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Subject **Technical Memorandum - Imperial County Transportation Commission (ICTC) Administration Building and Bus Maintenance/Operations Test Fit - Site Plan**

Project Name ICTC New Bus Maintenance/Operations Facility and Administration Building at 450 West Aten Road, Imperial, CA 92251

Attention David Aguirre, ICTC Project Manager

From Fu Sun, PE, Jacobs
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Date May 4, 2022,

1. Introduction and Summary of The Task

This Memorandum summaries discussions and studies performed by Jacobs Engineering to assist ICTC in locating an acceptable, long-term location for fleet operations and maintenance, and all administrative functions by developing a test fit at a potential site.

Prior to this test fit, a preliminary review of the former Caltrans maintenance facility at Adams Avenue was considered. The location was found to be unacceptable due to limited space, substantial costs to renovate existing buildings, and other site deficiencies.

ICTC has recently identified a group of three parcels adjacent to, and operated by, the Imperial County Airport Authority. See **Attachment 1** Airport Parcel Map. The site is at 450 West Aten Road in Imperial, CA, and will be referred to as the West Aten site in this document. The parcels have been numbered Parcel 1 for the largest, primary site; Parcel 2 for the site immediately to the north and contiguous with Parcel 1; and Parcel 3 to the east of Parcel 1 and separated by the private road, Access Way.

In February of 2022, Jacobs, in continuing discussions with ICTC, developed an updated a Space Program in **Attachment 2** for all operations, maintenance, and administrative functions. The Space Program is a quantified summary of all sites and building square footage needs based on input from Imperial Valley Transit (IVT) and ICTC and updated from a previous program to include bus maintenance, fueling, bus wash, administration and operational space, site access, yard storage and parking for buses, staff, and visitors.

The objective of this task is to test fit current ICTC Space Program requirements at the West Aten location in a conceptual site plan for a new bus maintenance, operations, and ICTC administration facility, using the fleet size, operations and maintenance requirements, and administration spaces.

The result of this test fit investigation is that the West Aten Parcels can accommodate the Space Program, specified fleet and administrative expansion goals. It is therefore feasible to continue further investigation of the site. Certain qualifications and recommendations are described in this Memorandum. See **Attachment 3** for the test fit layout plan.

Work activities associated with this task include:

- Updating the Space Program needs, fleet size, staffing, and functions for new bus base and ICTC administration building previously developed in January 2019
- Development of a site-specific West Aten Road overall site plan reflecting the updated program
- Investigation of the West Aten site to accommodate the full functionality of ICTC current and future expansion for fleet maintenance, operational and administrative functions
- Consideration of the most efficient integration of Parcels 2 and 3 into the overall site development strategy
- Consideration of future expansion that might include elements such as expanded fleet, Battery Electric Buses (BEB), or hydrogen fuel cell power systems
- Preparation of order of magnitude, Class 5 estimate of probable construction cost in today's dollars
- Development of a draft timeline for construction of the facility

Work activities which are not included with this Memo are:

- Detailed space layouts for Administration areas
- Structural and Seismic investigations of the existing building
- Detailed electrical and mechanical review and design for the existing building
- Environmental reviews of all parcels
- Traffic studies
- Solar power and alternative energy investigations

2. Existing Zoning

The Aten Road site is within the City of Imperial. Per the Zoning Map shown in **Attachment 4**, the Imperial County Airport is characterized as I-1 or General Industrial land use. This project assumes that the existing land use zoning will remain the same.

3. Summary of the Administration Building, Service Provider's Office and Revenue Center

The project site is owned by the County and has three leasable property sites. Parcel 1, the largest parcel has an existing leased building at the address of 450 West Aten Rd. Parcel 2, on the north side of Parcel 1 is contiguous along its 220-foot long south boundary. Parcel 3 is on the east side of Access Way with a 188-foot frontage on West Aten Road. The main site, Parcel 1, has an existing metal building that will be reused. All three sites appear to be outside the adjacent Airports Runway Protection Zone (RPZ)

The southern part of Parcel 1, along the West Aten Road. frontage, is currently occupied by a single-story metal building of 65,250 square feet. It is leased to a recreational activity company which occupies most, if not all of, the entire space. The current use of the building suggests that all utilities are operational and that mechanical and electrical systems are being maintained.

Utility upgrades and extensions will be required for development of all three parcels for the proposed vehicle fleet maintenance and parking operations.

Vehicle fleet, staff, and office space requirements have been updated with recent ICTC input. See the Space Program at the end of the memorandum, **Attachment 2**.

In the existing building, non-structural demolition will be required. New partitions, ceilings, and electrical, mechanical and telecom systems will be required.

The key points of the West Aten Rd Test Fit are:

- The ICTC/SCAG administration operations and the service provider IVT office operations, and support staff will be located in the existing building after renovation. Support spaces for each agency such as staff offices, conference rooms, breakrooms, copy/mail rooms, and related support spaces are included in the program.
- Technical spaces such as IT/telecom and utility rooms are programmed and will be separate for ICTC/SCAG and IVT. Mechanical and electrical spaces will be metered separately.
- Staff administration and staff support areas for the service provider, IVT, will be located within the existing building.
- The ICTC, and SCAG requirements result in building program of approximately 10,300 square feet.
- The service provider IVT office area requirement is approximately 9,800 square feet.

The existing building is 65,250 square feet which is more than the required space for ICTC/SCAG and IVT and obviously allows space for expansion of staff offices or other uses. Use of the remaining building space is not included in this scope of this study.

4. Expansion

This program test fit for the West Aten Road site has determined that all operations can be located on the site, including recent updates and future expansion plans. This meets the ICTC requirement to identify a single location for long-term investment. It is important to understand that all three parcels must be acquired in this strategy.

