



KANSAS CITY
AVIATION DEPARTMENT

Overview of Aviation
Department Capital
Improvements

July 16, 2013

Agenda

- **Past Major Capital Work in the Terminal Area**
- **Current Status**
- **Future Capital Work in the Terminal Area**

KCI Airport 1976



Spot the Diffs



1976

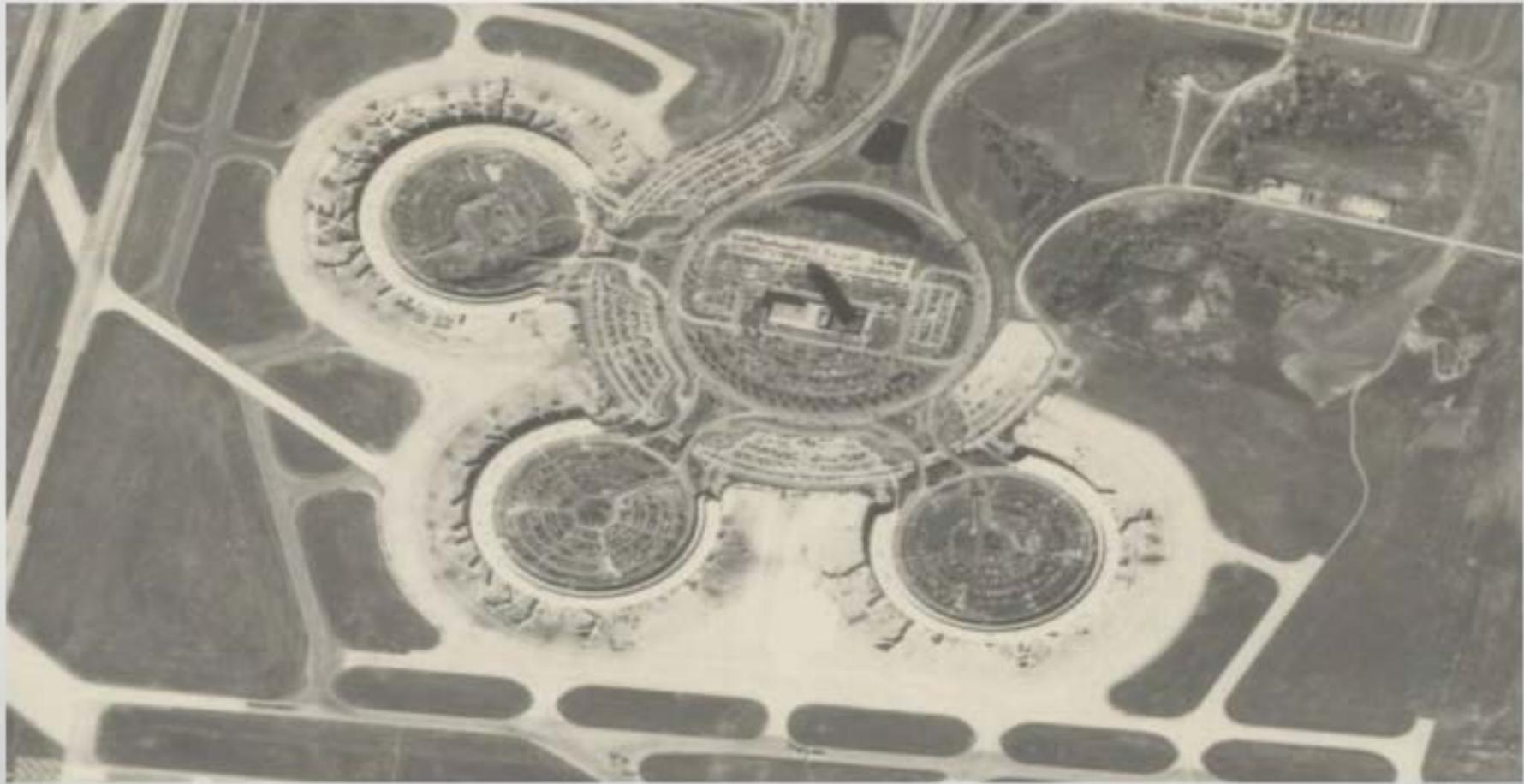


2012

KCI Terminals 1976



