

# Alaska Department of Transportation & Public Facilities

## AKDOT&PF Central Region Right of Way Engineering & ArcGIS Online Maps

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Our mission is to *Keep Alaska Moving* through service and infrastructure.



# Outline

- Introduction
- ADKDOT&PF Right of Way Engineering
- Three Mapping Products
- The Problem of “Lost Location”: ArcGIS Online Solution
- Data Sources
- Other Departmental Uses
- Help

# AKDOT&PF Regions



**MSB:** <http://arcg.is/1CWLub2> **MOA:** <https://arcg.is/1Lmnju> **KPB:** <https://arcg.is/14X5aS>



# AKDOT & PF Central Region



**Central Region Headquarters**  
4111 Aviation Ave.  
“Upside Down” Building  
“Aviation” Building

**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
**CENTRAL REGION**



AVIATION DESIGN & CONSTRUCTION  
HIGHWAYS DESIGN & CONSTRUCTION  
MAINTENANCE & OPERATIONS  
PLANNING & PROGRAMMING  
SUPPORT SERVICES  
AIRPORT LEASING



**MSB:** <http://arcg.is/1CWlub2> **MOA:** <https://arcg.is/1Lmnju> **KPB:** <https://arcg.is/14X5aS>



# What does ROW Engineering do?



**MSB:** <http://arcg.is/1CWLub2> **MOA:** <https://arcg.is/1Lmnju> **KPB:** <https://arcg.is/14X5aS>

# Central Region ROW Eng Staff

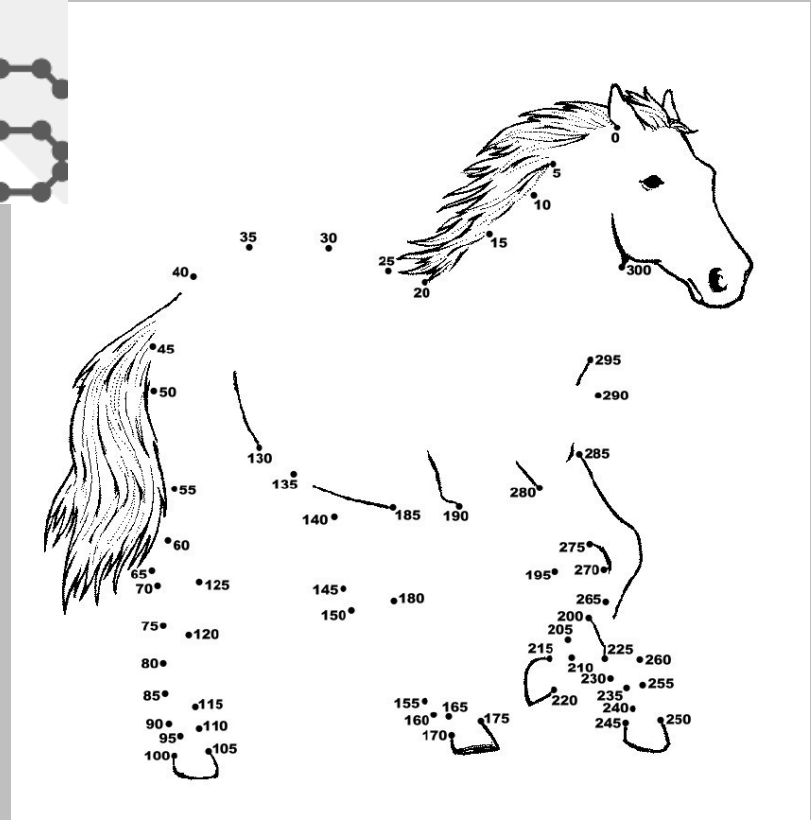
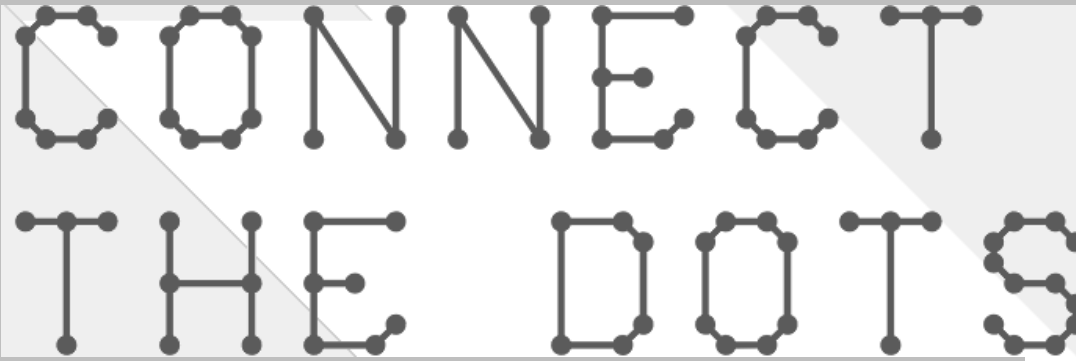


