HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

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2	**Reviewer: RTD / PB Combined Comments**			
3	**Date: January 22, 2009**			
4	**Document Name & Date:** PMOC Jacobs Spot Report - December 2008			
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7	**Comment No.**	**Section No.**	**Page No.**	**Comment**
8	1	Transmittal e-mail		The transmittal e-mail states that a PDP is required in the PMP, but we have been unable to find any guidance for preparation of a PDP
9	2	1.1	1-1	The City has not made a formal request to enter PE.
10	3	1.2	1-1	At the time of this report, the mode for the project had been selected. It is Light Metro.
11	4	1.2	1-1	There is no cut-and-cover. Per the SCC worksheets provided to Jacobs, the correct description of the project and its components was provided. This shows 18.91 miles of aerial structure and .34 miles of retained fill. (This has subsequently changed slightly.)
12	5	1.3.1	1-3	Table 1-1; In the City's view, a PMP which includes contract delivery methods and related procedures is not a normal part of a pre-PE PMP.
13	6	1.3.1	1-3	Table 1-1; In the City's view the inclusion of a PDP is not a normal part of a pre-PE PMP.
14	7	1.3.1	1-3	Table 1-1; PMP Chapter 3.7 Document Control - Document Control Procedures (DCP001 Rev 0) has been developed and implemented on Sept. 1, 2008. Chapter 7 Configuration Management Plans has been developed but not distributed. A separate procedure has been developed to support Chapter 7 such as Change Control Procedures for Managing and Controlling Baseline Documents.
15	8	1.3.1	1-3	Status column indicates "requires revision in PE" - recommend this phase be dropped. It is a given that the PMP will be updated in PE. If needed, add as a footnote to the table.
16	9	1.3.1 (3)	1-4	2nd paragraph on page - starting with "While these temporary solutions…" to end of paragraph should be dropped. It adds nothing to the context, except stating the obvious.
17	10	1.3.1 (2)	1-4	Note that the PMC contract may be extended beyond late 2009. Suggest adding a comment to this effect.
18	11	1.3.1	1-5	Conclusion Document (1) Review: Revise the last two lines of first paragraph: During the September 2008 Risk Assessments Workshop the PMOC and FTA agreed to forward an annotated PDP Table of Contents to the City to assist in development of their plan. FTA should provide guidance on the preparation of a PDP and a PEP. A search of the FTA web site failed to produce any guidance.

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19	12	1.3.1	1-5	The City has addressed the FTA's required PMP elements contained in 49 CFR 633 for this phase of the project. The PMOC recognizes certain policies and procedures will be incorporated into the PMP during the PE and Final Design phases. The PMOC did not prejudice these secondary requirements and concentrated on the primary requirements needed for FTA approval to enter PE. The PMP and the companion documents will need further revisions when more definitive information evolves during the PE phase in order to support the PMOC's future Entry to Final Design assessment. It is the PMOC's opinion that the PMP will be updated in PE to include a PDP. The PMOC recommends the next PMP revision be completed and submitted no later than the first two months of the PE phase. The PMP and companion document revisions are not necessary as conditions precedent to enter PE.
20	13	1.3.1	1-6	(3) "Establish a position for a manager of project controls" this is repeated on page 3-14 item (4) - Chief of Project controls is established on figure 3-1, page 3-11 and listed in table 3-2, page 3-13 as being filled. This position was established and filled.
21	14	1.3.1	1-6	It is unlikely that the City will be able to develop new staffing, recruiting and retention efforts completed not later than the first two months of PE Suggest deleting the reference to a duration.
22	15	1.3.1	1-6	In subparagraph (1) it refers to the recent vehicle technology selection, but in comment 2 above the report says we have not selected technology
23	16	1.3.1	1-6	Sub paragraph (2) There is no basis for requiring that the City fill certain positions with City staff. The City should be free to chose to fill these positions with consultants if it so chooses.
24	17	1.3.1	1-6	Subparagraph (5) FTA should not require that all PMSC positions be replaced by City Staff There is no precedent for such a statement.
25	18	1.3.1	1-5	Conclusion (1) Document Review: Change fourth paragraph, second sentence: The PMOC recommends that the next PMP revisions be completed and submitted prior to the Record of Decision to be consistent with the recommendation on page 1-6.
26	19	1.3.1	1-7	(4) The City intends to delete the "manager of project procedures" position. The functions will be performed by others.