Parking Garage Terminal A 1987



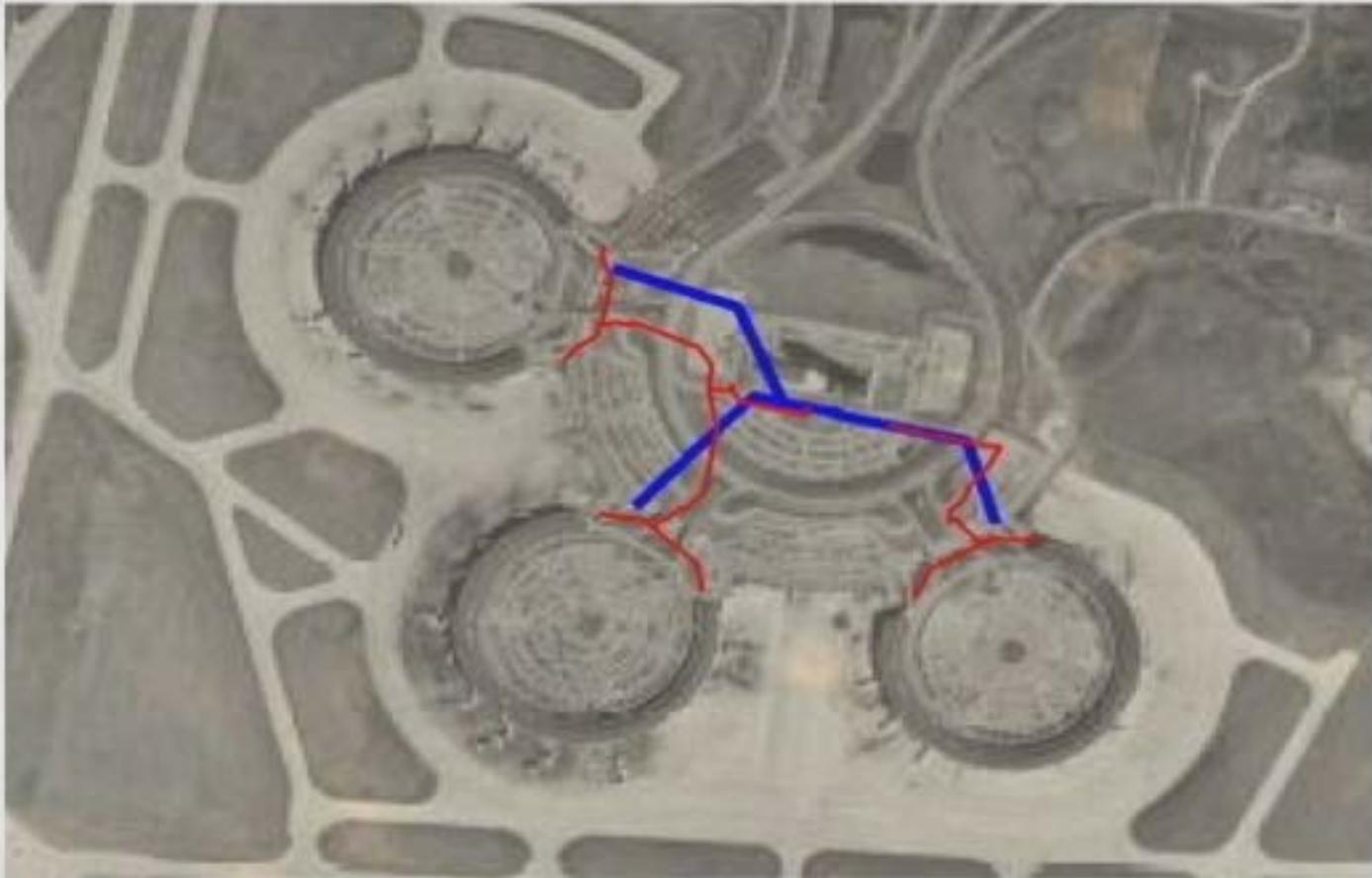
Parking Garage Terminal B 1990



Asbestos Abatement 1995



Terminal Campus Central Steam and Chilled Water



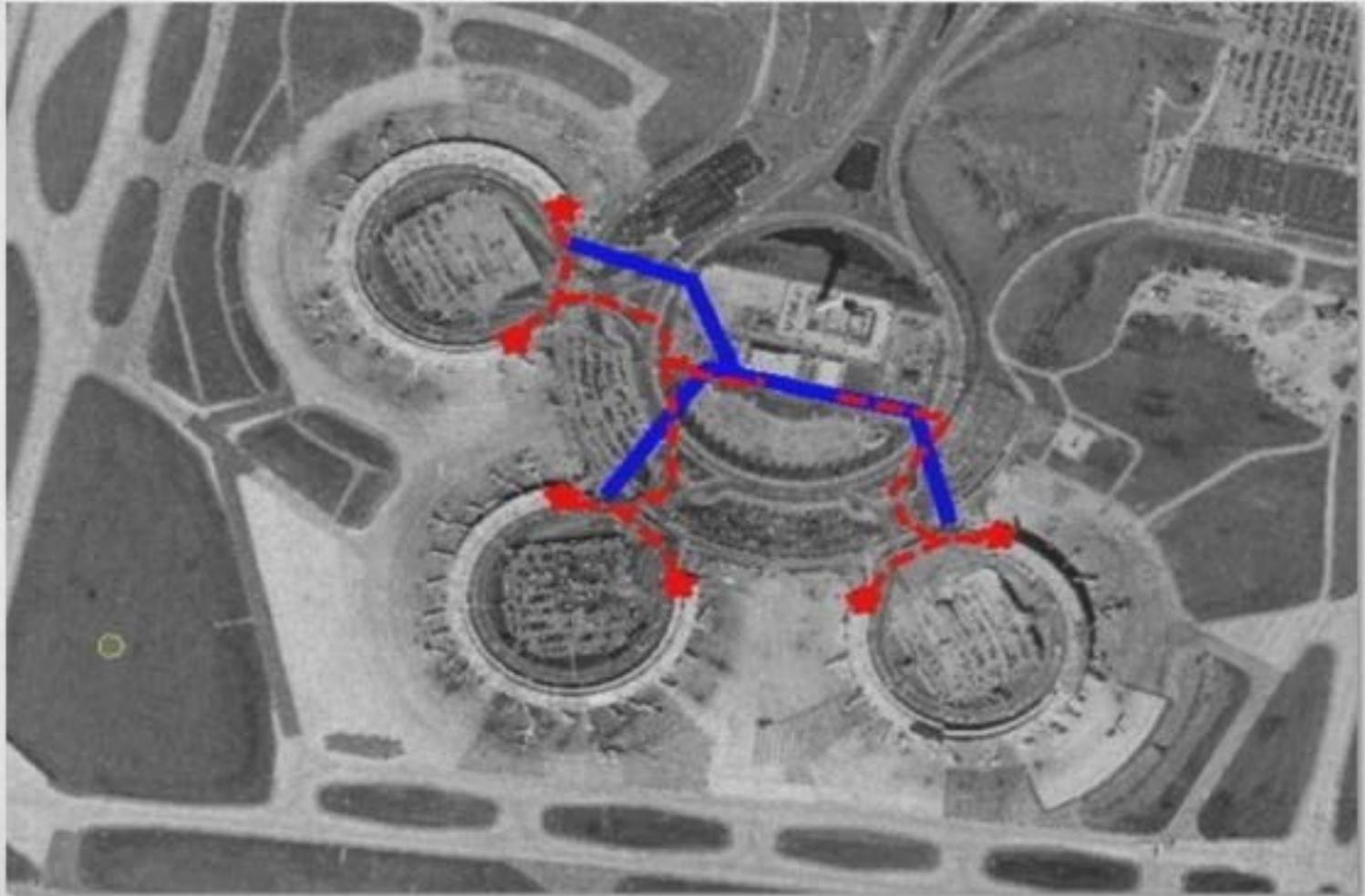
Chiller Replacement 1996



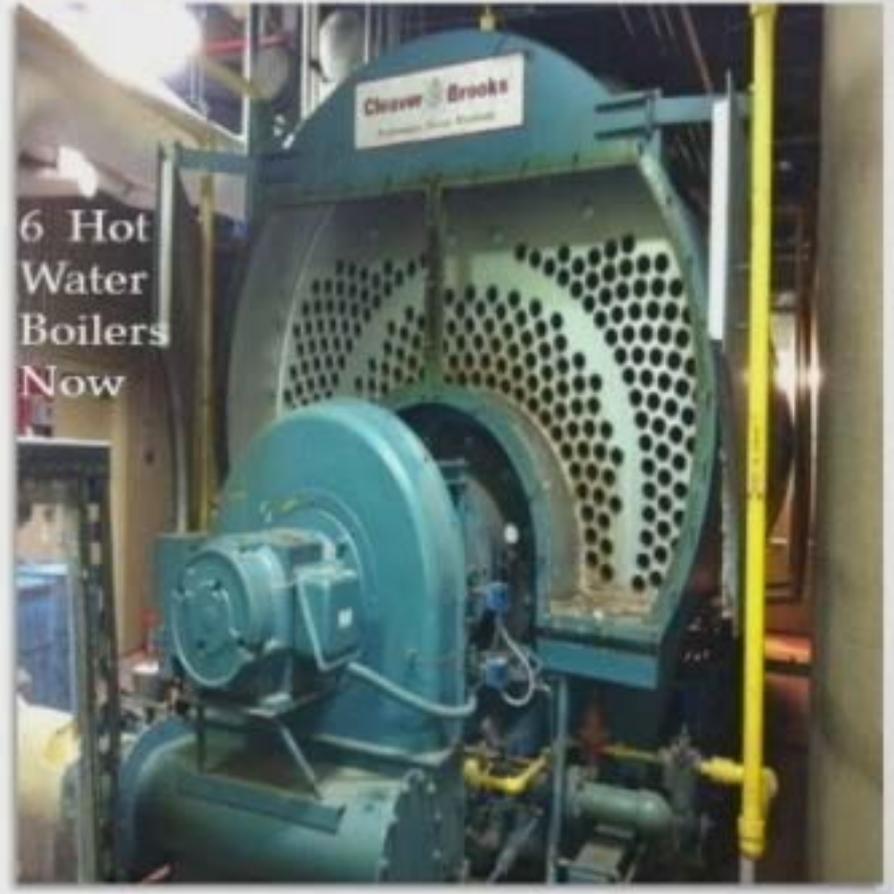
Parking Garage Terminal C 1997



Boiler Replacement 2000



Boiler Replacement 2000



Terminal Improvement Program 1995 - 2004

Timeline: Following completion of the 1995 Airport Master Plan and approval by the FAA, the Terminal Improvement Program – **TIP** was initiated.

1996 – 1997: Project Development to determine specific extent of renovations to the three terminals and selection of the Architectural Team.

1998 - 2000: Architectural and Engineering designs progress to preparation of construction bid documents and the Program Management Team is selected. Construction Phasing is determined through close coordination with Airlines and Tenants.

2000-2004: TIP construction takes place in multiple phases in each of the three terminals. Program Costs total \$258 million.

