increase it by .4 seconds in the AM and 1 second in the PM by the year 2020, changes well within thresholds. The problem, if any, is with existing conditions, not the impacts caused by the project. The Project will not add to the problem.

The right turn only sign is appropriate because of the proximity to the intersection with High Street and is typically imposed on this type of project in an urban setting. The proposed loading zone (condition, COA # 36), will further minimize any potential impacts on traffic by banning deliveries from 6am – 9am and 4pm – 7pm and require a flagman to be present.

There is a slight correction to be made to Condition of Approval #48, which incorrectly mentions safety improvements. Rather, these are more appropriately described as pedestrian improvements, commonplace for larger projects and considered standard conditions.

Finally, it is not unusual to construct housing adjacent to a freeway in the City of Oakland. Along I-580, from the I-980 interchange to the San Leandro border, there are approximately 1,900 lots abutting the freeway, many of them residential. There are about 41.5 miles of freeways through-out Oakland and many thousands of residential properties within close proximity to these freeways.

SUSTAINABLE OPPORTUNITIES

Economic: The project will expand the available housing inventory in the City of Oakland.

Environmental: Developing in already developed urban environments reduce pressure to build on agricultural and other undeveloped land. Sites near mass transit enable residents to reduce dependency on automobiles and further reduce adverse environmental impacts.

Social Equity: The project benefits the community and improves social equity by providing additional available housing to the City of Oakland as well as additional temporary jobs during the construction of the project.

DISABILITY AND SENIOR CITIZEN ACCESS

This project would create 115 affordable senior housing units. The Building Division of the Community and Economic Development Agency will require that the project conform to the Americans with Disability Act in all provisions to ensure equal access to this facility.

RECOMMENDATION(S) AND RATIONALE

Staff recommends that the City Council adopt the attached Resolution denying the appeal, thereby upholding the Planning Commission's approval of the project. Staff recommendation is based on the following reasons: 1) The Project and the approval of the Project comply in all significant respects with applicable general plan policies and review procedures; and 2) the Project meets the CEQA In-Fill exemption requirements and there are no exceptions that would defeat the use of the exemption, and, as a separate and independent basis also exempt pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning).

ALTERNATIVE RECOMMENDATION(S)

The City Council has the option of taking one of the following alternative actions instead of the recommended action above:

1. Uphold the appeal and reverse the Planning Commission's decision thereby denying the project. This option would require the City Council to continue the item to a future hearing so that Staff can prepare and the Council has an opportunity to review the proposed findings and resolution for denial.

2. Uphold the Planning Commission's decision, but impose additional conditions on the project and/or modify the project.

3. Continue the item to a future hearing for further information or clarification.

4. Refer the matter back to the Planning Commission for further consideration on specific issues/concerns of the City Council. Under this option, the item would be forwarded back to the City Council with a recommendation after review by the Planning Commission.

ACTION REQUESTED OF THE CITY COUNCIL

1. *Affirm the Planning Commission's environmental determination that the Project is* exempt from CEQA review pursuant to CEQA Guidelines sections 15332 (In-Fill exemption) and, as a separate an independent basis, 15183 (projects consistent with community plan, general plan, or zoning).

2. Adopt the attached Resolution denying the appeal, and thereby upholding the Planning Commission's approval of the Project.

Respectfully submitted,

Dan Lindheim
Director
Community and Economic Development Agency

Reviewed by: Scott Miller, Zoning Manager
CEDA

Prepared by:
Robert D. Merkamp, Planner IV
CEDA

APPROVED AND FORWARDED TO THE CITY COUNCIL:

Office of the City Administrator

Item: _____
City Council
May 20th, 2008

ATTACHMENTS:

A. CRADL appeal submitted February 29, 2008
B. April 28, 2008 Email to Caltrans' Bryan Walker
C. Photographs toward site from freeway