

# City of Dinuba Sanitary Sewer Management Plan (SSMP)



City of Dinuba  
Public Works Department  
1088 E. Kamm Avenue  
Dinuba, CA 93618  
(559) 591-5924

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(Revised May 2014)

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## **Abbreviations**

BMP – Best Management Practice  
Council – Dinuba City Council  
CIP – Capital Investment Plan  
CIWQS – California Integrated Water Quality System  
DMC – Dinuba Municipal Code  
Enrollee – City of Dinuba  
FD – Dinuba Fire Department  
FOG - Fats, Oils, and Grease Control Program  
I/I - Infiltration/Inflow  
DMC – Dinuba Municipal Code  
MGD – Million Gallons per Day  
MRP – Municipal Regional Permit  
NPDES – National Pollutant Discharge Elimination System  
PD – Dinuba Police Department  
PSI – Pounds per Square Inch  
PW – Dinuba Public Works Department  
SS – Sanitary Sewer  
SSMP – Sanitary Sewer Management Plan  
SSO – Sanitary Sewer Overflow(s)  
SSO Reporting System – Online spill reporting system hosted, controlled, and maintained by the State Water Board. <http://ciwqs/waterboards.ca.gov>  
SWRCB – State Water Resources Control Board  
WDR – Waste Discharge Requirement  
WUERM – Water Utility Emergency Response Manager  
WWRF – Wastewater Reclamation Facility

## **Introduction**

The City of Dinuba has a 2014 population of approximately 23,666 and is located in northwestern Tulare County, in the Southern San Joaquin Valley. The City was incorporated as a General Law City in 1906 and reorganized as a Charter City on July 7, 1994. Dinuba is approximately 15 miles northwest of Visalia, the Tulare County seat, and 30 miles southeast of Fresno. Dinuba's economy is largely based on agriculture, but also has significant components of retail, services, and food manufacturing and distribution. City Limits currently contain 6.2 square miles, of which 3.7 square miles is urbanized.

The City of Dinuba currently provides sanitary sewer services to the citizens of Dinuba. The City's collection system drains by gravity through various sized lines and nine sewer pump stations to deliver waste to the Waste Water Reclamation Facility (WWRF), located west of urbanized areas of the City. The WWRF was designed for a capacity of approximately 3.14 million gallons per day (MGD), average daily maximum month flow, and is permitted for such use. The WWRF currently operates in the range of 2.3 MGD to 2.4 MGD Average Daily Flow.

### **Element 1: Goals**

**Requirement:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSO, as well as mitigate any SSO that occur.

The goals of the City of Dinuba SSMP are to:

1. Properly manage, operate, and maintain all parts of the wastewater collection system to provide reliable and uninterrupted service to the citizens of Dinuba.
2. Provide adequate capacity to convey peak wastewater flows.
3. Develop techniques to reduce the frequency of SSOs through the establishment of a routine maintenance program.
4. Mitigate the impact of SSOs using safe, practical, and effective methods.
5. Evaluate and implement the City of Dinuba Sanitary Sewer Master Plan and sanitary sewer resources.
6. Provide training opportunities for sanitary sewer collection system staff.
7. Provide adequate hours of staff time to the operation and maintenance of the sanitary sewer system.

## **Element 2: Organization**

**Requirement:** The SSMP must identify:

- a. The name of the agency's responsible or authorized representative;
- b. The names and telephone numbers for management, administrative, and maintenance positions for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
- c. The chain or communication for reporting SSO's, from receipt of a complaint or other information, including the person responsible for reporting SSO's to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency (OES)).

### **Responsible Agency Staff**

The staff members listed below are responsible for implementation, managing, and updating the Dinuba SSMP. The offices of the City Manager and Assistant City Manager are located at City Hall, 405 E. El Monte Way, Dinuba CA 93618. All other noted staff are located at the Public Works Department, 1088 E. Kamm Avenue, Dinuba, CA 93618.

#### **Beth Nunes**

City Manager

(559) 591-5900, ext. 102, Work

(559) 741-6096, Cell

Plans, organizes, directs, and supervises the administrative activities of the City of Dinuba.

#### **Jayne Anderson**

Assistant City Manager

(559) 591-5900, ext. 148, Work

(559) 859-2039, Cell

Assists the City Manager in the planning, organization, direction, and supervision of the administrative activities of the City of Dinuba.

**Blanca Beltran**

Public Works Director/  
Water Utility Emergency Response Manager (WUERM)/  
Authorized Representative  
(559) 591-5924, ext. 111, Work  
(559) 250-3532, Cell

Responsible for the organization and direction of all public works activities of the City.

**George Avila**

Business Manager  
(559) 591-5924, ext. 102, Work  
(559) 859-1441, Cell

Works under the guidance and direction of the Public Works (PW) Director, assist in implementation of public works goals.

**Dean K. Uota, P.E.**

City Engineer  
(559) 591-5924, ext. 210, Work  
(559) 799-5393, Cell

Responsible for the organization, direction, and review of all development activities conducted by the City and by independent citizens and contractors. Also responsible for oversight of infrastructure planning and engineering projects within the City.

**Joe Aguirre, P.E.**

Associate Engineer  
(559) 591-5924, ext. 202, Work  
(559) 280-8905, Cell

Supports the City Engineer in the oversight of infrastructure planning and engineering projects within the City.

**Ismael Hernandez**

Public Works Supervisor  
(559) 591-5924, ext. 108, Work  
(559) 318-6978, Cell

Plans, organizes, and supervises the operations, maintenance and repair of City water and sewer infrastructure.

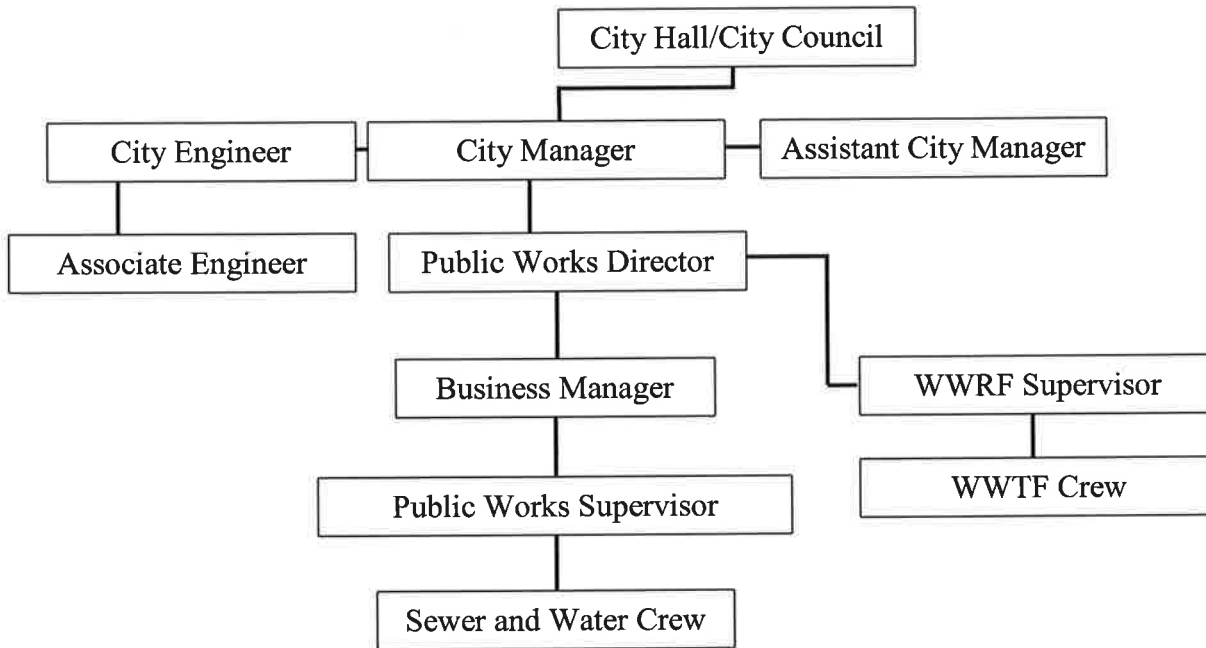
**Ray Walker**

WWRF Supervisor, Grade III Certified  
(559) 591-5925, Work

(559) 805-5510, Cell

Plans, organizes, and supervises the operations, maintenance and repair of City's wastewater treatment system.

**Chain of Communication for Responding/Reporting SSO's**





### **Element 3: Legal Authority**

**Requirement:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- a. Prevent illicit discharges into its sanitary sewer system, including I/I from satellite wastewater collection systems and laterals, storm water, unauthorized debris, etc.
- b. Require proper design and construction of sewers and connections
- c. Ensure access for maintenance, inspection and repairs to publicly owned portions of laterals
- d. Limit the discharge of FOG and other debris that may cause blockages
- e. Enforce violations of its sewer ordinance

**Status:** The City possesses the legal authority to carry out the specific features and operations required by State order. The relevant ordinances and codes can be found in “Title 13 – Waters and Sewers” within the Dinuba Municipal Code (DMC). The DMC can be reviewed by visiting the offices of the Dinuba Public Works Department (PW) or by accessing the DMC website at <http://www.codepublishing.com/ca/dinuba.html>.

The pertinent sections of the DMC are as follows:

#### **Chapter 13.08 – Sewer Regulations General Provisions**

Provides the authority to penalize any person or entity which violates the provisions of Title 13.

#### **Chapter 13.32 – Sewage Construction and Sewer Use**

Provides the authority to review and permit any maintenance or construction of sewer infrastructure within the City where existing or proposed wastewater flows will discharge directly or indirectly to City facilities.

#### **Chapter 13.40 – Prohibited Discharges**

Provides the authority to prohibit the discharge of storm water, surface water, ground water, roof runoff, subsurface drainage, cooling water, swimming pool water, swimming pool backwash water, or unpolluted industrial process water into the City sanitary sewers.

### **Chapter 13.44 – Interceptors**

Provides the authority to require the installation of grease, oil, and sand interceptors for the handling of liquid wastes containing grease in excessive amounts, of any flammable wastes, sand, or other harmful ingredients within its boundaries.

### **Chapter 13.48 – Rules and Regulations Governing the Disposal and Dumping of Sewage and Liquid**

Provides the authority to regulate the disposal and dumping of sewage and liquid waste within the City.

### **Chapter 13.52 – Powers and Authority of Inspectors**

Provides the authority for licensed and authorized inspectors (such as building inspectors) to enter all private properties for the purpose of inspection, observation, sampling, measurements, and testing in accordance with the provisions of this division.

### **Chapter 13.64 – Enforcement**

Provides the authority to enforce the provisions of Title 13 through onsite inspections and termination of service for cause. The section also provides a method for property owners to appeal said enforcement.

#### **Element 4: Operation and Maintenance Program**

**Requirement:** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

**a. Mapping** – Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water pumping and piping facilities.

Status: Maps of the current and proposed City of Dinuba wastewater collection system are located in **Appendix A** of the SSMP. The maps include information on the location of manholes, pipes and force mains, and pump stations.

**b. Preventive Operation and Maintenance** – Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning/maintenance targeted at known problem areas. The Preventive Maintenance (PM) program should have a system to document scheduled and conducted activities, such as works orders.

Status: The City currently conducts weekly inspections of sanitary sewer pipelines and pump stations. Inspections are documented in daily work reports.

For future years, PW has set a goal of devoting 500 hours of staff service per year to the systematic cleaning of City sewer lines, 600 hours for inspecting and clearing blockages, and 600 hours for the inspection and repairing of sewer pump stations. All work hours would be documented on the utilities division monthly and yearly reports.