27	20	1.3.2	1-8	First paragraph - We use 4 passengers per square meter
28	21	1.3.2	1-8	The evaluation of fleet size requirements appears to include the assumption that the City plan is to operate only 2-car consists in 2030. This is incorrect.
29	22	1.3.2	1-8	Summary of Findings / Conclusions (1) & (4): We use 3 minute headway
30	23	1.3.2	1-8	Summary of Findings / Conclusions (2):The overall assumption of dwell time forecast by Jacobs is incorrect for a high platform level boarding system. Few stations on the system would have boardings and alightings in the peak period which would mandate such long dwell times. Portland experience is 20 to 30 seconds with a bridge plate deployment. Minnesota's dwell time is between 12 to 15 seconds . Proposed 27 to 41 seconds dwell time seems excessive.
31	24	1.3.2	1-8	Summary of Findings / Conclusions (4): Another way to achieve the necessary capacity without increasing the fleet size is to short-turn some proportion of the trains. Increasing fleet size should be a last resort.
32	25	1.3.2	1-8	Recommendations (1): The City does not intend to undertake more detailed travel demand forecasting unless specific shortcomings in the current forecasting are identified.

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33	26	1.3.3	1-10	Table 1-2, SCC 80.01, PB has not received NTP for Preliminary Engineering.
34	27	1.3.3	1-10	Table 1-2 It is not correct to state that "all contracts listed above will be awarded based on a QBS methodology" since three of the listed contracts are part of DB procurements.
35	28	1.3.3	1-12	First Bullet under General Multiple delivery methods proposed for Phase I and Phase II will allow for participation by local contracting entities which tend to mitigate cost associated with importing labor and equipment.
36	29	1.3.3	1-12	Under General, Second Bullet, add to end of paragraph: Contingencies are discussed later in this report.
37	30	1.3.3	1-12	General, Third Bullet, The estimates provided included the expectation that there would be increased costs due to the need to import labor for the project. Local labor unions contend that there is sufficient labor capacity already in Hawaii.
38	31	1.3.3	1-12	Under General, Fourth Bullet: Due to global economic downturn, the cost of major materials is trending down, including the island market.
39	32	1.3.3	1-12	Under General, Fifth Bullet: See comment No. 31.
40	33	1.3.3	1-12	It is obviously incorrect for a December 2008 report to state that "The global construction market is driving an increase in material costs."
41	34	1.3.3	1-12	The phrase "The PMOC is concerned…" is spread throughout the report. The City is aware of the issues mentioned (e.g. availability of labor, major materials, and construction equipment), has discussed them with the FTA and both PMOC's, as well as with the industry. We're at the conceptual design level of project development. A more acceptable comment would be, "The PMOC shares the City's concern...".
42	35	1.3	1-13	SCC 20-Change first bullet to read: Site access to station construction area is constrained.
43	36	1.3	1-13	SCC20 Material and storage areas are appropriately identified at a future time. This is not usually done in a pre-PE study.
44	37	1.3.3	1-13	SCC 10 3rd bullet from top of page There is no requirement that the typical viaduct superstructure must be uniform throughout the corridor. Thus the concern of this bullet is misplaced.
45	38	1.3.3	1-13	SCC 10 4th bullet from top of page None of the activities cited as having insufficient recovery time are on the critical path schedule. Whether recovery can occur would depend on the duration of the delay and what potential acceleration in subsequent activities might be available. This is DB, not DBB. The word "unattainable" is inappropriate based on our experience.
46	39	1.3.3	1-13	SCC 30. The scope for the administration building and operations control center is something that would normally be developed during preliminary engineering.
47	40	1.3.3	1-13	SCC 40. Finalization of utility agreements is something that would normally be accomplished during preliminary engineering.
48	41	1.3.3	1-13	SCC 40. Detailed utility adjustment and relocation activities are normally added to the master schedule during preliminary engineering after a detailed scope of utility relocation has been defined.
49	42	1.3.3	1-13	SCC 10 Second bullet from top of page The PMOC is concerned about separating the line segment work from the systems work. We disagree. We will develop management control similar to many other projects that have addressed this issue. There would also be significant risks if we were to wrap together scope for line, systems and vehicle into one contract.

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50	43	1.3.3	1-14	SCC 60 Third Bullet It is the intent of the project to minimize property takes and not acquire excess property, which will require the City to dispose of the property at a later date. Visual and aesthetic impacts will not render the property unusable or uneconomic.
