



ENGINEERING DEPARTMENT

SUMMER INTERNSHIP PRESENTATION

Christian Zavala

September 7, 2016

PLANT UTILITY WATER MAPPING

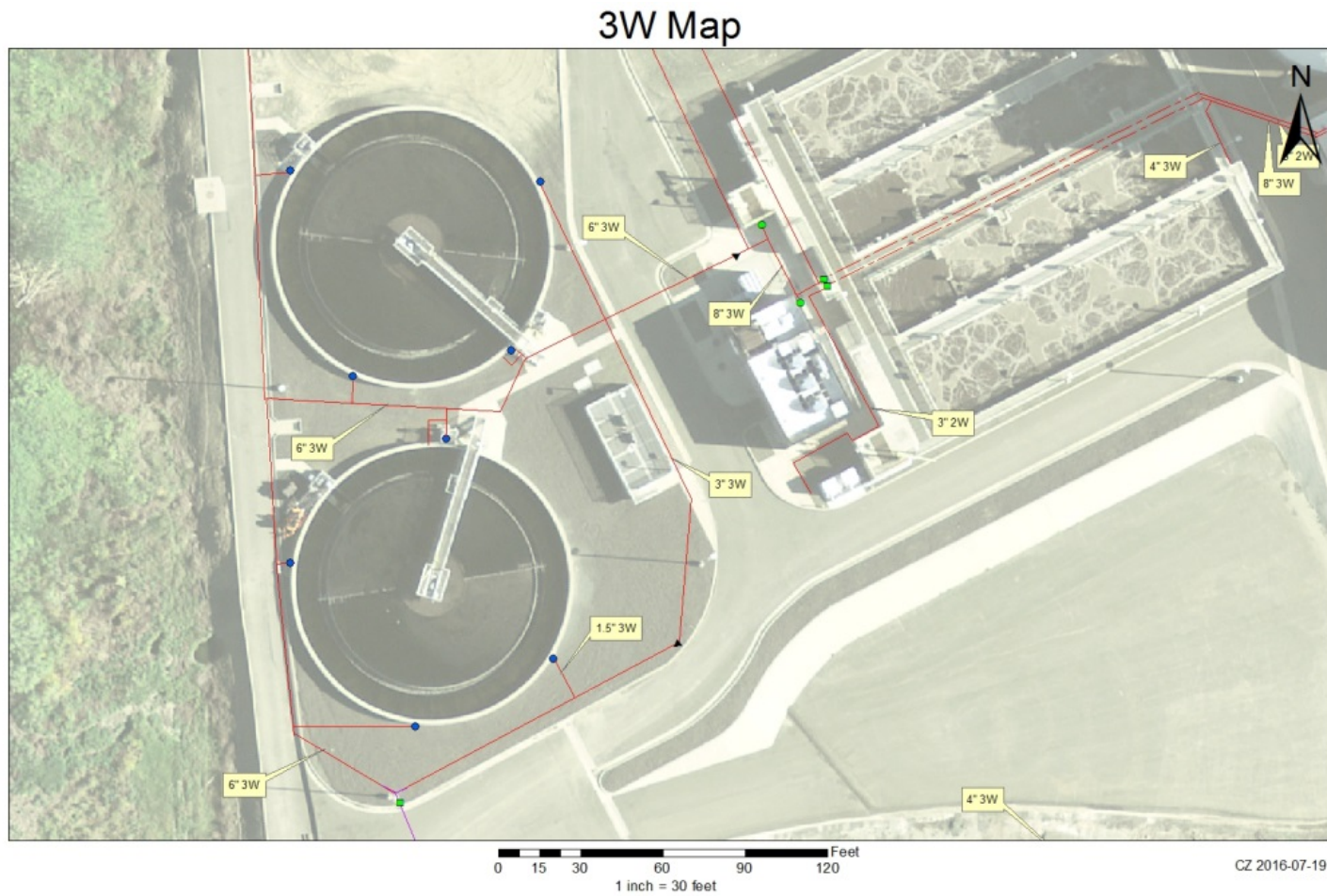
- Upcoming project for improvement of plant utility water system
- Studied previous maps to create up to date map of 3W pipes
- Collaborated with several plant employees
- Ultimate goal to estimate cost of replacement of piping



