J. Michael Myles | 603.591.6448 | mmyles2007@gmail.com | www.mike-myles.com

Mike Myles Design Portfolio

Online portfolio, resume, and additional information at: **www.mike-myles.com**

USER RESEARCH

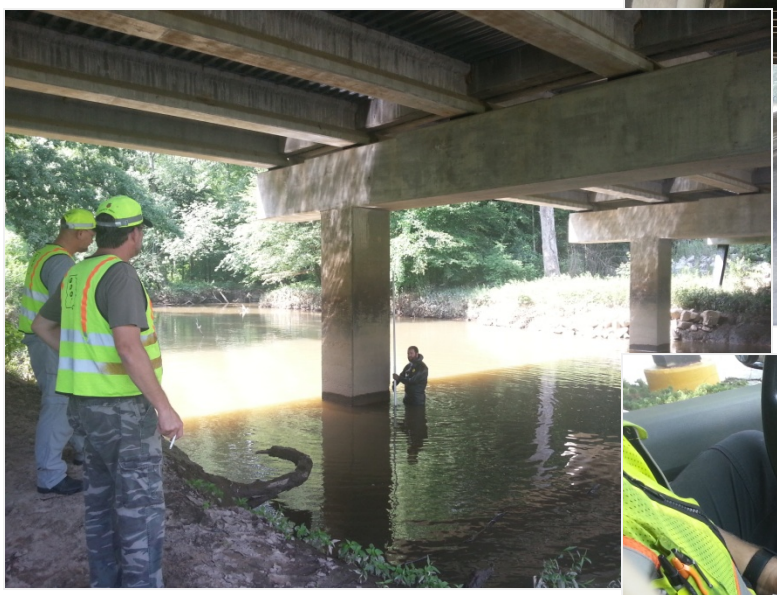
Techniques used in discovery to know the user, the domain space, and determine problems to solve for.

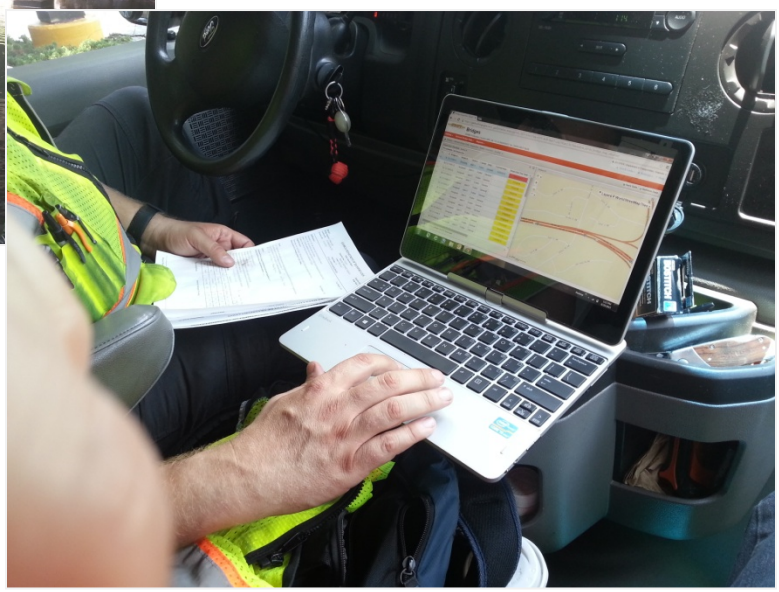
Contextual Inquiry

Regularly use interview and job shadowing techniques to understand:

- How work is currently performed.
- The condition and context under which tasks are performed.
- Details about people who do the work: Goals, motivations, likes, and dislikes... build empathy.
- Understanding pain points in workflows.

Example below: Field research for a mobile bridge inspection app, where I spent a week with topside and underwater inspection crews on the job in Atlanta, to fully understand their needs.





Parallel Collaborative Design Process

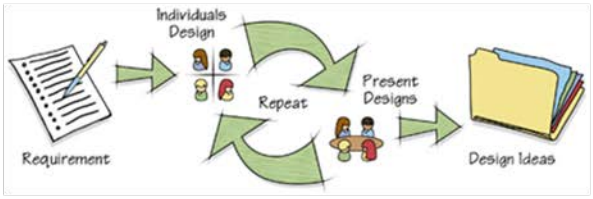
Parallel Collaborative Design (PCD) is a participatory design process I developed, inspired by article:

Shortening the Human-Computer Interface Design Cycle: A Parallel Design Process Based on the Genetic Algorithm
by John McGrew, Decision Process Consulting - *http://www.baychi.org/calendar/20020709/#1*

The PCD process allows a small team to quickly generate and refine design ideas for a specific problem, while evangelizing and democratizing design by including non-designers.