- The program is based on a design fleet of 80 vehicles, an increase of 18 from the existing fleet of 62 vehicles. Additional 13 other vehicles are included as well.
- When computing number of bays in the maintenance building, all numbers are rounded up. Also, an “all purpose” bay is included to provide fleet expansion.
- Electric bus expansion is considered. The additional site, Parcel 2 on the north side of the fleet maintenance area, will allow ICTC to phase in alternate fuel vehicles with the expanded 80 vehicle fleet by providing space for Battery Electric Bus recharging or hydrogen fuel equipment systems, if and when those systems are integrated into fleet operations.
- Additional administrative expansion space is also included, as indicated in Section 2 above,
- Total projected staff parking of 131 spaces is included within the existing layout of Parcel 1. The addition of Parcel 3 will increase public parking to approximately 140 to 150 spaces.

5. Summary of Updated Program and Test Fit

The updated Space Program (see **Attachment 4**) requires a total program area of 9.51 acres on a single parcel. Parcel A nearly meets this requirement, with 9.0 acres.

The two additional parcels of 1.8 acres and 1.5 acres can provide expansion of bus operations on the north, Parcel 2, and expansion of public overflow parking on the east side, Parcel 3

Transit vehicle circulation is considered adequate for the full expansion program, with flexibility for refinement of circulation.

Fleet parking layout is rational and efficient while still allowing flexibility for continuing study to suite specialized ICTC operational preferences.

Future studies may be undertaken to further optimize the current gas and diesel fuel operations with alternative fuel stations in Parcel 2 with an integrated central or co-located refueling circulation plan.

Additional circulation area is added to account for approaches, weaving, and run outs associated with the fuel and wash functions.

The West Aten site has apparently under-developed existing landscape which should be preserved and improved along the street frontages, with introduction of additional landscape planting in perimeter areas. The boundary between secure and public areas can also be studied for additional landscape planting.

6. Site Plan Features

The West Aten Test Fit site plan (**see Attachment 3**) described above, incorporates the requirements of the updated Space Program The following are notable features related to the site plan.

- The proposed site layout provides convenient access for all facility staff and for the public. Adequate existing staff and public parking is located along the east and north sides of the existing building. The Future Overflow Public Parking at Parcel 3 will be easily accessible with a new crosswalk.
- The size of the existing building also allows generous public circulation areas serving the ICTC/SCAG and the Bus Administration/Operations offices and includes adequate expansion opportunities.
- The Parcel 1 areas north of the existing building and public parking lot are considered the secured area and would be enclosed by a fence, secure staff entrances, and automatic vehicle gates.
- The “Main Gate” for fleet vehicles on Access Way allows revenue vehicles arrival with direct access to the fare vault, fueling, and vehicle wash, or directly to parking, depending upon vehicle servicing strategies initially, and in the future.
- The fare vault shown is intended to provide for fare removal immediately upon entering the site. An alternative would be fare removal while the vehicle is being fueled and would be closer to operations offices.
- The maintenance building is located to provide for back-to-back bays for cutoffs and pull through for larger vehicles. The maintenance bays are accessed on the east and west sides and provide clockwise circulation around the building for fuel and wash servicing. With doors on the east and west sides there will be good natural ventilation when overhead doors are open.
- Single loaded parking is provided for the 40-foot buses which provides easy and immediate pull in and pull out. Single loaded pull in and back-out spaces have been provided for Med Trans and IVT Access vehicles
- There is a second gate for emergency access further north of the bus yard “Main Gate” which also allows another exit gate or emergency gate. This gate could also be studied as an optional “Main Gate” for fleet vehicle entry which would result in a revised secure operations area and a counterclockwise vehicle flow.

- A third gate, driveway, and loading dock exists on the west side of the site with a connection to West Aten Road. This driveway and loading dock may be useful for a sub-lease tenant in the surplus building area. If the loading dock is not required, additional tenant parking can be created on the west side of the building.
- The site currently has a parking area entry driveway on the southeast corner. It is recommended that this driveway, opening directly onto West Aten Road, be closed. Public traffic entering and exiting the site in close proximity to the Access Way intersection may cause dangerous traffic issues. This closure should be discussed with the City Traffic department during design of the facility.
- There is a storm water detention/retention swale located in a narrow strip along the west property line. Location of storm water detention would ideally be located in the northern expansion Parcel 2 area but further drainage studies are needed to find the best location during design and concept development. The actual location will depend on further topographic and hydrology studies of the site.

7. Additional Program Requirements

The following requirements are outside the scope of this test fit site plan task. However, they are being noted here so that they can be included in a design program at the appropriate time.

- Accessible drop off areas and parking spaces near the entrance of the ICTC/SCAG building.
- Xeriscape landscaping in front the existing building should be kept in place and improved.
- The ICTC offices need to be secured so that unauthorized persons cannot enter the secured spaces beyond the lobby.
- Site security, including lighting and cameras, should be incorporated.
- Currently there is limited covered parking at the existing facility. The new site plan should include covered fleet parking with photovoltaic panels on the roofs. The existing building roof may also be considered for solar power installations.
- Fuel tanks should be above grade and well protected.
- The site will require an emergency generator. The exact location has not been determined. In addition, space should be allocated in expansion areas of Parcel 2 for future electrical switch gear and charging equipment for battery electric buses or hydrogen storage tanks and systems for a future zero carbon fleet.

8. Order of Magnitude Cost Estimate

Order of magnitude cost estimate is summarized in **Attachment 5**. Assumptions are included in the notes at the bottom of the estimate. Depending on the available fundings for the project, an evaluation of phased improvements, optional improvements or future expansions is recommended to meet the near-term and long-term goals.

9. Construction Schedule

- See attached preliminary schedule in Attachment 6
- Concept Design 3 months for a 5-10% site and building program
- Final Design – approximately 18 months
- Approval and Bid 3 months

- Construction 1 year 4 months to substantial completion – could be broken into early phases for office areas that might be done earlier.

