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Utilizing ArcGIS Online to Create Efficiencies in Managing Transportation Data

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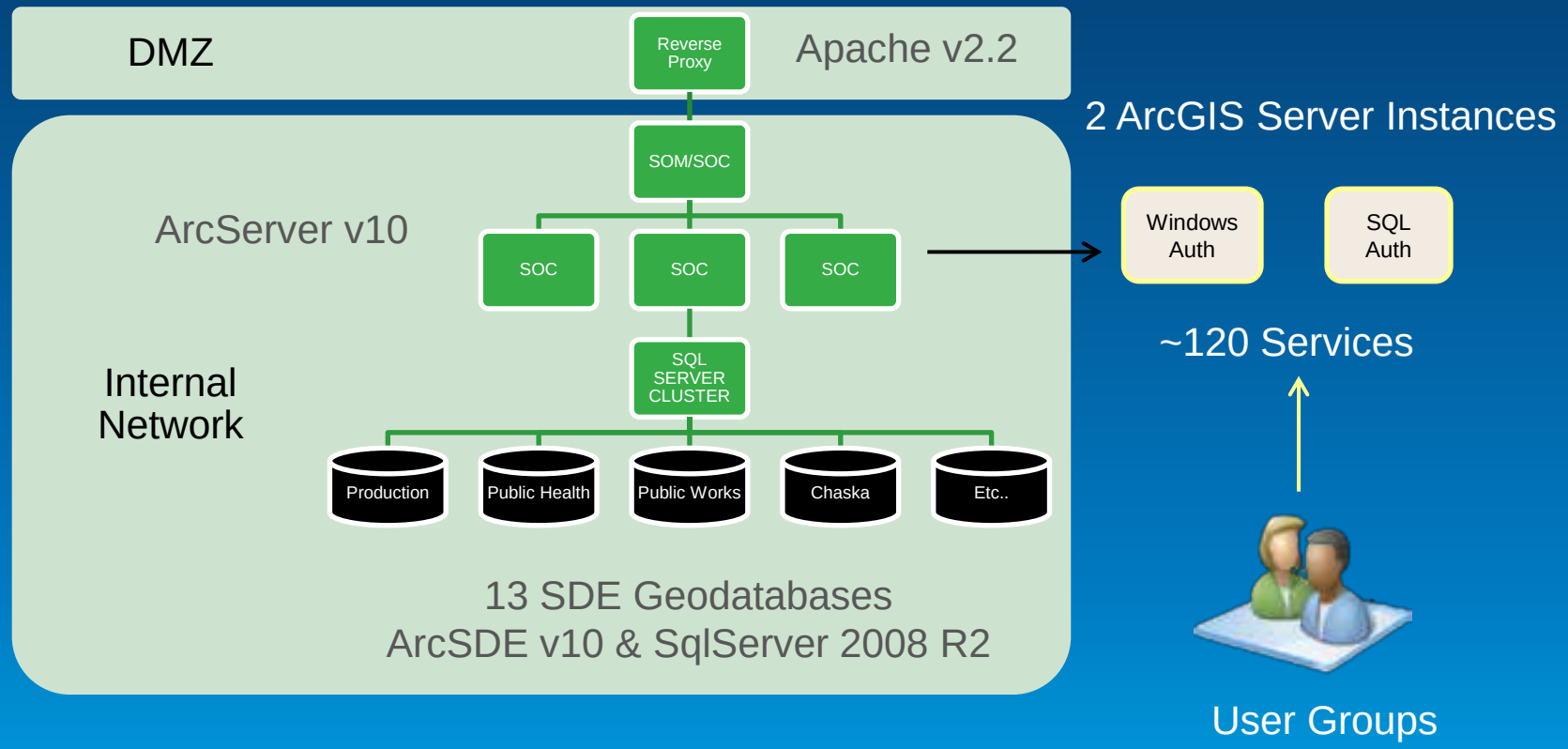
Presentation Overview

- Carver County, MN
- ArcGIS Technology Overview
  - ArcGIS Server Architecture
  - ArcGIS Online Integration
  - ArcGIS App for iPad & iPhone
  - Mobile Workflow Process
- Transportation Implementations
- Questions

Carver County Overview

- Located Southwest of Minneapolis
- Rural/Urban County
- Population – ~92,000
- 376 Total Square Miles
- 212 Miles of County State Aid Highways (CSAH)
- 52 Miles of County Roads

