FLIGHTDECK
OPERATIONS

DUKE ENERGY

Service Agility in a "Fixed Asset" Industry
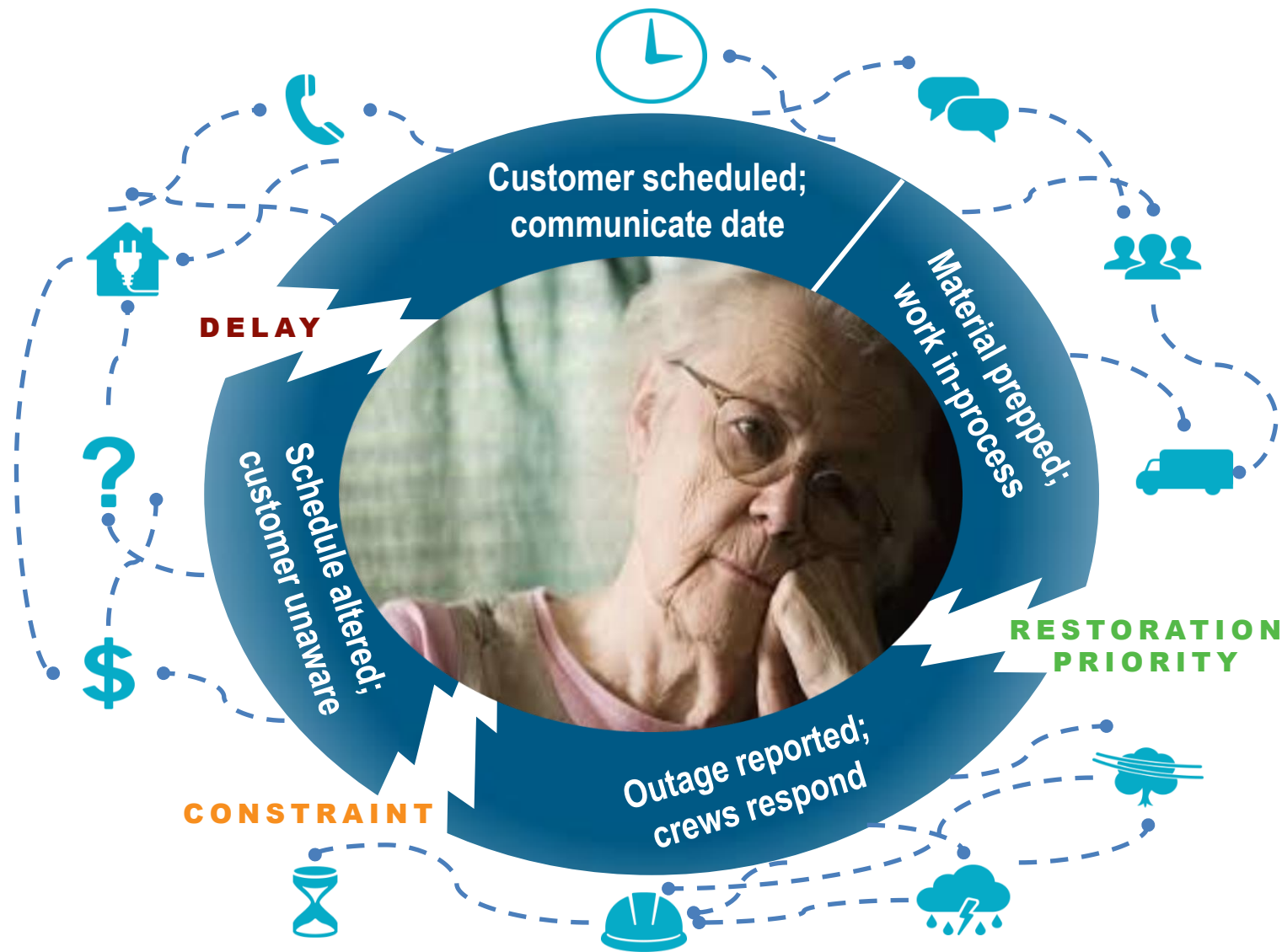
IF YOURE
READING
THIS ITS
TOO LATE

LITTLE ROCK
OPERATION CENTER

PRIMARILY SERVING
CHARLOTTE METRO

136,502
CUSTOMERS

36 Duke
Line Resources

Contractor
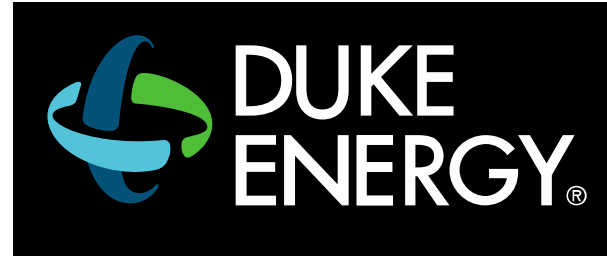Line Resources **132**

1,031
MILES OF
OVERHEAD LINE

Business Agility Engine

BUSINESS AGILITY: Rapid Response Elements

- PEOPLE
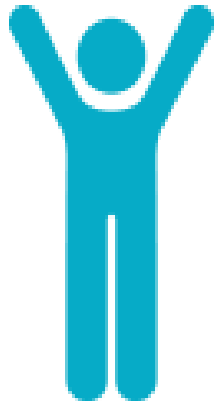- PROCESS
- TECHNOLOGY
- FACILITIES

FOCUS.   SIMPLIFY.   ALWAYS IMPROVE.

