

INFRASTRUCTURE, INNOVATION AND DELIVERY

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NR Capital Outlay Support

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INFRASTRUCTURE

- Senate Bill 1 Update
- Infrastructure Investment and Jobs Act (IIJA)
- The California Action Plan for Transportation Infrastructure (CAPTI)
- Broadband Middle Mile Network (BMMN)
- Complete Streets
- Clean California
- Delivery Innovation

SB1 Updates

Road Repair and Accountability Act of 2017

Introduced in 2018

- Increases funding for California's transportation system by \$5.4B annually

Yearly Efficiency Goal

- \$100M per year for the maintenance and rehabilitation of the State Highway System

Year to Year Efficiencies Met

- FY 17/18 \$133M
- FY 18/19 \$233M
- FY 19/20 \$195M
- FY 20/21 \$386m

INFRASTRUCTURE

What's new?

Infrastructure Investment and Jobs Act (IIJA)

- Signed into law – November 15, 2021
- Includes provisions related to Federal-aid highway, transit, highway safety, motor carrier, research, hazardous materials, and rail programs of the U.S. Department of Transportation (U.S. DOT).
- More funding for bridge replacement and repairs, public transportation options, and expansion of the Electric Vehicle charging network.
- Includes federal policy direction and funding in the areas of climate action, zero-emission vehicle deployment, social equity, goods movement and multi-modal transportation investment sought by the Caltrans and transportation stakeholders.

Developing IJA Transportation Implementation Action Plans for the following:

Safety	Transit and Commuter Rail
Fix-it-First	Intercity Passenger Rail
Reimagining Highway Investments/Carbon Reduction Program	Freight/Goods Movement
Climate resilience and adaptation	Overall funding split between state/local and across programs
Active transportation	Tribal Government
Transition to Zero-Emissions	Equity
Local hire/Contracting	

- Bridge Formula Program - are eligible on highway bridge replacement, rehabilitation, preservation, protection, or construction projects on public roads.
- Priority on highway bridges classified in poor condition and that preserve or improve the condition of in-service highway bridges classified in fair condition.

Working Definition:

“Fix it First” refers to the preservation, repair, rehabilitation and replacement of **existing transportation system assets.**



The California Action Plan for Transportation Infrastructure (CAPTI)

- Aligns the state's transportation infrastructure investments with the state's climate, health, and social equity goals, while also maintaining the commitment made in Senate Bill (SB) 1 to a fix-it-first approach to transportation.

CAPTI Actions Related to the 2023 State Highway System Management Plan

- Update the 2023 SHSMP SHOPP and Maintenance investment strategies and performance outcomes to align with CAPTI investment framework.
- Update will include active transportation, climate resiliency, nature-based solutions, greenhouse gas emission reduction, climate smart decision making
 - Climate resiliency
 - 2021 SHSMP introduced Sea Level Rise
 - 2023 will introduce Wildfire Adaptation
 - nature-based solutions – Is a strategy for how climate adaptation is carried out
 - Greenhouse gas emission reduction
 - The SHOPP does not allow lane additions (VMT)
 - The ZEV implementation looks to be going outside of the SHSMP/SHOPP
 - Climate smart decision making
 - An approach to decision making

Unmitigated VMT

SB743 – Updates the way transportation impacts are measured in California for new projects, making sure they are built in a way that allows Californians more options to drive less.

CALTRANS is developing a new process for the director's concurrence for projects with unmitigated VMT.

- Ensures discussions occur early.
- Eliminates overriding considerations until end of the environmental process.



BROADBAND MIDDLE MILE NETWORK

Broadband Middle Mile Network (BMMN) is an open access, state-owned high-capacity fiber lines that carry large amounts of data at higher speeds over longer distances between local networks. It will connect to a last-mile broadband infrastructure that will connect homes and businesses with local networks.

BROADBAND MIDDLE MILE NETWORK

...Background

- Executive Order N-73-20
 - California Broadband for All
 - Affordable & Reliable broadband networks.
 - Over 2,000,000 Californians do not have high-speed internet access
 - 23% of California housing units do not have internet subscriptions
 - Speed goal of 100 megabits per second
- Senate Bill 156 (Chapter 112, Statutes of 2021)
 - Provides \$3.25 billion to provide an open-access middle-mile network
 - Expands the State's broadband fiber infrastructure

First Mile

Global internet networks

Middle-Mile

The physical infrastructure required to connect global internet networks with local networks

Last Mile

The final leg of a network that allows local carriers to provide service to homes, businesses, and community institutions



Broadband

Reliable, high-speed internet that is always on



BROADBAND MIDDLE MILE NETWORK

Partnership...