**c. Rehabilitation and Replacement Plan** – Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the conditions of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects or other deficiencies. Further, the rehabilitation and replacement plan should include a capital investment plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule to implement the short- and long-term plans including a schedule for developing the funds needed for the capital investment plan.

Status: As stated earlier, PW conducts weekly inspections of the sanitary system. Future plans include a goal of allotting 200 hours of service each year for the inspection of the City sewer collection system. The City also has a Capital Investment Plan (CIP) in place which addresses the rehabilitation and replacement of the sanitary system. However, improvements are made only if funds are available. Other funds are used to expand the Collection System to accommodate residential and industrial growth and to bring the facility into compliance with

State regulations. The improvements to the Collection System are to be made on a long term schedule to be completed in three to four phases.

**d. Training** – Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained.

Status: While PW has a budget in place for the training of staff, the available budget is limited and does not cover the expenses that would accrue if all sanitary sewer staff were formally trained. PW has set a goal to provide monthly training sessions for sanitary sewer staff on issues pertinent to their work duties.

**e. Contingency Equipment and Replacement Inventories** – Provide equipment and replacement part inventories, including identification of critical replacement parts.

Status: PW currently keeps an equipment and replacement parts inventory. Critical equipment inventory is maintained to ensure immediate repair in the event of an accident. Such parts include:

- Level control parts
- Pump station submersible pumps
- Manhole covers
- Sewer camera
- Sewer pipes of various sizes

A Critical Parts List shall be maintained by PW and is included in **Appendix D**.

## Element 5: Design and Performance Provisions

**Requirement:** Standards for Installation, Rehabilitation and Repair:

- a.** The SSMP must identify design and construction standards and specifications for the construction of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems.
- b.** The SSMP must identify the procedures and standards for inspecting and testing the construction of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

Status: Designs and construction standards for the construction of new sanitary sewer systems can currently be found at the City of Dinuba PW (1088 E. Kamm Avenue, Dinuba CA 93618). Standards drawings were created and maintained by Quad Knopf, Inc., one of the City of Dinuba's engineering consultants. The site includes standards for the construction of manholes, laterals, and other sewer infrastructure. All standards are available online at the City of Dinuba website:

[http://www.dinuba.org/images/docs/forms/dinuba\\_public\\_improvement\\_standards.pdf](http://www.dinuba.org/images/docs/forms/dinuba_public_improvement_standards.pdf)

Other standards for construction such as for pump stations can also be found at the PW office. The above-mentioned standards are also applicable for the rehabilitation and repair of existing sanitary sewer systems. All relevant standards have been included in **Appendix B** of the SSMP.

Inspections are conducted by PW staff on a regular basis during construction of new sanitary sewer facilities. Inspectors ensure that all construction meets the standards of the City of Dinuba and the State of California. Compliance with standards is enforced through the testing of new facilities. A new or rehabilitated structure must undergo a sewer line acceptance test, which gauges air leakages within a given time period. Any structure must pass sewer line acceptance tests before it is considered complete.

## **Element 6: Overflow Emergency Response Plan**

**Requirement:** Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- a. Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- b. A program to ensure an appropriate response to all overflows;
- c. Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g., health agencies, Regional Water Boards, water suppliers, etc.) of all SSO that potentially affect public health or reach waters of the State in accordance with the Municipal Regional Permit (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board Waste Discharge Requirements (WDR). The SSMP should identify the officials who will receive immediate notification;
- d. Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- e. Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- f. A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge. [**Note:** There are no waters of the US within reach of Dinuba's sewer collection system]

### **Notification**

In the event of an SSO, citizens may contact the PW department at (559) 591-5924, Monday through Friday, 8am to 5pm. Dinuba City Hall may also be contacted 8am to 5:30pm at (559) 591-5900. For SSOs that occur outside of those hours, the Dinuba Police Department (PD) may be contacted at (559) 591-5911. For a listing of the current Agency chain of communication for reporting SSOs, and the responsibilities of each position, see **Element 2: Organization**.

### **Response**

The staff responsible for responding to SSOs is listed under **Element 2: Organization**. The expected response time would be approximately 5 minutes for Public Works staff during

business hours. After hours, the Dinuba Fire Department (FD) would also respond within 5 minutes, with PW staff assembling within approximately 20 minutes. Callout procedures would be initiated upon arrival at the scene and a determination is made as to the severity of the spill and the amount of staff to mobilize.

## **Reporting**

In the event of an SSO, the Public Works Supervisor is responsible for submitting an overflow report to the PW Director. If the SSO contains hazardous materials, the report must also be submitted to the FD. Said report must be submitted within 24 hours in situations where SSOs are in excess of 1,000 gallons, or where it may imminently and substantially endanger human health. In such cases, the report must also be submitted to Tulare County Environmental Health, the State Office of Emergency Services, and the Regional Water Quality Control Board.

The PW Director will be responsible for disseminating information to the various media outlets, including local newspapers (Dinuba Sentinel, Visalia Times-Delta) and TV stations (KSEE 24, KMPH 26, KFSN 30, KGPE 47, etc.). Local residents will be informed through signage at SSO sites and public notices.

## **Impact Mitigation**

If an SSO is reported to the PD, the Police dispatcher will notify the PW Director. If an SSO is reported directly to PW (or if a report arrives through the PD/City Hall), the PW Director will notify the Public Works Supervisor and the WWRF Superintendent. The Superintendents will then inform and dispatch field crew staff to the SSO.

Once the crew is on site, they will assess the situation, first determining whether the problem is on private or public property, and whether there are special conditions that must be addressed (i.e. traffic control, medical response, etc.). The crew will then locate and identify the SSO source. Potential sources include, but are not limited to, failed redundant sewer pump stations, sewer blockages, pipe and manhole failures, and third party interference. If necessary, additional crews will be called in for support. Staff would use all methods applicable to contain the SSO, including blocking storm drain catch basins, turning off pump stations, and flushing blockages. Cleaning would commence while the overflow is being contained. During clean up and after clean up has been completed, PW staff will follow the notification and reporting procedures listed above.

### **Element 7: Fats, Oils, and Grease (FOG) Control Program**

**Requirement:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed the Enrollee must provide justification as to why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged into the sanitary sewer system. This plan shall include the following as appropriate:

- a. An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- b. A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- c. The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- d. Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- e. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- f. An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- g. Development implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

Status: The City of Dinuba PW does not currently have an official FOG control program in place. A review by Staff of the sanitary sewer system maintenance history has shown that a FOG control program is not needed at this time.

The PW currently conducts sewer servicing that has proven effective in preventing and containing issues related to FOG. PW crews inspect sewer mains throughout the City on a weekly basis to ensure sufficient flow conveyance. During inspections, sewer mains with unusually slow flow velocities are identified and cleared. In addition, areas known to be susceptible to blockages are routinely maintained. Blockages are cleared using a variety of techniques, including flushing sewer lines using City owned equipment such as a Vactor truck.



As a result of the regularity of inspections and actions to remove FOG, City sewer mains do not exhibit conditions which warrant the creation of a FOG Control Program. PW observations show that FOG is kept under manageable control using existing maintenance methods and scheduling. Should conditions be identified in the future showing a detrimental increase in FOG creation, the PW will development a FOG Control Program in compliance with the requirements of the SWRCB.

## **Element 8: System Evaluation and Capacity Assurance Plan**

**Requirement:** The Enrollee shall prepare and implement a capital investment plan that will provide adequate hydraulic capacity for key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- a. **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to a potential for an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape the system if applicable) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacities) and the major sources that contribute to the peak flows associated with overflow events.
- b. **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- c. **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term Capital Investment Plan (CIP) to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- d. **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the CIP developed in (a) – (c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14.

### **Evaluation**

The City currently performs approximately 500 hours per year of periodic maintenance which consists of flushing sewer lines. Major sewers are visually inspected every week. Most problems of back-up are caused by grease accumulation in residential laterals and sewer mains. Since sewer laterals are owned and maintained by individual home owners from their structures to their connection to the City's mains, the City cannot enforce maintenance of these laterals. Therefore, the above described sanitary sewer maintenance effort is expected to continue.

Visual observations conducted by City Staff during periodic maintenance show that the following sewers may periodically operate at critical capacity:

1. 18" Sanitary Sewer (SS) and 27" SS trunk lines in Sierra Way;
2. 12" SS in Alta Avenue north of North Way; and

### 3. 10" SS in Tulare Avenue.

The City's pump stations are inspected every week. Pump Station No. 3, located at the intersection of Edwards Place and Hayes Avenue, needs to be reconstructed as the station has only one pump. Furthermore, the wet well presents confined space entry issues.

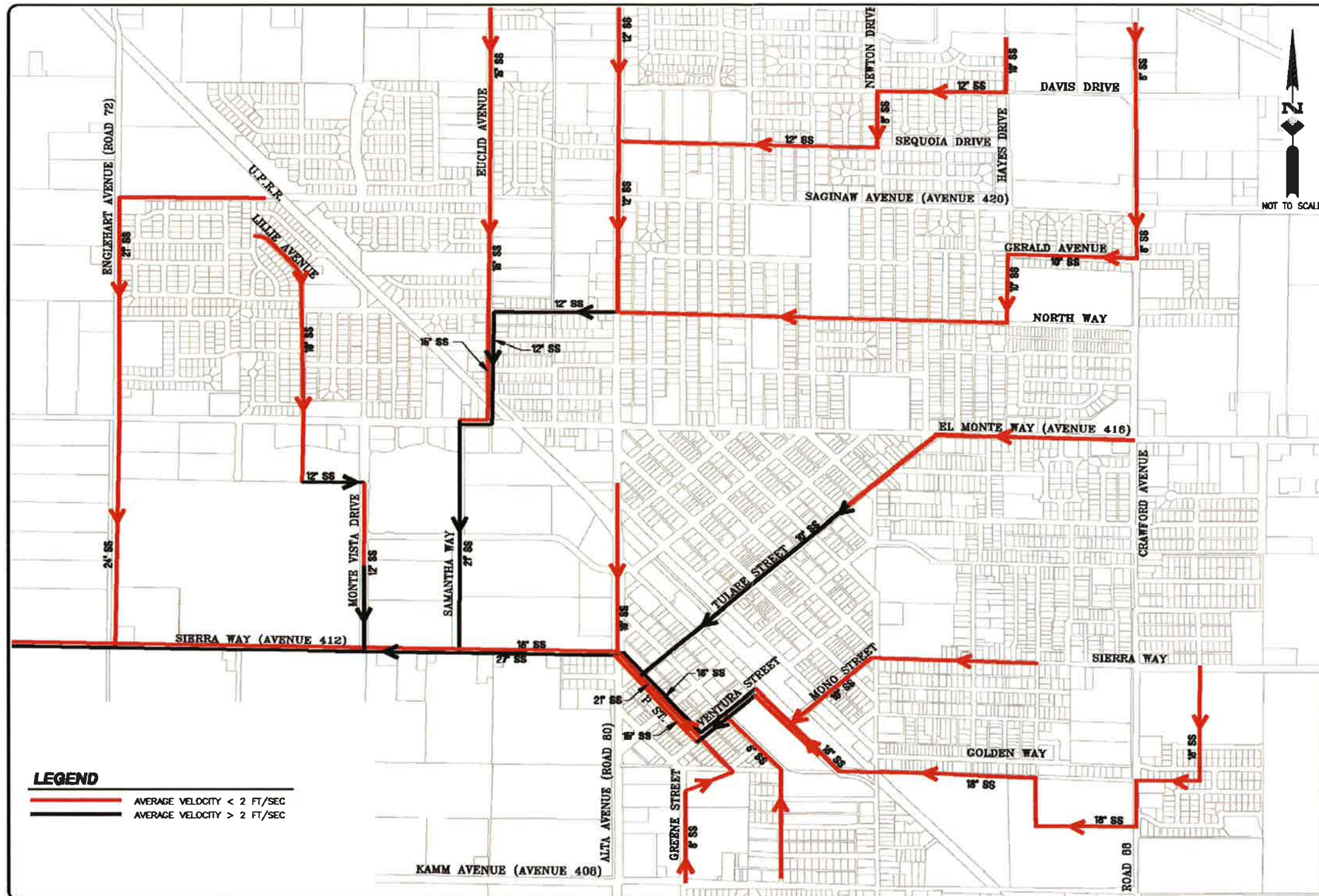
The few remaining septic systems currently in operation in the City are located at Nebraska and Alta Avenues, Whitney and Saginaw Avenues (5 houses), and North Alta Avenue (20 to 30 homes).

