Customizing SharePoint to Coordinate Airport Construction at LAX

ESRI Conference – San Diego, CA
July 22, 2015

Don Chinery, Los Angeles World Airports
LAX Airport

• Gateway to LA: 71 million passengers per year (2014)
Scale of the Problem

Washington - Dulles

Orange County

Newark
Scale of the Problem

[Map of DIA and DFW airports with marked areas]
$9.0 Billion of Construction Improvements

- Construction Budget 1: $2.0 Billion (Complete)
- Construction Budget 3: $4.0 Billion (2017 - TBD)

- Nation’s largest modernization airport project
- Largest public works project in Los Angeles’ history
TBIT – Bradley West (2013)
New Face of the Central Terminal Area
LAMP (Landside Access Modernization Program)
Consolidated Rental Car Facility
Intermodal Transportation Facility
Automatic People Mover
CALM Team

Coordination And Logistics Management

Our Mission:
Minimize construction-related impacts to passenger service and tenants.
CALM Team Deliverables

• Master Schedule (Monthly)

• Construction Bulletin (Weekly)

• GIS Database (“Live”) – CALM Geodatabase
  – Accessed through SharePoint
CALM Data Management

Projects in Pre-Development Stages (Planning)

Projects in Development Stages (In Design or In Construction)

Completed Development Projects
Landslide Roadway Impacts
Passenger Gate Closures
Logistics Management
Program Management Lookahead

June 2016

Legend:
- Completed Projects
- Projects in Construction
- Projects in Design/Procurement

Los Angeles World Airports
CALM SharePoint GIS Application
CALM SharePoint GIS Setup

• Small Budget/Few Personnel

• Quick Turn-around – construction ongoing

• No time for “Needs Assessment”

• Access for LAWA employees only - through LAWA Share
  – Reason: sensitive location and cost information
CALM SharePoint GIS Server Setup

- ArcGIS Server 10
- SharePoint 2013
CALM SharePoint GIS Personnel/Costs

- Initial data collection and resolution (1 FTE – 5 months)
- Data Development schedule and GIS (2 FTE – 4 months)
- GIS System Development (2 FTE – 4 months)
- Hardware/Software Costs ($78,000)
- On-Going/Future Costs (4 FTEs)
CALMShare 2.0 Version Release

1. Development Hardware/Software
2. ESRI Data Clean Up
3. P6 Data Integration
4. New Application Platform
5. System Upgrade – Program rather than Project focused
CALM SharePoint GIS Homepage

Welcome to LAWA ADG CALM SharePoint

The CALM (Coordination and Logistics Management) Team's mission statement is to minimize construction-related impacts to our customers by utilizing CALM as a central point of communication and collaboration.

This SharePoint site will enable LAWA staff to access CALM deliverables. You will have the ability to customize Construction Projects by plotting selected points of interest using our interactive map. Also, you will have the ability to customize your selections based upon a specific terminal or specific project areas and filter construction projects based upon a specified timeframe. You may also download all CALM deliverables in pdf format including Maps (CTA, Aside/Landside, Elevators/Escalators and Traffic Impacts, Master Schedules, and Construction Bulletins).

CALM Deliverables

- Master Schedule
- Concessions Schedule
- CALM Histogram
- Roadway Coordination [weeks]
- Aisle
- Landside
- Logistics/Laydown
- Aprons and Tunnels
- Ticketing and Apron
- Gates
- Elevators/Escalators
- PMG Coordination
- Gates Matrix - 6 month lookahead

View Map

Nightly Report

Most recent Nightly Reports:

- Home
- There are no documents in this view.

Nightly Report Archive

Construction Bulletin

Most recent Weekly Construction Bulletins:

- Home
- Week_of_July_19_Combo

Most recent Daily Roadway Bulletins:
Version 2.0 website
### Interface control

![Image of interface control](image)

#### Table:

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<th>ServiceEndpoint</th>
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- RowID
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- GroupDisplayOrder
- Enabled

**Note:** The service endpoints are examples and should be replaced with the actual addresses and endpoints used in the application.
Identify Functionality
Select Work Areas
Central Terminal Area – Arrivals Level
Filtering Functionality
Space/Time Conflicts

Overlap of CIP, Tenant and Concessions Construction Projects
Systems Integration (P6 to ArcGIS)
Development Language

- CALM chose HTML 5 – fit with SharePoint 2013
- Development done in MS Visual Studio 2013
- Project Management in SharePoint 2013
Version 2.0 Technical Success

• Success:

1. Out to Production in a short amount of time
2. System’s content well-received
3. Full control of interface changes – reflects organizational changes
Management Success/Challenges

• Success:
  1. Mirrors the newly created Project Approval Process
  2. ADG Executive management very supportive – high ROI
  3. Tool used for Terminal Coordination Meetings

• Challenges:
  1. Complexity of working with different divisions/groups
  2. Story-boarding early on vs. schedule pressure
Benefits for LAWA

• Quickly bridge gap between existing and record drawings

• Resolve conflicts “on paper” rather than in the “field”

• Minimize passenger inconvenience

• More efficient packaging of work

• More information for project managers in terminals – know the “big picture” rather than individual projects
Future Plans

• New functionality – printing, buffering, run reports

• CALM dashboard – summary statistics

• Manage Landside Modernization Program through CALMShare application
Questions and Comments

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