

# List of Planning Data

Policies and Procedures

Accepted by the Policy Board

On

September 21, 2015

Oahu Metropolitan Planning Organization

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### I. Overview

Pursuant to 23 U.S.C. 134, the Oahu Metropolitan Planning Organization (OahuMPO) Policy Board is the governing authority for the multimodal cooperative, comprehensive, and continuing (3-C) planning process for Oahu. OahuMPO is required to have a performance-based planning process. Analysis of the multimodal transportation system will be used to plan and implement actions that enhance the system's performance. Data provides decision-makers with a better understanding of existing and anticipated system performance and information on the effectiveness of transportation improvement strategies, from both quantitative and qualitative perspectives.

Further, the Comprehensive Agreement dated July 20, 2015<sup>1</sup>, which is an agreement on the responsibilities of the OahuMPO, makes the following seven references to 'data:'

WHEREAS, the applicable Federal regulations provide that, to the extent possible, there be one cooperative agreement containing the required understandings among the State, the City, the MPO, and the Operator to include specific provisions for cooperatively developing and sharing **data** and information related to the development of the financial and other plans that support the ORTP, the TIP, the annual listing of obligated projects, and other requirements established in 23 CFR 450 Subpart C; and

WHEREAS, 23 CFR 450.314 requires that an agreement be developed and shall include specific provisions for cooperatively developing and sharing **data** and information and shall cooperatively determine their responsibilities in carrying out the multimodal 3-C Planning Process; and

D.3. Powers and Duties of the OahuMPO Executive Director and Staff. [...] The duties of the Executive Director, together with other OahuMPO staff, shall include, but shall not necessarily be limited to, the following: [...] (f) Obtain requisite **data** and update and maintain the Travel Demand Forecasting Model, which shall be deemed the definitive source of future travel demand for the island of Oahu, as further established in the **data** sharing supplemental agreement among the jurisdictions and authorities party to this Comprehensive Agreement;

<u>E.1. Oahu Regional Transportation Plan ("ORTP").</u> [...]The OahuMPO staff, State, Operator, and City shall validate **data** used in preparing other existing modal plans for providing input to the ORTP; and shall cooperatively develop estimates of funds that are assured to be available to support ORTP implementation.

<sup>&</sup>lt;sup>1</sup> **Emphasis** added. See <a href="http://www.oahumpo.org/">http://www.oahumpo.org/</a> Data Processes and Procedures 9/21/15 FINAL

<u>E.4 Congestion Management Process ("CMP").</u> [...] The CMP shall include: [...] c) Establishment of a coordinated program for **data** collection and system performance monitoring to define the extent and duration of congestion, to contribute in determining the causes of congestion, and evaluate the efficiency and effectiveness of implemented actions;

TABLE 1 Participating Agency **Data** Update and Maintenance Responsibility for Technical Elements (See Appendices)

Data is at the center of the OahuMPO's core planning products – the long-range transportation plan (ORTP), CMP, Transportation Improvement Program (TIP), and Overall Work Program (OWP) – and bound by a public participation process. Transportation planning is a continuous process where multiple elements occur concurrently and are integrated. At its highest level, data products are integrated into the development of the ORTP. The *List of Available Planning Data*<sup>2</sup> is a coordinated planning data collection effort directed by the Regional Goals & Objectives identified by the ORTP.

This document establishes procedures necessary to prepare the *List of Available Planning Data*. Key tenets of these procedures are that:

- I. The OahuMPO is committed to supporting a performance-based, data driven strategic decision-making process;
- II. Data items which must be delivered in a timely manner to enable staff to produce the required studies, reports, and related documentation;
- III. Data can be obtained from readily available sources, through data sharing agreements, through purchase from private sources, or collected in the field;
- IV. Resources are held in the form of databases, reports, studies, models, tools, and financial data; and
- V. The OahuMPO philosophy is to use the best available information to deliver a high-quality product and insure the integrity of the analyses.

# II. Federal Requirements

Title 23 USC, Section 134(h)(2) specifies that "the metropolitan transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decision-making...." This will necessitate the routine measuring of

transportation system performance, management of that data, and reporting the data as part of the decision-making process.

Additionally, a joint Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, Federal Review Team conducted a review of the OahuMPO in 2014. The Review Team certified the MPO contingent upon the resolution of specified corrective actions. One of the corrective actions requires that the MPO "Develop and document a list of available planning data among partner agencies, and the protocols for interagency transportation planning data collection, maintenance and sharing" prior to September 26, 2015.