California Department of
Technology & Office of
Broadband and Digital Literacy

Oversees acquisition,
development, construction,
maintenance, and operations of the
network



CENIC California Middle Mile
Broadband Initiative, LLC

Third-party administrator



The California Public Utilities
Commission (in collaboration
with CENIC)

Provide locations for middle-mile
infrastructure and last-mile
connectivity



California Department of
Transportation

Manage construction of the middle-
mile infrastructure along state
highways and rights of way



Middle-Mile Advisory Committee

Monitors development and
construction of network

BROADBAND MIDDLE MILE NETWORK

Long Term Goals...

1. Affordable, open-access, middle-mile infrastructure throughout the state.
2. Build expeditiously
 - All projects completed by December 2026
 - Leverage existing infrastructure, networks, and construction projects
3. Prioritize Connectivity
 - Unserved and underserved communities,
 - Anchor institutions (hospitals, universities, government entities and community non-profits)
 - Tribal entities
 - Agricultural regions

BROADBAND
MIDDLE MILE
NETWORK

Implementation...

18 Approved Locations

Potential Viable Projects

- Addition of broadband elements to existing PID, PA&ED, and PS&E phase projects
- Addition of broadband elements to existing Construction phase projects



CONTRACTING OPPORTUNITIES

- NR On-Call Subsurface Utility Engineering
 - Contract Capacity - TBD
- Multi-Phase Project Specific
 - Districts 1, 2, & 3
 - Contract Capacity - TBD

COMPLETE STREETS

Complete Streets solutions promote active transportation, multimodal accessibility, and design strategies that improve livability, sustainability, and equity throughout the state.



Tailored to address specific challenges that multimodal travelers are facing at specific locations.

COMPLETE STREETS

Background...

- Executive Order N-19-19 & N-79-20
 - Requires innovative strategies designed to shift people from cars to other forms of transportation
 - Continues State's commitment to a "fix-it-first" approach, while providing better support in other modes of transportation
 - A required part of all design, including maintenance jobs.

COMPLETE STREETS

Components...

SAFETY
Reduce the number, rate, and severity of bicycle and pedestrian involved collisions 

MOBILITY
Increase walking and bicycling in California 

PRESERVATION
Maintain a high quality active transportation system 

SOCIAL EQUITY
Invest resources in communities that are most dependent on active transportation and transit 

- Pedestrian Overcrossings
- Mid-Block Crossings
- Walk Signals Timed to Give Pedestrians a Head Start Crossing the Street
- Wide Sidewalks
- Multi-Use Paths
- Various Pavement Markings
- More Public Transit Options



- Litter abatement
 - Significant investments in litter collection, community engagement and education to ultimately transform unsightly roadsides into spaces of pride for all Californians.
- Beautification projects for state
- Beautification \$296M local beautification projects over two years.
 - Nearly a third of the funds going directly to cities, counties, tribes and transit agencies to clean local streets and public spaces.
- Public education



S&HC 91.41 Legislative Goals

- (1) **Reduce the amount of waste and debris** within public rights-of-way, tribal lands, parks, pathways, transit centers, and other public spaces.
- (2) Enhance, rehabilitate, restore, or install measures to **beautify and improve public spaces.**
- (3) **Enhance public health, cultural connection,** and community placemaking by improving public spaces **for walking and recreation.**
- (4) **Advance equity** for underserved communities.

