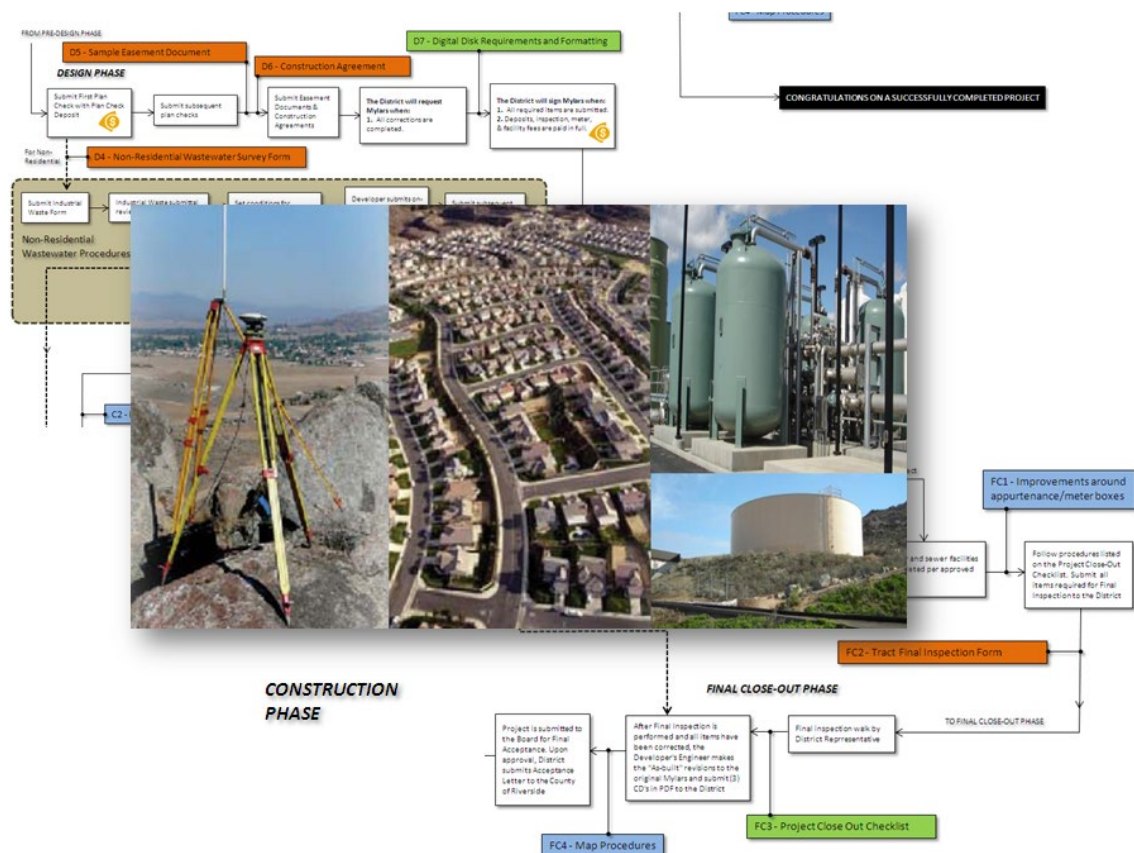




# Jurupa Community Services District Developers Handbook and Procedures Manual



August 2020

# Jurupa Community Services District

## Developers Handbook and Procedures Manual

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# 1 About the Jurupa Community Services District

Founded in 1956, the Jurupa Community Services District (JCSD or District) is a public agency known as a Special District, governed by five elected members of Board of Directors. JCSD is responsible for providing water, sewer, and street lights for over 118,500 people and for maintaining more than 160 acres of parks and over 25 miles of frontage landscape in 48 square-mile regions encompassing the City of Eastvale and the City of Jurupa Valley.

The District office location and main contact information is provided below. A regional location map is provided on the following page.

**11201 Harrel Street**  
**Jurupa Valley, CA 91752**  
**(951) 685-7434**  
**(951) 685-1153 fax**  
**E-mail us: [info@jcsd.us](mailto:info@jcsd.us)**





## 2 Development Program

The Development Program is administered within a section of the Engineering Department (Department). The program mission is to meet the water, sewer, and street lighting needs of development occurring within the community through a comprehensive approach to planning, design, and construction of required facilities.

The Department is responsible for the planning, design review, and construction inspection of water and sewer facilities; and the facilitation of street lights for Developer-funded projects.

In addition, the Department is responsible for creating and maintaining project records and tracking to facilitate and enhance efficiency and customer service. The Department maintains a plan-check tracking system, available to Developers and their Engineers, to inquire the status of their current plan-check submittals. Additionally, the Department tracks all Developer-funded project milestones throughout all phases of the project to maintain quality control.

In conjunction with these activities, the Department maintains a Standards Manual which contains a set of design standards and specifications for both the water and sewer systems. The Standards Manual was developed to ensure that a consistent minimum level of service is maintained in the process of planning, designing, and constructing water and sewer facilities.

Developed separately, but for use in conjunction with the Standards Manual, the Developers Handbook and Procedures Manual (Developers Handbook or Handbook) presents a detailed description of the procedures and policies to be followed during any Developer-funded project within the District.

Procedures for development of the water and/or sewer system are similar for Tract Map developments, Parcel Map developments, and Plot Plan developments. Most procedures and policy requirements herein have been prepared for Tract Map developments, but certain portions apply to all water and sewer system development work within the District's service area.

### 3 About the Developers Handbook

The Developers Handbook is a guide for persons and entities associated with the establishment of new developments within the District. The handbook is applicable to developers, design engineers, construction contractors, and other parties conducting development activities within the District. The handbook will commonly refer to this group of stakeholders as “Developer”.

The Developers Handbook contains descriptive preambles that describe the major phases of a project. These introductory sections refer to procedures, forms, and ancillary information in appendices that the Developer will need to successfully complete a project. Additionally, a flow chart is provided at the end of this section that highlights in chronological order the phases, procedures, and milestones associated with a typical development project. **The Developers Handbook should not be used as a substitution to the Standards Manual, but used in conjunction with the most current version of the District’s Standards Manual.** The most current version of the District’s Standard’s Manual is available on the District’s website (<https://www.jcsd.us/business/development-engineering-services>). The Developers Handbook is organized into the following individual sections that mirror key phasing in the development process:

1. Pre-Design
2. Design
3. Construction
4. Close-out

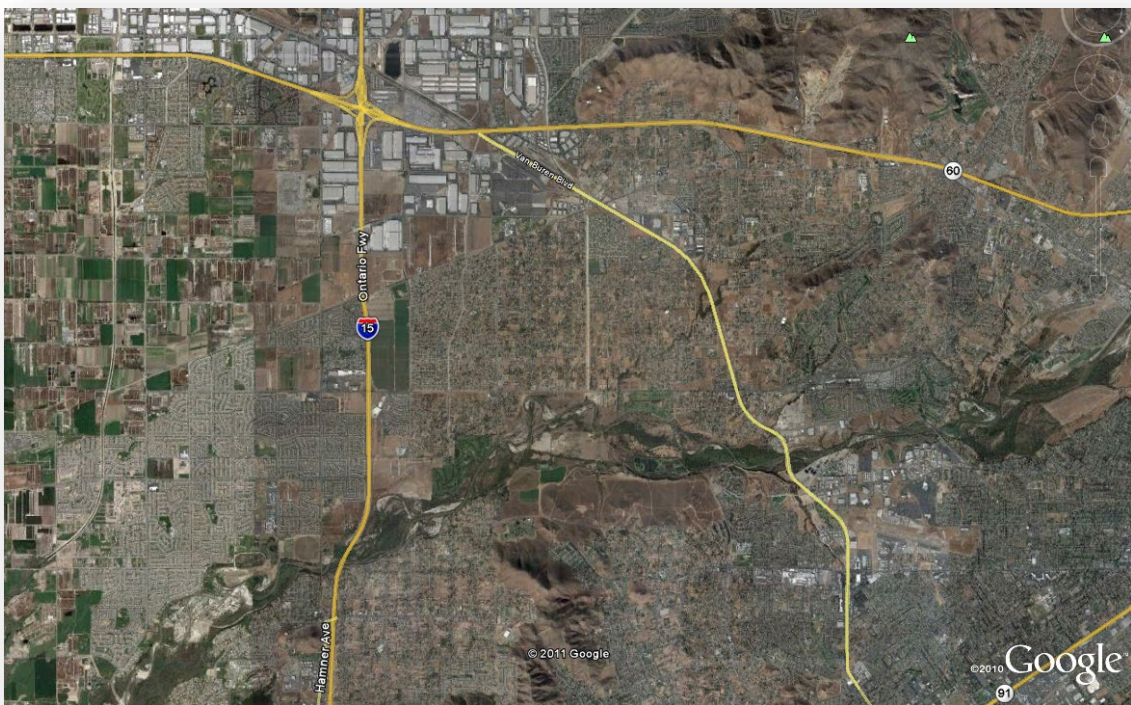
This phased approach provides Developers with a sequential and logical organization of information and requirements that pertain to each phase. Through a common understanding of these requirements, the Developer and the District can work together in identifying and implementing the appropriate water and sewer facilities needed to support the proposed development.

Another objective of the Developers Handbook is to clearly identify the responsibilities and financial obligations of the Developer in this effort. Through this process, the

will require the Developer to acknowledge that they have read and understand the contents of both the Handbook and the District's Standards Manual and that they will act in accordance with the policies and procedures contained therein. In addition, the Developer will be required to sign beside statements that verify transfer of forms or procedures and concurrence with certain policies.

To initiate the development application process, please include the following items as part of your first submittal to the District:

1. Request for Sewer/Water Availability and/or request for Water Supply Assessment with deposit(s) specified in "Current Charges and Deposits" **(Appendix A)**.
2. Signed "Acknowledgement of Receipt" included in this Handbook



*Aerial map of JCSD's service area and surrounding region*



Procedure Flow Chart for Developer Projects

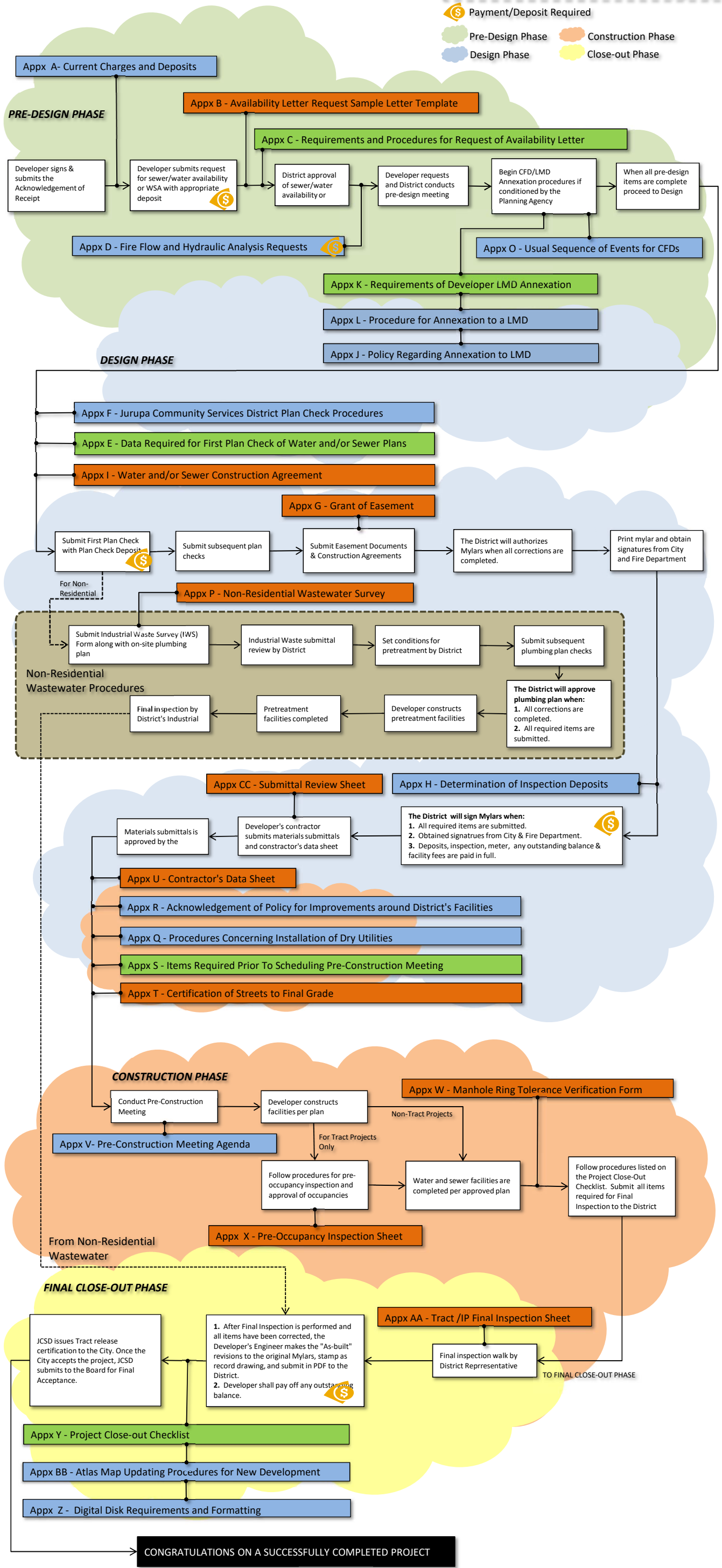
Legend:

- Pg. # - Informational Items
- Pg. # - Forms and Letter Templates
- Pg. # - Additional Requirements and Procedures
- Coordination Efforts with External Stakeholders (e.g. City)
- Payment/Deposit Required
- Pre-Design Phase
- Design Phase
- Construction Phase
- Close-out Phase

Developer initiates contact with the appropriate planning agency (City of Jurupa Valley or City of Eastvale). Approval processes and further coordination with the planning agency is performed by the Developer. District coordinates with the planning agency, as needed, during this phase.

Developer submits required design documents to the planning agency and other stakeholders such as the County Fire Department. Design corrections and approvals with respect to all non-District facilities are the responsibility of the Developer. Plans for these facilities are subject to approval by the respective agency/owner.

District will coordinate with the planning agency (and all stakeholders) in closing out the project. Once the District accepts its new water and sewer facilities, (by Board approval) the Developer can pursue final acceptance from the planning agency to close-out the project.



While the District inspects facilities related to water and sewer, it also coordinates inspection efforts with the planning agency (e.g. for sidewalks and streets), as the condition of such facilities are directly impacted by water and sewer construction. The construction phase is complete when all District facilities and all right-of-way improvements are satisfactorily installed, as determined by the owner of

## 4 District Fees and Advance Payment Against Actual Cost (Deposit)

The District applies fees to offset the public-service cost of a new development. An initial upfront deposit of funds is applied to various phases of a project. These are essentially user fees levied in anticipation of use, for expanding the capacity of the existing water and/or sewer system to accommodate additional demand and users. The “Advance Payment Against Actual Cost” funds various functions such as plan-check, inspection, and other services required to implement the project. The following section provides a description of water and sewer facility charges and advance payment against actual cost. The Developer shall check with the District and keep the most-up-date fee schedule, as the project moves forward (<https://www.jcsd.us/business/development-engineering-fees>).

### 4.1 Water Facility Charges

The water facility charges as shown in “Current Charges and Deposits” (**Appendix A**) are used by the District to pay for infrastructure needed to provide water service to the proposed development. The “Water Facility Charge”, sometimes referred to as a “water connection charge”, is based upon the size of the water meter and its corresponding capacity to deliver water flow to the customer. These charges are used to improve the District’s water supply, treatment, transmission, pumping, and storage capacities to serve the development. The “Drop-In-Charge w/ Radio Read” is the cost to provide the water meter with radio reading capabilities. For a single-family dwelling project (only) the “Meter Installation Charge” is the cost of having the water meter installed by the District. Otherwise, the Developer may choose to install the service line and meter using a District-approved contractor.

### 4.2 Sewer Facility Charges

The sewer facility charges as shown in “Current Charges and Deposits” (**Appendix A**) are used by the District to pay for related infrastructure to provide sewer service to the proposed development. These charges are based upon the development’s number of “Equivalent Dwelling Units (EDUs).” An EDU is a measurement equivalent to the wastewater effluent generation of one home. The sewer facility charge, sometimes

referred to as a “sewer connection charge”, is based upon the total number of EDUs calculated for the development. These charges are used to improve the District’s sewer system and to provide additional wastewater treatment capacity for the project. If the Development Project is located within CFD 1 Area, Area B, or other special benefit areas, the developer can be involved in a different fee schedule or need participate in a cost sharing agreement with the District.

### **4.3 Advance Payment Against Actual Cost**

The “Advance Payment Against Actual Cost” is essentially a deposit that is estimated based on project requirements. It is important to note that the deposit may or may not be adequate to complete all project tasking. For example, a project might require more plan-check review because the initial plans and subsequent drafts lack details or did not address prior comments. Some examples of project tasking requiring a deposit include:

- Water and Sewer Availability Determination (availability letter)
- Hydraulic Analysis
- Sewer Study
- Plan-check
- Water Supply Assessment
- Inspection

Items submitted to the District for review should be complete and of high quality to encourage cost-efficiency and reduce the need to collect additional funds beyond the initial deposit (as needed to complete tasking). **Unused portions of the deposit will be refunded back to the Developer. Should it be determined that the initial deposit is not adequate to complete the task, additional funds will be requested and the subject task will cease until additional funds are received.**

It should be noted that plan-checking costs for facilities other than pipelines (e.g. sewage lift stations, water booster stations, etc.) will be established on a case-by-case basis.



## 5 Pre-Design Phase

The Pre-design Phase of a Developer-funded project starts when the Developer approaches the District with a request for a due-diligence meeting and renders a deposit towards the actual cost of a Water and Sewer Availability Letter and/or a Water Supply Assessment; and ends prior to submitting the first plan-check for District review.

### 5.1 About the District's Standards Manual

Products, manufacturing techniques, construction methodologies, and District operational and design parameters are constantly evolving and improving. As such, the District's Standards Manual will be updated and revised periodically. It shall be the responsibility of the user of this manual to always apply the latest edition of the District's Standards Manual as can be found on the District's website (<https://www.jcsd.us/business/development-engineering-services>). **Failure to utilize the latest information contained on the website shall not be grounds for any claims against the District regarding non-compliance to current standards.**

#### 5.1.1 At-Risk Design

Developers and other who intend to proceed with design of water, sewer or other on-site and off-site facilities to be conveyed to the District for the purpose of obtaining service from the District are cautioned not to proceed with the design of such facilities until the District has completed the necessary availability letters, hydraulic studies, fire flow tests, etc., until the District Board of Directors have approved of said letters, studies and test, etc. Developers and others who do proceed with the design of facilities in advance of final written approval by the District do so at their own risk and shall be exclusively responsible for all expenses associated with the redesign of facilities to conform to the Board approved letters, studies and tests, etc. Developers and others may not rely on preliminary indications by the District staff or the District representatives that plans or specifications will be, or are likely to be, approved by the District. Reliance shall not be justified until final approval has been provided by the District, in writing.

#### 5.1.2 At-Risk Construction

Developers and others who intend to construct water, sewer or other on-site or off-site facilities to be conveyed to the District for the purpose of obtaining service from the

District are cautioned not to proceed with construction of such facilities until the District has reviewed and has provided written approval of plans and specifications for the construction of such facilities, in final form. Developers and others who do proceed with construction of facilities in advance of final written approval by the District do so at their own risk and shall be exclusively responsible for all expenses associated with removal, replacement, modification or relocation of facilities to conform to changes in plans and specifications that the District may require prior to final approval, and for denial of service by the District pending completion thereof and acceptance of such facilities by the District. Developers and others may not rely on preliminary indications by the District staff or District representatives that plans or specifications will be, or are likely to be, approved by the District. Reliance shall not be justified until final approval has been provided by the District, in writing.

## **5.2 General Notes & Requirements**

### **5.2.1 General Notes & Title Block**

Developer must acquire the title block files from the District. The title block includes the most up-to-date construction notes for water and sewer improvements.

### **5.2.2 General Requirements**

If water and/or sewer service is desired within the District, service can normally be provided if the following conditions are met:

1. Developer must design (or contract with the District to design), pay for the construction of, and have constructed and dedicated to the District the water and/or sewer facilities in accordance with the requirements of the Jurupa Community Services District. Water and/or sewer improvements must be provided in: (1) all interior development streets; (2) all streets on the boundary of the development (in order to provide for full frontage improvements); (3) any off-site improvements required to provide water and/or sewer service to the site.
2. Developer must obtain and dedicate water and/or sewer right-of-way to the District. Facilities must be in either dedicated road right-of-way or in specially deeded easements to Jurupa Community Services District having a minimum

width of 20 feet for single pipelines and 30 feet for water and sewer pipelines within the same easement. Private roads must meet public street width requirements for easement dedication purposes. No structures, buildings, fences, or other obstructions can be constructed on these easements. The District's standard "Grant of Permanent Easement" form (**Appendix G**) shall be used and shall be formally accepted by the District pursuant to the "Certification of Acceptance of Grant of Easement". After acceptance, the District will record the easement document.

3. Water facilities will include water pipelines and related fittings and appurtenances, and may also include additional offsite facilities such as pump stations, water storage tanks, pressure regulating stations, and water transmission and distribution mains as are necessary to deliver water to the development and to provide adequate pressure and capacity to such development. Sewer facilities will include sewer pipelines, fittings and appurtenances, laterals, manholes and lift stations as are necessary to provide sewer service to the development.
4. The Developer must make the necessary financial arrangements with the District to accomplish the above stated conditions.

### **5.2.3 Definitions**

Wherever words defined herein, or pronouns used in their stead, occur in any of the contract documents, they shall have the meanings here given:

1. "District" - The word "District" shall mean the Jurupa Community Services District, Riverside County, California. The term "Agent", when used with reference to the District, shall include the District's officers, agents, consultants and employees.
2. "General Manager" - The term "General Manager of the Jurupa Community Services District, Riverside County, California" shall mean the person designated by the Board of Directors of the Jurupa Community Services District, Riverside County, California, to have charge, supervision, and administration of the Jurupa Community Services District, Riverside County, California and shall be hereinafter called the "Manager". The Manager may,

at his option, designate a person or persons to represent him for inspecting, and reporting on the work as it progresses.

3. "Contractor" - The word "Contractor" shall mean the successful bidder who is entering into this contract with the Jurupa Community Services District, Riverside County, California, or the Developer, for the furnishing of the material, equipment, and/or services specified in this contract, and the legal representatives of said party, or the agent appointed for said party in the execution of the contract. Said party is referred to throughout the contract documents as if of the singular number and the masculine gender. The Contractor shall hold a valid Contractor's license in accordance with the provisions of Division 3, Chapter 9 of the Business and Professions Code of the State of California, and all amendments thereto.
4. "District Engineer" - "District Engineer" shall mean the California Registered Professional Engineer designated by the District to give the work general engineering supervision. The term "Engineer" shall mean the independently contracting professional consultant retained by the District on an ongoing basis to perform engineering services on behalf of the District and to advise the District's Board of Directors and staff on engineering matters.
5. "Development Engineer" – "Development Engineer" shall mean the California Registered Professional Engineer under the "General Manager's" direction who supervises Development Representatives and is in charge of "Work" to be performed per the District's Standards, Board adapted ordinances, approved procedures, and manuals from the Pre-design Phase to the Final Close-out Phase.
6. "Developer's Engineer" - "Developer's Engineer" shall mean the Registered Professional Engineer designated by Developer to design the proposed water and/or sewer system facilities in accordance with District rules, regulations and standards.
7. "Property Owner" - "Property Owner" shall mean any work site upon which the Contractor shall be required to perform under the contract including private property, property owned in-fee by the District or upon which it holds an appropriate lease, right-of-way, license, or encroachment permit.

8. "Developer" - The term "Developer" shall mean the person, persons, or firm having legal authority to enter into agreements with the District as related to work performed within public rights of way and Public Utility Easements and having legal responsibility of the Engineer and Contractor retained or contracted with by Developer to perform the work.
9. "Owner" - The term "Owner" shall mean the administrator of the Contract, which may be the District or Developer of the overlying project or land development.
10. "County" - "County" whenever used shall mean Riverside County, California.
11. "City" – "City" shall mean either City of Jurupa Valley or City of Eastvale, California.
12. "Contract" - The term "Contract" shall mean the written agreement covering performance of the work including, but not limited to, the formal Contract, bonds and insurance, notice inviting bids, bidder's plan for construction, statement of experience, financial condition and references, bidding sheet, certified data sheet, special requirements, Standards Manual of Jurupa Community Services District - (Latest Edition) and Drawings.
13. "Work" - The term "work" means that which is proposed to be constructed or done under the Contract or permit, including furnishing of all labor and materials.

#### **5.2.4 General Procedure**

Procedures for the development of water and/or sewer systems are shown below. The following includes the applicable minimum requirements (Refer to Page 6 for procedure flow chart for developer projects):

1. Developer submits two (2) copies of a project site map showing the boundaries of the area requiring water and/or sewer service and requests a water and/or sewer "Availability Letter" from the District. The appropriate "Availability Letter" fee shall be paid to the District.
2. Board of Directors' approves said service.
3. District issues water and/or sewer "Availability Letter(s)"; and District executes County Health Department form "Sanitation 53."

4. Developer has water and/or sewer plans prepared by a California licensed civil engineer to District specifications.
5. Developer provides for dedicated right-of-way and easement.
6. Developer's Engineer submits engineered drawings to the District as outlined in **Appendix F** of this handbook, along with the appropriate deposit for the first (1st) plan-check. **Drawings must be submitted within two (2) years of the issuance of the "Availability Letter"; otherwise, an updated "Availability Letter" will be required and drawings will not be plan-checked until an updated "Availability Letter" is issued.**
7. Plan-checking process: District reviews and approves plans. The District's approval of the plans prepared by the Developer's Engineer denotes agreement with the Plans as prepared and is not an acceptance of responsibility as to its accuracy. The Developer's Engineer shall be responsible for any errors, coordination with other facilities, and interpretation of Plans. The intent is that the completed facility shall be in general conformance with the approved Plan and in accordance with the requirements of these Specifications. All revisions and changes in the plans must be approved by the District.
8. Developer posts deposits and necessary fees with the District.
9. Developer's Engineer submits original mylars to the District for District signatures after acquiring all approval signatures from City and County Fire Department.
10. Drawings approved by the District will be void 24-months from the date of District's signature until construction starts per the approved plans. Upon such time, drawings must be re-submitted for plan-checking (see above No. 6). Also, drawings will need to be re-submitted for first (1st) plan-check, for drawings submitted over one (1) year from the previous plan-check submittal and anytime if the tract is split into separate tracts. Developer may be subject to fee increase.
11. Developer shall pay all the outstanding balance, deposits for inspection, meter fees, and facility fees. District won't sign the mylar until all the required materials submitted and all the fees are paid to District.

12. Developer enters into a water and/or sewer system construction agreement with the District (at the discretion of the Board).
13. Developer contracts with an appropriately licensed Contractor who has a Contractor's Data sheet on file with the District.
14. Developer/contractor provides insurance certificates to the District.
15. Developer provides "Certification of Streets to Final Grade" to the District. These must be submitted prior to scheduling a pre-construction conference.
16. Developer/contractor coordinates pre-construction conference with the District.
17. District inspects construction of facilities.
18. Developer's Engineer submits a complete set of "as-built" mylar drawings and CAD files immediately after construction. Additionally, the District shall also be given a submittal of all project map and land base information in digital format along with the "as-built" mylar drawings.
19. Developer shall pay off any outstanding balance to District.
20. Developer provides the District with final costs to construct all District facilities (for District capitalization purposes).
21. District accepts improvement facilities and issues "Notice of Final Acceptance," after City accepts the project.
22. Developer dedicates facilities to the District.