Federal Reviewer Team Members made the following observation:

"Data necessary to develop and manage the documents and processes required for the MPO is made available through various agencies within the state, through MPO member agencies. TAC members expressed frustration over the collection and availability of data. This has resulted in confusion over what is specifically needed to support MPO processes and who is responsible for collecting and receiving data and ultimately a delay in getting data when needed to maintain MPO planning schedules."

The creation of a formal *List of Available Planning Data* and further development of a comprehensive data management and sharing study, as established in this procedures guide, satisfies Federal requirements for the OahuMPO to coordinate planning data.

# III. Funding

Funds for the use of planning data may be allocated among various OWP, TIP, or State Planning and Research work elements. Generic funding to support the development of the *List of Available Planning Data* and maintenance of the Planning Data Repository will be identified in OWP Work Element 301.13 Census & Other Data, which has the objective of ensuring "that the data from the decennial census, as well as transportation-related data from other sources, are used to their fullest potential." <sup>3</sup>

There are costs associated with acquiring and analyzing data, which will need to be balanced against the potential benefits of the data when determining the data source(s) for core planning products. Although particular data sets can be obtained at no cost to the OahuMPO, analysis may be cumbersome because the source did not make the data machine readable, for example. It may be necessary to establish relationships with private vendors and/or partner agencies to purchase necessary data.

<sup>&</sup>lt;sup>3</sup> Cf. <a href="http://www.oahumpo.org/plans-and-programs/overall-work-program-owp/">http://www.oahumpo.org/plans-and-programs/overall-work-program-owp/</a> Data Processes and Procedures 9/21/15 FINAL

## IV. Planning Priorities

Data needs will be evaluated no less than semi-annually. The List of Available Planning Data will include the following information for each data source when available:

- relevant Regional Goal and Objective,
- sample measures of effectiveness,
- data title,
- Web address.
- ESRI REST service,
- scheduled update cycle,
- accessibility,
- contact person,
- E-mail address,
- phone number,
- custodian,
- instructions.
- metadata, and
- and a sample graphic from the data.

Not all data considered in the *List of Available Planning Data* may be deemed "necessary" and used in a core planning product.

There are four basic types of data used by the OahuMPO: existing public data in the OahuMPO's possession, existing data in a partner agency's possession; data or models available in OahuMPO's repository; and newly created, collected, or purchased data. The flow of data in these basic categories is discussed in Section VI, Semi-Annual Schedule.

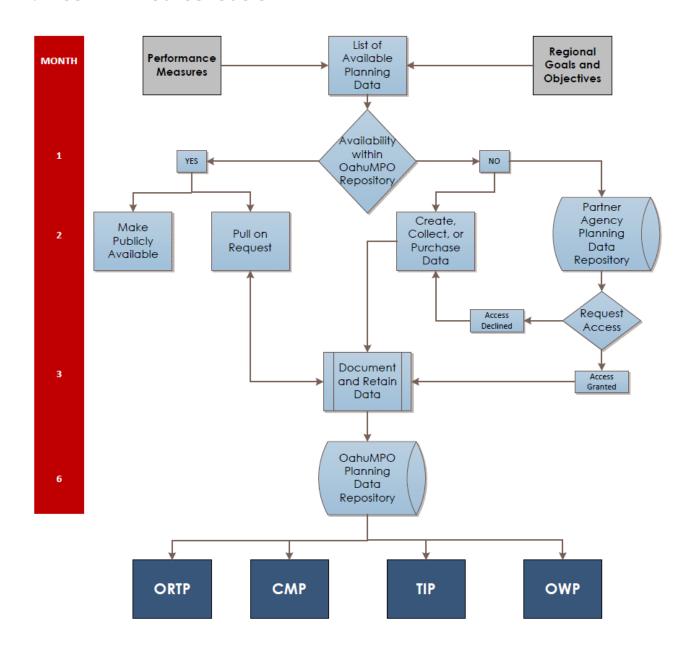
Prioritization of data needs will follow the same prioritization process used in the evaluation of candidate work elements in the development of the OWP or the priority identified in the TIP. Data relied upon for work products identified in the OWP or TIP will be defined as required when included on the *List of Available Planning Data*.