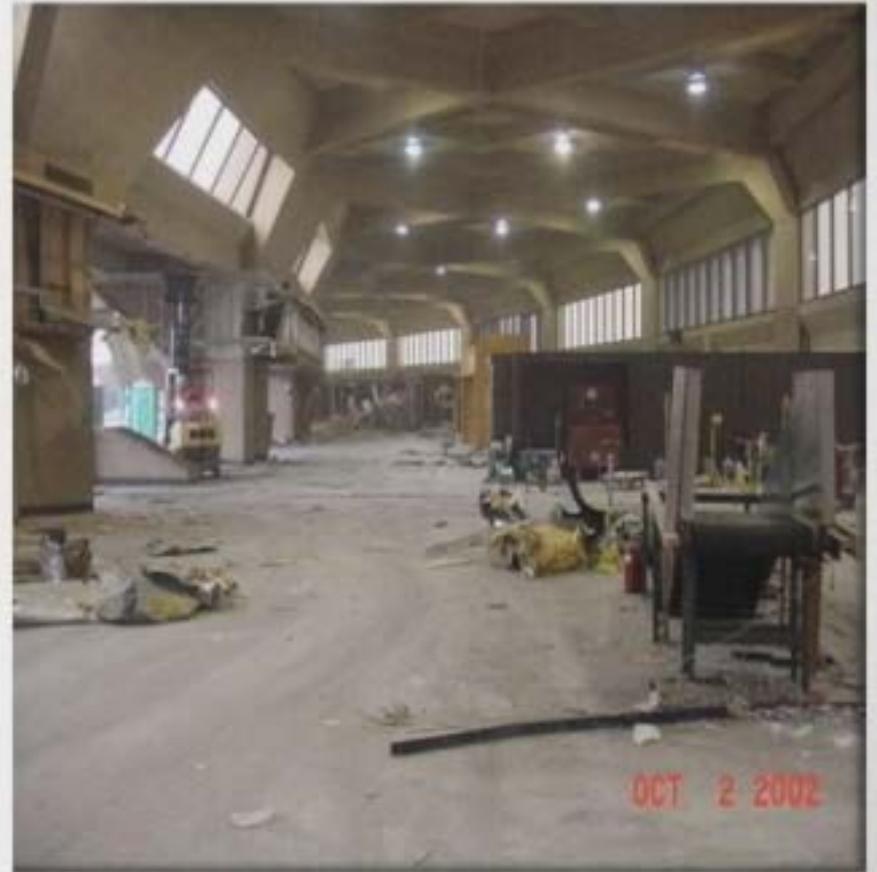
TIP Terminal Roof Replacement 2000

Remove and Replace Roofing on all Three Terminals



TIP Demolition Program

Complete Removal of Interior Down to Concrete Frame



TIP Construction 2000 - 04

Replace All Exterior Glass and Glazing



TIP Construction 2000 - 04

Replace All Interior Walls and Floor Finishes



TIP Construction 2000 - 04

Replace Inbound and Outbound Baggage Handling Systems



TIP Construction 2000 - 04

Replace Passenger Boarding Bridges and GSE



TIP Construction 2000 - 04

Replace Air Handling Systems and Ductwork



TIP Construction 2000 - 04

Replace Electrical Switchgear, panel boards and wiring



TIP Construction 2000 - 04

Replace Public Restrooms



TIP Construction 2000 - 04

Replace Departure Lounge Separator Walls to 12 Feet Tall



TIP Construction 2000 - 04

Replace Airline Ticket Counters, Ticket Offices and OPS Spaces



TIP Construction 2000 - 04

Expand Certain Departure Lounges per Airline Requests



TIP Construction 2000 - 04

Install New Directional and Wayfinding Signs



TIP Construction 2000 - 04

Concessionaires Reconstruct All New Venues



TIP Construction 2000 - 04

Install New IT Data Network for Tenants and Aviation



TIP Construction 2000 - 04

Expand Landside Floor Space



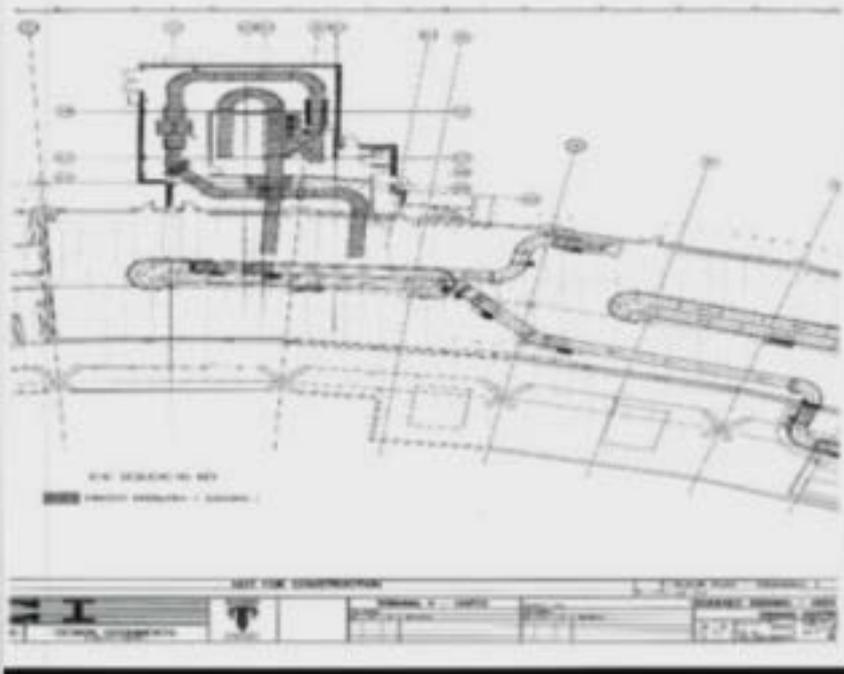
TIP Construction 2000 - 04

Expand Landside Floor Space



In-Line Checked Baggage Screening 2007 – 08

Install Explosive Detection Systems in the checked baggage handling systems for 6 of 10 Airlines