In the event that the District makes revisions to any of its rules, regulations or standards as described and set forth herein, all such revisions shall be incorporated and be in effect as if they were in force from the beginning of the procedure and shall therefore be adhered to and/or constructed accordingly, unless otherwise approved by the District.

#### **5.2.5 Requirements of Other Public Agencies**

The requirements for the design of water and/or sewer plans and systems specified herein do not waive, nor are they intended to contradict, any requirements required by any other legal governing public agencies.

Engineers designing said plans and systems for inclusion into the District shall be knowledgeable of and shall comply with the following regulations:

1. The California Waterworks Standards, of the California Administrative Code, Title 22.
  - a. City of Eastvale and City of Jurupa Valley adopted County ordinances Riverside County Ordinance No. 460.152, Subdivision Ordinance.
  - b. City of Eastvale and City of Jurupa Valley adopted County ordinances Riverside County Ordinance No. 461.10, County Road Improvement Standards and Specifications.
  - c. City of Eastvale and City of Jurupa Valley adopted County ordinances Riverside County Ordinance No. 499.12, Encroachments in County Highways.
2. Riverside County Ordinance No. 787, Fire Code Standards remain under jurisdiction of the Riverside County Fire Department.
3. Riverside County Environmental Health Department Requirements remain under the jurisdiction of the Riverside County Environmental Health Department.

#### **5.2.6 Revising Approved Water and/or Sewer Improvement Plans**

If a revision has to be made to an approved mylar which has been signed by the District, the proposed revisions should be made in "red lines" on a bond copy, then it should be brought to the District for review and approval. Once the red line is approved, the Developer's Engineer may check out the original mylar by bringing in his signed reproducible plan or electronic copy (i.e. pdf) of the original mylar. The District will retain this copy while the originals are checked out for revision. All the delta revision must be made by a technical pen, Rapidograph. Optionally, the District will make another set of reproducibles, at the Developer's expense. After the Developer's Engineer revises the originals per the approved red line plans, the Developer should resubmit both the originals and the red lines to the District for final review and signature.



Revisions to signed plans must be made by the original Developer's Engineer. Should revisions be requested by another engineer who is not the original Developer's Engineer, the revising engineer has two options to follow:

1. The revising engineer should contact the original Developer's Engineer and inform him about the proposed revision and get his approval in writing to make the revisions and to check out the originals; then follow the above procedures. The revising engineer is required to have a signature block signed and sealed for that particular revision on each revised sheet.
2. The revising engineer may process new plans showing all the existing in dashed lines and label as existing and showing the revisions in solid lines. The revising engineer must sign and seal these plans and submit them for District review and signature.

Option 2 does not require the revising engineer to contact and have approval of the Developer's Engineer. Checking out original plans should be done only by the Developer's Engineer; otherwise, a letter from the Developer's Engineer authorizing changes to the plans is required.

It should be noted that if plan revisions are required prior to, or concurrent to, the construction of the project, and if these changes will require an increase in the bond amount, the revised plans will be held until a new estimate has been prepared and a new bond has been placed with the District.

### **5.3 Water and Sewer Availability Letter Requests**

The Developer makes the request for a Water and Sewer Availability Letter using the "Availability Letter Request Sample Letter Template" (**Appendix C**) and submits it to the District with the items identified on the "Requirements and Procedures for Requests of Availability Letters" (**Appendix B**) along with the appropriate Advance Payment of Deposit. The District's Engineer will write the Water and Sewer Availability Letter and complete the County of Riverside Health Department's Sanitation "53" form and submit it to the District. The District will schedule the Availability Request to be presented to the District's Board of Directors for consideration of approval at the next available meeting.

**Because of the State of California’s Brown Act, which governs advance notification to the public of Board meeting agendas, the request may not necessarily be scheduled for the next calendared Board meeting.** After approval from the Board of Directors, the District will inform the Developer of the approval and provide the Sanitation “53” form.

#### **5.4 Water Supply Assessments**

During initial CEQA screening with the Planning Agency, the Developer’s project may be identified as needing a Water Supply Assessment (WSA). The WSA is a more detailed report which must contain specific information required by CEQA on water supply for the project. Preparation of a WSA typically requires considerably more time to prepare than an availability letter. This additional time should be accommodated for within the Developer’s project timeline.

#### **5.5 Pre Design Meetings**

The District will conduct a pre-design meeting at no charge to the Developer. The meeting is scheduled after the District’s Board approves the Water and Sewer Availability Letter. The meeting is intended to provide the Developer with important design parameters such as system connection points and conditions of approval placed on the project by the District. The meeting will be attended by the Developer, the Developer’s Engineer, the District’s Development Engineer and other key District personnel. The purpose of the pre-design meeting is to promote an economically efficient process; and acquaint the Developer and the Developer’s Engineer with the District’s policies, standard specifications and procedures, as outlined in the “General Notes & Requirements” (Section 5.2 of the Handbook). As part of the District’s requirements, at this meeting, the Developer and the Developer’s Engineer will be presented with and required to sign for receipt of the Developers Handbook.

#### **5.6 Requests for Hydraulic Analysis**

A Developer or their Engineer may request a Hydraulic Analysis to aid in the design of their Project. The appropriate Advance Payment of Deposit will be required prior to commencement of work. The District’s Engineer will perform the necessary calculations for the analysis. The District will transmit the results to the Developer or their engineer.

In some cases a Developer may request a Fire Flow test in-lieu of a Hydraulic Analysis, which is governed by the District's policy on "Fire Flow and Hydraulic Analysis Requests" (**Appendix D**).

The District does not allow a hydro-pneumatic system for water services under both temporary and permanent conditions.

### **5.7 Requests for Sewer Study**

A Developer or their Engineer may request a Sewer Study to aid in the design of their Project. The appropriate Advance Payment of Deposit will be required prior to commencement of work. The District's Engineer will perform the necessary calculations for the analysis. The District will transmit the results to the Developer or their engineer.

## 6 Design Phase

The Design Phase begins when the Developer's Engineer submits the first plan-check with the appropriate deposit as determined by the District and ends when the District schedules the Pre-Construction meeting for the project. During this phase the Developer's Engineer will submit design plans for the water and sewer facilities for the District's review and approval. After approval of design plans, the Contractor will submit a complete package of construction material submittals for the District's review and approval. The Developer will, if required by the Planning Agency, initiate proceedings to annex into a Lighting Maintenance District (LMD). The District may require the Developer to execute a Construction Agreement. The Developer also has the option to execute a Reimbursement Agreement with the District for fees associated with the development, and establishing a Community Facilities District (CFD).

**Only non-residential (e.g. commercial and industrial) projects will be required to undergo the District's Industrial Waste Review Process**, which runs parallel to the plan-check process in the Design Phase, as detailed in this section.

### 6.1 Plan-Check Process

After the appropriate Plan-check Deposit is paid and the Developer's Engineer submits the proposed drawings for the first plan-check along with all of the items detailed on the "Data Required for First Plan-check of Water and/or Sewer Plans" check sheet (**Appendix E**), the District will follow the procedures outlined in the "Jurupa Community Services District Plan-check Procedures" guide (**Appendix F**). Also, on the District's website, the Developer will be able view and download the most current District Standards and Specifications. When the District's Engineer and/or the Development Engineer are satisfied with the current plan-check submittal, the Development Engineer authorizes the Developer's Engineer to produce Mylar drawings. The Developer Engineer will plot the mylar, acquire signatures from both City and Fire Department, and then submit the mylar drawings to the District for final review and signature by the District's General Manager or his designees.

Prior to mylars being signed, the District will require that:

- Development Fees are calculated as of the date that design mylars are complete and ready for execution by the District.
- All appropriate fees and deposits be paid and/or a Reimbursement Agreement with the District be executed for those fees and CFD obligations.
- All appropriate easements be executed using the “Grant of Easement” template (**Appendix G**), and if required by the District, the execution of the Construction Agreement between the Developer and the District.

Among the deposits and fees owed by the Developer prior to Mylar signing is the deposit for the District’s inspection services, as required in the Construction Phase. The Inspection Deposit is calculated as a minimum deposit based on the linear footage of the water and sewer pipe to be installed, as outlined in the “Determination of Inspection Deposits” (**Appendix H**). The District may decide to require additional deposits for inspection of facilities beyond the normal pipeline installation type (e.g. sewer lift stations). **During the plan-check process it is important to note that the efficiency of the plan-check process and its timeliness is directly related to the quality of the design package submitted by the Developer’s Engineer.**

## **6.2 Submittal Review**

Upon approval of the design plans, the Contractor will prepare for a complete submittal package of construction materials based on the approved design plans and the Approved Manufactured Materials in the District’s Standards Manual. The Contractor uses the District’s submittal review cover sheet (**Appendix CC**) by marking Submittal ID on each item. **The pre-construction meeting will be scheduled only after the entire submittal package is approved by the Development Engineer.**

## **6.3 About the District’s Construction Agreement**

Some Developer-funded projects may require that the Developer enter into a construction agreement with the District (**Appendix I**). As outlined in the sample agreement, the Developer will be required to provide the appropriate bonds securing the agreement. This determination will be made by the District on a case-base basis, at the discretion of the Board.

## **6.4 Proceedings for Annexation into a Street Lighting Maintenance District**

The Developer's project may be required by the Planning Agency to annex into a Street Lighting Maintenance District (LMD) as part of a condition for approval. The District forms LMDs to establish an annual levy of assessments to cover the cost of operating and maintaining street lights. The assessment amount is based on the cost of electricity that the District purchases from Southern California Edison Company (SCE) and the District's administrative costs. SCE owns the street lights. The District acts as a liaison between the property owners and SCE to collect and remit funds to pay SCE's costs of providing street lights. SCE cannot collect payment directly from the homeowners for street lights. The District's Board of Directors has adopted a "Policy Regarding Annexation to Lighting Maintenance Districts" (**Appendix J**), which outlines the procedures and requirements for initiating annexation. To initiate the proceedings for annexation to an LMD, the Developer must follow the procedures detailed in the "Requirements of Developer for Lighting Maintenance District Annexation" (**Appendix K**), along with the required fees. As outlined in the flow chart "Annexation to a Lighting Maintenance District" (**Appendix L**), the process can take up to 90-days, depending on the completeness and quality of the Developer's Engineer's submittals.

## **6.5 Community Facilities Districts**

The District forms and annexes property to Community Facilities Districts (CFDs) within its boundary to fund the construction of water and/or sewer facilities that are required to serve the development. The CFD would cover several costs, including but not limited to:

- Master plan water and sewer facilities
- Upsize capacity in existing facilities
- Treatment capacity
- Acquisition of parks and recreation facilities
- Incidental expenses related to the planning, design, and completion of such facilities

School District facilities and County of Riverside facilities, which are to be owned and operated by the School District and the County of Riverside, respectively, can also be funded through CFD's. Thirty-year bonds will eventually be sold to fund the cost of these facilities and the District will levy special taxes based on the debt service schedule (and administrative costs) to pay the principal and interest on the bonds until they mature. Another component that is funded through CFD's is the cost associated with maintaining parks, parkways, and streetscape. At the time of CFD formation, the annual cost for maintenance is determined, and the District annually levies and collects special taxes to pay for these services. To initiate the proceedings to form a CFD, the Developer must first submit a letter request to the District along with the "Requirements of Developer for CFD Formation." As outlined in the flow chart entitled "Usual Sequence of Events for Mello-Roos Community Facilities Districts" (**Appendix O**), **the process can take up to 90-days, depending on the completeness and quality of the Developer's Engineer's submittals.**

## **6.6 Industrial Waste Review Process for Industrial, Commercial, and Non-Residential Projects**

All Commercial, Industrial, and Non-Residential Developer Projects will be required by District ordinance Federal and State regulation to undergo the District's Industrial Waste Review process. This process runs in parallel to the plan-check process. The Developer will submit to the District a completed "Non-Residential Wastewater Survey" form (**Appendix P**), along with the items specified on the form to begin the process. The District's Industrial Wastewater section within the Collections Department will review the information on the form to determine if the project will require on-site pre-treatment and to determine the sewer facility fees for the project. After determining the requirement for on-site pre-treatment, the Developer will submit plans for the on-site pre-treatment facilities to be reviewed and approved by the District's Industrial Waste Section. Once these plans have been approved, the Industrial Waste Inspector will oversee and inspect the installation of the on-site pre-treatment facilities to their completion and the District's approval. **At the Final Close-out Phase of the project, and prior to the Final Inspection, all on-site pre-treatment facilities must be completed and approved by the District's Industrial Waste Section.**

### **6.6.1 Assessment of Industrial Waste (Sewer Facility) Fees for Industrial, Commercial, and Non-Residential**

The facility fees and monthly charges are based on the estimated volume of wastewater and the quality of the wastewater discharged using the information supplied to the District by the Developer on the Non-Residential Wastewater Survey form.

### **6.6.2 Re-Assessment of Industrial Waste (Sewer Facility) Fees for Industrial, Commercial and Non-Residential**

Under certain situations (as described in the following), the District will re-assess the facility fees and monthly charges.

#### **6.6.2.1 Upon Full Occupancy of a Multi-Unit Development Served by a Domestic Water Master-Meter(s)**

When a commercial or industrial project has multiple units being fed by a domestic water master-meter (or meters) or when a project with a single building has not fully occupied or utilized the entire building the District will re-assess the project upon full occupancy of all the units or parcels. If the re-assessed volume and/or water quality results in a lower sewer facility fee (than what was originally paid by the Developer), the District will refund the difference. If the re-assessed volume and/or water quality results in a higher sewer facility fee (than what was originally paid to the District), the Developer will be required to pay the difference. The Developer will have ten (10) days to render payment to the District upon receipt of the invoice and request for payment.

#### **6.6.2.2 Change of Owner and/or Property Use**

The District will also re-assess the industrial waste requirements when there is a change in ownership and/or property use. Similar to a new development, the Developer or new business will submit to the District a completed “Non-Residential Wastewater Survey” form (**Appendix P**) along with the items specified on the form to begin the process. As described in the section above (re-assessment subsequent full occupancy), the sewer facility fee will be re-assessed and, if required, an adjustment in payment will be made.





*JCSD staff performing an Industrial Waste Inspection*

## 7 Construction Phase

The Construction Phase begins with the scheduling and completion of the Pre-Construction meeting and ends when: 1) all facilities have been installed per the approved plans, 2) all dwellings have been occupied, and 3) the final street cap paving is complete (for Tract Projects). For Individual and Parcel Map Projects, the end of the Construction Phase occurs when all facilities have been installed per the approved plan and final cap paving has been completed. During this phase, the Developer and key individuals such as the Project Superintendent and the Developer's Contractor along with key District personnel will attend a pre-construction meeting to be conducted by the District (see *Pre-Construction Meeting Procedures* contained in this section). After the pre-construction meeting is complete and the District issues the notice-to-proceed, the Developer's Contractor will then install the water and sewer facilities per the approved plan.

Early in the construction of the sewer facilities, as outlined in *Section 7.5 - Manhole Ring Tolerance Verification Procedure*, the District requires a verification of the difference in elevation between the top of the manhole cone and the manhole ring (and cover) to ensure that the construction of the manhole meets the District's specification. This is required early in the construction of the sewer facilities to avoid costly reconstruction of the manholes toward the end of the construction phase.

**Note that during construction, the District will not allow jumpers to be installed in place of actual meters at any time. Also, during the construction of the project, the District will inspect all utilities where they cross District facilities during dry-utility installation and prior to back-fill of the excavations (for subject work) to ensure that the District's facilities are undisturbed, meet specification, and no damage has occurred.** See the District's "Procedures Concerning Installation of Dry Utilities" (**Appendix Q**). As part of the construction procedures for all sewer and water facilities, a video inspection of the interior of the pipeline is used to verify that the material meets the District's standards and that the installation of the sewer and water facilities meet the District's specifications (see procedures for Video Inspections contained in this section). For Tract Projects, the Developer may wish to occupy and request the District's approval

of move-ins (into the homes) prior to completion and final acceptance of the entire project. The District will approve occupancy of the homes when: 1) the Developer makes a written request to the District's Development Representative detailing the lot number and addresses of the lots for the desired occupancies, and 2) the related water and sewer facilities successfully pass a Pre-Occupancy Inspection. After the request, the District's Inspector will conduct a Pre-Occupancy Inspection (see procedures for Occupancy Inspections contained in this section). Because the District's policy is to assume operational control of the water and sewer facilities once a paying customer moves into the home, the inspection is performed to ensure that all of water and sewer facilities (that serve the home) are completed to District's specifications. After successfully passing the Pre-Occupancy Inspection, the District's Development Representative will send the appropriate notification to the City or County approving the move-in of pre-described lots and addresses.

**As part of the District's effort to comply with Fire Ordinances, it is the District's policy to prohibit hardscape improvements (such as decorative walks, driveways and walls) within three feet of District's facilities without written consent.** The Developer will be responsible for adhering to this policy until the project is accepted by the Board. See the District's "Acknowledgement of Policy for Improvements around District's Facilities" (**Appendix R**).

## **7.1 Pre-construction Meetings for Developer-funded Projects**

Pre-construction meetings are conducted for all Tracts, Parcel Map and Plot Plan projects after the District has received, signed, and approved plans prior to any work on District facilities. The Development Engineer or Representative (using the District's Pre-Construction Meeting Agenda) conducts the pre-construction meeting. The Development Engineer, the District's Inspector, the Developer's Contractor, and the Developer's Project Superintendent must be present at the pre-construction meeting. If any of these persons cannot attend, the meeting shall be rescheduled. It is desirable to have a Riverside County Transportation or a City representative present at the pre-construction meeting; but it is not a requirement.

## 7.2 Requirements for Pre-construction Meeting

The following requirements must be met prior scheduling a pre-construction meeting:

1. The District's Development Representative has insured that all fees have been paid, all agreements have been executed, all easements have been recorded (and accepted by the District), and the items on the pre-job checklist (**Appendix S**) have been completed.
2. All necessary material submittals for the project have been reviewed and approved by the Development Engineer and the District's Inspector a minimum of five working days prior to scheduling the pre-construction meeting.
3. A District Inspector has been assigned to the project.
4. The Developer has presented to the District:
  - a. "Certification of the Streets to Final Grade" form (**Appendix T**)
  - b. Complete cut-sheets for the first three hundred (300) feet for each crew's start location.
  - c. Completed "Contractor's Data Sheet" (**Appendix U**)
  - d. A copy of the current Contractor's safety program no older than 6 months old.
  - e. A list of the Certified Competent Persons who will be on the project.
  - f. A copy, from the contractor, of the certifications for each person and a Certified Competent Person for confined space entry on the job.
5. The Development Engineer who has reviewed the information supplied by the Developer and contractor will determine if the pre-construction meeting can proceed.
6. The District's Development Representative coordinates with the attendees to set a time and date for the pre-construction meeting to be conducted.

The pre-construction meeting is conducted using the District's "Pre-construction Meeting Agenda" (**Appendix V**), which lists pertinent discussion items. At the meeting, a copy of the pre-construction meeting agenda, along with copies of the pre-occupancy and final inspection check-list are provided to those in attendance.

During the pre-construction meeting, the District, along with the District's Inspector and the Contractor, sets a start-work date.

### **7.3 Video Inspection of Sewer Pipe Lines**

Video inspections of sewer lines on tract projects are done to ensure that the newly installed sewer lines meet the District's standards and specifications for material and installation. Refer to **Appendix DD** (CCTV Inspection Guidelines for Acceptance of New Sewers) in order to understand and follow District guidelines for acceptance of new sewers. The video inspection is performed after the sewer lines and laterals have been installed, the streets are at final grade, and prior to the final air-test and base-paving. The District's Operations Representative or the Inspector shall be present during the video inspection. A minimum of five business days is required from the time of notification to set the video inspection date and time. A subsequent video inspection will be required if debris has been introduced into the sewer line or after required repairs have been completed. Videos are to be submitted to the District on one CD in DVD format with the completed and approved sewer system improvements for the project and an 11"x17" exhibit with all sewer manholes labeled according to the approved plans and video files will be named according to manhole numbers i.e. Manhole 10 to Manhole 11 Sewer Video dated xx-xx-xxxx. The Developer is responsible for contracting directly with a District approved video inspection company, if a District approved video inspection company is not used the District has the right to reject all work performed by the video inspection company.

#### **7.3.1 Procedures for Video Inspection of Sewer Pipeline**

1. The District Inspector will verify that:
  - a. Sewer video company performing the service is approved by the district prior to commencement. If the company is not approved by the District, then the District Inspector will not allow the company to proceed.
  - b. Sewer video equipment will be checked by the District Inspector in order to approve the equipment prior to commencement. If the District Inspector deems the video equipment inadequate, then the District Inspector will not allow the company to proceed.

- c. The sewer AutoCAD files must be submitted using the state plane coordinate system.
  - d. All sewer lines, laterals and manholes have been installed per the approved plans.
  - e. All lines have been cleaned to the satisfaction of the District Inspector.
  - f. All manholes are accessible to the video truck and at the elevation and grade for base paving.
2. After the District Inspector has verified all the above items have been completed, the District Inspector will conduct the video inspection with the assistance of the Developer's video company using the video inspection check sheet. If there are no items listed for correction, the Inspector will sign the video inspection check sheet verifying the designated sections have passed video inspection. However, if sewer line requires repairs then the contractor will be required to provide an additional sewer video after all repairs have been made. The completed and signed check sheets along with the videos and 11"x17" exhibit are given to the District's Development Representative for the project file and a copy is given to the Inspector. If there are any items listed for correction during the video inspection the District Inspector will make sure the items have been corrected prior to occupancy release.
3. After the Inspector verifies that all the items noted for correction on the Video inspection check sheet have been corrected a follow up video inspection is requested, using the steps outlined above.

#### **7.4 Video Inspection of CML/CMC Potable Waterlines**

Video inspections of CML/CMC waterlines on tract projects are done to ensure that the newly installed waterlines meet the District's standards and specifications for material and installation. The video inspection is performed after the waterlines and water services have been installed, the streets are at final grade, and prior to the hydrostatic testing and loading of the lines and prior to base-paving. The District's Operations Representative or the Inspector, using the District's video inspection (described in **Appendix V**) conducts the video inspection. A minimum of five business days is required from the time of notification to set the video inspection date and time. A

subsequent video inspection will be required if debris has been introduced into the waterline or after required repairs have been completed. Videos are to be submitted to the District on one CD in DVD format with the completed and approved sewer system improvements for the project. The Developer is responsible for contracting directly with the video inspection company. **The equipment used must be a dedicated rig for potable waterlines only. Any equipment used in sanitary sewer or non-potable waterlines will not be permitted.**

#### **7.4.1 Procedures for Video Inspection of CML/CMC potable waterlines**

1. The District Inspector will verify that:
  - a. All waterlines, water services, fire hydrants and other related facilities have been installed per the approved plans.
  - b. All waterlines have been cleaned.
2. After the Inspector verifies that all the items noted for correction on the Video inspection check sheet have been corrected a follow up video inspection is requested, using the steps outlined above.

#### **7.5 Use of Sewer Plugs and Bulkheads**

During the construction and phasing of a project it will be necessary to use one or more sewer plugs or bulkheads to protect the District's existing sewer system from a section currently under construction. The placement and location of these plugs and bulkheads will be at the direction of District. Prior to sewer construction commencement the District shall require that all developments install sewer plug (s) downstream of the approved tie-in point or as directed by District staff,

**Under no circumstances are these plugs or bulkheads to be removed without permission from District staff.** The District has established a GIS based tracking system and procedure for these plugs and bulkheads to ensure they are not removed prematurely. In addition the assigned inspector (s) will be required to inspect and insure that the sewer plug (s) are in place on a weekly basis and will take photos of the sewer plug (s) and include the sewer plug (s) inspection with the daily inspection report.

## 7.6 Pre-Occupancy Inspection for Tract Projects (Only)

This is performed when the Developer notifies the District's Inspector that homes are ready for occupancy and the Developer is requesting that the District sign-off on the occupancy of those homes. Alternatively, the Developer may request that the District send an approval of occupancy to Riverside County, City of Jurupa Valley or the City of Eastvale, allowing new homeowners to move in prior to completion of and acceptance of the Tract project. The purpose of the Pre-Occupancy Inspection is to ensure that the water and sewer facilities that serve the homes are complete, operational, and ready for service. **The Pre-Occupancy Inspection is not a final inspection and it is not a final acceptance by the District of the Tract Project.** Once the homes are approved for occupancy, it is the District's responsibility to operate the facilities servicing those homes. The "Pre-Occupancy Inspection Check Sheet" (**Appendix X**) details the items to be inspected. The Pre-Occupancy Inspection is one of the discussion points listed on the pre-construction meeting agenda for tract projects. The District's Inspector will provide a copy of the pre-occupancy inspection check sheet to the Tract Superintendent (upon request) as a guide to prepare for move-ins. Pre-Occupancy Inspections are typically not performed on Parcel Map or Plot Plan Projects.

### 7.6.1 Procedures for the Pre-occupancy Inspection

The Procedure for the Pre-Occupancy Inspection is as follows:

1. The Tract Superintendent notifies the District's Inspector that they request District approval for occupancy of designated homes.
2. The District's Inspector notifies the District's Development Representative to schedule the inspection.
3. The District's Inspector performs the pre-occupancy inspection using the pre-occupancy inspection check sheet. If there are no items listed for correction, the District's Inspector will sign the inspection sheet verifying the homes are ready for occupancy; and provide the completed and signed check sheet to the District's Development Representative for the project file. If there are any items listed for correction, the District's Inspector will ensure that the listed items are corrected prior to signing the inspection sheet, verifying the homes are ready for occupancy.



4. The District's Inspector provides the completed and signed check sheet to the District's Development Representative for the project file and notifies them that the homes are ready for occupancy.
5. After being notified that the homes are ready for occupancy, the District's Development Representative will send a letter to the County/City in which the District is approving the occupancy of the designated homes.

### **7.7 Manhole Ring Tolerance Verification Procedure**

In order to ensure the manhole ring tolerance dimensions as shown on District Standard Drawing No. S-7 are adhered to, the following procedure shall be performed. Prior to installation of the manhole rings, a measurement shall be taken from the manhole inlet flow-line to the top of the manhole cone. Adding this dimension to the inlet flow-line elevation will provide a top of manhole cone elevation. This elevation shall then be subtracted from the manhole rim elevation provided on a grade stake or as shown on the plans. The resulting dimension must be within the 12" – 20" tolerance shown on the reference standards drawing. If not within tolerance, additional work on the manhole shaft must be performed until met. This procedure shall be documented by the use of the form in **Appendix W**.



*Manhole construction during JCSD's Florine Lift Station capital improvement project*

## 8 Close-out Phase

The Close-out Phase of a Developer-funded project starts when: 1) all prior phases are complete, 2) all homes are occupied, 3) construction is complete on the project, 4) final street cap paving is complete, and 5) the District has received a written request from the Developer to conduct a final inspection for a Notice of Acceptance. During this phase the Developer's Superintendent and Contractor will be working with the District's Inspector to correct any items related to the installation of the sewer and water facilities and prepare the project for final inspection by the District's Development Engineer. Also, during this phase the District's Development Representative will be working with the Developer's Superintendent and Contractor to insure that all of the items identified on the "Project Close-Out Checklist" (**Appendix Y**) are completed and that all outstanding financial obligations are met. Also included on the Project Close-out Checklist, in addition to the mylar plans, JCSD requires submission of a digital format of the as-built drawings in the form of digital disks for Tracts, Plot Plans, and Parcel Maps, etc. The requirements for the digital format can be found in "Digital Disk Requirements and Formatting" (**Appendix Z**). After completion of the final inspection using the "Tract/IP Final Inspection Sheet" (**Appendix AA**), correction of any items identified during the inspection and the completion of all of the items on the Project Close-Out Checklist, the District's Development Representative will schedule the Project to be presented to the District's Board of Directors for consideration of final acceptance. After Board approval, the District's Development Representative will write a letter to the appropriate Planning Agency notifying them that the District has accepted the project. All activity and costs up to final acceptance will be calculated and a final invoice will be sent to the Developer for payment. In cases where a credit is due, the invoice will be accompanied with a check for the remainder of those funds that were deposited towards the project.