51	44	1.3.3	1-14	SCC 60 Second Bullet Given that there are 205 potential parcels being impacted including only 67 businesses,20 residences and 1 church being relocated over the 19 mile right-of way, and the schedule is such that allows for orderly acquisition, the various City departments involved will provide the adequate support necessary to ensure the timely delivery of the property.
52	45	1.3.3	1-14	Recommendations - It is our position that the right-of-way schedule has been sufficiently developed to permit entry into preliminary engineering. Further development is something which typically occurs during preliminary engineering.
53	46	1.3.4	1-19	Subparagraph (5) It does not seem to be appropriate to use a higher 2009 escalation index in light of ENR's December 2008 CCI Index Forecast of 1.2% inflation in 2009 and a decline in the BCI of 0.5%.
54	47	1.3.4	1-21	Subparagraph (3) of Recommendations There will not be a need to recalculate parametric values for utility relocation. We will have an item-by-item estimate for each known relocation.
55	48	1.3.4	1-21	Subparagraph (1) of Conclusions states The "estimate is not mechanically correct". On page 1-18 it is stated that "found the mechanical accuracy of the estimate is excellent".
56	49	1.3.4	1-22	Subparagraph (7) We do not understand why Jacobs expects "escalation to be high for the next several years as a result of the recent global financial crisis." Please explain. ENR is forecasting lower escalation.
57	50	1.3.5	1-24	Table 1-7: "Finish Date" for Final Design Request should be 05JAN10, rather than 05JAN09.
58	51	1.3.5	1-24	Table 1-7 "Start Date" for FFGA Application is April 26, 2010 rather than April 24, 2009.
59	52	1.3.5	1-27	Subparagraph (7) Schedule activities for the City's staffing plan is not a typical activity we see in project schedules. We plan to report on this separately rather than incorporate it into a project schedule. All City work activities will be covered either by City staff or PMSC staff and the PMOC should view these two organizations interchangeably.
60	53	1.3.5	1-27	Subparagraph (8); the number of constraint dates has been reduced, and mandatory constraint dates have been eliminated. The reference sentence should be corrected.
61	54	1.3.6	1-36	The Spot Report recommends a total duration from Record of Decision (ROD) to the Revenue Operations Date (ROD) of 10 years. This is inconsistent with the durations for the Miami Metro rail a 20 mile system which took about 7 years from ROD to full system ROD. It is also inconsistent with the Dubai Metro which has similar elevated length and has a duration from construction start to operations of about 4 years.
62	55	1.3.6	1-37	(4) It is the City's intent to expand the detail for Vehicle and Systems procurement, installation, testing and commissioning in the future.
63	56	1.3.6	1-37	Final bullet The activities listed on page 1-37 may take more than 60 days to accomplish at the start of preliminary engineering.
64	57	1.3.6	1-39	Extensive searching of the FTA web site has turned up no information on the requirement for a project development plan. Please advise where this requirement is located.
65	58	General	N/A	Either revise Hawaiian place names for proper diacritical marks or omit all diacriticals. Incorrect use of diacritical marks in Hawaiian place names constitute spelling errors.
66	59	2.2	2-2	The history of the HHCTCP starts with the initiation of AA in 2005; all previous efforts do not represent the current project and should be deleted.

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67	60	2.2	2-2	Revise last bullet on page 2-2: January 1, 2007 - A 0.5% surcharge on the Hawaii General Excise Tax went into effect.
68	61	2.3	2-3	The specific modal technology was specified at the time this report was prepared.
69	62	2.3	2-3	The description of the First Project is incorrect. There is no below-grade cut and cover section. We feel that the breakdown should just be between aerial structure and at-grade.
70	63	2.3	2-5	We have more than 8 side platform stations and always have had more than 8. We did not have mezzanines at all aerial stations at the time of this report.
71	64	2.3	2-5	The description of the vehicle recognizes that we would have middle cars, but the operations analysis only considers two car consists. This section also recognizes that the technology decision had been made and does not discuss BRT.
72	65	2.4	2-6	"City's June 2008 request to enter PE" is not a correct statement; the City has not yet officially submitted a request
73	66	3.2	3-2	Last Paragraph The project is not a "starter system for light rail technology."
74	67	3.2	3-3	See comments #5 and #6 above which also pertain to Table 3-1.
75	68	3.2.1	3-5	With respect to the necessity for a Project Development Plan, we cannot find references to it in FTA documents nor is it one of the required documents cited in the 13 essential elements of a PMP in Title 49 CFR Part 633 Subpart C Section 633.25 which was outlined on page 304. It is not that we are resistant to preparing such a plan, but we have not been able to find out any information about it, including after making queries to other agencies currently carrying out similar projects. Please provide further information on the contents required for such a plan.