**ROW Engineering**  
7 PLS's  
ROW Researcher  
Drafter  
Title Person  
Plan Reviewer

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# What does ROW Engineering do?





# What We Really Do

**What, where, how wide** is the Right of Way?

**Who** wants to know?

- Project managers scoping road projects
- Utility companies
- Subdividing Surveyors
- Property Owners

**Why?** Investing in infrastructure or improvements.  
Need to get it right.

**How...**



# Three Types of Maps

- **Right of Way Base Map:** “Existing ground” for property interests. It identifies:
  - Public ROW & Platted Utility Easements
  - Legal descriptions and locations of adjoining properties
- **Right of Way Plans:** “Base map + design”
  - Design Centerline, Cut-Fill slopes & acquisition parcels, monumentation plan
  - To Federal Highways (FHWA) and Platting Authority
- **Parcel Plats:** Exhibit attached to deed for negotiations

# Determining ROW

## Determining ROW: Palmer Wasilla Highway

### Scanned ROW Mapping: 24 GB, 2100 Folders, 8300 Files

#### Scanned ROW Mapping

- \_To Be Indexed
- Anch Misc Docs
- Anchorage
- ARC BPR Mapping
- Archive
- Bethel
- Bristol Bay Aleutian
- Eagle River
- Girdwood
- Glenn Highway
- Homer
- Hope Highway
- Iditarod Trail
- Iliamna Recording District
- Kenai Soldotna Area
- Knik Arm Bridge Crossing (KABATA)
- Kodiak
- Matsu Area Palmer Wasilla
  - 57547 Matsu Area Roads Pv Pres; Farm Loop Rd & Buffalo Mine Rd
  - 57547 Matsu Area Roads PV Prev; 58 Mile Rd North; 58 Mile Rd West; Jonesville Mine Rd North; & Eska Rd
  - Big Lake Fish Creek Bridge S-0511 (5)
  - Big Lake Fish Creek Park Wayside STP-TEA-0511 (7) (2002)
  - Big Lake Junction S-0510 (3)
  - Big Lake Junction to Willow F-035-1 (12)
  - Big Lake Road S-0511 (1) (Territory of AK) (1959)
  - Big Lake Road South Big Lake Rd Recon STP-0001 (115) (1998)

#### Matlile

- Matanuska RipRap F-042-1 (9)
- Matanuska Trunk Road S-0570 (3)
- Matanuska Trunk Road (Null and Void)
- Matanuska-Willow F-035-1 (16)
- Matsu Area Roads Pv Presv
- Maud & Smith Rds. June 1985
- Nancy Lake Access Road S-0581 (1)
- Palmer Cantwell Highway F-035-3(4)
- Palmer Chugach St. Rehab MGS-0001(271)
- Palmer City Streets RS-0575(1) RS-0572(2) & RS-0576(5)
- Palmer Matanuska Wasilla S-0570(3)
- Palmer to Fishhook S-0580 (5)
- Palmer Wasilla Highway
- Petersville Road
- Pittman Rd 53115
- Pittman Rd Beverly LK to Meadow LK Fire 59431
- Pittman Rd MP 2 to 9 Meadow LK Fire Station STP-0001(63)
- Plumley Road SOS-1 (16)
- Point MacKenzie MSB mapping
- Point MacKenzie Road ROW ROS
- Point MacKenzie to Houston ROS Plat 93-26RS
- Schrock Road
- Schrock-Pittman Rd OS-1(011)
- Seward Meridian Reconstruction
- Smith & Maude Rds Mapping. June 1985
- Soapstone Road
- SOUTH BEAVER LAKE ROAD
- South Big Lake Road G-10272
- South Big Lake Road SP 1012
- South Mack Rd - KGB
- South Whitney Street

