



CITY COUNCIL - DIVISION INTRODUCTION

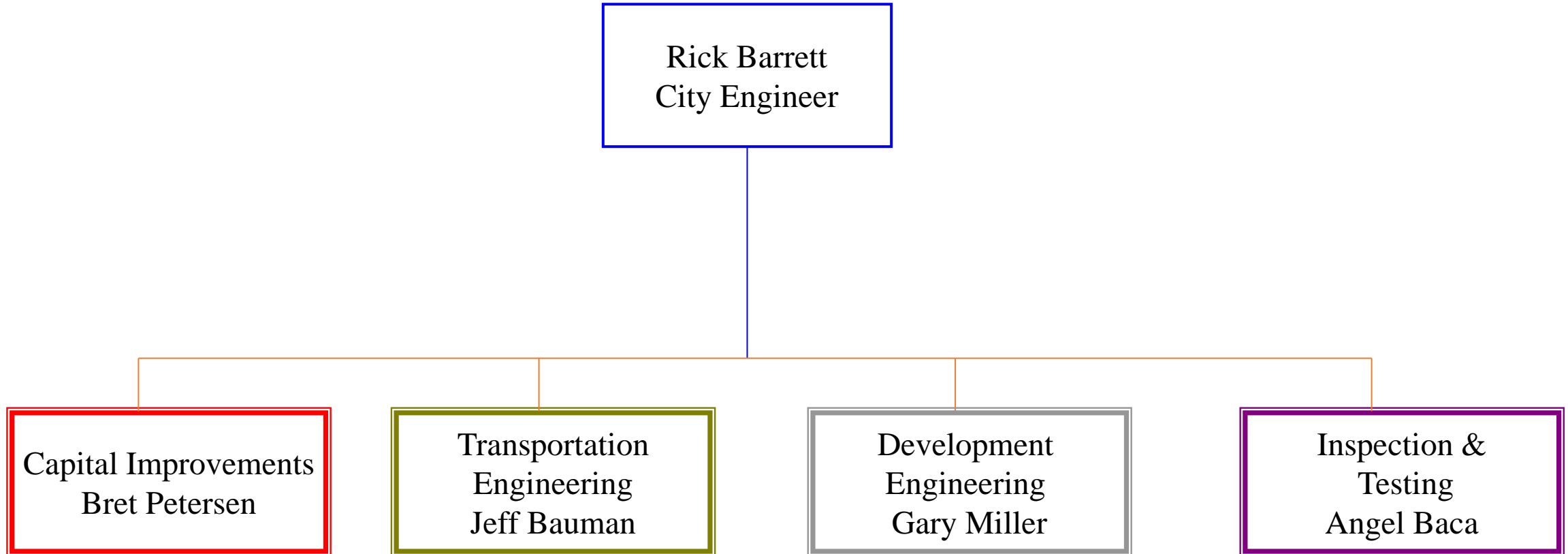
Engineering & Capital Improvements Division

JANUARY 26, 2021



Organization Chart

Engineering & Capital Improvements Division





Director's Overview

Engineering & Capital Improvements Division

- 29 staff
 - 1 Administrative Specialist
 - 4 Professional Engineers (required by job description)
 - 1 Construction Manager
 - 17 Project Managers (8 Professional Engineers)
 - 5 Inspectors
 - 1 Engineering Specialist

A photograph of five people (three men and two women) standing in a control room. They are wearing name tags and professional attire. The background shows multiple computer monitors displaying data, maps, and charts. The room has a modern, industrial feel with cubicles visible in the distance.

Director's Overview

- External Stakeholders
 - Citizens
 - Public outreach for capital projects
 - Concerns regarding transportation network
 - Concerns regarding construction sites
 - Consulting Engineering firms
 - Contractors (heavy civil)
 - Developers
 - Franchise Utility Companies

Director's Overview

- External Stakeholders (continued)
 - Agency Collaboration
 - Arizona Department of Transportation (ADOT)
 - Northern Arizona University (NAU)
 - Flagstaff Unified School District (FUSD)
 - Coconino County
 - BNSF Railway (specific to projects)
 - Mountain Line (NAIPTA)
 - MetroPlan (FMPO)



Director's Overview

- Team Flagstaff – Making Flagstaff Better
 - General – day to day
 - City Council
 - City Manager's Office
 - Community Development
 - Attorney's Office (counsel)
 - Purchasing (Procurement Manual)
 - Grants
 - Finance (capital programming)
 - Economic Vitality (Park Flagstaff coordination)
 - Sustainability (Climate Action and Adaptation Plan)
 - Capital Project "owners"