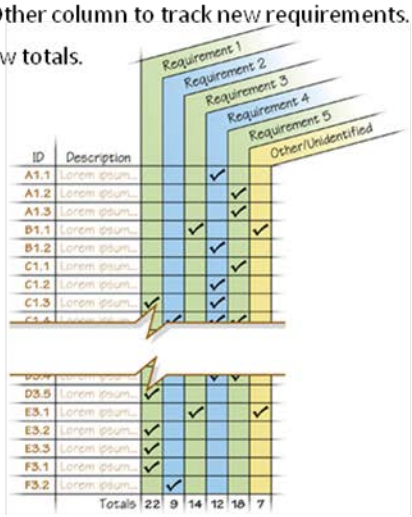
Conducting a Collaborative Parallel Design Session

- Review requirements for the design problem.
- Design independently for 10 minutes.
- Everyone in turn present design ideas to the group (5 minutes each).
- Repeat the design/present cycle building on **at least** one idea presented by someone else. Run through a minimum of 3 design/present cycles.
- Review design ideas as a group.



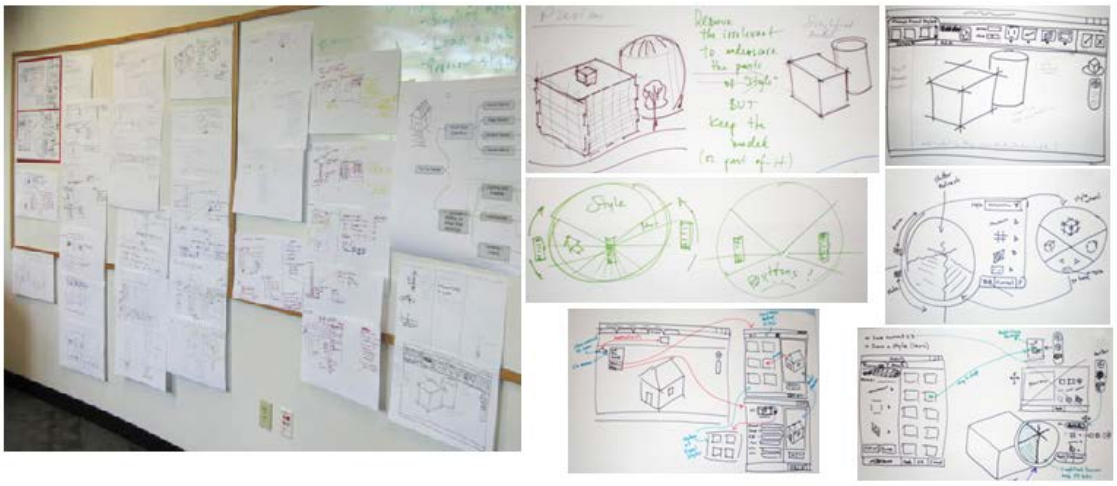
Analyzing Results

- Map each idea to requirements it satisfied
- Use Other column to track new requirements.
- Review totals.



Important ...

- **Defer non-clarifying questions during presentations.**
- Start with clear, concise, and prioritized requirements.
- Use diverse group of participants.
- Target 6 people at 4 hours per session.
- All design should be paper based.
- Keep everything. *there's no telling where a good idea will come from*
- Good ideas can come from bad designs.
- Listen, learn, and be inspired.
- Feel free to explore all possibilities.
- Have fun!



Example design concepts from one PCD session.

Affinity Diagrams

I regularly use affinity diagramming and card sorting techniques to understand user goals, motivations, and tasks.

Example affinity diagram session results.

Affinity diagramming session with building architects.

PERSONAS

I've developed research driven personas across a range of industries. These brief (1 page or less) user stereotypes are effective internal tools for focusing design & development efforts to real needs of users.

Mia: Mechanical Designer

Description: Mia is a mechanical designer for a mechanical & electrical engineering firm. She works with project engineers doing some design and most of the drafting for HVAC and piping, as well as a small amount of plumbing. She's committed to using the latest software applications to be more accurate & efficient, but she has little time to learn new features. Mia looks forward to the rare moments when CAD tools feel effortless for her.

Personal Goals:

- Enjoy her work – don't feel like a slave to tools that are meant to assist her
- Feel like she is working efficiently and effectively
- Keep project engineers happy with the quality and timely delivery of her work
- Expand marketable skills – leverage and extend existing knowledge

Practical Goals:

- Experience production and documentation efficiencies promoted by the tools
- Focus on creating drawings that accurately represent system designs that can be constructed with little to no questions during construction.

