5 ALTERNATIVES TO THE PROPOSED PROJECT

5.1 INTRODUCTION

In accordance with Section 15126.6(a) of the State California Environmental Quality Act (CEQA) Guidelines, an environmental impact report (EIR) must discuss a range of reasonable alternatives to the project "which would feasibly attain most of the basic objectives of the project…and evaluate the comparative merits of the alternatives." The factors that can determine feasibility include site suitability, other plan or regulatory limitations, and jurisdictional boundaries, as well as technical and economic considerations. (State CEQA Guidelines Section 15364.) An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative. The alternatives analysis must also include a comparative evaluation of the No Project alternative (State CEQA Guidelines Section 15126.6[e]). Through comparison of the alternatives, the advantages and disadvantages of each alternative compared with the proposed project can be weighed.

CEQA and the State CEQA Guidelines (Section 15126.6[d]) require that alternatives be discussed at a comparative level of detail sufficient to allow meaningful evaluation and comparison with the proposed project. This EIR goes beyond the requirements of State law and the Guidelines, providing, among other information, conceptual illustrations of alternatives, and a detailed analysis of the relative impacts in each of the environmental topic areas covered in the project-specific analysis.

5.2 PROJECT OBJECTIVES

As addressed in Chapter 3, "Project Description," of this EIR, the project objectives consist of both those of the City of Merced (City) and those of the project applicant. Project objectives guide the selection of alternatives. This section includes a general evaluation of the alternatives in light of the project objectives. The City's objectives for this type of project include the following:

- To develop the industrially zoned area in the City with permitted industrial uses.
- To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.
- To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.
- To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.
- To ensure that industrial areas are developed in an attractive manner.

The project applicant has developed objectives consisting of the following:

- To develop a project consistent with the City of Merced General Plan (City General Plan) and zoning ordinance.
- To develop a distribution/warehouse facility near other industrial uses.
- To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.

- To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.
- To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.
- To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.
- To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.
- To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.
- To take advantage of an existing labor pool living in the Merced area.

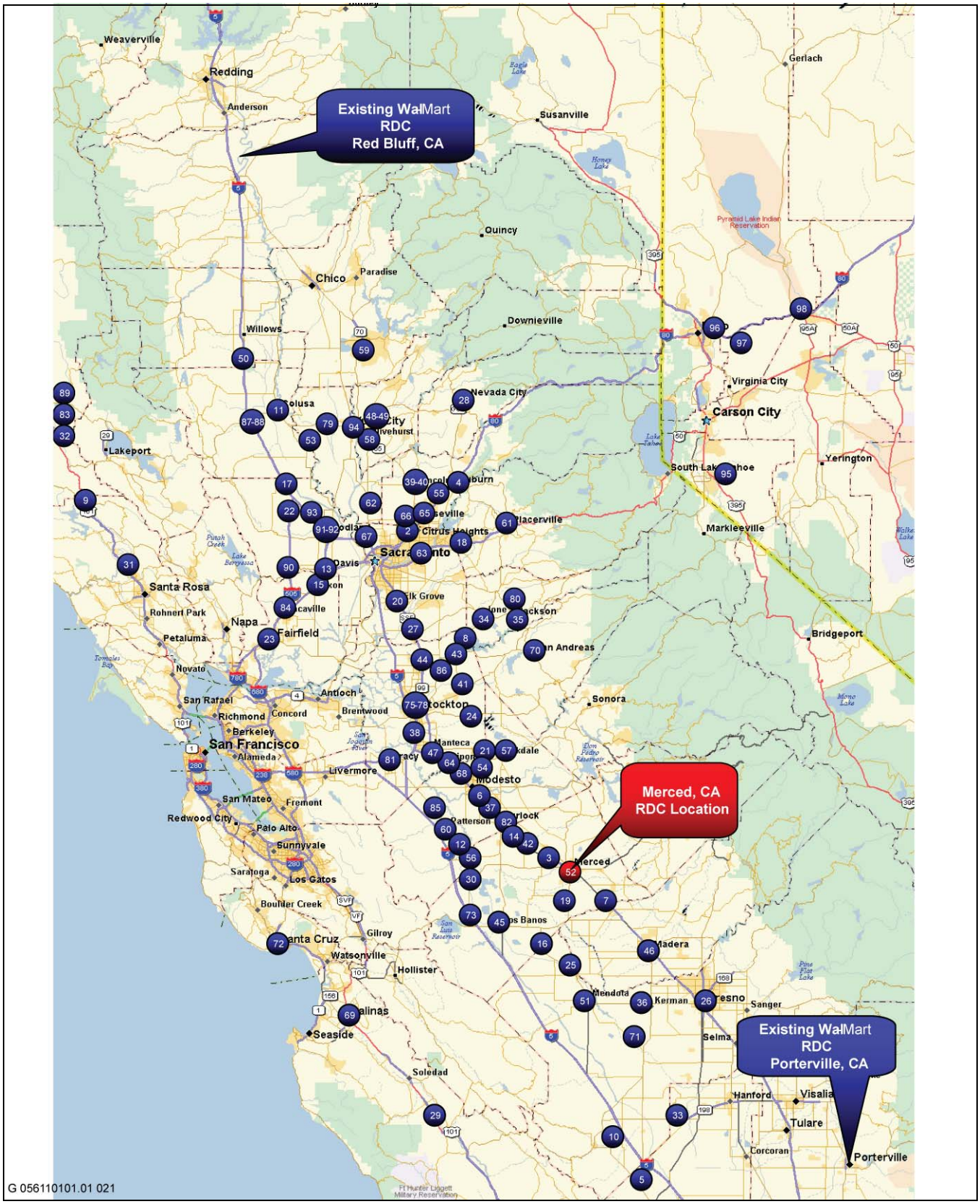
5.3 ALTERNATIVES EVALUATED IN THIS EIR

Project alternatives are intended to reduce or eliminate the potentially significant adverse environmental effects of the project while attempting to meet most of the project objectives. An EIR is required to contain a discussion of a reasonable range of alternatives to the project, or to the location of the project, that could feasibly attain the basic objectives of the project (State CEQA Guidelines Section 15126.6[a]). The comparative merits of the alternatives should also be presented. The State CEQA Guidelines provide the following guidance on the selection of alternatives:

- The "no project" alternative shall be evaluated. If the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (State CEQA Guidelines Section 15126.6[e]).
- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of eliminating significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would partially impede the attainment of the proposed objectives, or would be more costly (State CEQA Guidelines Section 15126.6[b]).
- If an alternative would cause one or more significant environmental effects in addition to those that would be caused by the project, the significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the project (State CEQA Guideline Section 15126.6[d]).
- The range of alternatives required by an EIR is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation. An EIR need not consider an alternative whose effect cannot be ascertained and whose implementation is remote and speculative (State CEQA Guidelines Section 15126.6[f]).

5.3.1 ALTERNATIVES CONSIDERED AND REJECTED

Prior to the City's initiation of this EIR, the project proponent conducted a search of possible sites for the proposed distribution center. The project proponent's physical criteria for selection of potential sites were primarily limited to size of the parcel, absence of development, compatibility with surrounding land uses, and proximity to major roadways. Exhibit 5-1 identifies the California locations of the two nearest existing Wal-Mart



Source: Adapted by EDAW 2007

Proposed Merced Regional Distribution Center – Entire Search **Exhibit 5-1**

distribution centers, in Porterville and Red Bluff. The numbered blue dots show the locations of possible distribution center sites that were rejected.

In addition to the range of alternative sites initially considered by the project proponent, several other alternative sites were identified and rejected by the applicant prior to the start of this EIR. The following sites were initially identified by the project proponent, but were deemed unable to meet their project objectives and were ultimately rejected (Table 5-1). Table 5.1 includes explanations for rejection of these sites, as provided by the project proponent. In some instances, rejection was due to physical issues, such as lack of infrastructure, particularly proximity to a major roadway. In several instances, however, Wal-Mart indicated that political or socioeconomic issues made a particular site unacceptable. No detailed explanation of what constituted a political or socioeconomic issue was provided by the project proponent. These alternative sites are not analyzed in the EIR.

Table 5-1
Alternative Sites Considered and Rejected by Wal-Mart

City, State	Site Name/Address	Explanation
Livingston, CA	Livingston Site—Address Unknown	Political issues made process of obtaining development approval uncertain
Delhi, CA	Delhi Site—Address Unknown	Political issues made process of obtaining development approval uncertain
Crows Landing, CA	Crows Landing Industrial Park—Address Unknown	Site is partially in a floodplain and not served by utilities.
Patterson, CA	Patterson Site—Address Unknown	Site adjacent to residential; truck traffic would access same road as residential traffic which would result in noise and traffic safety concerns
Firebaugh, CA	Firebaugh, CA Industrial Site—Address Unknown	Socioeconomic issues
Escalon, CA	Escalon Industrial Site—Address Unknown	Political issues
Oakdale, CA	Oakdale Site—Address Unknown	Political issues
Fresno, CA	Fresno Site—Address Unknown	High transportation cost and proximity to existing Wal-Mart Distribution Center in Porterville and Apple Valley, CA
Tracy, CA	Tracy Site—Address Unknown	Political issues

Source: Data compiled by EDAW in 2007.

5.3.2 IDENTIFICATION OF ALTERNATIVES

This section describes and presents environmental analysis of six different alternatives to the proposed project, which are described in detail in this section of the EIR including:

- No Project;
- Redesigned Site Plan;
- Reduced Site Plan and Operations;
- Alternative Site #1 – Between Gerard and Mission avenues (immediately south of the proposed project site);
- Alternative Site #2 – West of SR 99, between Gerard and Mission avenues; and
- Alternative Site #3 – South of the airport, at the Thornton Road/West Dickenson Ferry Road intersection.

Following is a detailed description of the alternatives considered in this EIR and the environmental impacts associated with the alternatives compared to the proposed project. Where impacts are presented as "the same," "similar," or "greater," this is a comparison with the impacts in the same topic area for the proposed project.

5.4 NO PROJECT ALTERNATIVE

This alternative assumes that the site would not be developed with the proposed project. However, given the following factors, it is assumed that some type of industrial or warehouse development would occur at the project site in the near term:

- the project site is within Merced's city limits;
- the project site is designated for industrial use in the City General Plan and zoning ordinance;
- the project site is sufficiently large to accommodate industrial or warehouse projects;
- the project site is relatively close, and has convenient access, to major arterial roadways and State Route (SR) 99; and
- the project site is relatively close to, and could readily connect to, major public infrastructure, such as water, wastewater, and storm drainage systems.

In other words, if the Wal-Mart Distribution Center application were to be withdrawn or denied, it is unlikely that the project site would remain indefinitely vacant, given the factors listed above. Therefore, it is appropriate for the No Project alternative to assume some level of development, instead of assuming that the site would remain undeveloped. (If the site were to remain vacant, then the existing environmental setting would remain the same. The existing setting is described in Chapter 4 of this EIR, as part of the discussion of each resource area.)

In accordance with the City's existing land use regulations, the No Project alternative assumes that the site would be developed with a project that includes approximately 1.1 million square feet of warehouse or industrial use, similar to the proposed project. It is conceivable that another company would view the site as ideally suited for a regional distribution center similar to what is proposed by Wal-Mart. While the floor area ratio of 0.17 square foot per gross acre that is allowed in this zoning district would allow a 1.7-million-square-foot building, 1.1 million square feet, like that proposed, was the assumed size for the purposes of this alternatives analysis.