### 8.1 Final Inspection

The Final Inspection is a much more thorough inspection of the water and sewer facilities compared to the pre-occupancy inspection. The Final Inspection is normally conducted after homes are occupied, construction has been completed on the project, and final street cap paving is complete. On Individual Project and Plot Plan Projects, this inspection is conducted after all the water and sewer facilities have been installed and

after final street cap paving is complete. The District's Development Engineer, the District's Inspector, and a representative of the Developer must be present to conduct the final inspection. The Procedure for this inspection is as follows:

1. The Developer requests final close-out and acceptance for the project by sending a letter request to the District.
2. The District's Development Representative will verify that all items on the project close-out sheet pertaining to the tract project (payment of fees, easement documents, as-built drawings and CDs, etc.) have been completed and have been presented to the District.
3. The District's Inspector ensures that the project is ready for final inspection. After all items are complete to the District's specifications (and the approved plan) the Inspector contacts the District's Development Representative and notifies them that the project is ready for a final inspection.
4. The District's Development Representative schedules a time for the final inspection.
5. Once the required persons have accepted the time and date of the final inspection, the District's Development Representative will notify the Developer and the Inspector of the time and date of the inspection. The Tract Superintendent, the District's Inspector, and the District's Development Engineer (or his designee) must be present to conduct the inspection. If any of these persons cannot attend, the inspection must be rescheduled. A copy of the as-built drawings and the completed and signed copy of the Inspector's punch-list must be present at the final inspection.
6. The District's Development Engineer (or his designee) conducts the Final Inspection and identifies any items for correction. The District's Inspector will ensure that any items identified during the final inspection are corrected.
7. The District's Inspector will verify that the as-built plan on the submitted CD is accurate and incorporates any changes identified on the final walk. The District's Development Representative will request that the Developer resubmit the CD if any inaccuracies are identified.

8. After review and approval by the Development Engineer, the Development Representative schedules the Project for consideration of acceptance at the next Board meeting. Upon approval by the Board, the District's Development Representative will send the appropriate letter to the County/City notifying them of the District's acceptance of the facilities.



*JCSD staff performing Final Inspection*

# Appendix A

Current Charges and Deposits





**COMMUNITY SERVICES DISTRICT**

Proudly serving Jurupa Valley and Eastvale



# Customer Guide

Rates • Charges • Deposits

Effective July 1, 2020



11201 Harrel Street  
Jurupa Valley, CA 91752

Phone: (951) 685-7434  
Fax: (951) 685-1153

[www.jcsd.us](http://www.jcsd.us)



## WATER RATES

### Fixed Monthly Water Service Rates - (Resolution No. 3012)

Meter Size	GPM	Monthly Base Charge
5/8 Inch	16-20	\$38.19
¾ -Inch	24-30	\$38.19
1 Inch	40-50	\$58.89
1 ½ Inch	80-100	\$110.66
2 Inch	128-160	\$172.77
3 Inch	240-300	\$369.47
4 Inch		\$659.35
6 Inch		\$1,352.98
8 Inch		\$2,905.88
10 Inch		\$4,355.25

### Monthly Water Usage Rates – (Resolution No. 3012)

#### Tiered HCF Rates Single-Family Residential

HCF Tier Structure	Rate
Tier 1: 0-12 HCF	\$1.06
Tier 2: 13-20 HCF	\$2.67
Tier 3: 21-30 HCF	\$3.14
Tier 4: Over 30 HCF	\$3.34

#### Uniform HCF Rate for Multi-Family, Institutional, Commercial & Industrial Customers

HCF Tier Structure	Rate
Uniform Rate per HCF	\$1.95

#### Uniform Potable Water Irrigation Rate

HCF Tier Structure	Rate
Potable Rate per HCF	\$2.05

#### Uniform Non-Potable Water Irrigation Rate

HCF Tier Structure	Rate
Non-Potable Rate per HCF	\$1.32

*- Monthly Base Charge + Usage Rate = Monthly Water Charges*



## SEWER RATES

(Resolution No. 3011)

Fixed Monthly Wastewater Service Rates

<b>Monthly Base Charge per EDU: \$22.80</b>	
*Usage Rate Per HCF Charge Per Unit:	\$2.08
<i>*Maximum usage charge is 8 units for residential and institutional customers</i>	

*Monthly Base Charge + Usage Rate = Monthly Sewer Charges*

## HYDRANT METER RATES

Hydrant Meter Deposit: \$1,200.00  
Monthly Base Charge (2-inch meter): \$ 172.77

Uniform Hydrant (Construction) Rate (Resolution No. 3012)

Rate Structure	
Uniform Rate per HCF	\$3.34

## FIRE SERVICE METER RATES

Fire Service Meters

Meter Size	Charge for New Service
4 Inch	\$6,000.00
6 Inch	\$7,465.50
8 Inch	\$10,000.00
10 Inch	\$14,000.00

Private Protection Monthly Fixed Service Charge

<b>Monthly Base Charge - Private Fire Protection Charge: \$31.93</b>		
Units	Rate	Unauthorized Use (Resolution No. 2511)
All	\$7.44	1 <sup>st</sup> Unauthorized Use (per HCF)
All	\$24.80	2 <sup>nd</sup> Unauthorized Use (per HCF)

*Monthly Base Charge + Unauthorized Usage Rate = Monthly Water Charges*



## \*WATER CAPACITY CHARGES

(Resolution No. 2627)

Meter Size	Meter Charge	*Facility Component	+	*Water Resources Component	=	*Total Capacity Charge
5/8"	\$291.34	\$9,005		\$3,871		\$12,876
3/4"	\$315.93	\$9,005		\$3,871		\$12,876
1"	\$348.76	\$22,510		\$9,677		\$32,187
1 1/2"	\$702.81	\$45,020		\$19,356		\$64,376
2"	\$873.69	\$72,032		\$30,968		\$103,000
3"	Actual Cost	\$144,065		\$61,938		\$206,003
4"	Actual Cost	\$225,099		\$96,777		\$321,876
6"	Actual Cost	\$450,200		\$193,554		\$643,754
8"	Actual Cost	\$720,320		\$309,687		\$1,030,007
10"	Actual Cost	\$1,890,837		\$812,927		\$2,703,764

*\*Subject to annual adjustment per Engineering News Record – Construction Cost Index on July 1<sup>st</sup>*

## NEW SERVICE INSTALLATION – WATER ONLY

(Single Lot Only)

	Full Installation Deposit (Water Service)
Meter Size	Deposit
3/4" or 1"	\$5,500.00

**Note:** New Service Installation fees are on a deposit basis. If installation costs exceed the deposit amount, the customer will be billed for the difference. This amount does not include the total water capacity charge or the meter charge.

## \*SEWER CAPACITY CHARGES

(Resolution No. 2628)

*Sewer Capacity Charge – Per EDU	Bellegrave Ave. (Area B) – Per EDU
\$7,586	\$10,854

*\*Subject to annual adjustment per Engineering News Record – Construction Cost Index on July 1<sup>st</sup>*



## Flat Rate & Deposit Based Fees

Description / Item	Flat Rate	*Deposit
Water Availability Letters – Tracts/Parcel Maps/Plot Plans		\$2,800.00
Water / Sewer Inspection Fee (Single Lot)	\$200.00	
Water / Sewer Mapping Fee (Single Lot)	\$50.00	
Drop-In Charge Meter Installation (Single Lot)	\$100.00	
Hydraulic Analysis		\$2,500.00
Fire Flow	\$250.00	
Water Supply Assessments (WSA)		\$25,000.00
CFD Formation		\$50,000.00
LMD Formation		\$8,000.00
Inter-Agency Community Facilities Agreement		\$5,000.00
<b>*Plan Check</b>	<b>*Deposit</b>	
Plot Plans		\$4,500.00
Landscape Plans		\$4,500.00
Tracts / Parcel Maps	\$5,000.00 + \$500.00 Per Sheet	

*\*Deposits are calculated based on the quantities and/or information provided to Jurupa Community Services District at the time of submittal. If quantities and/or information changes during the plan check process, fees and deposits will be adjusted accordingly. If costs exceed the deposit amount, the customer will be billed for the difference.*



# **Appendix B**

Requirements and Procedures for Request of Availability Letter

# **Requirements and Procedures for Requests of Availability Letters**

## **Items Needed for Availability Letters**

1. Letter requesting availability with information regarding type of project.
2. Advance payment of Deposit determined by the District for processing request.
3. Tentative Tract, Parcel Map or Plot Plan or Assessor's Parcel Number and two (2) copies of a map showing area and boundaries of property requiring water and/or sewer service.
4. Proof of Property Ownership/Grant Deed or Title Report.

## **Procedures for Availability Letter Request**

1. Developer submits a request for an Availability Letter using the Request of Availability Letter Template along with all of the items specified above to Jurupa Community Service District (District).
2. All items are transmitted to the District's Consultant Engineer.
3. The district's consultant engineer writes the Availability Letter and completes the Riverside County Health Department's Sanitation "53" form and then transmits them to the District.
4. The District's Engineering Development Representative will then schedule the request for the next available board meeting for consideration of approval by the Board.
5. **Note: Because of State of California Brown Act which governs advance notification to the public of Board meeting agendas, the request may not be scheduled for the next calendar Board meeting.**
6. After Approval of the Board of Directors the District will write the appropriate cover letter and transmit it to the Developer along with the Sanitation "53" form.

## **Water Supply Assessments**

1. Developments that fall under the criteria of a "project" as defined under Senate Bill (SB) 610 will be required to provide a Water Supply Assessment (WSA) prior to the issuance of an availability letter. SB 610 provides the legal requirements for confirmation of water supply sufficiently as a condition of approval for development projects.

# Appendix C

Availability Letter Request Sample Letter Template

## Availability Request Sample Letter Template

Date

Jurupa Community Services District  
11201 Harrel Street  
Jurupa Valley, CA 91752

Attention: General Manager

RE: SEWER/WATER AVAILABILITY

As evidenced by this letter, I hereby request a Sewer/Water Availability letter for  
\* \_\_\_\_\_ (include assessor's parcel no.)

This project is part of Specific Plan \_\_\_\_\_, City of  
Eastvale/Jurupa Valley, California, located  
\*\* \_\_\_\_\_.

The proposed development consists of \*\*\* \_\_\_\_\_.  
on approximately \_\_\_\_\_ acres. Proposed sewer and water connections are to be made to  
existing lines located in \*\*\*\* \_\_\_\_\_ (refer to attached map).

Should you have any questions or require any further information, please do not  
hesitate to call.

Sincerely,

- \* Tentative Tract, Parcel Map or Plot Plan No.
- \*\* Location of Development
- \*\*\* Number of dwellings if known.
- \*\*\*\* Point of connection to District line if known.

Items Required for an Availability Request:

- (1) Copy of the tentative map, plot plan, or vicinity map
- Signed Developers Handbook Acknowledgement Form
- \$2,800.00 Deposit

# Appendix D

Fire Flow and Hydraulic Analysis Requests



## **FIRE FLOW AND HYDRAULIC ANALYSIS REQUEST**

It is the policy of Jurupa Community Services District to require a hydraulic analysis for Tract, Commercial, Industrial, School and Park Projects. There is a necessity for accurate and thorough information to be provided on these various projects concerning calculations for design of private fire systems, water system design and in some cases to provide information to government agencies with oversight on specific projects such as schools.

Please include with your written request, an advance payment of deposit determined by the District, along with a copy of your "Conditions of Approval" showing fire flow requirement from the Riverside County Fire Department.

# Appendix E

Data Required for First Plan Check of Water and/or Sewer Plans

## Data Required For First Plan Check

### Water and/or Sewer Plans

<b>Developers – Tract Maps / Parcel Maps / Plot Plans</b>		
1.	Water and / or Sewer Plans	3 copies
2.	Record Map	1 copy
3.	Street Improvement Plans	1 copy
4.	Storm Drain Improvement Plans	1 copy
5.	Grading Plans	1 copy
6.	Conditions of Approval of Tentative Map /Parcel Map / Plot Plan	1 copy
7.	Easement Document and Plats	2 copies
	a. Title Reports, Deeds, Etc.	1 copy
	b. Easement Boundary Closure (to 3 decimal point min.)	2 copies
	c. Coordinate List	2 copies
	d. Any Appropriate Survey Notes	1 copy
	e. Any Reference PM/RS/Etc.	1 copy
8.	Fees Payable to Jurupa Community Services District In the Amount Established by the District	
9.	Project Identification Forms with each plan check (Attachment 1)	1 copy
10.	Signed Developers Handbook Acknowledgement Form	1 original
<b>Commercial / Industrial Development</b>		
1.	Items Listed in above requirements	
2.	Site Plan / Plot Plan	3 copies
3.	Building Floor Plan / Plumbing Plan	1 copy
4.	Landscape Irrigation Plan	1 copy
5.	Complete District Industrial Waste Survey Form	1 copy
6.	Submittal of Data Indicating Typical Waste Discharge Constituents	1 copy
7.	Total Fixture Unit Calculations (Water & Sewer)	1 copy
8.	Grease Trap / Industrial Waste Clarifier Sizing Calculations	1 copy
9.	Onsite Fire Protection Plans and Fire Flow Calculations	1 copy
10.	Number of Employees	1 copy
11.	Water Usage of a Similar Type Installation	1 copy
12.	For Restaurants: Number of Seats, Daily Meals and/or Peak Hour Meals	1 copy
13.	Signed Developers Handbook Acknowledgement Form	1 original

Rev. 1/2019

**NOTE: INCOMPLETE SUBMITTALS WILL NOT BE ACCEPTED.**

Rev. 1/2019

**PROJECT IDENTIFICATION:** \_\_\_\_\_

**For First Check Only:** “All information required pursuant to Section II.B.3 of the District’s Standards Manual is attached.”

\_\_\_\_\_  
Engineer’s Signature

\_\_\_\_\_  
District Check  
(Submittal is complete and ready for first  
plan check)

**For Subsequent Plan Checks:** The attached plan set(s) is/are being submitted to the Jurupa Community Services District for \_\_\_\_\_ Plan Check.

I certify that the following statements are correct:

1. All “redlined” corrections from the previous plan check have been made or the reason they have not been made has been explained directly on the previous plan check sheets.
2. Changes made by the Design Engineer to the water and sewer plans, other than those corrections indicated by the District, have been highlighted.
3. Revisions to the reference plans (i.e. street plans, storm drain plans, grading plans, etc.) have/have not been made. If changes have been made, the revised plans are attached.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

The District plan check process and approvals on improvement plans are not a guarantee or warranty that the design is complete and without error, but that an appropriate amount of time was spent on reviewing the plans for general engineering designs commensurate with the engineering standards of the District. Pursuant to state law, the civil engineer of records is the engineer of work and bears full responsibility for his design. This is signified by State law that requires the design engineer to apply his “seal” to the plans. Please refer to the Business and Professions Code (Engineers’ Act) Section 6703, Responsible Charge: Section 6735, Preparation of Plans and Other Documents, et. al.

# Appendix F

Jurupa Community Service District Plan Check Procedures

# JURUPA COMMUNITY SERVICES DISTRICT

## PLAN CHECK PROCEDURE

September, 2018

Prior to developer's engineer (engineer) commencing development design engineering, it is **required** that the Developers Engineer and the Developers Representative discuss with District Development Engineer after an Availability Letter has been issued.

1. Engineer submits plan check package to District; Engineer can submit the entire package digitally in pdf per the District's direction. District reviews the plans in-house, or District transmits to District's consulting engineer depending on project characteristics and District's workload.
2. If the District's consulting engineer conducts plan check, they make redline changes and transmits redline plans back to District. **Note: If, at 2<sup>nd</sup> plan check, the amount of redlines is excessive, the District Development Engineering Department will request the engineer to meet to discuss any problems or deficiencies. The developer will also be made aware of this meeting and is welcome to attend.**
3. District reviews and makes comments (in purple) changes and transmits purple/redlines back to engineer.
4. Engineer makes revisions and transmits back to the District along with the purple/redline copy; Item 1 above is then repeated etc. **Note: Purple/redline set must accompany revised set, or plans will be returned to engineer.**
5. Once all revisions are complete to the satisfaction of the District and Webb, a recommendation that Mylar's be printed will be submitted. This will be in the form of a written request from the District to the engineer.

At the time the District receives the plans from the engineer, if the changes have not been made, the plans are returned to the engineer with a request to complete the purple/redline changes.

If the engineer is adhering to the District's standards and specifications, as provided for within the Jurupa Community Services District Standards Manual, and the above is followed, it is expected that the number of plan checks should not exceed four.

Approximate timing for plan check turn-around between the District and Webb is conducted as follows:

- 1<sup>st</sup> Plan Check – 7 week turn-around
- 2<sup>nd</sup> Plan Check – 5 week turn-around (provided there are minimal changes, and a meeting is not necessitated as explained above.
- 3<sup>rd</sup> Plan Check – 3 week turn-around
- 4<sup>th</sup> Plan Check – 2 week turn-around

**Note: Any changes to the original intent of the plans (such as adding phases to a tract) may be considered as a 'new' plan check.**

# Appendix G

Grant of Permanent Easement

Recording requested by

When recorded mail to:

Jurupa Community Services District  
11201 Harrel Street  
Jurupa Valley, California 91752

Attn: Nicole Smith

APN:

EXEMPT FROM RECORDING FEES PER GOVT. CODE §27383  
NO DOCUMENTARY TRANSFER TAX PER R&T CODE §11922

### **GRANT OF PERMANENT SEWER & WATER EASEMENT**

For valuable consideration, **(Enter Grantor Information)** ("**Grantor**"), hereby grants to **JURUPA COMMUNITY SERVICES DISTRICT of RIVERSIDE COUNTY, a public agency** ("**Grantee**"), its successors and assigns, a permanent easement and right of way in, over, upon, under and across the lands hereinafter described to construct, reconstruct, install replace, remove, repair, alter, operate, maintain, inspect, together with any easement roads and appurtenances within the right of way including, but not limited to, cable for communication purposes, and for the ingress and egress throughout the entire easement area and right of way (collectively, "**Easement Area**") in connection with the exercise of any of the foregoing rights. The property subject to this easement is located in the County of Riverside, State of California, described as follows:

See Exhibits "A" (Description) and "B" (Plat) attached hereto and made a part hereof.

It is further understood and agreed that no other easement or easements shall be granted on, under, or over said Easement Area by the Grantor to any person, firm, corporation, or other entity without the previous written consent of said Grantee.

Grantor, and his successors and assigns, shall not increase or decrease, or permit to be increased or decreased, the now existing ground elevations of said Easement Area and right of way without the prior written consent of Grantee.

Grantor, and Grantor's successors and assigns, further agree that no building, fences, walls or other structures of any kind, or trees, shall be installed, constructed, erected, placed planted or maintained in any portion of the Easement Area, and no shrubs or other plants or vegetation shall be placed, planted or maintained in the portion of Easement Area which is included within any travel way, and that no changes in the alignment of grading of any such road will be made without prior written consent of the Grantee.



The Permanent Easement, as applicable, shall include, without limitation, the right and privilege of Grantee and its employees, agents, representatives, contractors, subcontractors, and workmen to: (i) perform all activities as may be necessary to facilitate the purposes of the Permanent Easement; (ii) use, control and occupy the Easement Area (iii) have access to, ingress to, and egress from the Easement Area; (iv) construct and utilize an access road within said Easement Area, and to use gates in all fences which now cross said Easement Area; (v) use and temporarily place and operate tools, equipment, machinery, and materials on the Easement Area, and (vi) trim, cut, remove, or clear away any trees, brush, or other vegetation or flora, including the roots thereof, located within the Easement Area. No additional fences or gates or gates shall be constructed across said Easement Area unless approved in writing by the Grantee. Grantee shall also have the right to mark the location of this easement in a manner which will not interfere with Grantor's reasonable and lawful use of said Easement Area.

The covenants contained herein shall run with the land.

This Grant shall inure to the benefit of and be binding upon the Grantor and Grantee and their respective assigns, heirs and voluntary and involuntary successors in interest.

IN WITNESS WHEREOF, Grantor has executed this instrument this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

GRANTOR: (Enter name of entity/person here)

\_\_\_\_\_  
By: (Enter name of authorized person)

Its: (Enter title as stated in paragraph 1)

## ACKNOWLEDGMENT

State of California

County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_,  
(here insert name and title of the officer)

personally appeared \_\_\_\_\_

\_\_\_\_\_

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_

(Seal)

## CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by that certain Grant of Easement to which this Certificate is attached from \_\_\_\_\_, to **JURUPA COMMUNITY SERVICES DISTRICT**, a public agency ("Grantee"), is hereby accepted by the undersigned officer or agent on behalf of the Grantee, pursuant to authority conferred by resolution of the Board of Directors adopted on January 24, 1994, and the Grantee consents to recordation thereof.

Dated: \_\_\_\_\_, 20\_\_\_\_

JURUPA COMMUNITY SERVICES DISTRICT,  
a public agency

By: \_\_\_\_\_  
Chris Berch  
General Manager

# Appendix H

Determination of Inspection Deposits

## Determination of Inspection Deposits

*The following figures should be used for deposit towards inspection of Sewer and Water Construction. The deposit per linear feet is subject to change each year:*

<u>Waterline Diameter</u>	<u>Estimated Inspection Cost</u>
---------------------------	----------------------------------

8" Waterline	\$4.96 Per L.F.
12" Waterline	\$6.00 Per L.F.
16" Waterline	\$7.92 Per L.F.

<u>Sewer Diameter</u>	
-----------------------	--

6" Sewerline	\$4.32 Per L.F.
8" Sewerline	\$4.32 Per L.F.
10" Sewerline	\$4.64 Per L.F.
12" Sewerline	\$5.04 Per L.F.

### Minimum Deposit Requirement

The minimum required inspection deposit shall be \$8,000 with the exception of the inspection of one single family residential unit that requires the construction of one domestic water service connecting to an existing waterline contiguous to the subject property and/or one sewer lateral connecting to an existing sewerline contiguous to the subject property. The required inspection deposit for this situation will be established on a case by case basis.

# Appendix I

Water and/or Sewer Construction Agreement

CONTRACT NO. \_\_\_\_\_

**JURUPA COMMUNITY SERVICES DISTRICT**

**WATER AND/OR SEWER CONSTRUCTION AGREEMENT  
(DEVELOPER INITIATED/CONTRACTOR INSTALLED)**

**1. Parties & Date.**

THIS AGREEMENT is made on this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_, by and between the JURUPA COMMUNITY SERVICES DISTRICT OF RIVERSIDE COUNTY, a public agency of the State of California, with its principal place of business located at 11201 Harrel Street, Jurupa Valley, California 91752 (hereinafter referred to as the "District") and the following ☐ Corporation ☐ registered in \_\_\_\_\_ or ☐ Partnership ☐ Business ☐ Individual:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip Code

\_\_\_\_\_  
Telephone

(hereinafter referred to as the Developer"). Developer is represented by:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip Code

\_\_\_\_\_  
Telephone

## 2. Recitals.

WHEREAS, Developer is planning a development of \_\_\_\_\_ lot(s) located in a portion of Section \_\_\_\_\_, Township \_\_\_\_\_ South, Range \_\_\_\_\_ West, San Bernardino Base and Meridian, And such development is referenced within records of the County of Riverside, State of California as:

Lot(s) \_\_\_\_\_ of Tract \_\_\_\_\_

|Parcel(s) \_\_\_\_\_ of Parcel Map \_\_\_\_\_

Lot(s) \_\_\_\_\_ of \_\_\_\_\_

Assessor's Parcel No. \_\_\_\_\_

\_\_\_\_\_

and is further identified on the map attached hereto as Exhibit "A: and incorporated herein by reference (hereinafter sometimes referred to as the "Property"); and

WHEREAS, said Property will require a water and/or sewer system (hereinafter collectively Referred to as the "System") to provide such service to the Property; and to the Property, and is willing to convey the System to the District after the construction thereof and

WHEREAS, Developer is desirous of having the District provide water and/or sewer service contingent upon the District's acceptance of such conveyance and agreement to provide water and/or sewer service to the Property on the terms and conditions set forth herein.

## 3. Terms.

**1. Compliance with Laws and Regulations:** Developer will comply with all applicable State, federal and local laws and regulations, as well as all District rules, regulations and policies as they currently exist or as they may be amended from time to time. The District rules, regulations and policies are incorporated herein by reference.

**2. Deposit to Cover Up-Front Costs:** Developer shall deposit funds with the District sufficient to cover all necessary engineering, permit, inspection and system connection fees and costs. The amount of the deposit shall be determined by the District in its sole discretion.

**3. Licensed Engineer:** Developer shall contract for the design of the System by a licensed engineer in the State of California experienced in the design of similar systems.

**4. System Specifications:** The water and sewer System providing service to the Property shall comply with the District's specifications. Construction plans shall be approved by the District prior to the presentation thereof to contractors for bidding purposes.

**5. Licensed and Qualified Contractor:** Developer shall contract for the services of a licensed and qualified Contractor to construct the System. The contract shall be in writing, signed by Developer and the licensed contractor, and reviewed and approved by the District. The Contractor shall have a valid, current license through the State of California with either of the following specifications: (1) a specialty contractor ("C-34") pipeline license; or (2) a General Engineering Contractor ("A") license. The contractor shall be experienced in the



construction of domestic water supply and sewer systems, and shall be reviewed and approved by the District as a qualified Contractor before a contract is signed and actual System construction begins.

**6. Cost and Commencement of Construction:** Developer shall be solely responsible for the entire cost of the construction of the System. Construction shall not begin until the District issues a "Notice to Proceed" and the Developer, or other authorized party, completes a "Certification of Streets to Final Grade" for the streets in which System is to be constructed. The System specifications, as well as District rules, regulations and policies. District inspection is solely for the purpose of maintaining conformance of construction with all District requirements, and is not for purposes of insuring compliance by the Contractor with safety requirements. Inspection or final acceptance shall not constitute a waiver by the District of any claims against Developer and/or Contractor for any defects in the work performed hereunder.

**7. Indemnification:** Developer shall indemnify and hold harmless the District, its directors, officers, employees, agents and volunteers from any and all claims, demands, loss, damages, costs or liability, including reasonable attorneys fees, expert fees, and any other fees and costs of suit, arising from or connected with this Agreement or the construction of the System.

**8. Time for Completion:** Developer shall guarantee the completion of System construction within \_\_\_\_\_ (\_\_\_\_\_) calendar days form the time material is delivered to the jobsite.

**9. District Costs:** Developer agrees to pay all costs incurred by the District as may be necessary to complete construction of the System, including administrative costs, or to secure compliance with the provisions of this Agreement.

**10. Insurance Requirements:** Developer shall require its contractor and subcontractors to procure and maintain, for the duration of System construction, insurance against claims for the injuries to persons or damages to property which may arise from or in connection with the performance of the Contractor, its officers, agents, representatives, employees, consultants or subcontractors. Such insurance shall be issued by an insurers having A.M. Best Company ratings of no less than A:VIII and licensed to do business in California, shall be satisfactory to the District, and shall meet the following requirements:

**A. Coverage shall be at least as broad as the latest version of the following:**

(i) *General Liability:* Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

(ii) *Automobile Liability:* Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto).

(iii) *Workers' Compensation and Employers Liability:* Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

(iv) *Course of Construction:* Course of Construction insurance covering for all risks of loss (including earthquakes if requested by the District).

**B. Limits of Insurance shall be:**

(i) *General Liability:* \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

(ii) *Automobile Liability:* \$1,000,000 per accident for bodily injury and property damage.

(iii) *Workers' Compensation and Employers Liability:* Workers' compensation limits as required by the Labor Code of the State of California. Employers Liability limits of \$1,000,000 per accident for bodily injury or disease.

(iv) *Course of Construction:* Completed value of the project.

