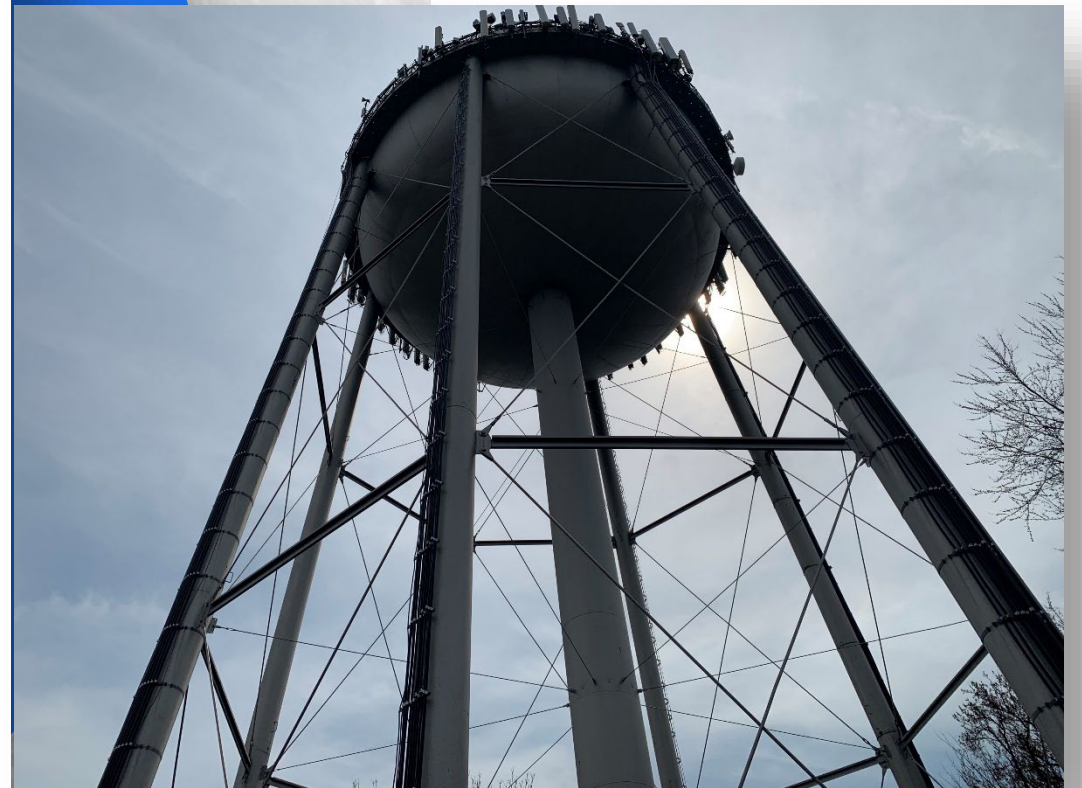


Stratford Water Tower Replacement Project

Leah Morris – MSO Treatment Division Mgr
Sandra Day – Planner II
Andrew Hansen – Black & Veatch



Agenda

- Introductions
- Project Overview
- Public Questions/Comments
- Next Steps

Project Website:

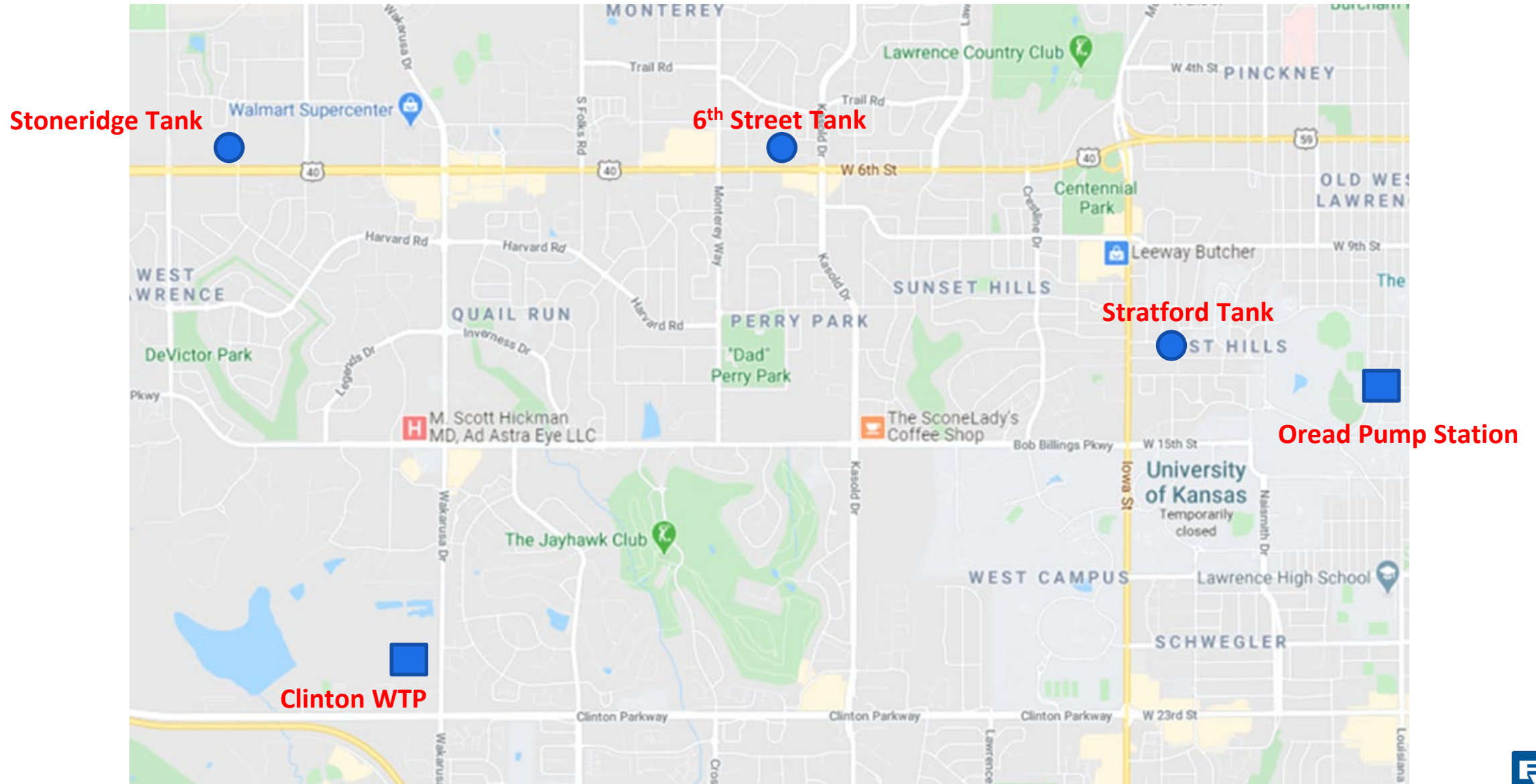
<https://lawrenceks.org/mso/stratford-tower/>