ArcGIS Server Infrastructure

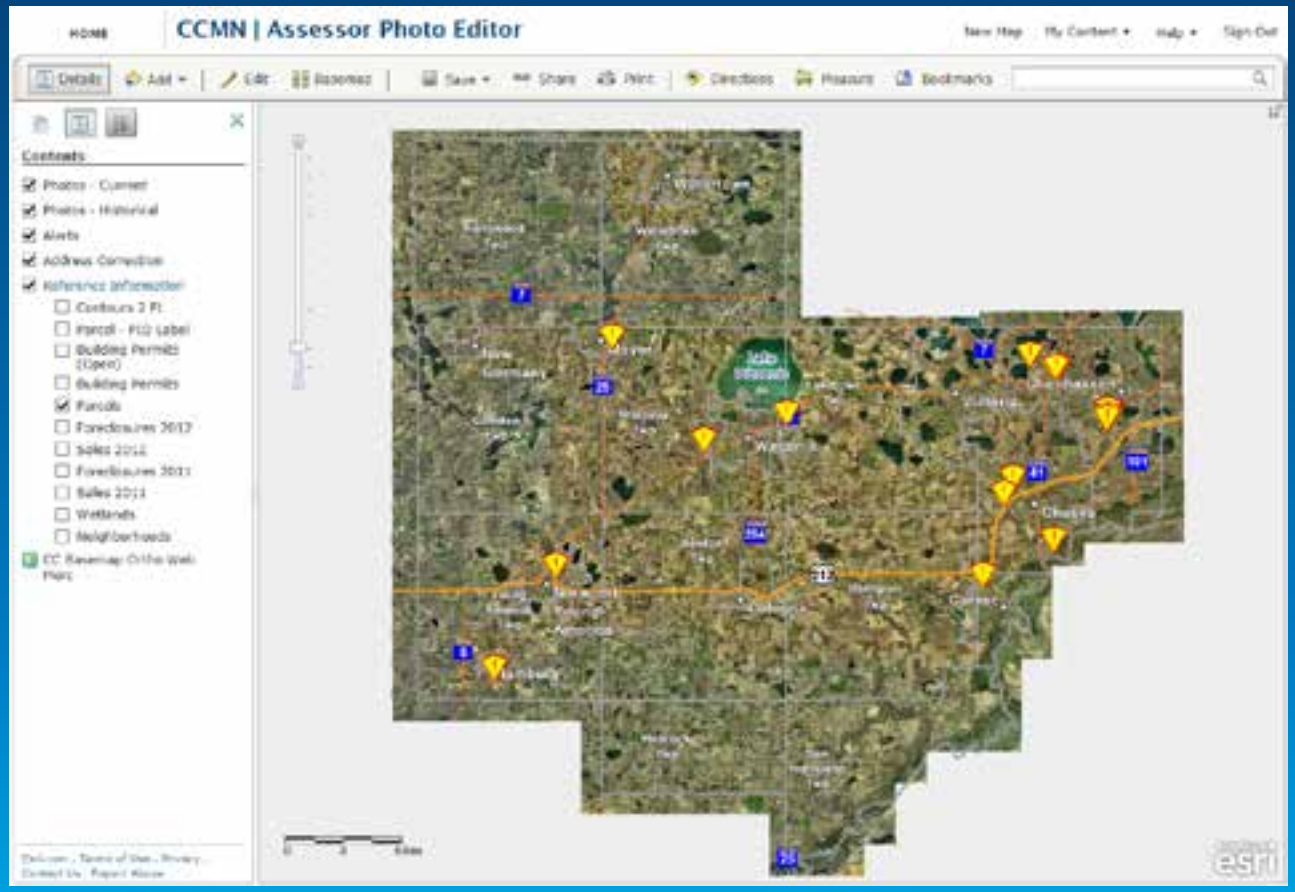


ArcGIS Online Integration

- Carver County ArcGIS Online Subscription
- Esri Enterprise License Agreement (ELA)

ArcGIS Online Integration

- Web Maps



ArcGIS App for iPad or iPhone

- Apple Store
- iPhone or iPad

Apple Store

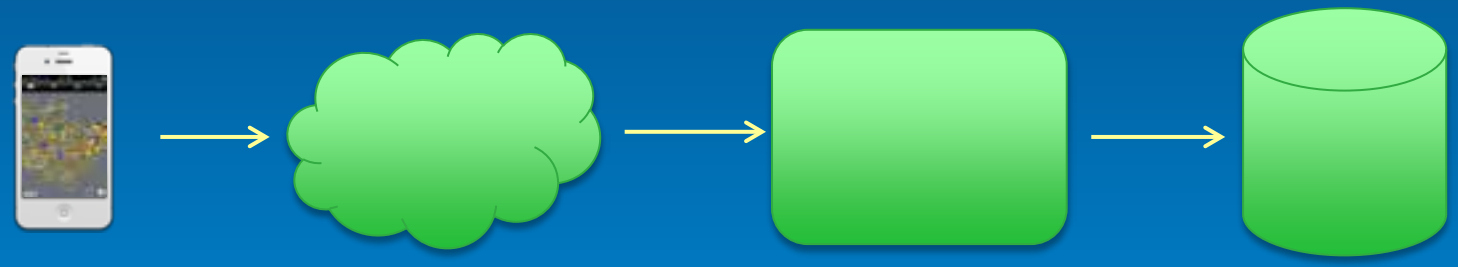
Mobile Workflow Process
- Viewing and Editing GIS Data in the Field