76	69	3.2.2	3-6	Proposed number of properties to be impacted is 205.
77	70	3.2.3 to 3.2.6	3-6 to 3-8	Change "minimal" to "minimum" with respect to the discussion of FTA's requirements for a PMP. (4 locations)
78	71	3.2.6	3-8	The SSMP Rev 0 dated May 12, 2008 contained the City approval signatures
79	72	3.2.6	3-8	"The FTA and City are currently in the process of identifying a SSOA." Identification/designation of an SSOA will be done by the Governor.
80	73	3..3.2	3-9	Second Paragraph The RTD's responsibility for the project began with the DEIS.
81	74	3.3.2	3-9	Delete or revise discussion on Transit Authority. Resolution No. 07-90, FD-1(n) failed to pass third reading and was filed. http://docsiis01:8080/docushare/dsweb/Get/Document-126115/RES07-090.htm
82	75	3.3.2	3-9	In second paragraph: Revise "DTA" to "DTS"
83	76	Table 3-2	3-13	Update: Grants Manager position was filled on 12/16/08.
84	77	3.3.3	3-13	Table 3-2 Change Project Principle to Project Principal, also the Chief Administrative Officer is a key project position. The position of Public Information specialist was filled at the time of this report. The position of Manager of Project Procedures has been eliminated and the work will be performed by others on the staff. The Chief of Environmental Planning is also a key project position.
85	78	3.3.3	3-13	Delete reference to "rail operational transit agency"
86	80	3.3.3	3-14	There is no compelling reason to require that all City positions be filled by the date of the Record of Decision.
87	81	3.4	3-15	The Chief Project Officer was not interviewed.

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88	82	3.4	3-15	(1) Be consistent when referring to Toru. Use as "Toru" not "Kenneth" (2) Remove (Interim) and (City employee temporarily filling position) after Phyllis Kurio (3) Add Edwina Tabata (Interim) (Part-time City employee temporarily filling position) as Contracts Administrator
89	83	3.5.1	3-16	See comments #5, #6 and #68 above pertaining the shortcomings of the Project Management Plan
90	84	3.5.1	3-16	Please advise which requirements of 49 CFR 633 have not been fulfilled.
91	85	3.5.2	3-17	It is unreasonable to expect a municipal agency to handle its staffing shortfall and "compete (sic) this task not later than the first two months of the PE Phase." Suggest the wording be revised to "complete this task during Preliminary Engineering."
92	86	3.6 (1)	3-18	See comments #5, #6, #68 and #83 above pertaining to the shortcomings of the Project Management Plan.
93	87	3.6 (5)	3-18	In other places in this report it is recognized that the City may choose to retain PMC services rather than replace all PMC staff positions.
94	88	4.2.2	4-3	It is not a correct assumption to conclude that the project will only use two car trains. The report only uses some of the information in the memo prepared by Jim Dunn and not other information in order to make our calculations look inconsistent. The memo obviously was not written for the purpose it was used and we should have been asked about the inconsistencies. For example, the Jim Dunn memo uses a car capacity of 172 passengers, but the Jacobs analysis uses a car capacity of 168 passengers.
95	89	4.2.2	4-4	The traction power paragraph states that, "...the City has now determined the vehicle will be a mini metro type…" this statement is inconsistent with the statement in Section 1.2 page 1-1. See comment #3 above.
96	90	4.3.1	4-5	The travel demand model did not forecast the afternoon peak period demand. AM peak period demand was forecast.
97	91	4.3.2	4-7	We do not agree that our plan was ever to operate two car trains every 3.5 minutes with a maximum passenger load of 336 passengers per train. We believe the data provided has been misused.
98	92	4.3.2	4-7	The PMOC references the TCRP Reports 100 and 13 to validate their comments and recommendation. In this section the PMOC comments upon the loading standard for the vehicle, specifically a "reasonable" load of 3.2 sqft/person (3.3.perons/square meter) versus an intolerable level of 2.15 sqft/person (5 persons/sqmeter). The City has NOT recommended loading conditions of 5 persons/sqmeter, and does not understand why the report refers to this loading condition as the only alternative.