#### V. Performance Metrics

Performance metrics measure the OahuMPO's behavior and performance in meeting the requirement to develop and document a *List of Available Planning Data*. The following metrics shall be used when evaluating the OahuMPO's performance and shall be included in the Discussion and Analysis section of OahuMPO's Annual and Semi-Annual Progress Report<sup>4</sup>:

- The number of unique visits to OahuMPO data on a public data repository
- Number of separate databases available to the public
- Number of outside requests to receive copies of OahuMPO owned models
- Response rate for model data being provided back to the OahuMPO
- Size in megabytes and number of unique resources in the OahuMPO data repository

### VI. Semi-Annual Schedule



### VII. Agency Responsibilities

In order for the OahuMPO to carry out regional, performance-based transportation planning functions, large amounts and various types of data are required. A consultation process has been established with the Hawaii Department of Transportation (HDOT), the Department of Business Economic Development and Tourism Research and Economic Analysis Division (DBEDT Research), the State Office of Planning (OP), the Hawaii Department of Health (DOH), the City and County of Honolulu Department of Transportation Services (DTS), Department of Planning and Permitting (DPP), Department of Facility Maintenance (DFM), and Department of Budget and Fiscal Services (BFS), and the Honolulu Authority for Rapid Transportation (HART) who entered into an agreement<sup>5</sup> with the OahuMPO to established interagency procedures for the collection, maintenance, and sharing of regional data and information deemed necessary to carry out the continuing, cooperative, and comprehensive (3-C) transportation planning process. The agreement provided an illustrative list of the types of resources — held in the form of databases, reports, studies, models, tools, and financial data — which are required. Consideration will be given to data published by the US Department of Transportation along with both additional partner agencies and private partners when establishing the List of Available Planning Data.

## VIII. Call for Projects and Workflow

To maintain a coordinated and cooperative partnership, the OahuMPO will develop a list of transportation-relate planning data currently available to carry out the multimodal transportation planning process. A metadata repository will be maintained by OahuMPO to accompany the *List of Available Planning Data*.

Initially, and then no less than every six (6) months, the OahuMPO will prepare a draft List of Available Planning Data and request an update to the list from the agencies identified in Section VII, above. The timing of the regularly scheduled update shall be coordinated with the development of the OahuMPO's Semi-Annual Status Report (SASR) for Projects Programed in the TIP. To facilitate a more cooperative data sharing process and discussion of available regional data and tools, the draft List of Available Planning Data will identify, for each data item, the specific partner to whom the request is being made. Partners will provide a response indicating the availability of the requested data and the date the data can be provided. This List of Available Planning Data is intended to serve as a courtesy planning tool and is not intended to be a final list of necessary planning data required by the OahuMPO to complete any identified planning effort. Within 14 calendar days of producing the List of Available Planning

<sup>&</sup>lt;sup>5</sup> http://www.oahumpo.org/wp-content/uploads/2013/02/OahuMPO\_Data\_Sharing\_Agreement\_20160720-SIGNED.pdf Data Processes and Procedures
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Data, the OahuMPO staff will follow up with the affected partner(s). Data available from other local, State, Federal, or private sources may be determined to be best suited for inclusion on the List of Available Planning Data to complete upcoming transportation planning effort(s). After the semi-annual List of Available Planning Data has been updated and no less than 90 days from the time the update was initiated, the OahuMPO will provide the updated list to the OahuMPO Transportation Advisory Committee (TAC) at its next regularly scheduled meeting.

Responsibilities	Action Needed	Deadline
OahuMPO	Prepare the List of Available Planning Data, distribute to partners, and offer to meet to discuss availability and format of the requested data	Semi- Annually (With SASR)
OahuMPO and Partner(s)	Provide written status of the availability of the requested data and the date to be provided	30 days of initial request
Partner(s)	Provide the requested data	60 days of initial request
OahuMPO	Provide the updated list of planning data to the OahuMPO TAC	TAC meeting

# IX. Approval and Status Reporting

Core planning products and special studies – whether they be those of the OahuMPO or of one of the agencies producing a product through the OWP – are required to be reviewed by both OahuMPO and USDOT. In some cases, drafts are also reviewed by the CAC and TAC. All OahuMPO planning products must be adopted by the Policy Board. Data used in planning products will be included in the next update to the *List of Available Planning Data* and published on the OahuMPO Web site.