Launch esri app on iPhone

Esri app connects to web map on ArcGIS Online

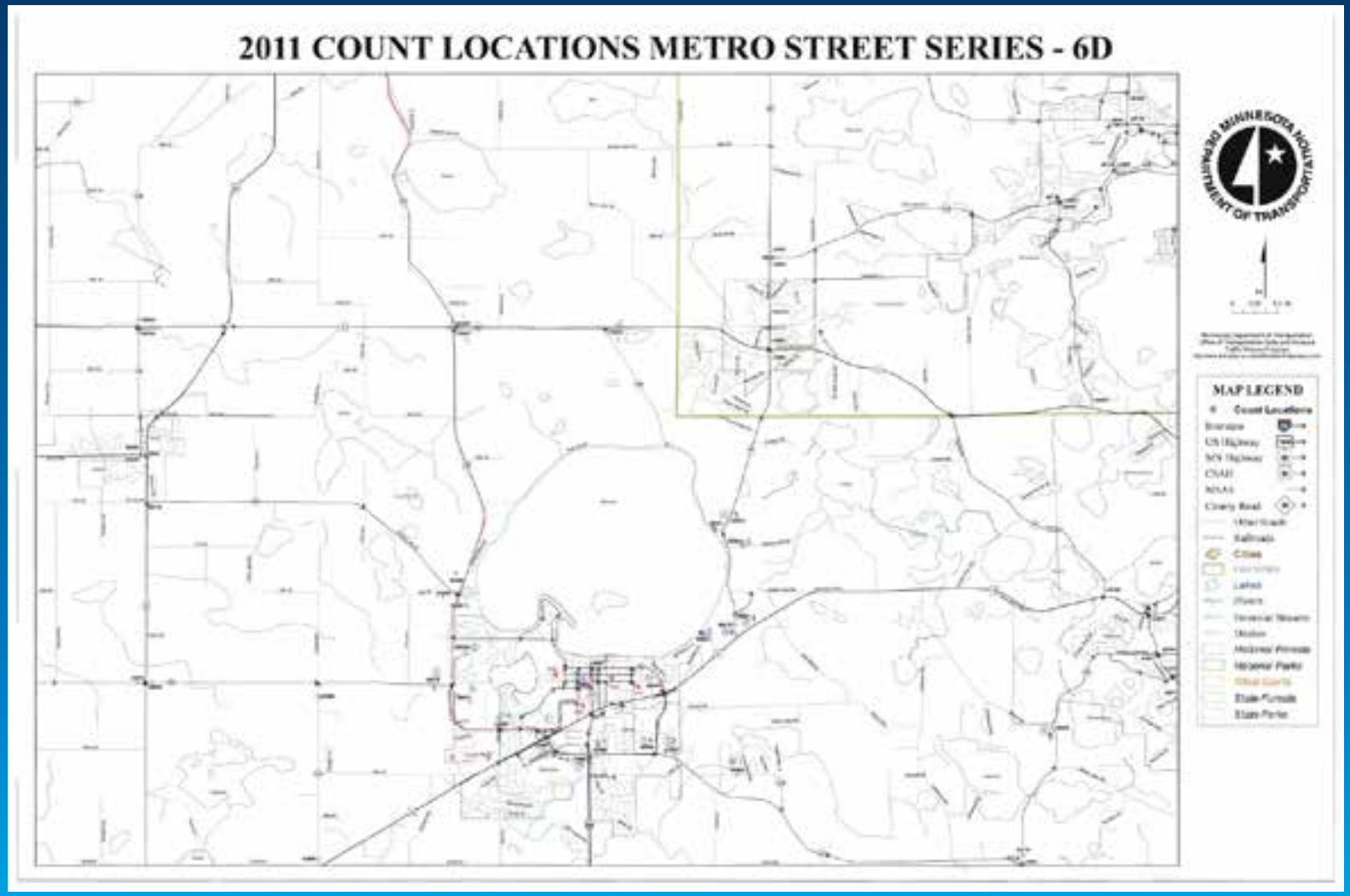
Web map connects to map service on County's ArcServer