DAILY FLIGHT PLAN RHYTHM

**Work Readiness Controller
"Air Boss"**

PLAN 👍	**Conduct Post Flight Activities** • **Validate** job schedule and job site readiness • **Identify** Financial and Operational Performance Dashboard **Trends** • Weekly **audit** of Personnel Management with C&M Supervisor (authorized vacations, callout impact, emergency vacations)

DO & CHECK 📋	**Conduct Pre-Flight Activities**
	 • Validate **"Get Rolling"** achievement
	 • Identify **impediments**
	 • Conduct Initial **Gemba** Walk
	 • Review Financial and Operational Performance Outcomes Objectives with C&M Team
	      o **Non-Restore OT**
	      o **Rest Time**
	      o **O&M Capital Split**
	      o **Customer Commitments**
	      o **Vehicle/Asset Utilization**
	      o **Contractor Utilization**
	 • **Participate and Lead "Communicate and Commit" Strategic Focus in the Weekly Flight Plan Huddles.**
	 • **Enforces accountability for Customer SOS (See it, Solve it, Own it) by challenging the team with questions.**
	      o "Why are job sites not ready?"
	      o "Why aren't the CUs updated?"
	      o "Why didn't we call the customer from the beginning of the order?"
	      o "Why haven't the materials been pre-checked prior to job site delivery?"
	      o "Why are we managing the target start dates on the work order?"

ADJUST 🔄	**Conduct In-Flight Activities** • **Gemba** Walk **review** with C&M • **Collaborate** for next day's priorities • Update **impediment tracker** of resolved/open issues • **Allocate** resources • **Review** current day and **adjust** for next day operations **Conduct Post Flight Activities** • **Daily Retrospective** with C&M Supervisors and Specialist • **Daily Retrospective** with each line technician: "Did you have a good day?" • Document any Customer Mission Failures impediments for that day, assigns an owner, and updates the impediment tracker with the open barrier. • **Review work** completed/upcoming work with C&M Specialist (Routine, Construction, DTUG) • Engages the Contractors General Foreman to review work packets completed • **Next Day Planning:** communicates if any capital OT is required to complete work or attach long lead times for customer work.

RED *PLANNING, SCHEDULER, DCC*

YELLOW WORK READINESS CONTROL "AIR BOSS", GRID MANAGEMENT

GREEN SUPPLY CHAIN

BLUE CONSTRUCTION & MAINTENANCE & CONTRACTOR OVERSIGHT

PURPLE PROJECT MANAGEMENT

BROWN PQR&I AND DESIGN ENGINEERING

WHITE WORK MANAGEMENT SPECIALIST

Agile People

Employee Focus Groups, Customer Verbatims, & Gemba Walks

"No one is responsible for ensuring a job is done."

"I spend 30-40% of my time investigating project status with internal departments so I can respond to my Customer."

"Engineering does not have ability to communicate the start date to the customer."

"We have trouble getting material in a timely manner, and it negatively effects the customer."

"We need a better method or process for Developers & Builders to request and track work orders."

"The customer notifies Duke when we miss a date."

Agile Processes

Sprint 7 Overview
Customer

Scheduling Lead Times

STORY 1

BEFORE
- SCHEDULING OH JOBS 4-6 WEEKS OUT
- CUSTOMERS ARE WAITING TOO LONG FOR SMALL REQUESTS
- FREQUENT RESCHEDULES
- NOT MEETING COMMIT DATES
- CREWS GETTING PULLED OFF JOBS

AFTER
- SCHEDULE OH JOBS 6 DAYS OUT (NOT WEEKS)
- SCHEDULE ADHERENCE
- FOCUSED CREWS NOT BEING PULLED OFF THEIR JOBS
- DEDICATED CREW
- EXPOSING ISSUES WITHIN OUR PROCESS

"AS A CUSTOMER I WOULD LIKE SHORTER LEAD TIMES ON SMALL SCOPES OF WORK"

CURRENT PROCESS FOR HOW SMALL JOBS ARE COMPLETED

TWO DAYS

TWO WEEKS

FOUR WEEKS

NEW PROCESS: CUSTOMER QUICK REACTION FORCE

TWO DAYS

TWO WEEKS

SIX DAYS

- Little Rock, Newell, Matthews, Wenwood, Wilmington and Asheville are all currently piloting the Customer Quick Response Force (C-QRF)