Director's Overview

- Team Flagstaff – Making Flagstaff Better
 - Relationship through Engineering Standards
 - Police Department (Transportation Commission & sub-committees)
 - Fire Department (development review)
 - Water Services
 - Public Works



Director's Overview

Engineering Design and Construction Standards & Specifications for New Infrastructure

- City Code – Title 13
- Traffic Operations (City Code - Title 9)
 - Transportation Engineering
- Review plans to be in compliance with Engineering Standards
 - Development Engineering
- Ensure built infrastructure complies with Engineering Standards and approved plans/permits
 - Construction Inspection & Testing



Director's Overview

- Priority Based Budget
 - \$3,280,293
 - 95% of budget is personnel
 - \$2,580,575 in revenue generated
 - Key Community Priorities (strong alignments)
 - High Performing Governance
 - Safe & Healthy Community
 - Promote physical health through providing recreation opportunities, parks, open space & multiple transportation options
 - Ensure the built environment is safe through the use of consistent standards, rules & regulations & land use practices





Director's Overview

Priority Based Budget (continued)

- Key Community Priorities (strong alignments)
 - Inclusive & Engaged Community
 - Enhance community involvement , education & regional partnerships to strengthen the level of public trust
 - Sustainable, Innovative Infrastructure
 - Deliver outstanding services to residents through a healthy, well maintained infrastructure system
 - Utilize existing long-range plan(s) that identify the community's future infrastructure needs and all associated costs
 - Provide effective management of and infrastructure for all modes of transportation
 - Robust Resilient Economy
 - Enhance understanding between the development community and residents
 - Livable Community
 - Create a welcoming community through partnerships, resilient neighborhoods & civic engagement
 - Achieve a well-maintained community through comprehensive and equitable code compliance that is compatible with community values
 - Environmental Stewardship
 - Implement sustainable building practices, enhance waste diversion programs, alternative energy programs and multi-modal transportation options
 - Implement, maintain and further the Climate Action and Adaptation Plan (CAAP) with awareness of social inequities



Director's Overview

- Construction Inspection & Testing
 - Home office at Water Service's East Flagstaff Facility on Commerce Avenue
 - Primarily work out of their vehicles on job sites throughout the city
- All other staff work out of City Hall
 - currently working remotely
- All staff work 8 hours/day, Monday - Friday



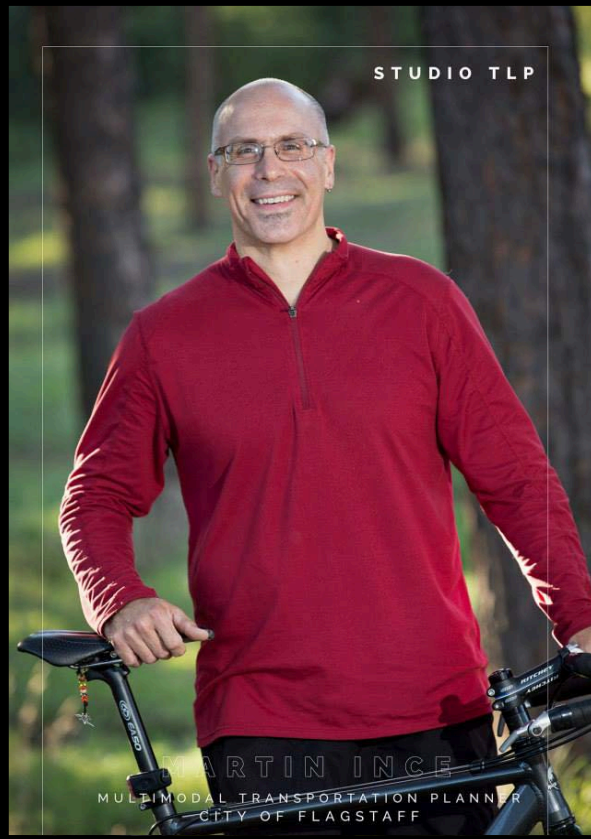
Director's Overview

- Our Values
 - Progressive
 - Community First
 - Integrity
 - Diversity
 - Communication
 - Dedication
- Goal
 - Provide excellent customer service to our clients and Team Flagstaff
 - Be as helpful as you can
- Our Professional Work Place
 - Always provide benefit of the doubt, engage in two-way communication and seek information/clarification if you have questions or concerns