Map service connects to ArcSDE



User must authenticate if map service has security

Traffic Counts – Paper Workflow



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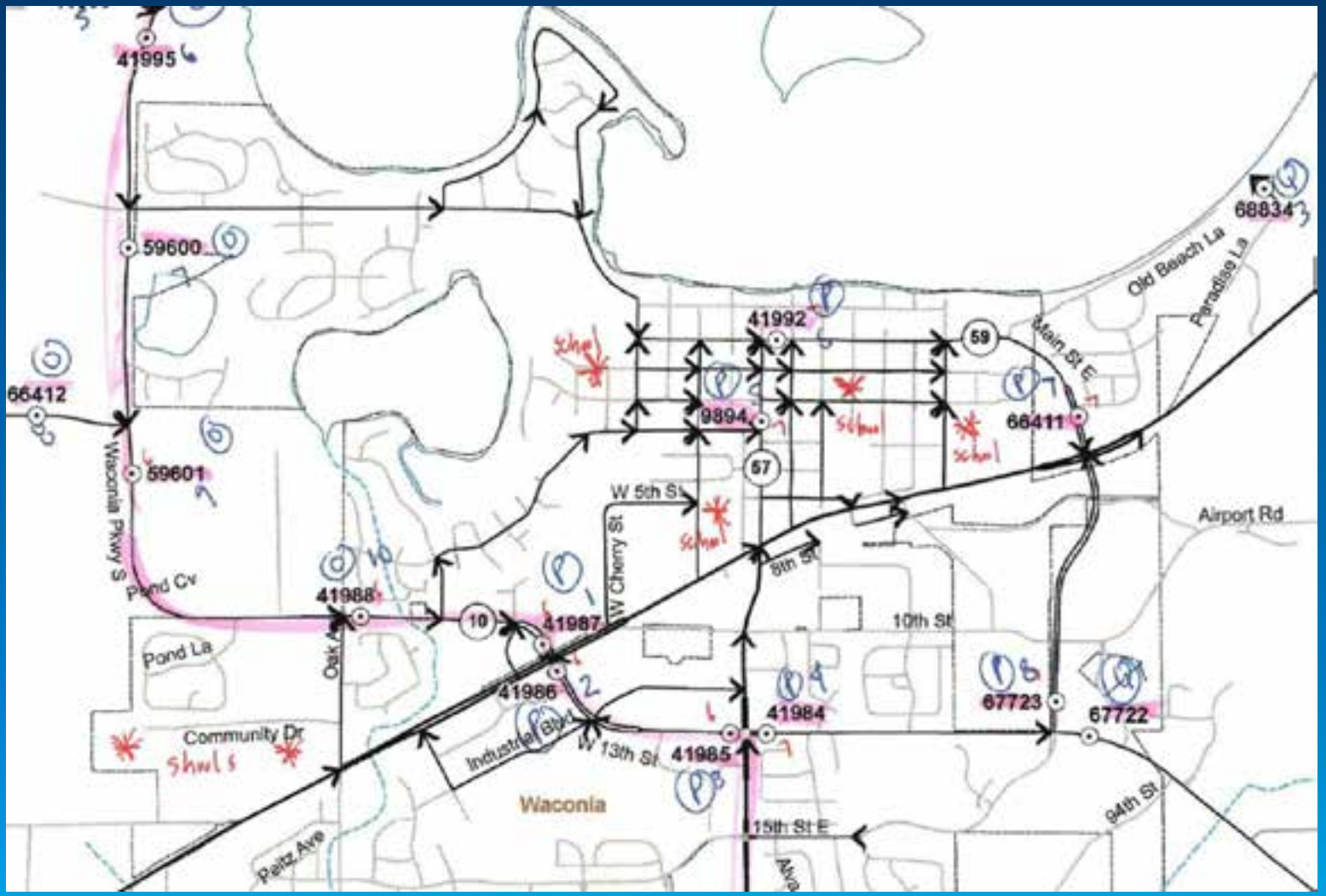