5.4.1 AGRICULTURE

This alternative would result in the same impact on agricultural resources as the proposed project because the same agricultural characteristics would be developed with approximately the same basic footprint. For a 1.1-million-square-foot building, it is assumed that nearly all of the site would be graded to accommodate buildings, driveways, parking lots, and landscaping, and that all of the crops and potential for future crop production would be eliminated. Therefore, agricultural impacts would be similar to those resulting from the proposed project.

Impact to agricultural resources (Loss of Prime Farmland) has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The No Project alternative would not change that conclusion. [Similar]

5.4.2 AIR QUALITY

The construction and operation of a similar industrial use would also generate emissions of criteria air pollutants and precursors, greenhouse gases (GHGs), and toxic air contaminants (TACs). This facility would also generate vehicle trips that could increase carbon monoxide (CO) concentrations at nearby intersections. If mass emissions

of ROG and NOx would exceed applicable SJCAPCD thresholds, it is assumed that an emissions reduction agreement would be established with SJVAPCD to off-set these emissions. Thus, air quality impacts under this alternative would be similar to those that would result from the proposed project.

Regarding the project resulting in a considerable net increase in greenhouse gases, it is unknown at this time whether an alternative warehouse use of the proposed project site would generate more or less emissions of GHGs than the proposed project.

Because Wal-Mart has indicated that another distribution center is required to more efficiently support their retail centers, it is possible that Wal-Mart would find another location in the Central Valley to develop a distribution center that could serve the same retail stores as the proposed project if development does not occur at the proposed project site. The amount of GHGs produced by the operation of a Wal-Mart distribution center at another Central Valley location would likely be very similar to the proposed project. If Wal-Mart does not add an additional distribution center in the Central Valley to its state-wide distribution network, many existing Wal-Mart retail stores would continue to be served by distribution centers located further away (e.g., Porterville or Red Bluff). The emissions levels of GHGs from tractor trailers are positively correlated with vehicle miles traveled and fuel consumption. Because the trip length by trucks could be longer, the associated net increase in emissions of GHGs could be higher than the proposed project. In addition, if Wal-Mart were to find another location in the Central Valley it is unknown whether the respective local lead agency would require Wal-Mart to establish an emissions reduction agreement with the local air district as mitigation. The project's contribution of CAP emissions to the local air basin would be substantially greater without the implementation of some type of off-site emissions reduction agreement.

Impact to air quality, related to emissions of greenhouse gases, has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The No Project alternative would not change that conclusion.

[Similar for air quality, greater for greenhouse gases]

5.4.3 BIOLOGICAL RESOURCES

Because, under the No Project alternative, the site would be developed with a project that would involve virtually identical site development impacts as the proposed project, impacts to biological resources under this alternative would be similar to those that would result from implementation of the proposed project. Biological resource impacts relate most closely to the area being proposed for development and the overall level of development. Because both of these factors are the same for the proposed project as with this alternative, the biological resource impacts are anticipated to be similar.

Biological resources impacts have been identified as cumulatively considerable for the proposed project. The No Project alternative would not change that conclusion. [Similar]

5.4.4 CULTURAL RESOURCES

Because the No Project alternative assumes the site would be developed with a similar industrial use, impacts to cultural resources under this alternative would be similar to those that would result from the proposed project. Cultural resource impacts relate most closely to the area being proposed for development and whether or not excavation is proposed. Because both of these factors are the same for the proposed project as with this alternative, the cultural resource impacts are anticipated to be similar. [Similar]

5.4.5 GEOLOGY/SOILS/PALEONTOLOGY

Impacts related to geology, soils and paleontological resources would be the same as those identified under the proposed project because the site would still be developed. [Similar]

5.4.6 HAZARDS AND HAZARDOUS MATERIALS

Because the No Project alternative assumes the site would be developed with a similar industrial use, impacts related to hazards and hazardous materials under this alternative would be similar to those that would result from implementation of the proposed project. Hazards and hazardous materials impacts relate most closely to the increased storage, use, and transport of hazardous materials during construction and operation of project facilities. Because these factors are the same for the proposed project as with this alternative, the hazards and hazardous materials impacts are anticipated to be similar. [Similar]

5.4.7 HYDROLOGY AND WATER QUALITY

Because the site would be developed with a similar industrial use under the No Project alternative, impacts related to hydrology and water quality under the No Project alternative would be similar to those that would result from implementation of the proposed project. These impacts would include the potential for degradation or depletion of ground or surface water quality; depletion of ground water resources; reduction of water quantity through groundwater recharge interference or demand in excess of available supplies; and creation of flooding or other water related hazards. Because these factors are the same for the proposed project as with this alternative, the hydrology and water quality impacts are anticipated to be similar. [Similar]

5.4.8 LAND USE

Buildout of the site according to the City General Plan land use designation, Industrial, would have similar impacts as the proposed project. Therefore, impacts would be similar to the proposed project. [Similar]

5.4.9 NOISE

The No Project alternative assumes the site would be developed with a similar industrial use. On-site area- and stationary-noise sources associated with this facility would likely be similar to the proposed project. In addition, this facility would generate vehicle trips that could increase traffic noise levels along area roads. Thus, noise impacts under this alternative would be similar to those that would result from the proposed project.

Noise impact related to traffic and sensitive receptors along roadways has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The No Project alternative would not change that conclusion. [Similar]

5.4.10 POPULATION AND HOUSING

Similar to the proposed project, this alternative would avoid any impacts associated with potential displacement of existing housing or people. The project site would build out in accordance with the existing land use designation, Industrial, which would have similar impacts to the City's population and housing, and potential for future availability of jobs. [Similar]

5.4.11 UTILITIES AND PUBLIC SERVICES

Because the No Project alternative assumes the site would be developed with a similar industrial use, impacts on public services under this alternative would be similar to those that would result from implementation of the

proposed project. Public services impacts relate most closely to the incremental increase in service demands. Because these factors are the same for the proposed project as with this alternative, the public services impacts are anticipated to be similar. Similarly, because the No Project alternative assumes the site would be developed with a similar industrial use, impacts on utilities and service systems under this alternative would be similar to those that would result from implementation of the proposed project. Utilities and service systems impacts relate most closely to the incremental increase in service demands. Because these factors are the same for the proposed project as with this alternative, the utilities and service systems impacts are anticipated to be similar.

The proposed project would have cumulatively considerable impacts on wastewater treatment and disposal. The No Project alternative would not change that conclusion. [Similar]

5.4.12 TRANSPORTATION/TRAFFIC

If the site were to be developed with a regional distribution center for a different company, it is likely that it would have transportation impacts similar to the proposed project. Accordingly, this alternative would function similarly to the proposed project in terms of the number of employees, trucks trips, and auto traffic. However, if the site were developed with a different type of industrial use (i.e., not a distribution center), transportation characteristics and the resulting traffic impacts could be very different. Such a scenario was not assumed in this alternative because the site is particularly well suited for use as a distribution center due to its proximity to the freeway system and the regional demand for such uses.

The proposed project would have cumulatively considerable impacts on a number of intersections and roadway segments. The No Project alternative would not change that conclusion. [Similar]

5.4.13 VISUAL RESOURCES

The aesthetic impacts would be similar to those of the proposed project. Both the No Project alternative and the proposed project would convert open spaces at the fringe of the City to urban development. This would involve the placement of lighting, structures, access roads, fencing, and other improvements in an area visible from nearby roadways. Also, like the proposed project, other industrial development permitted under the City zoning ordinance would allow large-footprint buildings approximately 40 feet above finished grade. Impacts would be similar to the project.

The proposed project would have cumulatively considerable visual impacts. The No Project alternative would not change that conclusion. [Similar]

5.4.14 ATTAINMENT OF PROJECT OBJECTIVES

Table 5-2 below assesses this alternative relative to the project objectives. As shown, this alternative could fulfill all of the 16 project objectives. Obviously, if the site is not developed for use by Wal-Mart, none of the objectives identified by the project proponent would be met. However, as shown below, a different project with an essentially identical use, could meet all identified objectives identified by both the applicant and the City.

Table 5-2
No Project Alternative and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To develop the industrially zoned area in the City with permitted industrial uses.	This site is zoned Heavy Industrial District.	Yes
To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.	The site is adjacent to existing and planned major roadway corridors and two State highways.	Yes
To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.	It is assumed full-time, year-round employment will be provided.	Yes
To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.	Like the proposed project, this alternative would be evaluated relative to traffic impacts and mitigation measures to improve roadways would be required, as necessary.	Yes
To ensure that industrial areas are developed in an attractive manner.	All projects are subject to City review and approval.	Yes
To develop a project consistent with the City General Plan and zoning ordinance.	It is assumed this alternative would be consistent with the City's General Plan and zoning ordinance although, as with the project, a City General Plan amendment may be required as a result of revised roadway designations.	Yes
To develop a distribution/warehouse facility near other industrial uses.	Areas in the vicinity are also designated for industrial use.	Yes
To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.	This alternative would involve warehouse uses on the same site in Merced County.	Yes
To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.	This alternative would involve a warehouse facility on a site of at least 230 acres.	Yes
To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.	This alternative is assumed to develop at a similar density as with the proposed project, which would involve roughly 1.2 million square feet of warehouse or industrial use.	Yes
To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.	This alternative would involve warehouse uses on the same site, with access to State Route (SR) 99, SR 140, and other nearby transportation corridors.	Yes
To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.	This alternative would involve warehouse uses on the same site, adjacent to SR 99, and therefore allowing transportation to occur largely along the highway corridor and avoid residential streets.	Yes

Table 5-2 No Project Alternative and Project Objectives		
Project Objective	Discussion	Fulfill Objective?
To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.	This alternative assumes that a similarly configured warehouse facility would be developed on-site, given the existing land use designations and other factors, as described previously. It is also assumed that a similar parking configuration could be designed, given the size of the project site.	Yes
To take advantage of an existing labor pool living in the Merced area.	This alternative would involve warehouse uses on the same site in Merced County.	Yes
Source: Data compiled by EDAW in 2007.		

5.5 REDESIGNED SITE PLAN

This alternative assumes that the site would be developed with a revised version of the proposed project. The size and extent of development, the number of employees, and the number of vehicle trips would be the same as the proposed project. As with the proposed project, a majority of the site would be cleared of vegetation and graded to accommodate approximately 1.1 million square feet of building, parking and driveways, and landscaping. Buildings and other proposed features on-site have been shifted to the east under this alternative to provide an increased buffer to residential development to the west. This alternative has been identified as a means of reducing certain potential environmental impacts that cannot be sufficiently reduced in the proposed project solely through mitigation measures. This alternative is intended to reduce the following potential impacts on the closest residential communities in Merced: air quality, traffic, and noise. Areas west of the project site are designated for residential development.