**C. *Course of Construction Policy Requirements:*** The course of construction insurance shall provide that the District be named as loss payee. In addition, the insurer shall waive all rights of subrogation against the District.

**D. *Deductibles/Retentions:*** Any deductibles or self-insured retentions must be declared to and approved by the District. Developer shall guarantee that, at the option of the District, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its directors, officers, employees, agents and volunteers; or (2) the Contractor shall procure a bond guaranteeing payment of losses and related investigation costs, claims and administrative and defense expenses.

**E. *Separation of Insureds; No Special Limitations:*** All insurance required by this Agreement shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the District, its directors, officers, employees, agents and volunteers.

**F. *Insurance Endorsements:*** Contractor shall provide endorsements on forms supplied by the District to add the following provisions to the insurance policies:

(i) *General Liability:* (1) the District, its directors, officers, employees, agents and volunteers shall be covered as additional insureds with respect to the work or operations performed by or on behalf of the Contractor, including materials, parts or equipment furnished in connection with such work; and (2) the insurance coverage shall be primary insurance as respects the District, its directors, officers, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its directors, officers, employees, agents and volunteers shall be excess of the Contractor's insurance and shall not be called upon to contribute with it.

(ii) *Automobile Liability:* (1) the District, its directors, officers, employees, agents and volunteers shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the contractor or for which the contractor is responsible; and (2) the insurance coverage shall be primary insurance as respects the district, its directors, officers, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its directors, officers, employees, agents and volunteers shall not be called upon to contribute with it.

(iii) *Workers' Compensation and Employers Liability Coverage:* the insurer shall agree to waive all rights of subrogation against the District, its directors, officers, employees, agents and volunteers for losses paid under the terms of the insurance policy which arise from work performed by the contractor.

(iv) *All Coverages:* Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the District.

**G. *Verification of Coverage:*** Contractor shall furnish district with original certificates of insurance and endorsements effecting coverage required by this Agreement. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall

be on forms provided by the district. All certificated and endorsements must be received and approved by the District before work commences. The District reserves the right to require complete, certified copies of all required insurance policies, at any time.

**H. Subcontractor Requirements:** All subcontractors shall meet the requirements of this Section before commencing work. In addition, Contractor shall include all subcontractors as insureds under its policies, or shall finish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all requirements stated herein.

**11. Professional Liability Insurance:** Developer shall require its licensed engineer contracted to design the System, as well as any other architects, engineers, consultants or design professionals utilized by Developer pursuant to or in furtherance of this Agreement, to procure and maintain for a period of five (5) years following completion of the system, errors and omissions liability insurance with a limit of not less than \$1,000,000. This insurance shall name the District, its directors, officers, employees, agents and volunteers as additional and insureds with respect to work performed, and shall otherwise comply with all requirements of paragraph 10 including, but not limited to, subparagraphs 10(D), 10(E), 10(F)(iv), 10(G) and 10(H).

**12. Bonding Requirements:** Developer shall require its contractor to provide the District with the following types of bonds which shall name the District as the obligee therein:

**A. Performance Bond:** A performance bond from an admitted corporate surety satisfactory to the district. The performance bond shall be for not less than one hundred percent (100%) of the total contract price, as referenced in Paragraph 13(E).

**B. Labor and Materials Payment Bond:** A labor and materials payment bond from an admitted corporate surety satisfactory to the District. The payment bond shall be for not less than one hundred percent (100%) of the total contract price, as referenced in Paragraph 13(E).

**C. Warranty Bond:** A warranty bond from an admitted corporate surety satisfactory to the District. This bond shall guarantee the performance of the installed System against failures of any type for one (1) year from the date of filing of a Notice of completion. The warranty bond shall be in an amount equal to at least ten percent (10%) of the total contract price, as referenced in Paragraph 13(E), and shall provide for the payment of all costs incurred by the District for the repair of such failures within the one (1) year guarantee period.

**D. Acceptability of Sureties:** Bonds shall be obtained from sureties with a current A.M. Best's rating no less than A:VIII, licensed to do business in California, and satisfactory to the District.

**13. Final Inspection; Documents:** The District's inspector shall complete a "Notice of Final Inspection" when all work has been completed in accordance with this Agreement and District requirements, and prior to the acceptance of the System by the District. In addition, before acceptance of the system by the district, Developer shall furnish to the District any and all requested documents, including but not limited to, the following:

**A. Deeds:** Easement Deeds or Grant Deeds to any rights-of-way or other real property interests necessary for roads, ingress and egress, and for System maintenance and operation.

**B. Declaration of Full Payment:** A Declaration by the Contractor that it has been paid in full, and that all persons employed by the Contractor or who have furnished material for the construction of the water system have been paid in full.

**C. Notice of completion:** The executed Notice of Completion to be filed by the District.

**D. Title to System:** A Grant Deed/Bill of Sale executed by the Developer vesting title of the System and appurtenances to the District.

**E. Costs of Construction:** A copy of the contract between Developer and its contractor, and any other documents requested by the District to verify the actual cost of the system.

**14. Final Inspection; Service:** District may, by written notice to Developer, terminate this agreement in whole or in part upon the breach of the terms of this Agreement by Developer, which terms shall include Developer's obligations with respect to its contractor. For example, Developer's failure to prosecute the construction of the System in a timely manner which will, according to the District, allow the System to be completed within the number of calendar days provided as the "Time for Completion" of the System, shall be grounds for termination.

**15. Termination:** District may, by written notice to Developer, terminate this Agreement in whole or in part upon the breach of the terms of this Agreement by Developer, which terms shall include Developer's obligations with respect to its contractor. For example, Developer's failure to prosecute the construction of the System in a timely manner which will, according to the District, allow the System to be completed within the number of calendar days provided as the "Time for Completion" of the System, shall be grounds for termination.

**16. Successors and Assigns:** This Agreement is binding on the assigns of the District, and on the assigns, successors and representatives of the Developer and the contractor. Developer shall not assign this Agreement without the prior written consent of the District.

**17. Attorneys Fees:** If either party commences an action, legal or otherwise, against the other party arising out of or in connection with this Agreement, the prevailing party in such action shall be entitled to have and recover from the losing party reasonable attorneys fees and costs of suit.

**18. Notices:** All notices permitted or required under this Agreement shall be given to the respective parties at the addresses listed on Page 1 of this Agreement, or at such other address as the parties may provide in writing for this purpose. Such notice shall be deemed made when personally delivered or forty-eight (48) hours after deposit in the U.S. mail, first class postage prepaid.

**19. Copies of Materials:** District shall have the right to obtain for its records copies of all materials which may be prepared by or on behalf of the Developer and its contractor or subcontractors pursuant to or in furtherance of this Agreement. District shall not be limited in any way in its use of such materials at any time, provided that any such use not within the purposes intended by this Agreement shall be at the District's sole risk.

**20. Entire Agreement:** This agreement contains the entire agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both parties.

**JURUPA COMMUNITY SERVICES  
DISTRICT OF RIVERSIDE COUNTY**

**DEVELOPER**

\_\_\_\_\_  
Name of Developer

By: \_\_\_\_\_  
Signature  
\_\_\_\_\_  
Name (Printed)  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Date

By: \_\_\_\_\_  
Signature  
\_\_\_\_\_  
Name (Printed)  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Date

**EXHIBIT “A”**  
**Map of Property**

# Appendix J

Policy Regarding Annexation to Lighting Maintenance Districts

**POLICY NO. 2009-01     Jurupa Community Services District**  
**REGARDING ANNEXATION TO LIGHTING MAINTENANCE DISTRICTS**

**Purpose:**

The Jurupa Community Services District (District) forms Lighting Maintenance Districts (LMDs) throughout its boundaries to provide for annual levy of assessments to pay the cost of the operation and maintenance of street lights. The assessment amounts are based on the cost of electricity that the District purchases from Southern California Edison Company (SCE) and the District's administrative costs. SCE owns the street lights. The District acts as a conduit between the property owners and SCE to collect and remit funds to pay SCE's costs of providing street lights. SCE cannot collect directly from homeowners for street lights.

- Tracts west of Hamner and south of Bellegrave are in LMD 98-2 or are annexed to LMD 2001-3.
- Tracts east of Hamner & south of Bellegrave (I-15 Corridor) are annexed to LMD 2001-2.
- Tracts east of Hamner and north of Bellegrave are annexed to LMD 2001-1.

**Annexation Procedures For New Development**

The City of Eastvale & City of Jurupa Valley Planning Departments, as part of its Conditions of Approval, requires the Developer to annex its property into a LMD for installation and ongoing maintenance of streetlights.

The owners of the property that is proposed to be annexed to an existing LMD must deliver to the District a petition or petitions requesting annexation signed by a majority of the owners of the parcels or acreage of the property that is proposed for annexation. Such owners must provide a deposit in an amount determined by the General Manager to be sufficient to pay the costs of the engineers and attorneys that will be retained by the District to provide services to accomplish the annexation.

Once the District receives the property owner petition and deposit, a request is sent to District Engineer to start annexation proceedings.

District Engineer sends a request to District Legal Counsel to have the Resolution Ordering the Engineer's Report adopted at an upcoming Board meeting. This resolution is incorporated into the Engineer's Report.

After District Engineer receives the requested data, including the Approved copy of the Street Lighting Plan, to complete the Engineer's Report, they send a request to District Legal Counsel to have the Resolution of Intention adopted at an upcoming Board meeting, at which time the Engineer's Report for the annexation is presented to the Board. This resolution also sets the time and place of the Public Hearing which must be at least 45 days after the adoption of this Resolution.

Right after the Resolution of Intention is adopted, the Notice of Hearing and the Assessment Ballot are sent to the Property Owner(s). The Assessment Ballot(s) must be returned to the Secretary of Board of Directors of the District no later than the date and the time of the Public Hearing. The

ballots are canvassed the date of the hearing.

The Resolution Ordering the Annexation is adopted on the day of the Public Hearing if the election is successful (owners of 50% of weighted assessment vote in favor of the assessment). This completes the annexation.

#### Lighting Maintenance District Administration

District Engineer provides information to District Legal Counsel, who drafts the Resolutions Ordering the Engineer's Reports and the Resolutions Ordering the Levies for each Fiscal Year.

The District provides the District Engineer with a budget for each LMD, which is analyzed by the District Engineer.

District Engineer provides the District with an Annual Engineer's Report for each LMD, into which the budgets are incorporated.

District Engineer submits the enrollment for each LMD to the Riverside County Auditor-Controller by August 10<sup>th</sup> of each year.



# Appendix K

Requirements of Developer for  
Lighting Maintenance District Annexation

## **Requirements of Developer for Lighting Maintenance District Annexation**

1. Deposit of \$8,000 for LMD annexation
2. Assessor parcel numbers
3. Most current Title Report or Grant Deed
4. Signature block
5. Signatory
6. Contact name, phone & fax number, e-mail address, and mailing address
7. Person and location to whom the ballot should be sent
8. Letter requesting annexation into a LMD (samples attached on the following page)
9. Approved Streetlight Plan with a signature from the City of Eastvale or the City of Jurupa Valley Planning Department indicating approval. If the map is not yet approved, indicate when approval is anticipated.
10. Paper copy of the Record Map (does not have to be approved)
11. Electronic copy of the Record Map
12. Development status worksheet (worksheet attached)
13. Indicate whether the tract will be sold to another developer in the near future
14. Indicate when first escrows to individual homeowners are scheduled to close

(USE YOUR COMPANY'S LETTERHEAD)

(Insert Date)

Jurupa Community Services District  
11201 Harrel Street  
Jurupa Valley, CA 91752

Attn: Development Engineering Department

RE: Annexation to Lighting Maintenance District 2001-1 for (Insert Tract No.)

To Whom It May Concern,

Please accept this letter as (Insert Developer's Name) request for (Insert Tract No.) to be annexed into the Jurupa Community Services District's Lighting Maintenance District No. 2001-1.

Should you have any questions regarding this request, please let me know as soon as possible.

Sincerely,

---

(Insert Name)

(USE YOUR COMPANY'S LETTERHEAD)

(Insert Date)

Jurupa Community Services District  
11201 Harrel Street  
Jurupa Valley, CA 91752

Attn: Development Engineering Department

RE: Annexation to Lighting Maintenance District 2001-2 for (Insert Tract No.)

To Whom It May Concern,

Please accept this letter as (Insert Developer's Name) request for (Insert Tract No.) to be annexed into the Jurupa Community Services District's Lighting Maintenance District No. 2001-2.

Should you have any questions regarding this request, please let me know as soon as possible.

Sincerely,

---

(Insert Name)

(USE YOUR COMPANY'S LETTERHEAD)

(Insert Date)

Jurupa Community Services District  
11201 Harrel Street  
Jurupa Valley, CA 91752

Attn: Development Engineering Department

RE: Annexation to Lighting Maintenance District 2001-3 for (Insert Tract No.)

To Whom It May Concern,

Please accept this letter as (Insert Developer's Name) request for (Insert Tract No.) to be annexed into the Jurupa Community Services District's Lighting Maintenance District No. 2001-3.

Should you have any questions regarding this request, please let me know as soon as possible.

Sincerely,

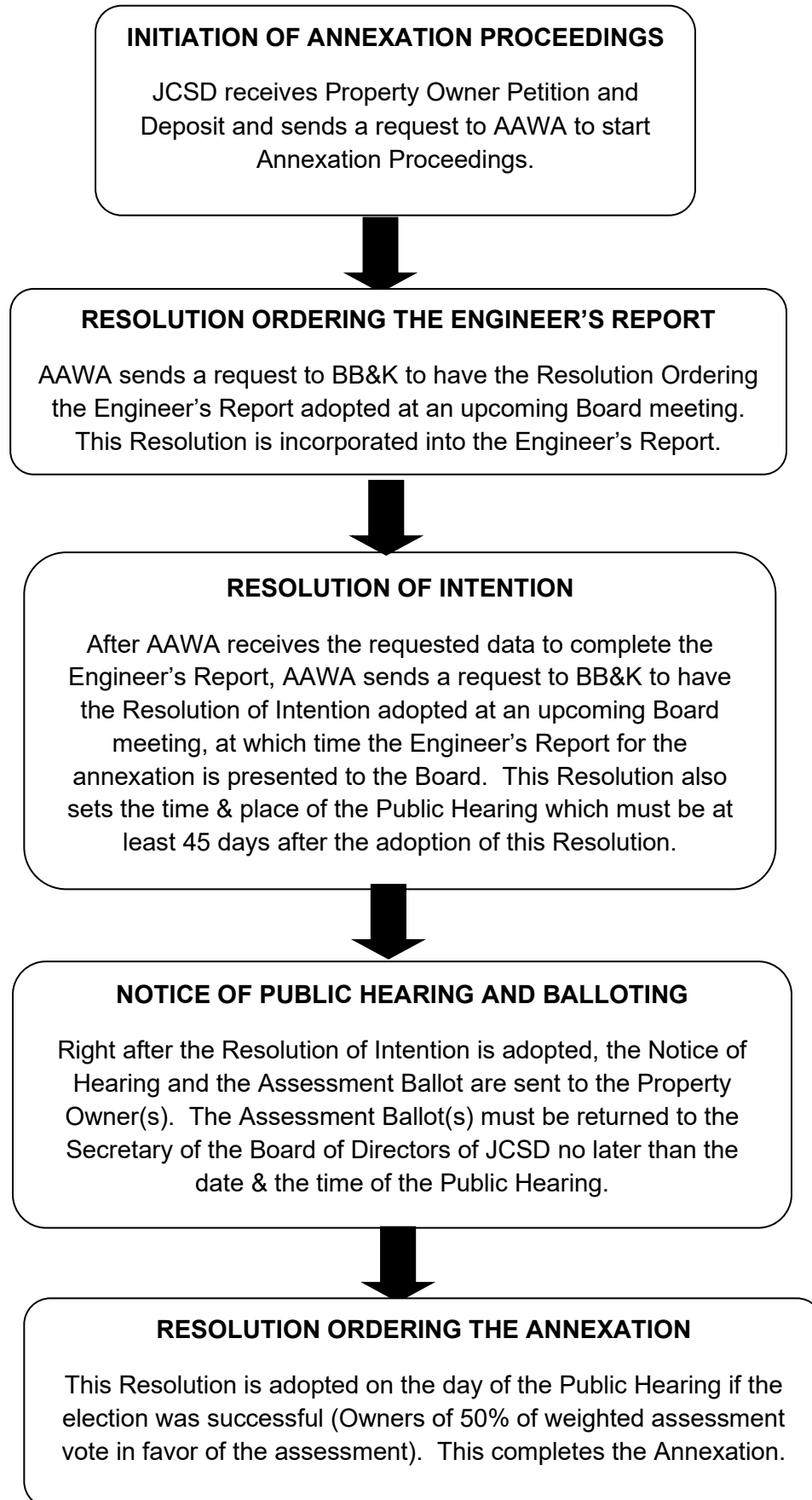
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(Insert Name)

# Appendix L

Procedure for Annexation to a Lighting and Maintenance District Annexation

# ANNEXATION TO A LIGHTING OR LANDSCAPE MAINTENANCE



# Appendix M

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# Appendix N

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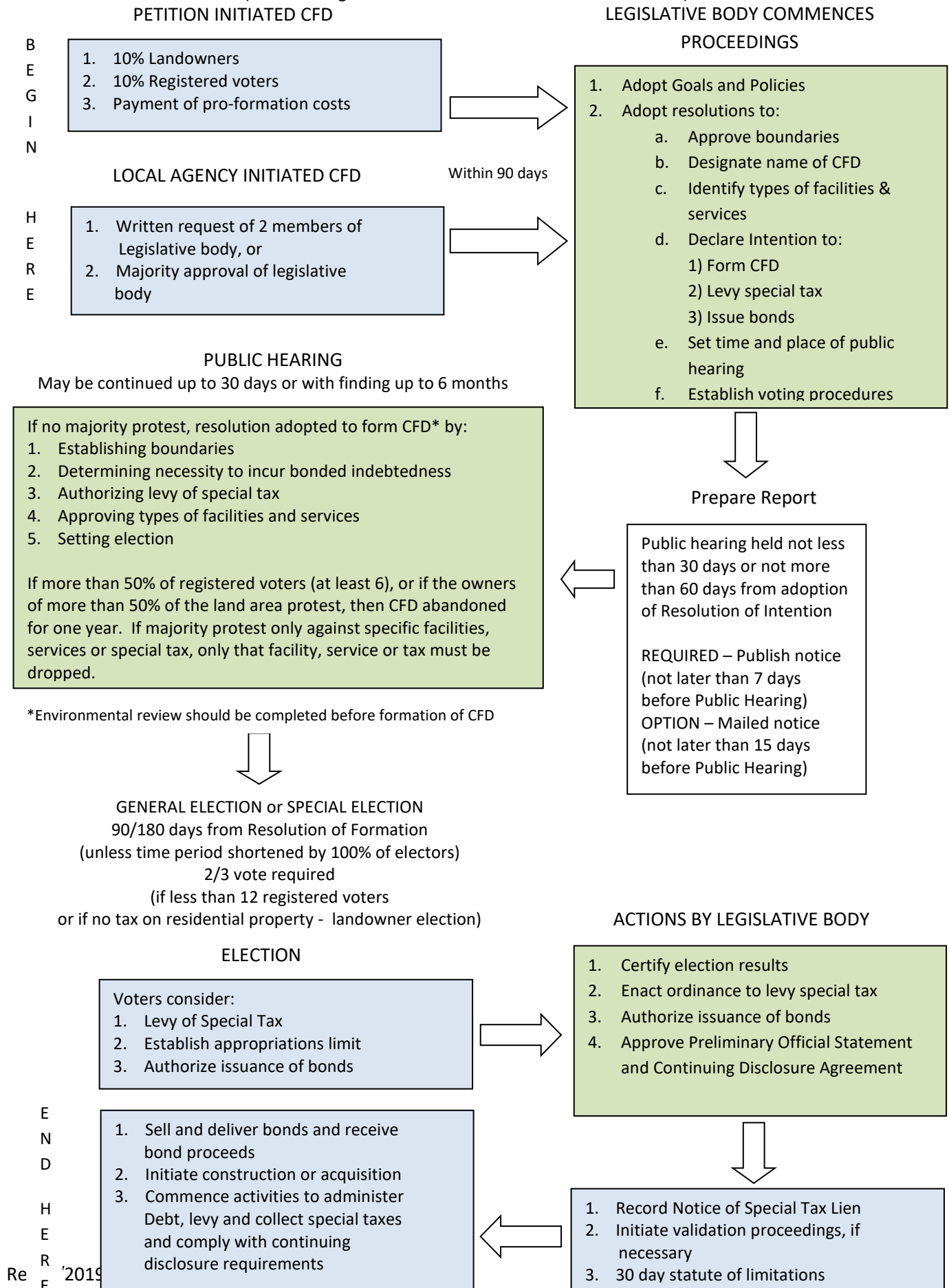
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# Appendix O

Usual Sequence of Events for Mello-Roos Community Facilities Districts

# USUAL SEQUENCE OF EVENTS FOR MELLO-ROOS COMMUNITY FACILITIES DISTRICTS

(Commencing with Section 53311 of the Government Code)



If no majority protest, resolution adopted to form CFD\* by:

1. Establishing boundaries
2. Determining necessity to incur bonded indebtedness
3. Authorizing levy of special tax
4. Approving types of facilities and services
5. Setting election

If more than 50% of registered voters (at least 6), or if the owners of more than 50% of the land area protest, then CFD abandoned for one year. If majority protest only against specific facilities, services or special tax, only that facility, service or tax must be dropped.

\*Environmental review should be completed before formation of CFD

GENERAL ELECTION or SPECIAL ELECTION  
90/180 days from Resolution of Formation  
(unless time period shortened by 100% of electors)  
2/3 vote required  
(if less than 12 registered voters  
or if no tax on residential property - landowner election)

## ELECTION

Voters consider:

1. Levy of Special Tax
2. Establish appropriations limit
3. Authorize issuance of bonds

1. Sell and deliver bonds and receive bond proceeds
2. Initiate construction or acquisition
3. Commence activities to administer Debt, levy and collect special taxes and comply with continuing disclosure requirements

## ACTIONS BY LEGISLATIVE BODY

1. Certify election results
2. Enact ordinance to levy special tax
3. Authorize issuance of bonds
4. Approve Preliminary Official Statement and Continuing Disclosure Agreement

1. Record Notice of Special Tax Lien
2. Initiate validation proceedings, if necessary
3. 30 day statute of limitations

# Appendix P

Non-Residential Wastewater Survey



Dear Food Service Establishment Owner / Operator:

Jurupa Community Services District (District) requires the completion of a Food Service Establishment Survey Form by all food service establishments that operate within the District's service area. Submission of the form and the required attachments is the first step in the plan check process. Please complete and return the attached form. Please also submit a single copy of the proposed building layout and plumbing blueprints with the completed form for our records.

If no wastewater containing grease is to be discharged, please also submit a Grease Interceptor Waiver Request for consideration by the Pretreatment Department. Generally speaking any food service establishment that fries, deep fries, stir fries, charbroils, uses a rotisserie, or cuts and prepares meat onsite is required to install a minimum of a 750 gallon grease interceptor. However each food service establishment is considered on a case-by-case basis.

The District's Pretreatment Department will review the form and the attachments to verify compliance with the District's Pretreatment Ordinance. After reviewing the forms and plans, the District's Pretreatment Department will contact you regarding approval of the submission or changes that need to be made.

Please be advised any work or equipment performed or installed related to the discharge of wastewater to the District's sewerage system is subject to review and approval by the District. Conditions or equipment found to be inadequate will be subject to review and modifications in order to comply with the District's Pretreatment Ordinance.

You will also find other information items attached to this letter including District regulations that pertain to restaurants, the District's standard grease interceptor drawings and a calculation sheet for grease interceptor sizing. **Please note the grease interceptor sizing formula used by the District is the version adopted by the UPC in late 2005 and it differs significantly from the old UPC formula. The new formula is based on drainage fixture units connected to the grease interceptor, not meal counts and operating hours.**

If you have any questions please contact this office. Thank you for your cooperation.

Sincerely,

Marce M. Billings  
Source Control Supervisor



**PRETREATMENT PROGRAM  
OFFICIAL SURVEY REPORT  
FOR SPECIFIC CATEGORIES:**

**FOOD SERVICE ESTABLISHMENTS**

FACILITY NAME	PHONE	FAX
FACILITY ADDRESS	CITY	ZIP CODE
RESPONSIBLE PARTY	PHONE	FAX
RESPONSIBLE PARTY ADDRESS (Put "same" if same as above)	CITY	ZIP CODE

TOTAL NUMBER OF EMPLOYEES: Full Time: \_\_\_\_\_ Part Time: \_\_\_\_\_  
(All Shifts, including Management)

DAYS AND HOURS OF OPERATION: \_\_\_\_\_

MAXIMUM SEATING CAPACITY: \_\_\_\_\_

**A. EQUIPMENT**

1. DISHWASHER:      ☐ Yes      If Yes, give Specifications for Unit.  
                              ☐ No      Gallons per Cycle \_\_\_\_\_ Cycles Per Day \_\_\_\_\_
  
2. NUMBER OF GARBAGE GRINDERS: \_\_\_\_\_  
 HORSEPOWER RATING FOR EACH: \_\_\_\_\_
  
3. NUMBER OF ICE MACHINES: \_\_\_\_\_  
 POUNDS OF ICE PRODUCED PER DAY: \_\_\_\_\_
  
4. DEEP FRYERS:      ☐ Yes      If Yes, give Grease Capacity (lbs): \_\_\_\_\_  
                              ☐ No
  
5. GRIDDLE:      ☐ Yes      If Yes, give Surface Area Dimensions: \_\_\_\_\_  
                              ☐ No
  
6. WOK:      ☐ Yes      ☐ No
7. CHARBROILERS:      ☐ Yes      ☐ No



## Page 2

11. If Yes, to # 4, 5, 6, 7, or 8, Describe Grease Waste Disposal Method:

---

---

1. ION EXCHANGE RESIN TANK SERVICE: \_\_\_\_\_ Yes  
 \_\_\_\_\_ No

## 2. HOW ARE KITCHEN EXHAUST FILTERS CLEANED?

3. ARE KITCHEN FLOOR MATS USED? \_\_\_\_ YES \_\_\_\_ NO IF YES, HOW AND WHERE ARE THEY CLEANED? \_\_\_\_\_

WHAT FREQUENCY OF CLEANING OF THE INTERCEPTOR IS PROPOSED: EVERY \_\_\_\_\_ MONTHS. NAME OF CONTRACTOR TO BE USED FOR INTERCEPTOR CLEANING: \_\_\_\_\_

1. ATTACH A COMPLETE MENU
2. IF MEATS, FISH, POULTRY OR PROCESSED MEATS ARE USED, INDICATE WHETHER IT IS DELIVERED:      PRE-COOKED \_\_\_\_\_ PREPARED AND COOKED ON SITE

1. POUNDS OF MEAT CUT PER DAY: \_\_\_\_\_ Pounds

2. METHODS OF CLEANING AND DISPOSAL OF MEAT-CUTTING WASTES: \_\_\_\_\_

---

**G. Construction Information**

1. Is this an existing building ☐ Yes ☐ No
2. If no, when is construction expected to begin? \_\_\_\_\_
3. What is the target date for food service to begin? \_\_\_\_\_
4. Who is coordinating the construction of this Food Service Establishment?