A video inspection of the 18" SS and 27" SS in Sierra Way from Alta Avenue to the Collection System was performed on January 17 and 18, 2008 by a consultant to the City. The inspection was performed at night to minimize impacts to traffic on Sierra Way. The following are the conclusions that can be drawn from the videos:

1. The interior and the joints of the 27" SS appear to be in fairly good condition.
2. The 18" SS appears to have some discoloration and appears to be in good condition.

The existing collection system trunk pipe network was evaluated for velocity of flow and capacity using a computer model of the City's SS system, prepared by Quad Knopf Engineering. See **Figure 8-1** for a graphical representation of the model results.

#### **8-1 Existing System: Model Results, Capacity Analysis (see next page)**



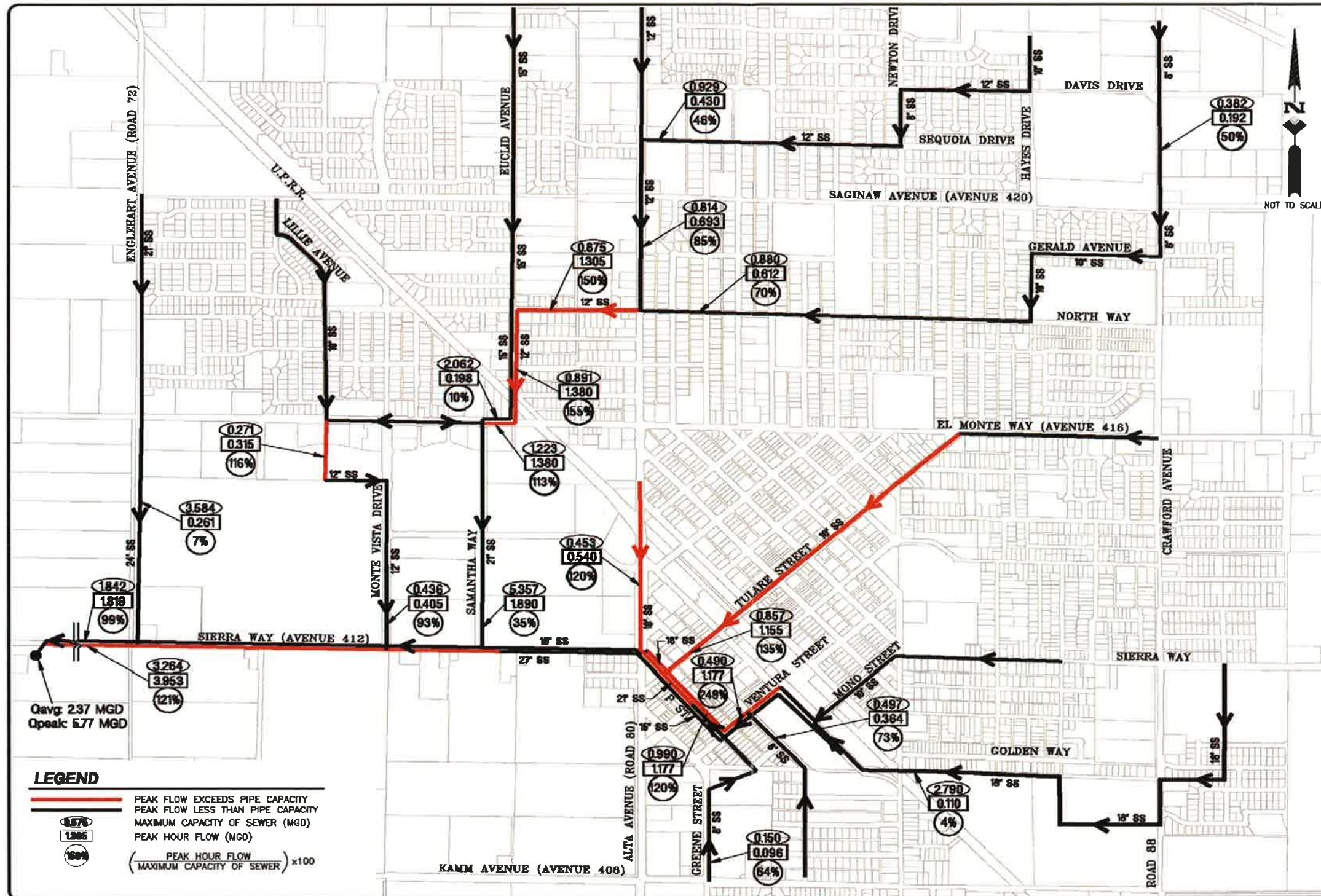
\\Fr-server-03\Projects\Projects\2007\070275\ACAD\Figures\FIG 3-6\_X Results Velocity.dwg

**CITY OF  
DINUBA  
CALIFORNIA**

**SANITARY SEWER  
MASTER PLAN**

**FIGURE 3-6  
EXISTING SYSTEM:  
MODEL RESULTS,  
VELOCITY ANALYSIS**





\\Fi-server-03\Projects\Projects\2007\070275\CA0\Figures\FIG 3-7\_X Results Capacity.dwg

**CITY OF  
DINUBA  
CALIFORNIA**

**SANITARY SEWER  
MASTER PLAN**

**FIGURE 3-7  
EXISTING SYSTEM:  
MODEL RESULTS,  
CAPACITY ANALYSIS**



The velocity of flow was less than 2 ft /sec for a majority of pipes. It appears that this may be because of the relatively flat slopes of construction for these pipes.

The SS model shows that during peak flow conditions, the 12" SS in North Way, a portion of the 12" SS in Euclid Avenue south of North Way, the 10" SS in Tulare Avenue, and the 27" SS in Sierra Way are in an apparent surcharged condition. The hydraulic profile of the model indicates that peak flows would remain within the system and not result in a SSO. These model results are supported by field observations reported to Quad Knopf by City staff.

Per the data provided by the City to Quad Knopf, the inverts of the pipes at "P" Street/Tulare Street and vicinity streets appeared to be lower than the invert elevation of the receiving manhole at Sierra Way. Quad Knopf performed a limited field topographic survey of the sewers in "P" Street, Ventura Street, and Mono Street to confirm the apparent invert continuity issue. The 12" SS and 15" SS have a positive slope in "P" Street. There is a significant lack of positive slope in the 21" SS in "P" Street from Kern Street up to Alta Avenue (invert at Kern and "P" Street is 317.40 and invert at Alta Avenue and Sierra Way is 320.50). The lack of positive slope may explain the reason for the surcharged flow conditions observed in the manholes of the 21" SS in "P" Street and the 10" SS in Tulare Street as reported during the flow monitoring efforts (note: the 10" SS in Tulare Street discharges flow into the 21" SS at the intersection of "P" and Tulare Streets). This periodic surcharged flow observation was confirmed by the model output which shows the flows in the 21" SS in "P" Street between Kern Street and Alta Avenue and the 10" SS in Tulare Street, at times, exceeding apparent capacities and with velocities less than 2 ft/sec.

As a final check on input of flows, the model estimated a peak flow of 5.7 MGD at the final manhole located in Sierra Way (located just prior to the discharge at the WWRF Headworks). This flow is about 5% greater than the 5.4 MGD peak flow at this location estimated by ECO:LOGIC Engineering during their 2007 WWRF Preliminary Design study.

### **Capacity Enhancement Measures**

**Pump Stations:** In general, pump stations are being maintained in order to achieve an average 20 year service life. Pump stations require considerable budget to provide the required maintenance and service life. There are three expenditure categories associated with operating and maintaining pump stations: energy consumption, routine checks and services by City forces, and rehabilitations. Energy consumption represents a small portion of the operation and maintenance budget for pump stations. Routine checks and services on stations are an ongoing expenditure. Rehabilitation needs to be performed every 15 to 20 years at a current cost varying from \$40,000 to \$90,000 per station.

The recommended pump station improvements are listed below:

1. Pump Station No. 3 located at Edwards Place needs to be reconstructed as the station has only one pump and presents confined space entry issues.

2. Pump Station No. 7 located south of the Odwalla facility needs to be upgraded to address acidic influent conditions and frequent maintenance issues due to corrosion. It is reported by City Staff that one of the pumps will plug frequently and that piping is corroded from the industry's wastewater. The pump station also presents confined space entry issues. It is recommended that a pH control system be installed up-gradient of the pump station at the Odwalla Facility in order to control future acidic conditions in the pump station from industrial discharges.

Recommendations to alleviate the surcharge flow condition in the "P" Street sewers are listed below:

1. Frequent flushing: Generally the sewer in "P" Street has a flat slope that contributes to low flow velocities which are less than the 2 ft/sec, recommended design criteria. The low velocity contributes to a sedimentation build-up condition in the sewers and requires more maintenance in terms of frequent flushing. The required maintenance is currently being carried out by City forces and it is recommended that frequent flushing be continued. Alternatively, the City may elect to remove the existing 21" SS in "P" Street up to Ventura Street, and the 12" SS / 15" SS located between Ventura Street to Greene Street and replace with a new sewer at a positive slope for a distance of approximately a quarter mile. This would also involve replacing all the laterals and smaller size mains that tie-in to these existing mains. Additionally, "P" Street has an existing 12" SS and a 15" SS parallel to the 21" SS and likely other utilities that would make construction of the new sanitary sewer difficult and expensive. As a second alternative, the City may elect to construct a pump station at the lowest point in this system located at the intersection of Kern and "P" Streets and a force main from this location to a receiving manhole in Sierra Way.

Recommendations for the sewers in West Sierra Way:

1. The City plans (no funding sources available) to eventually replace the existing 18" SS and 27" SS located in West Sierra Way with a single large trunk sewer because of limited capacity of the 27" SS, life cycle concerns and consolidation of facilities. The computer modeling replaces the existing 18" SS and 27" SS with a single 36" SS. A 30-ft corridor has been planned along the south side of West Sierra Way to accommodate this future sewer.

Recommendations for the 10" SS in Tulare Street that is currently surcharged during peak flow periods include the following:

1. Since the velocity of flow is less than 2 ft/sec, there is a high possibility of sedimentation build-up within the sewer. This requires frequent flushing, which is currently being carried out by City forces. Frequent flushing will be continued.
2. Trenchless technology: This includes lining an existing sewer with new smoother material to lower the roughness coefficient or "pipe bursting" to increase size and flow velocity.

3. Complete replacement or construction of a parallel sewer. This would also involve replacing all the laterals and smaller size mains that tie-in to the existing main.