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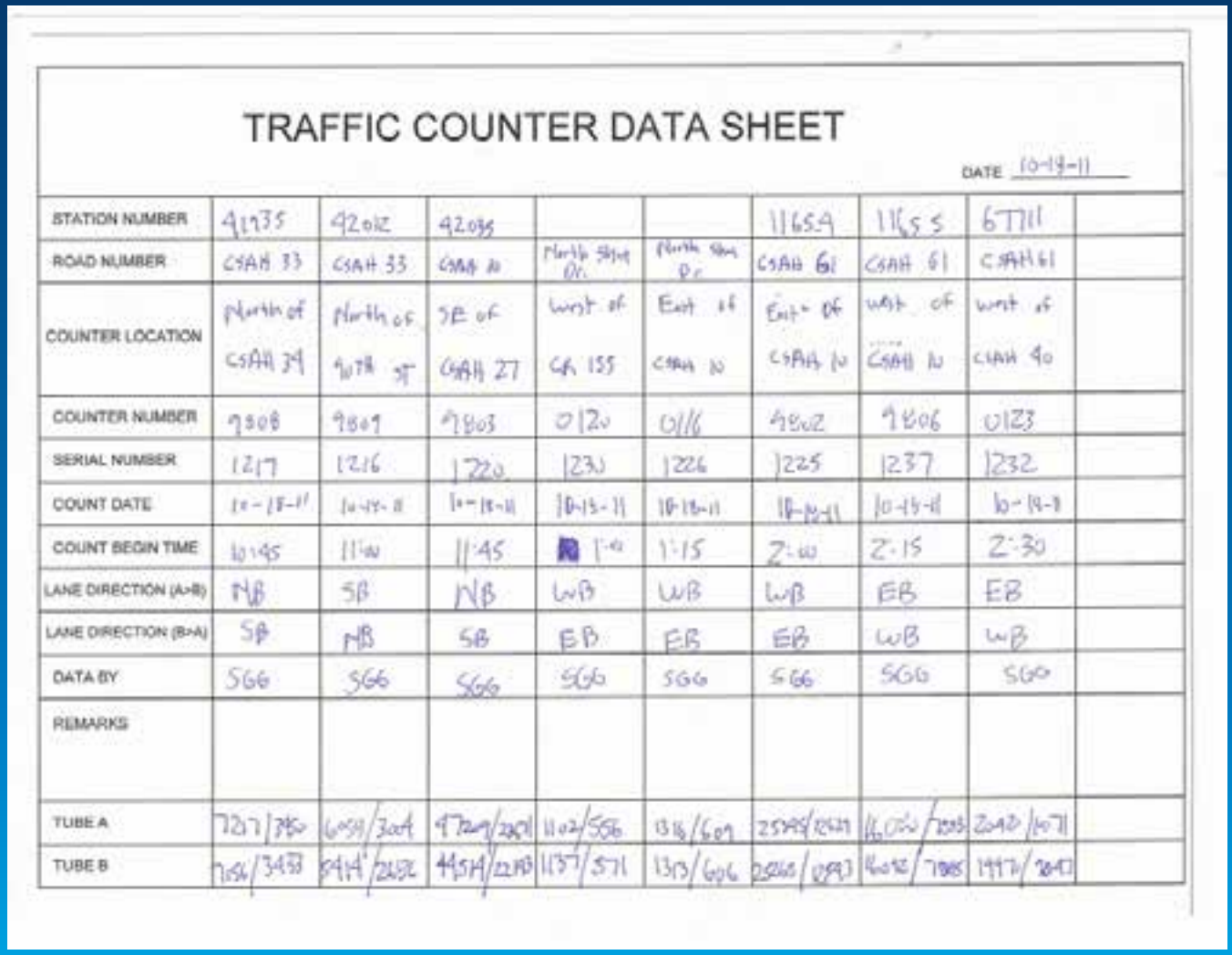
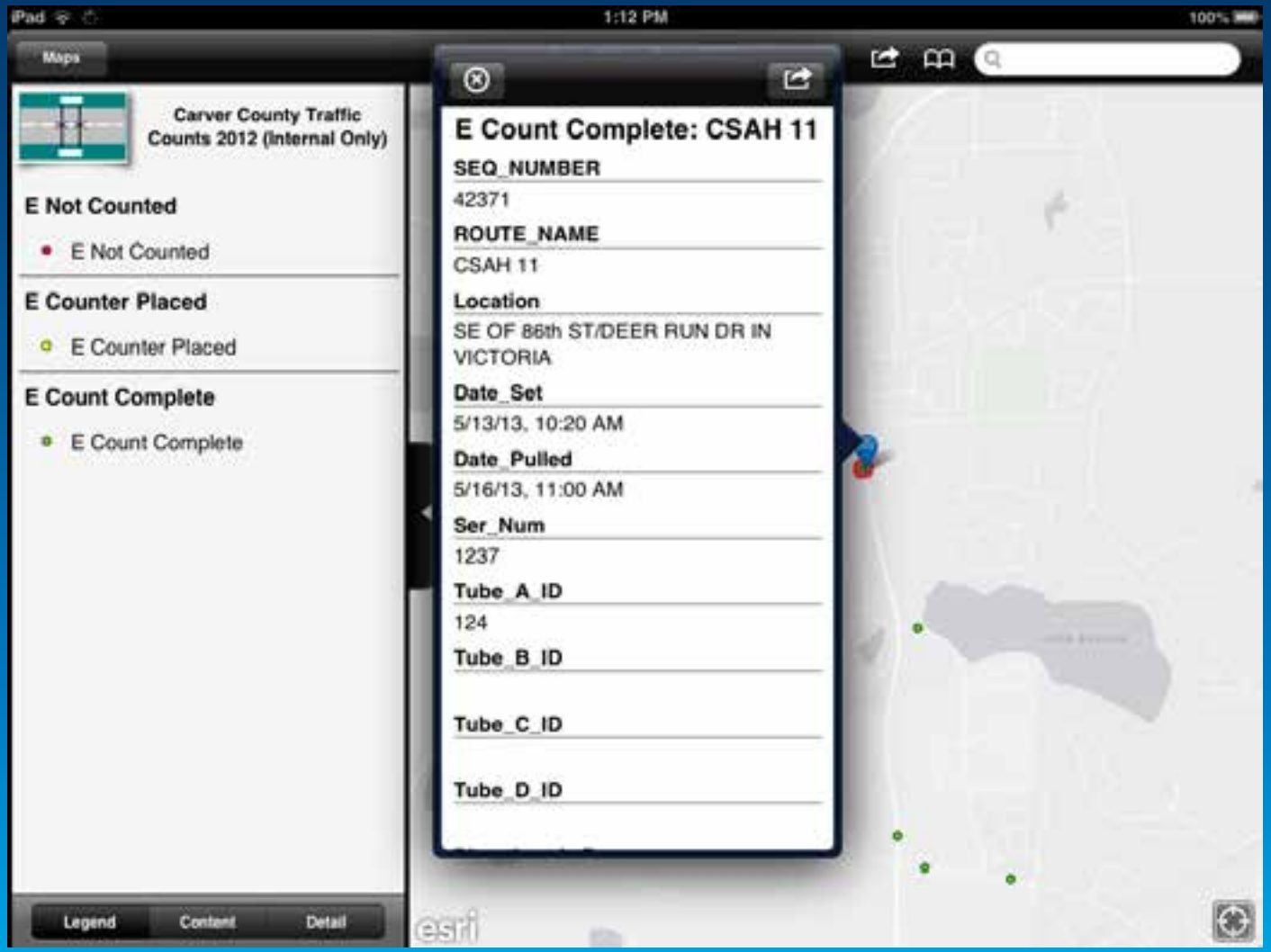