Director's Overview

- Ethics & Integrity
 - Registered Professionals adhere to Arizona State Board of Technical Registration Rules & Regulations and Code of Ethics
- Analysis /Reasoning
 - Expertise
 - Objective, measurable data driven recommendations
- Fiscal Accountability
- Strategic Vision
- Enforcing Laws, Rules & Regulations
 - Well trained team-centered, knowledgeable and skillful staff
- Thoroughness
- Results Focus
- Safety Awareness





Transportation Engineering Meet the Group



Transportation Commission



Neighborhood Traffic Calming Projects

- Boulder Pointe
- Woodland Drive
- Mt. Pleasant Road
- Country Club Drive
- Meadow Brook Drive

Concept Drawing - Center Island Narrowing





Other Projects

- Truck Prohibition on Linda Vista
- E-Bike Ordinance
- Distracted Driving
- Review Transportation Capital Improvement Program

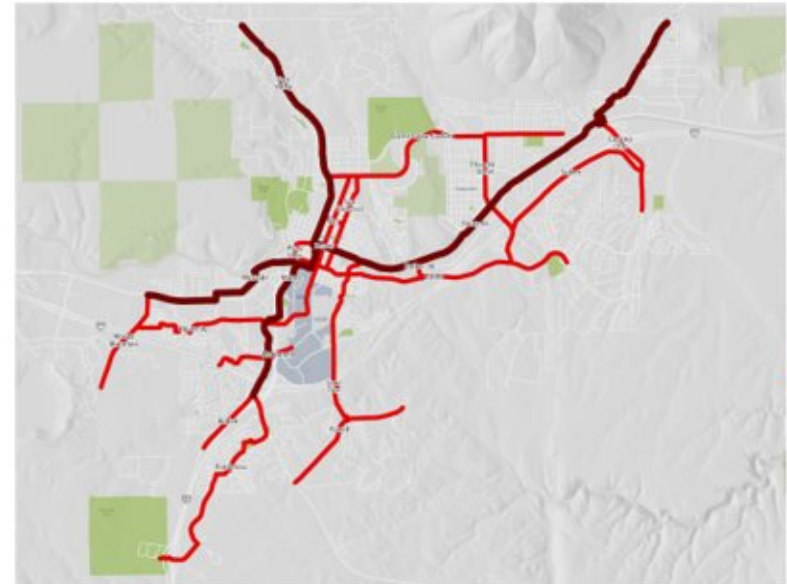




Bicycle and Pedestrian Advisory Committees



- E Bike rules
- Active Transportation Master Plan
- FUTS master Plan
- Bikeways Plan





Transportation Engineering Studies



Steps for a typical study:

- Starts with a citizen concern
- Conduct study using tubes or Turning Movement Board
- Analyze data; calculate 85th %tile and average speeds, review truck percentages, etc.
- City of Flagstaff's Guidebook for Residential Traffic Management



Transportation Operations



Signing

Striping



Beacons



Lighting

Traffic Calming



Signals





Transportation Engineering Development Review



- Participate in the Inter-Divisional Staff process
- In Review or Recently Approved Transportation Impact Analyses:
 - Old Kohls site
 - The Shops on Butler
 - Apartments at Lone Tree & Pine Knoll
 - Park Place Flagstaff
 - Sky Cottages
 - Towns on Lone Tree
 - Northern Arizona Health
- Review Construction Plans for Development Engineering & Capital Improvements Engineering



Development Engineering

Introductions



Gary Miller, P.E.



Dana Cole



James Boyer



Dave Millis, P.E.



Brian Gall, P.E.

Development Engineering

- Engineering Standards
- Development Review
- Plan Review
- Private Development Project Management
- Permitting
 - Capital
 - Private
 - Franchise
 - Adjacent Property
 - Water/sewer services
 - Driveways



Construction Inspecting & Testing

- A construction inspector performs inspection tasks on projects to ensure they comply with plans, specifications, and standards.
- Duties include inspecting the quality of work and quality of materials used in construction.
- Maintaining detailed records of work and taking part of various stages as an active participant of the project.
- Coordinates all material testing with CMT Engineering Laboratories.
- Provides technical guidance when the need arises.
- Help our contractors be successful.