Recommendations for Euclid Avenue: The following recommendations may be considered for the existing 12" SS in Euclid Avenue that is in surcharged condition:

1. Since the velocity of flow is less than 2 ft/sec, there is a high possibility of sedimentation build-up within the sewer. This requires frequent flushing, which is currently being carried out by City forces. Continue the frequent flushing.
2. Trenchless technology: This includes lining an existing sewer with new smoother material to lower the roughness coefficient or "pipe bursting" to increase size and flow velocity.
3. Complete replacement with a larger size sewer. This would also involve replacing all the laterals and smaller size sewers that tie-in to the existing sewer.

### **Schedule**

The recommendations made under **Capacity Enhancement Measures** will be completed as per the schedule detailed in Appendix E.



### **Element 9: Monitoring, Measurement, and Program Modifications**

**Requirement:** The Enrollee shall:

- a. Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- b. Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- c. Assess the success of the preventive maintenance program;
- d. Update program elements, as appropriate, based on monitoring or performance evaluations; and
- e. Identify and illustrate SSO trends, including; frequency, location, and volume.

Status: The SSMP will be reviewed annually by the PW Director. Using data compiled by PW staff, the Director will review the SSMP to insure that all elements are being implemented and that all proposed plans of each element are effective. Data will be provided in the form of daily reports, system evaluations, and other reporting mechanisms compiled throughout the year. The reports will detail any and all system breakdowns, equipment failures, and SSOs. The Director will judge the effectiveness of SSMP plans based off the given data.

In instances where the Director determines that a plan of action is not effective, the SSMP will be modified to incorporate any new methods available for stopping SSOs. If data shows specific patterns, such as blockages at a specific location, the Director will update the SSMP to include measures to mitigate the effects at that location.

In addition to the annual review, the SSMP will be subject to a comprehensive update every 5 years, as required by the State Water Resources Control Board (SWRCB).

### **Element 10: SSMP Program Audits**

**Requirement:** As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSO's. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D. 13), including identification of any deficiencies in the SSMP and steps to correct them.

Status: The City will perform an annual audit of the SSMP, in conjunction with the actions listed in **Element 9: Monitoring, Measurements and Program Modifications**. The audit will consist of evaluating compliance with the SSMP as well as the effectiveness of the measures detailed within. Where results of the evaluation indicate deficiencies, corrective measures will be developed, along with a schedule for implementation of said measures. The overall measurement of program effectiveness will be a reduction in the frequency and volume of SSOs since the previous audit period. The results of the audit will be included in the Annual Audit Report. A hardcopy of the Annual Audit Report will be printed and filed in the office of the PW Director.

### **Element 11: Communication Program**

**Requirement:** The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

Status: PW staff announced that it was developing an SSMP at the May 11, 2010 Dinuba City Council (Council) meeting. Once the SSMP is in place, PW staff will report the performance of its sanitary sewer system to the Council at an annually scheduled meeting. Performance information will be included in the record of that meeting, and reports prepared as a result of Elements 9 and 10 will be submitted in Council staff reports. Public comments will be welcomed and encouraged at these meetings.

PW will also provide information on SSMP Elements, such as proper disposal of grease, through City website links and utility bill mailing inserts. Information will be provided to land developers and commercial businesses through meetings and/or mailings.

No communication program will be developed for satellite dischargers, as there are none adjacent to the City of Dinuba.

**Appendix A**

**City of Dinuba  
Wastewater Collection System Facility Maps**



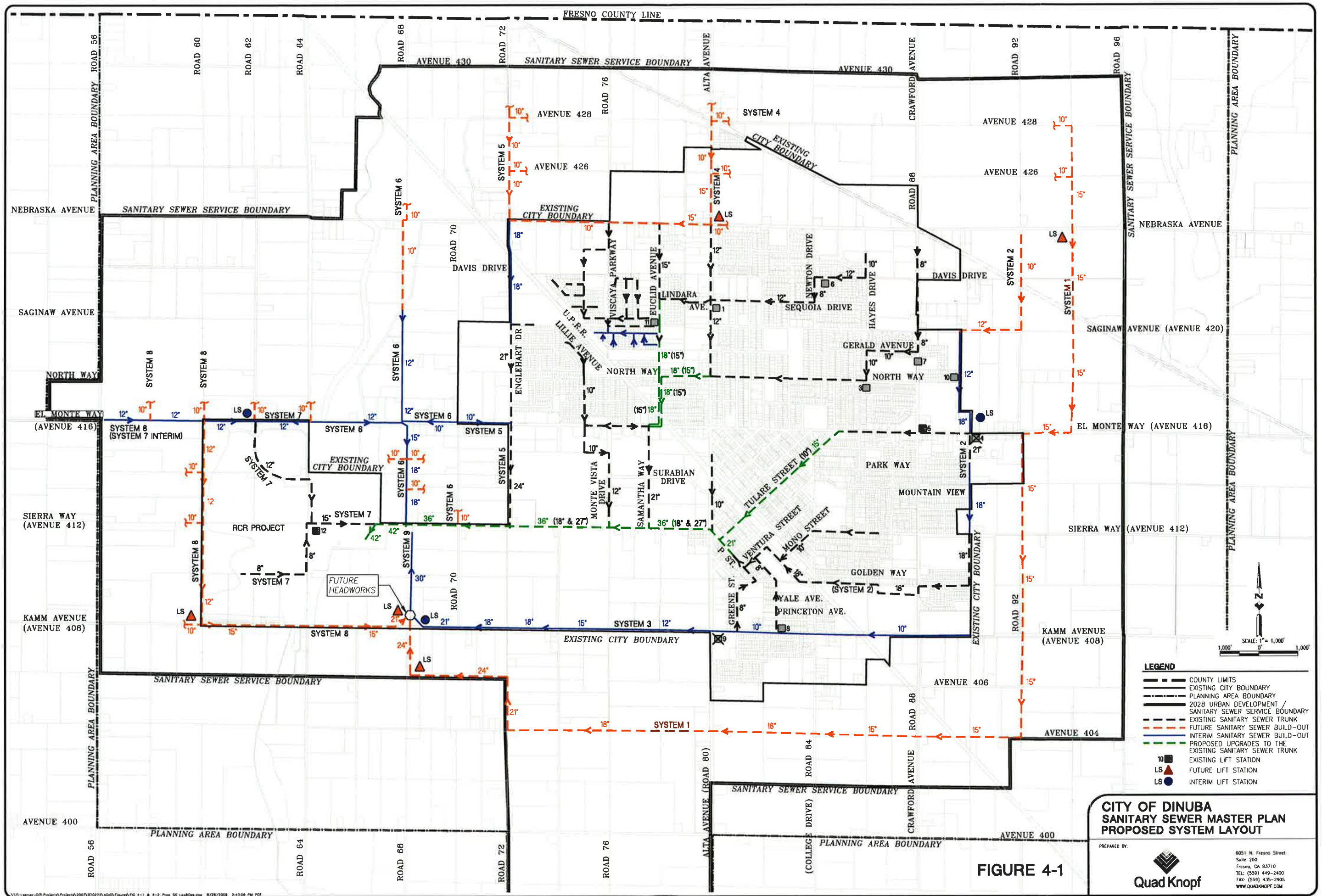


FIGURE 4-1

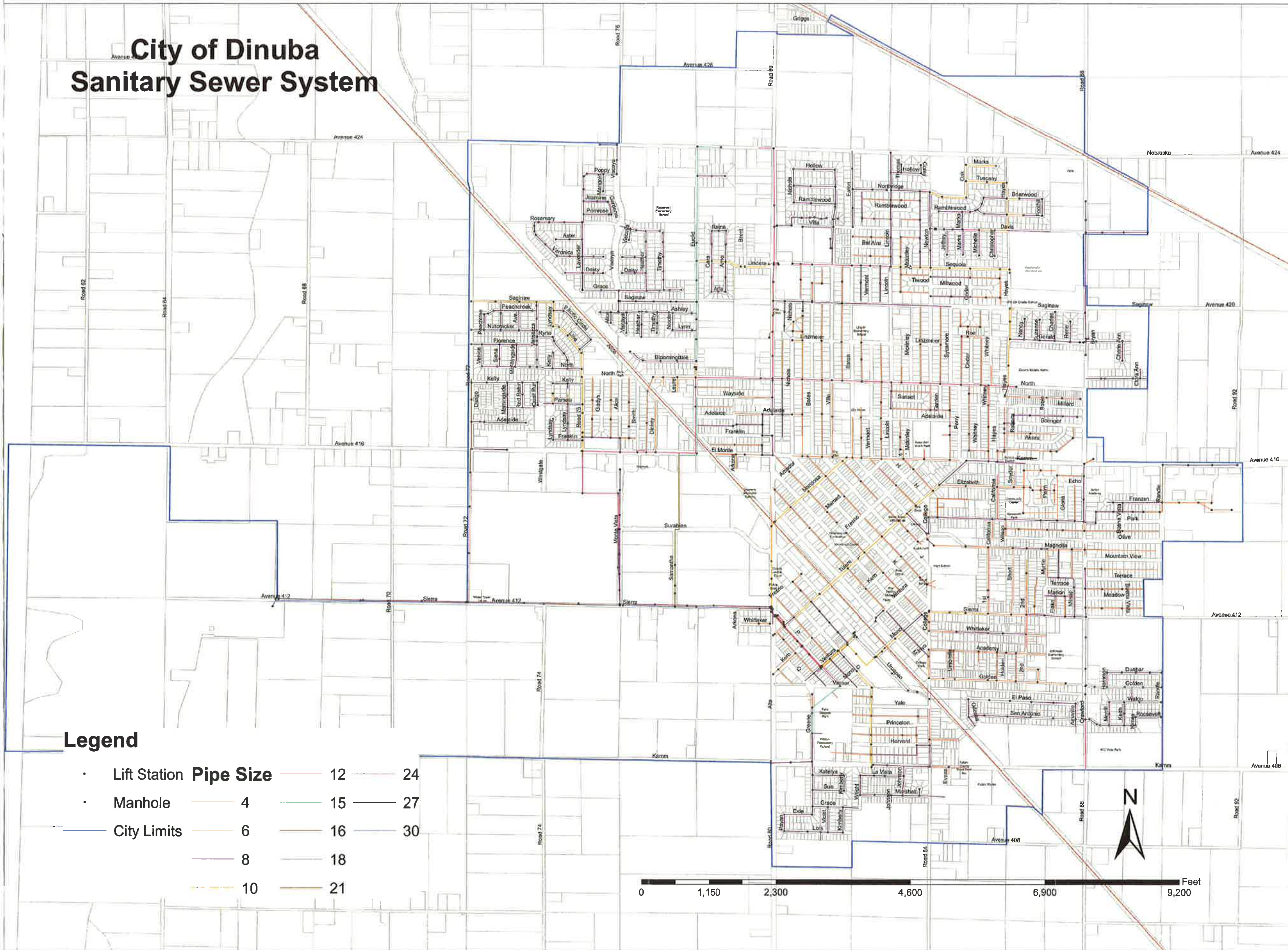
**CITY OF DINUBA  
SANITARY SEWER MASTER PLAN  
PROPOSED SYSTEM LAYOUT**

PREPARED BY:



6051 N. Fresno Street  
Suite 200  
Fresno, CA 93710  
TEL: (559) 449-2400  
FAX: (559) 435-2905  
WWW.QUADKNOPF.COM

# City of Dinuba Sanitary Sewer System



## Legend

•	Lift Station	Pipe Size	12	24
•	Manhole		4	15
—	City Limits		6	16
			8	18
			10	21



# City of Dinuba Storm Drain System



**LEGEND**

- ▲ Drainage Inlet
- Lift Station
- Manhole
- Ponds
- City limits

**Pipe Size**

↗ 6"	↗ 18"	↗ 36"
↗ 8"	↗ 21"	↗ 42"
↗ 12"	↗ 24"	↗ 48"
↗ 15"	↗ 27"	↗ 54"
↗ 18"	↗ 30"	↗ 60"
		↗ Unknown