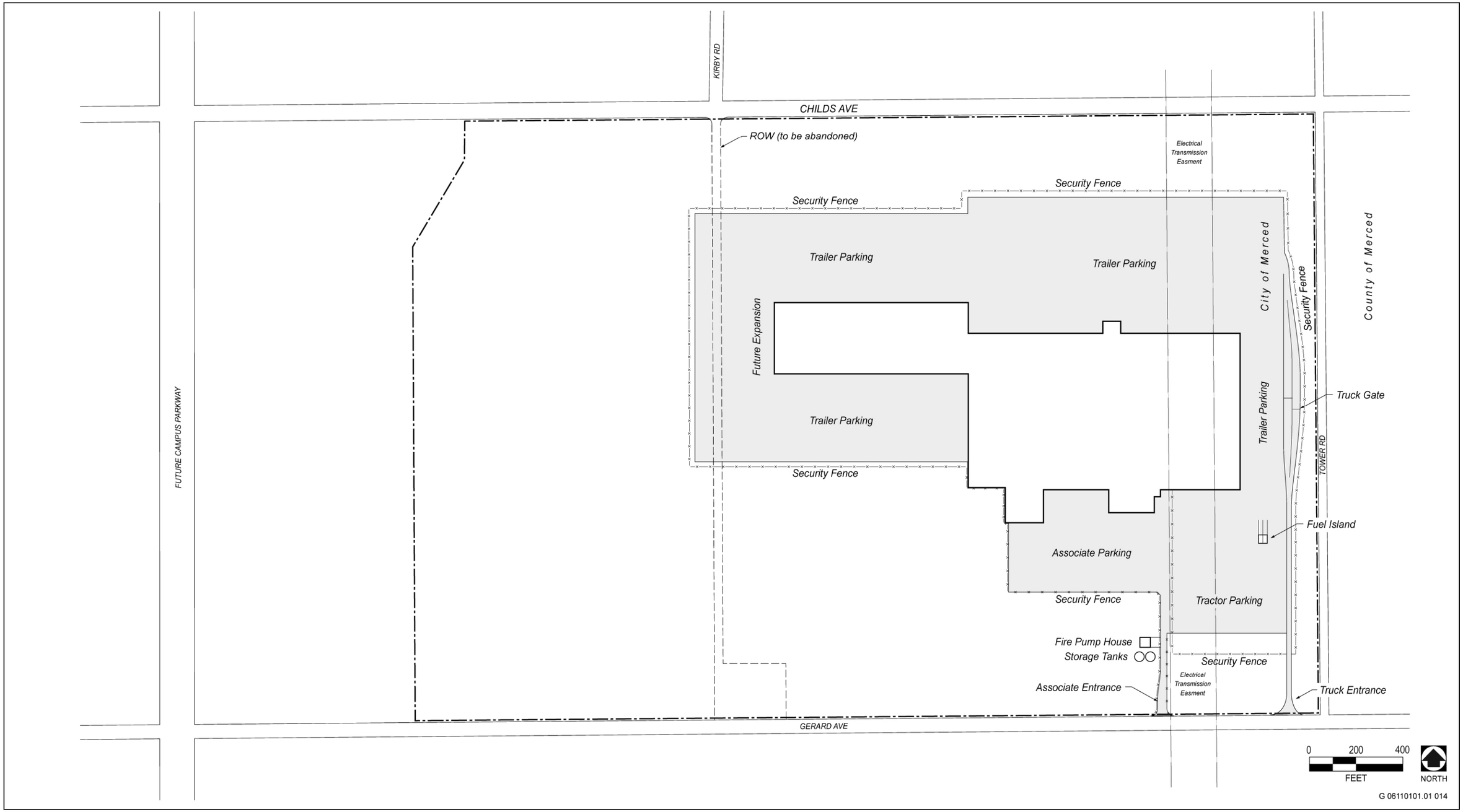
To reduce potential impacts in the environmental topics listed above, the following revisions have been made to the proposed project, as depicted in Exhibit 5-2:

- All buildings have been shifted to the eastern edge of the site.
- All truck loading and unloading areas have been shifted to the eastern edge of the site.
- Driveway access to the project site for both tractor trailers and employee vehicles has been shifted to a point near the eastern edge of the project site.

5.5.1 AGRICULTURE

This alternative would eliminate agricultural resources on the project site, because, as noted above, the same amount of site development would occur. The site would continue to be built out with a warehouse or other industrial use, which would convert all agricultural resources of notable value. Although buildings are shifted to the east, use of the site for agricultural purposed would cease. Therefore, impacts would be similar to the project.

Impact to agricultural resources (Loss of Prime Farmland) has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Redesigned Site Plan alternative would not change that conclusion. [Similar]



Source: Adapted by EDAW 2007

Redesigned Site Plan **Exhibit 5-2**

5.5.2 AIR QUALITY

This alternative would be similar to the proposed project with respect to size and capacity, except the facility and outdoor activity areas would be located further to the east and closer to Tower Road. Because the same level of activity would occur, mass emissions of criteria air pollutants and precursors, TACs, and GHGs would be the same as the proposed project. Because the same number and type of vehicle trips would be generated by this alternative, and these vehicles would use the same local roads and intersections, CO concentrations at congested intersections would be the same as under the proposed project. Impacts to air quality, related to construction and long-term emissions, have been identified as less than significant with mitigation for the proposed project. The Redesigned Site Plan alternative would not change that conclusion. However, although the health risk associated with emissions of TACs would also be similar to the proposed project (because the same level of emissions would occur during construction and operation), the proximity to nearby sensitive receptors would be reduced. Although health risk associated with TACs is identified as a less-than-significant project impact, further reduction in exposure to TACs due to the alternative's increased distance to sensitive receptors would further reduce the impact. Impacts to air quality related to construction and long-term emissions of greenhouse gases have been identified as a significant and unavoidable and a cumulatively considerable contribution to global climate change. The Redesigned Site Plan alternative would not change that conclusion.

[Less]

5.5.3 BIOLOGICAL RESOURCES

Because the Redesigned Site Plan alternative would result in the same size and extent of development as proposed, impacts to biological resources under this alternative would be similar to those that would result from the proposed project.

Biological resources impacts have been identified as cumulatively considerable for the proposed project. The Redesigned Site Plan alternative would not change that conclusion. [Similar]

5.5.4 CULTURAL RESOURCES

While the redesigned site plan alternative assumes that project-related construction would be shifted within the project area, impacts to cultural resources under this alternative would be the same as those that would result from the proposed project because undiscovered resources are as likely to be discovered on the eastern side or the site as anywhere else. Cultural resource impacts relate most closely to the area being proposed for development and whether or not excavation is proposed. Because both of these factors are generally the same for the proposed project as with this alternative, the cultural resource impacts are anticipated to be similar. [Similar]

5.5.5 GEOLOGY/SOILS/PALEONTOLOGY

Impacts related to geology, soils and paleontological resources would be the same as those identified under the proposed project because the site would still be developed. [Similar]

5.5.6 HAZARDS AND HAZARDOUS MATERIALS

The redesigned site plan alternative would result in the same size and extent of development as proposed and would result in similar land uses that would occur under the proposed project. For hazardous materials impacts associated with the project, it does not particularly matter whether the uses on-site are shifted to the east. Hazards and hazardous materials impacts would be similar to the proposed project. [Similar]

5.5.7 HYDROLOGY AND WATER QUALITY

Although the site would be developed further to the east under this alternative, impacts related to hydrology and water quality would be similar to those that would result from implementation of the proposed project. Because the size, type, and extent of development would remain the same, the potential for degradation or depletion of ground or surface water quality, depletion of ground water resources, reduction of water quantity through groundwater recharge interference or demand in excess of available supplies, and creation of flooding or other water related hazards would be similar. Therefore the hydrology and water quality impacts are anticipated to be similar under this alternative. [Similar]

5.5.8 LAND USE

This alternative would contain the same use as the proposed project, with a building of the same size and capability of service. This alternative would be developed on the same site as the proposed project, and therefore, as with the project, would not divide any existing community. However, the proposed structure would be located at a further distance from the existing residential development located to the west of the project site, which would provide a larger buffer area between the residential development and the proposed project. Similar to the proposed project, the Redesigned Site Plan alternative would continue to conform to the existing land use designation, although the changes proposed would provide an increased buffer from noise emanating from the site. [Less]

5.5.9 NOISE

This alternative would be similar to the proposed project with respect to size and capacity, except the facility and outdoor activity areas would be located further to the east and closer to Tower Road. With regard to noise generated by construction of the facility and area- and stationary-noise sources associated with operations, all of these noise sources would be located further from the noise-sensitive residential neighborhood located west of project site, even though it would move noise closer to a residence on Tower Road between Childs Avenue and Gerard Avenue. This would particularly be the case with respect to the truck gate, which is a focal point for much of the noise-generating activity during project operations. Thus noise generated by on-site operations would be less for a greater number of sensitive receptors (e.g., the residential neighborhood to the west) under this alternative.

With regard to traffic noise, this alternative would generate the same number of vehicle trips that would increase traffic noise levels along the same area roads as would be used in the proposed project. Thus, the traffic noise impacts under this alternative would be similar to those that would result from the proposed project.

Noise impact related to traffic and sensitive receptors along roadways has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Redesigned Site Plan alternative would not change that conclusion. [Less]

5.5.10 POPULATION AND HOUSING

This alternative would have the same number of jobs created and people served by the proposed project, and both projects would avoid any impact associated with displacement of existing housing or people. Therefore, the proposed alternative would have similar impacts to the City's population and housing, and potential for future availability of jobs. [Similar]

5.5.11 UTILITIES AND PUBLIC SERVICES

Although the alternative would require re-routing of utilities including electrical transmission lines, because the redesigned site plan alternative would result in the same size and extent of development as the proposed project, utilities and public service demands would be similar to the proposed project.

The proposed project would have cumulatively considerable impacts on wastewater treatment and disposal. The Redesigned Site Plan alternative would not change that conclusion. [Similar]

5.5.12 TRANSPORTATION/TRAFFIC

By shifting buildings to the east compared to the proposed project, there would be some moderate shift in travel patterns for vehicles accessing the site. Study intersections that would potentially be affected are along Childs, Gerard, Tower and Campus Parkway in the immediate site vicinity. However, based on the analysis of the proposed project, these intersections would continue to operate at the same levels of service regardless of where the access points, buildings and parking lots are located on the site. There would be some differences in traffic volumes at the nearby intersections, based on whether the vehicles access the site from one street compared to another, but not enough to result in a change in service level compared to the proposed project analysis. Further away from the project site, intersection operating conditions would not change, compared to the proposed project. On site, truck queuing issues would still need to be addressed, as with the proposed project.

The proposed project would have cumulatively considerable impacts on a number of intersections and roadway segments. The Redesigned Site Plan alternative would not change that conclusion. [Similar]

5.5.13 VISUAL RESOURCES

The aesthetic impacts would be similar to those of the proposed project. Both the redesigned site plan and the proposed project would convert the currently open space lot into a built environment that includes an approximately 1-million-square-foot building on the project site, with similar amounts of parking spaces, and lighting to be provided. Therefore, impacts would be similar to the project.

The proposed project would have cumulatively considerable visual impacts. The Redesigned Site Plan alternative would not change that conclusion. [Similar]

5.5.14 ATTAINMENT OF PROJECT OBJECTIVES

Table 5-3 below assesses this alternative relative to the project objectives. As shown, this alternative could fulfill all of the 16 project objectives.

