



COUNTY OF LOS ANGELES

CHIEF INFORMATION OFFICE

Los Angeles World Trade Center
350 South Figueroa Street, Suite 188
Los Angeles, CA 90071

RICHARD SANCHEZ
CHIEF INFORMATION OFFICER

Telephone: (213) 253-5600
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August 21, 2013

Address block line 1
Address block line 2
Address block line 3
Address block line 4

Dear XXXXXXX,

2013-14 LOS ANGELES REGION IMAGERY ACQUISITION CONSORTIUM AND KICK-OFF MEETING

Established in 2005, the Los Angeles Region Imagery Acquisition Consortium (LAR-IAC) has delivered highly accurate digital aerial imagery and elevation datasets to participants at substantial cost savings. To ensure the currency of the aerial imagery, we are working with consortia members to plan and initiate the next round of LAR-IAC – **LAR-IAC4**. This document describes LAR-IAC, highlights its benefits, provides a status update, and discusses the proposed scope, schedule, and cost.

KICK-OFF MEETING

We invite you to attend the LAR-IAC4 Kick-Off Meeting, which will include detailed project discussions, presentations by existing participants, and the opportunity to ask questions. This Meeting will allow you to gather more information about LAR-IAC4 and discuss project benefits with other participants.

To conserve paper, we will also E-mail a digital copy to the LAR-IAC participants we have contacted in the past. These participants are listed on Attachment I.

The Kick-Off Meeting will be held on:

Thursday, September 12, 2013
9:30 AM – 12:00 PM
Room 150 Hall of Records
320 West Temple Street
Los Angeles, CA 90012

Lunch will be provided after the presentation.

To help us plan for lunch, please RSVP at:

<http://egis3.lacounty.gov/dataportal/lariac/lar-iac4/kickoff-Meeting/>

LAR-IAC BACKGROUND

LAR-IAC is led by the County of Los Angeles in partnership with cities and agencies, collaboratively acquires valuable digital aerial data, including imagery and elevation data. Leveraging the buying power of the combined agencies, LAR-IAC has reduced costs and enabled participants to acquire more data than would be possible individually.

We estimate LAR-IAC has saved participants over \$15 million in direct acquisition costs to date.

The LAR-IAC Website (<http://egis3.lacounty.gov/dataportal/lariac/>) provides comprehensive information about the project, including detailed data descriptions and samples, product guides, documentation, and agreements.

DIGITAL AERIAL IMAGERY AND ELEVATION BENEFITS

Digital aerial imagery and elevation data provide valuable support for decision making within agencies, as well as cost savings for operations. High quality imagery data enables staff to “see” before they go, and reduces field work and information collection costs. Some examples include:

- **Public Safety:** Fire and Police personnel can “see” the location of incidents and addresses, improving dispatching, crime analysis, incident response, and officer safety.
- **Public Works:** Reduces the need for field visits, supports traffic and pavement management, storm drain and flood protection, and enhances project planning and infrastructure management.
- **Planning:** Improves code enforcement, site plan review, and understanding of impacts of new projects.
- **Economic Development:** Improves outreach to businesses by providing detailed site information for potential developments and surrounding areas.
- **Disaster Planning and Response:** Improves planning and response before, during, and after disasters, and provides the foundation for a Common Operating Picture.
- **Community Outreach:** Improves communication with residents by providing a picture of the area of discussion, increasing citizen engagement.
- **Operational Efficiency:** A consistent view of a city or agency supports collaboration, integration, and efficiency to lower operational costs.

