Water Main Improvement Project 2-C at Long Beach Airport Tarmac (MC-5232)

September 29, 2022



Project Background

- In September 2020, the Water Distribution
 System Master Plan (MP) was completed to
 provide a comprehensive planning guide for
 improving and maintaining LBWD's water
 distribution system
- The Master Plan identified Capital Improvement Program (CIP) projects to:
 - 1) Address hydraulic deficiencies
 - 2) Identify small diameter pipelines with a high probability of failure from risk analysis
 - 3) Identify large diameter pipelines to consider for condition assessment inspection

Long Beach Water Department Water Distribution System Master Plan

September 2020









Project Description

Project 2-C (MC-5232):

- Addresses hydraulic deficiencies (number 1 in previous slide)
- Located within the City of Long Beach's Airport tarmac from Spring Street to Wardlow Road
- Consists of upsizing approximately
 6,800-ft of an existing main from
 an 8-inch to a 12-inch

Factor Contributing to Water System Deterioration

Physical factors

Pipe age and material

Pipe wall thickness

Pipe vintage

Pipe diameter

Type of joints

Thrust restraint

Pipe lining and coating

Dissimilar metals

Pipe installation

Pipe manufacture

Environment factors

Pipe bedding

Trench backfill

Soil type

Goundwater

Climate

Pipe location

Disturbances

Stray elecrical currents

Seismic activity

Operational factors

Internal water pressure, transient pressure

Leakage

Water quality

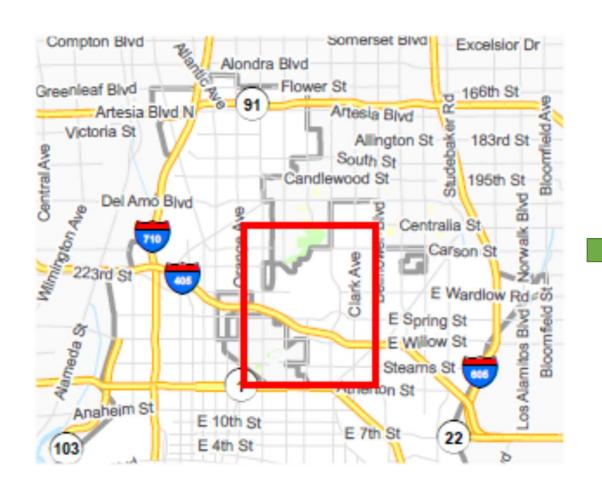
Flow velocity

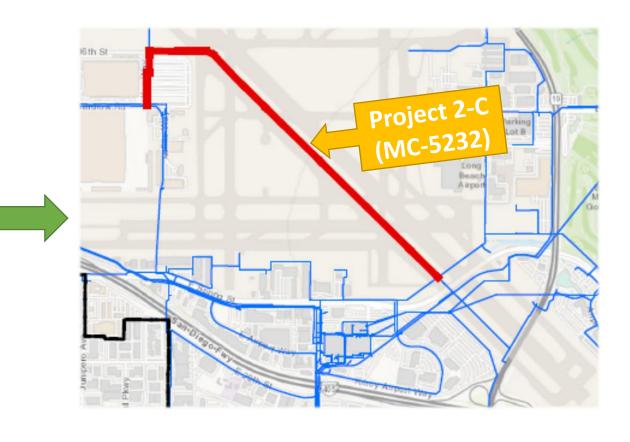
Backflow potential

Operation and maintenance practices



Project Location





Recommendation

Authorize the General Manager to execute an agreement with DRP Engineering, Inc., to provide engineering design services for the Water Main Improvement Project 2-C at Long Beach Airport Tarmac (MC-5232) in the amount not to exceed \$300,681.





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