# ArcGIS Online Successes

- Location information is back, How?
  - ROW map scanning project 2007-2008
  - Web Portal Created ~2014

State of Alaska myAlaska My Government Resident Business in Alaska Visiting Alaska State Employees

Alaska Department of Transportation & Public Facilities

DOT&PF > Statewide Design & Engineering Services > Design & Construction Standards > Right-of-Way > ROW Maps

### DOT&PF ROW Maps

[Questions?](#)

Search by:

Keyword:

Project Name:

Project Number:

MTR (ex. F001S001W):   Section:

Community:

Road:   Milepost from:  to:

The Right-of-Way Map Search Portal is available to assist ADOT&PF staff, consultants, public agencies, and the public with finding and viewing published Right-of-Way (ROW) documents. However, this may not be a complete or current index of all ADOT&PF's ROW documents. ADOT&PF's regional ROW offices are responsible for archiving and indexing their documents into this enterprise document management system.

We offer no warranty that your results will be accurate or complete, and do not assume any responsibility for damages if you rely on results from this portal.

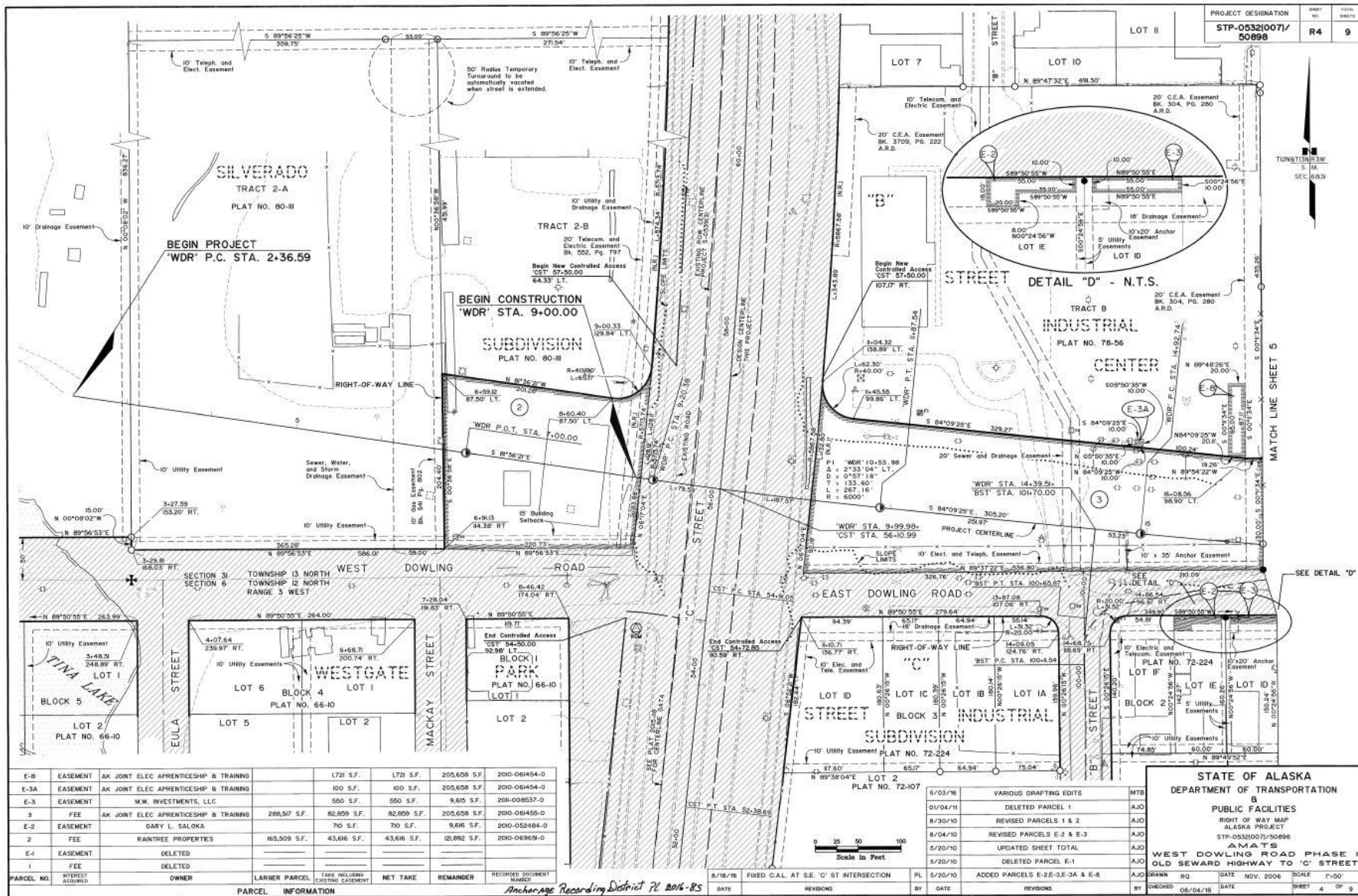
Contact: [dot.row.maps@alaska.gov](mailto:dot.row.maps@alaska.gov)