LAR-IAC BENEFITS

High resolution data provided through LAR-IAC data offers key benefits when compared to aerial imagery from online providers (“free mapping websites” like Google or Bing), and off-the-shelf vendors. These include:

- Enhanced resolution (4-inch rather than 1-foot) shows greater detail and provides more information (you can see manhole covers and road striping);
- Unparalleled accuracy (+/- 2-feet accuracy) ensures information captured from the imagery is in the right location, supporting facilities management, planning, and operations;
- Breadth of products (orthogonal and oblique imagery, building footprints, and elevation data) to support of city or agency’s business needs;
- Multiple access methods, including desktop, handheld, and mobile, as well as local and remotely hosted solutions to eliminate agency hardware and software costs;
- Variety of formats, including GIS-ready, CAD-ready, and compressed formats to enable use within existing applications in the field;
- Historical data from earlier acquisitions to provide change detection; and
- Complete control of the data, including the use by your contractors. LAR-IAC participation covers data use and deployment across or agency in all applications, from planning to emergency services to public works.

One of the key benefits of LAR-IAC is cost sharing, which lowers costs as more cities and agencies participate. Cost savings are passed back to participants, and the more participants join, the lower the cost.

To date, 74 cities, County departments, and agencies have benefited through these cost savings. These entities are listed in Attachment I. We invite you to contact these participants to learn more about their use and benefit from the LAR-IAC.

LAR-IAC4

LAR-IAC4 is in its fourth round (LAR-IAC4) of digital aerial data acquisition, scheduled for winter 2013-14 with delivery by August 2014.

LAR-IAC4 is a comprehensive update to all data that has been acquired to date, including a major increase in resolution for all elevation data products that have been acquired in the past, which are now eight years old.

LAR-IAC4 Product List

Orthogonal Imagery

- 3-band color orthogonal imagery at 1-foot resolution from 2012.
- 3-band color orthogonal imagery at 1-foot resolution from 2013, enhanced with LAR-IAC accuracy.
- 4-band orthogonal imagery (including color infrared) at 4-inch resolution in the urban areas, and 1-foot in the National Forest.
- Multiple formats (TIFF, JPEG2000, and compressed ECW).

Oblique Imagery

- 3-band color oblique imagery at 4-inch resolution.
- Online hosted access for desktop and mobile devices.

Building Outlines

- Building outlines for all buildings over 400 square feet.

Digital Terrain Data

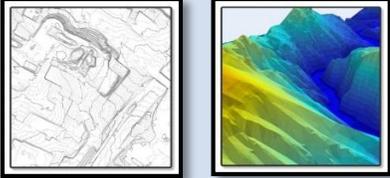
- LIDAR point cloud including all elevation data (2.3 foot spacing).
- Digital Terrain Model (DTM) – bare earth data derived from LIDAR.
- Digital Surface Model (DSM) - building and tree tops derived from LIDAR.
- Digital Elevation Model (DEM) – bare earth data optimized for processing.
- 1-foot contours for urban areas, and 2-foot contours for the National Forest.

Derived Data

- Tree canopy data.
- Solar insolation data model.
- Permeability model (NDVI).
- Slope model from DEM.
- Hill-shade from DEM.
- Height Model from DEM.

Attachment IV shows the complete Digital Data list.

The table below shows the various LAR-IAC data acquisitions.

<u>Data Types</u>	<u>LARIAC1</u> <u>2006</u>	<u>LARIAC2</u> <u>2008</u>	<u>LARIAC3</u> <u>2011</u>	<u>LARIAC4</u> <u>2014</u>
Orthogonal Imagery (4-inch) 	X (including Infrared)	X	X	X (including Infrared and 1-foot imagery from 2012 and 2013)
Oblique Imagery 	X	X	X	X
Building Outlines 		X		X
Elevation Data 	X			X
Derived Data <ul style="list-style-type: none"> • Tree Canopy • Solar Insolation • NDVI (Permeability) • Slope • Hillshade • Height 	X			X

LAR-IAC4 COSTS

The County is currently issuing a Request for Proposal (RFP) to identify the partner(s) that will acquire the high-quality digital data products for LAR-IAC4. Technology improvements are expected to result in lower data acquisition costs for LAR-IAC4, which will reduce costs to all participants.