Capital Improvements

- Project Delivery
 - Planning/Programming
 - Design
 - Property Acquisition
 - Construction
 - 5-Year Capital Improvement Program (Streets/Transportation)
 - Public Outreach
 - Delivery Methods



Capital Improvements

- Bret Petersen**
- Christine Cameron**
- Trevor Henry**
- David Pedersen**
- Eli Reisner**
- Jeremy DeGeyter**
- Mac McNamara**
- Gloria Cervantez**



Capital Improvements

Paving in Sunnyside





Capital Improvements

Post Museum
Fire – flows in
the Spruce Ave.
Wash

Capital Improvements

Demolition of
the ADOT Buildings
in anticipation of the
Beulah/University
project





Capital Improvements

Industrial Drive roadway improvements during construction





Capital Improvements

Municipal Court Facility - 2020





Capital Improvements



Fourth Street Reconstruction





Capital Improvements

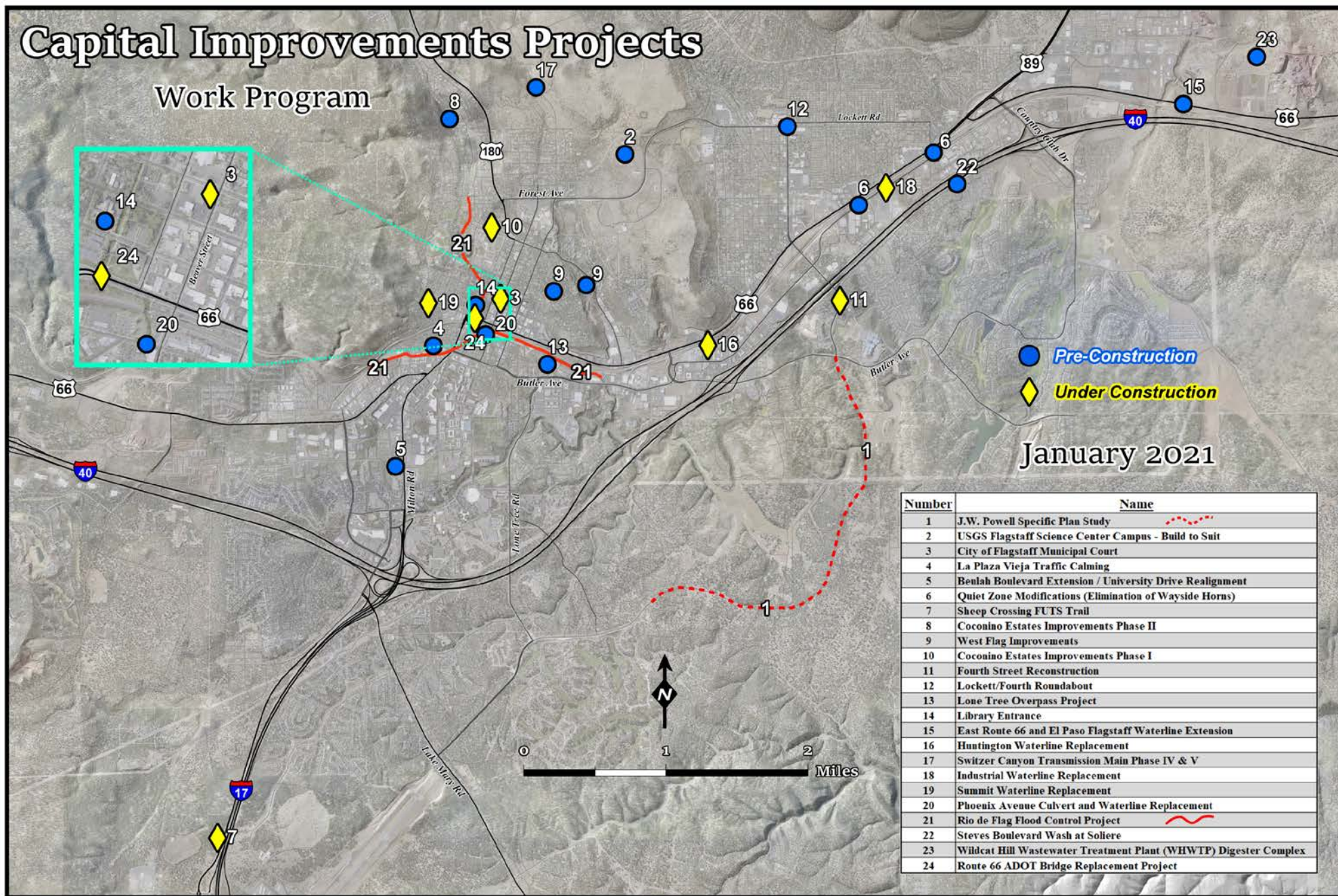
Lone Tree Overpass





Capital Improvements Projects

Work Program



● Pre-Construction
 ◆ Under Construction

January 2021

Number	Name
1	J.W. Powell Specific Plan Study
2	USGS Flagstaff Science Center Campus - Build to Suit
3	City of Flagstaff Municipal Court
4	La Plaza Vieja Traffic Calming
5	Benlah Boulevard Extension / University Drive Realignment
6	Quiet Zone Modifications (Elimination of Wayside Horns)
7	Sheep Crossing FUTS Trail
8	Coconino Estates Improvements Phase II
9	West Flag Improvements
10	Coconino Estates Improvements Phase I
11	Fourth Street Reconstruction
12	Lockett/Fourth Roundabout
13	Lone Tree Overpass Project
14	Library Entrance
15	East Route 66 and El Paso Flagstaff Waterline Extension
16	Huntington Waterline Replacement
17	Switzer Canyon Transmission Main Phase IV & V
18	Industrial Waterline Replacement
19	Summit Waterline Replacement
20	Phoenix Avenue Culvert and Waterline Replacement
21	Rio de Flag Flood Control Project
22	Steves Boulevard Wash at Sollere
23	Wildcat Hill Wastewater Treatment Plant (WHWTP) Digester Complex
24	Route 66 ADOT Bridge Replacement Project



Rio de Flag Flood Control Project



- Purpose and Scope
- History
- Current Design Activity
- Real Estate Acquisition
- BNSF Railway
- Public Involvement
- Next steps