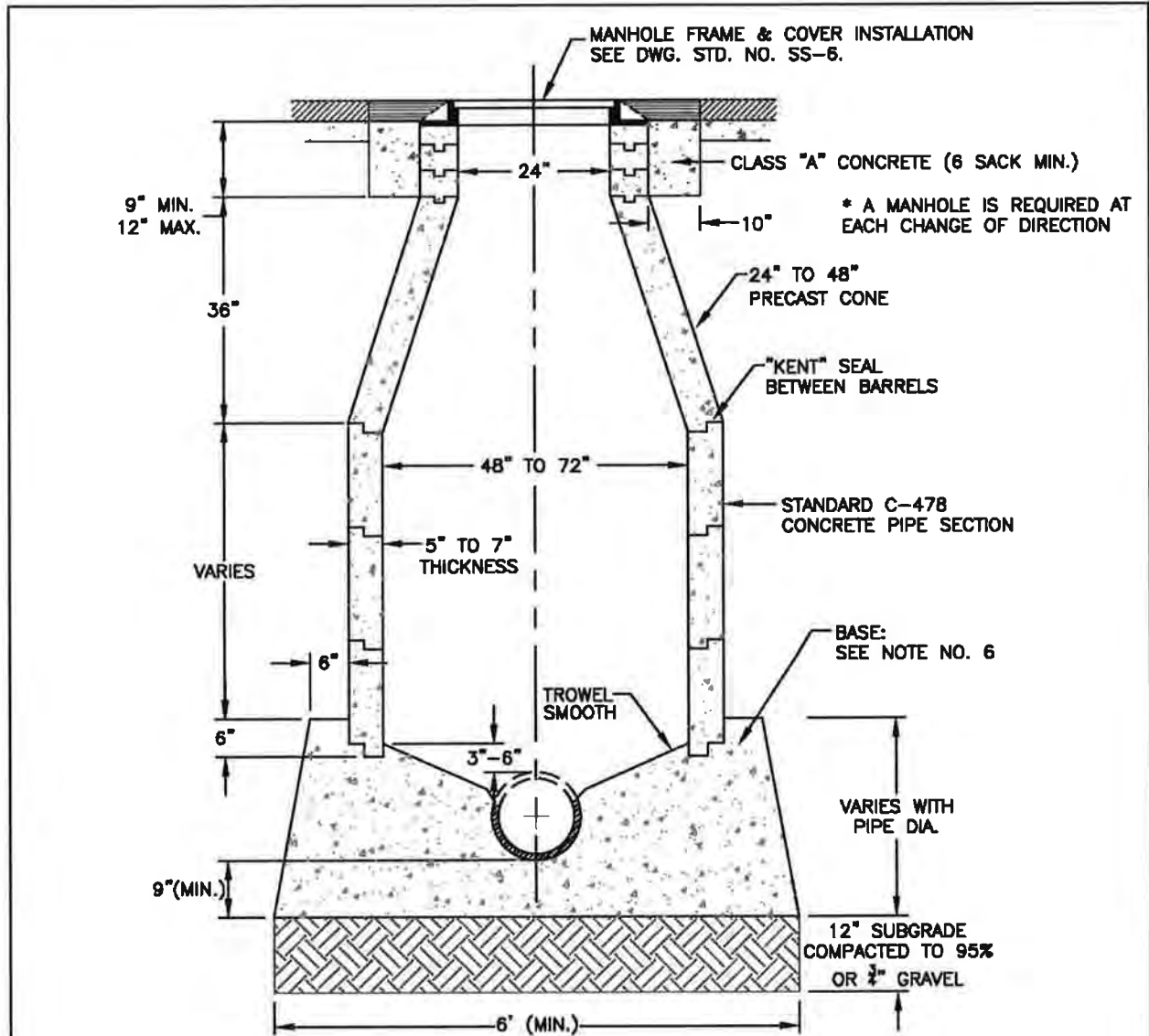
June 2007

SD



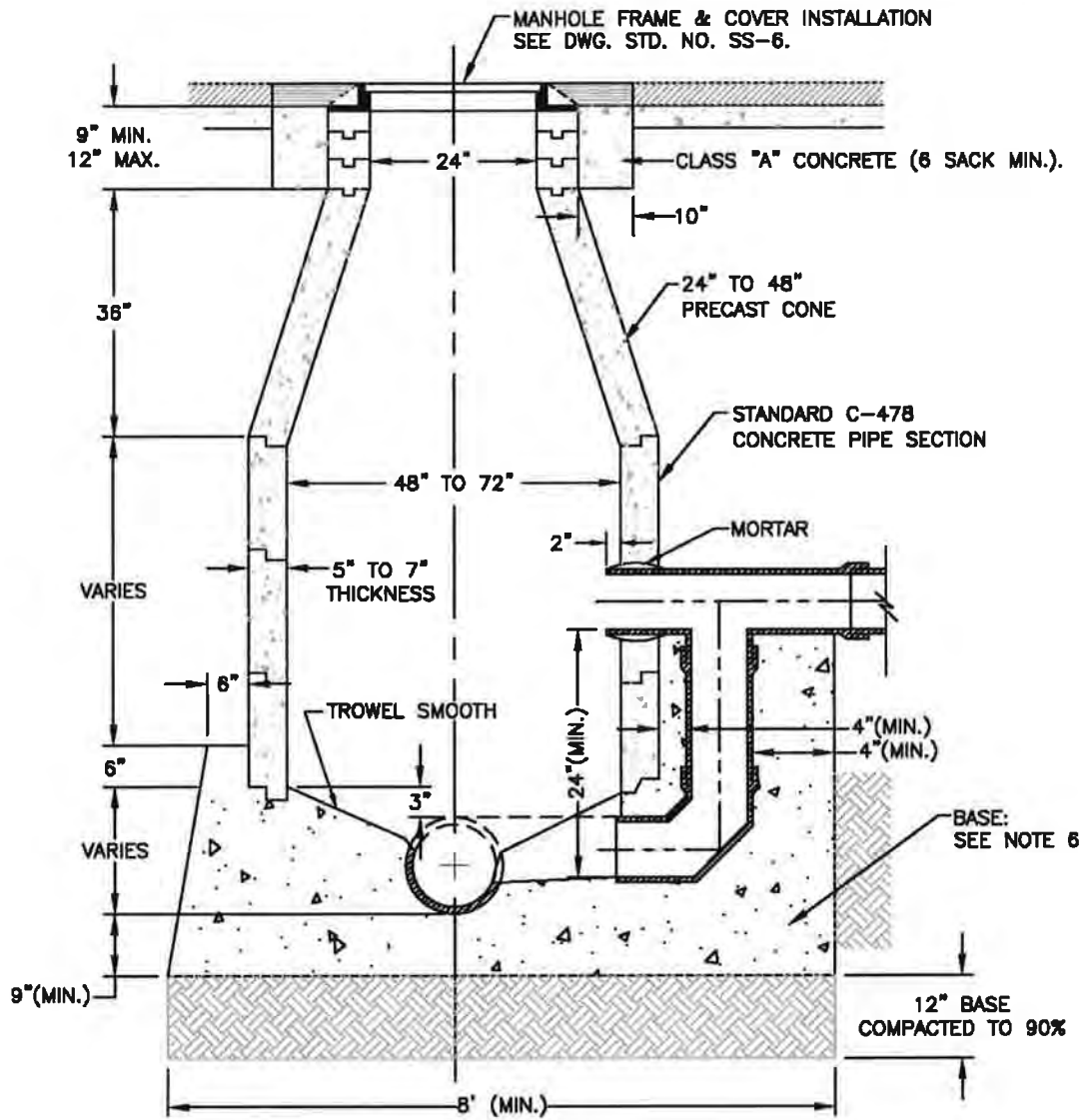
**Appendix B**

**City of Dinuba  
Sanitary Sewer Construction Standards**



- NOTES:**
1. ALL CONCRETE SHALL BE CLASS "A" (6 SACK MIN.), TYPE V CEMENT.
  2. CONCRETE CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED AS PER ASTM C-478.
  3. GROUT AND BAND ALL PIPE JOINTS. "KENT" SEAL NO. 2 OR APPROVED EQUAL.
  4. GROUT MIXTURE SHALL BE 1:2 CEMENT TO SAND.
  5. WHERE MANHOLES ARE NOT IN STREETS OR TRAVEL WAYS, PLACE TOP 12"-24" ABOVE EXISTING GROUND WITH A 24" CONCRETE COLLAR, UNLESS OTHERWISE SHOWN ON THE PLANS.
  6. FOR MAJOR ARTERIALS, BASE SHALL BE CLASS "A" (6 SACK MIX WITH 3/4" AGGREGATE).
  7. IF LARGEST PIPE SIZE IS 24" OR LARGER, A 60" MIN. DIAMETER MANHOLE IS REQUIRED.
  8. WHEN ADJUSTING A MANHOLE, REFER TO STANDARD DRAWING NO. SS-6.
  9. SEWER LATS. SHALL ENTER MANHOLE 1" ABOVE MAIN. HOLE FOR LATS. SHALL BE BORED OR OTHER APPROVED METHOD.
  10. NO FLOODING OR JETTING COMPACTION.
  11. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 400'±.
  12. SEWER LATERALS 6" AND LARGER CONNECTIONS TO A MAIN REQUIRES A SANITARY SEWER MANHOLE.

CITY COUNCIL APPROVAL:  <hr/> APPROVED BY CITY ENGINEER  <hr/> APPROVED BY PUBLIC WORKS DIRECTOR	<h2 style="margin: 0;">STANDARD MANHOLE</h2> <h3 style="margin: 0;">CITY OF DINUBA</h3> <p style="margin: 0;">Public Improvement Standards</p>	DRAWING NO. <b style="font-size: 1.5em;">SS-3</b> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <td style="width: 60%;">FILE NAME: SS-3.dwg</td> <td style="width: 40%;">Dwn: Vasquez</td> </tr> <tr> <td>REVISIONS</td> <td>BY DATE</td> </tr> <tr> <td>Gen Notes, Dims</td> <td>T.S. 4/14/08</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	FILE NAME: SS-3.dwg	Dwn: Vasquez	REVISIONS	BY DATE	Gen Notes, Dims	T.S. 4/14/08		
FILE NAME: SS-3.dwg	Dwn: Vasquez									
REVISIONS	BY DATE									
Gen Notes, Dims	T.S. 4/14/08									