While final costs will be determined upon contract execution, we anticipate that overall LAR-IAC4 contract costs conservatively will be approximately 10 percent lower than LAR-IAC1, even as we acquire more products and increase quality control. Any costs lower than anticipated will be shared among LAR-IAC participants, and if more participants join LAR-IAC, costs will be adjusted accordingly.

Your portion of the cost of LAR-IAC4 will not exceed **\$XXXX.**

To provide funding flexibility, the County will accept payments from multiple fiscal years to reduce the budget impact of a single, large payment. It will also allow you to include any reduction in price from additional participants joining LAR-IAC4 in your second payment.

LAR-IAC4 PARTICIPATION

If your city or agency is interested in joining LAR-IAC4, please complete, sign, and return the attached "Letter of Intent" on your business letterhead by Thursday, October 31, 2013. The County understands the Letter of Intent is subject to final approval by your City Council or authorizing Board of Directors.

To confirm your city/agency's commitment to participating in funding LAR-IAC4, complete, sign, and return the attached "Participant Agreement," authorizing the County to invoice your city/agency for the initial payment.

DELIVERY OF 2012 AND 2013 DATA

Upon receipt of your "Letter of Intent," the County will arrange delivery of the Eagle Aerial Imaging's 2012, 1-foot aerial imagery. Upon receipt of the initial payment, we will arrange delivery of the Aerial Imaging's 2013 "Precision One", High Accuracy, 1-foot Aerial Imagery.

Please return either the signed "Letter of Intent" or "Participant Agreement" to:

Attention: Patty Almaguer
Chief Information Office
Los Angeles World Trade Center
350 South Figueroa Street, Suite 188
Los Angeles, CA 90071

We look forward to seeing you at the September 12th Kick-Off Meeting. If you have any questions, please contact the Project Director, Mark Greninger, at (213) 253-5624 or mgreninger@cio.lacounty.gov.

Sincerely,

A handwritten signature in black ink that reads "Richard Sanchez". The signature is written in a cursive style with a long horizontal stroke at the end.

RICHARD SANCHEZ
Chief Information Officer

Attachments (4)

ATTACHMENT I

LAR-IAC PARTICIPANTS

#	Cities	LAR-IAC 1	LAR-IAC 2	LAR-IAC 3
1	City of Agoura Hills	X		X
2	City of Azusa	X	X	
3	City of Bellflower			X
4	City of Beverly Hills	X	X	X
5	City of Burbank	X	X	X
6	City of Carson	X	X	X
7	City of Cerritos	X	X	
8	City of Claremont		X	X
9	City of Covina	X	X	
10	City of Culver City	X	X	X
11	City of Diamond Bar	X	X	
12	City of Downey	X		X
13	City of El Segundo	X	X	X
14	City of Glendale	X	X	X
15	City of Hermosa Beach	X	X	X
16	City of Industry	X	X	X
17	City of Inglewood	X	X	X
18	City of Irwindale	X	X	
19	City of La Canada Flintridge	X	X	X
20	City of La Habra Heights	X	X	
21	City of Lakewood	X	X	X
22	City of Lancaster	X		
23	City of Long Beach	X		X
24	City of Los Angeles	X	X	X
25	City of Manhattan Beach	X	X	X
26	City of Monrovia	X		
27	City of Monterey Park	X	X	
28	City of Palmdale	X		
29	City of Pasadena	X	X	X
30	City of Redondo Beach	X	X	
31	City of San Dimas			X
32	City of Santa Clarita	X	X	X
33	City of Santa Fe Springs	X		X
34	City of Santa Monica	X	X	X
35	City of South El Monte	X	X	
36	City of South Pasadena			X
37	City of Torrance	X	X	X
38	City of Westlake Village	X		
39	City of Whittier	X	X	X