### X. Revisions and Amendments

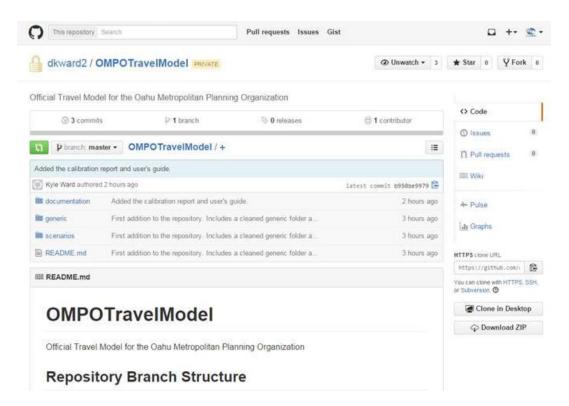
Pending the availability of funds, the OahuMPO has agreed to conduct a comprehensive data management and sharing study to establish a data sharing pool and recommend a program to outline specific policies and procedures concerning the collection, management, and distribution of data to support the local, metropolitan, and state decision-making process. It is expected that the study would be periodically updated. As part of this process, the establishment of a data management subcommittee to oversee the development, research, and analysis of data may be

considered. The subcommittee would guide the policies and procedures related to making revisions or amendments to the list of necessary planning data.

## XI. Project Close-out

Work products identified in the OWP and TIP are funded in part through grants from the USDOT. Draft and final work products, including the associated digital files used in the development of the work products, are the property of the OahuMPO. Work products will be obtained at appropriate milestones and prior to acceptance and final payment. Work products will be maintained to the extent that storage space allows but no less than the minimum retention period established by Federal and State law.

Where possible the OahuMPO will also establish a web-based data repository. Preference will be given to the use of an ArcGIS REST service hosted by a partner agency such as http://gis.hawaii.gov/arcgis/rest/services for public access. Examples of private repositories have been developed in GitHub<sup>6</sup> and Figure 1 illustrates one implementation. Partner agencies are encouraged to use the OahuMPO TDM resources and a sample Travel Demand Model Agreement, Acknowledgement, and Release is included in Appendix D. The repository framework allows modifications to the model to be easily compared to standard products.



<sup>&</sup>lt;sup>6</sup> https://github.com/dkward2/OMPOTravelModel or https://github.com/synthicity/urbansim Data Processes and Procedures 10

## XII. Error! Reference source not found. Glossary

<u>Consideration</u> – means that one or more parties takes into account the opinions, action, and relevant information from other parties in making a decision or course of action.<sup>7</sup>

<u>Consultation</u> – means that one or more parties confer with other identified parties in accordance with an established process and, prior to taking action(s) considers the views of the other parties and periodically informs them about action(s) taken.<sup>8</sup>

<u>Core Planning Products</u> – the long-range transportation plan (Oahu Regional Transportation Plan or ORTP), Congestion Management Process (CMP), Transportation Improvement Program (TIP), and the Overall Work Program (OWP), as bound by the public participation process.

<u>Custodian</u> – the agency where data originates, unless otherwise agreed to by the partner agency where the data originates.

<u>List of Planning Data</u> – a list of available and necessary planning data to complete upcoming OahuMPO transportation planning effort(s). The list of planning data will include a description of the data attributes, format, anticipated date of need, date of standard publication, warehouse location, data custodian, requirements to access the data, and other details. The list will be made available to all partner agencies.

Machine Readable – Format in a standard computer language (not English text) that can be read automatically by a web browser or computer system. (e.g.; xml). Traditional word processing documents, hypertext markup language (HTML) and portable document format (PDF) files are easily read by humans but typically are difficult for machines to interpret. Other formats such as extensible markup language (XML), (JSON), or spreadsheets with header columns that can be exported as comma separated values (CSV) are machine readable formats. It is possible to make traditional word processing documents and other formats machine readable but the documents must include enhanced structural elements.9

**Necessary Data** – data required for analyses to complete OahuMPO core planning products for retention as long as 5 years.

**Partner Agency** – any public agency that shares data with the OahuMPO.

<u>Planning Data Repository</u> – a central place where data is stored and maintained. A repository can be a place where multiple databases or files are located for distribution

<sup>7 23</sup> CFR 450.104

<sup>8 23</sup> CFR 450.104

https://www.whitehouse.gov/sites/default/files/omb/assets/all\_current\_year/s200.pdf
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over a network, or a repository can be a location that is directly accessible to the user without having to travel across a network.

**<u>Pull</u>** – means to requests data from the agency where data originates.

<u>Push</u> – means to send modified data either on request or at prescribed intervals.