Chilled Water Piping Rehabilitation 2011 – 12

Install Cured in Place Pipe in Underground Campus Piping

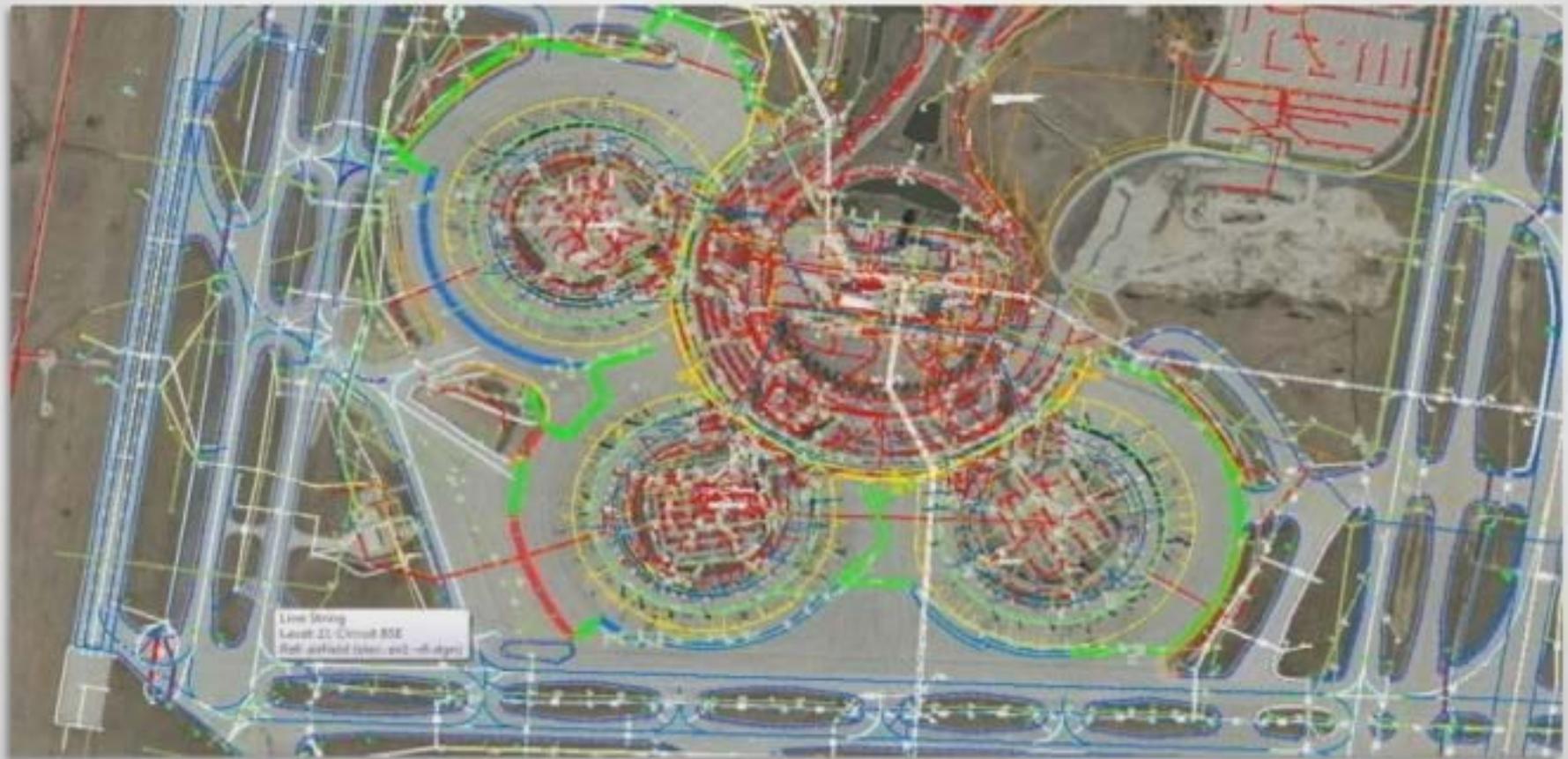


Future Major Capital Work in Three Terminals

- Landside Infrastructure Replacement and Rehabilitation
- Improvements to Checked Baggage Screening
- Airside Infrastructure Replacement and Rehabilitations
- Improvements to Deicing Runoff Collection Systems