Table 5-3
Redesigned Site Plan and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To develop the industrially zoned area in the City with permitted industrial uses.	This site is zoned Heavy Industrial District.	Yes
To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.	The site is adjacent to existing and planned major roadway corridors and two State highways.	Yes
To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.	It is assumed full-time, year-round employment will be provided.	Yes

Table 5-3
Redesigned Site Plan and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.	Like the proposed project, this alternative would be evaluated relative to traffic impacts and mitigation measures to improve roadways would be required, as necessary.	Yes
To ensure that industrial areas are developed in an attractive manner.	All projects are subject to City review and approval.	Yes
To develop a project consistent with the City General Plan and zoning ordinance.	It is assumed this alternative would be consistent with the City's General Plan and zoning ordinance although, as with the project, there may a City General Plan amendment required as a result of revised roadway designations.	Yes
To develop a distribution/warehouse facility near other industrial uses.	Areas in the vicinity are also designated for industrial use.	Yes
To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.	This alternative would involve a distribution/warehouse facility on the same site in Merced County.	Yes
To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.	This alternative would involve a warehouse/distribution facility on a site of approximately 230 acres.	Yes
To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.	This alternative is assumed to develop with a warehouse/distribution facility using the same building space as the proposed project, which would involve roughly 1.2 million square feet of warehouse or industrial use.	Yes
To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.	This alternative would involve development of a warehouse/distribution facility on the same site as with the proposed project, with access to State Route (SR) 99, Highway 140, and other nearby transportation corridors.	Yes
To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.	This alternative would involve development of a warehouse/distribution facility on the same site as with the proposed project, which is adjacent to SR 99, and therefore allowing transportation to occur largely along the highway corridor and avoid residential streets.	Yes
To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.	This alternative assumes same level of development, including parking, would be developed on-site. Although buildings would be shifted eastward, this alternative nonetheless anticipates sufficient parking for trucks and employees.	Yes
To take advantage of an existing labor pool living in the Merced area.	This alternative would involve development of a warehouse/distribution facility on the same site in Merced County.	Yes

Source: Data compiled by EDAW in 2007.

5.6 REDUCED SITE PLAN AND OPERATIONS

This alternative assumes that the site would be developed with a reduced version of the proposed project. This alternative has been identified as a means of reducing several of the potential impacts of the proposed project to a greater level than could be achieved solely through mitigation measures. Twenty-five percent is an arbitrary reduction level, selected solely for the purpose of this analysis; a range of percentage reductions – applicable to the size of the facility and/or the operations (i.e., employees and truck trips) – could have been selected. This alternative is intended to reduce the potential impacts on the closest residential communities in Merced.

To reduce potential environmental impacts, the following revisions have been made to the proposed project, as partially depicted in Exhibit 5-3:

- Project site disturbance area has been reduced by 25% to approximately 173 acres.
- Building size has been reduced by 25% to 825,000 square feet.
- Total impervious surface area has been reduced by 25% to approximately 52.5 acres.
- Number of employees has been reduced by 25% to approximately 900 employees.
- Number of tractor trailer daily trips to and from the site has been reduced by 25% to approximately 482 daily trips.

5.6.1 AGRICULTURE

This alternative would result in a slightly reduced impact on agricultural resources on the project site. The site would continue to be built out with warehouse use, thus reducing Prime Agricultural land; however, 25% less land would be developed, therefore reducing the impact to agricultural resources. Therefore, although the alternative would not avoid the project's significant impact associated with loss of Prime Farmland, the level of impact would be somewhat reduced under the alternative. [Less]

5.6.2 AIR QUALITY

This alternative would contain the same use as the proposed project, with a 25% reduction in size. During the site preparation phase of construction, a reduced level of criteria air pollutants and precursors would be generated because the level of ground disturbance would be less. The building of structures on the site would result in approximately 25% less emissions of criteria air pollutants and precursors because approximately 25% less building space would be built. Operation-related emissions of criteria air pollutants and precursors, TACs, and GHGs would also be approximately 25% less than the proposed project and, because

approximately 25% fewer vehicle trips would be generated by this alternative, the associated increase in CO concentrations at nearby congested intersections would also be lower than for the proposed alternative. However a 25% reduction in these emissions would not reduce impacts below the SJVAPCD thresholds of significance with out mitigation, including the implementation of an emissions reduction agreement with SJVAPCD.

Impacts to air quality, related to construction and long-term emissions of criteria air pollutants have been identified as less than significant with mitigation for the proposed project. The Reduced Site Plan and Operations alternative would not change that conclusion for construction-generated and operational emissions of criteria air pollutants. [Less]

Impacts to air quality related to construction and long-term emissions of greenhouse gases have been identified as a significant and unavoidable and a cumulatively considerable contribution to global climate change. The

Reduced Site Plan and Operations alternative would not change that conclusion for greenhouse gas emissions. [Less]

5.6.3 BIOLOGICAL RESOURCES

This alternative could result in a reduced amount of habitat conversion and resulting potential impacts on sensitive biological resources. Under the proposed project, impacts to Swainson's hawk and burrowing owl would be reduced to a less-than-significant level with implementation of mitigation measures. The Reduced Site Plan and Operations Alternative would require the same mitigation to reduce impacts; however, under the alternative, up to 25% of the conversion of habitat would be avoided, which is preferred over mitigation. Therefore, although the project and the alternative would generally require similar mitigation, because the alternative would avoid up to 25% of the habitat conversion, the impact is considered to be less. However, it should be noted that biological resources impacts have been identified as cumulatively considerable for the proposed project. The Reduced Site Plan and Operations alternative would not change that conclusion. [Less]

5.6.4 CULTURAL RESOURCES

Because a smaller portion of the proposed project site would be disturbed by this proposal, impacts to cultural resources under this alternative would be less than those that would result from the proposed project. Because no cultural resources have been identified within the project area, it is only those potential impacts to undocumented resources that would be affected; there would be less of a chance of encountering unrecorded sites, features, artifacts or human remains. [Less]

5.6.5 GEOLOGY/SOILS/PALEONTOLOGY

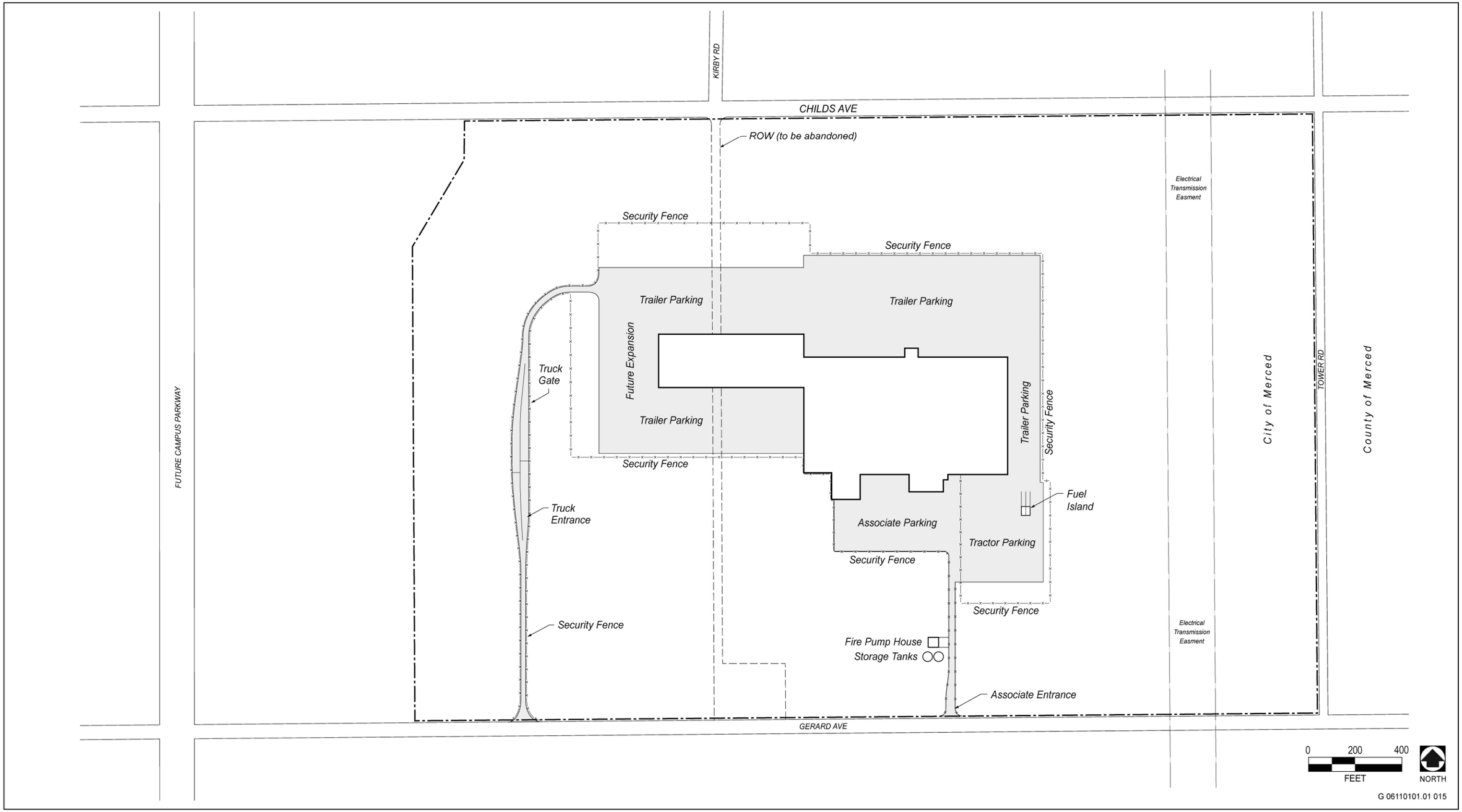
Impacts related to geology, soils and paleontological resources would be the same as those identified under the proposed project because the site would still be developed. [Similar]

5.6.6 HAZARDS AND HAZARDOUS MATERIALS

The Reduced Site Plan and Operations alternative would result in similar land uses that would occur under the proposed project; therefore, hazards and hazardous materials impacts would be the same as the project. [Similar]

5.6.7 HYDROLOGY AND WATER QUALITY

Under this alternative the types of impacts related to hydrology and water quality would be less to those that would result from implementation of the proposed project, because, while the types of uses would be the same as the proposed project, there would be a 25% reduction in size. The overall impacts would be reduced for both site development and long-term runoff and water quality impact. Therefore the hydrology and water quality impacts are anticipated to be less under this alternative. [Less]



Source:

Reduced Site Plan and Operations

Exhibit 5-3

5.6.8 LAND USE

This alternative would contain the same use as the proposed project, with a 25% reduction in size. Similar to the project, the proposed alternative would continue to conform to the existing land use designation. Although the changes in this alternative would provide some reduction in physical impacts to the environment, because the project and alternative would include an identical land use type (albeit with somewhat different intensities), the impacts related to land use would be similar. [Similar]

5.6.9 NOISE

This alternative would contain the same use as the proposed project, with a 25% reduction in size. The type of on-site stationary- and area-noise sources used during construction and operation would be the same, as well as their respective individual noise levels. The number of these sources, or the frequency at which they are operated would be less given the reduced project size. In addition, because the facility would be smaller, some of these noise sources would be set back a greater distance inside the property line and thus also from off-site sensitive receptors. Thus, the impact of on-site noise levels generated by project construction and operation would be less than or equal to that of the proposed project and therefore would also be less than significant with mitigation.

It is presumed that this alternative would also generated 25% less vehicle trips that would use the same area roads, but during the same times of day (i.e., during nighttime as well as daytime hours). Because traffic noise levels along area roads would be less than the proposed project due to reduced traffic volume, traffic noise impacts under this alternative would be less than that which would result from the proposed project. However, traffic generated by the Reduced Site Plan and Operations alternative would still result in noticeable increases in traffic noise increases (i.e., greater than 3 dBA, according to Caltrans 1998) at off-site sensitive receptors in both the years 2010 and 2030 with the project.

Noise impact related to traffic and sensitive receptors along roadways has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Reduced Site Plan and Operations alternative would not change that conclusion. [Less]

5.6.10 POPULATION AND HOUSING

Both this alternative and the proposed project would avoid any impacts associated with potential displacement of existing housing or people. However, this alternative would slightly reduce the number of jobs created and people served by the proposed project. Therefore, there may be a slight reduction in any growth that may be induced if future employees of the project were to locate to the Merced area as a result of development of the project. The differential impact in this case relative to the project is minimal. Impact conclusions would be the same. [Similar]

5.6.11 UTILITIES AND PUBLIC SERVICES

This alternative would contain the same use as the proposed project, with a 25% reduction in size. Because the changes proposed would provide some reduction in overall potential impacts, the significance of impacts on utilities and public services would be less than the proposed project.