10. Conclusions and Recommendations

The following are conclusions and recommendations based on the updated program and site plan development:

- Prior to entering into formal negotiations with the Airport or County, ICTC should request investigation of the site for any environmental issues such as airport protection zones, undocumented hazardous materials, or restrictions for protected species.
- An assessment of existing utilities serving the site should be done to quantify the impact and approximate cost of services required by the proposed facility, including initial and future expansion.
- If future hydrogen fuel operations are to be included, a review of any regulatory issues about the fuel source in close proximity to an active airport operation should be performed.
- This test fit study should be advanced to a Concept Design level, a preliminary design from 5 to 10%.
- Long term feasibility of the site for ICTC operations requires that all three properties be acquired.
- Initial occupancy of the facility requires only 50% of the existing building area. Consideration should be given to temporary storage uses or subsidizing operating costs by sub-leasing the unused area of the building.
- An approach of phased improvements based on available fundings is recommended for near-term or long-term expansions.

List of attachments:

Attachment 1: Airport Parcel Map

Attachment 2: Space Program

Attachment 3: West Aten Road Test Fit Site Plan

Attachment 4: Airport Zoning Map

Attachment 5: Opinion of Probable Cost

Attachment 6: Proposed Schedule

Attachment 1 Overall Map



1" = 376 ft	Sub Title	02/08/2022		
This map may represents a visual display of related geographic information. Data provided here on is not guarantee of acutual field conditions. To be sure of complete accuracy, please contact the responsible staff for most up to date information.				

Attachment 2

**ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REVISED SPACE PROGRAM FOR GENERIC SITE LAYOUT
SUMMARY OF SPACE REQUIREMENTS BY FUNCTIONAL AREA**

FUNCTION	%	AREA	
		SQ. FT	ACRES
SITE REQUIREMENTS		57,300	1.32
FLEET PARKING		86,000	1.97
EMPLOYEE PARKING		45,000	1.03
PUBLIC PARKING		13,000	0.30
REVENUE CENTER		900	0.02
ICTC/SCAG FACILITY		10,300	0.24
ADMINISTRATION/OPERATIONS BUILDING		8,800	0.20
MAINTENANCE BUILDING		18,100	0.42
FUEL AREA		7,100	0.16
WASH (AUTOMATED WASHER)		4,600	0.11
SUBTOTAL		251,100	5.76
GENERAL CIRCULATION, SETBACKS, SITE ACCESS, AND EASEMENTS (1)	50%	109,000	2.50
SUBTOTAL		360,100	8.27
LANDSCAPING PER CITY REQUIREMENTS	15%	54,000	1.24
TOTAL PROGRAMMED REQUIREMENTS		414,100	9.51
ICTC UNPROGRAMMED FUTURE EXPANSION		87,000	2.00
TOTAL SITE REQUIREMENTS		501,100	11.50
RANGE OF SITE SIZES		10 TO 12 ACRES	

(1) Factor not applied to storm water detention area

Note: Site areas greater than 5,000 sf rounded to nearest 1,000 sf; site areas less than 5,000 sf and buildings to nearest 100 sf.

ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REVISED SPACE PROGRAM FOR GENERIC SITE LAYOUT
SUMMARY OF SPACE REQUIREMENT DETAILS BY FUNCTIONAL AREA

FUNCTION	%	AREA	
		SQ. FT	ACRES
SITE FEATURES			
Hardscape Patio		1,300	0.03
Storm Water Detention		33,000	0.76
Approach, Weave, and Run Out Areas (Fuel and Wash)		23,000	0.53
Subtotal		57,300	1.32
PARKING			
Fleet Vehicle Parking		86,000	1.97
Employee Parking		45,000	1.03
Public, Handicapped, and Other Parking		13,000	0.30
Subtotal		144,000	3.31
ICTC FACILITY			
Reception Area		800	0.02
Offices (See Below for SCAG)		3,800	0.09
Conference Rooms		2,800	0.06
Employee Facilities		800	0.02
Common Areas		800	0.02
Technical Support Spaces		400	0.01
Subtotal		9,400	0.22
SCAG FACILITY			
Dedicated Spaces		900	0.02
Subtotal		900	0.02
SERVICE PROVIDER ADMIN/OPS			
Administration		1,700	0.04
Road Supervisions (All Modes)		600	0.01
Dispatching (All Modes)		900	0.02
Admin Common Areas		2,000	0.05
Driver Facilities (All Modes)		3,300	0.08
Support Spaces		300	0.01
Subtotal		8,800	0.20
REVENUE CENTER			
Revenue Center Building		900	0.02
Subtotal		900	0.02
MAINTENANCE BUILDING			
Office Areas		700	0.02
Employee Facilities		600	0.01
Repair/Inspection Bays		11,400	0.26
Repair Shops		1,800	0.04
Shop Floor Storage Areas		1,700	0.04
Parts Storage		900	0.02
Support Areas		1,000	0.02
Subtotal		18,100	0.42
FUEL AREA			
Fuel Building Offices		700	0.02
Fuel Lanes		6,400	0.15
Subtotal		7,100	0.16
WASH AREA			
Bays and Equipment Rooms		4,600	0.11
Subtotal		4,600	0.11
SUBTOTAL		251,100	5.53
GENERAL CIRCULATION, SETBACKS, SITE ACCESS, AND EASEMENTS (1)	50%	109,000	2.50
SUBTOTAL		360,100	8.27
LANDSCAPING PER CITY REQUIREMENTS	15%	54,000	1.24
TOTAL PROGRAMMED REQUIREMENTS		414,100	9.51
ICTC UNPROGRAMMED FUTURE EXPANSION		87,000	2.00
TOTAL SITE REQUIREMENTS		501,100	11.50

(1) Factor not applied to storm water detention area

Note: Site areas greater than 5,000 sf rounded to nearest 1,000 sf; site areas less than 5,000 sf and buildings to nearest 100 sf.

ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REQUIRED SPACES BY NAME AND BUDGETED AREA

Space Name	Program								Remarks	
	Space Standard					Qty.		Area (SF)		
	Unit Dimensions	Gross Dimensions		Nominal Occupancy	No. Required					
SITE REQUIREMENTS										
SITE FEATURES										
Hardscaping										
Hardscape Patio		x		25	x	25	10	1	625	
Subtotal									625	
Circulation Factor							100%		625	
Total Site Features									1,250	
Storm Water Detention										
Storm Water Detention									32,670	
Subtotal									32,670	
Circulation Factor							0%		0	
Total Site Features									32,670	
PARKING										
Fleet Vehicle Parking										
IVT										
Buses -- 40' x 8.5'		x		12	x	45		22	11,880	IVT and Future New Buses
Cut Aways -- 26' x 8'		x		12	x	33		18	7,128	IVT and B/G/G Lines; use same size as IVT Ride for flexibility
IVT Ride										
Cut Aways -- 28' x 8.5'		x		12	x	33		16	6,336	
IVT Access										
Cut Aways -- 22' x 8'		x		11	x	27		12	3,564	
MedTrans										
Cut Aways -- 22' x 8'		x		11	x	27		6	1,782	
MV1s										
MV1 -- 17' x 6.6'		x		10	x	20		6	1,200	All services
Other Vehicles										
Tow Truck				12		25		0	0	Not required
Company Cars		x		10	x	20		7	1,400	Sedans only
Pickup Truck		x		11	x	20		1	220	
Vans		x		10	x	20		5	1,000	3 current and 2 future vans
Subtotal								93	34,510	
Circulation Factor							150%		51,765	
Total Department Vehicle Parking									86,275	
Employee Parking										
All Parking Outside Secured Perimeter										
ICTC Facility incl SCAG	9	x	19		x		1	20	3420	
Admin/Ops	9	x	19		x		1	7	1197	
Road Supervisors	9	x	19		x		1	6	1026	
Dispatching	9	x	19		x		1	18	3078	
Drivers	9	x	19		x		1	65	11115	
Maintenance	9	x	19		x		1	15	2565	
Subtotal								131	22,401	
Circulation Factor							100%		22,401	
Total Employee Parking									44,802	
Public, Handicapped, and Other Parking										
All Parking Outside Secured Perimeter										
ICTC Meeting Parking	9	x	19		x		1	50	0	6 pm meeting time - use vacated employee and TAC meeting spaces
TAC Meeting Parking	9	x	19		x		1	30	5130	10 am meeting time - dedicated spaces required
Visitor and Public	9	x	19		x		1	6	0	Area includes in ICTC and TAC meeting category
Handicapped	18	x	19		x		1	4	1368	
Bicycle		x		5	x	15	1	1	75	
Subtotal								91	6,573	
Circulation Factor							100%		6,573	
Total Other Parking									13,146	
				Total Auto Parking Spaces				165	57,948	Required auto spaces indicated in green
TOTAL PARKING									144,223	
TOTAL SITE REQUIREMENTS									178,143	

**ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REQUIRED SPACES BY NAME AND BUDGETED AREA**

Space Name	Program								Remarks	
	Space Standard					Qty.		Area (SF)		
	Unit Dimensions		Gross Dimensions		Nominal Occupancy	No Required				
Space Name	Unit Dimensions		Gross Dimensions		Nominal Occupancy	No Required	Area (SF)	Remarks		
ICTC FACILITY INCLUDING SCAG										
ICTC FACILITY										
Reception Area		x		15	x	22	1	330	Public access point; includes waiting area for public business	
Men's Public Restroom		x		8	x	8	1	64	Handicapped assessable; use also for Commission meeting room	
Women's Public Restroom		x		8	x	12	1	96	Handicapped assessable; use also for Commission meeting room	
Subtotal								610		
Circulation Factor						25%		153		
Total								763		
Offices (See Below for SCAG)										
Executive Director		x		15	x	20	1	1	300	Provides for small conf area inside office
Managers/Planners		x		12	x	17	1	6	1,224	
Support Staff		x		10	x	12	1	5	600	
Subtotal							12	2,124		
Expansion Allowance										
Managers/Planners		x		12	x	17	1	2	408	
Support Staff		x		10	x	12	1	4	480	
Subtotal							6	888		
								0		
Subtotal							18	3,012		
Circulation Factor						25%		753		
Total								3,765		
Conference Rooms										
Commission Meeting Room		x		30	x	40	60	1	1,200	Commission members plus plus seating for 50 attendees; configure to be separated into 2 rooms for smaller meetings
SSTAC/TAC Meeting Room		x			x				0	Use Commission meeting room
Commission Private Meeting Room		x		12	x	15	8	1	180	For private commission meeting e.g., before public meetings
Table and Chair Storage		x		20	x	4	0	1	80	Directly assessable from Commission Meeting Room
ADA Interview Room		x		10	x	10	3	1	100	Assessable from reception area
Small Conf Room	3	x	6		x		12	1	216	General staff use
Large Staff Conference Rooms	3	x	6		x		24	1	432	General staff use; configure to be separated into 2 rooms for smaller meetings
Subtotal								2,208		
Circulation Factor						25%		552		
Total								2,760		
Employee Facilities										
Kitchen/Breakroom		x		16	x	28		1	448	
Quiet Room		x		8	x	12		1	96	
Men's Restrooms		x		8	x	8	1	1	64	Handicapped assessable - not normally open to public
Women's Restrooms		x		8	x	8	1	1	64	Handicapped assessable - not normally open to public
Subtotal								672		
Circulation Factor						25%		168		
Total								840		
Common Areas										
Copy/Mail		x		12	x	24		1	288	Incl copier and work table
File/Storage Room		x		6	x	10		6	360	Clarify need for 6 storage areas
Subtotal								648		
Circulation Factor						25%		162		
Total								810		

ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REQUIRED SPACES BY NAME AND BUDGETED AREA

Space Name	Program								Remarks	
	Space Standard					Qty.		Area (SF)		
	Unit Dimensions	Gross Dimensions			Nominal Occupancy	No Required				
ICTC FACILITY INCLUDING SCAG										
Technical Support Spaces										
Electrical Room		x		8	x	10	0	1	80	
I.T./Telecom Room		x		8	x	12	0	1	96	
Custodial Room with Roof Access Point		x		8	x	10	0	1	80	
Fire Riser Room		x		8	x	10	0	1	80	
Subtotal									336	
Circulation Factor							25%		84	
Total									420	
TOTAL ICTC FACILITY									9,358	
SCAG FACILITY										
Dedicated Spaces										
Managers/Planners		x		12	x	17	1	1	204	
Support Staff		x		10	x	12	1	1	120	
Subtotal		x			x			2	324	
Expansion Allowance		x			x					
Managers/Planners		x		12	x	17	1	1	204	
Support Staff		x		10	x	12	1	1	120	
Subtotal		x			x			2	324	
Dedicated Storage Area		x		6	x	8	0	1	48	
Subtotal									696	
Circulation Factor							25%		174	
Total									870	
TOTAL SCAG FACILITY									870	
TOTAL BUILDING AREA									10,228	

ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REQUIRED SPACES BY NAME AND BUDGETED AREA

Space Name	Program								Remarks	
	Space Standard				Qty.		Area (SF)			
	Unit Dimensions		Gross Dimensions		Nominal Occupancy	No Required				
SERVICE PROVIDER ADMINISTRATION/OPERATIONS BUILDING AND REVENUE CENTER										
SERVICE PROVIDER ADMIN/OPS										
Administration										
Reception/Waiting Area		x		15	x	20	1	1	300	Public access point; includes waiting area for public business
General Manager		x		12	x	15	1	1	180	
IVT Manager		x		10	x	15	1	1	150	
IVT Access Manager		x		10	x	15	1	1	150	
IVT Ride Manager		x		10	x	15	1	1	150	
MedTrans Manager		x		10	x	15	1	1	150	
Safety Manager		x		10	x	15	1	1	150	
Spare Office		x		10	x	15	1	1	150	
Maintenance Manager										Located in maintenance building
Subtotal									1,380	
Circulation Factor							25%		345	
Total									1,725	
Road Supervisions (All Modes)										
Road Supervisors Office	8	x	10		x		6	1	480	Provide offices
Subtotal									480	
Circulation Factor							25%		120	
Total									600	
Dispatching (All Modes)										
Dispatch Manager		x		10	x	12	1	1	120	
Dispatch Office		x		10	x	15	2	1	150	Open to driver's ready room -- drivers receive assignments through
Dispatchers Room	5	x	5		x		17	1	425	
Subtotal									695	
Circulation Factor							25%		174	
Total									869	
Admin Common Areas										
Multi-purpose Meeting Room/ Training Room	4	x	6		x		25	1	600	Training room for 25 persons
Conference Room	3	x	6		x		8	1	144	Conf room for 8 persons
Breakroom	5	x	5		x		15	1	375	Includes sink, fridg, microwave
Quiet Room		x		8	x	12	3	1	96	
Mail/Copy		x		10	x	10	2	1	100	
File/Storage Room		x		10	x	15	1	2	300	
Subtotal							71.25		1,615	
Circulation Factor							25%		404	
Total									2,019	
DRIVER FACILITIES										
Driver Facilities (All Modes)										
Driver Ready Room w/ Lockers	5	x	5		x		65	1	1,625	See staffing matrix (green)
Vending Area	3	x	3		x		10	1	90	Off driver ready room
Quiet Room		x		12	x	15	3	1	180	
Exercise Room		x		15	x	20		1	300	Revisit requirement during design
Men's Restrooms		x		14	x	16	4	1	224	Capacity - 4; handicapped assessable
Women's Restrooms		x		14	x	16	4	1	224	Capacity - 4; handicapped assessable
Subtotal									2,643	
Circulation Factor							25%		661	
Total									3,304	
BUILDING SUPPORT SPACES										
Support Spaces										
Electrical Room		x		8	x	10	0	1	80	
I.T./Telecom Room		x		8	x	10	0	1	80	
Custodial Room		x		6	x	8	0	1	48	
Fire Riser Room		x		6	x	8	0	1	48	
Subtotal									256	
Circulation Factor							25%		64	
Total									320	
TOTAL ADMIN/OPS										8,836
REVENUE CENTER										
Revenue Center Building										
Money Counting Room		x		10	x	15	2	1	150	Block construction
Empty Fare Box Storage		x		10	x	8	0	1	80	Block construction
Mech/Elect Room		x		6	x	6	0	1	36	Must be separate from money and fare box spaces
Armored Truck Pad		x		15	x	30	0	1	450	
Subtotal									716	
Circulation Factor							25%		179	
Total									895	
TOTAL REVENUE CENTER										895
TOTAL ADMIN OPS AND REVENUE CENTER										9,731

**ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REQUIRED SPACES BY NAME AND BUDGETED AREA**

Space Name	Program								Remarks
	Space Standard					Qty.		Area (SF)	
	Unit Dimensions		Gross Dimensions		Nominal Occupancy	No. Required			
MAINTENANCE BUILDING									
MAINTENANCE BUILDING									
Office Areas									
Maintenance Manager		x		10	x	15	1	1	150
Supervisor Office		x		10	x	10	1	1	100
Copy/Fax/Supplies/Active Files		x		10	x	15	2	1	150
Manual Library/Computer		x		8	x	10	1	1	80
Janitor's Room		x		5	x	8	1	1	40
Subtotal									520
Circulation Factor							25%		130
Total									650
Employee Facilities									
Break Room/Kitchenette		x		15	x	20	11	1	300
Lockers, Mens	5	x	5		x		14	1	350
Restrooms, Mens, with Shower		x		8	x	12	1	1	96
Lockers, Womens with Shower	5		5				4	1	100
Restrooms, Women		x		8	x	12	1	1	96
Separate Unisex Shower with Changing Area	7	x	10		x		1	0	0
Uniform Drop Off and Storage		x		10	x	12	6	1	120
Janitor's Room		x		5	x	8	1	1	40
Subtotal									452
Circulation Factor							25%		113
Total									565
TOTAL FINISHED AREAS									1,215
SHOP AREAS									
Repair/Inspection Bays						No. Vehicles			
Large Bay (40' Vehicles)		x		20	x	60	22	2.0	2,400
Large Bay (28' Vehicles)		x		20	x	60	16	1.0	1,200
Small Bay (26' and 22' Vehicles)		x		20	x	45	42	3.0	2,700
Brake Work		x		20	x	60	0	1	1,200
Undercarriage Inspection		x		20	x	60	0	1	1,200
All-purpose Bay		x		20	x	60	0	1	1,200
Subtotal							80	8.0	9,900
Circulation Factor							15%		1,485
Total									11,385
Repair Shops									
Brake Shop		x		15	x	20	1	1	300
Tire Shop		x		20	x	20	1	1	400
Common Work Area		x		15	x	20	2	2	600
"Clean" Repair Shop (Electronics, etc.)		x		15	x	15	1	1	225
Subtotal									1,525
Circulation Factor							20%		305
Total									1,830
Shop Floor Storage Areas									
Portable Equip./Lift Storage		x		10	x	20	0	1	200
Tire Storage (Mounted Tires)		x		10	x	15	0	1	150
Mechanics Tool Box Storage	6	x	6		x		8	1	288
Records Storage		x		40	x	20	0	1	800
Subtotal									1,438
Circulation Factor							20%		288
Total									1,726
Parts Storage									
Supply/Clerical Clerk		x		8	x	8	1	1	64
Parts Storage		x		20	x	30	2	1	600
Secure Tool Storage		x		10	x	10	1	1	100
Subtotal									764
Circulation Factor							20%		153
Total									917
Support Areas									
Lubrication/Compressor Rm		x		20	x	20	0	1	400
Shop Floor Rest Room		x		6	x	8	1	1	48
I.T./Telecom Room		x		10	x	12	0	1	120
Electrical Room		x		10	x	15	0	1	150
Fire Riser Room		x		8	x	10	0	1	80
Subtotal									798
Circulation Factor							25%		200
Total									998
TOTAL SHOP AREAS									16,855
TOTAL BUILDING AREA									18,070

ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
REQUIRED SPACES BY NAME AND BUDGETED AREA

Space Name	Program								Remarks	
	Space Standard					Qty.		Area (SF)		
	Unit Dimensions		Gross Dimensions		Nominal Occupancy	No Required				
FUEL AND WASH										
FUEL AREA										
Fuel Building Offices										
Service Office		x		10	x	10	1	1	100	
Service Worker Break Area		x		10	x	12	1	1	120	
Supply Storage Area		x		10	x	10	1	1	100	
Lube/Compressor Room				10	x	15	0	1	150	
Unisex Restroom				6	x	8	1	1	48	
Electrical/Server Room		x		8	x	10	1	1	80	
Subtotal									598	
Circulation Factor							25%		150	
Total									748	
Fuel Lanes										
Diesel Fueling Lane (Right Side Fill)		x		12	x	55	0	1	660	12' lane adjacent to 8' island
Gasoline Fueling Lane (Left Side Fill)		x		12	x	45	0	1	540	12' lane adjacent to 8' island
Dispenser Island		x		8	x	40	2	1	320	
Diesel Storage Tank Area		x		20	x	45	0	1	900	
Gasoline Storage Tank Area		x		15	x	25	0	1	375	
Tanker Delivery Pad		x		25	x	60	1	1	1,500	
		x			x				0	
Subtotal									4,295	
Circulation Factor							50%		2,148	
Total									6,443	
TOTAL FUEL AREA									7,190	
WASH AREA										
Bays and Equipment Rooms										
Automated Washer Bay		x		25	x	65	1	1	1,625	Specified to wash transit buses and cut aways
Chassis Wash Bay		x		25	x	65	1	1	1,625	
Wash Equipment Room, Common		x		15	x	40	2	1	600	
Subtotal									3,850	
Circulation Factor							20%		770	
Total									4,620	
TOTAL WASH BUILDING									4,620	
TOTAL BUILDING AREA									11,810	
APPROACH, WEAVE, AND RUNOUT AREAS										
Approach to Fuel Area	50	x	75		x		1	1	3,750	
Weave Between Fuel and Wash	50	x	80		x		1	1	4,000	
Runout from Wash Building	50	x	75		x		1	1	3,750	
Subtotal									11,500	
Circulation Factor							100%		11,500	
Total									23,000	
TOTAL PAVED AREAS									23,000	
TOTAL FUEL, WASH, AND PAVED AREAS									34,810	