#	Agencies	LAR-IAC 1	LAR-IAC 2	LAR-IAC 3
County Departments				
40	Agricultural Commission/Weights and Measures	X	X	X
41	Chief Executive Office/Office of Emergency Management	X	X	X
42	Department of Animal Care & Control			
43	Department of Beaches & Harbors	X	X	X
44	Department of Children & Family Services			
45	Department of Community & Senior Services			
46	Department of Health Services	X	X	X
47	Department of Mental Health			
48	Department of Parks & Recreation	X	X	X
49	Department of Public Health	X	X	X
50	Department of Public Social Services			
51	Department of Public Works	X	X	X
52	Department of Regional Planning	X	X	X
53	Fire Department		X	
54	Internal Services Department	X	X	X
55	Office of the Assessor	X	X	X
56	Probation Department			
57	Public Library		X	X
58	Registrar-Recorder/County Clerk	X	X	X
59	Sheriff's Department		X	X
Local Agencies				
60	Alameda Corridor Transportation Authority		X	
61	Caltrans	X		
62	LA County Sanitation Districts	X		
63	LARGIN (LA Region Gang Information Network)	X	X	
64	Port of Los Angeles	X	X	X
65	Santa Catalina Island Conservancy	X	X	
66	US Geological Survey		X	
67	Amigos de Los Rios			X
68	US National Guard			X
69	Los Angeles Air Force Base			X
Educational Institutions				
70	Palos Verdes on the NET			X
71	California State University Long Beach	X	X	X
72	California State University Los Angeles		X	
73	University of Southern California (USC)	X	X	X
74	University of California at Los Angeles (UCLA)	X	X	X

SAMPLE LETTER OF INTENT

<Current Date>

Richard Sanchez
Chief Information Officer
County of Los Angeles
Los Angeles World Trade Center
350 S. Figueroa St., Suite 188
Los Angeles, CA 90071

Dear Mr. Sanchez:

It is our intent to participate in the 2013-14 Los Angeles Region Imagery Acquisition Consortium (LAR-IAC4). LAR-IAC4 will acquire 4-inch color orthogonal, 4-inch oblique aerial photography, building representations (outlines), and digital terrain data. We understand the estimated cost will not exceed **\$XXXXXXXX**. Recognizing that our final commitment is contingent upon approval by our organization. It is understood this approval must be obtained prior to confirming our participation in this project.

If you have questions, please contact **<Name and Title of Primary Contact>** at **<Telephone, Fax and E-mail Address>**.

Sincerely,

Signature

Print Name

Title

Date

ATTACHMENT III

**PARTICIPANT AGREEMENT BY AND BETWEEN THE
COUNTY OF LOS ANGELES
AND PARTICIPATING ENTITIES FOR THE
LOS ANGELES REGION – IMAGERY ACQUISITION CONSORTIUM 4
("LAR-IAC4") PROJECT**

**PARTICIPANT AGREEMENT BY AND BETWEEN THE COUNTY OF LOS ANGELES
AND PARTICIPATING ENTITIES FOR THE
LOS ANGELES REGION – IMAGERY ACQUISITION CONSORTIUM 4 ("LAR-IAC4") PROJECT**

This Participant Agreement (Agreement) is made and entered into by and between the County of Los Angeles (County), a political subdivision of the State of California, and **XXXXXX**, a California city, special district, or agency. Each individual city, district, or agency is referred to herein individually as a "Participating Entity" and collectively as the "Participating Entities". The County and the Participating Entities are hereinafter referred to collectively as the "Parties" and each individually as a "Party".

- A. **WHEREAS**, County has planned to acquire new digital orthogonal and oblique aerial imagery in the winter of 2013-2014 Project;

- B. **WHEREAS**, County has become aware that various Participating Entities have similar projects currently underway or plans to undertake similar projects in the near future;

- C. **WHEREAS**, in order to avoid the duplication of efforts and costs by the Parties, the Parties desire to pool their resources to collectively undertake the Project; and

- D. **WHEREAS**, the Parties intend to participate in the Project upon the terms and conditions set forth herein below.