The proposed project would have cumulatively considerable impacts on wastewater treatment and disposal. The Reduced Site Plan and Operations alternative would not likely change that conclusion. [Less]

5.6.12 TRANSPORTATION/TRAFFIC

A reduced site plan and operations alternative would result in proportionately less traffic. The number of employee trips and truck trips would be reduced by 25% as noted above. However, although the trip generation

would be reduced, the reduced site plan would not result in different transportation impact conclusions, when compared to the proposed project. Traffic signal warrants would still be met at the same unsignalized locations, as they would be satisfied regardless of the proposed project or its alternatives.

The proposed project would have cumulatively considerable impacts on a number of intersections and roadway segments. The project's cumulative impact to the roadway segment of SR 140 between Kibby Road and Santa Fe Avenue would not likely be avoided by a 25% reduction in trips, since uner the "No Project" 2030 condition the LOS for this segment of SR 140 is barely within the acceptable range, and it would take relatively little trip generation to push the LOS over the threshold. The Reduced Site Plan and Operations alternative would not be expected to change these conclusions Although the impact conclusions would not change under the alternative, there would be some reduction in trips, which would result in slightly less traffic congestion. [Less]

5.6.13 VISUAL RESOURCES

The reduced site plan alternative would reduce the size of the building footprint by 25% to 825,000 square feet. The site is in proximity to existing warehousing and electric utilities, and the area is designated for industrial development, as are other vacant adjacent parcels. The reduction in size would not change the overall aesthetic characteristics of the site and surrounding area, which would continue to appear aesthetically as primarily industrial and scattered agriculture. Furthermore, the site is at the fringe of existing development, and contains the same land use as the proposed project. Therefore, the proposed alternative would have a similar impact on the project.

The proposed project would have cumulatively considerable visual impacts. The Reduced Site Plan and Operations alternative would not change that conclusion. [Less]

5.6.14 ATTAINMENT OF PROJECT OBJECTIVES

Table 5-4 below assesses this alternative relative to the project objectives. As shown, this alternative could fulfill 15 of the 16 project objectives.

Table 5-4
Reduced Site Plan and Operations and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To develop the industrially zoned area in the City with permitted industrial uses.	This site is zoned Heavy Industrial District.	Yes
To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.	The site is adjacent to existing and planned major roadway corridors and two State highways.	Yes
To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.	It is assumed full-time, year-round employment will be provided.	Yes
To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.	Like the proposed project, this alternative would be evaluated relative to traffic impacts and mitigation measures to improve roadways would be required, as necessary.	Yes
To ensure that industrial areas are developed in an attractive manner.	All projects are subject to City review and approval.	Yes
To develop a project consistent with the City General Plan and zoning ordinance.	It is assumed this alternative would be consistent with the City's General Plan and zoning ordinance although, as with the project, there may a City General	Yes

Table 5-4
Reduced Site Plan and Operations and Project Objectives

Project Objective	Discussion	Fulfill Objective?
	Plan amendment required as a result of revised roadway designations.	
To develop a distribution/warehouse facility near other industrial uses.	Areas in the vicinity are also designated for industrial use.	Yes
To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.	This alternative would involve a distribution/warehouse facility on the same site in Merced County.	Yes
To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.	This alternative would involve a warehouse/distribution facility on a site of approximately 230 acres.	Yes
To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.	This alternative is assumed to develop with a warehouse/distribution facility. The building space dedicated to this alternative, however, would be reduced compared to the specific figure noted by the project applicant for this project objective. The extent to which this reduction in building space would affect the extent to which distribution of goods to California stores is unknown. This document assumes a 25% reduction would be inconsistent with this project objective.	No
To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.	This alternative would involve development of a warehouse/distribution facility on the same site as with the proposed project, with access to State Route (SR) 99, Highway 140, and other nearby transportation corridors.	Yes
To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.	This alternative would involve development of a warehouse/distribution facility on the same site as with the proposed project, which is adjacent to SR 99, and therefore allowing transportation to occur largely along the highway corridor and avoid residential streets.	Yes
To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.	This alternative assumes a reduction in on-site development intensity, including parking, would be developed on-site. It is assumed the reduced building space and parking area would occur in tandem. The smaller number of employees and parking demand would correspond with a smaller area dedicated to parking. Therefore, impacts to adjacent residential areas would be avoided under this alternative.	Yes
To take advantage of an existing labor pool living in the Merced area.	This alternative would involve development of a warehouse/distribution facility on the same site in Merced County.	Yes

Source: Data compiled by EDAW in 2007.

5.7 ALTERNATIVE SITE #1

The remainder of the alternatives analysis will address the potential environmental impacts of development of the Wal-Mart distribution center on other vacant sites within the City or unincorporated County. These sites were identified by City staff as having sufficient land area and zoning designations to accommodate a warehouse distribution center with approximately 1.1 million square feet of floor area and similar site development requirements to that of the proposed project. Each of the sites is in the southern portion of the City (or unincorporated County), in areas designated for, or near, industrial development and relatively close to major transportation routes. The City directed that alternative sites be identified and analyzed in terms of environmental impact, in addition to alternative versions of the proposed project on the site selected by Wal-Mart. Alternative sites are analyzed to see if development with the use currently proposed by Wal-Mart would result in different potential impacts.

Alternative Site #1 is approximately 200-250 acres in size and is located immediately south of the proposed project site. It is roughly bordered by the following streets: Gerard Avenue, Mission Avenue, the future extension of Campus Parkway, and Tower Road. This site is within the Merced city limits and is directly south of the proposed project site. For alternative sites, refer to Exhibit 5-4.

5.7.1 AGRICULTURE

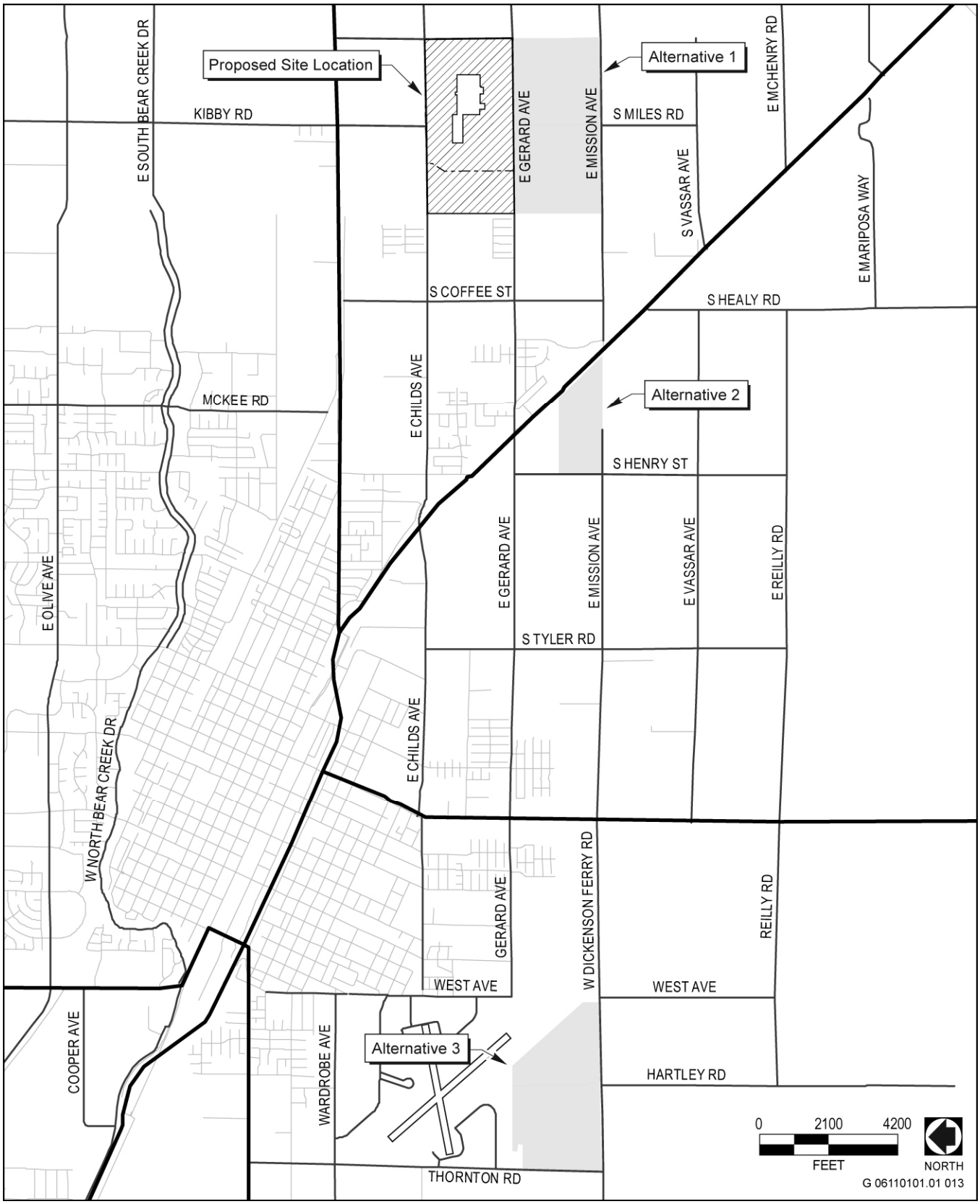
Alternative Site #1 is currently devoted to dry-farmed field crops. Development of the Wal-Mart regional distribution center on this site would eliminate the agricultural productivity of the site, similar to the proposed project.

Impact to agricultural resources (Loss of Prime Farmland) has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Alternative Site #1 alternative would not change that conclusion. [Similar]

5.7.2 AIR QUALITY

Under this alternative, construction-related emissions would be the same as the proposed project. Operation-related emissions would also be the same because the same number of vehicle trips would be generated and the same level of on-site operations would occur. Because the location of the development would not be the same, different intersections may experience increased traffic congestion and associated increases in CO concentrations than those affected by the proposed project. Impacts related to increased health risk from TAC emissions would also be comparable because of the similar proximity of this location to existing nearby sensitive receptors.