- This gives a diverse group of Op Centers accounting for:
  - Customer Needs
  - Geographic Terrain
  - Rural vs Urban
  - Residential, Commercial, Industrial Profiles
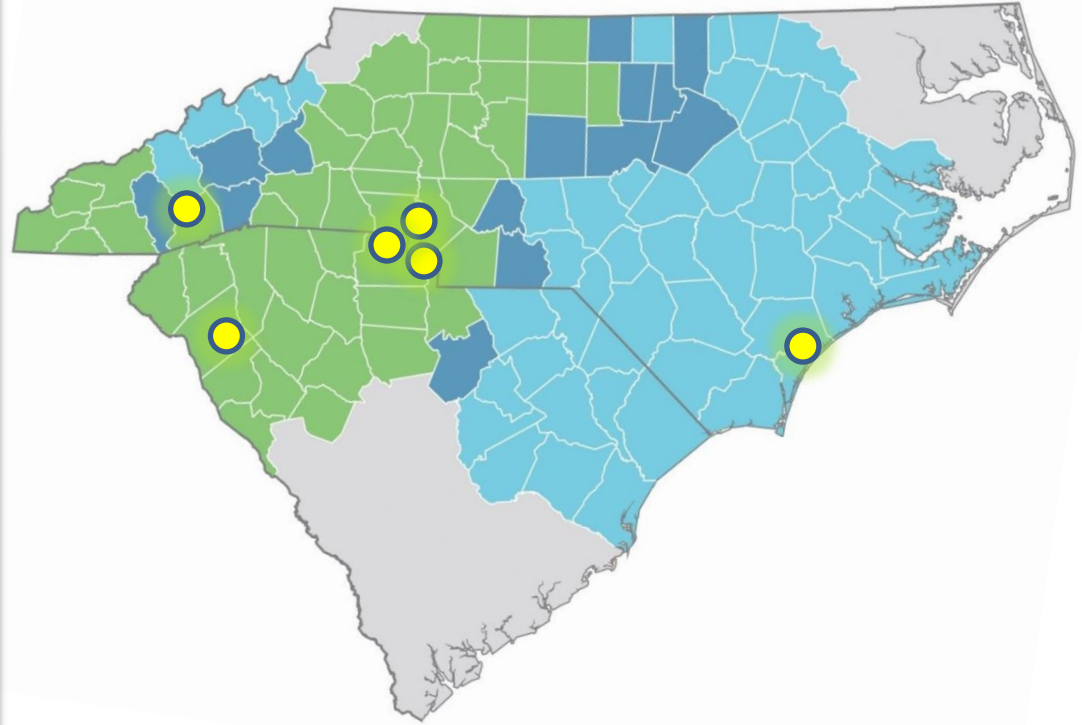
AGILE WORKSPACES

KNOWLEDGE WORK EQUALS FOUR WORK MODES

FOCUS
PRODUCTIVE CAPITAL

WORK INVOLVING CONCENTRATION AND ATTENTION TO A PARTICULAR TASK OR PROJECT

THINKING, REFLECTING, ANALYZING, WRITING, PROBLEM-SOLVING, QUANTITATIVE ANALYSIS, CREATING, IMAGINING, REVIEWING, ASSESSING

Gensler research shows that people spend on average 48% of their time in focus work.

SOCIALIZE
SOCIAL CAPITAL

WORK INTERACTIONS THAT CREATE COMMON BONDS AND VALUES, COLLECTIVE IDENTITY, COLLEGIALITY AND PRODUCTIVE RELATIONSHIPS

TALKING, LAUGHING, NETWORKING, TRUST-BUILDING, RECOGNITION, CELEBRATING, INTERACTING, MENTORING, ENHANCING RELATIONSHIPS

Gensler research shows that people spend an average of 6% of their time in social activities.

COLLABORATE
INNOVATIVE CAPITAL

WORKING WITH ANOTHER PERSON OR GROUP TO ACHIEVE A GOAL

SHARING KNOWLEDGE AND INFORMATION, DISCUSSING, LISTENING, CO-CREATING, SHOWING, BRAINSTORMING INTERACTIONS MAY BE FACE-TO-FACE, BY PHONE, VIDEO, OR THROUGH VIRTUAL COMMUNICATION

Gensler research shows that across all companies, people spend an average of 32% of their time collaborating.

LEARN
INTELLECTUAL CAPITAL

WORKING TO ACQUIRE NEW KNOWLEDGE OF A SUBJECT OR SKILL THROUGH EDUCATION OR EXPERIENCE

TRAINING, CONCEPT EXPLORATION AND DEVELOPMENT, PROBLEM-SOLVING, MEMORIZING, DISCOVERY, TEACHING, REFLECTING, INTEGRATING AND APPLYING KNOWLEDGE