Name of Company: \_\_\_\_\_

Name of Person: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-mail: \_\_\_\_\_

Name and Phone Number of General Contractor: \_\_\_\_\_

Name and Phone Number of Plumbing Contractor: \_\_\_\_\_

**Submit application and complete set of plumbing and building layout blueprints to:**

Jurupa Community Services District  
11201 Harrel Street  
Jurupa Valley, CA 91752  
(951) 685-7434 FAX (951) 727-3519

**I CERTIFY UNDER THE PENALTY OF PERJURY THAT ALL THE FOREGOING  
STATEMENTS, FACTS AND INFORMATION ARE TRUE AND CORRECT TO THE BEST  
OF MY KNOWLEDGE.**

BY: \_\_\_\_\_  
(Signature) Name Title

\_\_\_\_\_  
Company Date



**GREASE INTERCEPTOR  
WAIVER REQUEST**

I, \_\_\_\_\_, representing  
(Proprietor Name)

\_\_\_\_\_ at \_\_\_\_\_  
(Facility Name) (Facility Address)

do hereby confirm that at no time shall any greases, fats, oils, solids, or any wastewater or material be discharged to the District's sewer collection system to impair the functional operations of same. If at any time non-compliance with the discharge limitations outlined in the District's Pretreatment Ordinance is detected, I do hereby consent to install, within ninety (90) days, an oil/grease separator of sufficient size to be acceptable to the District. The minimum size of the interceptor shall not be less than 750 gallons in capacity and shall be equipped with a monitoring station.

In lieu of an oil/grease separator, I consent to install a monitoring station for purposes of sampling the industrial wastewater discharged from my facility. Furthermore, I agree to install the kitchen plumbing in such manner to keep future potential sources of grease waste separate from domestic wastes and direct it to a location suitable for the installation of a grease interceptor.

The District's oil/grease interceptor waiver, if issued, is issued to the proprietor stated herein, and is not transferable.

SIGNED \_\_\_\_\_

DATE \_\_\_\_\_

APPROVED \_\_\_\_\_

DATE \_\_\_\_\_

DENIED \_\_\_\_\_

DATE \_\_\_\_\_

**Food Service Establishment Flow and Grease Interceptor Size Calculation****Name:****Address:**

Appurtenance	DFU's	Quantity	Total
<b>Sanitary Sewer Waste</b>			
Drinking Fountain	0.5	0	0
Floor Drain	2	0	0
Floor Drain (Emergency - i.e. in restrooms)	0	0	0
Floor Sink (1.5" Trap)	2	0	0
Floor Sink (2" Trap)	4	0	0
Floor Sink (3" Trap)	6	0	0
Floor Sink (4" Trap)	8	0	0
3 Compartment Sink (Don't Count Floor Sink)	6	0	0
Hand Sink	1	0	0
Mop Sink	3	0	0
Bar Sink	2	0	0
Urinal	2	0	0
Water Closet (Employee Only Toilet)	3	0	0
Water Closet (Public Toilet)	4	0	0
Water Closet (Assembly)	6	0	0
Lavatory	1	0	0
AC Condensate (1.5" Pipe - 3 Units)	3	0	0
AC Condensate (2" Pipe - 4 Units)	4	0	0
AC Condensate (4" Pipe - 6 Units)	6	0	0
<b>Sanitary Sewer Waste DFU Total</b>			
<b>Grease Waste System</b>			
Floor Drain	2	0	0
Floor Drain (Emergency)	0	0	0
Floor Sink (1.5" Trap)	2	0	0
Floor Sink (2" Trap)	4	0	0
Floor Sink (3" Trap)	6	0	0
Floor Sink (4" Trap)	8	0	0
3 Compartment Sink (Don't Count Floor Sink)	6	0	0
Bar Sink	2	0	0
Hand Sink	2	0	0
Mop Sink	3	0	0
Food Waste Grinder	3	0	0
Dish Washer	1	0	0
<b>Grease Waste DFU Total</b>			0
<b>Grease Interceptor Size Calculation</b>			<b>0</b>
<b>DFU Grand Total</b>			0
<b>Total Estimated Flow (21 gal per DFU)</b>			0
<b>Equivalent Dwelling Units (EDU's)</b>			<b>0</b>

DFU = Drainage Fixture Unit (Based on UPC Table 7-3)

JCSD

Food Service Establishment Survey Form

Page 6

Grease Interceptor Sizing Table - 2006 UPC Chapter 10 Sizing Method	
Number of DFU's Connected to Interceptor	Grease Interceptor Volume
0-21	750
22-35	1000
36-90	1250
91-172	1500
173-216	2000
217-307	2500
308-427	3000
428+	4000

## **JCSD Pretreatment Regulations Pertaining to Food Service Establishments**

**2.11 GRAVITY SEPARATION INTERCEPTOR.** Any person that operates or maintains a facility for the servicing or repair of roadway machinery, industrial transportation equipment, motor vehicles, public or private transportation vehicles, and any other facility as required by the General Manager, shall install and maintain a gravity separation interceptor. Domestic wastewater shall not be allowed to pass through the interceptor. The interceptor's operational fluid capacity shall be determined by the General Manager. The interceptor shall have a minimum operational fluid capacity of not less than 100 gallons and shall be designed to retain any material which will float or any material which will settle. The interceptor shall be watertight, structurally sound, durable and shall have a minimum of two chambers.

**2.12 INTERCEPTOR REQUIREMENTS.** All users required to install a gravity separation interceptor shall comply with the following conditions:

(A) All interceptor chambers shall be immediately accessible at all times for the purpose of inspection, sampling, cleaning, and maintenance. The user shall provide a separate ring and cover for each separate interceptor chamber. At no time shall any material, debris, obstacles or other obstructions be placed which will prevent immediate access to the interceptor.

(B) Any interceptor legally and properly installed before the effective date of this Ordinance shall be acceptable as an alternative to the interceptor requirements of this Section. The interceptor shall be effective in removing floatable and settleable material and shall be immediately accessible for inspection, sampling, cleaning, and maintenance,

(C) All drains and openings connected to an approved gravity separation interceptor shall be equipped with screens or devices which will exclude from the wastewater discharge all material and particles with a cubic dimension greater than 3/8 of an inch.

(D) If the General Manager finds, either by engineering knowledge or by observation, that an interceptor is incapable of adequately retaining floatable and settleable material in the wastewater flow, is structurally inadequate, or is undersized for the facility, the General Manager shall reject such interceptor and declare that the interceptor does not meet the requirements of this Section. The user shall thereupon be required to install, at the user's expense, an interceptor which is acceptable to the General Manager.

**2.13 STANDARD INTERCEPTOR DESIGNS.** The General Manager shall maintain a file, available to the public, of suitable designs of gravity separation interceptors. This file shall be for informational purposes only and shall not provide or imply any endorsements of any kind. Installation of an interceptor of a design shown in this file, or of any design meeting the size requirements set forth in this Section shall not subject the District to any liability for the adequacy of the interceptor under actual conditions of use. The user and property owner shall not be relieved of the responsibility for keeping floatable and settleable material out of the District's collection system.

### **2.14 INTERCEPTOR MAINTENANCE.**

(A) Any person who owns or operates a gravity separation interceptor shall properly maintain the interceptor at all times. The interceptor shall be cleaned as often as necessary to ensure that sediment and floating materials do not accumulate to impair the efficiency of the interceptor. An interceptor is not considered to be properly maintained, if for any reason the interceptor is not in good working condition or if the operational fluid capacity has been reduced by more than 25% by the accumulation of floating material, sediment, oils or greases.

## **JCSD Pretreatment Regulations Pertaining To Food Service Establishments cont...**

(B) The use of chemicals or other materials for the emulsification, suspension, or dissolution of oil and grease is prohibited.

(C) The use of microbiological agents to metabolize oil and grease shall be reviewed for approval on a case-by-case basis. The user shall submit a written request to the General Manager for the use of any microbiological agent prior to the use of that agent. The use of microbiological agents shall not be a substitute for adequate interceptor maintenance,

(D) The user may be required to perform a study to document the effectiveness of any proposed microbiological agent's ability to metabolize oil and grease under the conditions of the intended use. These studies shall be performed at each unique site where the microbiological agent is proposed for use. The study shall include effluent wastewater sampling by both the user and the District. The user shall be responsible for all costs associated with the study, including all District sampling and analysis costs. The elements of the study shall be submitted to the General Manager for review and approval prior to any element of the proposed study being implemented.

(E) When an interceptor is cleaned, the removed sediment, liquid and floating material shall be legally disposed of other than to the District's collection system,

(F) If the interceptor is not maintained adequately under the conditions of use, the interceptor shall be resized and the user shall install one which is effective in accomplishing the intended purpose.

(G) The owner and lessee, sub-lessee, proprietor, operator or superintendent of any facility, required to install an interceptor, are individually and severally liable for any failure of properly maintaining such interceptor.

### **2.15 RESTAURANTS.**

(A) Any person who owns, operates, or maintains a restaurant shall complete a District Wastewater Discharge Survey Form. The form shall be submitted to the General Manager for review of grease interceptor requirements.

(B) The size of grease interceptors shall be determined as described in the District's Standard Manual, as adopted by the District.

(C) All restaurant wastewater and waste from floor drains, floor sinks, sinks, waste container wash racks, dishwashers, and garbage grinders shall be directed through a minimum 750 gallon gravity separation interceptor. All domestic wastewaters from restrooms, showers, drinking fountains, and condensate (i.e., ice melt, air conditioning) shall be kept separate from the restaurant wastewater until the restaurant wastewater has passed through all necessary pretreatment equipment, devices, or monitoring stations.

**216 PROHIBITED RESTAURANT SURFACE DISCHARGES.** No person who owns, operates or maintains a restaurant shall at any time discharge any wastewater to the storm drain, service dock areas, or ground. Wastewater generated by restaurants must be disposed of to a sanitary sewer through an approved gravity separation interceptor or sample station connected to a sanitary sewer or hauled off-site and disposed at a legal disposal site,

**2.17 CONDITIONAL WAIVERS.** Conditional waivers for the grease interceptor requirement may be granted by the General Manager for those restaurants determined by the General Manager not to have adverse effects on the District's collection system or either of the

## **JCSD Pretreatment Regulations Pertaining To Food Service Establishments cont...**

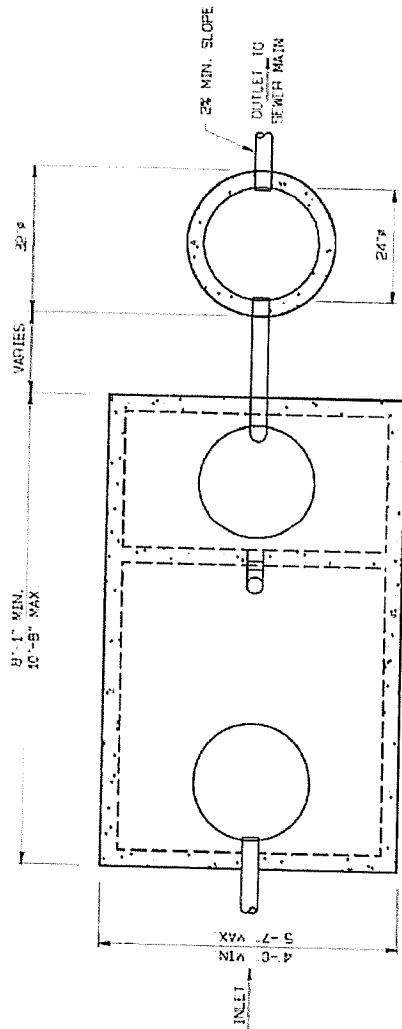
POTWs. Conditional waivers may be revoked for the following reasons:

- (A) Changes in menu.
- (B) Falsification of information submitted in the District's Wastewater Discharge Survey Form,
- (C) Changes in operating hours.
- (D) Changes in equipment used.
- (E) Changes in the nature of the wastewater discharged as determined by random and scheduled wastewater sampling and analyses.



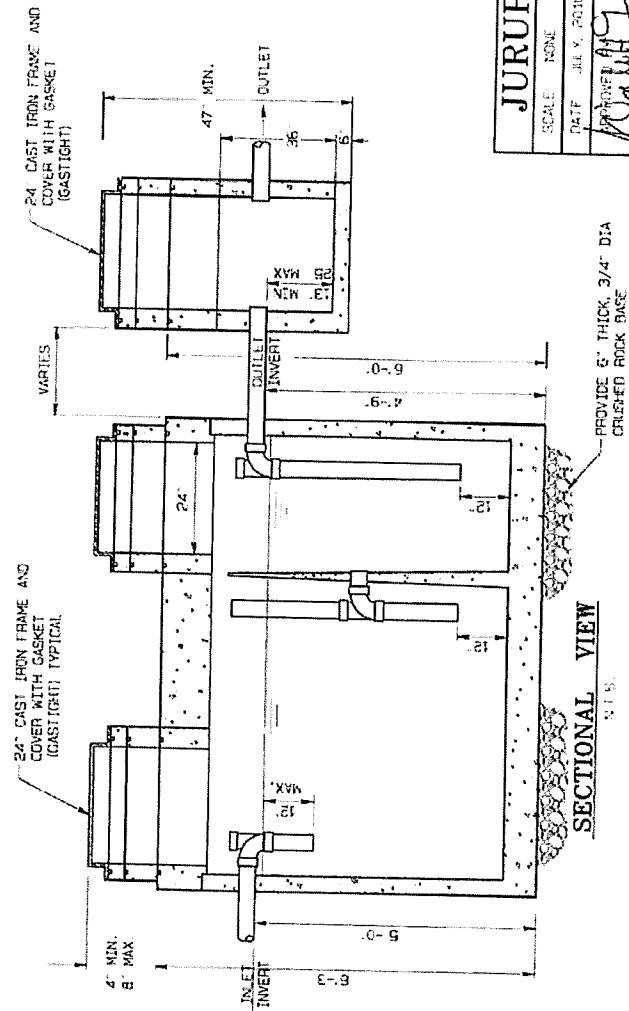
NOTES :

1. DOMESTIC SEWER CONNECTION IS TO BE MADE DOWNSTREAM OF GRAVITY SEPARATOR SAMPLE BOX.
2. PRECAST CONCRETE VAULT INCLUDING TOP AND COVERS TO BE DESIGNED FOR A MINIMUM H-20 TRAFFIC LOADING. SQUARE COVERS ARE NOT ACCEPTABLE.
3. ALL PIPE AND FITTINGS TO BE CAST IRON OR PVC PIPE
4. THE REQUIRED CAPACITY FOR THE GRAVITY SEPARATOR SHALL BE BASED UPON APPENDIX H OF THE UNIFORM PLUMBING CODE.
5. WASTE DISCHARGE APPLICANT IS RESPONSIBLE FOR THE PURCHASE, INSTALLATION, OPERATION AND MAINTENANCE OF THE GRAVITY SEPARATOR.
6. APPROVED SUPPLIERS FOR GRAVITY SEPARATOR
  - a. PYRAMID PRECAST CO., INC. RITA TO, CA
  - b. M.C. NOTTINGHAM CO., PASADENA, CA.
  - c. UTILITY VAULT CO., FONTANA, CA
7. LOCATION OF GRAVITY SEPARATOR IS SUBJECT TO APPROVAL BY DISTRICT
8. PROVIDE LABEL INDICATING MANUFACTURER OF GRAVITY SEPARATOR AND CONFORMANCE TO U.P.C.
9. SAMPLE BOX IS REQUIRED
10. GRADE RINGS JOINTS ARE TO BE SEALED WITH 12 MORTAR, TRIMMED TO A SMOOTH FINISH INSIDE AND OUT.
11. THE MANHOLE FRAME IS TO BE SEALED WITH AND SECURED BY A MORTAR RING.




**PLAN VIEW**

U  
T  
S

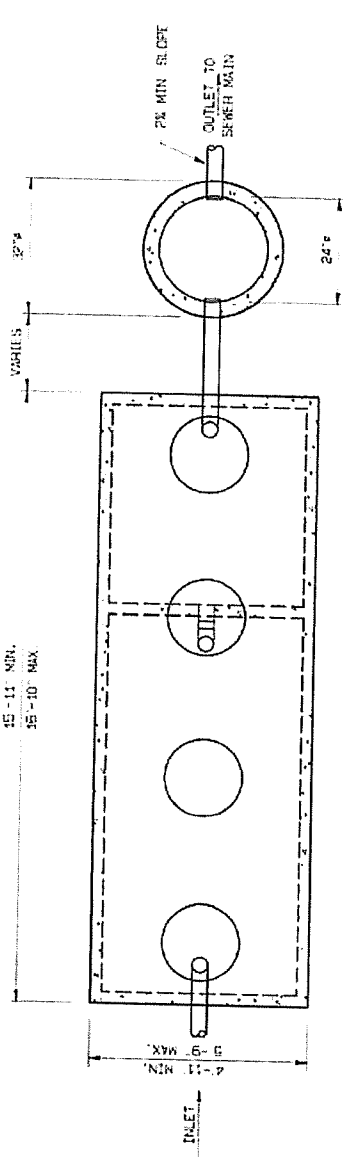


**SECTIONAL VIEW**

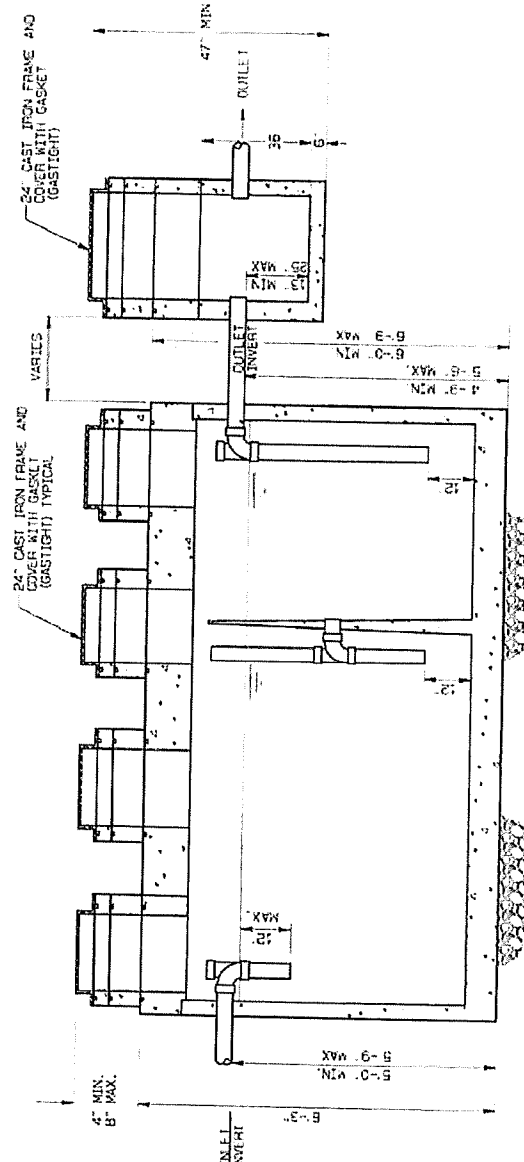
29

JURUPA COMMUNITY SERVICES DISTRICT		DRAWING NO <b>S-19</b>	CAL IF DENIA
SCALE NONE	DATE JUN. 2016		
GREASE INTERCEPTOR 750 GAL. TO 1500 GAL.		ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS	RIVERSIDE
PROJECT AN 			
DATE 05-26-2016			

06/06/2011



**PLAN VIEW**  
N.T.S.



**SECTIONAL VIEW**  
N.T.S.

**NOTES:**

1. DOMESTIC SEWAGE CONNECTION IS TO BE MADE DOWNSTREAM OF GRAVITY SEPARATOR SAMPLE BOX.
2. PRECAST CONCRETE VAULT INCLUDING TOP AND COVERS TO BE DESIGNED FOR A MINIMUM H-20 TRAFFIC LOADING. REINFORCEMENT SHALL BE ACCEPTABLE.
3. ALL PIPE AND FITTINGS TO BE CAST IRON OR P.V.C. PIPE.
4. THE REQUIRED CAPACITY FOR THE GRAVITY SEPARATOR SHALL BE BASED UPON APPENDIX H OF THE UNIFORM PLUMBING CODE.
5. WASTE DISPOSAL APPLICANT IS RESPONSIBLE FOR THE PURCHASE, INSTALLATION, OPERATION AND MAINTENANCE OF THE GRAVITY SEPARATOR.
6. APPROVED SUPPLIERS FOR GRAVITY SEPARATOR:
  - a. PYRAMID PRECAST CO., INC., RIA, TX, CA.
  - b. M.C. NOTTINGHAM CO., PASADENA, CA.
  - c. UTILITY VAULT CO., FONTANA, CA.
  - d. JENSEN PRECAST CO., FONTANA, CA.
7. LOCATION OF GRAVITY SEPARATOR IS SUBJECT TO APPROVAL BY DISTRICT.
8. PROVIDE LABEL INDICATING MAKE/MAKELINE OF GRAVITY SEPARATOR AND CONFORMANCE TO U.P.C.
9. SAMPLE BOX IS REQUIRED.
10. GRADE RING JOINTS TO BE SEALED WITH 1/2" MORTAR, FINISHED TO A SMOOTH FINISH INSIDE AND OUT.
11. THE MANHOLE FRAME IS TO BE SEALED WITH AND SECURED BY A MOTOR RING.

JURUPA COMMUNITY SERVICES DISTRICT			
DATE	NOV	GREASE INTERCEPTOR	
DATE	JULY 2010	2000 GAL. to 3000 GAL.	
DESIGNED BY	W. Webb	ALBERT A. WEBB ASSOCIATES	
CHECKED BY	W. Webb	CONSULTING ENGINEERS	
RIVERVIEW		CALIFORNIA	
N.C.		04-0353	

DRAWING NO.  
**S-20**



RE: NON-RESIDENTIAL WASTEWATER SURVEY FORM

Dear Business Owner/Manager:

Jurupa Community Services District (District) currently administers an industrial wastewater pretreatment program in accordance with federal and state regulations and the District's Pretreatment Ordinance. Implementation of this program includes completion of a Non- Residential Wastewater Survey Form by all commercial and Industrial businesses.

Many industrial facilities produce industrial wastewater discharge which could potentially harm the District's wastewater treatment plant and poses health risk to the entire community of Jurupa Valley. Please complete and return the enclosed form to the District office at 11201 Harrel Street, Jurupa Valley, CA 91752 or FAX it to the District at (951) 727-3519 within 14 days of receiving this letter.

If you have any questions, contact Marce Billings at (951) 685-7434, Ext. 173; or at [mbillings@jcsd.us](mailto:mbillings@jcsd.us). Thank you for your prompt attention to this matter.

Sincerely,

Marce M. Billings  
Source Control Supervisor

**NON-RESIDENTIAL WASTEWATER SURVEY FORM****COMPANY NAME:** \_\_\_\_\_

Service Address: _____	Mailing Address: _____
_____	_____

**RESPONSIBLE PARTY** (President, Vice President, Owner, Partnership, etc.)

	NAME	TITLE	PHONE NUMBER
Responsible Party:	_____	_____	_____
Contact:	_____	_____	_____

Emergency Phone Number: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Emergency Cell Phone Number \_\_\_\_\_ Fax: \_\_\_\_\_

**EMPLOYEES**

# OF EMPLOYEES ON DUTY	SHIFT (Day, Swing, Graveyard)	TIME OF SHIFT (8am - 5pm Etc.)	DAYS OF WEEK (Circle)
_____	_____	_____	M T W T H F S S
_____	_____	_____	M T W T H F S S
_____	_____	_____	M T W T H F S S

**DESCRIPTION OF BUSINESS ACTIVITIES**

Provide a brief description of all operations at this facility, including primary products or services.  
(Attach additional sheet if necessary).

\_\_\_\_\_

\_\_\_\_\_

DISCHARGE OF WASTES INTO THE SEWER

\_\_\_\_\_ I will only discharge domestic wastewater into the JCSD sewer.

\_\_\_\_\_ I anticipate discharging the following waste materials into the JCSD sewer in addition to domestic wastewater. (*Attach extra sheet if necessary*).

Material to be Discharged  
(GPD)

Estimated Gallons Per Day

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

STORAGE OF HAZARDOUS MATERIALS

Is storage of hazardous materials proposed? \_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, describe all flammable liquids, solids or gases, oxidizers, corrosives, poisons and explosives that will be stored on the property, along with estimated quantities of the chemical waste to be stored. (*Attach extra sheet if necessary*).

Name of Chemical/Flammable

Estimated Quantity

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

AUTHORIZED REPRESENTATIVE STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Document Preparer

\_\_\_\_\_  
Document Preparer Company

\_\_\_\_\_  
Phone Number of Document Preparer

\_\_\_\_\_  
E-Mail of Document Preparer

Non-Residential User Drainage Fixture Unit (DFUs)  
Sewer Flow Calculation

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

<b>Appurtenance</b>	<b>DFU's</b>	<b>Quantity</b>	<b>Total</b>
Floor Drain	2		
Floor Drain (Emergency)	0		
Drinking Fountain (Public Use)	1		
Urinal	2		
Water Closet (Employee Only Toilet)	4		
Water Closet (Public Toilet)	6		
Lavatory (Bathroom Sink)	1		
Shower	2		
Bar Sink, Break room Sink	2		
Floor Sink (1.5" Trap)	3		
Floor Sink (2" Trap)	4		
Floor Sink (4" Trap)	6		
Food Waste Grinder	3		
Hand Sink	1		
Mop Sink	3		
Clothes Washer	2		
AC Condensate (1.5" Pipe - 3 Units)	3		
AC Condensate (2" Pipe - 4 Units)	4		
AC Condensate (4" Pipe - 6 Units)	6		
Total Drainage Fixture Units (DFU's)			
Total Flow ("Total" x 21 gal = Total Flow)			

Instructions: The table above can be used to calculate the estimated flow from a facility. Count the number of each type of fixture connected to the sewer and enter it in the "Quantity" column. To calculate the total of each row multiply the DFU's by the Quantity of Fixtures. Then add up the totals to provide a total drainage fixture unit (DFU) count. Then multiply the total drainage fixture unit by 21 to determine the Total Flow from the facility. Questions can be directed to the Pretreatment Division at (951) 685-7434.

## **Non-Residential Wastewater Survey Form Instructions**

1. Company Name: The legal name of the company.
2. Service Address: The physical address of the business.
3. Mailing Address: Address where correspondence may be sent.
4. Responsible Party: The person who is legally responsible for the company.
5. Contact: The name of a person who is routinely onsite that may be contacted during a visit to the company.
6. Employees: Enter the number of employees who work for the company on the various shifts. You may also list the number of full time employees, part time employees and temporary employees and the number of hours they work. This information is primarily used to determine the sewer flow generated by employees. Usually 20 gallons per full time employee / day.
7. Description of Business Activities: Provide a brief description of all operations at this facility, including primary products or services. (Attach additional sheets if necessary).
8. Discharge of Wastes into the Sewer: Please place an "x" to indicate whether the company will discharge only domestic wastewater or other types of waste into the sewer. Domestic wastewater is bathroom wastewater, break room wastewater and limited quantities of laundry, mopping and kitchen wastewater. If there are other types of wastewater to be discharged please indicate the type and quantity on the lines provided.
9. Storage of Hazardous Materials: Please indicate whether hazardous materials will be stored at the facility. Hazardous materials are all liquids, solids or gases that are: flammable, explosive, radioactive, reactive, corrosive, or toxic. Please indicate the name of the chemicals and estimated quantity to be stored at the facility.
10. Authorized Representative Statement: The survey form must be signed by the person who is indicated as the Responsible Party on the first page of the form. If that person has designated someone else as an Authorized Representative to sign the form that authorization must be provided in writing and attached to the form when submitted. Also include name, company and phone number of person who prepared this document.
11. Non-Residential User Drainage Fixture Unit (DFU) Sewer Flow Calculation: The table on page 3 can be used to calculate the estimated sewer flow from a facility. Count the number of each type of fixture connected to the sewer and enter it in the "Quantity" column. To calculate the total of each row multiply the DFU's by the Quantity of Fixtures. Then add up the totals to provide a total drainage fixture unit (DFU) count. Then multiply the total drainage fixture unit by 21 to determine the Total Flow from the facility.
12. Mail forms to this Division at 11201 Harrel Street Jurupa Valley, CA 91752 or FAX to (951) 727-3519.