Corporate Goals:

- Keep jobs on schedule
- Help build the business by enhancing productivity

Training & Expertise:

- Long time CAD user (6+ years) very familiar with AutoCAD
- Received formal training last year for transition from AutoCAD to AutoCAD MEP

Challenges:

- A demanding workload with tight schedules and deadlines
- Limited time to learn new skills & products

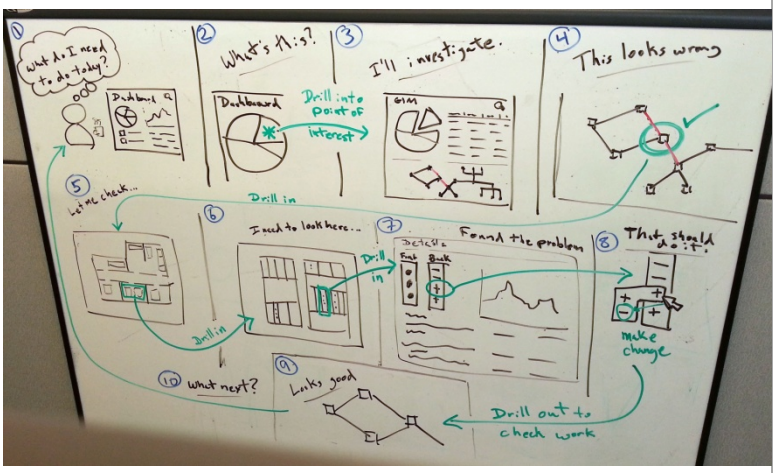
Example persona for Building System Engineering domain.

Persona / Task	Calls	Chat	Email	Call Transfer	Install/Config	Reports	Buying
Agent Adam	Primary	Primary	Primary	Primary	N/A	N/A	N/A
Supervisor Sue	Secondary	Secondary	Secondary	Secondary	Stakeholder	Primary	Stakeholder
Manager Mary	N/A	N/A	N/A	N/A	Stakeholder	Secondary	Primary
IT Ivan	Stakeholder	Stakeholder	Stakeholder	Stakeholder	Primary	Stakeholder	Secondary

Persona to feature mapping matrix.

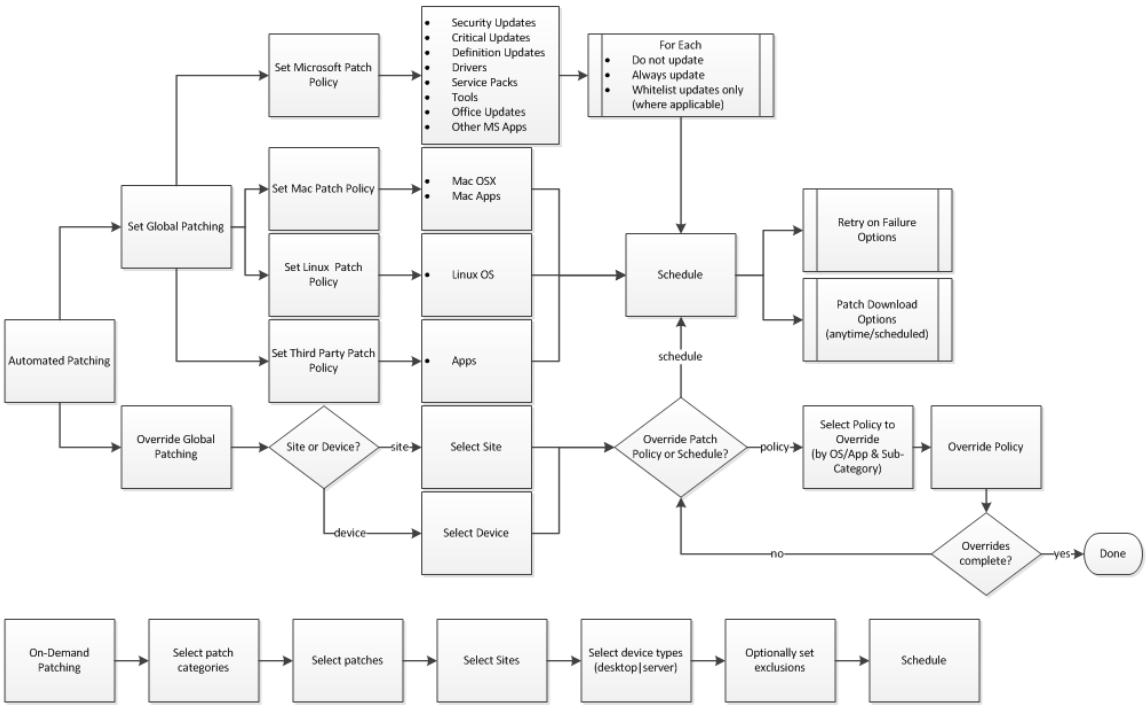
STORYBOARDS & WORKFLOWS

Storyboards and workflow diagrams used to conceptually walk through and evaluate usage scenarios.