TRAFFIC COUNTER DATA SHEET

DATE 10-18-11

STATION NUMBER	41935	42012	42035			11654	11655	67711	
ROAD NUMBER	CSAH 33	CSAH 33	CSAH 10	North Shore Dr.	North Shore Dr.	CSAH 61	CSAH 61	CSAH 61	
COUNTER LOCATION	North of CSAH 34	North of 90th St	SE of CSAH 27	West of CR 155	East of CSAH 10	East of CSAH 10	West of CSAH 10	West of CSAH 40	
COUNTER NUMBER	9808	9809	9803	0120	0116	9802	9806	0123	
SERIAL NUMBER	1217	1216	1220	1230	1226	1225	1237	1232	
COUNT DATE	10-18-11	10-18-11	10-18-11	10-18-11	10-18-11	10-18-11	10-18-11	10-18-11	
COUNT BEGIN TIME	10:45	11:00	11:45	[illegible] 1:00	1:15	2:00	2:15	2:30	
LANE DIRECTION (A>B)	NB	SB	NB	WB	WB	WB	EB	EB	
LANE DIRECTION (B>A)	SB	NB	SB	EB	EB	EB	WB	WB	
DATA BY	SGG	SGG	SGG	SGG	SGG	SGG	SGG	SGG	
REMARKS									
TUBE A	7217/3450	6059/3004	47209/2[illegible]	1102/556	1318/609	25[illegible]/12[illegible]	16[illegible]/7[illegible]	2040/1071	
TUBE B	7056/3433	5414/2652	44514/22[illegible]	1137/571	1313/606	25[illegible]/12[illegible]	16[illegible]/7[illegible]	1997/[illegible]	