Investments per District



Local Grant Program

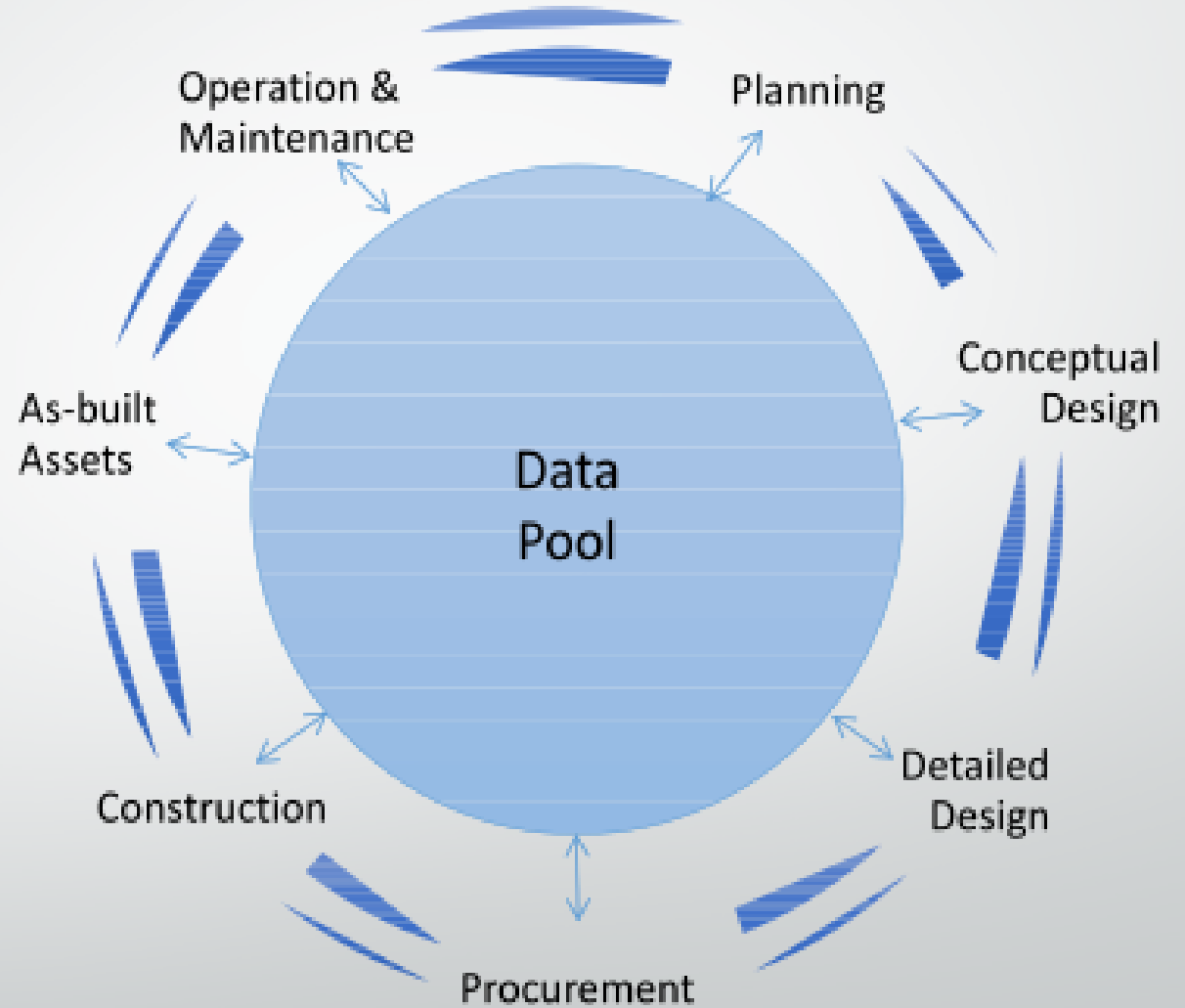
District	Grant Amount per District	% of Total Grant Funds	% of Total Population	% of State Beautification Funds
1	\$9,017,443	3%	1%	2%
2	\$8,484,979	3%	1%	2%
3	\$36,845,297	12%	7%	10%