**Questions can be directed to the Pretreatment Division at: (951) 685-7434.**

# Appendix Q

Procedures Concerning Installation of Dry Utilities



## **Procedures Concerning Installation of Dry Utilities in Developer Funded Projects**

Jurupa Community Services District (District) requires that all dry utilities trenches be inspected by the District's Inspector prior to backfill of the excavation. The District's Inspector will be monitoring for quality assurance, all locations along the excavation that cross the District's facilities such as water services, fire hydrants, air evacuation valves, sewer laterals, along with any other facilities that will be accepted by the District. The Developer shall notify the inspector five working days in advance of any work on the dry utilities in order that inspection may be provided with minimal inconvenience to the District or delay to the Contractor. Any work done around the District's facilities in the absence of the District's Inspector without permission shall be subject to rejection.

# Appendix R

Acknowledgement of Policy for Improvements around District's Facilities

## **Hardscape Improvements in Close Proximity to District's Water Facilities and Meter Boxes**

The District's meter boxes, fire hydrants and other related water facilities are placed within City or County rights of way. Hardscape improvements such as planters, walls, sidewalks, walkways, curbs, drainage ways and other concrete, asphalt, block, brick or paved surfaces or improvements may not be placed within three (3) feet of meter boxes, fire hydrants and other related water facilities and driveways may not be located closer than three (3) feet from meter boxes.

Prior to the sale of any residences in a project, Developer will record a Declaration of Covenants, Conditions and Restrictions ("CC&Rs") containing the following language verbatim (modified only by Developer's use of different defined terms in its CC&R document):

Owners may not construct hardscape improvements including (without limitation) planters, walls, sidewalks, walkways, curbs, drainage ways or other hardscape improvements (constructed with cement, concrete, asphalt, block, brick, stone or similar material) closer than three (3) feet from the outer edge of any fire hydrants and other related water facilities or; from any water meter box serving a residence. Driveways may not be located closer than three (3) feet from meter boxes. Declarant, so long as it owns a Lot within the Project and the Association [if there is a homeowners association for the Project] shall have the right and easement to enter upon a Lot and remove any hardscape improvements constructed in violation of the above requirements, without liability to the affected Owner. If Jurupa Community Services District ("District") or any successor water utility provider, in order to service a meter box, encounters hardscape improvements located in violation of the above requirements, District may demolish any portion of such hardscape improvements as necessary in order to service the meter box. In such event, District will have no responsibility to reconstruct or otherwise compensate the Owner for demolition of hardscape improvements. Owners will also be responsible for replacement of any landscaping affected by meter box service and repair. This section may not be amended or terminated without the prior written consent of the District as evidenced by its written consent to any recorded document effecting such amendment or termination.

Prior to acceptance by the District of the water system for a project, the following requirements must be satisfied: (1) District must review and approve recorded CC&Rs containing the above language; (2) Developer shall include appropriate language containing the above disclosure in its purchase and sale agreements for the project, in bold type, and provide a copy of such contract to the District; (3) if any homeowner has constructed hardscape improvements that violate the above provisions, either Declarant or the Association must cause such hardscape improvements to be removed within the three (3) feet or two (2) foot perimeter areas described above.

# Appendix S

Items Required Prior To Scheduling Pre-Construction Meeting

## **Items required Prior to Scheduling Pre-Construction Meeting**

- ☐ Signed Developers Handbook Acknowledgment Form
- ☐ Updated Availability Letter
- ☐ Approved and signed Mylars and two bonded copies of blue lines
- ☐ Board approved Deferment Agreement with letter of Credit
- ☐ Park Obligation (if applicable)
- ☐ CFD Formation or; annexation (if applicable)
- ☐ LMD Annexation
- ☐ Fees Paid
- ☐ Water/Sewer Construction Agreement
- ☐ Easements recorded (if applicable)
- ☐ Maps with Street Names and Addresses of lots
- ☐ AG Well Agreement (if applicable)
- ☐ Cut Sheets (minimum of 300' for each start point)
- ☐ Inspector Assigned

### **Items required from the Developer's contractor**

- ☐ Contractor Data Sheet Complete
- ☐ Contractor's Safety program
- ☐ Copy of Certifications for Confine Space and Competent Persons
- ☐ Material Submittals Approved
- ☐ Grade Certification

# Appendix T

Certification of Streets to Final Grade

TO: JURUPA COMMUNITY SERVICES DISTRICT  
11201 Harrel Street  
Jurupa Valley, CA 91752

SUBJECT: CERTIFICATION OF STREETS TO FINAL GRADE  
TRACT NO. \_\_\_\_\_  
CONTRACT NO. \_\_\_\_\_

1. There has been executed a "WATER AND/OR SEWER SYSTEM CONSTRUCTION AGREEMENT" for the water and/or sewer mains described above; said Agreement being between the Jurupa Community Services District, hereinafter designated as the "District"; \_\_\_\_\_ hereinafter designated as the "Developer"; and, \_\_\_\_\_ hereinafter designated as the Contractor. ☐ Yes ☐ No
2. The Developer certifies that all streets requiring water and/or sewer mains are to Final Grade and ready for installation of water and/or sewer mains; wherein the Final Grade shall be defined as the finished grade of the street base or sub-base required by the City of agency having jurisdiction.
3. Developer agrees that if there is a change required in the alignment or final grade of the street which occurs prior to acceptance by the District of the water and/or sewer mains, and which requires the relocation of any District facilities, the developer will make full payment for all costs necessary to relocate said facilities.

Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorized Agent:

(Sign) \_\_\_\_\_  
(Type) \_\_\_\_\_  
(Title) \_\_\_\_\_  
Date: \_\_\_\_\_

Contractor:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorized Agent:

(Sign) \_\_\_\_\_  
(Type) \_\_\_\_\_  
(Title) \_\_\_\_\_  
Date: \_\_\_\_\_

# Appendix U

Contractor's Data Sheet



JURUPA COMMUNITY SERVICES DISTRICT

CONTRACTOR'S DATA SHEET

Name of Contractor or Organization: \_\_\_\_\_

Principal Office Address \_\_\_\_\_

Phone Number ( ) \_\_\_\_\_

Corporation  
Partnership  
Individual

Names of Officers of Organization \_\_\_\_\_

Name

Title

Name

Title

License Number(s) \_\_\_\_\_ Classification \_\_\_\_\_

Engineering Class "A"  
C-34 Specialty or C42 Sanitation System

- How many years has your organization been in business as a general contractor under your 1) present business name? \_\_\_\_\_ and 2) present license(s)? \_\_\_\_\_
- How many years experience in water and/or sewer pipeline construction work has your organization had (a) as a general contractor \_\_\_\_\_ (b) as a sub-contractor \_\_\_\_\_
- List below the applicable projects your organization has completed most recently.

Project Completed			Pipe Sizes	Total Length	Type of Pipe	Contract Cost
No.	Year	for				
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

(Use additional sheet if necessary)

- List names and addresses of persons to be contacted for information on projects listed in Item 3.

No.	Name of Owner	Name, Address & Telephone Number of Person to be Contacted
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

- Have you ever failed to complete any work awarded to you? \_\_\_\_\_ If so, where, when and why? \_\_\_\_\_

- Have you ever filed bankruptcy? \_\_\_\_\_ If so, state details on separate sheet.

- Have you ever been cited for violation of Cal-OSHA regulations? \_\_\_\_\_ If so, state on separate sheet where, when, why, and whether a minor or major violation.

8. Have you ever had a lien against you? \_\_\_\_\_ Have you ever had to obtain a lien against someone? \_\_\_\_\_ If so, where, when and why? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Can you provide letters of recommendation from previous contractual agreements? \_\_\_ If so, please attach letters to this form.

I hereby authorize JURUPA COMMUNITY SERVICES DISTRICT of Riverside County to obtain information concerning me or my organization from any source including former clients. I certify that the foregoing information obtained in this Experience Questionnaire is true and correct to the best of my knowledge.

Date \_\_\_\_\_ Signature \_\_\_\_\_

Type or print name clearly \_\_\_\_\_

# Appendix V

## Pre-Construction Meeting Agenda

**Jurupa Community Services District  
Pre Construction Meeting**

**Tract or Project #** \_\_\_\_\_ **Date** \_\_\_\_\_

**On-Site** ☐ **Off-Site** ☐

**Developer** \_\_\_\_\_ **Start Date** \_\_\_\_\_

**Superintendent** \_\_\_\_\_ **E-Mail** \_\_\_\_\_

**Webb Inspector** \_\_\_\_\_

**JCSD Representatives** \_\_\_\_\_

**Contractor** \_\_\_\_\_

**City of Eastvale / Jurupa Valley** \_\_\_\_\_

Items to be presented to the District representative prior to the start of the pre- construction meeting.

**(Note: If any of these items are not available to the District's representative or if the Tract Superintendent, Pipeline Contractor, District inspector or the JCSD Representative are not present, the meeting will be cancelled).**

- ☐ Submittals (check dates).
- ☐ Signed Developers Handbook Acknowledgment (if applicable)
- ☐ Grade Certification
- ☐ Cut sheets.(first 300' of sewer from each starting point)
- ☐ Copy of the Contractor's safety program.
- ☐ Copy of the certifications for:
  - 1. Competent Person.
  - 2. Confined Space Entry Supervisor, Attendant and Entrant.
- ☐ Emergency phone number contact list.
- ☐ Copy of the Contractor's License

**Items discussed:**

- ☐ All requests, questions and guidance are to be thru your inspector.
- ☐ OSHA guidelines and District standards for safety will be strictly adhered to.
  - 1. Confined space entry.
  - 2. Trench shoring.
- ☐ USA Guidelines
  - 1. If you are calling for remarks, make sure you do not just resend work continuing.
  - 2. Keep your USA. Current.
- ☐ Protect fire hydrants
  - 1. Painting (District will not accept painted units).
  - 2. Stamping ID.
  - 3. Tack-weld 2 bolts.

- Water valves
  1. Will be operated by District representatives only, when the water line effects district customers in occupied houses or businesses.
  2. At the discretion / direction of the Inspector when not on an occupied street.
  3. Will be accessible at all times and immediately after paving and final cap paving.
  4. Valve can sizes 8" for main lines 6" for appurtenances
- Waterline shutdowns
  1. Schedule shutdowns thru your Inspector. (no Mondays or Fridays)
  2. All water line shutdowns will be scheduled 5 to 7 business days in advance of work.
  3. All shut downs will be at the District's discretion / direction.
- Meters.
  1. District has a new standard D1b for residential fire sprinklers.
  2. Meters will be issued after approval from the Inspector and JCSD. (after curb & gutters)
  3. Building permits are required to issue meters.
  4. Meters must be installed in their proper location and as per the JCSD Standard **within 10 days** after pick-up.
  5. Only the Job site Superintendent will be allowed to pick up meters and must sign for them.
  6. Meters will be protected in place as per the Districts policy.
  7. Jumpers are not allowed at any time.
  8. Meters will be issued on Mon, Tues, Wed, and Thurs, 8:00 am. - 12:00 pm.
  9. Sewer must be accepted before meters will be issued.
  10. Meters will not be accepted that are in drainage swales and closer than 3' from driveway.
- Backflow Assemblies
  1. All testing by Riverside County backflow testers will be documented on the District's standard back flow testing forms.
  2. All tests will be performed in the presence of District's Inspector only.
- Disposal of chlorinated water will be per NPDES requirements. (de-chlorinate or dispose on-site)
  1. If water leaves the site, the amount will be reported to the District.
- All angle stops will be locked off until all bac-t tests have passed, and the new facilities have been accepted and meters set.
- Please insure your water and sewer plans show any points of connection for water service for your landscape frontages and parks irrigation needs.

- Bac T's and Heterotrophic plate sampling
  1. Will be done by your Inspector.
  2. It takes a minimum of 96 hours for results.
  3. Tests will include all water services and laterals.
  4. Tests will not be performed on any water systems currently being fed by a high line.
- Tracer wires
  1. Will run continuous thru the services and appurtenances.
  2. Accessible at meters and appurtenance.
  3. Tracer wire must be consistent as previously submitted.
  4. All tracer wire for all appurtenances will terminate in specified J&R box (blow off, hydrants and air vac's).
  5. Tracer wire will need to be of the same manufacture, type and color as submitted in the material submittals throughout the entire project.
  6. Must have a continuity report accepted prior to occupancy
- All manholes will be raised and accessible, within five days of paving and final cap paving.
- Manhole rim elevations will be verified by the inspector and contractor per the Districts procedures shortly after construction as per District's manhole verification procedure.
- Sewer air testing
  1. Initial test after compaction.
  2. After repairs (sags, cracks or damage).
  3. Last test is after all other utilities have been installed and prior to paving. (base rock)
- Video of sewer lines
  1. The District requires all video in DVD format (authored).
  2. The final DVD presented to the District will be representative of the sewer system, as the District will accept it with no issues pending.
  3. Prior to scheduling the video inspection, all dry utilities will have to have been installed, backfill and accepted, base rock will be in place and the manhole frames will located at approximate grade for base paving.
  4. Video of the sewer lines will be required after any repairs or every line cleaning. Protect in place to avoid possible re-cleaning & video (especially during paving operations) (asphalt, base rock, paint, plaster, solvents etc. are not to be dumped into sewers).
  5. Sewer sags of 1/2-inch or greater are not acceptable.
  6. Do not accept bowed, chipped, or cracked pipe.
  7. Plugs are to be removed only at the direction of the District representative.
- Sewer Laterals
  1. Sewer laterals will include the installation of a clean-out at the property line to be brought to final grade with the installation of a J&R Concrete Valve Box No. V2-RT Cover Stamped "Sewer".

2. All house line connections to sewer laterals must be inspected by the Districts Inspector.

- Mapping of sewer laterals
  1. On-site to be completed by contractor. (stress accuracy)
  2. Sewer mapping will be due at point of occupancy.
  3. Sewer maps should include set point and measurements to all angles and clean outs.
- Prior to connecting to live sewer mains, the contractor will notify a District Supervisor thru the Inspector, 2 business days prior to the work.
- Plug or cap all water and sewer pipes at the end of workday.
- Install false bottoms on all manholes.
- Maintaining separation of water and sewer laterals. Don't wait until Pre-occupancy walks if there is a question. (staking)
- Water and sewer line location etched into curb face where they cross the curb. (accuracy)
  1. "S" for sewer and "W" for water.
  2. Blue for Water Green for sewer
- Pre occupancy inspection
  1. Will be preformed prior to any approval of occupancy.
  2. Your inspector must pre-walk before JCSD is scheduled.
  3. JCSD must be scheduled minimum 3 business days in advance.
  4. Occupancy phasing should include whole streets, manhole-to-manhole.
  5. Occupancy inspections will include the sewer lines to the point of discharge of the Tract.
  6. Sewer mappings will be presented to the District at the time of occupancy inspection.
  7. Plugs will be installed to block off occupied homes from homes under construction.
    - Mechanical plugs required in clean out at home under construction in occupied area
    - When homes are ready to remove plug, Contractor to plug downstream manhole, pull each plug, flush each home, and vacator main for cleaning.
- Agriculture wells – If you have agriculture well on site, the District encourages the use of these wells to conserve potable water. Forms and applications must be filled out submitted to the District prior to their use.
- Contractors responsibility to keep all letters, excavation and OSHA permits up to date.

## Sign In

Name

**Agency/ Company****Phone # & Email**[illegible]



# Appendix W

Manhole Ring Tolerance Verification Form

# MANHOLE RING TOLERANCE VERIFICATION FORM

Project Identification (e.g. Tract No., CUP No., etc...) \_\_\_\_\_

Manhole (MH) No.	Inlet Flowline Elevation	Distance From Inlet Flowline to Top of MH Cone	Top of MH Cone Elevation	MH Rim Elevation	Elevation Difference <sup>1</sup>

Data provided hereon has been verified.

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Inspector

\_\_\_\_\_  
<sup>1</sup> Must be 12" (1.0') minimum to 20" (1.67') maximum.

# Appendix X

Pre-Occupancy Inspection Sheet

**Jurupa Community Service District  
Pre-occupancy inspection**

Date \_\_\_\_\_ JCSD REP. \_\_\_\_\_

Tract/ IP# \_\_\_\_\_ Developer \_\_\_\_\_

Street name \_\_\_\_\_

Lot #'s \_\_\_\_\_

Addresses \_\_\_\_\_  
\_\_\_\_\_

**Present at the inspection:**

**Note: This Pre-Occupancy Inspection is being conducted for the purpose of authorizing the occupancy of the above-specified lots or addresses only. This inspection is not a Final Inspection and any and all items identified during the Final Inspection will be corrected to the district's standards.**

	Print Name	Sign
Developer representative:	_____	_____
Inspector:	_____	_____
Other:	_____	_____

**Items inspected:**

- ☐ Fire hydrants, blow offs and air vacs.
  - 1. In per plan.
  - 2. Painted.
  - 3. Bumper posts installed.
  - 4. Facing the right direction.
  - 5. Concrete pads poured.
  - 6. Tracer wire accessible.
  
- ☐ Water valves
  - 1. Up in paving and accessible.
  - 2. Turned on.
  
- ☐ Meters
  - 1. Boxes set.
    - **NOT IN SWALE.**
    - 2 feet minimum from driveway.
  - 2. Inside of box clean. Rock
  - 3. Tracer wire accessible.
  - 4. Final grade complete. Raked minimum.
  
- ☐ Sewer manholes and system
  - 1. Manholes up in paving to District specification and accessible.
  - 2. Sewer system videoed and tested to the discharge point of the tract.
  - 3. Sewer system clean.
  - 4. Plugs removed or installed at the Districts discretion.

Accepted for occupancy: Sign by \_\_\_\_\_ Date \_\_\_\_\_

Items for correction: \_\_\_\_\_

Date items corrected: \_\_\_\_\_

# Appendix Y

## Project Close-Out Checklist

## Project Close-Out Checklist

The following items must be submitted to JCSD before Projects are accepted by the Board:

√

	As-Built Drawings Approved by the Inspector
	Sewer Video of complete & accepted sewer system on DVD
	Sewer Mappings – 1 per lot
	Final Soils Report
	Agricultural Well Abandonment Certification
	Grant of Easements
	Continuity Certification
	Homeowner Improvement Disclosure Form
	Back Flow Certs. (Tested & Accepted within 8 months of Acceptance)
	Final Walkthru with District (See attached Final Inspection Sheet)
	Fees/Account Paid/Current
	Developers Engineer to Revise Mylars at JCSD Counter (Stamped Record Drawing)

# Appendix Z

Digital Disk Requirements and Formatting

# DIGITAL DATA SUBMISSION STANDARDS

## INTRODUCTION

The JCSD has adopted Geographic Information System (GIS) technologies to store and manage any data (water, sewer, parks, easements etc..) to a location within JCSD service area. It is the goal of JCSD to implement these technologies to expedite the design and review processes within the administration, by developing standards and procedures for integration of digital engineering CAD drawings into the GIS environment while maintaining the integrity and positional accuracy of the data. Thus, in addition to the submittal of Mylar plans for approval, JCSD is now requiring the submission of **two CDs** of water and sewer improvement plans of either Computer Aided Design (CAD) files or ESRI shapefile or ESRI file geodatabase based on the standards set forth in this document and **a fee** payable to JCSD for the work effort to update the District's Enterprise GIS.

## DIGITAL SUBMITTAL REQUIREMENTS

Digital files submissions will only be accepted if conditions pertaining to the following factors are met:

- I. Spatial Reference
- II. AutoCAD file guidelines
- III. GIS Shapefile or file geodatabase guidelines
- IV. GPS Data Collection guidelines
- V. Line and Point work, Text and Labels
- VI. Deliverable
- VII. Contact Information

If it does not comply with the standards outlined in this document, a resubmittal will be requested until it meets the Digital Submittal Requirements.

### I. Spatial Reference

All files must be correctly projected into the following coordinate system:

- **Projection:** State Plane
- **Zone:** California\_VI\_FIPS\_0406
- **Units:** US Survey Feet
- **Horizontal Datum:** North American Datum (NAD) 1983 adjusted to the High Accuracy Reference Network (HARN)
- **Vertical Datum:** North American Vertical Datum (NAVD) 1988

This is defined in ESRI ArcGIS for Desktop as follows:

NAD\_1983\_StatePlane\_California\_VI\_FIPS\_0406\_Feet  
WKID: 2230 Authority: EPSG  
Projection: Lambert\_Conformal\_Conic  
False\_Easting: 6561666.666666666  
False\_Northing: 1640416.666666667  
Central\_Meridian: -116.25  
Standard\_Parallel\_1: 32.78333333333333  
Standard\_Parallel\_2: 33.88333333333333  
Latitude\_Of\_Origin: 32.16666666666666



Linear Unit: Foot\_US (0.3048006096012192)  
Geographic Coordinate System: GCS\_North\_American\_1983  
Angular Unit: Degree (0.0174532925199433)  
Prime Meridian: Greenwich (0.0)  
Datum: D\_North\_American\_1983  
Spheroid: GRS\_1980  
Semimajor Axis: 6378137.0  
Semiminor Axis: 6356752.314140356  
Inverse Flattening: 298.257222101

**Notes:** JCSD base data is derived from Riverside County (<http://gis.rivcoit.org/>)

## **II. AutoCAD file guidelines**

- Digital files are to be submitted in AutoCAD version 2010 or higher and in “.DWG” file format.
- Drawing name convention shall be JCSD Project Number-Sheet Number (ex. JCSD Capital Project → C155010-01.dwg)
- All line work, text, and points must be in Model space.
- Drawings shall be North oriented and scale at 1:1 U.S. Survey Foot.
- Add layout elements such as the legend, scale bar, neat line, and publication credits to Layout space, NOT Model space.
- Do not add Viewport entities to the drawing in Model space. Only use Viewports in Layout space.
- All blocks will be created on the layer “0” and defined on layer “0”.
- XREF’s are not allowed in the final AutoCAD DWG file delivery.
- No annotation shall be included in any feature layer and no feature shall be included in any annotation layer
- All JCSD required layers from specification (table 1) below shall be made visible prior to submission – all other layers can be turned off.
- Closure is critical in converting AutoCAD elements to GIS features. All digital line work must be geometrically correct, topologically clean without slivers, dangles, undershoots or inappropriate breaks. Polygon features drawn as polylines must properly close without gaps.
- Each drawing shall reference (“tie to” or “georeferenced”) at least two survey control points or 2 point features (e.g., center of manhole, hydrant spindle, center of catch basin, or System Valve), present in JCSD GIS database.

## **III. GIS shapefile or file geodatabase guidelines**

- Decimal Degrees, a minimum of 8 significant digits (ex. -121.363469, 37.948884) are preferred over Degrees/Minutes/Seconds for the capture and storage of data.
- The following tolerances must be followed for all data:
  - Double Precision
  - Fuzzy Tolerance 0.0001
  - Dangle Tolerance 0.0
  - Edit 0.5
  - Node Snap 0.0001
  - Snap 0.5

- Layer names as indicated (and not necessarily be limited to) in the specifications below:

<b><i>Layer Name</i></b>	<b><i>Description</i></b>	<b><i>Feature Type</i></b>
	Geodetic Control Points	Points
	Secondary Control Points <sup>1</sup>	Points
	Map Reference Features <sup>2</sup>	Polylines
Property_Boundary	Property Boundary	Polygons
Building_Footprint	Building Footprint	Polygons
ROW_Boundary	Right-of-Way Boundary	Lines
Tract_Boundary	Tract Boundary	Polygons
Easement	Easement	Polygons
<b><u>WATER</u></b>		
wAirRelease	Water air release valve	Points
wAirReleaseValve	Water air release valve	Points
wBackflowDevice	Water backflow device	Points
wBlowOff	Water blow off	Points
wBlowOffValve	Blowoff Valve	Points
wBoosterPumpStation	Booster Pump Station	Points
wFireServiceValve	Valve control fire service	Points
wFitting	Water reducer, bend, tee, Plug, Cap, etc..	Points
wHydrant	Water Hydrant	Points
wHydrantValve	Water hydrant valve	Points
wIntertie	Water intertie connection	Points
wLateralLine	Water Service line	Lines
wMainLine	Water Main	Lines
wMeter	Water Meter	Points
wOffset_Dimension	Measurement from Mainline to ROW, CURB, or Centerline	Dimension
wPRStation	Water Pressure Reducing Station	Points
wPump	Water Pump	Points
wReservoir	Water Reservoir	Points
wSystemValve	Water System Valve	Points
wWell	Water Well	Points
	Water Text	Text
<b><u>SEWER</u></b>		
AirReleases	Sewer Air release	Points
BlowOffs	Sewer Blow off	Points
CleanOuts	Sewer Clean out	Points
ControlValves	Sewer control valve	Points
Fittings	Sewer bend, tee, cross, etc..	Points
ForceMains	Sewer forcemain line	Lines
GravityMains	Sewer gravity main	Lines
LateralLines	Sewer lateral line	Lines
LiftStation	Sewer lift station	Points
Manholes	Sewer manhole	Points
Pump	Sewer Pump	Points
ServicePoints	Sewer Service Node	Points
SystemValves	Sewer System Valves	Points
	Sewer Text	Text

Table 1

<sup>1</sup> Secondary reference points are features from JCSD GIS database such as System valve, manhole, and fire hydrant would be provided for this layer by requested.

<sup>2</sup> Map reference features are features from Riverside County GIS database such as street centerlines, parcel outlines, right-of-way, etc...that may be useful as background orientation.

- The names, notes, area sizes, etc. of particular features should be stored in the attribute table of the feature and not only as a separate piece of annotation text.
- Do not include spaces, dashes, or other special characters (e.g. -% ( ) # @ . , \* & [ ] / \).
- Start data and field names with alphabetical characters. Avoiding names starting with a number.
- Layer attribute fields as indicated (and not necessarily be limited to) in the specifications below:

Field Name	Data Type
Source	Text
Owner	Text
TractNo	Text
ProjectNo	Text
SheetNumber	Short Integer
Engineer	Text
Diameter	Double
Material	Text
StreetName	Text

- All GIS data must have Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) as defined here  
<https://www.fgdc.gov/metadata/csdgm-standard>

#### IV. GPS Data Collection Standard

The use of the Global Positioning System (GPS) for accurately and efficiently storing mappable feature locations and attributes has become a widely accepted method for collecting GIS data. With many now having the ability to use this technology to collect GIS data, it is imperative that the JCSD adopts GPS data collection standards to insure data quality and consistency. The minimum GPS standards to be used by JCSD as follow:

- The GPS receiver used to collect data for JCSD must be of **Mapping Grade** or better. It must:
  1. Routinely achieve 1 meter or better horizontal accuracy, using either real time or post processed differential corrections.
  2. Operate in a 3D mode, where the receiver requires signals from a minimum of four satellites to determine a 3D (latitude, longitude, and elevation) location (a fix).
  3. Allow the storage of position fixes for features that are being mapped. When mapping point features, the receiver must be able to store a sample of position fixes (the minimum number depending on the quality of the receiver) for the feature. The receiver must have enough data storage capacity for a typical day's worth of data collection.
  4. Be user configurable for critical settings, including DOP, SNR, elevation mask, and logging rate.

5. Produce and store data in a format compatible with the base station data used to perform the differential corrections or have the capability to receive real-time corrections from the base station.
- All collected GPS data must be differentially corrected, either in real time or in a post processed using the nearest operating base station with the highest integrity rating.
  - Along with the following parameters, JCSD suggests standing at a collection location for 5-10 seconds to evaluate the quality of signal (PDOP and number of satellites) before gathering points.

<b>Position Mode</b>	All position fixes must be determined with 4 or more satellites.
<b>Elevation Mask</b>	15 degrees above horizon.
<b>PDOP (Position Dilution of Precision) Mask</b>	Max PDOP = 8
<b>Signal to Noise Ratio Mask (SNR)</b>	If this parameter setting exists, set it to 39.0
<b>Minimum Positions</b>	If this parameter setting exists, set it to the manufacturer's
<b>For Point Features</b>	At a minimum, allow the GPS data collected to achieve the JCSD's 1 meter standard.
<b>Logging Intervals</b>	Intervals for point features will be 1 second. Intervals for line and area features depend on the velocity at which the receiver will be traveling and the nature of the feature and the operating environment. Under normal circumstances (i.e., when the user is walking with the receiver) the interval for line and area features will be set to 1 second.
<b>Logging of DOP (Position Dilution of Precision)</b>	If the receiver allows, this parameter setting will be set to allow the logging of DOP data along with position fixes.