- Created maps of piping system with GIS



UTILITY WATER MAPS

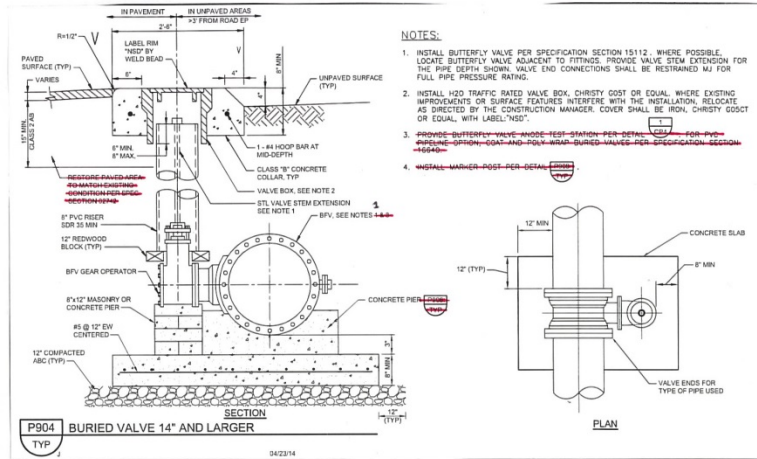


ASSISTANCE IN BIDDING PROCESSES

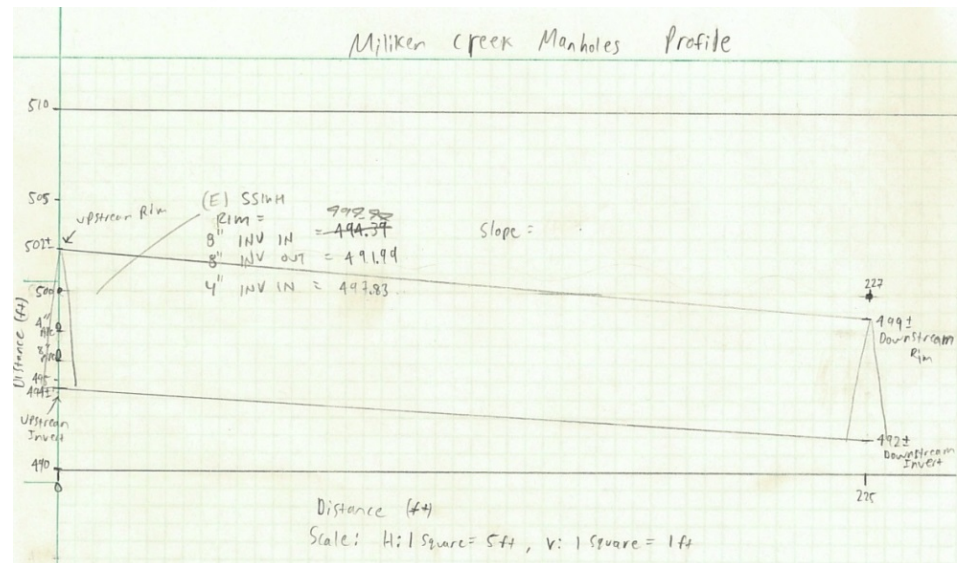
- Helped with bidding of various projects
- Compiled specifications and maps
- Performed field work to gather data
- Contacted contractors for information on bids
- Created pre-bid agendas, addenda
- Attended pre-bid meetings and bid openings