**NOTES:**

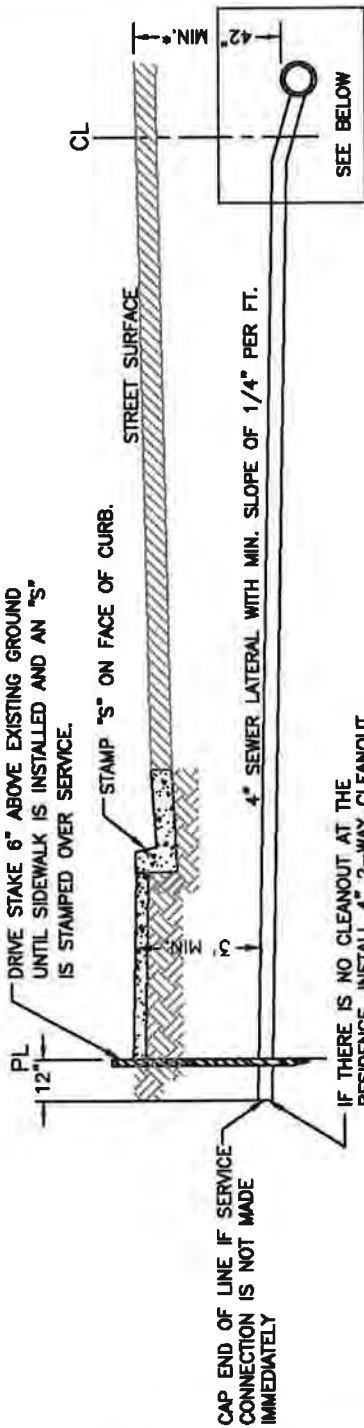
1. ALL CONCRETE SHALL BE CLASS "A" (6 SACK MIN), TYPE V CEMENT.
2. CONCRETE CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED AS PER ASTM C-478.
3. GROUT AND BAND ALL PIPE JOINTS OR KENT SEAL NO.2 OR APPROVED EQUAL.
4. GROUT MIXTURE SHALL BE 1:2 CEMENT TO SAND.
5. WHERE MANHOLES ARE NOT IN STREETS OR TRAVEL WAYS, PLACE TOP 12"-24" ABOVE EXISTING GROUND WITH 24" CONCRETE COLLAR, UNLESS OTHERWISE SHOWN ON THE PLANS.
6. FOR MAJOR ARTERIALS, BASE SHALL BE CLASS "A" (6 SACK MIX WITH 3/8" AGGREGATE).
7. IF LARGEST PIPE SIZE IS 24" OR LARGER, A 60" DIAMETER MANHOLE IS REQUIRED.
8. WHEN ADJUSTING A MANHOLE, REFER TO CITY STANDARD SS-6.
9. NO FLOODING OR JETTING COMPACTION.
10. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 400'±.
11. SEWER LATERALS 6" AND LARGER CONNECTED TO A MAIN REQUIRES A SANITARY SEWER MANHOLE.

CITY COUNCIL APPROVAL:
APPROVED BY CITY ENGINEER
APPROVED BY PUBLIC WORKS DIRECTOR

**STANDARD DROP MANHOLE**

**CITY OF DINUBA**  
**Public Improvement Standards**

DRAWING NO.	<b>SS-4</b>	
FILE NAME: SS-4.dwg	Dwn:	Vasquez
REVISIONS	BY	DATE
Gen Notes	T.S.	4/14/08

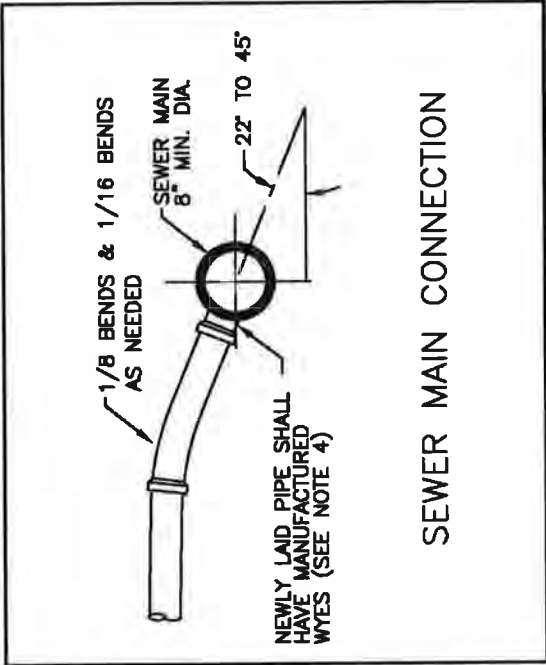


IF THERE IS NO CLEANOUT AT THE RESIDENCE, INSTALL 4" 2-WAY CLEANOUT BETWEEN PROP LINE AND RESIDENCE

\*SEWER MAINS:  
UP THRU 12" PIPE = 42" MINIMUM COVER  
OVER 12" PIPE = 48" MINIMUM COVER

**NOTES:**

1. FOR DEPTHS OF LESS THAN 3' OF COVER, USE DUCTILE IRON PIPE OR C-900 PVC PIPE WITH APPROVAL OF THE CITY OF DINUBA.
2. THE SLOPE OF SEWER LATERALS SHALL BE A MINIMUM OF 2%.
3. SEWER SERVICE LATERALS SHALL BE SHOWN ON THE AS BUILT PLANS.
4. FOR EXISTING MAINS, USE PLASTIC SADDLE W/STAINLESS STEEL 2" CLAMPS.
5. LOCATION OF SEWER LATERAL SHALL BE 5' FROM CENTERLINE OF LOT.
6. REPLACEMENT OF AN EXISTING SANITARY SEWER LATERAL WILL REQUIRE A 2-WAY CLEANOUT LOCATED 24" FROM THE EXTERIOR WALL. CLEANOUT CAP SHALL BE A MINIMUM OF 2' ABOVE GRADE.



**SEWER MAIN CONNECTION**

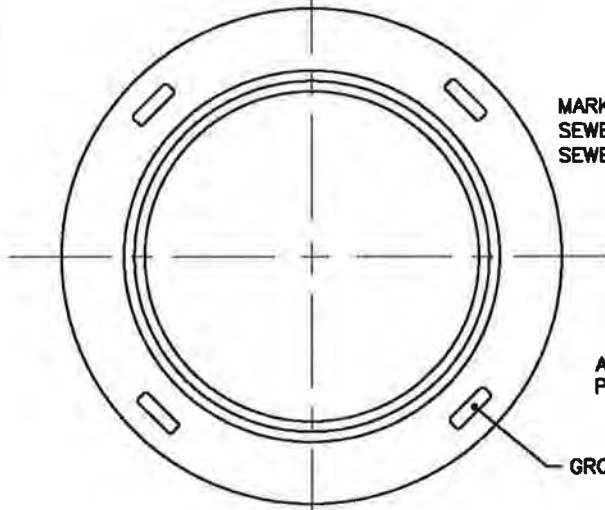
CITY COUNCIL APPROVAL:
APPROVED BY CITY ENGINEER
APPROVED BY PUBLIC WORKS DIRECTOR

**SEWER LATERALS**  
**CITY OF DINUBA**  
**Public Improvement Standards**

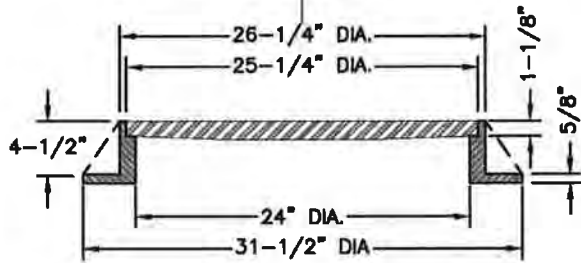
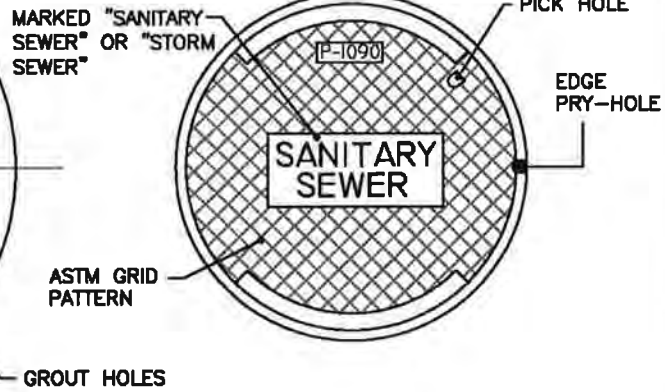
DRAWING NO.	<b>SS-5</b>
FILE NAME: SS-4rev1.dwg	Draw: Vazquez
REVISIONS	BY DATE
Gen Notes	T.S. 4/14/06

**MANHOLE FRAME & COVER**

TOP VIEW



TOP VIEW

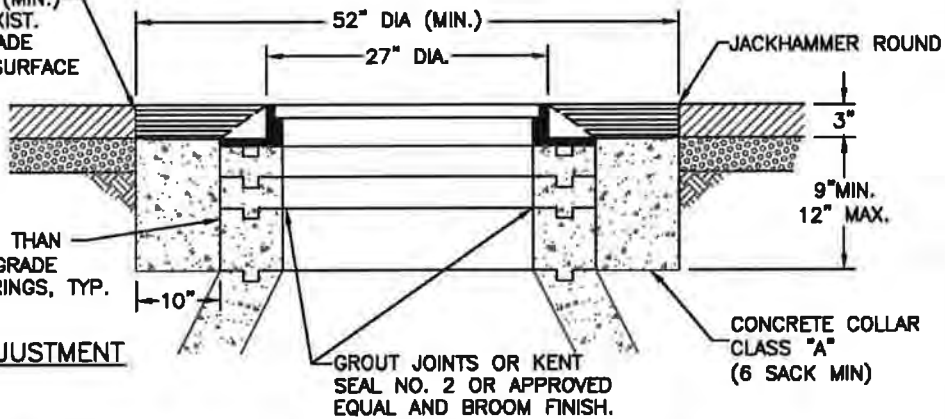


SIDE VIEW SECTION

**MANUFACTURER:**

PHOENIX IRON WORKS  
 24" FULL TRAFFIC TYPE NON-ROCKING  
 MANHOLE FRAME AND COVER  
 MODEL NO. P-1090 OR APPROVED EQUAL.

REPLACE & COMPACT 2"(MIN.)  
 A.C. AND LEVEL WITH EXIST.  
 SURFACE. FINISH A.C.GRADE  
 1/8" ABOVE COVER IF SURFACE  
 IS CONCRETE



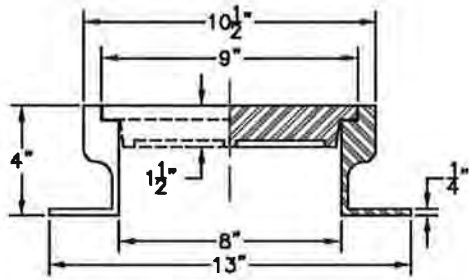
**MANHOLE ADJUSTMENT**

CITY COUNCIL APPROVAL:  
 \_\_\_\_\_  
 APPROVED BY CITY ENGINEER  
 \_\_\_\_\_  
 APPROVED BY PUBLIC WORKS DIRECTOR  
 \_\_\_\_\_

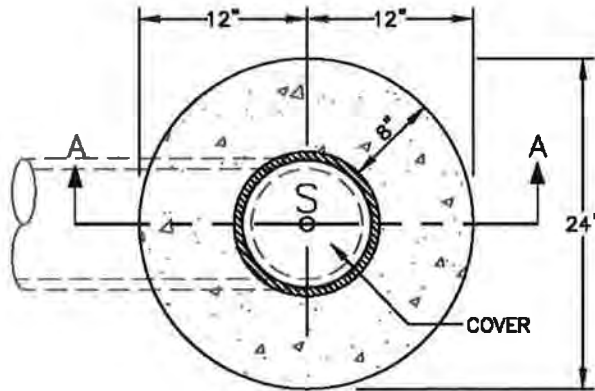
**MANHOLE FRAME  
 AND COVER**  
**CITY OF DINUBA**  
**Public Improvement Standards**

DRAWING NO.	<b>SS-6</b>	
FILE NAME: SS-6.dwg	Dwn: Vencuz	
REVISIONS	BY	DATE
Caloula	T.S.	4/14/08