- As stated in deliverable section, JCSD prefers GIS Data submittals to be in either ESRI file geodatabase or shapefile formats. Therefore, all collected GPS data must undergo some post processing steps using GPS processing software before the data can be export to one of these formats.
- If the GPS processing software allows, the following generated attributes must be produced for exported features:

<b>Point Features</b>	<b>Line and Polygon Features</b>
Maximum PDOP	Maximum PDOP
Receiver type	Receiver type
Correction status	Correction status
Date of collection	Date of collection
Time of collection	Time of collection
Total positions	Total positions
Standard deviation	Standard deviation
Horizontal Precision	Worst horizontal precision
*Elevation (MSL in feet)	*Average vertical precision
*Vertical Position	*Worst vertical precision

*\*Only necessary if elevation data is required by project*

- If elevation data is required by the project, it will be referenced to the North American Vertical Datum of 1988 (NAVD 88) vertical geodetic datum.

#### V. **Line, Point, Text and Labels (apply to AutoCAD and Shapefile)**

- All line work shown on the hard copy map that is submitted to plan check must be shown on the digital drawing.
- All line features shall be of a continuous line-type, such that each individual line/pipe segment is only broken at the ends where a node/structure is located.
- All point features shall be entered using standard point/node symbols.
- All text and labels shown on the hard copy map that is submitted to plan check must be shown on the digital drawing as text layer or annotation layer

#### VI. **Deliverables**

- First CD will contain **ONE** full scaled (Arch D, 24"x36") .pdf plan and **ONE** of the following file format:
  - a) AutoCAD Drawing (.dwg)
  - b) ESRI Shapefiles format (.dbf, .shp, .shx, .prj, .sbn )
  - c) ESRI File Geodatabase format (.gdb)

**NOTES:** All GIS Data (ESRI file geodatabases or ESRI shapefiles) are encouraged to deliver within an ESRI ArcMap Map Package (.MPK) or a compress (for example, with WinZip) file with all related shapefile files (.SHP, .SHP, .XML, .SHX, .DBF, .SBN, .SBX, and .PRJ) AND any ArcMap Layer file (.LYR) and map document (.MXD) created to display the data as they intended in Windows Explorer.

- The second CD will contain the .pdf of Final As-built drawing and the GPS data collection as outlined above at completion of the project.

#### VII. **Contact Information**

All disc/USB submitted should be labeled and contain the following nine pieces of information:

- |    |                  |                          |
|----|------------------|--------------------------|
| 1. | DATE:            | (Date submitted)         |
| 2. | PROJECTNO:       | (JCSD Project Number)    |
| 3. | TRACT/PM NUMBER: | (TR, PM, PP, CUP #'s)    |
| 4. | COMPANY NAME:    | (Engineering Firm)       |
| 5. | PROJECT CONTACT: | (Person Design)          |
| 6. | PHONE NUMBER:    | (999) 999-9999           |
| 7. | EMAIL ADDRESS:   | ABC@gmail.com            |
| 8. | FILE TYPE:       | (.dwg, .shp, or .gdb)    |
| 9. | PROJECT STATUS:  | ("Design" or "As-built") |

# Appendix AA

Tract/IP Final Inspection Sheet

**Jurupa Community Service District  
Tract / IP Final Inspection**

Date \_\_\_\_\_

JCSD REP. \_\_\_\_\_

Tract / IP# \_\_\_\_\_

Developer \_\_\_\_\_

**Items to be presented to the District prior to the final inspection:**

- DVD and CD of water and sewer system.
- As-Built drawings.
- Easement documents.
- The JCSD Inspector's completed punch list.

**Note: Final paving must be complete before the final inspection.**

**Present at the inspection:**

Developer representative: \_\_\_\_\_

Inspector: \_\_\_\_\_

**Items inspected:**

- ☐ Fire hydrants, blow offs and air vacs.
  - 3. In per plan and specifications.
  - 4. Painted.
  - 5. Bumper posts installed. (If applicable)
  - 6. Facing the right direction.
  - 7. Concrete pads poured.
  - 8. Tracer wire accessible.
  - 9. Air vac screens installed.
  - 10. Outlet caps installed with chains.
- ☐ Water valves
  - 1. Up in paving, clean and accessible. (Off-site and On-site)
  - 2. Turned on.
- ☐ Meters
  - 1. Boxes set.
    - **NOT IN SWALE.**
    - 2 feet minimum from driveway.
    - 5 feet from sewer lateral.
  - 2. Inside of box clean. Rock
  - 3. Tracer wire accessible.
  - 4. Final grade complete.
- ☐ Sewer manholes and system
  - 1. Manholes up in paving to District specification and accessible. (Off-site and On-site)
  - 2. Sewer system videoed and tested to the discharge point of the tract.
  - 3. Sewer system clean.
  - 4. All sewer plugs removed.

Final acceptance: Sign by \_\_\_\_\_ Date \_\_\_\_\_

**NOTE: More than five items for correction will terminate the inspection.**

Items for correction: \_\_\_\_\_  
\_\_\_\_\_

Date items corrected: \_\_\_\_\_

# **Appendix BB**

Record Drawing and GIS Updating Procedures for New Development Projects



# **JURUPA COMMUNITY SERVICES DISTRICT RECORD DRAWING AND GIS UPDATING PROCEDURES FOR NEW DEVELOPMENT PROJECTS**

1. Original design drawings (Mylar's) are signed by the District and other appropriate agencies.
2. District's Development Representative transmits the Approved Mylar Drawings to Records Retention for scanning and for placement in the Record Drawing Library.
3. Developer's Engineer submits (2) original design drawings CDs in CAD and in Shapefile to District's Development Representative in conformance with District's requirements per Appendix Z.
4. District's Development Representative transmits both disks in CAD and in Shapefile to District's IT Department who at that time updates the atlas maps with line work to red indicating facilities are "as designed" and "under construction."
5. During construction the District will begin approving occupancies for individual lots with in a tract project. Approval of occupancy will activate the water and sewer facilities serving those lots to operational status. At which time, the District's Representative will prepare a "Water and Sewer System Active Service Form for New Development" (attached) and will deliver the form to Operations (water/sewer) and the District's IT Department.
6. District's IT Department will then update the atlas maps line work to orange indicating facilities are now "operational" but have not been accepted by the Board of Directors.
7. During construction it will be the responsibility of the Inspector to immediately notify the District's Development Representative of substantial Red-Line Revisions (as determined by the District) that need to be made to the original Mylar's. The District's Development Representative will notify the Design engineer who at that time will make the Delta revisions to the original Mylar's at the District office.
8. District's Development Representative has the project inspector verify accurate transfer of revisions from approved Delta drawings to the Mylar's. The Development Engineer then verifies the Delta revisions and approves the Delta revisions.
9. District's Development Representative transmits the Delta Revisions to Records Retention for scanning and for replacement of the previous scanned copy of the Mylar's. Records Retention will forward/email the Delta Revisions to District's IT Department.
10. Project construction complete.
11. Developer submits the Final "Red-Lined As-Built Drawings" to District's Development Representative.
12. District's Development Representative has the project inspector confirm Contractor's "red-lined as-built drawings" plans are accurate and inspector signs cover sheet indicating such.
13. District's Development Representative has duplicate copy made of "Red-Lined As-Built Drawings" that they retain until entire process is complete.
14. "Final Walk Inspection" of constructed improvements is performed using the approved red-lined drawings.

15. District's Development Representative contacts District's IT Department to verify existence of electronic copies (i.e. CAD & Shapefile) of original fully signed Mylar's as noted above in step 3.
16. Design Engineer makes as-built revisions to the original Mylar's at the District office, or dependent upon the magnitude of changes provides a new signed Mylar. All sheets including the face sheet will be stamped "Record Drawing" and signed by the "Engineer of Record" within 15 working days.
17. District's Development Representative has the project inspector verify accurate transfer of revisions from Red-Line plans to Record Drawing Mylar's. The Development Engineer then verifies the As-Built/Delta revisions for accuracy and approves the "Record Drawings".
18. District recommends to the Board of Directors acceptance of the facilities after completion of the inspection punch list.
19. District's Development Representative transmits the Record Drawings to Records Retention for scanning and for replacement of the previous scanned copy of the Mylar's. Records Retention will forward/email the Record Drawings to District's IT Department.
20. District's IT Department updates atlas maps and changes line work from orange to blue (for water) and green (for sewer) to indicate facilities have been accepted by the Board of Directors.

# Appendix CC

Submittal Review Cover Sheet



## SUBMITTAL REVIEW (TR, IP, PM, & PP)

DATE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

JCSD P.N. \_\_\_\_\_

SUBMITTAL NO:    ☐    ☐    ☐    ☐  
                          1st   2nd   3rd   4th

DEVELOPER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

This Review Is Only For General Conformance With The Design Concept Of The Project And General Compliance With The Plans And Specifications And Shall **Not** Be Construed As Relieving The Contractor Of The Full Responsibility For Providing Materials, Equipment And Work Required By The Contract; The Proper Fitting And Fabrication Processes And Techniques Of Construction; And Performing The Work In A Safe Manner.

Development Representative: \_\_\_\_\_

Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

### REVIEW STATUS

**1:** No Exception Taken

**4:** Revise & Resubmit

**6:** Submittal Incomplete

**2:** Submit Specified Item

**5:** Rejected (Resubmit)

**7:** Not Applicable (N/A)

**3:** Make Corrections As Noted (No Additional Submittal Required)

### INSTRUCTIONS:

1. CONTRACTOR SHALL SELECT ONE VENDOR FOR EACH SUBMITTAL ITEM.
2. INDICATE SUBMITTAL ITEM ONLY ON PRODUCT CATALOG OR CUTSHEETS WITH SUBMITTAL ID.
3. IF A SUBMITTAL IS APPLICABLE TO SEVERAL ITEMS, PROVIDE ALL THE APPLICABLE SUBMITTAL IDS ON THE FIRST PAGE.
4. PUT TOGETHER ALL THE SUBMITTALS IN SEQUENCE WITH SUBMITTAL ID ON TOP.

### REMARKS:

# WATER

ID	SUMITTAL ITEM	MANUFACTURER / PART #	STATUS
----	---------------	-----------------------	--------

### MAINLINE MATERIAL:

WM1	CML / CMC PIPE		
WM2	PVC PIPE (C900 & C909)		
WM3	DUCTILE IRON PIPE		
WM4	FITTINGS (D.I.)		
WM5	FITTINGS (FABRICATED) CML/CMC		
WM6*	FLANGES (SLIP ON, COMPANION, BLIND)		
WM7*	BOLTS & NUTS – A307B		
WM8*	ZINC CAPS		
WM9*	FLANGE GASKETS – NON ASBESTOS RING		
WM10*	LOCATOR WIRE (14GA-1)		
WM11*	JOINT RESTRAINTS		
WM12	VALVES (BUTTERFLY, GATE)		
WM13	HIGH DEFLECTION COUPLING		
*:	APPLY TO THE ENTIRE PROJECT.		

**SERVICE MATERIAL WITHOUT BYPASS (PIPE 4" THRU 12"; METER 3" THRU 10"):**

WS1	CML / CMC PIPE		
WS2	PIPE FITTINGS		
WS3	PRECAST CONCRETE VAULT		
WS4	PIPE SUPPORTS		
WS5	3" BADGER METER W/ STRAINER AND RADIOREAD		
WS6	4" AND LARGER METER W/ BRONZE BYPASS ASSEMBLY		
WS7	GATE VALVE, FLXFL		
WS8	FLANGED OUTLET TEE TO MAINLINE		
WS9	2-1/2" 3/16" THICK WALL COUPLING		
WS10	2-1/2" X 12" STD BRASS THREADED NIPPLE		
WS11	2-1/2" GATE VALVE, NIBCO T-103-HC		
WS12	STD. WT. STL SPOOL (FBEL X OP)		
WS13	10 GA WWM		
WS14	1-3/8" ZINC PLATED CHAIN		

**WATER**

ID	SUMMITAL ITEM	MANUFACTURER / PART #	STATUS
----	---------------	-----------------------	--------

**LATERAL SERVICE MATERIAL (PIPE 1" AND 2"; METER 3/4" THRU 2"):**

WL1	STREAMLINE COATED COPPER TYPE "K" FOR 1		
WL2	COPPER TYPE "L" FOR 2"		
WL3	POLYETHYLENE SLEEVE BLUE FOR 2"		
WL4	WELD NOZZLE (TAP, SIDE OUTLET)		
WL5	SERVICE SADDLE (PVC)		
WL6	CORP. STOPS BALL VALVE/PACK JOINT		
WL7	1" ANGLE METER STOPS PACK JOINT		
WL8	2" ANGLE METER STOPS PACK JOINT		
WL9	METER BALL VALVE W/ HANDLE		
WL10	METER BOXES POLYMER-CONCRETE PW5 1/2		
WL11	WATTS LF07S DUAL CHECK VALVE		
WL12	METER COUPLING FOR DIELETRIC		
WL13	METER FLANGE FOR 2"		
WL14	COMPRESSION 90° PACK JOINT		
WL15	3-1/2" POLYMER BOX FOR 2" COMP. METER		

**MANIFOLD SERVICE MATERIAL:**

MS1	MJ X MJ X FL TEE		
MS2	GATE VALVE FL X FL		
MS3	FL X MJ ADAPTER		
MS4	DI TEE (MJ X MJ X MJ)		
MS5	DI END CAP		

**FIRE SERVICE MATERIAL:**

FS1	DDC / RPDC		
FS2	STD. WT. CML/CMC PIPE RISER		
FS3	STD. WT. CML/CMC ELBOW (BELOW GROUND)		
FS4	GATE VALVE		
FS5	STD. WT. FBEL ELBOW & SPOOL (ABOVE GROUND)		
FS6	FLANGED OUTLET TEE TO MAINLINE		
FS7	TAMPER SWITCH		
FS8	6"X6"X10 GA W.W.M.		
FS9	GROOVE x FLANGE ADAPTOR - VICTAULIC 741		
FS10	3/8" ZINC PLATE CHAIN W/ BREAK AWAY LOCK		
FS11	PIPE SUPPORT		

**WATER**

ID	SUMITTAL ITEM	MANUFACTURER / PART #	STATUS
----	---------------	-----------------------	--------

**FIRE HYDRANT ASSEMBLIES:**

FH1	FIRE HYDRANT HEADS 6 HOLE		
FH2	CML/ CMC PIPE & BEND		
FH3	GATE VALVE		
FH4	PVC C-900 WITH RESTRAINTS		
FH5	D.I. FITTING (PVC)		
FH6	HYDRANT BURY		
FH7	CLOW LBIW #400A BREAK-OFF CHECK VALVE		

**AIR VALVE ASSEMBLY:**

AV1	AR/AV VALVE		
AV2	STD BLACK COUPLING FOR STL PIPE		
AV3	STD WT BRASS PIPE (1" - 2")		
AV4	EXTRA HEAVY BRASS PIPE NIPPLE (1" – 2")		
AV5	90° STD WT BLK. ST ELLS FOR VENT		
AV6	NORTHTOWN STAINLESS STEEL SCREENS		
AV7	90° STD WT BRASS ELLS (1" – 2")		
AV8	MIP X MIP CORP. STOP (1" – 2")		
AV9	BRASS BALL VALVE (1" - 2")		
AV10	EXTRA HEAVY BRASS COUPLING (1" - 2")		
AV11	AIR VALVE COVER - GRANITE IN COLOR		
AV12	10 GA. MIN. OUTLET		
AV13	90° STD WT BEND CML/CMC		
AV14	GATE VALVE AWWA C-509 FLANGED, 200 WOG		
AV15	10 GA. MIN. STL PIPE CML/ CMC		
AV16	FLANGE INSULATION KIT		
AV17	150 LB SLIP ON FLANGE		

**BLOWOFF ASSEMBLY:**

BO1	BRONZE WHARF HEADS		
BO2	CML/ CMC PIPE		
BO3	SCREWED COMPANION FLANGE		
BO4	STD WT BLK FOR BLOW-OFF		
BO5	GATE VALVE		
BO6	TANGENTIAL TEE, 10 GA, CML/CMC		
BO7	MJXFL CAST IRON FIRE HYDRANT BODY		

**WATER**

ID	SUMITTAL ITEM	MANUFACTURER / PART #	STATUS
----	---------------	-----------------------	--------

**MISC. WATER MATERIALS:\***

MW1	TRANSITION COUPLING		
MW2	BACKFLOW ASSEMBLY		
MW3	VALVE CAP 6" & 8"		
MW4	SLIP CANS		
MW5	DIRECT BURY SPLICE KIT		
MW6	J&R BOX FOR TRACER WIRE (V1RT)		
MW7	NO-OX-ID A SPECIAL PROTECTIVE METAL COTING		
MW8	NO-OX-ID WAX		
MW9	FLANGE INSULATION KIT		
*	APPLY TO THE ENTIRE PROJECT.		



**SEWER**

ID	SUMITTAL ITEM	MANUFACTURER / PART #	STATUS
----	---------------	-----------------------	--------

**SEWER MATERIAL:**

SM1	PVC (SDR 35 OR 26) PIPE		
SM2	HDPE PIPE		
SM3	FITTINGS		
SM4	REPAIR COUPLINGS BAND		
SM5	PRECAST CONCRETE MANHOLE		
SM6	J&R CLEAN-OUT BOX (V2RT)		
SM7	WATERSTOP AT MANHOLE		
SM8	MANHOLE RING & COVERS		
SM9	SEALANT FOR MANHOLE OR WETWELL		
SM10	GREASE INTERCEPTOR		
SM11	STEEL CASING & SPACER		
SM12	CONCRETE MIX DESIGN FOR MANHOLE BASE & GRADING RINGS		
SM13	MARKING TAPE		
SM14	BACKWATER VALVE		
SM15	SEWER LATERAL TAP SADDLE		

**MONITORING MANHOLE:**

MM1	HOFFMAN ENCLOSURE A24H2008SS6LP3PT		
MM2	HOFFMAN VENT KIT XPV32 (TWO VENTS REQUIRED – TOP LEFT/BOTTOM RIGHT)		
MM3	HOFFMAN ENCLOSURE FAN – WHEN DIRECTED BY DISTRICT		
MM4	MOUNTING PANEL A24P20SS6		
MM5	MASTER PAD LOCK (PROVIDED WITH 2 KEYS - # 3882)		
MM6	6" PALMER-BOWLUS FLUME		
MM7	36" DIA. FRAME AND COVER PER ALHAMBRA FOUNDRY A-1325 (MANHOLE LID TO READ		
MM8	GREYLINE OCF 5.0 ULTRASONIC FLOW METER		
MM9	FLOW TRANSCIEVER WITH NON-CONTACT SENSOR		
MM10	3/4" DIA. RIGID STEEL PVC COATED CONDUIT WITH PVC COATED COUPLINGS		
MM11	316 SS STRAPS		
MM12	316 SS CONDUIT SUPPORT		
MM13	316 SS FLOOR MOUNTING BRACKET		
MM14	316 SS BOLTS		
MM15	EXPLOSION PROOF JUNCTION BOX WITH SEALING COVER PVC COATED		
MM16	60-IN PRECAST MANHOLE		

# Appendix DD

CCTV Inspection Guideline

# **CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION**

## **STANDARDS FOR ACCEPTANCE OF NEW SEWERS**

**March 2020**

**JURUPA COMMUNITY SERVICES DISTRICT**

# Sewer CCTV Technical Specifications

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# Sewer CCTV Technical Specifications

## 1. GENERAL DESCRIPTION OF THE WORK

- 1.1. The Sewer CCTV inspection work must be completed by a certified National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP) operator(s) using established PACP coding and observations. Current certification is to be provided at the time work is performed.

## 2. WORK AND MATERIALS PROVIDED BY THE CONTRACTOR

### GENERAL:

- 2.1. The Contractor shall provide and setup all required traffic control devices, including warning signs, lights, arrow boards and traffic cones, as required in accordance with the latest edition of the Work Area Traffic Control Handbook Manual (W.A.T.C.H. Manual), as well as following any City required encroachment permits or traffic control plans.
- 2.2. The Contractor shall obtain and comply with all permits required by local jurisdiction.

### SEWER CLEANING:

- 2.3. Sewers will be clean, remove grit, loosen solids, grease, and any construction debris that are present.
- 2.4. Cleaning shall be completed by the Contractor within 24 hours and no less than one hour prior to inspection to reduce the impact of the natural flow within the pipeline during inspection. **Operation of cleaning equipment downstream of the CCTV inspection is not permitted and will result in rejection of the CCTV inspection of the sewer main segment(s).**
- 2.5. The Contractor shall trap and remove all debris at the downstream manhole and legally dispose and haul away debris when cleaning pipe segments. **No disposal or decanting of waste recovered from the sewer is permitted to be discharged back into Jurupa Community Services District's (JCSD) Sewer System.**

### SAG MEASUREMENT:

- 2.6. The Sag Gauge must be pre-approved by JCSD. The Gauge must be clearly marked with the first minimum mark at 0.5" increments from 0.5", 1", 1.5", 2.0", etc. Gauge must be independent of tractor's frame (operating under its own weight) traversing the invert of the pipe. Still pictures of the Gauge used with a steel tape measure as a

comparison must be recorded before televising of the sewer begins. Gauge must be free of debris at all times. If Depth Gauge is not clear the video will be rejected. A picture of an acceptable depth gauge is presented at the end of this Appendix).

- 2.7. This section regarding sag measurement does not apply to laterals being video'ed by push camera.
- 2.8. Introduce an adequate amount of clean water at the upstream manhole to produce flow at the downstream manhole immediately prior to inspection; witness by a JCSD representative is required. If a sewer main segment is cleaned between CCTV inspections water will be re-introduced to the upstream manhole to produce flow in the downstream manhole.
- 2.9. The maximum amount of Sag permitted by JCSD is 0.5". All sags are required to be measured and video recorded on observation logs during the inspection. Tractor speed should be slow, with pauses at regular intervals, to properly measure sag depth through the sag's duration.

## **SEWER INSPECTION:**

### **OPERATOR CERTIFICATION:**

2.10. CCTV inspection shall be performed by a certified NASSCO PACP certified operator; certification to be presented at the time work is performed and shall be submitted with the report.

### **EQUIPMENT:**

- 2.11. The Contractor's CCTV equipment shall include video cameras, a video monitor cable, power sources, water source (must be on hand) and all equipment necessary to perform a CCTV inspection as outlined in this Technical Specification.
- 2.12. The cameras shall meet NASSCO requirements for operating in the sanitary sewer environment. All equipment must be in good repair and properly attached to the cable.
- 2.13. The cameras shall have Pan-and-Tilt capabilities, and shall have a minimum of 360 x 270 degree rotation and illumination sensitivity shall be three lux or less and provide a minimum of 460 lines of resolution. The focal distance shall be adjustable through a range from 25 mm (1 inch) to infinity.

- 2.14. During CCTV inspection, lighting intensity shall be adjusted to minimize glare. Lighting and picture quality shall be adjusted to provide a clear, in-focus picture of the entire periphery of the pipeline for all conditions encountered.
- 2.15. All camera systems shall be able to navigate around minor objects and debris. The system used to move the camera through the pipe shall not obstruct the camera's view or interfere with proper documentation of the sewer conditions.
- 2.16. The camera cable shall be retracted to remove slack and to ensure an accurate footage reading.
- 2.17. All inspections of manholes start at the upstream manhole and televise to the downstream manhole, any deviation must have written JCSD approval.
- 2.18. The distance shall be measured between the exit of the start manhole and the entrance of the finish manhole for a true measurement of the length of the pipe segment, as required by PACP. It shall be recorded in standard units and the video display readout shall display units to one-tenth of a foot.
- 2.19. The cable footage-counter shall be accurate to plus or minus 2 feet per 1,000 feet, plus or minus 1% per 100ft.
- 2.20. Video inspection and reporting shall be submitted in a NASSCO-compatible format; videos shall be viewable on any standard computer system (PC).
- 2.21. The camera lens shall be kept clear of condensation and debris during the CCTV inspection. RainX or equal to ensure lens is clear.
- 2.22. Must be able to pan entire joint with a 360-degree rotation. If the lens becomes dirty, the inspection shall halt, clean the lens and re-start the inspection. An inspection performed with a dirty lens will result in rejection of the CCTV inspection for that sewer main segment(s).
- 2.23. Begin all inspections from center of manhole, video to start from inside manhole and inspect outlet, sheer ring, joints, laterals and end in center of downstream manhole and pan upward to inspect inside of structure.

## **OBSERVATIONS:**

- 2.24. All observations and defects shall be documented in a database and shall include digital video recording and digital photographs as defined in Sections 2.24 and 2.25.
- 2.25. Each video clip and photograph provided shall correspond to inspection data in the database, and each set of inspection data listed in the database shall be properly linked to the appropriate video clip and photos.
- 2.26. All observations shall be selected from a standard table of descriptions incorporated in the inspection reporting software, as required by PACP. Any additional comments regarding the observation shall be indicated in the remarks box. The video shall show all joints, shear rings, laterals, etc.
- 2.27. The severity of each defect or observation shall be recorded and rated per the PACP method. Examples of potential defects include sags, cracks, rolled gaskets, debris, offset joints, missing shear ring joints, etc.
- 2.28. All observations shall be recorded using PACP codes as outlined in NASSCO's PACP Reference Manual, and in this document.
  - 2.28.1. Cured-In Place Pipe (CIPP) inspection process is different from the traditional pipe inspections: the video shall show all delamination of any layers or tube coating, tight fit in the existing pipe, foreign inclusions, abrasion, blistering, pinholes, bulging, major wrinkles, folds, dry spots, lifts, and Lateral connections reinstated.
  - 2.28.2. High Density Polyethylene (HDPE) and fusible PVC inspection process follows the traditional pipe material inspections however there are differences: they are normally a continuous jointless pipe except for the sheer rings, the inspection is to include the inner beads of the fused joint (the beads are required to be removed after the installation has been completed) Saddle Fusion Joints, defects such as grooves, pits, hollows, etc.

## **VIDEO:**

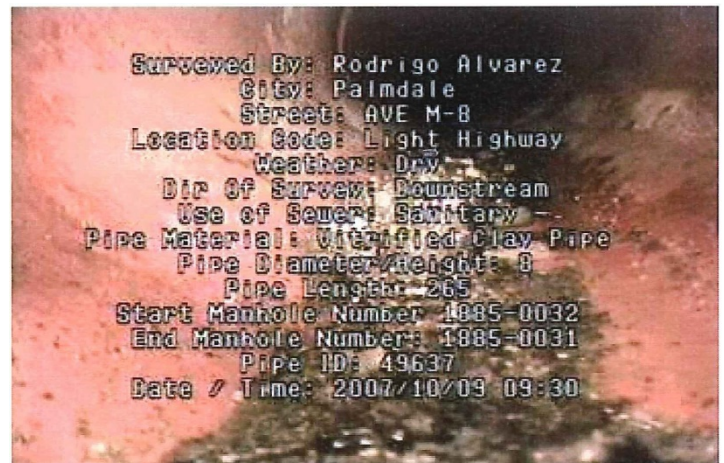
- 2.29. The Contractor shall make a continuous color digital recording in MPEG 4 format for each pipe segment inspected, unless otherwise specified by JCSD.