- Maps indexed and uploaded to database 2015
- Dec 2017 DOT Site license ArcGIS Online
- 2018/2019 connecting to GIS data from 7 GIS's, using attributes to speed up other research and eliminate errors

**MSB:** <http://arcg.is/1CWlub2> **MOA:** <https://arcg.is/1Lmnju> **KPB:** <https://arcg.is/14X5aS>



# RWE Data Sources



PARCEL NO.	INTEREST OWNED	OWNER	LARGER PARCEL	TAX INCLUDING EXISTING EASEMENT	NET TAKE	REMAINDER	RECORDED DOCUMENT NUMBER
E-8	EASEMENT	AK JOINT ELEC APPRENTICESHIP & TRAINING		L721 S.F.	L721 S.F.	205,608 S.F.	2010-016454-0
E-3A	EASEMENT	AK JOINT ELEC APPRENTICESHIP & TRAINING		100 S.F.	100 S.F.	205,608 S.F.	2010-016454-0
E-3	EASEMENT	M.W. INVESTMENTS, LLC		550 S.F.	550 S.F.	208-008537-0	
3	FEE	AK JOINT ELEC APPRENTICESHIP & TRAINING		298,917 S.F.	82,859 S.F.	205,608 S.F.	2010-016454-0
E-2	EASEMENT	GARY L. SALOKA		70 S.F.	70 S.F.	9,616 S.F.	2010-052484-0
2	FEE	RAINTREE PROPERTIES		165,509 S.F.	43,616 S.F.	121,892 S.F.	2010-016454-0
E-1	EASEMENT	DELETED					
1	FEE	DELETED					