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99	93	4.3.3	4-10	PMOC used TCRP Report 13 for calculation of dwell times. While the report provided 3 methods to calculate dwells, the PMOC selected the linear regression model for its approach. This model combines the ridership data provided by the city and adds various other parameters to calculate a dwell period for a certain passenger load. The City acknowledges the 20 second dwell used in our model is aggressive, the PMOC model is very conservative, as indicated that a 27 second dwell is required to load 1 passenger. TCRP 100, Chapter 5, indicates that US transit systems do not manage dwell efficiently. For example, Vancouver fully automated system maintains a 30 second dwell, but still has nearly 15 seconds when no one is enter/exiting the vehicle. Asia and European systems are more efficient and have reduced dwell periods. There are options to reduce dwell periods and means to gain overall cycle times by managing dwells. These options will be explored in PE and final design.
100	94	4.3.4	4-11	The report states, "To generate the most constrained dwell time estimates two double stream doors per car are assumed for this analysis." This seems to be purposely done to make our calculations appear inadequate. Another conclusion could have been simply to recommend at least three double stream doors per side, which is later mentioned as reducing overall run times by about 20 seconds.
101	95	4.3.4	4-11	The headway used in our calculations is 3 minutes during peak hours.
102	96	4.3.4	4-12	Looking at this table which has 27 second dwell times even when only two people are passing through the peak door, it is obvious that something other than passenger movement is governing the dwell times. Please explain the durations assumed for the other factors (door opening, door closing, etc.)
103	97	4.3.7	4-14	Even if the City accepted the PMOC conclusions about dwell time and cycle time, there are many other ways to resolve the capacity issues than simply adding additional vehicles (and costs) to the project. This is a last resort alternative that should only be considered after other options are addressed. Slightly larger cars or more dense loading for a limited time are possibilities. A different consist makeup is another possibility. Having a middle of the line turnback is another possibility. A higher maximum speed is a fifth possibility. Why would the PMOC only evaluate and recommend the most expensive solution?
104	98	4.6	4-19	This section appears to be a repeat of section 4.5 on pages 4-18 and 4-19.
105	99	4.7	4-19	PMOC conclusions are based upon limited conservative approach that doesn't take into account operational strategies to handle short periods of peak of peak loads, and efficiencies in operational schedules and practices to reduce fleet size limit dwells and improve cycle times. The City will address the PMOC's concerns in PE.
106	100	4.7	4-19	Conclusion (2) We disagree with the conclusion that dwell time needs to range between 27 and 41 seconds.
107	101	4.7	4-19	Conclusion (3) We disagree with the conclusion that there is insufficient recovery time at terminal stations.
108	102	4.7	4-20	Conclusion (4) To increase the fleet size as suggested for peak traffic in 2030 appears to be unrealistic.
109	103	4.8	4-20	Recommendations (1) What more detailed demand forecasting for the corridor can be accomplished? Has Jacobs reviewed the demand forecasting already accomplished?
110	104	4.8	4-20	Recommendations (2) The City and its consultants are familiar with TCRP 100 and more accurate calculations will be made and modeled as soon as we are in the position to obtain more definitive data from the manufacturer / vendors.

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111	105	5.2.2	5-6	SCC 20 We plan six station packages, not five.
112	106	5.2.2	5-7	SCC 20 See comment 63 above. Section 2.3 of this report says there are eight side platform stations.
113	107	5.2.2	5-7	The second paragraph starting with "Eighteen of the nineteen stations..." is not factually correct
114	108	5.2.2	5-7	Under SCC 30, the sentence "The site requires environmental cleanup prior to the City gaining access" is not necessarily correct. The sentence should be worded "The site will be environmentally clean when it is turned over to the City."
115	109	Table 5-3	5-10	(20) The schedules for the West O'ahu and Farrington Station Groups are not consistent with the opening for the first segment of the Project and what is shown on Figure 5-1.
116	110	Table 5-3	5-10	SCC 50 - Fare Equipment - At this time there is no equipment to be furnished by the Owner
117	111	5.3	5-12	A schedule of values has always been planned for the DB contracts.
118	112	5.3	5-12	The PMOC suggests that the City complete final design to better develop cost and constructability. It is the City's position that a more prudent approach to the project is to expedite as much as possible the construction schedule. A delay of 1 to 2 years to complete final design will add 10s of millions of dollars to the project. The City has allowed in the estimate a "downtown factor" in their cost estimate and production schedule.
119	113	5.3	5-12	PMOC expressed concern for the availability of construction equipment. In discussion with 5 major infrastructure contractors the availability of equipment was not a concern. All believe equipment was available. The PMOC expressed concern for future competition due to initial contractor having an advantage. Recent projects would indicate this is not the case. Additionally the cost of the gantry is insignificant to the over all cost ($2-4 million).