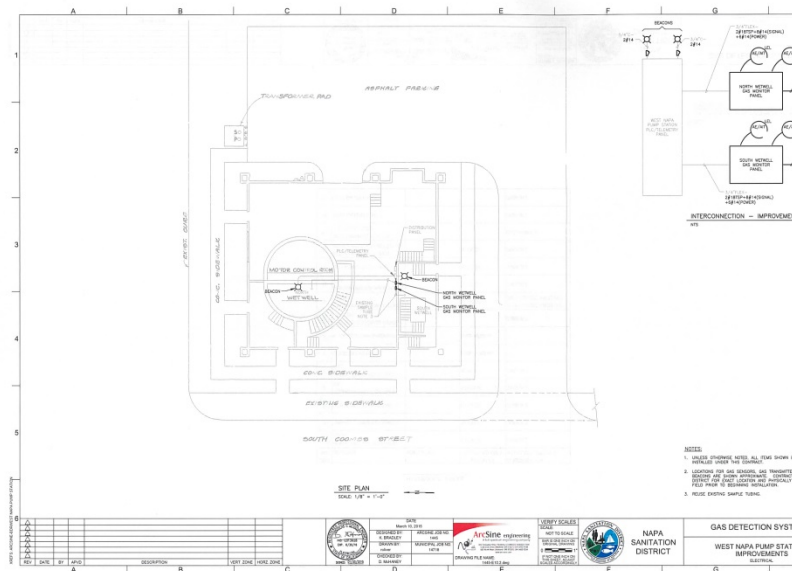
DIAGRAMS AND FIGURES FOR BID PROJECTS



NSD Plant Map Light Fixtures



SPECS AND TABLE FOR BID PROJECTS



Manhole (MH) Rehabilitation – Nipak Project Overview List (CIP 17703)

| MH | MH ID | MH Depth (ft.) | Street Name | Intersection |
|----|---------|-------------------|----------------|---------------|
| 1 | O64-003 | 14.6 | Foothill Blvd | Elm St |
| 2 | O64-006 | 5.5 | Foothill Blvd | Sunrise Dr |
| 3 | O64-013 | 7.7 | Foothill Blvd | Greco Dr |
| 4 | O64-012 | 5.5 | Greco Dr | Casswall St |
| 5 | O64-010 | 8.6 | Lilienthal Ave | Greco Dr |
| 6 | O64-009 | 8.3 | Lilienthal Ave | |
| 7 | O64-018 | 9.0 | Old Sonoma Rd | Foothill Blvd |
| 8 | O64-019 | 7.0 (Approximate) | Old Sonoma Rd | |
| 9 | O64-028 | 5.2 | Old Sonoma Rd | Foster Rd |
| 10 | O64-029 | 10.1 | Old Sonoma Rd | |
| 11 | O64-031 | 10.4 | Old Sonoma Rd | Pickwick Dr |
| 12 | O64-032 | 10.6 | Old Sonoma Rd | Cherryview Ct |
| 13 | O64-022 | 5.3 | Casswall St | Idaho St |
| 14 | O64-023 | 4.2 | Idaho St | |
| 15 | O64-027 | 6.8 | Foster Rd | Idaho St |
| 16 | O64-025 | 4.7 | Iowa St | |
| 17 | O64-026 | 4.1 | Foster Rd | Iowa St |
| 18 | O64-030 | 4.2 | Pickwick Dr | |
| 19 | O65-002 | 6.6 | Casswall St | Illinois St |
| 20 | O65-003 | 5.7 | Illinois St | |
| 21 | O65-004 | 5.3 | Foster Rd | Illinois St |
| 22 | O65-005 | 5.9 | Indiana St | Casswall St |

GENERAL RESEARCH ON SEWER INFRASTRUCTURE

- Field work
- As-Built plans
- Historical permits



WHAT I LEARNED

- Computer skills
- Communication skills
- Business end of engineering
- Civil engineering skills
- Preparation for meetings/presentations
- Understanding of the “real world”



INTERNSHIP OUTCOMES

- Experience with practical applications of engineering principals
- Preview of how projects are managed
- Better sense of time management/prioritizing work
- Confidence in myself



THANK YOU FOR SUPPORTING THE NSD INTERNSHIP PROGRAM

Questions?