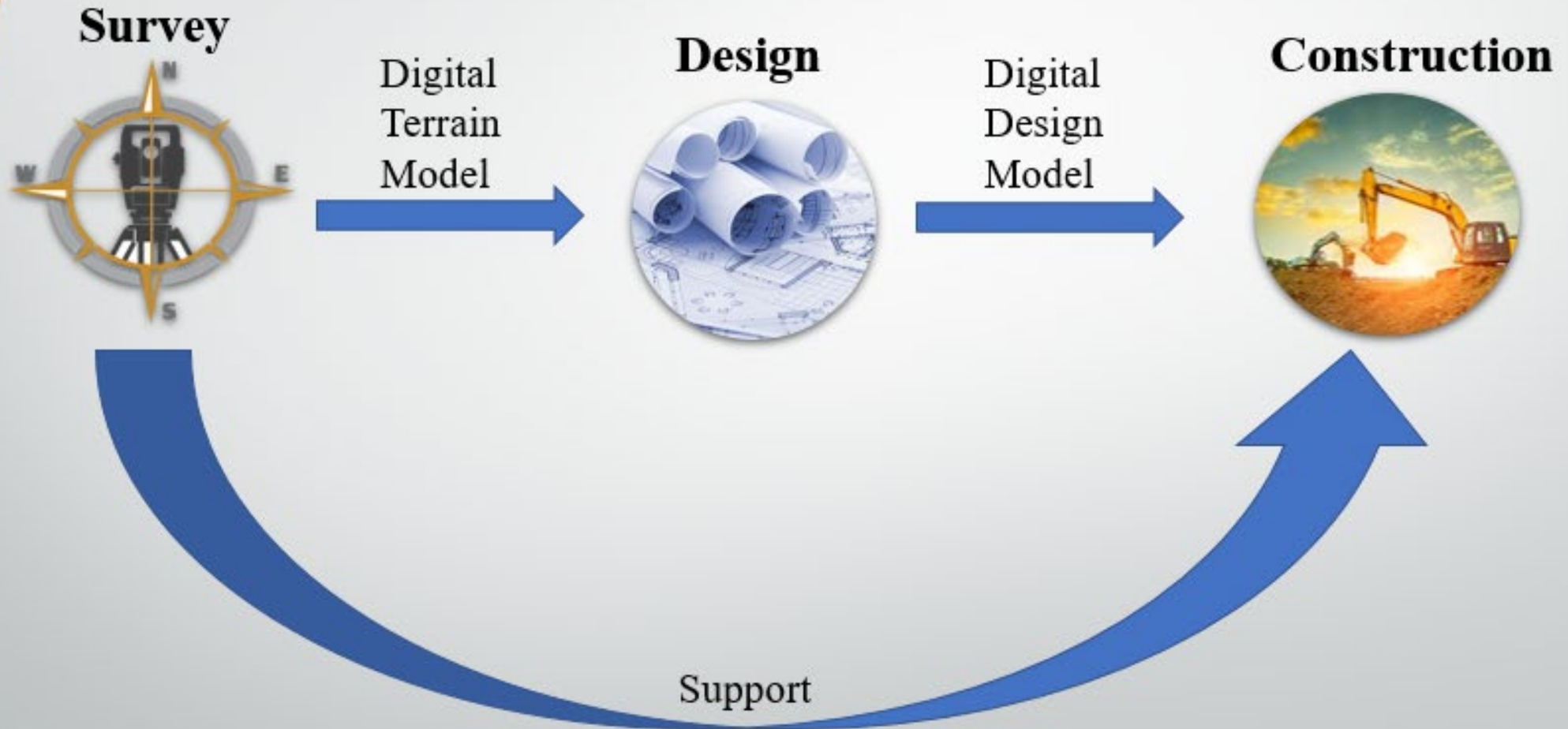
Delivery Innovations

VDC Vision

Paradigm Shift
Virtual Design through Construction