<u>REST</u> – Representational State Transfer. An architecture for exchanging information between peers in a decentralized, distributed environment. REST allows programs on different computers to communicate independently of an operating system or platform by sending a Hypertext Transfer Protocol (HTTP) request to a uniform resource locator (URL) and getting back data in some format—for example, XML, or inside a URL. REST is used in Web services.<sup>10</sup>

<sup>10</sup> http://support.esri.com/en/knowledgebase/GISDictionary/term/REST Data Processes and Procedures
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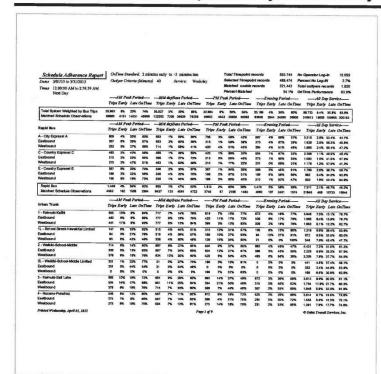
# **Appendices**

A. TABLE 1 "Responsibility for Technical Elements" from the Comprehensive Agreement, dated July 20,2015

Tachmical Flowant	Participating Agency			
Technical Element	OahuMPO	Operator	City	State
I. Data Update and Maintenance				
A. Population Forecasting				X
B. Population, Allocation of Forecasted Totals			X	
C. Socioeconomic, Demographic			X	
D. Land Use			X	
E. Air Quality				X
F. Highway System/Facilities	X		X	X
G. Transit System/Facilities	X	X	X	
H. Airport/Harbor Facilities				X
I. Bicycle/Pedestrian Enhancement Facilities	X	X	X	X
J. Traffic	X		X	X
K. Travel Patterns	X	X	X	
II. Technical Documents				
A. Honolulu General and Development Plans			X	
B. Statewide Transportation Plan				X
C. Oahu Regional Transportation Plan	X			
D. Overall Work Program	X			
E. Statewide Transportation Improvement Program				X
F. Oahu Transportation Improvement Program	X			
G. Harbors Master Plan				X
H. Airports Master Plan				X
1. Local Area Plans			X	X
J. Transportation Subarea Planning Studies	X			
K Multimodal Corridor Planning Studies	X			
L. Coastal Zone Management Plan				X
M. Ocean Resources Management Plan				X
N. Climate Change and Extreme Weather Studies	X	X	X	X
III. Models				
A. Transportation Forecasting	X			
B. Land Use			X	

C. Econometric				X
D. Population			X	X
E. Climate and Weather				X
IV. Management Systems				
A. Management Systems			X	X
B. Congestion Management Process	X	X	X	X
V. Intelligent Transportation Systems	X	X	X	X

### 1 Improve surface transportation system efficiency



#### Weekday Schedule Adherence

Planning Data Goal: 1

Improve surface transportation system efficiency Objective Code: 1.A

Measure: Transit On-time Arrivals

Implementation Activity ORTP - CMP

Implementation Activity 2 2019-2022+ TIP, 2016-2018+ TAP, or 2015-2018+

Level of Analysis: System Wide or Project Specific

Planning Data Term Long, Mid, or Short Planning Data List: Available or Required

Update Cycle Monthly

Accessiblity: Pull Contact: Ginger Nagamine

Custodian: OTS, Inc.

Phone: (808) 848-4576

E-Mail: GINGER.NAGAMINE@thebus.org

Cost: \$0.00

Pending REST: Pending

Website:

Instructions: Pending

Metadata: Pending

Planning Data

Page 1

C. Travel Demand Model Agreement, Acknowledgement, and Release



#### TRAVEL DEMAND MODEL

#### AGREEMENT, ACKNOWLEDGEMENT, AND RELEASE

This agreement sets forth the terms and conditions under which the Oahu Metropolitan Planning Organization ("OahuMPO") will release to <u>Policy Board (PB) member organization</u> or its designated agent, <u>XYZ Consultant</u>, ("<u>PB MEMBER/CONSULTANT</u>") its travel demand forecasting or land use model ("model") and associated materials in response to a <u>June X, 2015</u> request. This agreement shall govern use of the model to aid in decision making or education of a public body, city, county, state, or federal government by parties outside of the OahuMPO.