Storyboard for managing telecom network problem.

Storyboard for bridge inspection process.

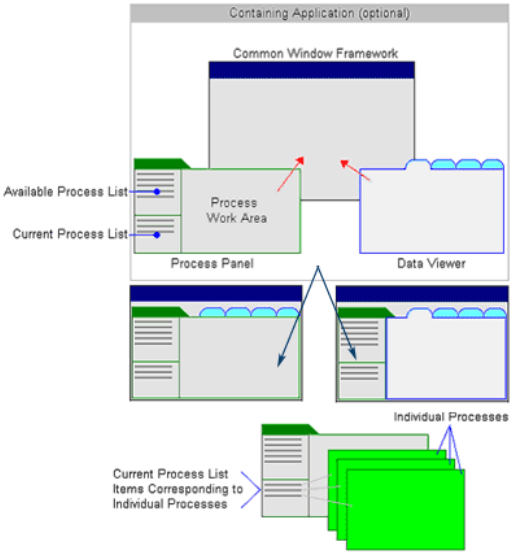


Workflow for patch configuration in IT remote monitoring & management SaaS application.

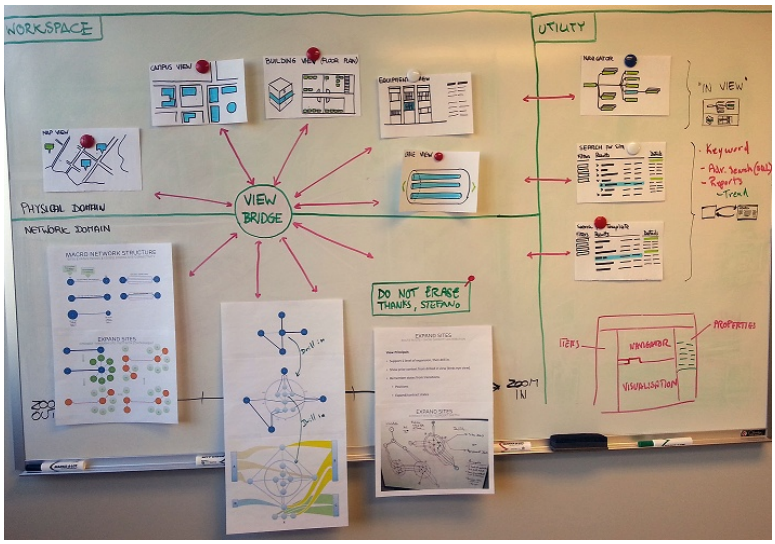
WIREFRAMES

Used to experiment with information organization on the screen, and asses options with stakeholders.

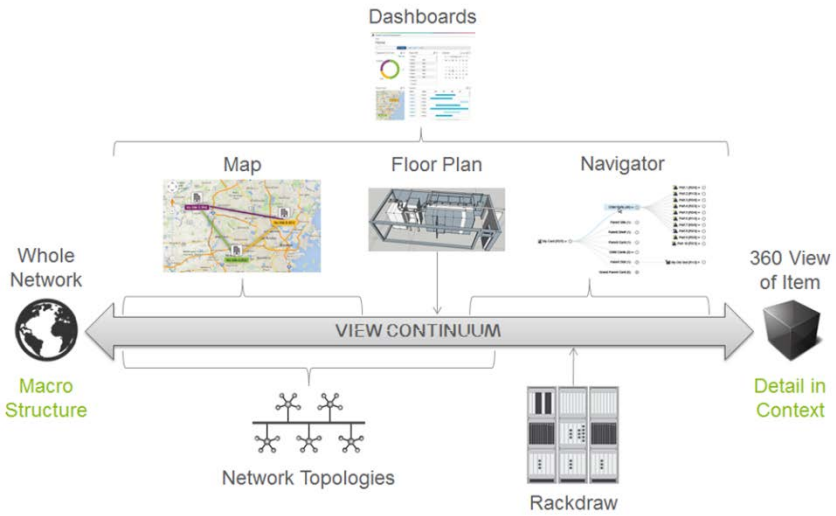
Annotated wireframe for IT management SaaS application.



Wireframe of patented interface.