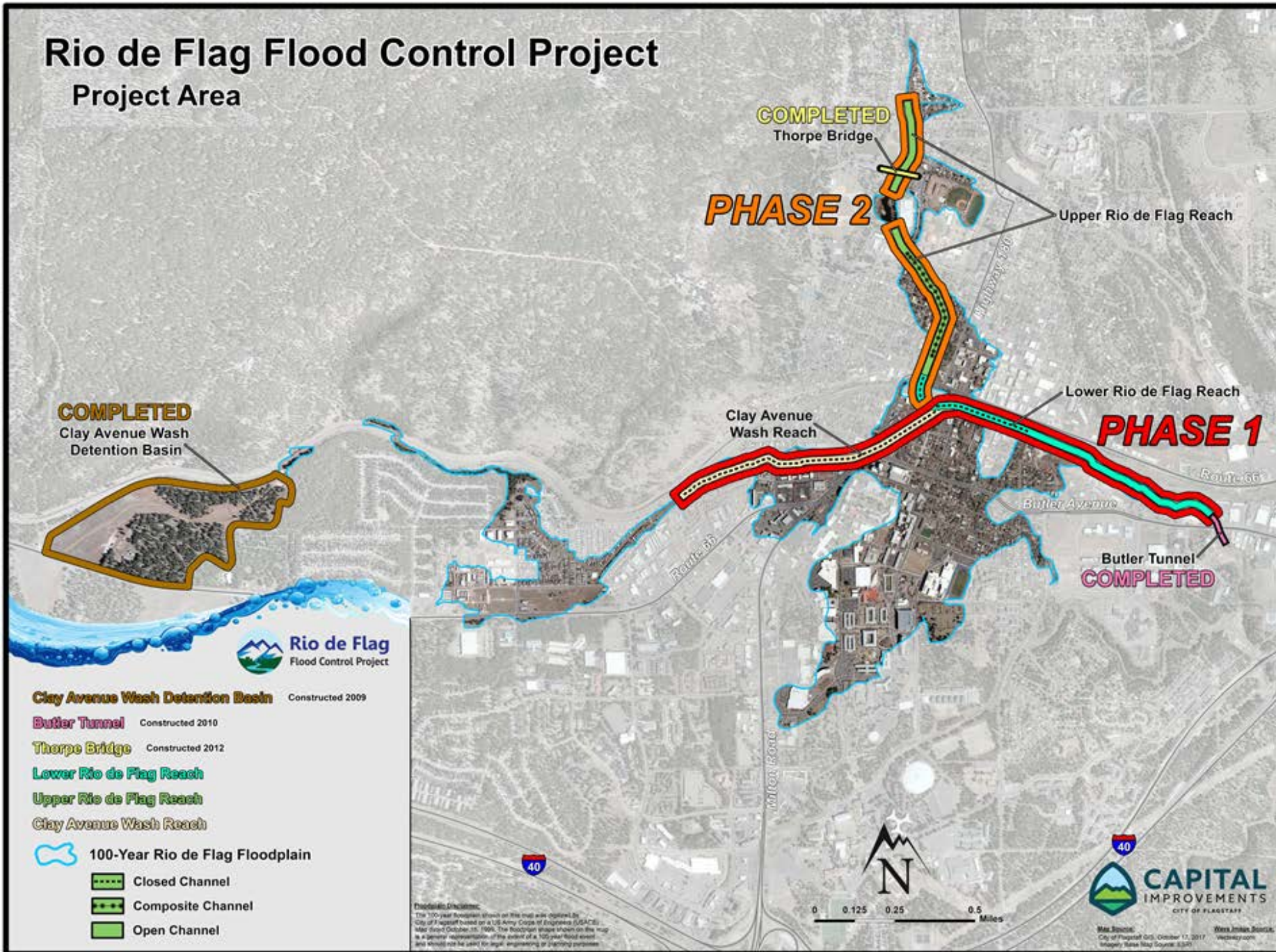
PROJECT PURPOSE



- A significant flood would result in damage to approximately **1,500 structures** valued at over **\$916M** and cause **\$93M** in economic damages for a **total impact of over \$1 Billion dollars.**
- **Improvements will provide:**
 - Reduction of flooding damage and safety hazards.
 - Opportunity for Downtown and Southside redevelopment.
 - Elimination of flood insurance requirements and restrictive floodplain management regulations.



Rio de Flag Flood Control Project Project Area





PROJECT HISTORY



- Feasibility Study conducted in the late 1990s.
- Project Cooperation Agreement (PCA) with the US Army Corps (USACE) - 2004.
- **City Responsibilities in PCA -**
 - Contribute 35% of project cost.
 - Provide all Land, Easements, Rights-Of-Way, Relocations & Disposals, including BNSF land (LERRDS).
 - Property, utility relocations, environmental clearance.
 - City share funding - Stormwater Fee - July 2019.



PROJECT HISTORY



- **USACE Responsibilities in PCA -**
 - Project design, construction, and project management.
 - Contribute 65% of project cost
 - Environmental Impact Analysis
- Challenge with federal funding over time - impacted progress
- Final design funding - FFY 2018
- Full USACE share funding - FFY 2020
- Current total Project Estimate - \$122M



CURRENT DESIGN ACTIVITIES



- Utility relocation plans
- Real Estate legal descriptions and exhibits
- Coordination with ADOT for the Milton/Butler/Clay intersection encroachment permit
- BNSF Railway coordination



REAL ESTATE ACQUISITION



- Development of final property legal exhibits, encumbrance documents, and plans for final verification of project limits.