Impact to air quality, related to construction and long-term emissions have been identified as less than significant for the proposed project. The Alternative Site #1 alternative would not change that conclusion. Impacts to air quality related to construction and long-term emissions of greenhouse gases have been identified as significant and unavoidable and a cumulatively considerable contribution to global climate change. The Alternative Site #1 alternative would not change that conclusion. [Similar]



Source: CaSIL 1998, Merced County 2005

Alternative Site Locations **Exhibit 5-4**

5.7.3 BIOLOGICAL RESOURCES

Existing habitat conditions on Alternative Site #1 are similar to the dry-farmed field crop habitat in the eastern portion of the proposed site. This alternative site is not expected to support sensitive habitats, special-status plants, or special-status wildlife that are also unlikely to occur on the proposed site. The agricultural fields on this alternative site likely provide suitable foraging habitat for Swainson's hawk and nesting burrowing owls, and a larger amount of suitable habitat for these species would be lost than under the proposed project. Impacts to Swainson's hawk and burrowing owl that could result from use of Alternative Site #1 could be reduced to a less-than-significant level with mitigation. Biological resources impacts have been identified as cumulatively considerable for the proposed project. The Alternative Site #1 would not change that conclusion. [Greater]

5.7.4 CULTURAL RESOURCES

The Central California Information Center (CCIC) record search did not note the presence of any previously documented cultural resources within Alternative Site #1. Further, because of heavy crop cover at the time of the cultural resources inventory, this alternative could not be adequately surveyed. Because it cannot be determined whether or not there are undocumented significant (per CEQA) cultural resources present at Alternative Site #1, an intensive survey would need to be completed before construction activities to reduce impacts to documented sites to less-than-significant levels. [Similar]

5.7.5 GEOLOGY/SOILS/PALEONTOLOGY

Impacts related to geology and soils would be similar to those identified under the proposed project, because this site has similar seismic and soils conditions to the proposed project site. Because Alternative Site #1 is located in the same geologic formation as the proposed project site, impacts related to paleontological resources would be the same. The potential for this site to contain valuable deposits of mineral resources is expected to be similar to the proposed project site. [Similar]

5.7.6 HAZARDS AND HAZARDOUS MATERIALS

Development of the project at Alternative Site #1 would result in similar land uses that would occur under the proposed project. Land uses surrounding Alternative Site #1 are similar to those surrounding the proposed project site and include agricultural uses and a few rural residences. Therefore, hazards and hazardous materials impacts would be the same as the project. [Similar]

5.7.7 HYDROLOGY AND WATER QUALITY

Although the site would be developed immediately to the south of the proposed project under this alternative, impacts related to hydrology and water quality would be similar to those that would result from implementation of the proposed project. The size, type, and extent of development would remain the same, therefore the hydrology and water quality impacts are anticipated to be similar under this alternative. [Similar]

5.7.8 LAND USE

This alternative site contains the same land use designation as the proposed project, Industrial, and would construct a building of the same size and capability of service. Both the proposed project and this alternative would continue to conform to the existing land use designation. Neither this alternative, nor the proposed project can be characterized as dividing an existing community. This alternative, like the project, has a site located at the southeastern edge of the Merced Planning Area. This alternative site is adjacent to and east of lands designated "Regional Commercial" and "Business Park" by the Merced General Plan. The project site is south and east of lands designated for low-density residential development. Overall, the level of impact is similar. [Similar]

5.7.9 NOISE

This alternative would consist of the same size facility on a footprint of similar size, shape, and orientation, but located directly south of the proposed project site location.

Because the proximity of existing nearby sensitive receptors (e.g., the residential community to the west, the farm houses along Tower Road and Gerard Avenue, and potentially other farm houses located close to the Alternative Site #1) would be similar to the proposed project, impacts from on-site noise sources associated with construction and operation of this alternative would be similar to the proposed project. Furthermore, because this alternative would generate the same number of vehicle trips, traffic noise impacts under this alternative would be similar to those that would result from the proposed project. However, the relative degree to which varying receptors would be impacted may differ according to their respective distance to the location of Alternative Site #1 and the street segments where project generated traffic would travel.

Noise impact related to traffic and sensitive receptors along roadways has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Alternative Site #1 alternative would not change that conclusion. [Similar]

5.7.10 POPULATION AND HOUSING

This alternative would have no difference on the number of jobs created and people served by the proposed project, and both projects would avoid any impacts associated with potential displacement of existing housing or people. Therefore, the proposed alternative would have similar impacts to the City's population and housing, and potential for future availability of jobs. [Similar]

5.7.11 UTILITIES AND PUBLIC SERVICES

Under this alternative, the size and extent of development would be the same as the proposed project, and utilities and public service demands would be similar to the proposed project. This alternative site is directly adjacent and south of the proposed project site, and utility infrastructure, including water and wastewater conveyance facilities, natural gas pipelines, and electrical and telecommunications transmission lines, is located within existing utility rights-of-way adjacent to the site. Similar to the proposed project, this alternative would connect to extensions of existing off-site utility infrastructure. Under this alternative, the size and extent of development would be the same as the proposed project, and utilities and service system demands would be similar to the proposed project.

The proposed project would have cumulatively considerable impacts on wastewater treatment and disposal. The Alternative Site #1 alternative would not change that conclusion. [Similar]

5.7.12 TRANSPORTATION/TRAFFIC

Under this alternative, it assumed that both auto and truck trips would use the same routes to travel to or from the site as they would under the proposed project location. However, auto trips from SR 99 north would now be assumed to access the site vicinity through the SR 99/Mission interchange instead of the SR 99/Childs Avenue interchange. While this may result in slightly better intersection operations at the Childs/Parsons and Childs/Coffee intersections, the impact characterizations under this alternative are anticipated to be the same as for the proposed project.

The proposed project would have cumulatively considerable impacts on a number of intersections and roadway segments. The Alternative Site #1 alternative would not change that conclusion. [Similar]

5.7.13 VISUAL RESOURCES

The aesthetic impacts would be similar to those of the proposed project. The alternative site is located directly adjacent to the south of the proposed project site, and would be visible from many of the same viewpoints. Both the alternative site and the proposed site would convert an open space lot into a built environment that includes an approximately 1-million-square-foot building, and would include similar amounts of parking spaces, and lighting. Furthermore, both the alternative site and the proposed project site are zoned for industrial or manufacturing uses. Therefore, the aesthetic environment would be impacted at a similar level.

The proposed project would have cumulatively considerable visual impacts. The Alternative Site #1 alternative would not change that conclusion. [Similar]

5.7.14 ATTAINMENT OF PROJECT OBJECTIVES

Table 5-5 below assesses this alternative relative to the project objectives. As shown, this alternative would fulfill all of the 16 project objectives.

Table 5-5
Alternative Site #1 and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To develop the industrially zoned area in the City with permitted industrial uses.	This site is zoned Heavy Industrial District.	Yes
To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.	The site is adjacent to existing and planned major roadway corridors and two State highways.	Yes
To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.	It is assumed full-time, year-round employment will be provided.	Yes
To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.	Like the proposed project, this alternative would be evaluated relative to traffic impacts and mitigation measures to improve roadways would be required, as necessary.	Yes
To ensure that industrial areas are developed in an attractive manner.	All projects are subject to City review and approval.	Yes
To develop a project consistent with the City General Plan and zoning ordinance.	This alternative would be consistent with the City's General Plan and zoning ordinance. This site has the same designation as does the project site (Industrial) and the same zoning.	Yes
To develop a distribution/warehouse facility near other industrial uses.	Areas in the vicinity are also designated for industrial use.	Yes
To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.	This alternative would involve a distribution/warehouse facility in Merced County.	Yes

Table 5-5 Alternative Site #1 and Project Objectives		
Project Objective	Discussion	Fulfill Objective?
To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.	This alternative would involve a warehouse/distribution facility on a site of approximately 200-250 acres.	Yes
To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.	This alternative is assumed to develop with a warehouse/distribution facility of roughly the same amount of developed building space as proposed with the project.	Yes
To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.	This alternative would involve development of a warehouse/distribution facility with access to State Route (SR) 99, Highway 140, and other nearby transportation corridors.	Yes
To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.	This alternative would involve development of a warehouse/distribution facility adjacent to SR 99, and therefore allowing transportation to occur largely along the highway corridor and avoid residential streets.	Yes
To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.	This alternative assumes that a similarly configured warehouse or industrial facility would be developed, given the existing land use designations and other factors. It is also assumed that a similar parking configuration could be designed, given the size of the project site.	Yes
To take advantage of an existing labor pool living in the Merced area.	This alternative would involve industrial or warehouse uses in Merced County.	Yes
Source: Data compiled by EDAW in 2007.		

5.8 ALTERNATIVE SITE #2

Alternative Site #2 is located on the west side of SR 99, approximately 1 mile west/southwest of the project site. This site is northeast of the intersection of South Henry Street and East Mission Avenue, and just southwest of State SR 99. The site is roughly 250 acres in land area. This site is in unincorporated Merced County. Please refer to the discussion at the beginning of Alternative Site #1 regarding the basis for selection of alternative sites.

5.8.1 AGRICULTURE

The site is designated as Prime Agricultural land. The site is currently used for dry-farmed field crops. Development of the distribution center on this site would eliminate all of the agricultural resources from the site, similar to the proposed project.

Impact to agricultural resources (Loss of Prime Farmland) has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Alternative Site #2 alternative would not change that conclusion. [Similar]

5.8.2 AIR QUALITY

Because the same level of activity would occur, mass emissions of criteria air pollutants and precursors, GHGs, and TACs would be the same as the proposed project. However, because the location of the development would not be the same, different intersections may experience increased traffic congestion and associated increases in CO concentrations than those affected by the proposed project. The health risk associated with TAC emissions would also be similar to the proposed project because the same level of TAC emissions would occur during construction and operations and the proximity of the site to nearby sensitive receptors would be similar.

Impact to air quality, related to construction and long-term emissions has been identified as less than significant for the proposed project. Impacts to air quality related to construction and long-term emissions of greenhouse gases have been identified as significant and unavoidable and a cumulatively considerable contribution to global climate change. The Alternative Site #2 alternative would not change that conclusion. [Similar]

5.8.3 BIOLOGICAL RESOURCES

Existing habitat conditions on Alternative Site #2 are similar to the dry-farmed field crop habitat in the eastern portion of the proposed site. This alternative site is not expected to support sensitive habitats, special-status plants, or special-status wildlife that are also unlikely to occur on the proposed site. The agricultural fields on this alternative site likely provide suitable foraging habitat for Swainson's hawk and nesting burrowing owls, and a larger amount of suitable habitat for these species would be lost than under the proposed project. Impacts to Swainson's hawk and burrowing owl that could result from use of Alternative Site #2 could be reduced to a less-than-significant level with mitigation.

Biological resources impacts have been identified as cumulatively considerable for the proposed project. Alternative Site #2 would not change that conclusion. [Greater]

5.8.4 CULTURAL RESOURCES

The CCIC record search did not note the presence of any previously documented cultural resources within Alternative Site #2. However, because of heavy crop cover at the time of the EDAW cultural resources reconnaissance, this alternative could not be adequately surveyed. Although it is not likely that undocumented significant (per CEQA) cultural resources are present at the Alternative Site #2, an intensive survey must be completed before construction activities to reduce impacts to documented sites to less-than-significant levels. [Similar]

5.8.5 GEOLOGY/SOILS/PALEONTOLOGY

Alternative Site #2 is underlain by Pleistocene-age sediments of the Riverbank Formation, which is a paleontologically sensitive rock formation. Therefore, impacts related to paleontological resources would be the same as under the proposed project. Impacts related to geology and soils would be similar to those identified under the proposed project, because this site has similar seismic and soils conditions to the proposed project site. The potential for this site to contain valuable deposits of mineral resources is expected to be similar to the proposed project site. [Similar]

5.8.6 HAZARDS AND HAZARDOUS MATERIALS

Development of the project at Alternative Site #2 would result in similar land uses that would occur under the proposed project. Land uses surrounding Alternative Site #2 are similar to those surrounding the proposed project site and include agricultural and industrial uses and a few rural residences, although SR 99 and the Southern Pacific Railroad tracks are located immediately east of the site. Hazards and hazardous materials impacts would

likely be the similar to the project, although the proximity of the site to the railroad and SR 99 could necessitate some level of soil testing and possible soil removal due to long-term exposure to exhaust from diesel and leaded gasoline. [Similar]

5.8.7 HYDROLOGY AND WATER QUALITY

Development of this project alternative would result in similar land uses that would occur under the proposed project. Impacts related to hydrology and water quality under this alternative would be similar to those that would result from implementation of the proposed project. However, this alternative is located outside of the City of Merced Storm Drain Master Plan Area. Therefore a new stormwater management system design would be required, as would collaboration with the Merced Irrigation District regarding stormwater runoff discharge to their adjacent conveyances. Because it is unknown if stormwater facilities would be available to meet demands, this alternative could potentially result in greater hydrology and water quality impacts than the proposed project. [Greater]

5.8.8 LAND USE

The site is located outside Merced's city limits, in the unincorporated area of the County. The site is within the City's sphere of influence, however. The City's General Plan designates the site "Business Park." Warehousing is listed as an appropriate use in the City's General Plan for the Business Park land use designation.