Existing Tank

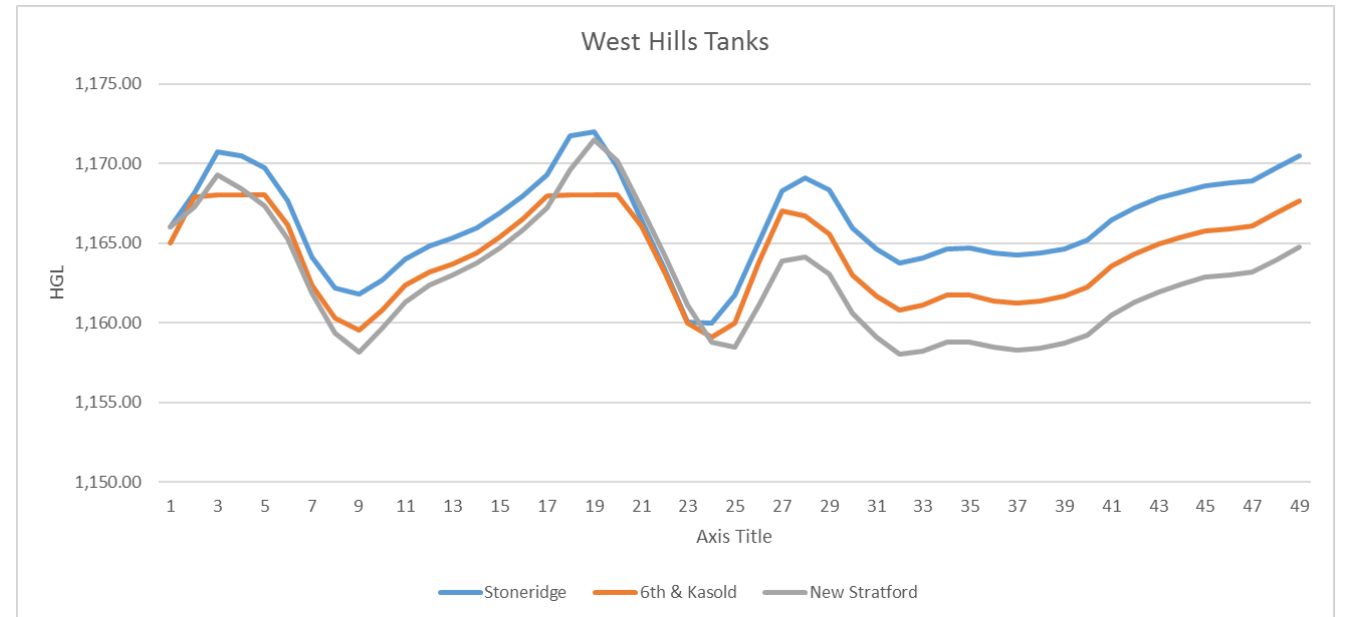
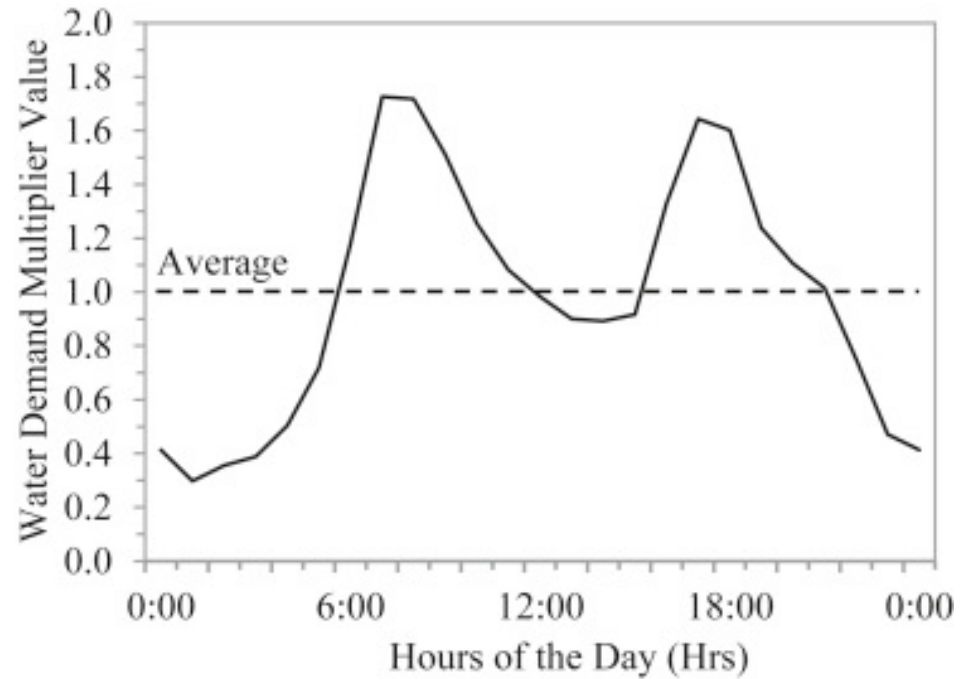


- Multi-column style tank constructed in 1954
- Serves West Hills area
- 500,000 gallons storage
- Approximately 132 ft tall
- All painted steel (previously encapsulated original lead-based coatings)
- Equipment from three cellular providers and Douglas County Emergency Services (EMS) also located at tank

Operational Considerations



Operational Considerations



Replacement Drivers



- Field investigation and evaluation determined that major structural and coating repairs are needed
- Other necessary upgrades needed such as OSHA-compliant ladder and climbing system
- Removal of lead-based coatings in close proximity to adjoining neighborhoods was not desirable
- Net present value of performing repairs and re-coating tank was similar in life-cycle cost to constructing new tank
- Finite service life

Replacement Evaluation

- Compared four (4) different tank styles
- Capital Cost
- Net Present Value (NPV) Analysis
- Maintenance
- Interior Space/Secondary Use
- Operational Benefits
- Security/Green Space
- Competitive Bidding