- Increase Capacity of Terminal Parking Garages
- Continue Preventive Maintenance and Monitoring Programs on Major Systems:
 - Terminal Chillers – Installed in 1996
 - Terminal Boilers – Installed in 2000
 - Terminal Roofing – Installed in 2000

Terminal Area Utilities

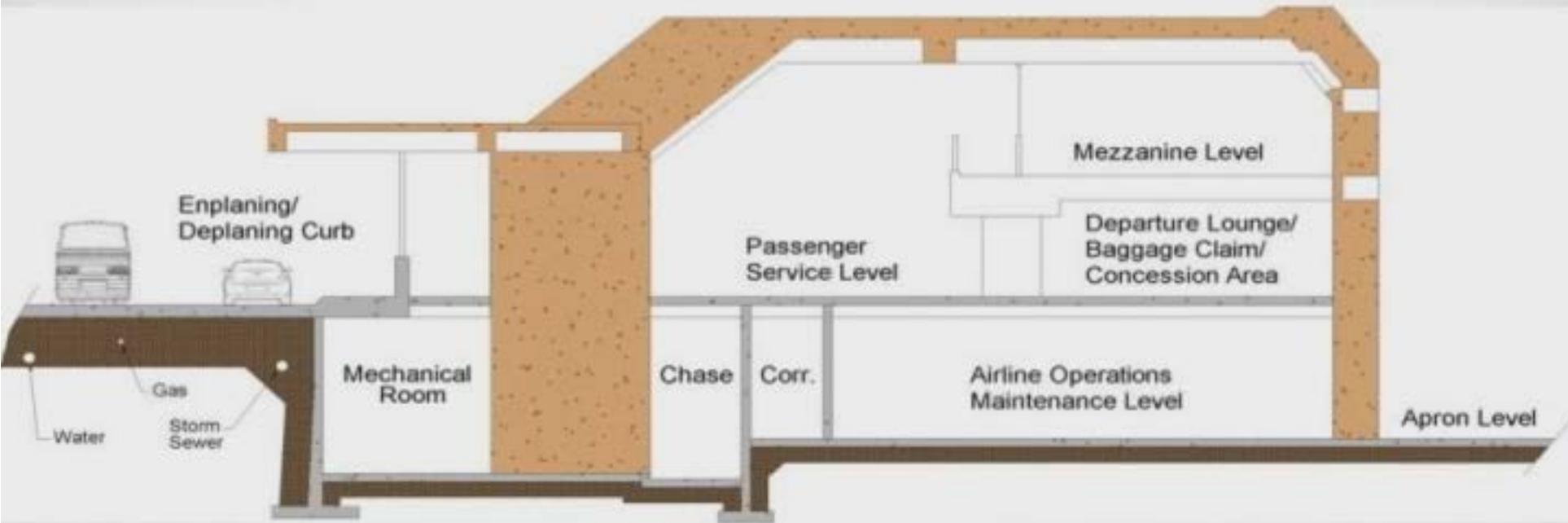
Underground Utilities in the Terminal Area