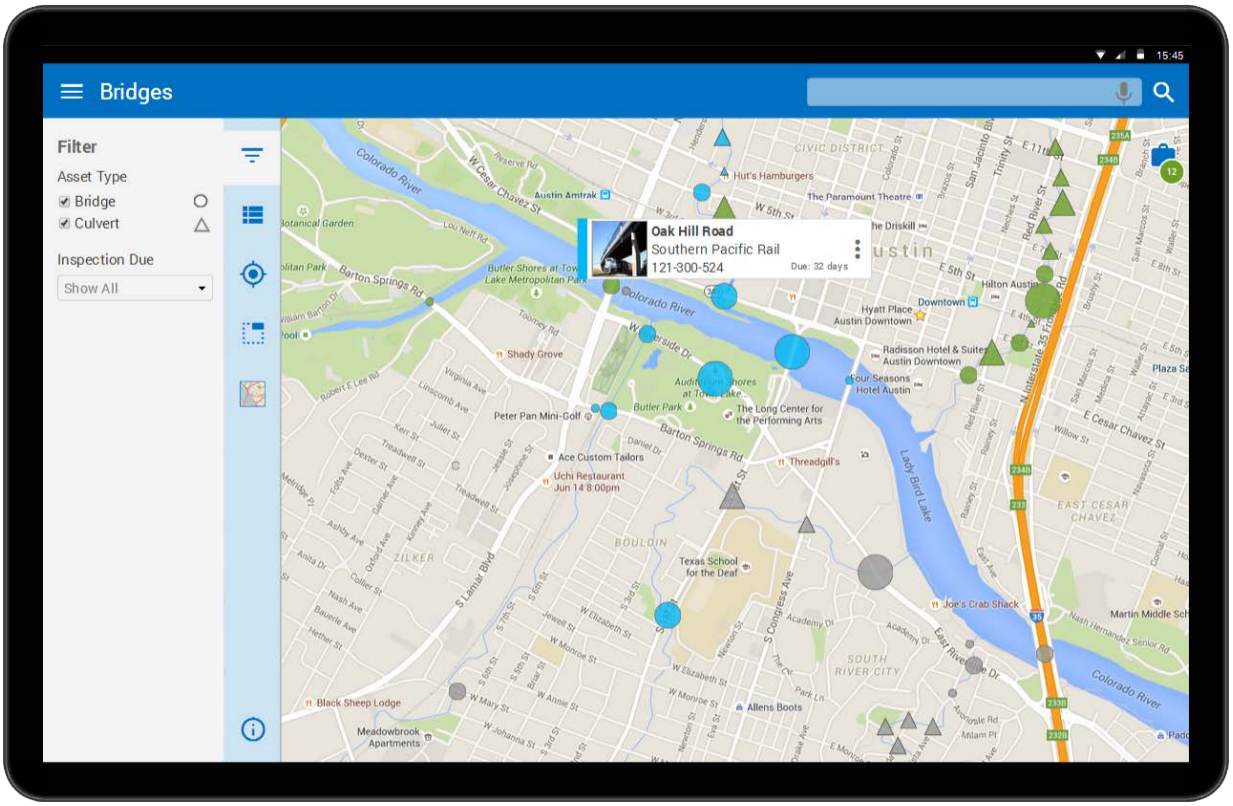
Sketches of view continuum concept.