120	114	5.3	5-12	Second Bullet - third paragraph - Local labor unions contend that there is sufficient labor capacity already in Hawaii. Also, Hawaii union agreements with California, Nevada and Utah allow contractors to import labor should there be a shortage.
121	115	5.3	5-13	First full bullet As of the December date of this report global material prices are "plunging", not increasing according to ENR.
122	116	5.3	5-13	Second bullet The PMOC expresses concern that a competitive advantage for the first segment contractor may result in a single bid for follow on contracts. This was not the case in Tren Urbano where each of several alignment contracts for segmental bridges were competed among several contractors.
123	117	5.3	5-14	Last Bullet We have not required that the typical viaduct superstructure sections be uniform. We intend to take advantage of any design efficiencies that subsequent designers can develop.
124	118	5.3	5-14	SCC 10 First Bullet - A GBR was always planned to be prepared and issued with the contract documents. Fourth bullet - The coordination between the DB Guideway contractor and Systems contractor will be the responsibility of the GCM team.
125	119	5.3	5-15	First Bullet All bid periods have at least 45 days float. Most subsequent activities have significantly more float. Most real estate has very large amounts of float. The City believes these float periods constitute adequate contingency.
126	120	5.3	5-15	SCC 20 The identification of material storage areas or station security measures are not typically identified prior to preliminary engineering.

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127	121	5.3	5-15	SCC 20 Third bullet - The station security measures are being discussed as part of the SSORC. Fourth bullet regarding mezzanines above platforms - this was studied and not found to be practical for the movement of patrons at the stations.
128	122	5.3	5-15	SCC 30. The scope for the administration building and operations control center is something that would normally be developed during preliminary engineering. (same as comment #39 above)
129	123	5.3	5-15	SCC 40. Finalization of utility agreements is something that would normally be accomplished during preliminary engineering. (same as comment #40 above)
130	124	5.3	5-15	SCC 40. Detailed utility adjustment and relocation activities are normally added to the master schedule during preliminary engineering after a detailed scope of utility relocation has been defined. (same as comment #41 above)
131	125	5.3	5-16	SCC 60. It is our position that the right-of-way schedule has been sufficiently developed to permit entry into preliminary engineering. Further development is something which typically occurs during preliminary engineering. (same as comment #43 above)
132	126	5.3	5-16	SCC 60 Given that there are 205 potential parcels being impacted including only 67 businesses,20 residences and 1 church being relocated over the 19 mile right-of way, and the schedule is such that allows for orderly acquisition, the various City departments involved will provide the adequate support necessary to ensure the timely delivery of the property.
133	127	6.2.6	6-10	PMOC stated that the public utility estimate was based upon "conceptual" quantities. This is not correct. The estimate was based upon placement of the proposed column location onto existing utility drawings. Relocation strategies were developed for each column. 20 spans were selected in each of the 7 sections, and cost estimate were developed. These representative sections were used to complete the estimate. The estimator did adjust each section estimate based upon a final review.
134	128	6.2.6	6-10	PMOC added escalation to 1992 estimate without justifying increase in the estimate. The 1992 estimate accounted for large pile caps and multiple driven piling in identifying utility relocations. It would be overly conservative to fully adopt the 1992 quantities. Using the $29.37 million estimate is not appropriate.
135	129	6.2.4	6-4	As an update to our previous status, relative to the first paragraph and the escalation rates: A detailed study of construction cost escalation and the local construction market was completed in late December 2008. This study consisted of general economic research on a global, national, and local level, as well as numerous interviews with local labor unions, contractors, and material suppliers. PB used consultants and economists with experience in cost escalation forecasting throughout the US to conduct this study. Forecasts from this study will be incorporated into future iterations of cost estimates and financial feasibility reports.
136	130	6.2.4	6-5	Second Paragraph. The references to ENR CCI over the past 5 and 15 years are incorrect. The rates were 4.4% and 3.2% respectively.

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137	131	6.2.4	6-5	Second paragraph - As an update to our previous status, the ENR CCI is related to the mainland US only, as no city in Hawaii is included in the average. For this reason, we derived a locally-specific forecast in its latest study that account for local factors in the Hawaii construction market. These factors include: Local labor market, Local contracting environment and Local supply and demand from materials. The ENR CCI is a general construction index and does not apply specifically to transit, fixed guideway, or elevated sections. It includes costs like lumber, which are likely not significant cost drivers on this project. For this reason, we derived a project specific forecast in its latest study that takes into account the specifics of the project including: Rail Construction, Elevated guideway construction and specialize equipment and labor.