Gensler research shows that people spend an average of 6% of their time learning.
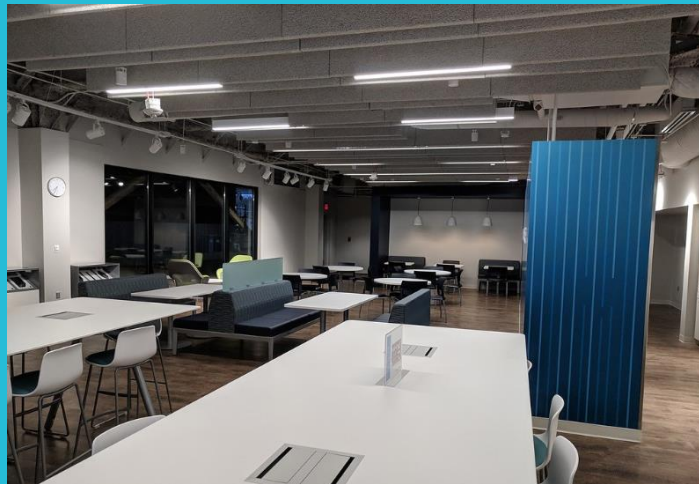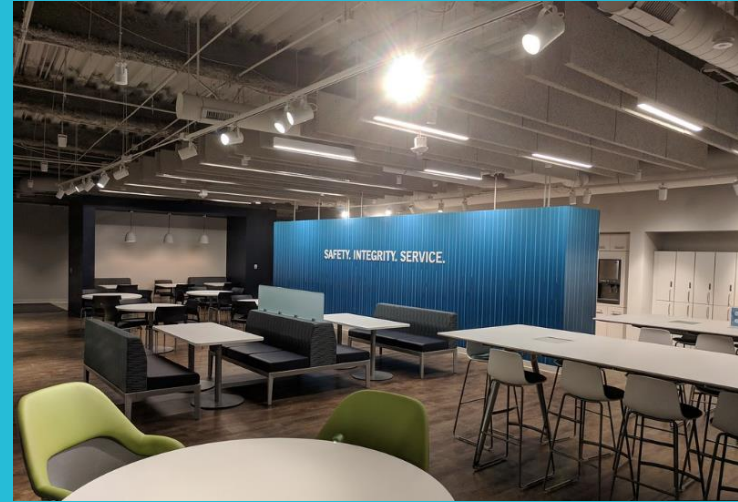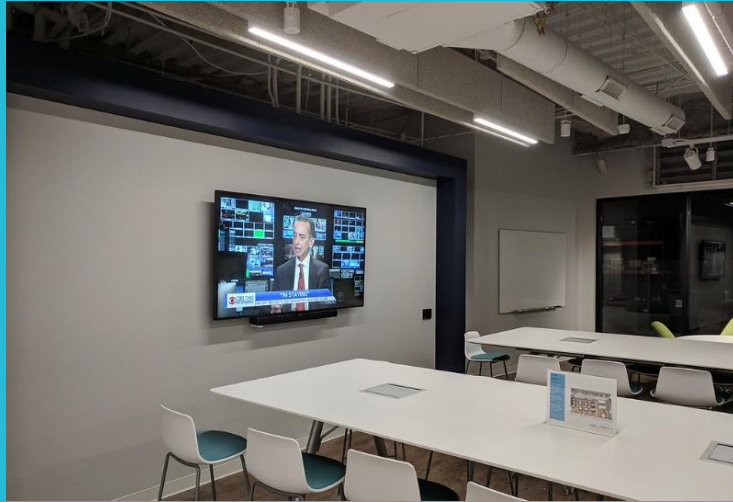
AGILE DIGITAL STRATEGY

IT Idea Lab Partnership

Flight Deck Operations has partnered with IT to stand up an idea lab at Little Rock to deliver a platform that will:

- **Increase transparency** within 1DF Operations.

- **Drive customer satisfaction** and **resource optimization.**

By leveraging existing and emerging technologies, the IT Idea Lab has worked with the Flight Deck Agile team to build and develop amazing solutions that bring value to our teammates throughout each of the flight deck focus areas.

The **1DF Resource Optimization Command Center (ROCC)** was constructed as a part of the renovations at Little Rock Ops Center and will host the new platforms. We are re-imagining how work gets done in a unified and collaborative environment that puts our customers first and keeps them informed along the way.