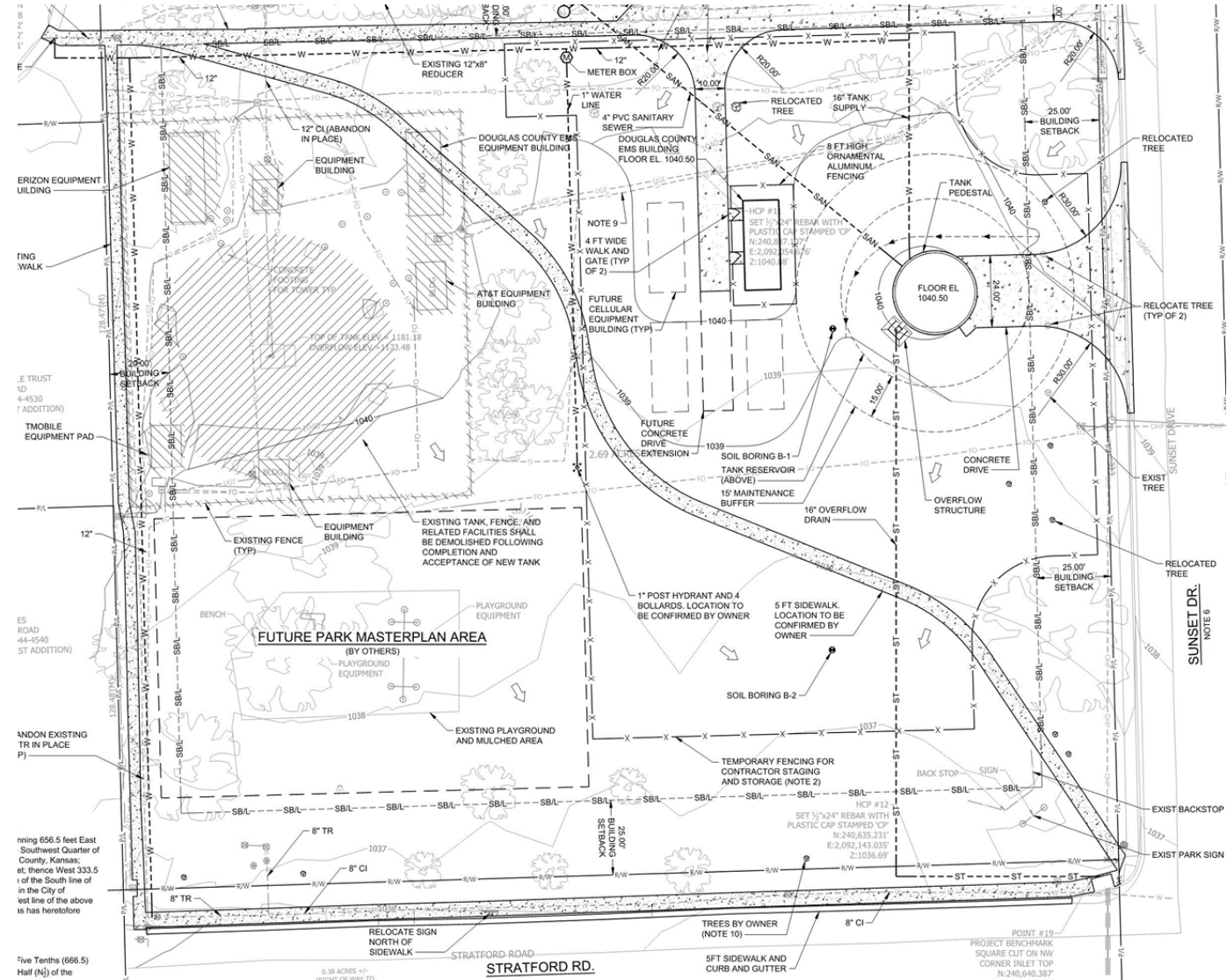
Recommended Tank



- Composite style tank to be constructed for low maintenance
- Concrete pedestal and steel reservoir
- 750,000 gallons
 - Benefit to operational flexibility, emergency capacity, and increased fire flow
- Similar height as existing (approx. 132 ft)
- Pedestal diameter: 32 ft
- Reservoir diameter: 70 ft
- Douglas County EMS antenna to be located on top of tank with adjacent building and ornamental aluminum fence
- Cellular providers may be located at top of pedestal (not top). Buildings would be similar to EMS.