- Once these are approved by USACE, the City is cleared to complete appraisals and make offers.
- Approximately 12-18 months to complete property acquisitions.



BNSF RAILWAY



- Design Plan Review
- Mitigation measure information was received January 19 and is under review.
- Coordination of our legal staff for the Construction and Maintenance agreement.
- Utility Relocation Plan



PUBLIC INVOLVEMENT



- Project Website
 - <https://www.flagstaff.az.gov/4189/Rio-De-Flag-Flood-Control-Project>
 - Virtual Meeting Room
 - Southside Video
 - Before and After Visualization Presentation
- Beta PR
- Public meetings



NEXT STEPS



- Final real estate acquisition - 12-18 months
- BNSF Railway
 - Construction and Maintenance Agreement
 - Property agreement
 - Resolution of mitigation measures
- Completion of design
- Phase I Award - Lower and Clay Wash Reaches



Thank you for your time!

- Upcoming projects at Council (Working Calendar)
 - LTO Design/Build Contract Award
 - IGA w/ADOT for data access/exchange
 - Switzer Canyon Water Transmission Main “out of city” water service policy
 - Fourth/Lockett/Cedar Roundabout Alternatives
 - Consideration of Construction Contract Award – David & Hutchison Project
 - Consideration of Construction Contract Award – Canyon Terrace Project
 - Street Lighting to Enhance Dark Skies (SLEDS) compliant street lighting replacement
 - Active Transportation Master Plan Specific Plan
- Project Websites
 - Rio de Flag <https://www.flagstaff.az.gov/4189/Rio-De-Flag-Flood-Control-Project>
 - Coconino Estates <https://www.flagstaff.az.gov/4471/Coconino-Estates-Improvements>
 - JW Powell Specific Plan <https://www.flagstaff.az.gov/jwpspecificplan>
 - Water Services <https://www.flagstaff.az.gov/4237/Capital-Improvement-Map>
- Questions comments?