Landside Infrastructure Improvements

Underground Utilities Replacement

Underground Utilities Replacement



Landside Infrastructure Improvements

Rehabilitate / Replace Garage Escalators and Elevators

- **Terminal A:** 1987 Parking Garage Construction
Replace 6 Escalators and 6 Elevators
- **Terminal B:** 1990 Parking Garage Construction
Replace 8 Escalators and 8 Elevators
- **Terminal C:** 1997 Parking Garage Construction
Rehabilitate/Replace 6 Escalators and 6 Elevators

Landside Infrastructure Improvements

Rehabilitate / Replace Escalators and Elevators

- **Terminal A:** Replace 2 1972 Elevators
Rehabilitate 2 TIP Escalators and 5 TIP Elevators
- **Terminal B:** Replace 2 1972 Elevators
Rehabilitate 2 TIP Escalators and 7 TIP Elevators
- **Terminal C:** Replace 2 1972 Elevators
Rehabilitate 5 TIP Elevators

Landside Improvements

ADA Access to Bonn Circle and Circle Parking Lots

Construct New Revised Ramp or Install Elevator



Landside Infrastructure Improvements

Rehabilitate and Widen Terminal Access Roadway Bridges

- Each Terminal is accessed by a two lane roadway bridge constructed in 1972.
- To improve traffic congestion widen the bridges by one lane.
- Conduct rehabilitation program as needed.

Landside Infrastructure Improvements

Improvements to Checked Baggage Screening

- Install In-line Explosive Detection Systems in those checked baggage systems presently without: 2 or 3 airlines
- Evaluate, Rehabilitate and Improve In-line ED Systems installed in 2007 – 2008 per TSA's current operational standards.

Airside Infrastructure Improvements

Terminal Area Utilities



Airside Infrastructure Improvements

Remove Aircraft Apron Parking Pavement

- Excavate down as needed to remove and replace original wastewater utility mains and laterals serving the Terminals.
- Excavate down as needed to remove and replace original underground jet fueling system – mains, laterals and fueling pit locations.

Airside Infrastructure Improvements

Underground Utilities Replacement



Improvements to Deicing Runoff Collection Systems

- Construct Centralized Deicing Pads with aircraft access from the three terminal aprons.
- Construct underground piping collection system to convey deicing runoff to holding basins.
- Evaluate current holding basins and Rehabilitate or Reconstruct holding basins for recycling of deicing fluids.
- Centralized pads will reduce the volume of runoff that must be collected and managed over the course of the deicing season and especially during rain events to maximize recycling benefits.

Improvements to Deicing Runoff Collection Systems



Increase Capacity of Terminal Parking Garages

- Terminal A and B Garages were engineered and constructed to receive four future partial levels.
- Add Four partial levels to A & B Garages including new elevator and stair towers to access new levels.
- Rehabilitate the HVAC Systems in the three existing stair and elevator towers of the A & B Garages.
- Remove and replace Terminal C Garage in order to increase close-in covered parking capacity.

Increase Capacity of Terminal Parking Garages

Terminals A & B Garages Future Levels



Improvements to Circle Parking Lots



Key to Infrastructure Improvement Program



TIP Construction Phasing





KANSAS CITY
AVIATION DEPARTMENT

Overview of Aviation Capital Improvements at KCI
July 16, 2013

Questions