NOW, THEREFORE, in consideration of the mutual covenants herein set forth and the mutual benefits to be derived therefrom, the Parties agree as follows:

1. Purpose

The purpose of this Agreement is to provide a vehicle for the collective participation in the Project by the Parties. The Project shall focus on the acquisition of certain aerial imagery digital data which may include, but are not limited to, products listed in Attachment A ("Digital Data"). It is the intent of the Parties that Digital Data shall be acquired under this Agreement for areas within the County of Los Angeles covered by the jurisdictions of the Parties.

2. Responsibilities of the County

- A. Identify and provide specifications for Digital Data (or their derivatives) to the contractors hired to complete the Project.
- B. Develop all necessary procurement documents for necessary services to be provided by one or more qualified contractors in connection with the acquisition and administration of the Digital Data.
- C. Select the most qualified contractor or contractors to provide the necessary services in connection with the acquisition and administration of the Digital Data and thereafter, manage the entire acquisition and administration of the Project.
- D. With the assistance of one or more selected contractors, provide Quality Control (QC) for all Digital Data delivered under this Agreement.
- E. Arrange for the delivery of the Digital Data (or portions thereof) to the Participating Entity upon Project completion.
- F. Provide monthly reports to the Participating Entities on the status of the Project.

3. The Participating Entity Has the Right to

- A. Participate in identifying and providing technical specifications for the Digital Data (or their derivatives).
- B. Provide currently available geodetic points (with necessary standards and accuracy) for County's QC process.
- D. Acquire additional digital aerial products from the contractors through this agreement, provided that a Statement of Work is attached as Exhibit A.1. County assumes no liability for the completion of these products.

4. Mutual Responsibilities; Maximum Contribution

The Parties shall be mutually responsible for the following:

- A. Financing the acquisition and administration of the Digital Data including, but not limited to, costs related to QC and the subsequent distribution thereof. The total cost of such acquisition and administration (Total Cost) shall be allocated among the Parties and the Participating Entities. The portion of the Total Cost allocated to a Party hereunder shall be hereinafter referred to as the Party's "Maximum Contribution." Each Participating Entity will transfer its Maximum Contribution to a special trust account which has been established by the County for this Project (Trust Account) and as further described in Paragraph 5 of this Agreement.

The Maximum Contribution of the Participating Entity shall be \$XXXXXX.

B. In the event the Project is terminated for any reason before the execution of any contract with a contractor for the provision of goods and/or services in connection with the Project, each Participating Entity shall be refunded its Maximum Contribution (or such portion of the Maximum Contribution as shall have been paid to the County by such Participating Entity) in its entirety.

5. Payment of Maximum Contribution; Administration of Trust Account

A. A Participating Entity shall have the following options in paying its Maximum Contribution to the County hereunder:

- i. The Participating Entity may elect to pay its Maximum Contribution to County in its entirety upon execution of this Agreement.
- ii. The Participating Entity may elect to pay its Maximum Contribution to County as follows: (a) fifty percent (50%) of the Maximum Contribution upon its execution of this Agreement; and (b) fifty percent (50%) upon delivery of the Digital Data to the Participating Entity.

B. The Trust Account established by the County in connection with the Project, shall be subject to the following:

- i. All funds held in the Trust Account shall be used solely for the payment of contractors selected by County to provide goods and services in connection with the Project.
- ii. Any funds held in the Trust Account not expended upon the completion of the Project or the termination of this Agreement shall be held, administered, and returned to Parties based on their prorated contribution to the total costs of the Project.

6. General Terms and Conditions

A. This Agreement shall take effect upon execution and shall remain in effect through final delivery of all Digital Data and through the duration of the license-use term.