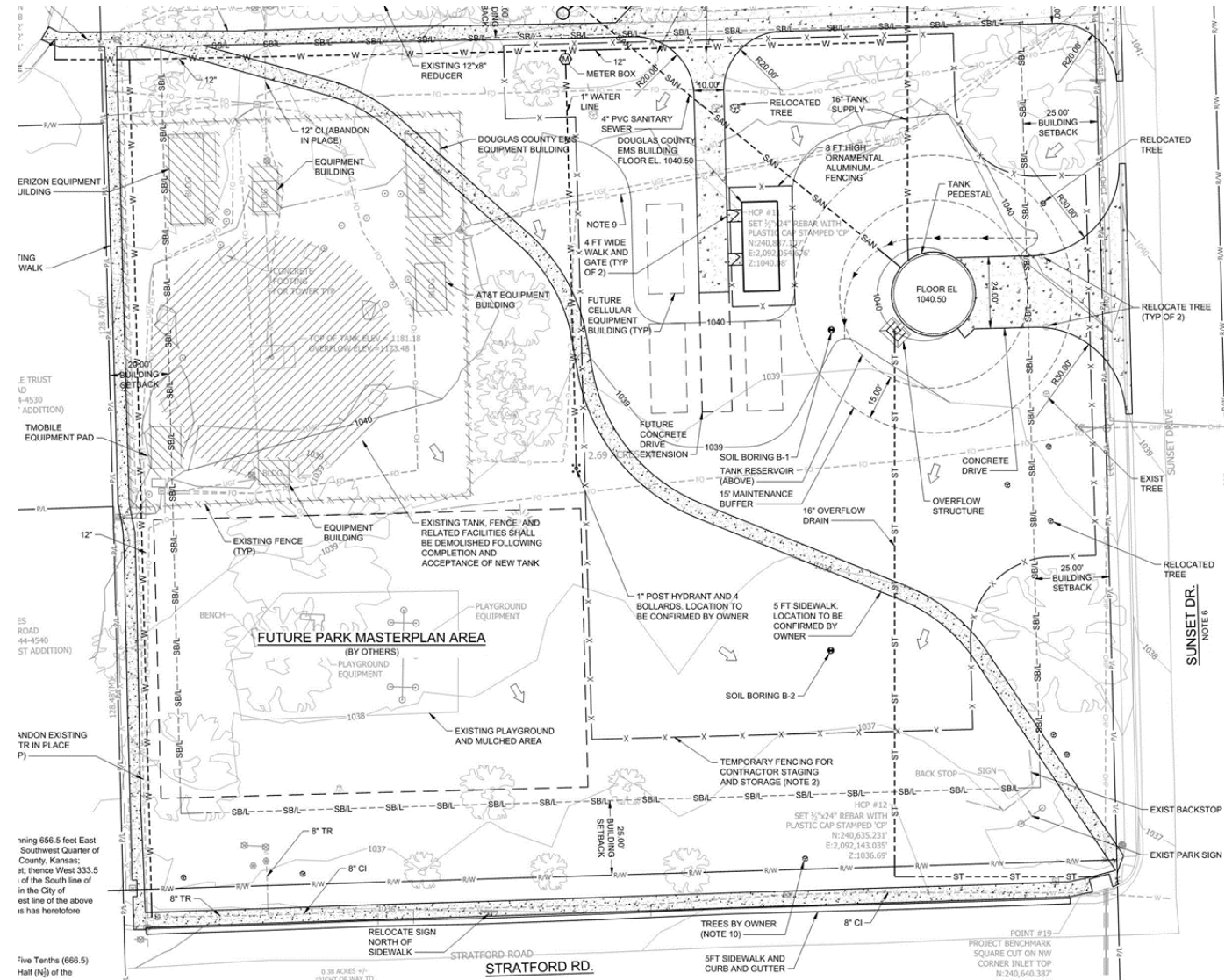
Location Selection

- Existing Site Considerations
 - Emergency Services equipment
 - Level of Service
- New Site Considerations
 - Parks and Recreations input
 - Access
 - Geotechnical information
 - Existing utilities