**SECTION A-A  
FRAME & COVER**



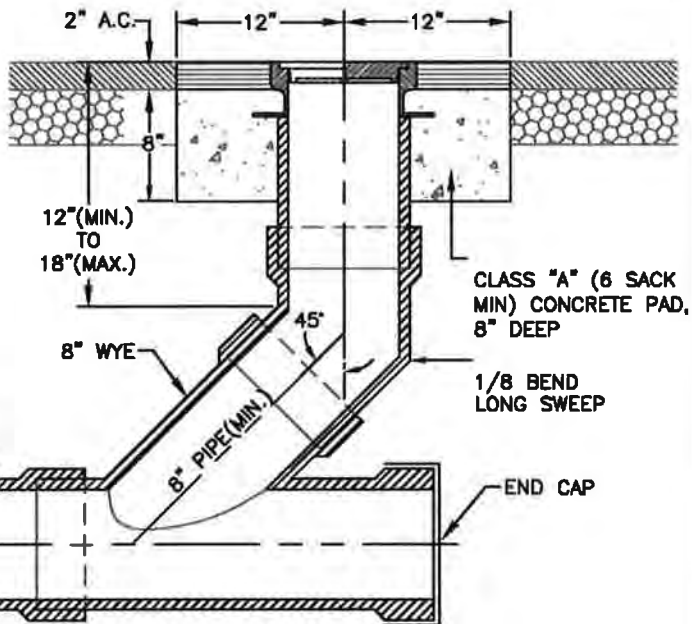
**PLAN VIEW**



**MANUFACTURER:**  
PHOENIX FRAME AND COVER  
MODEL NO. P-2502 OR  
APPROVED EQUAL.

**PAVEMENT NOTES:**

1. JACK-HAMMER AROUND EDGE PRIOR TO REPAVING.
2. REPLACE AND COMPACT 2" TO 3" OF A.C. AND LEVEL WITH EXISTING STREET SURFACE.
3. FINISH NEW A.C. GRADE 1/8" ABOVE COVER.



**LAMP HOLE**

**LAMP HOLE NOTES:**

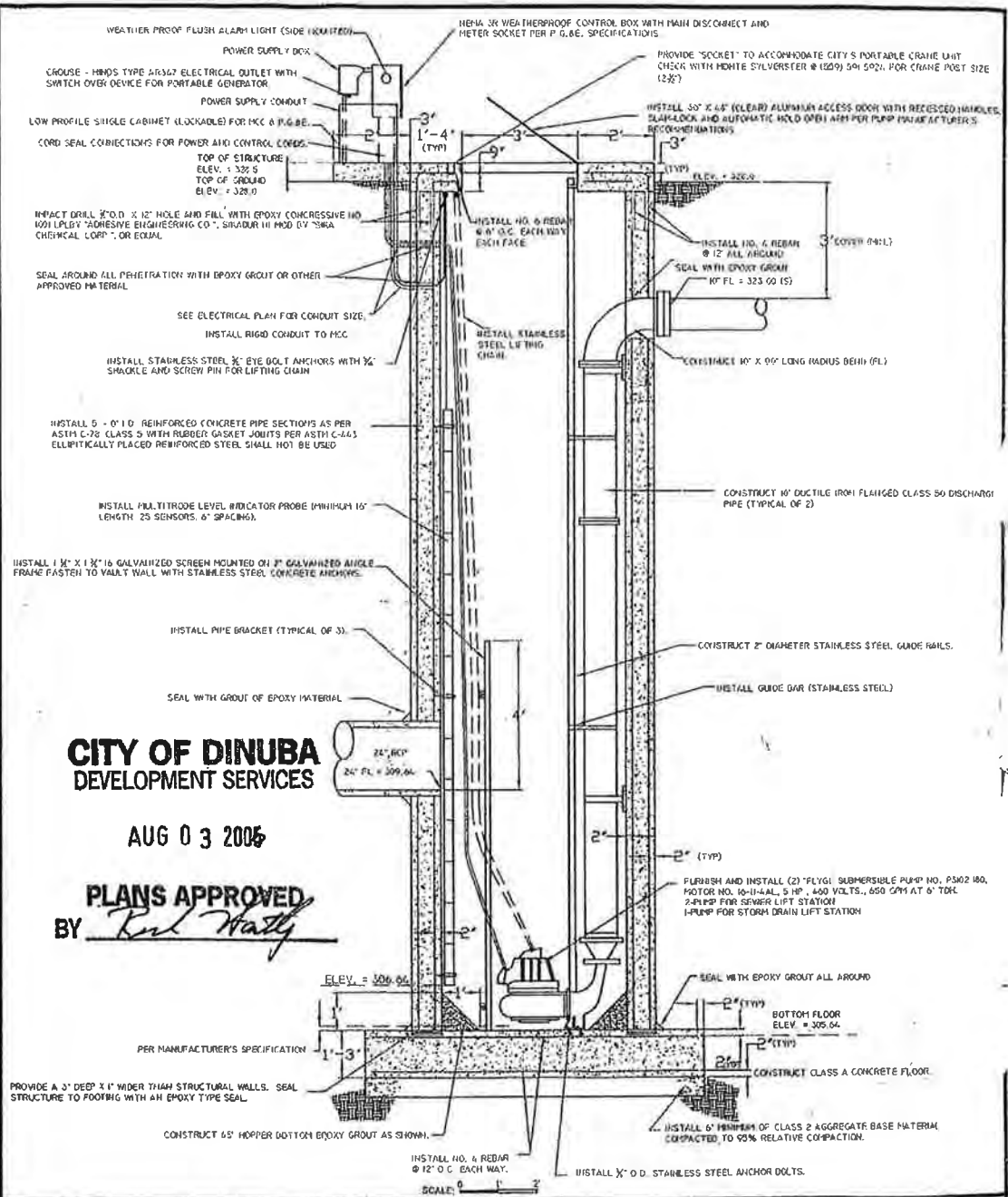
1. PIPE AND FITTINGS, EXCEPT AS OTHERWISE SHOWN HEREON, SHALL BE OF THE SAME MATERIAL AS THE SEWER, UNLESS APPROVED ADAPTORS ARE UTILIZED.
2. PIPES AND FITTINGS SHALL BE PROPERLY ALLIGNED AND MAINTAINED WHILE CONCRETE IS BEING PLACED AND ALLOWED TO HARDEN. JOINTS FOR PIPES AND FITTINGS SHALL BE MADE PRIOR TO PLACING CONCRETE. CONCRETE FOR BEDDING, ENCASEMENT, AND WALL SUPPORT FOR PIPES AND FITTINGS SHALL BE PLACED UNIFORMLY AROUND THE PIPE AND FITTINGS, AND SHALL BE CLASS "A".
3. THE ACCESS FRAME, COVER AND CAP SHALL BE CAST IRON. 4. CLEANOUT INSTALLED BEHIND AN END STREET BARRICADE SHALL HAVE A 2'X2'X8" CONCRETE PAD PLACED AROUND IT.

CITY COUNCIL APPROVAL:
APPROVED BY CITY ENGINEER
APPROVED BY PUBLIC WORKS DIRECTOR

**SEWER LAMP HOLE**

**CITY OF DINUBA**  
Public Improvement Standards

DRAWING NO.	<b>SS-7</b>	
FILE NAME:	SS-7.dwg	Dwn: Vasquez
REVISIONS	BY	DATE
Gen Notes, Dims	T.S.	4/14/08



**CITY OF DINUBA  
DEVELOPMENT SERVICES**

AUG 03 2006

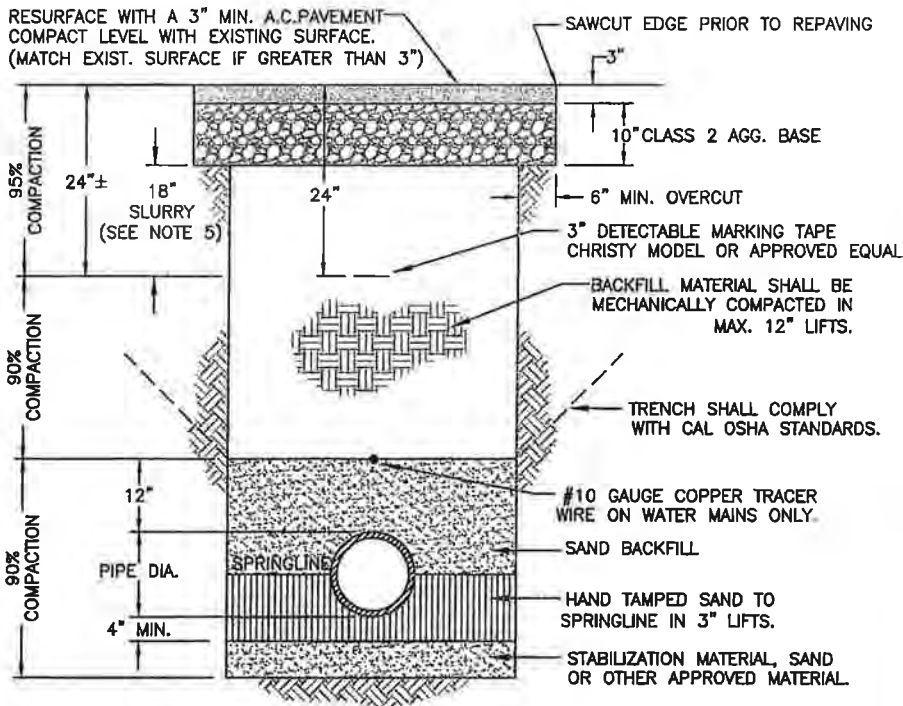
**PLANS APPROVED  
BY** *Paul Harty*

CITY COUNCIL APPROVAL:  
  
APPROVED BY CITY ENGINEER  
  
APPROVED BY PUBLIC WORKS DIRECTOR

**60" STANDPIPE STRUCTURE**

**CITY OF DINUBA  
Public Improvement Standards**

DRAWING NO.	S.S.-7	
SHEET NO.	S.S.-7	
FILE NAME: 7-7.dwg	Own: A.R	
REVISIONS	BY	DATE



**NOTES:**

1. USE SPECIAL CARE IN BEDDING FLEXIBLE PIPE TO ENSURE SIDEWALL SUPPORT.
2. LESS COVER FOR 8" PIPE MAY BE ALLOWED AT THE DISCRETION OF THE CITY ENGINEER.
3. TRACE WIRE TO BE INSTALLED ON ALL WATER MAINS.
4. WIDTH AT BOTTOM OF TRENCH SHALL BE (O.D.+5 PIPE DIA.) WHEN UNSTABLE SOIL IS ENCOUNTERED.
5. MINIMUM 18" SLURRY IS REQUIRED UNDER ASPHALT IN ALL ARTERIALS AND COLLECTOR STREETS.
6. JETTING OF TRENCHES IS STRICTLY PROHIBITED.
7. MINIMUM WATER MAIN SIZE SHALL BE 8". MINIMUM SEWER MAIN SIZE SHALL BE 8". MINIMUM STORM DRAIN MAIN SIZE SHALL BE 12".
8. VIDEO CAMERA INSPECTION REQUIRED ON ALL CONSTRUCTED SEWER MAINS. PROVIDE REPORTS & VIDEO TAPES/CD'S.