B. The term of this Agreement may be extended by an Amendment to this Agreement.

C. It is the intention of the Parties that the Participating Entity shall receive, with the delivery of the Digital Data, an unlimited irrevocable perpetual, royalty-free license. The license may be used to, modify, edit, reuse, reproduce,

translate, create derivatives, compile, other works based upon the Digital Data, and combine the data with other contents selected by the Participating Entity in its own operation, with an unlimited number of seats; including, but not limited to Internet and intranet applications, copying, and printing.

D. The Participating Entity shall have the right to transfer, sublicense, and distribute any form of media either now known or hereinafter desired the Digital Data to its subcontractors or consultants on projects which are outsourced from its own operations. In this connection, the Participating Entity shall require each subcontractor or consultant to whom the Digital Data is transferred to execute a written acknowledgement and agreement to abide by such Participating Entity's license to use the Digital Data. Such acknowledgement and agreement is provided in Attachment B (Authorized User Confidentiality and Non-Disclosure Agreement).

E. Notwithstanding any provision of this Agreement to the contrary, a Participating Entity shall not have the right to sell, resell, or otherwise transfer its license to use the Digital Data to any other person or entity.

F. This Agreement may be amended or modified by County only after collaboration and consultation with the Participating Entities.

G. Nothing in this Agreement shall be construed to give any person or entity, other than the Parties hereto, any legal or equitable right, remedy, or claim under or in respect to this Agreement or any provision herein contained. This Agreement and the provisions hereof are intended to be and are for the sole and exclusive benefit of the Parties.

H. No Party may terminate its participation under this Agreement after the execution of contract(s) for the acquisition of the Digital Data without the prior written consent of County.

I. Any other California city, special district, or agency may become a Participating Entity under this Agreement if:

- (i) Such entity executes this Agreement, and
- (ii) Such entity makes its Maximum Contribution to County as provided for under this Agreement. Any such contribution shall be deposited into the Trust Account and administered in accordance with subparagraph 5.B of this Agreement.

J. This Agreement may be executed in counterparts and the signed counterparts shall constitute a single instrument. The signatories to this Agreement represent that they have the authority to bind their respective party to this Agreement.

IN WITNESS WHEREOF, the parties have executed this Participant Agreement for the Los Angeles Region – Imagery Acquisition Consortium 4 Program on the date indicated below.

PARTICIPANT ENTITY

COUNTY OF LOS ANGELES
CHIEF INFORMATION OFFICE

By: _____

By: _____
Richard Sanchez
Chief Information Officer

Date: _____

Date: _____

DIGITAL DATA

All data will be acquired in 2014 unless otherwise noted.

Digital Aerial Orthogonal Imagery

- 1 foot pixel resolution for Urban Areas from 2012
- 1 foot pixel resolution for Urban Areas from 2013
- 4 inch pixel resolution for Areas 1 and 3 (see Map 1 below) from 2014
- 1 foot pixel resolution for Area 2 (see Map 1 below) from 2014

Digital Aerial Oblique Imagery

- 4 inch pixel resolution (neighborhood and community shots) for Area 1 (see Map 2 below)
- 12 inch pixel resolution (community shots only) for Area 2 (see Map 2 below)

Building Outlines

- Building outlines for all of Los Angeles County over 400 square feet, including status information (added, demolished, updated).