REDEFINING DUKE ENERGY WITH DIGITAL

Creating delightful experiences and valued outcomes with digital enablement

Connected Customer

Proactive Digital Channels

Digital Home

Customer experience improves every two weeks

Intelligent Operations

Advanced Metering Infrastructure/ IoT Sensors/ Ops Data

Modern Grid / Distributed Energy Resources

Automated with Analytics

Digital Worker

Digital Tools

Task-relevant information

DUKE ENERGY®
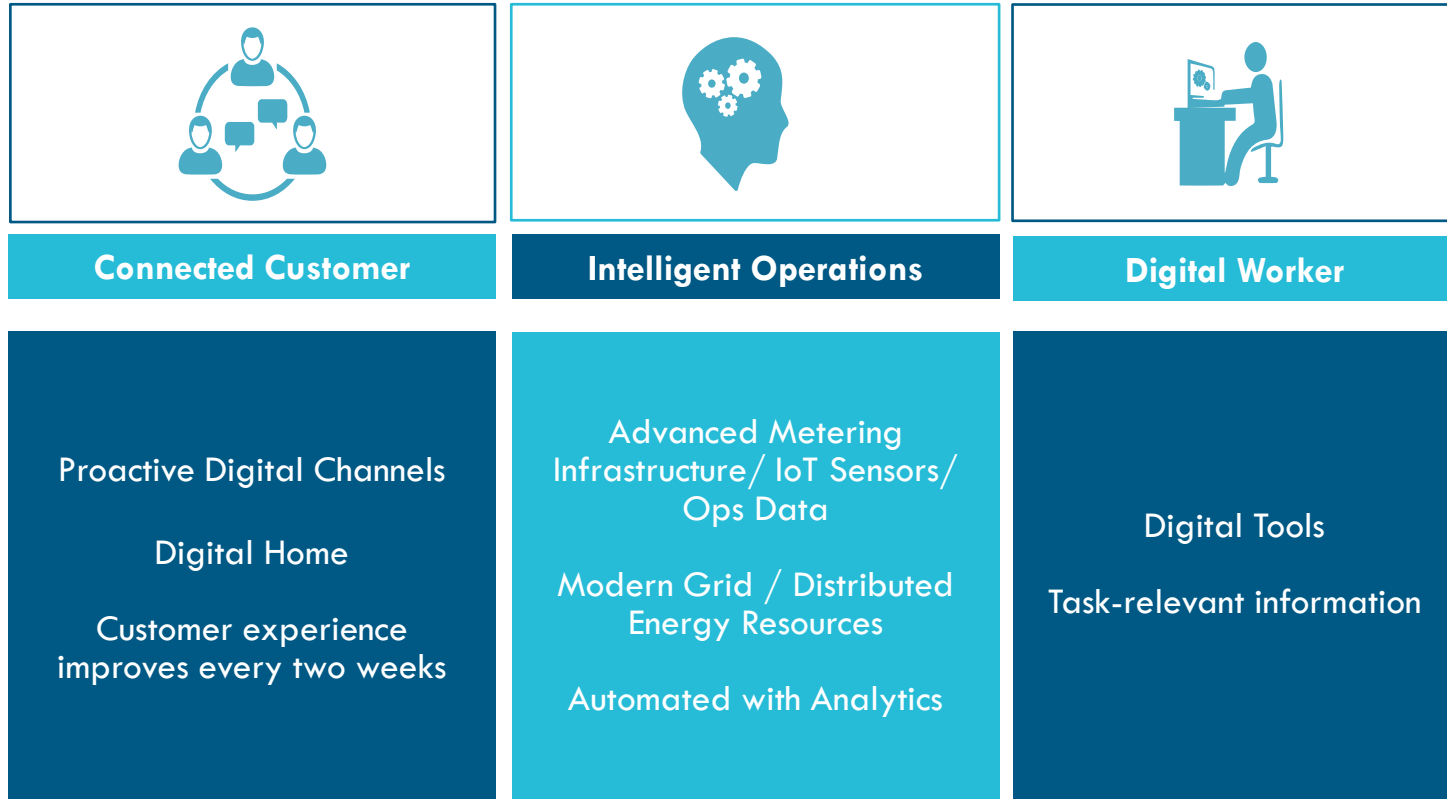
1DF Flight Deck: Driving 10X Operational Efficiency