Common data pool



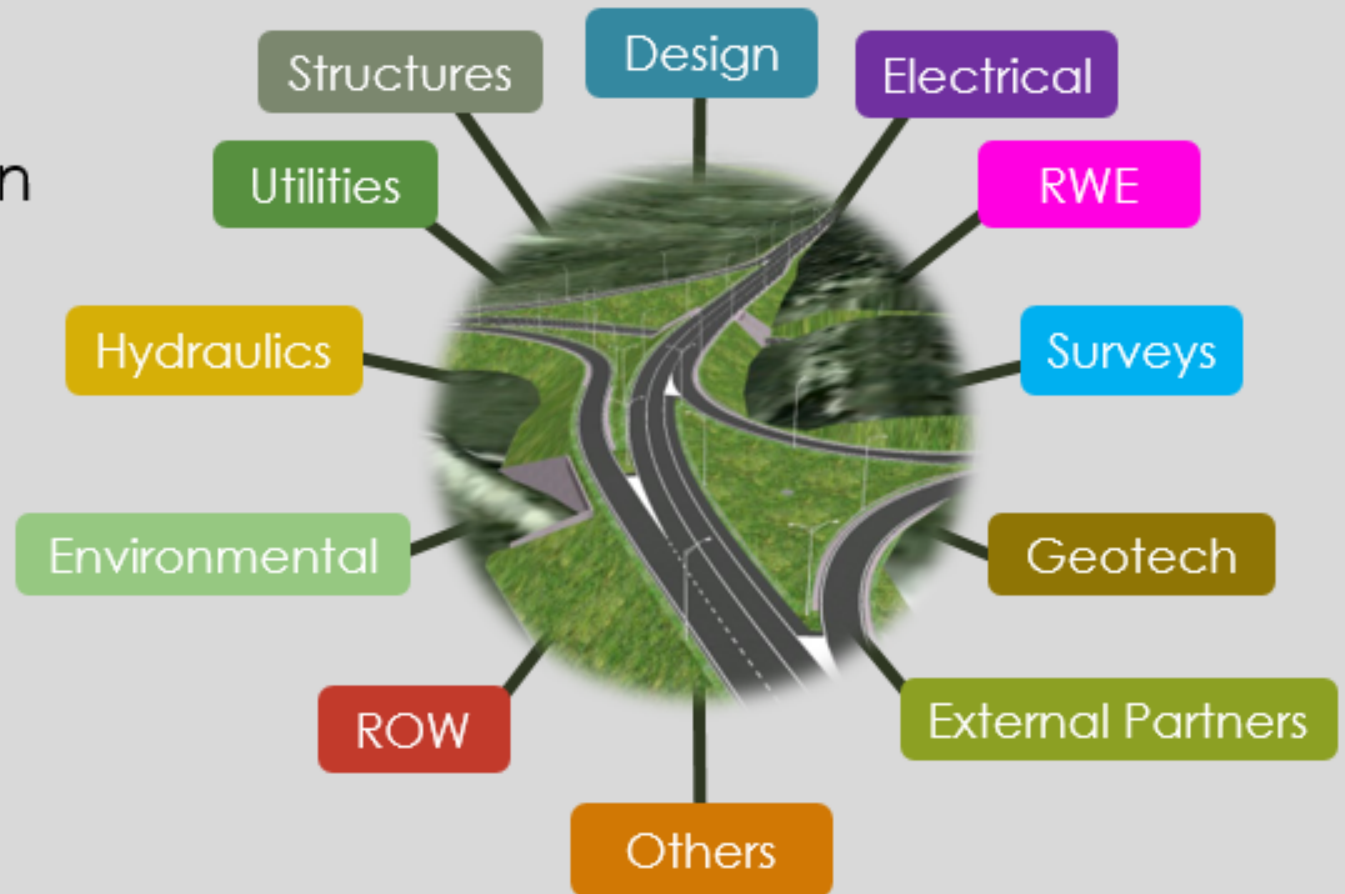
3D Design Process



North Region Moving Forward.....