**ICTC MAINTENANCE AND OPERATIONS FACILITY STUDY
STAFFING MATRIX AND PARKING**

Staff Position	Current All Staff	Current "On-site" Staff	Estimated Expansion Staff	Estimated Expansion Staff "On-site"	Total "On-site" Including Expansion		Parking Requirements	Remarks
ICTC Staff, Total	10	10	6	6	16		16	Per David's email - 10 ICTC, 2 SCAG, 6 expansion
SCAG Staff	2	2	2	2	4		4	
GM	1	1	0	0	1		1	
IVT Manager	1	1	0	0	1		1	
IVT Access Manager	1	1	0	0	1		1	
IVT Ride Manager	1	1	0	0	1		1	
MedTrans Manager	1	1	0	0	1		1	
Safety Manager	1	1	0	0	1		1	
Maintenance Manager	1	1	0	0	1		1	
Road Supervisors	5	5	1	1	6		6	
Office Clerk	1	1	0	0	1		1	
Dispatch Manager	1	1	0	0	1		1	
Dispatchers, IVT	6	4	1	1	5		5	
Dispatchers, Access	3	10	2	2	12		12	Confirmed by FT 8/7/2017
Dispatchers, RIDE	4							
Dispatchers, MedTrans	2							
Dispatchers, Any Service	3							
Mechanics	6	6	2	2	8		8	
Utility	4	4	2	2	6		6	
IVT Drivers	29	20	7	5	25		25	From FT 8/7/2017
IVT Access	12	9	5	5	14		14	From FT 8/7/2017
IVT Ride	16	14	5	5	19		19	From FT 8/7/2017
IVT MedTrans	3	2	5	5	7		7	From FT 8/7/2017
Totals	114	95	38	36	131		131	

83.3%

45

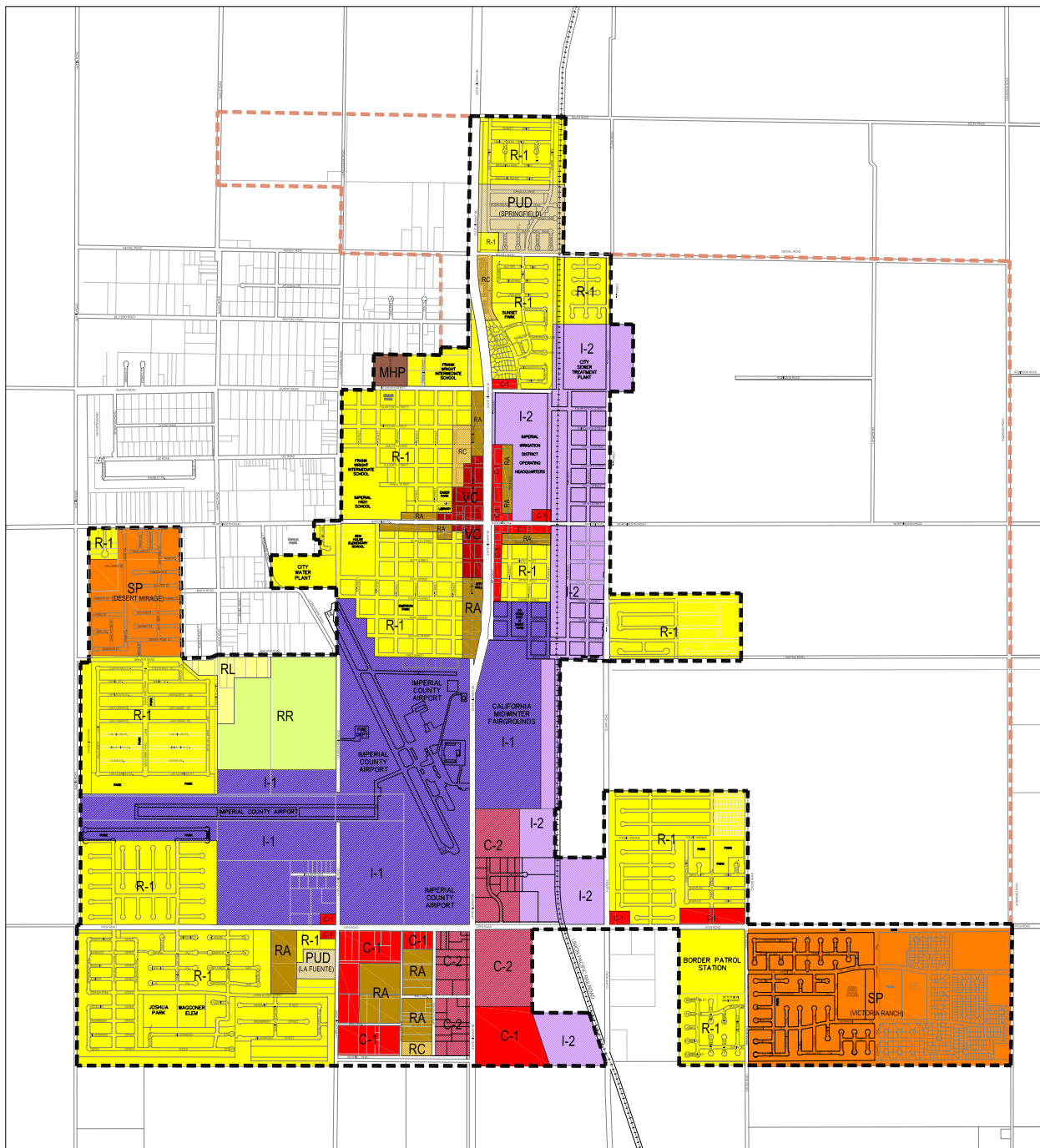
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65

Parking					
ICTC Facility	Admin/Ops	Road Supervisors	Dispatching	Drivers	Maintenance
16					
4					
	1				
	1				
	1				
	1				
	1				
	1				
					1
		6			
	1				
			1		
			5		
			12		
					8
					6
				25	
				14	
				19	
				7	
20	7	6	18	65	15