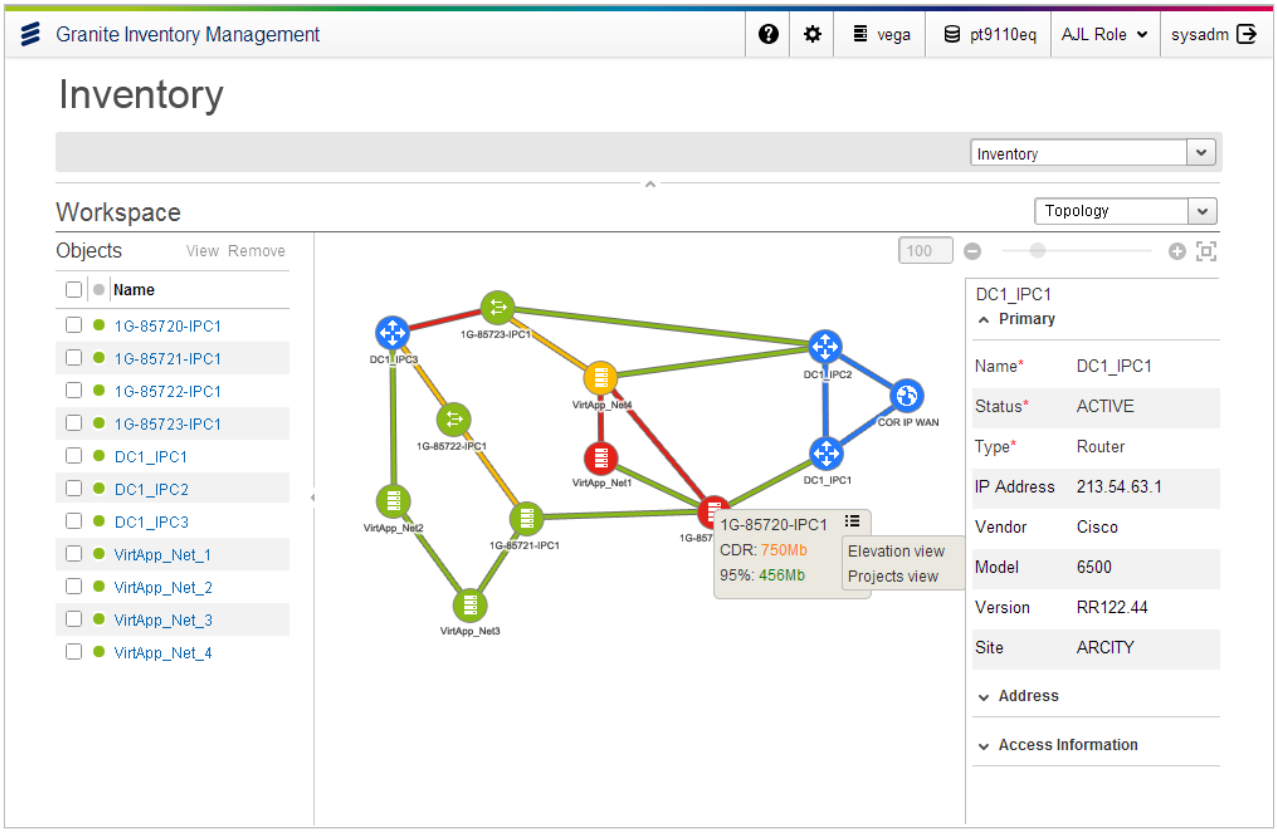
Refined version of view continuum proposal.

MOCKUPS & PROTOTYPES

High resolution UI mockups and interactive prototypes used to further refine and evaluate designs.



Mobile application for bridge inspection.



Telecom network operations tool.