Culture Shift to 3D Model

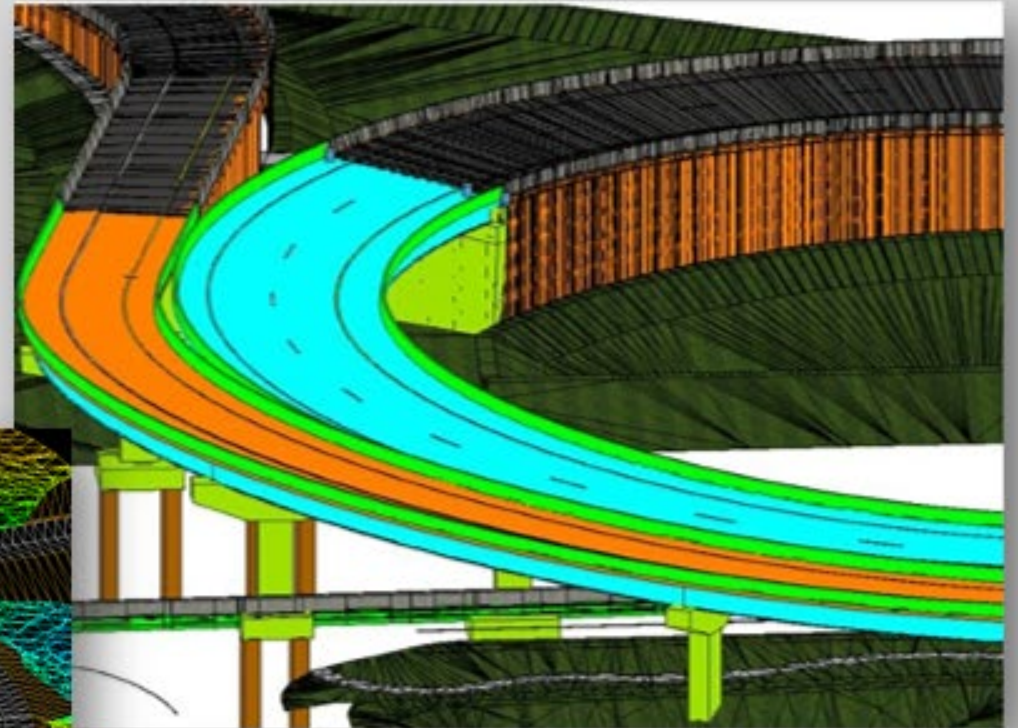
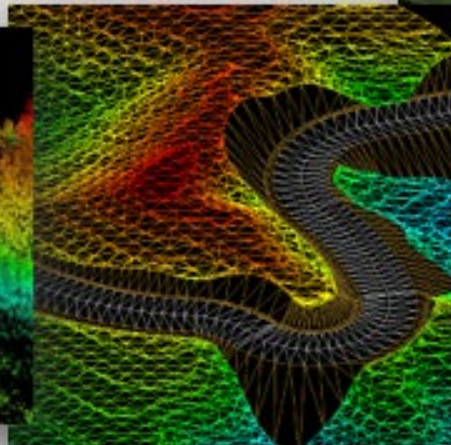
- Unified Platform based on a "living" C3D model.
- Virtual Design and Construction throughout the entire process and across all functions.



North Region Moving Forward.....

Early Surveys

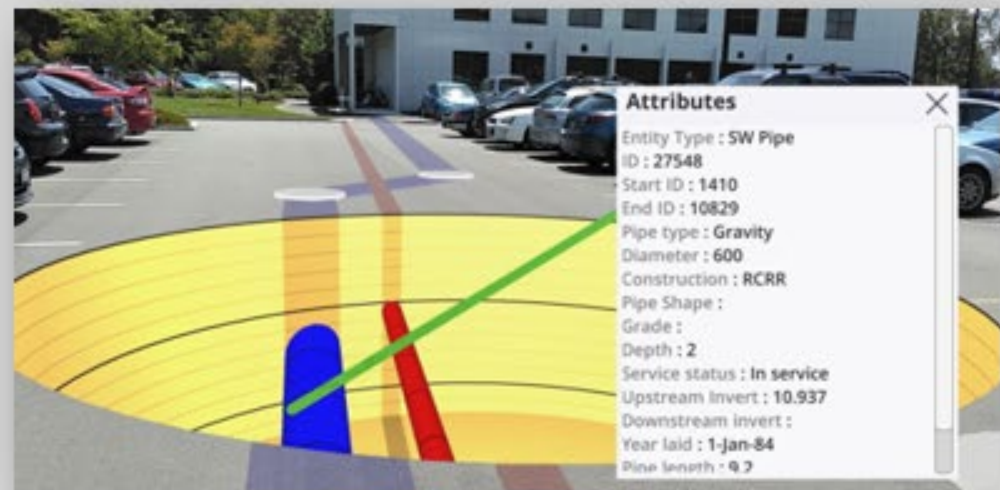
- New Technology
- Reduce Risk
- "Living" model



North Region Moving Forward...

Augmented Reality (AR)

- Preview Design impacts on-site with new AR technology



NEPA Environmental MOU Updates

326 MOU Status – State Assumption of Responsibility for Categorical Exclusions

- MOU revisions accepted.
- Submitted to FHWA for publication in the Federal Register.

327 MOU Status – The Surface Transportation Project Delivery Program

- Revisions submitted.
- Pending FHWA acceptance.
- Exploring contingency plans in the event of a lapse.

Delivery Improvements

Design Build – an innovative delivery method by Caltrans whereby a contract for both design and construction of a project is awarded to a single entity.

CMGC - an innovative delivery method that allows Caltrans to engage a construction manager to provide input during the design process. Caltrans and the construction manager agree on a price for construction of the project, and the construction manager becomes the general contractor.

Job Order Contract (JOC) – an on-call construction services contract where construction work and performance is determined by issuing Work Orders with the contractor during a fixed period of time.