Surrounding land use designations include Residential Reserve, Industrial Reserve, Commercial Reserve, and Business Park. Like the proposed project, this alternative would not divide an existing community. This site is located in an agricultural area. No residences or other sensitive uses are adjacent to this alternative site. This alternative has land use impacts that are similar to the proposed project due to the potential for residential development nearby in the Residential Reserve area. [Similar]

5.8.9 NOISE

This alternative would consist of the same size facility on a site located just west of SR 99. The proximity of future nearby sensitive receptors to this location would be similar to the proposed project location. Because freeway noise from adjacent SR 99 is the predominant noise source in the area surrounding this alternative site location, existing ambient noise levels are higher than at the proposed project site. Thus, noise generated on site by the construction and/or operation of this alternative is less likely to result in a substantial or noticeable change in ambient noise levels at nearby sensitive receptors.

With regard to traffic noise, because this alternative would generate the same number of vehicle trips, traffic noise impacts under this alternative would be similar to those that would result from the proposed project. Because this alternative would have closer access to SR 99 than the proposed project location, traffic noise increases (including single-event noise levels from nighttime truck pass-bys) could potentially impact fewer noise sensitive receptors between this alternative site and highway.

Noise impact related to traffic and sensitive receptors along roadways has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Alternative Site #2 alternative would not change that conclusion. [Similar]

5.8.10 POPULATION AND HOUSING

This alternative would have the same number of jobs created and people served by the proposed project, and both projects would avoid any impacts associated with potential displacement of existing housing or people. Therefore, the proposed alternative would have similar impacts to the City's population and housing, and potential for future availability of jobs. [Similar]

5.8.11 UTILITIES AND PUBLIC SERVICES

Under this alternative, the size and extent of development would be the same as the proposed project, and utilities and public service demands would be approximately the same as the proposed project. However, Alternative Site #2 would be located in an unincorporated area of Merced County. Fire and police protection services for this alternative would be provided by the County, and the alternative would increase demand on County fire and sheriff services. This additional demand may require additional County facilities. Water supplies would be provided by the Merced Irrigation District. Similar to the proposed project, this alternative would be required to pay its fair share of costs associated with the increased demand of fire and police services, and would include the same on-site security measures and incorporate all California Fire Code requirements as the proposed project. A water supply assessment would be required for this alternative to determine as to whether the Merced Irrigation District's projected water supplies available would meet the water demand associated with this alternative, in addition to the existing and planned future uses. Because it is unknown if water supplies would be available to meet demands, this alternative could potentially result in greater impacts on utilities than the project.

The proposed project would have cumulatively considerable impacts on wastewater treatment and disposal. The Alternative Site #2 alternative would not change that conclusion. [Greater]

5.8.12 TRANSPORTATION/TRAFFIC

Under this alternative, more truck trips from SR 99 and SR 140 would now be assumed to use the SR 99/Mission interchange to access the site. Truck trips from SR 152 would be assumed to use SR 59 and Mission Avenue.

Auto trips from Kibby Road, SR 140 East, Childs Avenue east of Tower would use Campus Parkway as a major route to the project site. Auto trips from SR 140 between Parsons Avenue and Santa Fe Avenue were assumed to use SR 99 via Parsons Avenue and Childs Avenue. The auto trips from other area were assumed to use SR 99. A few trips Childs Avenue, west of SR 99 would be expected to use Tyler Road and Mission Avenue.

As a result, it is anticipated that traffic conditions at the study intersections along Childs Avenue (at Parsons Avenue and SR 99 northbound and southbound ramps) would worsen when compared to the proposed project's location.

However, an increase in traffic volumes from the project trips would not be trigger any new impacts at these intersections, and thus no significant impacts at any of the study intersections and roadway segments would be anticipated.

The proposed project would have cumulatively considerable impacts on a number of intersections. Development of Alternative Site #2 would shift traffic impacts somewhat, but would still result in cumulatively considerable impacts. [Greater]

5.8.13 VISUAL RESOURCES

The aesthetic impacts would be similar to those of the proposed project. The alternative site is located directly adjacent to the south of the proposed project site, and would be visible from many of the same viewpoints. Both the alternative site and the proposed site would convert an open space lot into a built environment that includes an approximately 1-million-square-foot building, and would include similar amounts of parking spaces, and lighting. Furthermore, both the alternative site and the proposed project site are zoned for industrial or manufacturing uses. Therefore, the aesthetic environment would be impacted at a similar level.

The proposed project would have cumulatively considerable visual impacts. The Alternative Site #2 alternative would not change that conclusion. [Similar]

5.8.14 ATTAINMENT OF PROJECT OBJECTIVES

Table 5-6 below assesses this alternative relative to the project objectives. As shown, this alternative would fulfill 12 of the 16 project objectives.

Table 5-6
Alternative Site #2 and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To develop the industrially zoned area in the City with permitted industrial uses.	Because the site is in the unincorporated County, it does not have City zoning designations.	No
To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.	The site is adjacent to existing and planned major roadway corridors and two State highways. The site's GP designations do not allow meaningful buffering. For example, the Business Park designation abut Residential Reserve.	No
To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.	It is assumed full-time, year-round employment will be provided.	Yes
To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.	Like the proposed project, this alternative would be evaluated relative to traffic impacts and mitigation measures to improve roadways would be required, as necessary.	Yes
To ensure that industrial areas are developed in an attractive manner.	Presumably, County requirements would address the attractiveness of the development.	Yes
To develop a project consistent with the City General Plan and zoning ordinance.	This site is in unincorporated Merced County. It is located on land designated for Business Park. Warehousing is listed as an appropriate use in the City's General Plan for the Business Park land use designation.	No
To develop a distribution/warehouse facility near other industrial uses.	Areas in the vicinity are also designated Residential Reserve and Community Commercial.	No
To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.	This alternative would involve a distribution/warehouse facility in Merced County.	Yes
To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.	This alternative would involve a warehouse/distribution facility on a site of approximately 250 acres.	Yes
To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.	This alternative is assumed to develop with a warehouse/distribution facility of roughly the same amount of developed building space as proposed with the project.	Yes
To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.	This alternative would involve development of a warehouse/distribution facility with access to State Route (SR) 99, Highway 140, and other nearby transportation corridors.	Yes

Table 5-6 Alternative Site #2 and Project Objectives		
Project Objective	Discussion	Fulfill Objective?
To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.	This alternative would involve development of a warehouse/distribution facility adjacent to SR 99, and therefore allowing transportation to occur largely along the highway corridor and avoid residential streets.	Yes
To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.	This alternative assumes that a similarly configured warehouse or industrial facility would be developed, given the existing land use designations and other factors. It is also assumed that a similar parking configuration could be designed, given the size of the project site.	Yes
To take advantage of an existing labor pool living in the Merced area.	This alternative would involve industrial or warehouse uses in Merced County.	Yes
Source: Data compiled by EDAW in 2007.		

5.9 ALTERNATIVE SITE #3

Alternative Site #3 is located between Dickenson Ferry Road, Thornton Road, and immediately south of Merced Municipal Airport. The site is roughly 250 acres in land area. This site is in unincorporated Merced County. Please refer to the discussion at the beginning of Alternative Site #1 regarding the basis for selection of alternative sites.

5.9.1 AGRICULTURE

This site is used for crop production. Development of a distribution center would result in the conversion of agricultural land to urban use. Therefore, impacts would be similar to the project.

Impact to agricultural resources (Loss of Prime Farmland) has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Alternative Site #3 alternative would not change that conclusion. [Similar]

5.9.2 AIR QUALITY

This alternative would consist of the same size facility on a differently-shaped footprint west of SR 99.

Because the same level of activity would occur, mass emissions of criteria air pollutants and precursors, GHGs, and TACs would be the same as the proposed project. However, because the location of the development would not be the same, different intersections may experience increased traffic congestion and associated increases in CO concentrations than those affected by the proposed project. The health risk associated with TAC emissions would also be similar to the proposed project because the same level of TAC emissions would occur during construction and operations and the proximity of the site to nearby sensitive receptors would be similar.

Impact to air quality, related to construction and long-term emissions has been identified as less than significant for the proposed project. Impacts to air quality related to construction and long-term emissions of greenhouse gases have been identified as significant and unavoidable and a cumulatively considerable contribution to global climate change. The Alternative Site #3 alternative would not change that conclusion. [Similar]

5.9.3 BIOLOGICAL RESOURCES

Existing habitat conditions at alternative site #3 are similar to the dry-farmed field crop habitat in the eastern portion of the preferred site. This alternative site is not expected to support special-status wildlife that are also unlikely to occur on the proposed site, but, based on initial site reconnaissance, it may support wetland features that qualify for protection under state and/or federal regulations and provide suitable habitat for special-status plants. Therefore, use of this site could result in significant impact on resources that would not be affected by the proposed project. The agricultural fields on this alternative site likely provide suitable foraging habitat for Swainson's hawk and nesting burrowing owls, and a larger amount of suitable habitat for these species would be lost than under the proposed project. Impacts on wetlands, special-status plants, Swainson's hawk, and burrowing owl that could result from use of Alternative Site #3 could be reduced to a less-than-significant level with mitigation.

Biological resources impacts have been identified as cumulatively considerable for the proposed project. Alternative Site #2 would not change that conclusion. [Greater]

5.9.4 CULTURAL RESOURCES

The CCIC record search did not note the presence of any previously documented cultural resources within Alternative Site #3. A field reconnaissance did identify two residential complexes that appear to be in excess of 50 years in age. These complexes (two houses and associated outbuildings) must be assessed as to their potential significance before project-related removal or alteration. In addition, because of the presence of heavy crop cover at the time of the cultural resources reconnaissance, this alternative could not be adequately surveyed. An intensive survey and documentation and evaluation of the noted residential complexes must be completed before construction activities to reduce impacts to documented sites to less-than-significant levels. [Greater]

5.9.5 GEOLOGY/SOILS/PALEONTOLOGY

Alternative Site #3 is underlain by Pleistocene-age sediments of the Riverbank Formation, which is a paleontologically sensitive rock formation. Therefore, impacts related to paleontological resources would be the same as under the proposed project. Impacts related to geology and soils would be similar to those identified under the proposed project, because this site has similar seismic and soils conditions to the proposed project site. The potential for this site to contain valuable deposits of mineral resources is expected to be similar to that of the proposed project site. [Similar]

5.9.6 HAZARDS AND HAZARDOUS MATERIALS

Development of the project at Alternative Site #3 would result in similar land uses that would occur under the proposed project. However, Alternative Site #3 would be immediately south of Merced Municipal Airport. As such, this alternative could result in safety hazards related to airport operations. Therefore, this alternative would result in greater public health and hazards impacts compared to the project. [Greater]

5.9.7 HYDROLOGY AND WATER QUALITY

Development of this project alternative would result in similar land uses that would occur under the proposed project. Impacts related to hydrology and water quality under this alternative would be similar to those that would result from implementation of the proposed project. However, this alternative is located outside of the City of Merced Storm Drain Master Plan Area. Therefore a new stormwater management system design would be required, as would collaboration with the Merced Irrigation District regarding stormwater runoff discharge to their adjacent conveyances. Because it is unknown if stormwater facilities would be available to meet demands, this

alternative could potentially result in greater hydrology and water quality impacts than the proposed project. [Greater]

5.9.8 LAND USE

This alternative site is designated for industrial use. Development of the proposed project on this site would continue to conform to the existing land use designation; therefore, the impact on land use would be similar to the project. This alternative site is located south of the airport in an area of open land and agricultural uses. There is no neighborhood or any other land uses that would be considered a community, and therefore implementation of this alternative would not divide an existing community. Surrounding land use designations include Agricultural, Public Use (the airport), and Industrial. This site is also at the very edge of the Merced Planning Area. Overall, the land use impacts of this alternative would be less than anticipated for the project due to the lack of nearby residential communities. [Less]

5.9.9 NOISE

This alternative would consist of the same size facility on a differently-shaped footprint west of SR 99. Because the proximity of existing nearby sensitive receptors would be similar to the proposed project, impacts from on-site noise sources associated with construction and operation of this alternative would be similar to the proposed project. With regard to traffic noise, because this alternative would generate the same number of vehicle trips, traffic noise generated under this alternative would be similar to those that generated by the proposed project. However, because this alternative is located farther from SR 99 than the proposed project location, traffic noise increases could potentially impact more noise sensitive receptors along local roadways between the project site and highway.