ArcGIS Online Solution for Traffic Counts



PLSS Data – Existing Workflow

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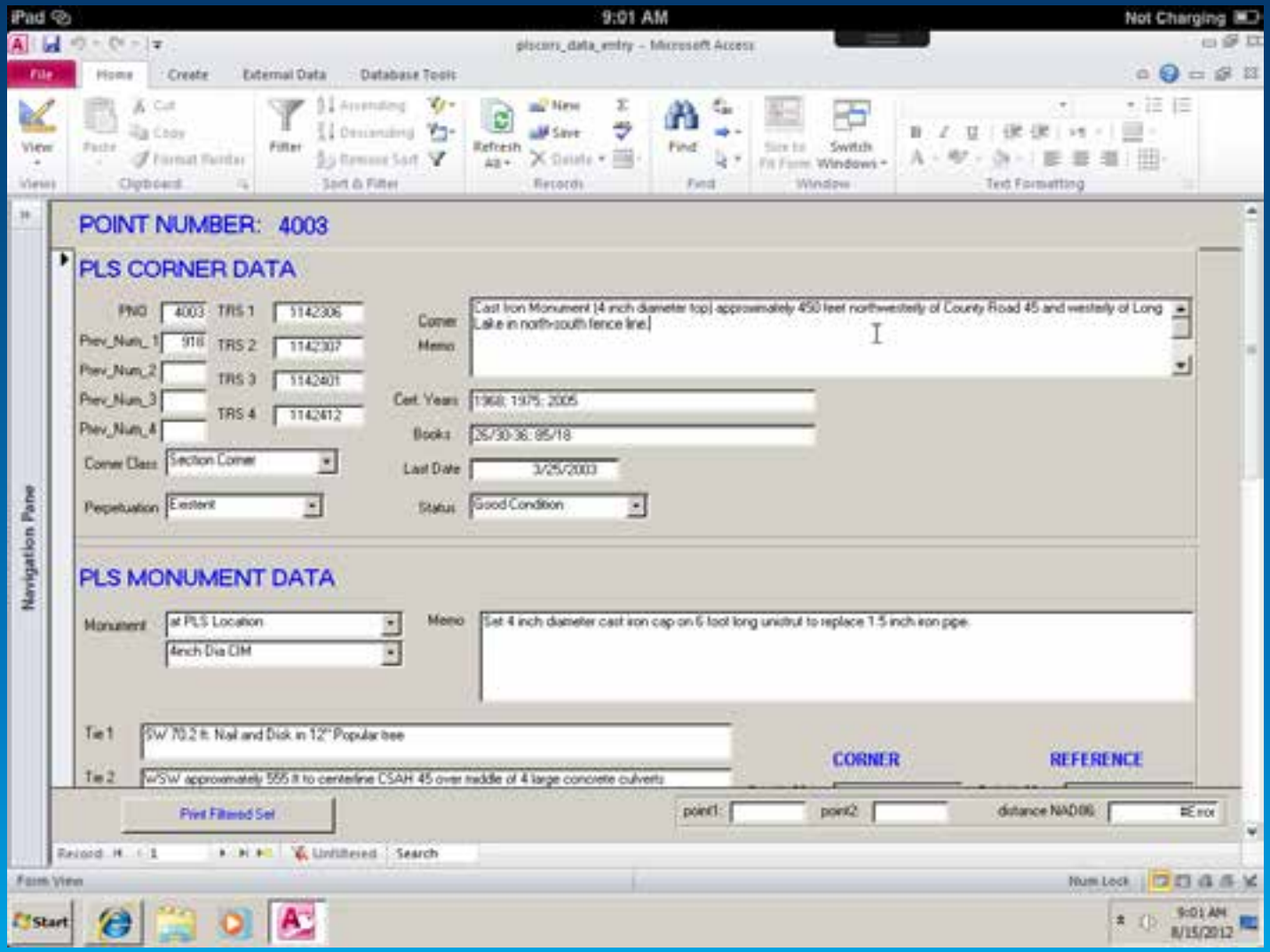
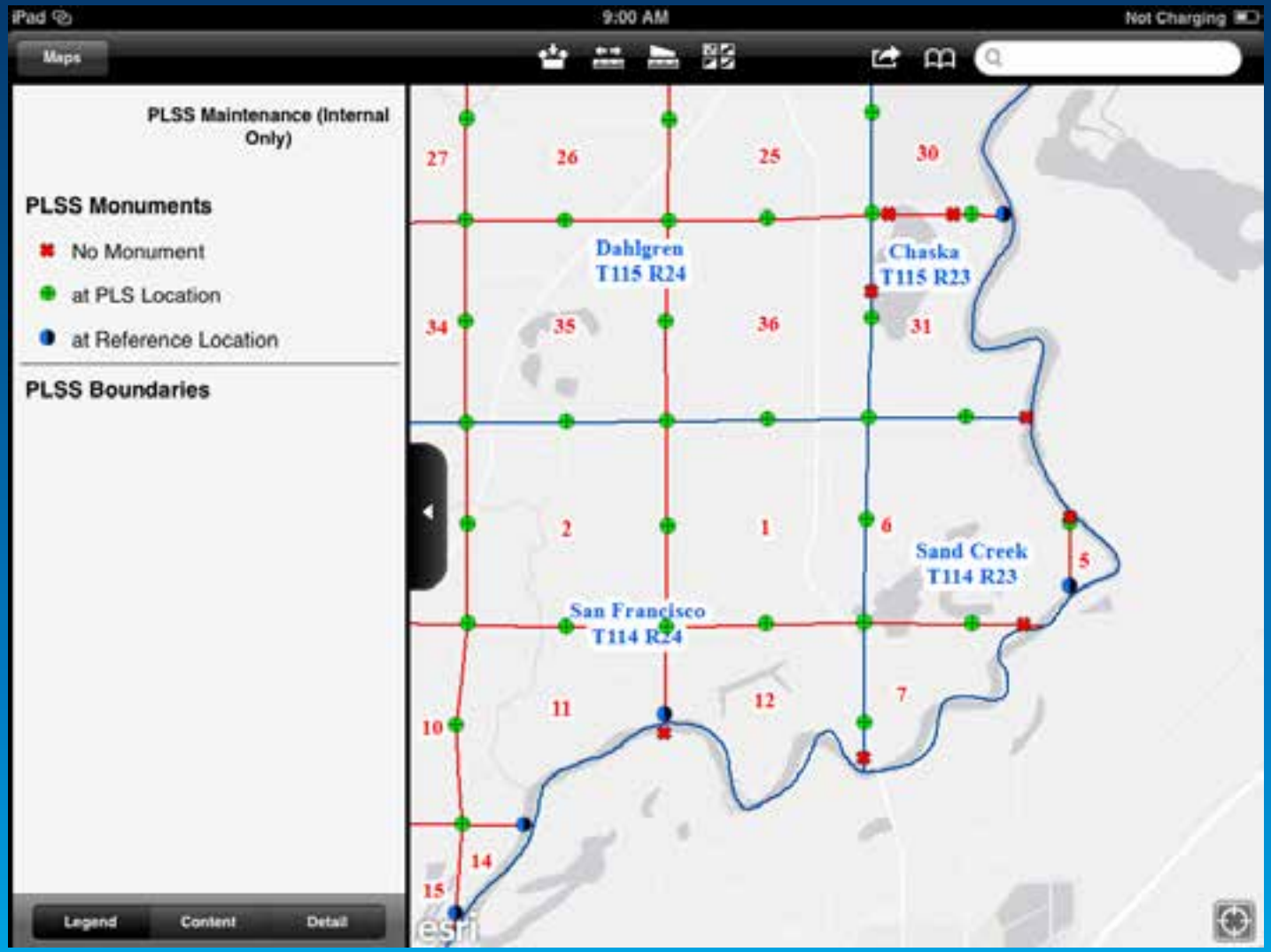
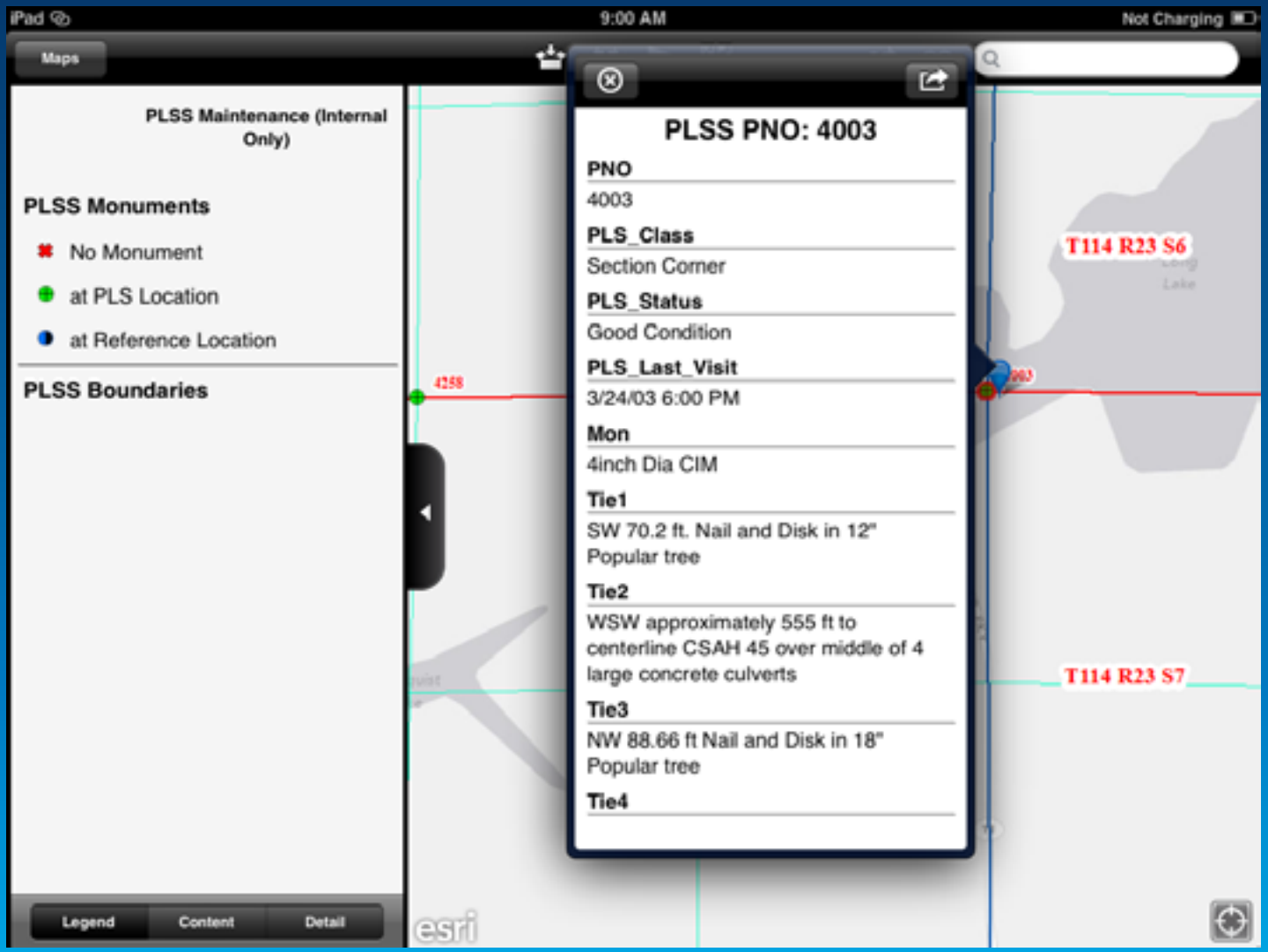


ArcGIS Online – Solution for PLSS Data



ArcGIS Online – Solution for PLSS Data



Summary

- AGO’s rapid deployment has allowed us to create just in time solutions that were not feasible in the past
- We have used ArcGIS Online to improve!
  - Manage Assets
  - Organize Work
  - Supervise Staff
  - Eliminate Paper Workflows

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