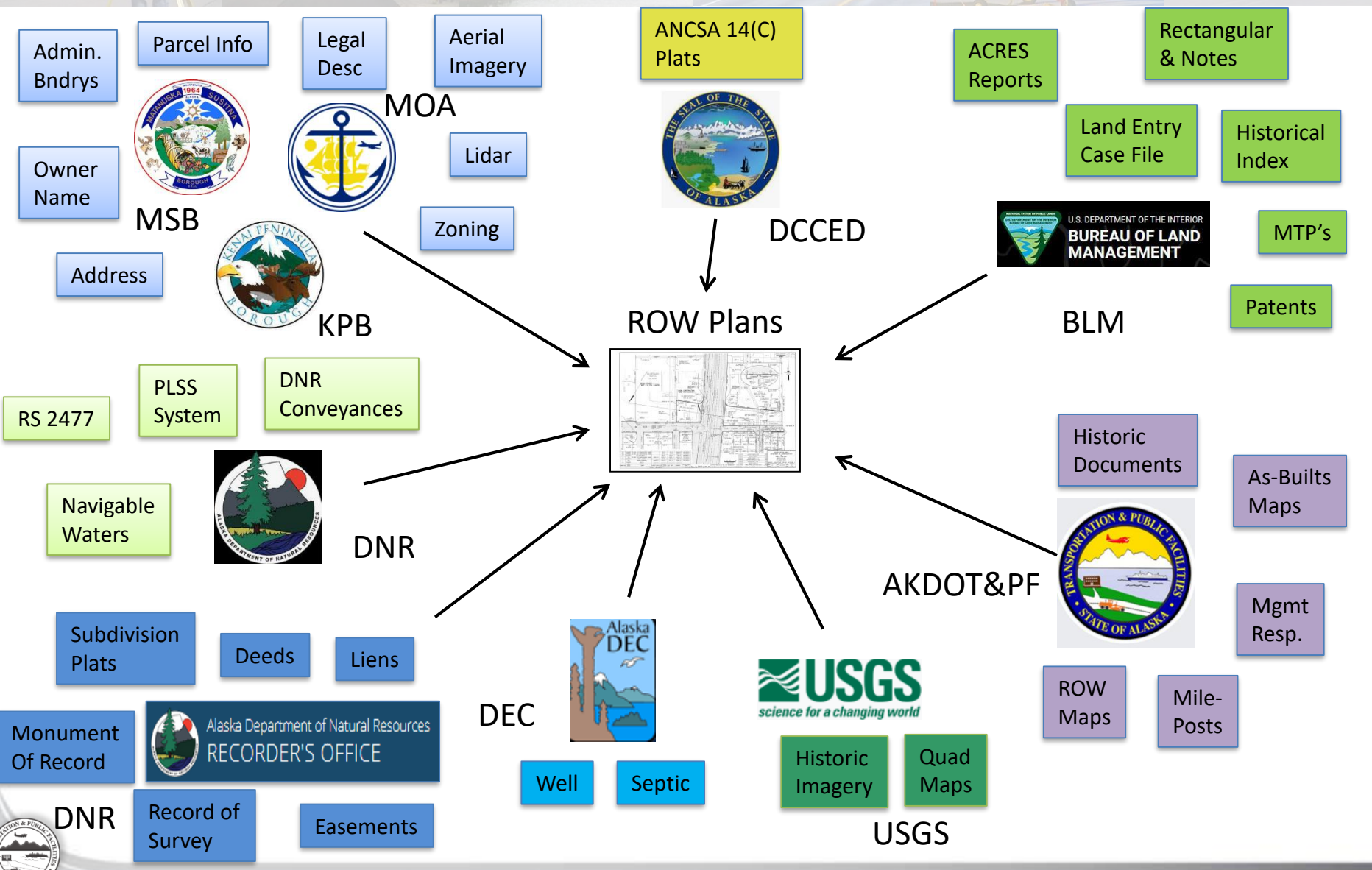
DATE	BY	REVISIONS	DESCRIPTION
6/30/16	MTB		VARIOUS DRAFTING EDITS
01/04/11	AJO		DELETED PARCEL 1
8/30/10	AJO		REVISED PARCELS 1 & 2
8/04/10	AJO		REVISED PARCELS E-2 & E-3
5/20/10	AJO		UPDATED SHEET TOTAL
5/20/10	AJO		DELETED PARCEL E-1
5/20/10	AJO		ADDED PARCELS E-2-E-3-E-4 & E-8

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 &  
 PUBLIC FACILITIES  
 RIGHT OF WAY MAP  
 ALASKA PROJECT  
 STP-05321007/50898  
 AMATS  
 WEST DOWLING ROAD PHASE I  
 OLD SEWARD HIGHWAY TO 10' STREET