Asset

EAM **SS9** **GIS** **OMS**

Information Systems

Transformation

Outcome

Operational Efficiency

Expense and Investment Optimization

Effective Service Delivery

Transforming field work by abstracting multiple underlying systems into a single, interactive view designed to maximize productivity.
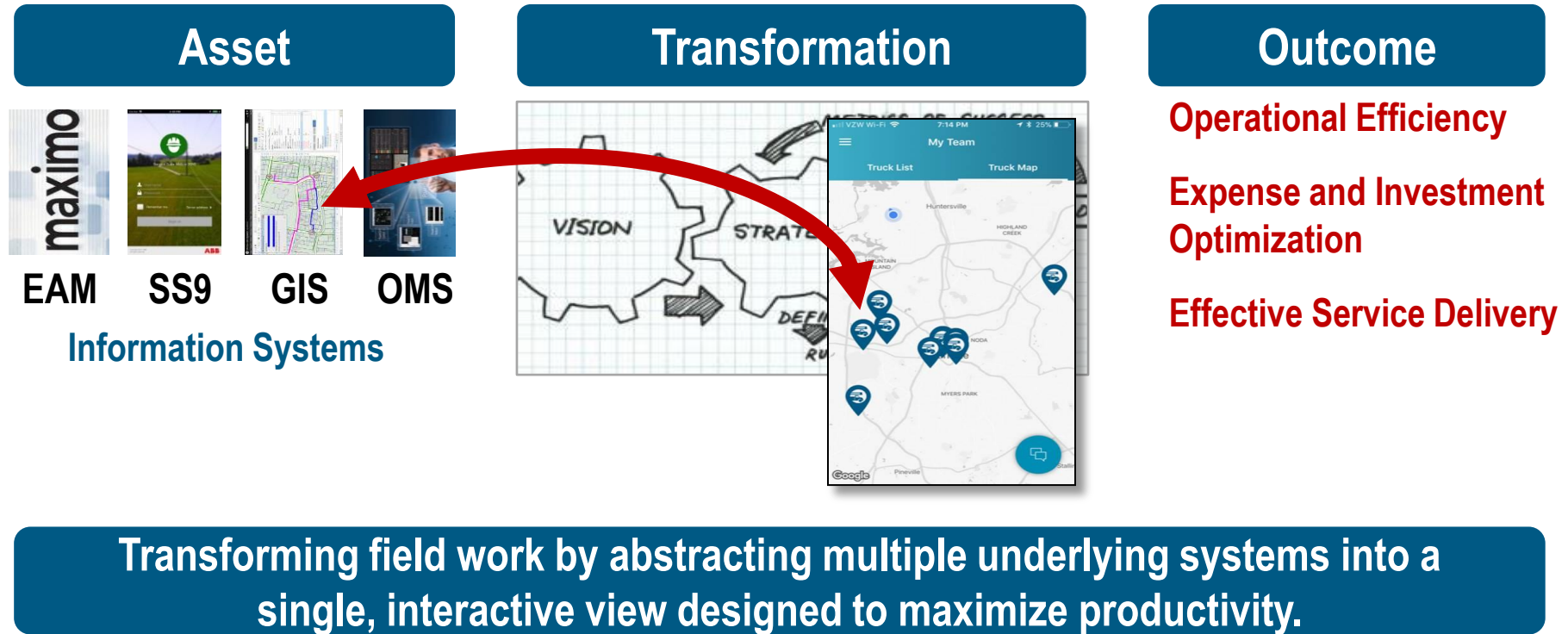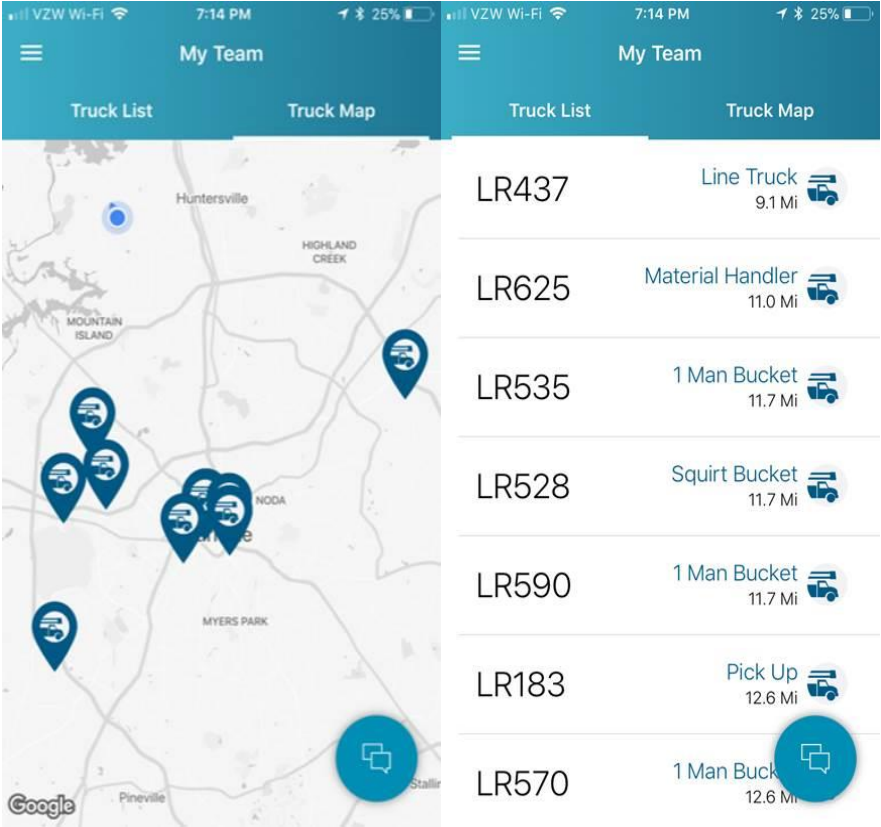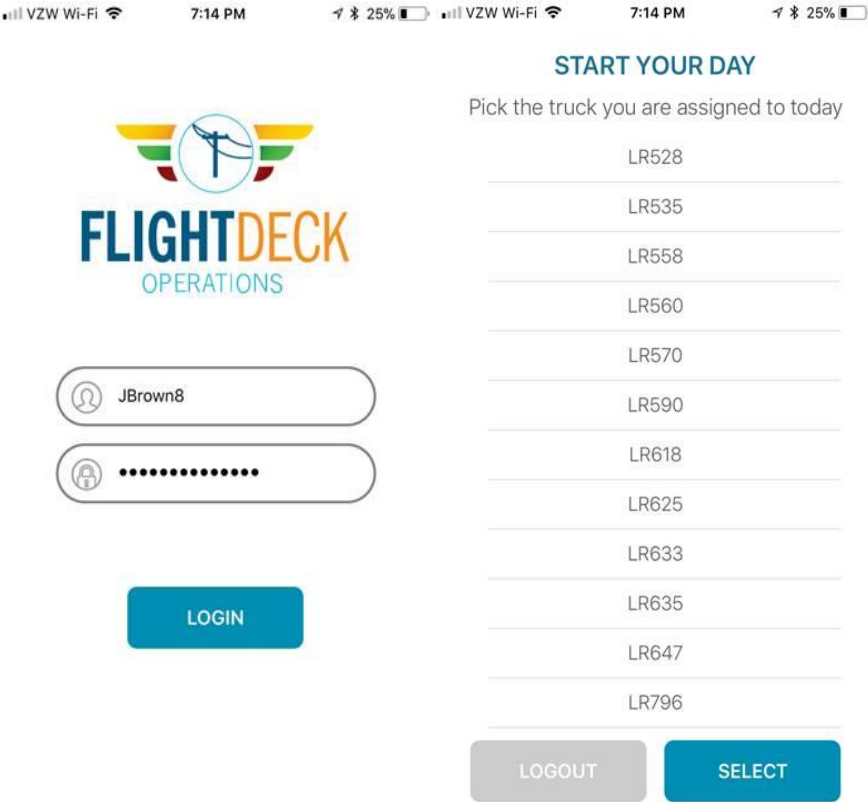
As a BUILDER or DEVELOPER, I want to be informed when an accelerated underground service will be worked so that I know when my house will have power.