Other Improvements

- New sidewalks
- Future park improvements (SW corner)
- New water lines in park and adjacent areas to replace aging cast iron and transite pipe
- Increased green space
- New public sewer for residents to the north

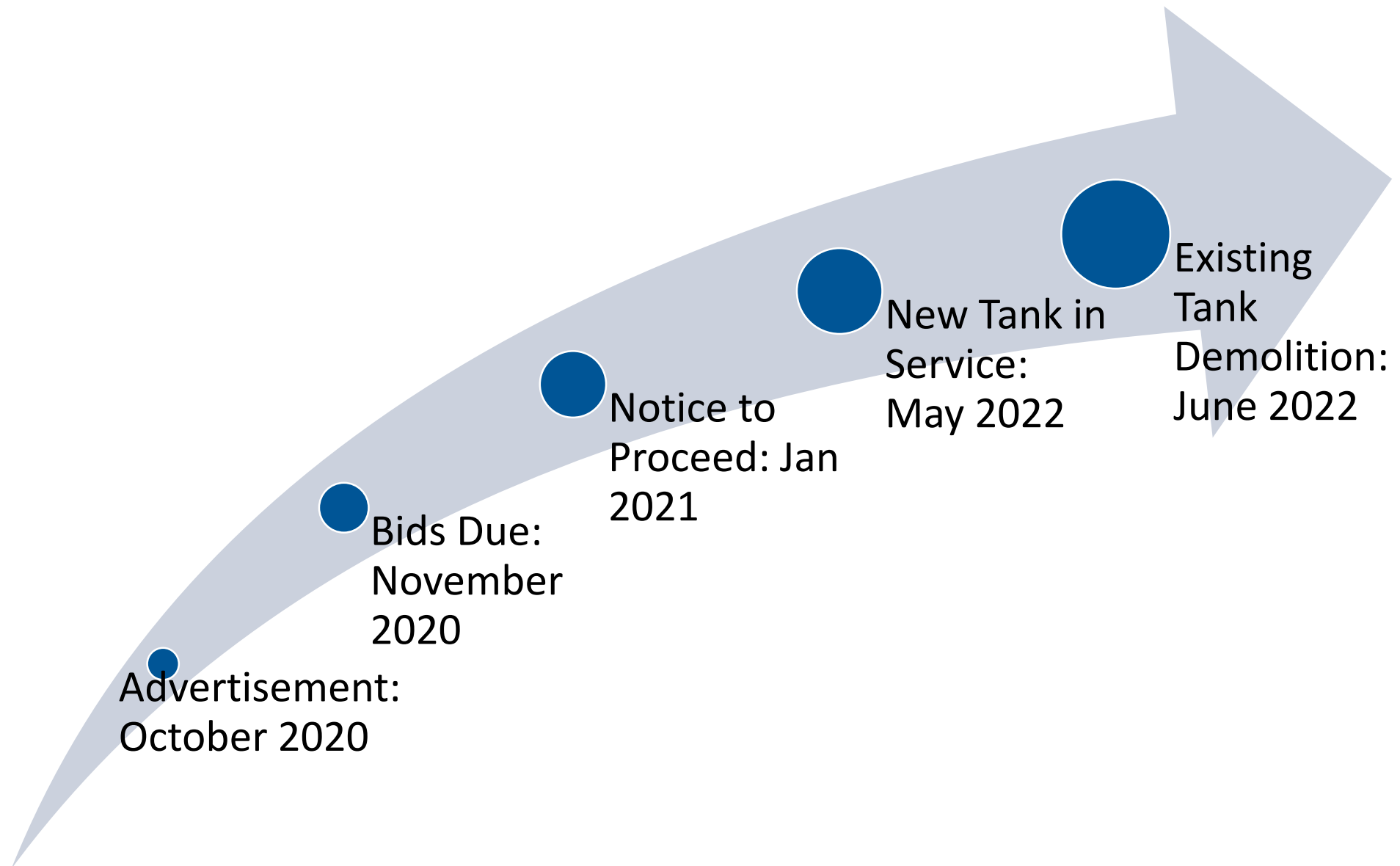


Shadow Simulation

- 1146 Hilltop and 1141 Sunset will continue to have shadows
- 1905 Oxford and 1145 Hilltop will no longer have shadows
- 1642 Oxford and 1647 Oxford will now experience minor shadows



Project Schedule





Q&A