### The parties hereto agree:

- 1. OahuMPO will release to PB MEMBER/CONSULTANT the OahuMPO model and associated documentation as set out in the June X, 2015 request.
- 2. OahuMPO and PB MEMBER/CONSULTANT agree to the following conditions on the release of the requested materials:
  - a. The model runs and associated material produced under the terms of this agreement will be used only for completion of the XYZ Report; and upon any review by a public body of the XYZ Report, copies of all such material, including the model, any associated modifications to the model, and any files associated with runs of the model will be returned to OahuMPO; and that none of the material produced under the terms of this agreement will be released to or used by anyone except the PB MEMBER/CONSULTANT for the XYZ Report project.
  - b. The issuance of any reports or other public release of any results, conclusions or other work product based on review or use of the model by PB MEMBER/CONSULTANT will be preceded by five business days advance notice to OahuMPO to enable it to review such materials in advance. While the PB MEMBER/CONSULTANT may be provided with feedback from OahuMPO, this condition does not create any editorial control or veto authority over the right of

- PB MEMBER/CONSULTANT to release to the public whatever materials, conclusions or recommendations it deems appropriate as a result of its review of the OahuMPO model.
- c. The release of the requested materials by OahuMPO, and the agreement by PB MEMBER/CONSULTANT to the terms and conditions set out herein, shall in no way be deemed to set a precedent for either party regarding the disposition of future requests under the Uniform Information Practices Act ("UIPA") Hawaii Revised Statues Chapter 92F, and the parties agree that in consideration for the agreements made herein, PB MEMBER/CONSULTANT agrees that its UIPA request of June X, 2015 has been fully satisfied, and that PB MEMBER/CONSULTANT has no further claim for information sought thereby.
- d. The PB MEMBER/CONSULTANT shall be allowed to make changes to the program for their own use.
- e. Use of the model does not imply any OahuMPO endorsement of the results.
- f. OahuMPO is providing the model program free of charge. The undersigned, having full authority to act on behalf of the PB MEMBER/CONSULTANT herein, hereby acknowledges that any data used as input to the model is subject to constant change, and that its accuracy cannot be guaranteed by OahuMPO. The model is being provided as is, without warranty of any kind, either expressed or implied including, but not limited to, the implied warranty of merchantability and fitness for a particular purpose. The parties do not warrant that the functions contained in the model will meet the PB MEMBER/CONSULTANT's requirements, or that the operation of the model will be uninterrupted or error free, or that model defects will be corrected. The entire risk as to the quality, performance, and usefulness of the model rests with the PB MEMBER/CONSULTANT. The PB MEMBER/CONSULTANT shall assume the cost of all necessary servicing, repair, or correction for the PB MEMBER/CONSULTANT's own use.

The PB MEMBER/CONSULTANT hereby releases OahuMPO, its agents, consultants, contractors, or employees from any and all claims, actions, or causes of action for damages – including, but not limited to, any costs of recovering, reprogramming, or reproducing any programs or data stored in or used with the model; any damages for personal injury; any damages to property; any damages for lost profits or lost savings; or other special, incidental, or consequential damages arising out of the use of or inability to use the model – even if said parties have been advised of the possibility of such damages.

The signatures below indicate that the Oahul	ЛРО and
agree to the terms of the model use describe	d above. PB Member Organization
Brian Gibson	Date
Executive Director	
PB MEMBER ORGANIZATION	
Name (please print)	Organization
. , ,	-
Signature	Date
Signature	bule
Title	
CONSULTANT	
Name (please print)	Organization
Signature	Date
	<del>- 1</del>
Title	





**OMPO** 

February 23, 2015

To:

Ford Fuchigami, Director

Department of Transportation

From:

Executive Director

Subject:

Request for Access to State Information Systems

We would appreciate receiving your permission to access the State's Geographic Information System (GIS) web site in order to assist us in preparing a data use sub-agreement as specified in the joint Federal Highway Administration and Federal Transit Administration 2014 certification review corrective action. Access to the GIS data layers will enable us to efficiently maintain the Oahu Regional Transportation Plan, Transportation Improvement Program, and Congestion Management Process.

With your approval, we will work with Mr. Goro Sulijoadikusumo, HWY-PH, to establish the connection to the system.

Please call Chris Clark, Senior Planner, at 587-2015 if you have any questions or would like more information on the OahuMPO's GIS efforts.

BRIAN GIBSON

APPROVED

DISAPPROVED

FORD FUCHIGAM

DEPARTMENT OF TRANSPORTATION

3.10.1

DATE