DATE NOV. 2006 SCALE T=50'  
 SHEET 4 OF 9

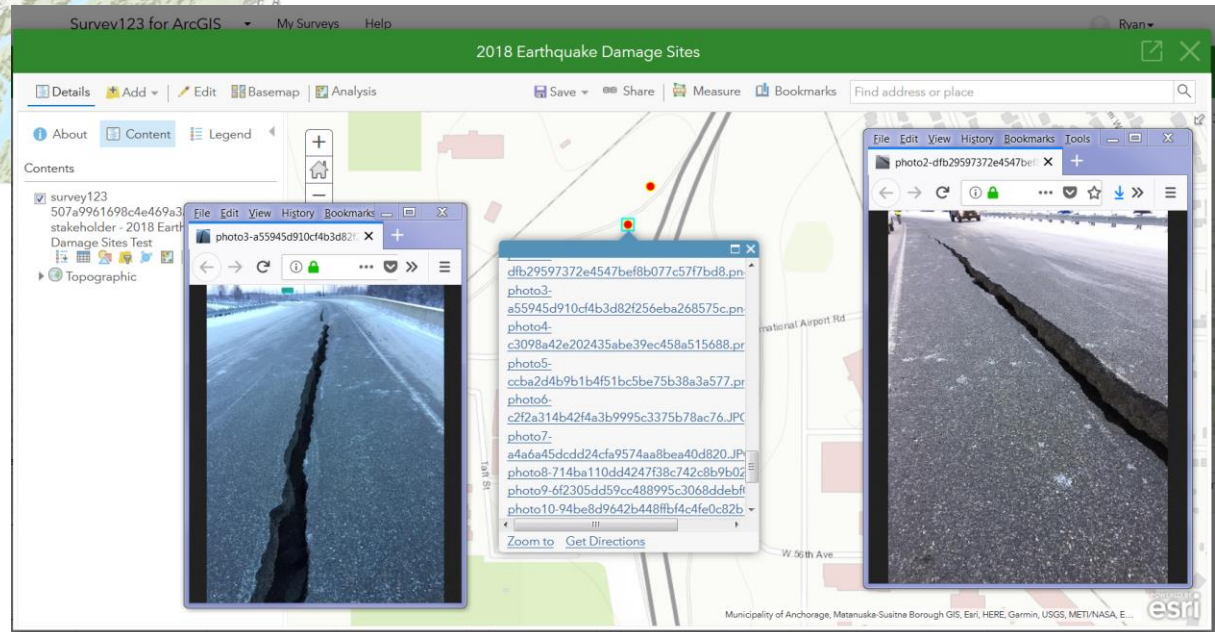
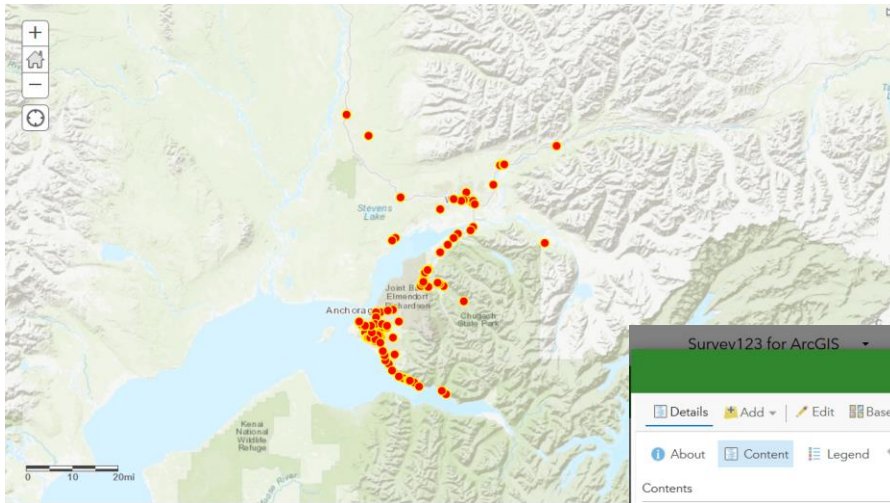
Anchorage Recording District PL 2016-85

# RWE Data Sources



# Other uses

- Survey 123: Earthquake Damage Documentation



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# Other uses

- Property Management: Driveway Permit Inspections

Please return to: \_\_\_\_\_

State Road: \_\_\_\_\_ ROW File No. \_\_\_\_\_

Contact: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Owner: \_\_\_\_\_ Parcel Address: \_\_\_\_\_  
Description: \_\_\_\_\_

**INSPECTION CHECKLIST FOR DRIVEWAYS**

Procedures for Photos to verify sight distance:

- ▶ Standing in center of D/W, 14-feet from the fog line - Looking Left, Across, Right, and standing across from driveway Looking At - also drainage, ditch and anything that may affect the D/W
- ▶ Label photos with File Number, Direction of photo (Example: Looking At, Looking Left), and Who took them.

**INITIAL INSPECTION with Photos**

Yes \_\_\_ No \_\_\_ D/W Staked? (Phone contact prior to going into the field)

Yes \_\_\_ No \_\_\_ Is alternate access available? Road Name: \_\_\_\_\_

Yes \_\_\_ No \_\_\_ Does D/W Exist?