**TRENCH WIDTH**

FOR 8" PIPE = 22" TO 32"  
 FOR 10" PIPE = 24" TO 34"  
 FOR 12" PIPE = 26" TO 36"  
 FOR 14" PIPE = 28" TO 36"  
 FOR 16" PIPE = 30" TO 38"

**WATER, SANITARY SEWER & STORM DRAIN MAINS**

8"(MIN.) THRU 12" PIPE = 42" COVER  
 OVER 12" PIPE = 48" COVER

CITY COUNCIL APPROVAL: 2-27-07

*Ken K. Voth*  
 APPROVED BY CITY ENGINEER

**PIPE TRENCH DETAIL**

DRAWING NO. **W-10**

FILE NAME: W-10rev1.dwg Dwn: Vasquez  
 REVISIONS BY DATE  
 Gen Notes, Dims T.S. 4/14/08

**CITY OF DINUBA**  
**Public Improvement Standards**

*Barbara Britton*  
 APPROVED BY PUBLIC WORKS DIRECTOR



**Appendix C**

**Sewer System Management Plan (SSMP) –  
Development Plan and Schedule**

## **Sanitary Sewer Management Plan – Development Plan and Schedule**

**Purpose:** On May 2, 2006, the California State Water Resources Control Board (SWRCB) issued statewide general waste discharge requirements (WDRs) for all publicly owned sanitary sewer systems greater than one mile in length. A significant requirement outlined by the SWRCB is the completion of a Sewer System Management Plan (SSMP).

The purpose of this document is to assess the City of Dinuba's (City) current sewer system management, operation, and maintenance procedures and to recommend actions to produce a complete SSMP in compliance with the WDR requirements.

The document is organized into the following sections:

1. A brief description of each SSMP element;
2. An assessment of the City's compliance with the requirements of each SSMP element;
3. A scope of work for completion of procedure elements the City needs to develop or improve; and
4. An implementation schedule for completion of each element.

### **Section 1: SSMP Elements**

The SSMP is a general compilation of information about the management, operation and maintenance of the municipality's sanitary sewer collection system. The SSMP has 11 primary components:

1. **Goals** – Element provides focus for City staff to continue to implement improvements in their management of the sanitary sewer collection system. Goals determine steps that must be taken to establish and define the purpose and anticipated results of the SSMP program.
2. **Organization** – Element that identifies administrative, management, operations, and maintenance positions responsible for implementing the SSMP program. The Element also provides a chain of communication for reporting Sanitary Sewer Overflow (SSO) events.
3. **Legal Authority** – Element demonstrates, through sanitary sewer use ordinances, services agreements, or other legally binding procedures, that the City possesses the necessary legal authority to implement the SSMP program.
4. **Operation and Maintenance Program** – Element requires the City to:

- a. Maintain an up-to-date map of the collection system;
  - b. Perform routine operations and maintenance activities;
  - c. Develop and implement short and long term rehabilitation and replacement plans;
  - d. Provide training on a regular basis for City Public Works staff; and
  - e. Keep an inventory of general and critical equipment and replacement parts.
5. Design and Performance Provisions – Element identifies minimum design and construction standards and specifications for the installation of new sewer systems, and for rehabilitation and repair of existing sewers. In addition, procedures and standards are required for inspection and testing of facilities and for rehabilitation and repair projects.
  6. Overflow Emergency Response Plan – Element provides a standardized course of action to be followed by collection system personnel during an SSO event.
  7. Fats, Oils, and Grease (FOG) Control Program – Element evaluates service area to determine whether a FOG control program is needed. If determined that one is not necessary, justification must be provided. If a FOG control program is needed, the Element provides implementation measures for the establishment of a FOG control program. These include citing ordinances giving legal authority to the City to establish and enforce a FOG control program, creating Best Management Practice requirements, instituting record keeping and reporting, and developing an outreach program to educate the public on proper disposal of fats, oils, and grease.
  8. System Evaluation and Capacity Assurance Plan – Element determines where hydraulic deficiencies exist. Based on those deficiencies, the Element develops a capital improvement program to ensure adequate capacity. In addition, the Element establishes short and/or long-term actions to correct identified hydraulic deficiencies.
  9. Monitoring, Measurement, and Program Modifications – Element institutes regular monitoring of the SSMP elements for their effectiveness. If the elements are not effective, this Element allows for the modification or updates to increase effectiveness.
  10. SSMP Audits – Element requires that internal audits be performed at two year intervals or less, as appropriate. Audits will assess the effectiveness of the SSMP, as well as identify and correct any deficiencies.
  11. Communication Program – Establishes a public outreach program to inform the public of the SSMP process. Additionally, the Element provides a means of incorporating public input into the SSMP development process.

## Section 2: Assessment Results

An assessment was conducted (Table C-1) on how the City of Dinuba's current practices comply with the eleven elements described above. The elements are assessed for level of completion and rated as:

- Completed or nearly completed;
- In-progress; and
- Need to be initiated to comply with SSMP requirements;

If applicable, a completion date is also provided.

**Table C-1: City of Dinuba SSMP Assessment**

Program Element	Program Completed or Nearly Completed	Program In-Progress	Program Needed	Completion Date
1. Goals	X			April 15, 2010
2. Organization	X			April 15, 2010
3. Legal Authority	X			April 15, 2010
4. Operation & Maintenance Program	X			June 20, 2012
5. Design and Performance Provisions	X			April 15, 2010
6. Overflow Emergency Response Plan	X			April 15, 2010
7. Fats, Oils & Grease (FOG) Control Program	X			Program not needed. See * below.
8. System Evaluation & Capacity Assurance Plan	X			June 20, 2012
9. Monitoring, Measurement, and Program Modifications	X			June 20, 2012
10. SSMP Program Audits	X			June 20, 2012
11. Communication Program	X			June 20, 2012

\* FOG Control Program – The City of Dinuba does not currently have a FOG control program. A review of the sanitary system has shown that a FOG control program is not currently needed. At this moment in time regular sewer servicing conducted by the Public Works Department has

been sufficient to manage and prevent system overflows. Should conditions deteriorate in the future, a FOG Control Program will be established that meets the requirements of the State Water Resources Control Board.

### **Section 3: Scope of Work**

As shown in Table C-1, the City of Dinuba has several of the SSMP elements either in-place or currently being developed. However, there are also several elements that will need to be developed or added to the programs in order to comply with the minimum SSMP requirements. These program elements are:

1. Operation and Maintenance Program – To comply with the requirements established in the WDR, the following improvements are recommended:
  - a. Continue to devote staff service hours for the systematic cleaning, inspection, and repair of City sewer lines.
  - b. Continue to employ the City Capital Investment Program (CIP), as funds allow, for rehabilitation and replacement of the sanitary system. Utilize other fund sources for the expansion of the Waste Water Reclamation Facility (WWRf).
  - c. Establish a standardized training program for staff, as funds allow, for the operation and maintenance of the City’s collection system.
2. System Evaluation and Capacity Assurance Plan (SECAP) – The City of Dinuba is in the process of developing a SECAP. It will include measures for system capacity evaluation, short and long-term solutions for hydraulic deficiencies, and a schedule for completion. These measures are being developed in conjunction with the City’s Sanitary Sewer Master Plan.
3. SSMP Elements 9, 10 & 11 – The last three SSMP elements are focused on measuring and reviewing the effectiveness of an existing SSMP as well as communicating its performance to the public. Once the City of Dinuba has an implemented SSMP, the requirements for these elements, as outlined in WDR 2006-0003, must be addressed.

### **Section 4: SSMP Program Implementation Schedule**

The SRWCB has provided an initial timeframe upon which to complete each of the program components based on population. For collection systems serving populations between 10,000 and 100,000, the minimum required program implementation schedule, as outlined in WDR 2006-0003, is presented in Table C-2. The proposed progress schedule for completion of each of the City’s SSMP elements as well as the responsible staff member for each element is also provided.

**Table C-2: City of Dinuba Program Implementation Schedule**

<b>Program Element</b>	<b>WDR Schedule</b>	<b>City of Dinuba's Schedule</b>	<b>Responsible Staff Member</b>
<b>1. Goals</b>	11/1/07	August 2, 2010	Blanca Beltran
<b>2. Organization</b>	11/1/07	August 2, 2010	Blanca Beltran
<b>3. Legal Authority</b>	5/1/09	August 2, 2010	Blanca Beltran
<b>4. Operation &amp; Maintenance Program</b>	5/1/09	August 2, 2010	Blanca Beltran
<b>5. Design and Performance Provisions</b>	8/1/09	August 2, 2010	Blanca Beltran
<b>6. Overflow Emergency Response Plan</b>	5/1/09	August 2, 2010	Blanca Beltran
<b>7. Fats, Oils &amp; Grease (FOG) Control Program</b>	5/1/09	Program not needed.	Blanca Beltran
<b>8. System Evaluation &amp; Capacity Assurance Plan</b>	8/1/09	August 2, 2010	Blanca Beltran
<b>9. Monitoring, Measurement, and Program Modifications</b>	8/1/09	August 2, 2010	Blanca Beltran
<b>10. SSMP Program Audits</b>	8/1/09	August 2, 2010	Blanca Beltran
<b>11. Communication Program</b>	8/1/09	August 2, 2010	Blanca Beltran
<b>Final SSMP, incorporating all SSMP requirements</b>	8/1/09	August 2, 2010	Blanca Beltran

The City of Dinuba has obtained an extension of time from the SWRCB to August 2012 in order to complete the SSMP. The City of Dinuba anticipates certification of the SSMP to be completed by August, 2012.

**Appendix D**

**Sanitary System Management Plan (SSMP) –  
Critical Parts List  
(Updated May 1, 2014)**

<b>Part</b>	<b>Size</b>	<b>Quantity</b>	<b>Location</b>
Calder Coupling	8"	13	1088 E. Kamm, Dinuba CA
Coupling	6"	3	1088 E. Kamm, Dinuba CA
Manhole Rings	N/A	6 12	1088 E. Kamm, Dinuba CA, 110 S. College, Dinuba CA
Metal Riser	N/A	2 13	1088 E. Kamm, Dinuba CA, 110 S. College, Dinuba CA
Sewer Pipe	4"	60	1088 E. Kamm, Dinuba CA
Sewer Pipe	6"	60	1088 E. Kamm, Dinuba CA
Sewer Pipe	8"	60	1088 E. Kamm, Dinuba CA
Various Fittings	4", 6", 8"	70 +	1088 E. Kamm, Dinuba CA

**Appendix E**  
**Element 8: System Evaluation and Capacity Assurance Plan**  
**Existing System Upgrades – Schedule of Completion Dates**

Element 8: System Evaluation and Capacity Assurance Plan Existing System Upgrades - Schedule of Completion Dates			
Priority	Description	Cost	Projected Completion Date
1	Sewer Pump Station #1 Upgrade trash control mechanism at pump station at Sequoia Drive and Alta Avenue	\$6,000	COMPLETED 2013
2	Sewer Pump Station #7 Reconstruct Lift Station to eliminate confined space entry issues, trash control mechanism and additional pump	\$42,000	FY 2013/14
3	Sewer Pump Station #3 Reconstruct pump station at Edwards Place and Hayes Ave	\$180,000	FY 2017/18
4	Mains in "P" Street Remove existing 21" SS in "P" Street up to Ventura and the 12" SS and 15" SS from Ventura to Greene Street and construct a new 21" SS at the positive slope.	\$513,000	FY 2022/23
5	Mains in Tulare Avenue Replace 10" SS in Tulare Avenue with parallel sewer of 15" diameter with 4,200 LF of 12" PVC and reconnect all sewer laterals	\$705,000	FY 2025/26
6	Mains in Alta Avenue Replace 12" SS in Alta Avenue north of Northway	Unknown	FY 2026/27
7	Mains in Sierra Way Construct 7,700 LF of 36" SS trunk sewer and manholes at 500' intervals to replace the existing 18" SS and 27" SS	\$3,511,000	FY 2032/33
8	Main in Euclid Avenue Remove the existing 12" SS from Northway to El Monte Way and replace with 1,500 LF of 15" SS PVC with manholes	\$315,000	FY 2037/2038