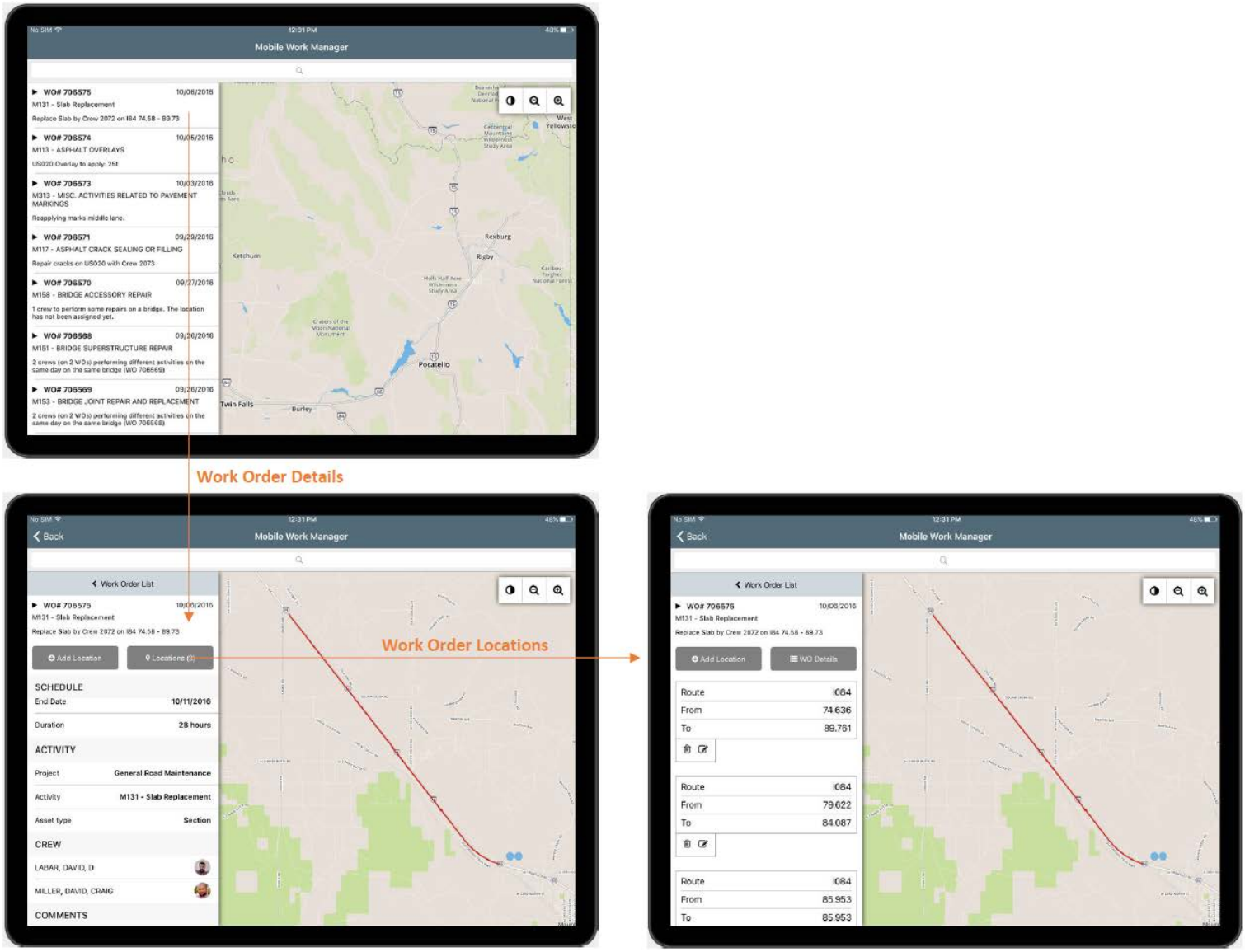
AgileAssets: Work Manager

Map based interface allows a DOT road crew supervisor to manage work orders their crew are fulfilling.

First generation allows user to view work orders, and add work locations to those work orders, to record where activities were performed – while they are done.

Next iteration will allow users to record daily labor, equipment, and material expenditures. It will also allow users to create new ad hoc work orders using device location information.

App built to run across iOS, Android, and Windows platforms. Functions on both tablet and phone form factors.