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Revised on 02/08/2022



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|----------------------------------|-----------------------------|
| RR RESIDENTIAL RURAL | C-1 COMMERCIAL NEIGHBORHOOD |
| RL RESIDENTIAL LOW DENSITY | C-2 COMMERCIAL GENERAL |
| R-1 RESIDENTIAL SINGLE FAMILY | VC COMMERCIAL VILLAGE |
| RC RESIDENTIAL CONDOMINIUM | I-1 GENERAL INDUSTRIAL |
| RA RESIDENTIAL APARTMENT | I-2 RAIL SERVED INDUSTRIAL |
| PUD PLANNED UNIT DEVELOPMENT | SP SPECIFIC PLAN OVERLAY |
| MHP MOBILE HOME PARK | |
| --- IMPERIAL CITY LIMITS | |
| --- SPHERE OF INFLUENCE BOUNDARY | |

CITY OF IMPERIAL ZONING MAP

Attachment 1 - Zoning Map



Attachment 5

ICTC Bus Operations Facility Improvement at W. Aten Road					
ENVIRONMENTAL CLEANUP (Allowances)					
Name	Unit	Quantity (LS)	Description	Unit Price	Cost Estimate
Soil Remediation	LS	1	USTs, LIFT, etc.	100,000.00	100,000.00
Hazardous Building Material Removal	LS	1	Removal and disposal of ACM, LBP, and other hazardous	150,000.00	150,000.00
Total					250,000.00
BUILDING (Upgrade Allowances)					
Name	Unit	Quantity	Description	Unit Price/ft2	Cost Estimate
Building			Existing Office upgrade		
(Assume half of the building for demo)	SQFT	32,625	Demo of existing interiors	5.00	163,125.00
	SQFT	8,100	Admin Area General Office partititons and dropped ceilings	200.00	1,620,000.00
	SQFT	9,400	ICTC Area General Office partititons and dropped ceilings	200.00	1,880,000.00
	SQFT	900	SCAG Area General Office partititons and dropped ceilings	200.00	180,000.00
	LS	1	Common Toilet rooms for all Admin	50,000.00	50,000.00
	LF	225	Temporary partion between Program area and Unassigned areas	300.00	67,500.00
	SQFT	9,200	Circulation and common areas	75.00	690,000.00
	SQFT	37,650	Unassigned/Lease area	2.00	75,300.00
Building Sub-Total		98,101			4,725,925.00
Bus Facility			New Facility		
	SQFT	18,100	Maintenance shop/office	380.00	6,878,000.00
	SQFT	3,000	Inspection	300.00	900,000.00
	SQFT	630	Fuel station	1200	756,000.00
	SQFT	4,600	Wash station	200	920,000.00
(Optional covered storage)	SQFT	30,000	Canopy covered storage - All Fleet Vehicles	120	3,600,000.00
	SQFT	900	Above ground fuel storage tank (10,000 gal gasoline and 1500 gal diesel)	120	108,000.00
	LS	1	Revenue Center	50000	50,000.00
Maintenance. Sub-Total		57,231			13,212,000.00
Building and Maintenance Total		155,332			17,937,925.00
ON-SITE (Improvement Allowances)					
Name	Unit	Quantity	Description	Unit Price	Cost Estimate
	SQFT	44,000	Demo existing asphalt - Fleet Secure Area	3.5	154,000.00
Pavement	SQFT	208,000	Concrete pavement - Fleet Secure Area	5.5	1,144,000.00
Landscape - Upgrades	SQFT	23,200	Existing along W. Aten Rd. Frontage (290x80)	5	116,000.00
Landscape - New	SQFT	9,000	New planting along East side of Access Way (450x20)	15	135,000.00
Landscape - New	SQFT	8,200	New hardscape and planting along interior Security Fence (410x20)	30	246,000.00
Minor Concrete (Driveway & Sidewalk)	SQFT	5,200	Access Way Entries for Fleet 2 @ 2600 Sq Ft	8	41,600.00
Site Sub-Total		297,600			1,836,600.00
Concrete drive demo with concrete curb installation	LF	30	Remove existing driveway at West Aten, south of Access Way intersection and install new curb and gutter	40	1,200.00
Fence at Bus Maintenac area	LF	2,610	Fence and gates around secure area - 4 sides	250	652,500.00
Vehicle and pedestrian gates	LS	1	Gate Assemblies, tracks, motors, controllers, safety devises, security 3 vehicular, 2 pedestrian	100000	100,000.00
Curb and Gutter	LF	680	Along Access Way project side only - Double if for both sides	30	20,400.00
Fence, Curb & Gutter Sub-Total	LF	3,291			774,100.00
Parcel 3 Overflow Parking Area	SF	80,740	Class 2 aggregate base	3	242,220.00
Fencing	LF	954	Fencing 3 sides	90	85,860.00
Parcel 2 Future Expansion	SF	68,432	Class 2 aggregate base	3	205,296.00
Fencing	LF	1,480	Fencing 4 sides plus 1 vehicle gate and 1 ped gate	90	133,200.00
Expansions Sites Sub-Total					666,576.00
Detention Basin	LS	1	Allowance	100000	100,000.00
Storm Drain System	LS	1	Allowance	100000	100,000.00
Utility (electricity, water, gas)	LS	1	Allowance	200000	200,000.00
Allowance Sub-Total					400,000.00
Subtotal					\$21,865,201
Contingency	20%				\$4,373,040
Total					\$26,238,241
Notes:					
1. Access Way widening is not included.					
2. Traffic signalization at Access Way and W. Aten Road intersection is not included.					
3. The following costs are not included:					
Start-Up Costs					
Owner Furnished items					
Permanent Utility Consumption Charges					
Temporary Utility Consumption Charges					
Unforeseen subsurface and/or existing conditions					
Owner's Contingency					
4. Optional improvements may be removed.					
5. Project can also be phased based on available funding.					