As a BUILDER,
I want an easy way to declare my site ready, so that I can save time and frustration.

BEFORE

- Lack of Builder visibility into work orders
- No consistent notification of project moves on the schedule
- Difficult to declare site ready of check on job status
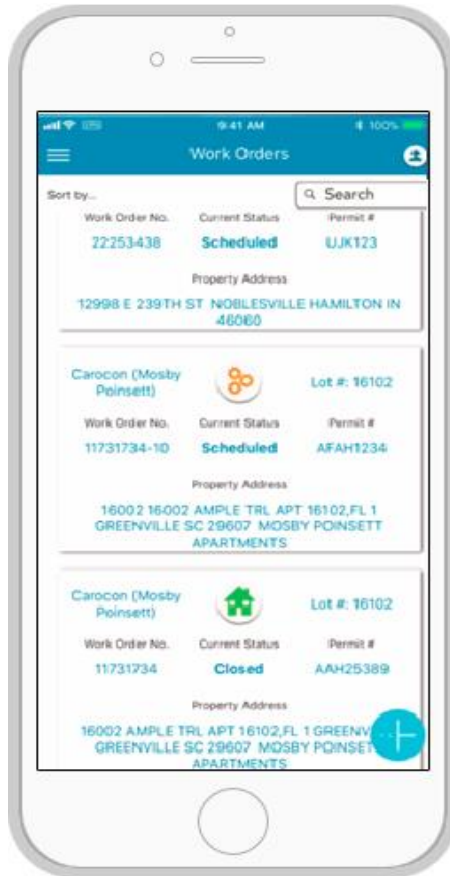- No point of contact

AFTER

- Teamed with the 1DF Builder-Developer Scrum Team to pilot App.
- status of Work Order and Work Order Tasks.
- Declare job site readiness
- Reduction in calls to CCO.
- Reduction in Expedites from escalated complaints.

BUILDER/DEVELOPER APP

IMPLEMENTED:

- CREATE LIST OF WORK ORDERS
- WORK ORDER STATUS
- WORK ORDER TASK STATUS
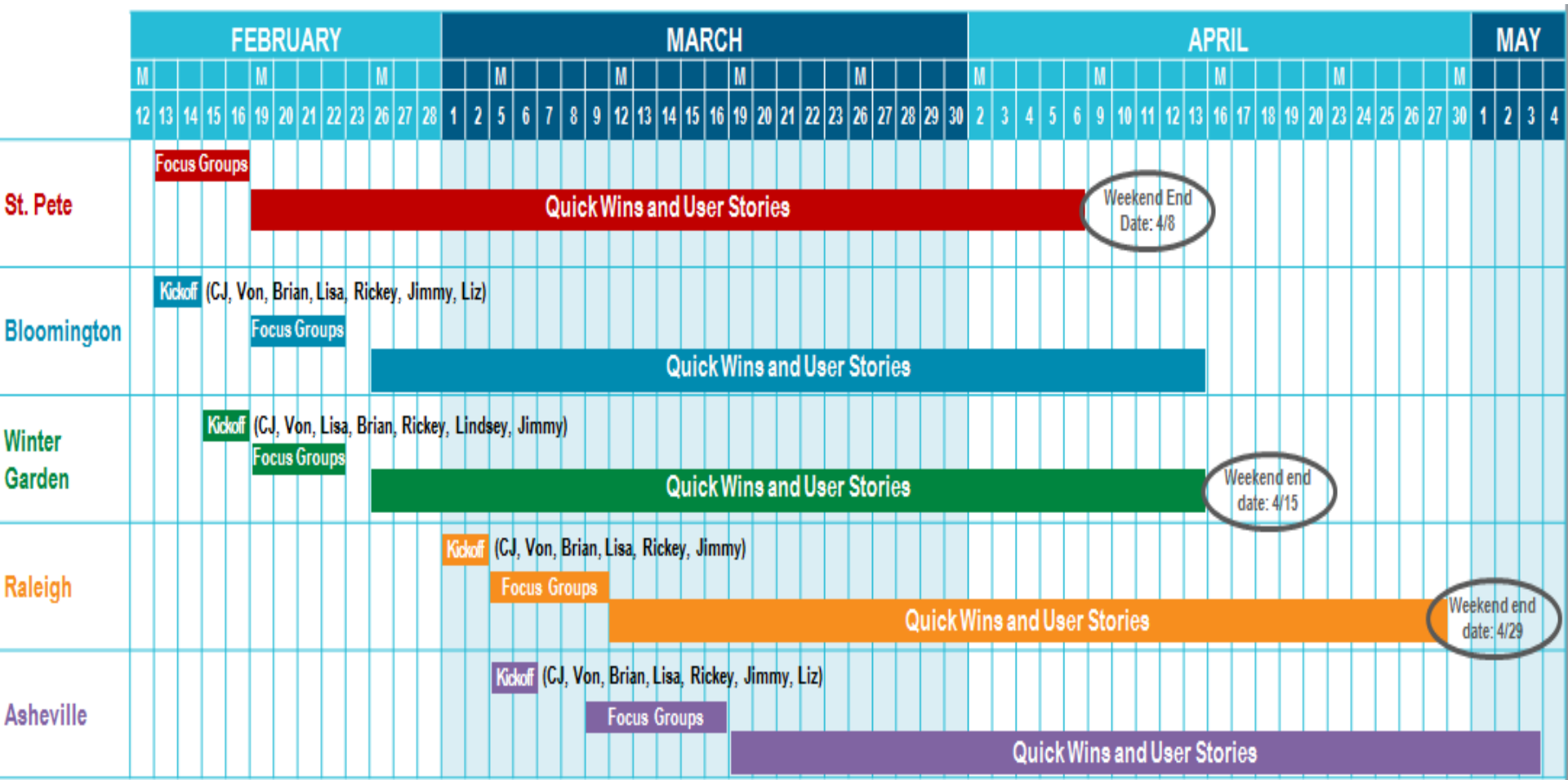- SEARCH BY WORK ORDER NUMBER

NEXT:

- ANDROID-COMPATIBLE
- SEARCH BY ADDRESS
- CREATE SUB-LISTS
- DECLARE SITE READY
- SPOC CONTACT INFORMATION
- PUSH NOTIFICATION WHEN SCHEDULE CHANGES.
- PUSH NOTIFICATION REMINDERS OF OUTSTANDING CUSTOMER OBLIGATIONS

Agile Scaling

Smart Agile Scaling: Localizes Business Agility Engines

Gantt chart spanning February, March, April, and May.

St. Pete
- Focus Groups
- Quick Wins and User Stories — Weekend End Date: 4/8

Bloomington
- Kickoff (CJ, Von, Brian, Lisa, Rickey, Jimmy, Liz)
- Focus Groups
- Quick Wins and User Stories

Winter Garden
- Kickoff (CJ, Von, Lisa, Brian, Rickey, Lindsey, Jimmy)
- Focus Groups
- Quick Wins and User Stories — Weekend end date: 4/15

Raleigh
- Kickoff (CJ, Von, Brian, Lisa, Rickey, Jimmy)
- Focus Groups
- Quick Wins and User Stories — Weekend end date: 4/29

Asheville
- Kickoff (CJ, Von, Brian, Lisa, Rickey, Jimmy, Liz)
- Focus Groups
- Quick Wins and User Stories

2018 Flight Deck Deployment

2018

FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

- **St. Pete:** Feb. 8-9
- **Bloomington:** Feb. 13-14
- **Winter Garden:** Feb. 15-16
- **Raleigh:** Mar. 1-2
- **Asheville:** Mar. 5-7

- 7 Springs
- Apopka
- Brecon
- Buena Vista
- Clearwater
- Durham
- Fairfax
- Fairfield
- Fuquay
- Hamlet
- Little Miami
- Newell
- Ocala

- Queensgate
- Todhunter
- Walsingham
- Wenwood17

- Matthews
- Spartanburg
- Salisbury
- Hickory
- Anderson
- Gastonia
- Florence
- Zebulon
- Henderson
- Cape Fear
- Wilmington S
- Lewisville

- Hartwell
- Dana
- Terre Haute
- Noblesville
- Clarksville
- Bloomington
- Longwood
- Inverness
- DeLand
- Jamestown
- SEO 23

OUTCOMES