138	132	6.2.4	6-5	Third paragraph - Given the recent financial and economic turmoil both within the US and globally, there is substantial uncertainty of future economic conditions. We are currently experiencing financial and economic conditions which are unprecedented in the recent past. We believe, therefore, that cost escalation may not follow historical trends. Anticipated macro cost escalation drivers for this project included the following: 1) Decreased demand in the near future due to lessened credit availability for construction projects, decreased gas tax revenues to fund transportation projects, and bursting of the housing bubble decreasing demand for residential construction; 2) Increased construction demand in 2010 and 2011 from infrastructure projects as part of the economic stimulus plan leading to some increases in construction cost; 3) Costs are anticipated to stabilize after 2011 and 4) In general labor is expected to remain relatively stable given that all union labor will be used.
139	133	6.2.5	6-5	Review of risks concerning the shortage of labor - The estimates provided included the expectation that there would be increased costs due to the need to import labor for the project. Local labor unions contend that there is sufficient labor capacity already in Hawaii. Also, Hawaii union agreements with California, Nevada and Utah allow contractors to import labor should there be a shortage.
140	134	6.2.6 (2)	6-8	Some SCC codes are in error in table and in description. For example SCC 20.01 is for at-grade stations (not aerial).
141	135	6.2.6 (6)	6-13	Table 6-8: Error in line 60.01 and total values are reversed.
142	136	6.3.1	6-18	SCC 20 adjustment: (1) The SCC for Underground Station is 20.03, not 20.01. (2) Table 6-15 shows the adjustment in SCC 20.01, at-grade station instead of Underground station per §6-3-1.
143	137	6.3.2	6-19	Line 10 on Table 6-13: The $194.57 million figure listed is inconsistent with the escalation adjustment of $245 million listed in Table 6-14 and $198 million adjustment in Table 6-15.
144	138	6.3.2	6-19	Factual error: The 4.167% and 4.710% rates are incorrect. Hawaii's General Excise Tax (GET) rate is 4.0%, except for the additional 0.5% rate for transactions subject to the County Surcharge for Oahu. Businesses visibly pass on the GET to their customers, although they are not required by law to do so.
145	139	6.3.2	6-19	The PMOC's GET adjustment should be reconsidered: (1) There is an erroneous assumption that all Project costs will be subject to the GET. For example, neither soft costs associated with City employees nor costs attributable to the sale of land in fee simple (HRS Sec. 237-3) will be subject to the GET. (2) There is an erroneous assumption that taxable costs will have a visibly pass-through rate of 4.710%. Both the PMC and GEC contracts have a visibly pass through rate of 4.5%, which will also apply to the other contracts.

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146	140	6.3.3	6-20	First paragraph - 2.8% only refers to the long-term inflation rate assumption. The DEIS capital cost was inflated at 4.85% in 2009, 3.55% in 2010, 2.9% in 2011 and 2.8% for the remaining years. As mentioned earlier, these assumptions are now superseded.
147	141	6.3.4	6-22	The PMOC adjustment calculated for SCC 80, Professional Services, does not follow the methodology described in §6.3.1 on page 6-19. Estimated overcharge = $4,389,212.
148	142	6.4	6-23	Conclusions: (1) Inaccuracies cited in section 6.2.6 with regard to quantities are marginal (train control fractions). Inaccuracies cited with regards cost are limited to Hawaii Excise Tax calculation and historical utility costs which are discussed in item 4 and 5 below. In essence the estimate is mechanically correct, sufficiently detailed for this level of design, and represents the value of the work.
149	143	6.4	6-23	Conclusions: (2) Where design information was available, cost detail was broken down to discrete items (i.e., CY of concrete girders, LB of reinforcing steel, LF of drilled pier, etc) for SCC 10-30 which represents over 60% of the total construction cost (SCC 10-50) may be closer to a Class 3 than Class 4 classification.
150	144	6.4	6-23	Conclusions: (3) City disagrees with use of term "significant" in this context.
151	145	6.4	6-23	Conclusions: (4) Excise tax was calculated on SCC 10-50 construction costs, SCC 70 vehicle costs currently include excise tax, SCC 80 soft costs and SCC 90 contingency are all based on construction costs which already include excise tax. SCC 60 ROW - Tax will not be levied on fee simple property we purchase.