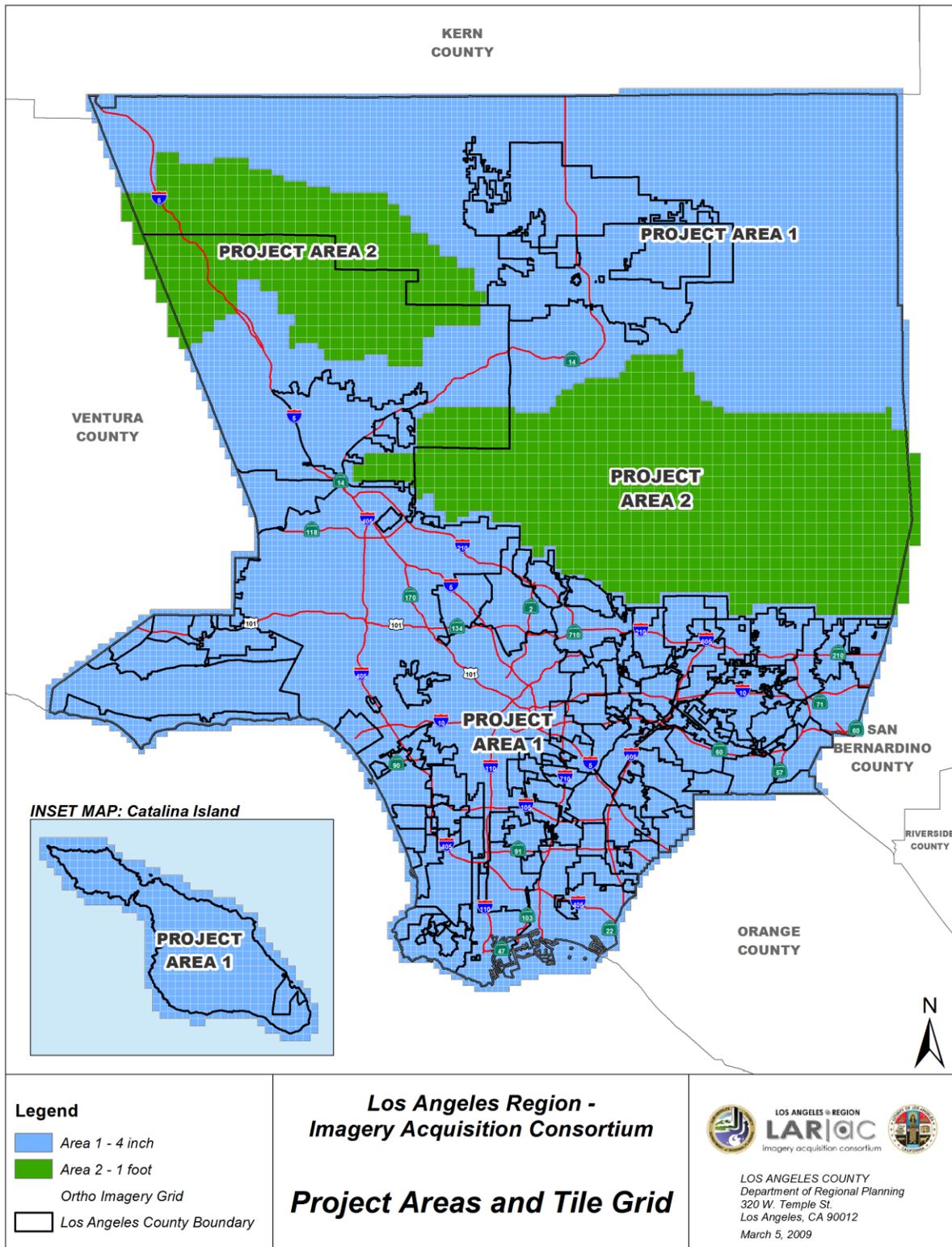
Digital Elevation Data

- Digital Elevation Model (DEM) with 2.5 foot spacing.
- Digital Terrain Model (DTM) with 2.5 foot spacing.
- Digital Surface Model (DSM) with 2.5 foot spacing.
- 1-foot contours derived from LIDAR in the urban Areas.
- 2-foot contours derived from LIDAR in the National Forest.

Derived Datasets

- Normalized Difference Vegetation Index (NDVI).
- Solar Model.
- Raster Tree Canopy Model.
- Raster Building data Model.
- Hillshade based upon the 2.5 foot DEM.
- Slope based upon the 2.5 foot DEM.
- Raster Height Model.

Map 1: Areas for Orthogonal Imagery Products



Map 2: Areas for Oblique Imagery Products