Noise impact related to traffic and sensitive receptors along roadways has been identified as significant and unavoidable and cumulatively considerable for the proposed project. The Alternative Site #3 alternative would not change that conclusion. [Greater]

5.9.10 POPULATION AND HOUSING

This alternative would have the same number of jobs created and people served by the proposed project, and both projects would avoid any impacts associated with potential displacement of existing housing or people. Therefore, the proposed alternative would have similar impacts to the City's population and housing, and potential for future availability of jobs. [Similar]

5.9.11 UTILITIES AND PUBLIC SERVICES

Under this alternative, the size and extent of development would be the same as the proposed project, and utilities and public service demands would be approximately the same as the proposed project. However, Alternative Site #3 would be located in an unincorporated area of Merced County. Fire and police protection services for this alternative would be provided by the County, and water supplies would be provided by the Merced Irrigation District. Similar to the proposed project, this alternative would be required to pay its fair share of costs associated with the increased demand of fire and police services, and would include the same on-site security measures and incorporate all California Fire Code requirements as the proposed project. A water supply assessment would be required for this alternative to determine as to whether the Merced Irrigation District's projected water supplies available would meet the water demand associated with this alternative, in addition to the existing and planned future uses. Because it is unknown if water supplies would be available to meet demands, this alternative could potentially result in greater impacts on utilities than the project.

The proposed project would have cumulatively considerable impacts on wastewater treatment and disposal. The Alternative Site #3 alternative would not change that conclusion. [Greater]

5.9.12 TRANSPORTATION/TRAFFIC

Most truck trips would access the project site via the SR 99/Mission interchange. Truck trips from SR 140 West and SR 152 would be assumed to use Thornton Road and SR 59 respectively. It was assumed that auto trips from the area north of the project site would access the project site via SR 140 West, Thornton Road, Childs Avenue and SR 59.

The study intersections analyzed under the proposed project condition would not be significantly impacted by the project trips for this alternative, and many would experience less traffic as the alternative site is much further west. However, an increase in traffic volumes from the project would be expected along a different set of travel routes. Because the analysis of the proposed project did not extend this far west, the potential transportation impacts of this alternative site would need to be investigated at several additional intersections and roadway segments not previously analyzed, listed below:

Intersections

- V Street/16th Street
- Dickenson Ferry/Thornton
- Thornton/SR 140
- Dickenson Ferry-Mission/SR 59
- Childs/SR 59

Roadway Segments

- Thornton Rd between SR 140 and Dickenson Ferry Road
- SR 59 between Mission Avenue and Childs Avenue
- Childs Avenue between SR 59 and SR 99
- Mission Avenue between Thornton Road and SR 99

While a quantitative analysis has not been performed, given the distance of this alternative site to major transportation routes, it is likely that a traffic impact greater than the proposed project would occur if this site were developed with the distribution center.

The proposed project would have cumulatively considerable impacts on a number of intersections and roadway segment. The Alternative Site #3 alternative would not change that conclusion. [Greater]

5.9.13 VISUAL RESOURCES

The aesthetic impacts would be similar to those of the proposed project. The alternative site is located at the fringe of the City's urban footprint in proximity to an existing municipal airport. Both the alternative site and the proposed site would convert an open space lot into a built environment that includes an approximately 1-million-square-foot building, and similar amounts of parking spaces, and lighting. Furthermore, the location of both site's are away from the City's core development area, and in proximity to other compatible more industrial/manufacturing types of uses. Therefore, the aesthetic environment would be impacted to a similar degree.

The proposed project would have cumulatively considerable visual impacts. The Alternative Site #3 alternative would not change that conclusion. [Similar]

5.9.14 ATTAINMENT OF PROJECT OBJECTIVES

Table 5-7 below assesses this alternative relative to the project objectives. As shown, this alternative would fulfill 13 of the 16 project objectives.

Table 5-7
Alternative Site #3 and Project Objectives

Project Objective	Discussion	Fulfill Objective?
To develop the industrially zoned area in the City with permitted industrial uses.	Because the site is in the unincorporated County, it does not have City zoning designations.	No
To locate industrial projects in areas with good access to major highway transportation links, and provide opportunities for buffers between industrial and nonindustrial uses.	The site is not adjacent to highways, but is along major roadway corridors leading to the highways. The site is surrounded by industrial land and the airport.	Yes
To encourage development of industrial projects that will create jobs, including full-time, nonseasonal employment opportunities for local residents.	It is assumed full-time, year-round employment will be provided.	Yes
To encourage development of projects that will contribute toward improving roadways adjacent to the proposed development site.	Like the proposed project, this alternative would be evaluated relative to traffic impacts and mitigation measures to improve roadways would be required, as necessary.	Yes
To ensure that industrial areas are developed in an attractive manner.	Presumably, County requirements would address the attractiveness of the development.	Yes
To develop a project consistent with the City General Plan and zoning ordinance.	As with the proposed project, the City General Plan land use designation for this alternative site is Industrial. Warehousing uses are listed as being compatible with this designation. This site is in unincorporated Merced County and has no City zoning. In this sense, development of this project site would not be consistent with the current zoning ordinance.	No
To develop a distribution/warehouse facility near other industrial uses.	Areas in the vicinity are also designated for industrial use. The site is also adjacent to an airstrip.	Yes
To construct and operate a distribution/warehouse facility in Merced County to take advantage of the strategic location between large urban centers and smaller urban and rural markets throughout the Central Valley in California.	This alternative would involve a distribution/warehouse facility in Merced County.	Yes
To construct a distribution/warehouse facility on a site sufficiently large (a minimum of 230 acres) to allow necessary building space and parking for trucks and employees.	This alternative would involve a warehouse/distribution facility on a site of approximately 250 acres.	Yes
To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.	This alternative is assumed to develop with a warehouse/distribution facility of roughly the same amount of developed building space as proposed with the project.	Yes
To locate a distribution/warehouse facility with access to a regional roadway network including interstate, state, and regional roads.	This alternative would involve development of a warehouse/distribution facility with access to State Route (SR) 99 and other nearby transportation corridors.	Yes

Table 5-7 Alternative Site #3 and Project Objectives		
Project Objective	Discussion	Fulfill Objective?
To locate a distribution/warehouse facility in an area well served by major local thoroughfares to minimize truck traffic traveling through residential neighborhoods.	This site is further from SR 99. Areas along Mission Avenue between this site and SR 99 are designated Residential Reserve. Areas between this site and SR 99 along Thornton Road are also designated Residential Reserve.	No
To provide sufficient parking for trucks and employees in order to minimize impacts to the surrounding area.	This alternative assumes that a similarly configured warehouse or industrial facility would be developed, given the existing land use designations and other factors. It is also assumed that a similar parking configuration could be designed, given the size of the project site.	Yes
To take advantage of an existing labor pool living in the Merced area.	This alternative would involve industrial or warehouse uses in Merced County.	Yes
Source: Data compiled by EDAW in 2007.		

5.10 SUMMARY OF COMPARATIVE EFFECTS OF THE PROJECT ALTERNATIVES

Table 5-8 summarizes the environmental analysis provided above for each of the six alternatives to the proposed project, including the No Project alternative. In each instance the alternative is compared with potential impacts of the proposed project in terms of whether the potential impact is expected to be greater, less, or similar to the proposed project.

Table 5-8 Comparison of Environmental Impacts of Alternatives in Relation to the Proposed Project						
Issue Area	No Project Alternative	Redesigned Site Plan	Reduced Plan/ Operations	Alternative Site #1	Alternative Site #2	Alternative Site #3
Agriculture	Similar	Similar	Less	Similar	Similar	Similar
Air Quality/Greenhouse Gases	Similar/Greater	Less/Similar	Less/Less	Similar/Similar	Similar/Similar	Similar/Similar
Biological Resources	Similar	Similar	Less	Greater	Greater	Greater
Cultural Resources	Similar	Similar	Less	Similar	Similar	Greater
Geology/Soils/Paleontology	Similar	Similar	Similar	Similar	Similar	Similar
Hazards and Hazardous Materials	Similar	Similar	Similar	Similar	Similar	Greater
Hydrology and Water Quality	Similar	Similar	Less	Similar	Greater	Greater
Land Use	Similar	Less	Similar	Similar	Similar	Less
Noise	Similar	Less	Less	Similar	Similar	Greater
Population and Housing	Similar	Similar	Similar	Similar	Similar	Similar
Utilities and Public Services	Similar	Similar	Less	Similar	Greater	Greater
Transportation/Traffic	Similar	Similar	Less	Similar	Greater	Greater
Visual Resources	Similar	Similar	Less	Similar	Similar	Similar
Source: Data compiled by EDAW in 2007.						

5.11 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the alternatives to the proposed project, CEQA requires that an "environmentally superior" alternative among the alternatives considered be selected and the reasons for such selection disclosed. In general, the environmentally superior alternative is the alternative that would generate the fewest or least severe adverse impacts.

Based on the preceding comparative analysis, and as summarized in Table 5-8, the Reduced Site Plan and Operations alternative has been identified as having fewer potential environmental effects than the proposed project and the other alternatives that were analyzed in the EIR. The Reduced Site Plan and Operations alternative would be expected to have fewer impacts on the following resources:

- agricultural resources,
- air quality,
- biological resources (special-status species),
- cultural resources,
- hydrology and water quality,
- noise,
- utilities and public services,
- transportation and traffic, and
- visual resources.

In addition to being the environmentally superior alternative, the Reduced Site Plan and Operations alternative would meet all of the project objectives identified by the City and project proponent, except the following:

> To construct a distribution/warehouse facility with sufficient space (approximately 1.2 million square feet) to allow operational efficiency and adequate distribution of goods to stores in a broad geographic area in California.

While the Reduced Site Plan and Operations alternative would meet the objectives related to siting the project (i.e., locating the facility in an industrially zoned area with access to major local and regional roadways), with 825,000 square feet of floor area it would not meet the size component of the objective which has identified by the project proponent.

The Redesigned Site Plan Alternative shares many of the same environmental impacts with the proposed project, with reductions to a few of the project impacts, and the alternative meets all of the project objectives.