152	146	6.5	6-23	Recommendations: (2) 1992 Estimate was done prior to FTA SCC format requirements and had a series of exclusions including ROW.
153	147	6.5	6-24	Recommendations: (3) & (6) The City plans to prepare bottoms up estimate rather than recalculate the parametric values.
154	148	6.5	6-24	Recommendations: (7) City disagrees - It does not seem necessary to reconsider the values used for escalation in light of ENR's December 2008 CCI Index Forecast of 1.2% inflation in 2009 and a decline in the BCI of 0.5%.
155	149	7.2.1	7-12	Schedule Review: (4) The number of partial and full takes is 205 per Admin Draft EIS.
156	150	7.2.1	7-23	Item (17) - No catenary pole foundations, this is a third rail system.
157	151	7.2.1	7-24	Item (17) - category number (7) in the last line of the first full paragraph seems to be the wrong reference.
158	152	7.3.8	7-37	No wetlands per DEIS and no tunneling on project required
159	153	7.3.8	7-37	Vehicle Procurement - The City has developed as adequate plan to proceed with the vehicle procurement package. Although not as a stand alone procurement but integrated as a turnkey project together with all other systems elements. RFPs 1 & 2 for all the systems work have been identified and the dates can be met based on the present schedule.
160	154	7.3.8	7-37	Systems Integration - TO adequately address all systems integration/start-up and testing requirements further design details are required to develop a more meaningful schedule. During further design development the City will address these issues.
161	155	7.3.8	7-38	Vehicle Procurement has been addressed. See comment No. 153 above
162	156	7.3.8	7-39	December 15, 2012, not 20012.
163	157	7.3.8	7-39	Systems Integration - The City has addressed the PMO concerns and agrees that the systems work is critical to the overall project. The City is of the opinion that through a turnkey systems approach, integration issues can be significantly minimized.
164	158	8.2.6	8-11	Number of properties impacted is 205

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165	159	8.2.6	8-11	Dillingham is primarily sliver takes except at touch down points for station. Most properties will lose 10-20 feet to roadway widening which will result in some loss of parking and landscaping. Dillingham's visual/aesthetic impact is rated low to moderate.
166	160	8.2.6	8-11	MOU with HDOT is pending, but there have been discussions and preliminary understanding on how to address property concerns.
167	161	8.2.6	8-11	Permanent & temporary easements will be determined in PE.
168	162	8.2.7	8-11	The City has completed sufficient research and continues to do so to determine that the "Light Metro" car is the correct application for the HHCTCP. The proposed vehicles are presently used in other cities as transit vehicles for "mainline" service and not just on "people Mover" systems.
169	163	8.2.7	8-12	Requirement Risk (SCC 70.02) The City disagrees with the PMO's finding regarding the vehicle size and is confident that 60-65 vehicles as proposed is adequate to run full revenue service.
170	164	8.2.7	8-12	Market Risk (SCC70.02) The City has conducted sufficient research to conclude that sufficient vendors are available to obtain competitive bids. With a turnkey approach the City further believes that cost savings can be obtained. Future competition does not appear to be compromised since the proposed vehicle type is not unique but used in other cities.
171	165	8.2.8	8-12	It is unclear why "GEC contract for PE does not clearly define NTP #3" is a risk. NTP #3 was issued on 7/28/2008 and is limited to Phase 1 work related to the solicitation of the design-build, vehicle and systems procurement activities.
172	166	8.2.8	8-12	"GEC contract is $85 million but SCC estimate includes $75 million for PE" is misleading. The entire $85 million GEC contract amount is not attributable to PE. The SCC estimate relates to PE costs AFTER the Project is advanced into PE.
173	167	8.2.9	8-14	Delete risk related to a transit authority.
174	168	8.2.9	8-14	"The Chief Procurement Officer of the City/County government has been identified as having the authority for contract approval authority" should not be considered a risk.
175	169	8.2.9	8-14	In Design Risks City disagrees with words "unattainable" & "serious."
176	170	10	10-1	10-1 to 10-16 shows the technical output from a "Monte Carlo" simulation of the schedule. City questions the applicability of the Monte Carlo simulation approach at this stage of the project.
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180	**Action Codes:**			
181	A	Initiator agrees and will comply / take action		
182	B	Initiator disagrees for reasons noted: discussion may be required		
183	C	Answer provided: no action		
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180		**Response Code**							
181		A	Accept						
182		N	Not Acceptable						
183		D	Discussion Required						
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