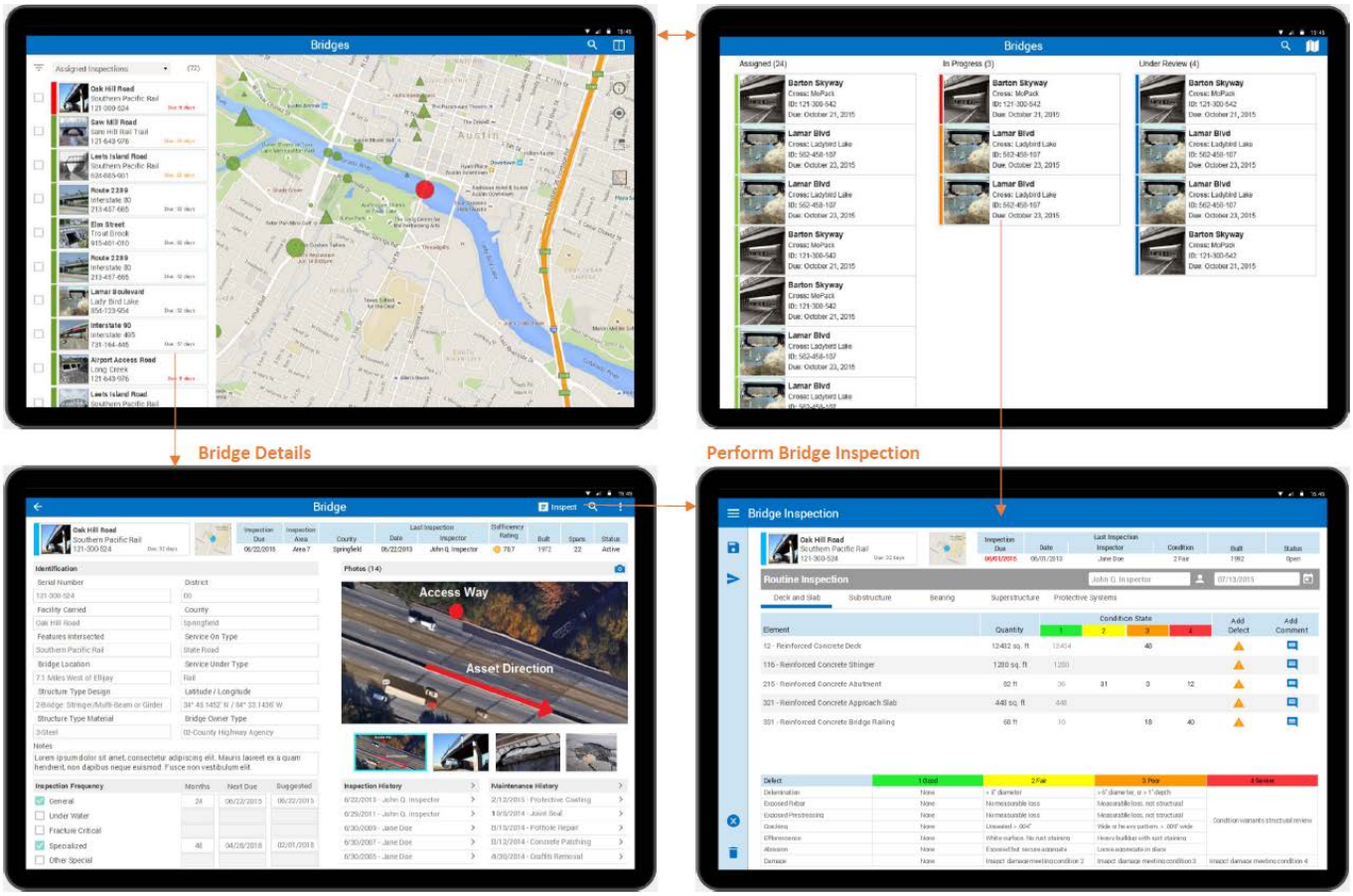
AgileAssets: Bridge Inspector

App for Bridge Inspectors to organize and perform their work.

Inspectors can see on a list and map inspections needed. Due date, bridge type, and other information are visible at a glance.

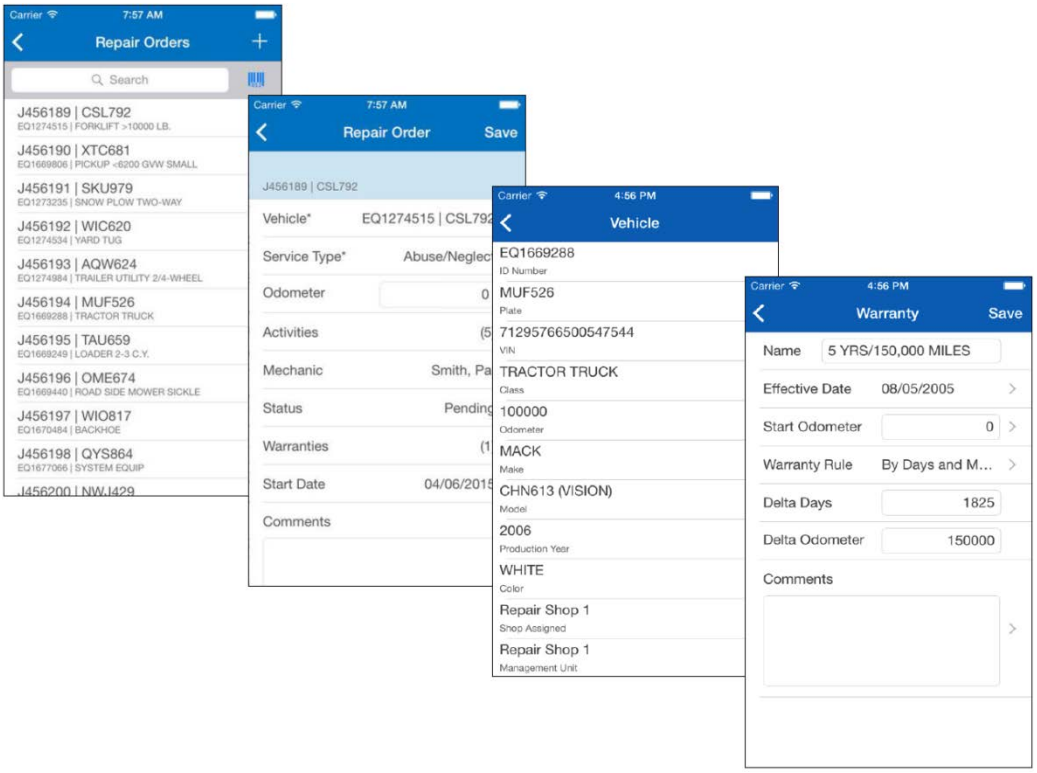
User can toggle to list based assigned, in progress, and under review inspections. Drilling in shows bridge details. Inspection can be open from bridge details, of bridge card.

This app utilizes many patterns found in Mobile Work Manager, to support transfer of learning.



AgileAssets: Fleet Maintenance Manager

iOS app enables a repair technician to view the details of a vehicle with a simple lookup, giving them preventative maintenance, vehicle details, and warranty information. Technicians can record parts and labor to repair orders for fleet vehicles as work is performed.



AgileAssets: Materials Manager

Makes it easier for crews to manage inventory by enabling them to scan inventory bar codes, update quantities and record inventory transfers and purchases with their iPhone or iPad mobile devices from warehouses and work sites.