Yes \_\_\_ No \_\_\_ Shared D/W?

Yes \_\_\_ No \_\_\_ Is there a ditch? Depth: \_\_\_\_\_ (Per Application)

Yes \_\_\_ No \_\_\_ Culvert Required? Length: \_\_\_\_\_ (Ditch Depth x 4 + 2-ft + Driveway Width)

Yes \_\_\_ No \_\_\_ Culvert Diameter: \_\_\_\_\_

State Road: Is Paved: \_\_\_ Is NOT Paved: \_\_\_ Speed Limit: \_\_\_\_\_

Sight Distance (14-ft from fog line looking out): Left: \_\_\_\_\_ Right: \_\_\_\_\_

Distance from CL of nearest D/W: Left: \_\_\_\_\_ Right: \_\_\_\_\_

Distance from CL of nearest D/W across the street: Left: \_\_\_\_\_ Right: \_\_\_\_\_

Distance from property line to edge (looking into D/W): Left: \_\_\_\_\_ Right: \_\_\_\_\_

Completed By: \_\_\_\_\_ Date: \_\_\_\_\_

**FINAL INSPECTION**

Yes \_\_\_ No \_\_\_ D/W in approved location

Yes \_\_\_ No \_\_\_ meets % grade for landing

Yes \_\_\_ No \_\_\_ meets radius return per ATC

Yes \_\_\_ No \_\_\_ meets landing length per ATC

Yes \_\_\_ No \_\_\_ width of D/W as measured meets

Yes \_\_\_ No \_\_\_ drains to ditch "NOT ROADWAY"

Yes \_\_\_ No \_\_\_ ditch line is returned to previous

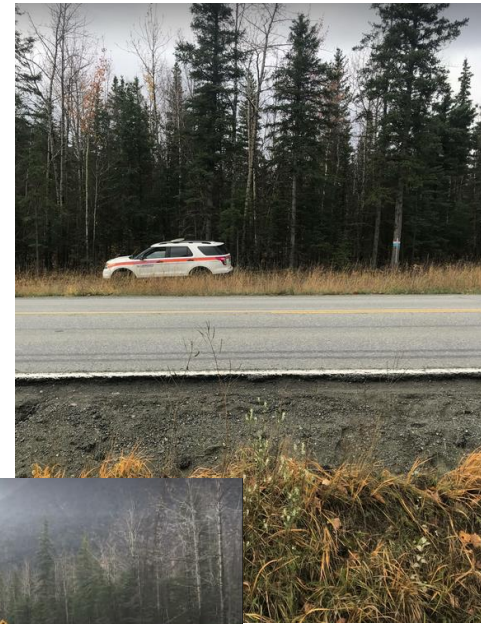
N/A \_\_\_ Yes \_\_\_ No \_\_\_ culvert (if required) installed with

N/A \_\_\_ Yes \_\_\_ No \_\_\_ culvert ends installed

N/A \_\_\_ Yes \_\_\_ No \_\_\_ paving is complete (if required)

Completed By: \_\_\_\_\_

Step One: Fill out paper form  
 Step Two: Take pictures  
 Step Three: Scan Form at Office  
 Step Four: Download and rename photos  
 Step Five: Email to appropriate staff for filing/approval



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# Other uses

- Property Management: Driveway Permit Inspections

The screenshot shows a mobile application interface for driveway permit inspections. It features a map viewer on the left side. The main form contains the following fields:

- Property Owner:** A text input field.
- Parcel Address:** A text input field.
- Driveway Staked?\***: A radio button selection with options "Yes" and "No".
- Alternate Driveway Exist?**: A radio button selection with options "Yes" and "No".

Step One: Fill out electronic form  
Step Two: Take pictures  
Step Three: Hit Send  
~~Step Four: Download and rename photos~~  
~~Step Five: Email to appropriate staff for filing/approval~~



ending in center of driveway, 14-ft from the  
ne - looking across the road





# Thank you! Help us or Questions?

Ryan Quigley PLS, CFedS  
AKDOT&PF ROW Engineering

[Ryan.Quigley@Alaska.gov](mailto:Ryan.Quigley@Alaska.gov)

269-0561