- 2.30. Video files shall have a minimum resolution of 352 x 240 pixels and an interlaced frame rate at a minimum of 24 frames per second.
- 2.31. Audio reporting will be avoided to prevent inconsistent operator subjectivity.
- 2.32. Video inspection will not exceed a traverse rate of 30 feet per minute.
- 2.33. The Contractor shall pause the digital recording at any time there is a delay in the inspection and restart the digital video recording in the same digital file. The pause shall in no way affect, freeze, or interrupt the replay of the video and shall not close the video file during the inspection.
- 2.34. Each pipe segment (manhole to manhole) shall be identified with an initial text screen and completed in accordance with PACP's CCTV inspection form header Instructions and shall be as follows:

**Line Number & Description**

Line 1: Surveyed By  
Line 2: JCSD  
Line 3: Street  
Line 4: Location  
Line 5: Code\*  
Line 6: Weather\*  
Line 7: Direction of Survey  
Line 8: Use of sewer\*  
Line 9: Pipe Material  
Line 10: Pipe Diameter/Height  
Line 11: Pipe Length (on plans)\*  
Line 12: Start Manhole Number GIS #  
Line 13: End Manhole Number GIS #  
Line 14: Pipe ID (GIS, PSR or MMS #)  
Line 15: Inspection Time/Date  
Line 16: Depth of invert



Line items noted with an asterisk (\*) are optional depending on the editing capacity of the text overlay equipment.

- 2.35. This data must completely match the data entered in the database header information.
- 2.36. The initial text screen shall appear no more than 30 seconds at the beginning of the video footage, and shall appear before the 360-degree pan of the starting manhole.
- 2.37. During the CCTV inspection, the video shall show the following text at all times:

**Line Number & Description**

Line 1: JCSD

Line 2: Street, Start Manhole Number/Direction of Inspection/End Manhole Number

Line 3: Pipe Material/Pipe Size

Line 4: Inspection Time/Date/Running Total

- 2.38. During the CCTV inspection, the camera shall stop at all defects and significant observations to ensure a clear and focused view of the pipe condition and shall rotate the camera head at the defect to allow for adequate evaluation at a later time.
- 2.39. All defects and significant observations shall include a text overlay of the recorded observation.
- 2.40. The video recording shall include on-screen observation text for every observation recorded in the database, including AMH, in addition to the text in Section 2.36.
- 2.41. The naming of the video file shall consist of the "FROM MANHOLE STATION or GIS NUMBER", "TO MANHOLE STATION or GIS NUMBER", and the eight-digit inspection date, as shown in the following example, or as pre-approved by JCSD:

0+00\_3+45\_20050101.mp4

(From MH Station\_ to MH Station\_ YYYYMMDD)

Note: "Manhole Station Number" may consist of survey station numbers as indicated on the design plans.

## **SEWER LATERAL INSPECTION**

### **OPERATOR CERTIFICATION:**

- 2.42. CCTV inspection shall be performed by a CCTV inspection shall be performed by a certified NASSCO PACP certified operator; certification to be presented at the time work is performed and shall be submitted with the report.
- 2.43. The Contractor's CCTV equipment shall include video cameras, a video monitor cable, power sources, water source (must be on hand) and all equipment necessary to perform a CCTV inspection as outlined in this Technical Specification.
- 2.44. The cameras shall meet NASSCO requirements for operating in the sanitary sewer environment. All equipment must be in good repair and properly attached to the cable.

- 2.45. During CCTV inspection, lighting intensity shall be adjusted to minimize glare. Lighting and picture quality shall be adjusted to provide a clear, in-focus picture of the entire periphery of the pipeline for all conditions encountered.
- 2.46. The camera cable shall be retracted to remove slack and to ensure an accurate footage reading.
- 2.47. Video inspection and reporting shall be submitted in a NASSCO-compatible format; videos shall be viewable on any standard computer system (PC).
- 2.48. The camera lens shall be kept clear of condensation and debris during the CCTV inspection. RainX or equal to ensure lens is clear.

#### **OBSERVATIONS:**

- 2.49. All observations and defects shall be documented in a database and shall include digital video recording and digital photographs as defined in Sections 2.24 and 2.25.
- 2.50. Each video clip and photograph provided shall correspond to inspection data in the database, and each set of inspection data listed in the database shall be properly linked to the appropriate video clip and photos.

#### **LATERAL CAMERA:**

- 2.51. CCTV of the lateral from the C/O at the point of transition/property line to the Main Line sewer connection.
- 2.52. Self-leveling (upright) small diameter pipe color television camera designed to operate in 2" to 8" pipe and negotiate multiple bends, design maintains proper camera orientation at all times with on screen footage (Prefer 360-degree rotation).
- 2.53. Camera is able to pass through a short 90-degree turn or a single tee connection in 4" pipe.
- 2.54. The lighthouse at minimum contains 12 light emitting diodes equaling 78 foot candella to illuminate pipeline interiors from 2" to 8".
- 2.55. Minimum 460 lines horizontal, 400 lines vertical resolution (NTSC) 450 h x 450 v (PAL); higher resolution means sharper pictures with greater details.

- 2.56. Minimum 379,392 picture element solid state sensor 768 h x 494 v (NTSC); the greater number of picture elements, the more detail is displayed in the picture.
- 2.57. Minimum 437,664 picture element solid state sensor 752 h x 582 v (PAL); lux sensitivity provides better pictures with less light.
- 2.58. 3 lux minimum sensor illumination sensitivity; no sensor distortion.
- 2.59. Camera is equipped with centering skid(s) for use in 4" to 8" pipe, skid mounts directly to the camera housing.
- 2.60. Recording devices: A portable hard drive or high capacity USB Thumb Drive containing the digital database, video and photo files.
- 2.61. Push cable (rod) reel 200' minimum with footage counter.

## **PHOTOGRAPHS:**

- 2.62. Digital photographs in JPEG format shall be made of all recorded defect observations. These photographs will be computer generated with the use of the inspection reporting system software.
- 2.63. JPEG images shall be captured at a minimum resolution of 640x480 pixels.
- 2.64. At a minimum, all photographs shall be named consisting of the following descriptions: "FROM MANHOLE STATION or GIS NUMBER", "TO MANHOLE STATION or GIS NUMBER", eight-digit inspection dates, and the defect distance location along the pipe. It is in the Contractor's discretion as to additional data information that may be needed in the naming of the files to make each file unique within the file naming constraints of their inspection software.  
  
0+00\_3+45\_20050101\_125\_A.jpg  
(From MH Station or GIS Number\_ To MH Station\_ or GIS Number  
YYYYMMDD\_Defect Position\_UniqueData)
- 2.65. Any additional information shall be included after the mandatory info specified above. The naming convention shall be consistent throughout the project.
- 2.66. A minimum of TWO photographs of each defect shall be taken, one with a perspective view and one with a close-up view.

- 2.67. ONE photograph is required for each lateral connection looking directly at the connection and each AMH observation from the bottom of the manhole looking up.

### **ADDITIONAL INSPECTION PROCEDURES:**

- 2.68. Bulkheads/mechanical plugs shall temporarily be removed as necessary along the entire segment of the sewer line from manhole to manhole. Otherwise, the segment will be considered incomplete. The Contractor shall reinstall the temporarily removed bulkhead/mechanical plugs until the sewer line is accepted.
- 2.69. A full 360-degree pan of all manholes is required. This video footage shall occur at the beginning of each pipe segment survey inspection from the bottom of the manhole panning up the manhole shaft. The Contractor shall cover the manhole opening to prevent too much light from entering the structure and to ensure a clear and focused view of the manhole interior. In instances when the manhole is the terminating manhole, then the pan shall occur at the end of the pipe segment survey inspection.
- 2.70. Video footage shall be taken from the center of the pipe. The camera shall run along the invert of the pipe and not at its side, unless it is passing a point obstacle. If extended driving on the side of the pipe is required, then either the pipe needs a more thorough cleaning or an observation should be noted from the PACP codes describing the nature of the obstacle.
- 2.71. Obstructions may be encountered during the course of the CCTV inspection that prevents the travel of the camera. In instances when obstructions are not passable, the Contractor shall withdraw the equipment and clean the sewer line and reschedule the televising.
- 2.72. If a particular line is inspected more than once, then the Contractor shall include all versions of the inspections in the database. The MGO observation shall be used on all inspections except at the first occurrence. The Contractor shall provide an explanation for the additional inspections in the Remarks section.

## **3. RECEIVED VIDEOS**

Two sewer CCTV inspections shall be performed in the course of construction:

- first upon completion of construction of the new sewer main line;
- second serviceability review shall occur prior to occupancy and introducing flow to the sewer system.

Initial sewer main videos shall be approved by the JCSD's Sewer Operations Department prior to base paving operations. Sewer Videos shall be prepared by a JCSD approved sewer CCTV inspection vendor. A Representative from Sewer Operations may be present during the CCTV inspection. Within seven (7) working days of completion of the sewer video work for the Tract or portion thereof. The Developer's Superintendent shall prepare a transmittal letter along with the complete digital sewer video file for JCSD review and approval. JCSD Staff will review and comment on or approve the digital file within seven (7) working days from the receipt of the transmittal from the Developer.

The Procedure for the Sewer Construction Video Inspection is as follows:

1. Within five (5) working days after the completion of the sewer system including the laterals, the Tract Superintendent shall notify the JCSD's Inspector that they request JCSD approval on the completed sewer system.
2. The JCSD's Inspector notifies the JCSD's Development Representative to schedule the CCTV inspection. The JCSD's Development Representative coordinates the inspection with Sewer Operations Supervisor to notify Operations of a pending CCTV Request.
3. JCSD's Sewer Operation's Staff may observe the post-construction video using the post-construction video inspection check sheet. If there are no items listed for correction, the JCSD's Sewer Operations Staff will sign the video inspection sheet verifying the main lines and laterals are acceptable. The inspector will provide the completed and signed check sheet to the JCSD's Development Representative for the project file. If there are any items listed for correction, the JCSD's Inspector will ensure that the listed items are corrected and a new full video inspection of the sewer main section (performed under the observation of the Sewer Operations Staff) is completed to document the acceptable conditions prior to signing the video inspection sheet certifying that the sewer system is in compliance with JCSD Standards.
4. The Developer will submit the complete package of video reports along with the complete digital video files to Development Engineering.
5. Development Engineering will submit the complete report to the Sewer Systems Supervisor for review and written final approval prior to filing in the Project folder; the Development Representative shall provide compaction reports for sewer trenches at that time.
6. The JCSD's Sewer Operations Staff will review and comment or approve the complete digital video file within seven (7) working days. If approved, the Developer may proceed with paving operations. If rejected, Sewer Operations Staff will provide a list of deficiencies for correction prior to re-videoing and re-inspection. Deficient work shall begin within five (5) working days of the notice of deficiencies and shall be completed within sixty (60) working days. Steps 1 – 6 shall be repeated until acceptance has been achieved.

A secondary CCTV inspection of the sewer mains and laterals (serviceability review) will be required prior to the first occupancy request for each phase of development; this shall occur when front yard landscaping is installed at the first home in the phase. The Serviceability Review CCTV Inspection will be required to ensure that sewer facilities that serve the homes are complete, operational, and ready for service – sewer main and lateral plugs shall not be removed until authorized in writing by the JCSD. The serviceability review shall check that the lines are free of debris and construction materials, that mainline pipe and laterals have not been compromised, and that sags have not developed due to settlement or construction related activities; this review will not require the panning of joints or shear rings. The area covered under this review will consist of that section of sewer main and lateral(s) for the home(s) for which landscaping has been installed, from the upper sewer manhole to the discharge point of connection to the JCSD's active sewer line.

It is the Developer's responsibility to properly show evidence that the sewer main and sewer laterals are clean and free from debris prior to removing the sewer plug to either the manhole or sewer lateral. The Grant of Occupancy will not be issued until the sewer plugs in the manhole and lateral have been removed.

Once the homes are approved for occupancy, it is JCSD's responsibility to operate the facilities servicing those homes. The "Serviceability Review Video Inspection Check Sheet" (Appendix X) details the items to be inspected. The Serviceability Review Video Inspection is one of the discussion points listed on the pre-construction meeting agenda for tract projects. The JCSD's Inspector will provide a copy of this check sheet to the Tract Superintendent (upon request) as a guide to prepare for move-ins. Serviceability Review Video Inspections are typically not performed on Parcel Map or Plot Plan Projects.

As part of the serviceability review process, the Developer will provide a Sewer Map for each lot to be released for occupancy. The Sewer Map will show the location of the sewer lateral to the home and will include all distances, bends and depths. The Developer is strongly encouraged to keep track of the installation and prepare each Sewer Map as the sewer later is connected from the house to the street connection.

The Procedure for the Serviceability Review Inspection is as follows:

1. When the first home in the Tract Phase receives its front yard landscaping, the Tract Superintendent notifies the JCSD's Inspector that they request JCSD Sewer Operations Staff to observe the serviceability review video inspection of the designated homes.
2. The JCSD's Inspector notifies the JCSD's Development Representative to schedule the CCTV inspection. The JCSD's Development Representative coordinates the inspection with Sewer Operations Supervisor to notify Operations of a pending CCTV Request.
3. JCSD's Sewer Operations Staff may perform the serviceability review video inspection using the serviceability review video inspection check sheet. If there are no items listed for correction, the JCSD's Sewer Operations Staff will sign the video inspection sheet verifying the sewer main and lateral(s) are ready to be put into active service; and provide the completed and signed check sheet to the JCSD's Development Representative for the project file. If there are any items listed for correction, the JCSD's Inspector, in conjunction with Sewer Operations Staff, will ensure that the listed

items are corrected and re-inspected to document correction prior to signing the video inspection sheet, verifying the sewer main and lateral(s) are ready for active service.

4. The JCSD's Inspector provides the completed and signed check sheet to the JCSD's Development Representative for the project file and notifies them that the homes are ready for occupancy.
5. After being notified that the homes are ready for occupancy, the JCSD's Development Representative will send a letter to the County/City in which the JCSD is approving the occupancy of the designated homes.
6. Within five (5) working days of the completion of video inspection for the Tract Phase, the Developer will submit the complete package of video reports along with the complete digital video files to Development Engineering.
7. Development Engineering will submit the complete report to the Sewer Systems Supervisor for review and written final approval prior to filing in the Project folder.
8. The JCSD's Sewer Operations Staff will review and comment or approve the complete digital video file within seven (7) working days. If approved, the Developer may proceed with Occupancy. If rejected, Sewer Operations Staff will provide a list of deficiencies for correction prior to re-videoing and re-inspection. Deficient work shall begin within five (5) working days of the notice of deficiencies and shall be completed within sixty (60) working days. Steps 1 – 8 shall be repeated until acceptance has been achieved.
9. Submission of all required CCTV Reports will be a condition of final tract acceptance.

## **RECEIVED SUBMITTALS**

- 3.1. Submittals will consist of:
- 3.2. A portable hard drive or high capacity USB Thumb Drive containing the digital database, video, and photo files.
- 3.3. A printed report in a hardcover white clear view 3-ring binder labeled as described in Section 4.4, containing the following information:
- 3.4. Footage calibration report for each camera used.
- 3.5. PACP Certificate copies of all operators.



- 3.6. Summary table of all pipeline segments inspected with the following fields in the order listed:

**Column Number & Description**

Column 1: Date of Inspection

Column 2: Start Manhole GIS

Column 3: Stop Manhole GIS

Column 4: Total Pipe Length (per as-built plan)

Column 5: Televised Length

Column 6: Quick Maintenance Rating (per PACP)

Column 7: Quick Structure Rating (per PACP)

Column 8: Section Number

(\*NOTE: The table shall be sorted by Start Manhole GIS)

- 3.7. An observation table of all pipeline segments inspected with the following fields in the order listed:

**Column Number & Description**

Column 1: Section Number

Column 2: Position of Defect

Column 3: Observation Code (per PACP)

Column 4: Observation Description (per PACP)

Column 5: Structural Grade (per PACP) Column 6: O&M Grade (per PACP)

(\*NOTE: The table shall be sorted by Section Number)

**DELIVERABLES:**

- 3.8. As part of the Submittal, the Contractor shall submit all video recordings, image files, and databases on a high capacity USB thumb drive or a rectangular shaped external hard drive with USB 2.0/3.0 connection, or similar, as pre- approved by the JCSD. If a hard drive is submitted, the submittal shall include the power cord and USB connection cable. The external hard drive and cables will become property of the JCSD unless otherwise indicated.

- 3.9. High capacity USB thumb drive(s) or External hard drive(s), binder cover and binder spine label shall include the following information on computer-generated labels:

3.9.1. Jurupa Community Services JCSD - Sewer Operations Division

3.9.2. General Contractor Name and Sub-Contractor Name

3.9.3. Project Name (e.g. PC 123456 Tract 15423-02)

3.9.4. Start Date of CCTV Inspections (e.g. MM/DD/YYYY)

3.9.5. Finish Date of CCTV Inspections (e.g. MM/DD/YYYY)

3.9.6. All files included as part of the deliverables shall be contained within one single folder on the High capacity USB thumb drive or hard drive and labeled with the project name, and the date as:

## **VIDEO QUALITY – ACCEPTANCE/REJECTION:**

- 3.10. The video recordings, photographs, and data shall be reviewed by the JCSD for focus, lighting, clarity of view, and technical quality.
- 3.11. Video recording without the use of a JCSD approved Sag Gauge and/or a pipeline that was not preloaded with adequate clean water prior to the start of the televising will not be reviewed or approved.
- 3.12. Videos or photographs recorded while a camera has flipped over in the process of traveling or the viewing of laterals, obstructions, or defects are blocked by cables, skids or other equipment will not be accepted.
- 3.13. Shape, focus, proper lighting, and clear, distortion-free viewing during the camera operations shall be maintained. Failure to maintain these conditions will result in the rejection of the video and/or photographs by the JCSD.
- 3.14. Videos or photographs recorded showing steam, inadequate lighting, or other poor image quality will be cause for rejection by the JCSD.
- 3.15. Any reach of sewer where recording quality, inspection, and/or report is not acceptable, according to this Technical Specifications to the JCSD shall be re-televised, or data modified.

## **4. ADDITIONAL RESPONSIBILITIES OF THE CONTRACTOR**

- 4.1. In the event of any Contractor-related overflow or interruption/backup of customer service, the Contractor shall immediately notify the JCSD through the assigned Inspector, and shall contain and eliminate the overflow.
- 4.2. The Contractor shall be responsible for any fines levied by others, reimbursement of any agency incurred costs, damage, cleanup, restoration of flow, and any disruption of service costs to customers as, a result of the Contractor's work. This is in addition to any, and all costs incurred by the customer.
- 4.3. The Contractor shall respect the rights of property owners, and not enter upon private property without obtaining written permission from the owner of the property.

## **EMERGENCY RESPONSE**

The Contractor shall observe and comply with JCSD'S policy of "ZERO SPILLS" and shall be in full charge and be responsible for the Jobsite, the construction work and subject to the directions of the JCSD/Project Inspector, Sewer Service & Maintenance Foreman, Sewer Systems Supervisor.

In the event of any contractor related sewer overflow, interruption and/or back up of customer service the contractor shall immediately contact JCSD personnel on the project and assist in first response on any emergency situation.

In case of a sewage spill, the Contractor shall, without instructions from JCSD, act immediately to contain and control the spill and take all appropriate steps to mitigate the overflow. Again, the Contractor shall immediately notify JCSD personnel assigned to the project.

In the event of a sewage spill or the potential of a spill to occur, adequate protection (containment) of all Storm Drains, Catch Basins and open channels are essential.

The Contractor shall provide for an emergency response unit that will be immediately dispatched to the job site in case of sewage spill(s). The emergency response unit shall consist of emergency response equipment and personnel trained in its use.

The Contractor shall provide digital photographs of all areas impacted and documentation on all corrective actions taken.

### **TYPICAL INSPECTION PROCEDURE:**

1. Display Overlay with Segment details.
2. Start manhole inspection from center of manhole, pan manhole 360 degrees, from bottom looking up.
3. Start pipe inspection from edge of pipe, resetting the footage to zero at the start of pipe inspection.
4. Indicate AMH (Manhole) and MH Number in Remarks to start survey.
5. Indicate MWL (Water Level).
6. Indicate MWM (Water Mark) if visible.
7. Conduct survey.
  - a. Record all defects & taps

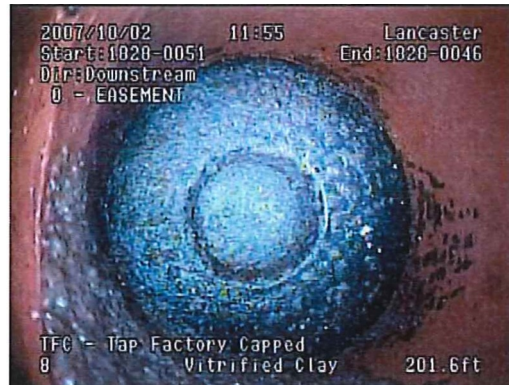
i. Close-up



ii. Perspective View (looking down the pipe at the defect).



- iii. Take 1 Photo of each tap



## 8. End Inspection

- a. If the camera reaches the end Manhole:
  - i. Indicate AMH and MH number in Remarks
  - ii. Display Ending Screen Text
  - iii. 360-degree Pan of Manhole, if the manhole is the terminal manhole.

### FILE NAMING:

Database File Name: PrivateContractNumber TractNumber\_YYYYMMDD\_Acceptance Review Submittal# .mdb

Ex. PC45123\_52369-02\_20071220\_AcceptanceReview\_1.mdb

Photo Name(s): From MH Station –To MH Station -YYYYMMDD –Defect Position\_ Unique Data .jpg  
Ex. 0+00\_3+45\_20050101\_125\_A.jpg

\*NOTE: Photographs shall be taken as follows: 2 photographs of each defect & 1 photograph of each lateral connection

Video Name(s): MH Station\_ To MH Station\_ YYYYMMDD .mp4  
Ex. 0+00\_3+45\_20050101 .mp4 From

### SECTION HEADER DATA:

Dates: YYYYMMDD (4-digit year, 2-digit month, 2-digit day)

Manhole Names: ##-+##- (Station Number) GIS  
Ex. 12+00

Feet Televised: This distance shall be measured from the exit of the start manhole and the entrance of the finish manhole. (i.e. only the distance of the pipe)

## EXAMPLE LABEL:

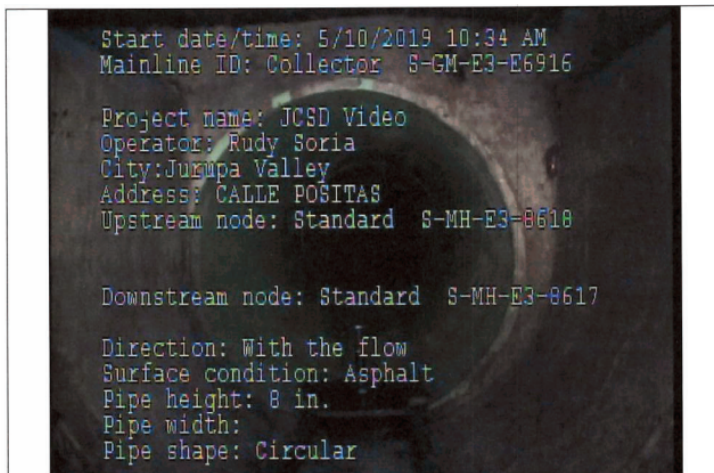
JCSD- Sewer Operations Division  
General Contractor and CCTV  
Co PC 123456 Tract 15423-02  
Start: 01/05/2016  
Finish: 02/07/2016

## SCREEN OVERLAYS:

### INITIAL TEXT SCREEN:

Include all of the following lines of text in the order listed; if your software/hardware does not allow for 13 lines of text, the lines marked OPTIONAL can be omitted as needed.

Line 1: Surveyed By  
Line 2: JCSD  
Line 3: Street  
Line 4: Location Code (OPTIONAL)  
Line 5: Weather (OPTIONAL)  
Line 6: Direction of Survey  
Line 7: Use of Sewer (OPTIONAL)  
Line 8: Pipe Material  
Line 9: Pipe Diameter/Height  
Line 10: Start Manhole Number GIS\*  
Line 11: End Manhole Number GIS\*  
Line 12: Inspection Time/Date/Feet CCTV'd



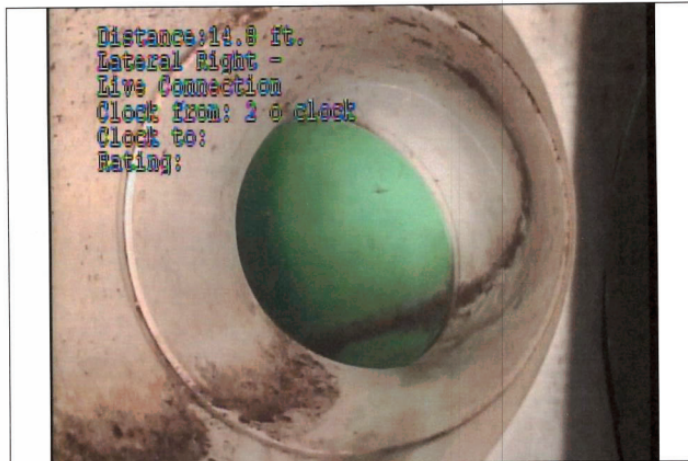
## RUNNING SCREEN TEXT:

During the CCTV inspection, the video shall show the following text at all times:

Line 1: Date/Time

Line 2: Start Manhole Number/End Manhole Number

Line 3: Current Footage



## OBSERVATION SCREEN TEXT:

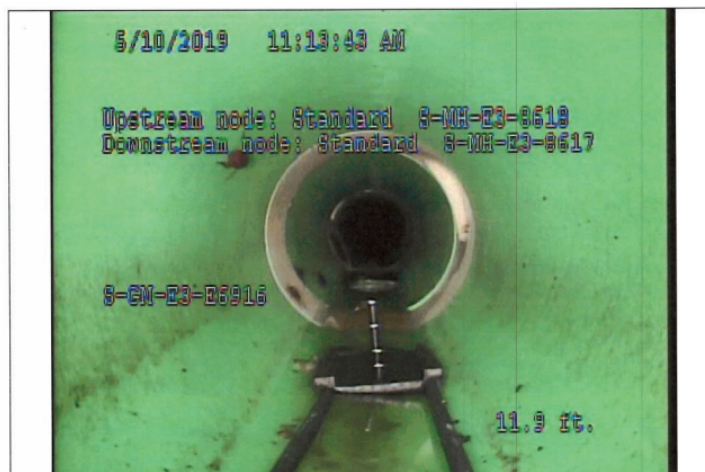
The video shall the display the following screen when an observation is recorded.

Line 1: Date/Time

Line 2: Start Manhole Number/End Manhole Number

Line 3: Observation Code – Observation Text Description

Line 4: Current Footage





## **PACP CODES:**

AMH - All inspections shall start with AMH, or other appropriate code for access point. (Refer to PACP Reference manual page 7-13)

MSA - All inspections where a segment is abandoned due to a blockage, obstruction, or collapsed sewer shall end with this code, and a reverse inspection shall be attempted. (Refer to PACP Reference manual page 1-4, 8-2, and 8-7)

MGO - This code shall be used when additional remarks are necessary . . . such as, reverse inspection, re-inspected during low flow, segment excused by DPW. Also, any defects in Manholes, such as a hole in the trough shall be recorded as an MGO.

MWL - This code shall be used at the beginning of each survey to indicate the water level, and shall be used throughout the survey if the water level changes by 5% or more. (Refer to PACP Reference manual page 8-2)

MWM - This code shall be used when there is an obvious mark on the side of the sewer line, where the water regularly reaches. (Refer to PACP Reference manual page 8-2)

RBL - This code shall be used when roots have formed a mass and, in doing so, are restricting the flow. This code should be used when the cross-sectional area lost is greater than 50% INSIDE the service pipe connection ONLY (i.e. lateral or tap connections) (Refer to PACP Reference manual page 6-7)

RBC - This code shall be used when roots have formed a mass and, in doing so, are ' restricting the flow. This code should be used when the cross-sectional area lost is greater than 50% and the roots extend OUTSIDE the service pipe connection and into the main sewer pipe. (Refer to PACP Reference manual page 6-7)

RBB - This code shall be used when roots have formed a mass and, in doing so, are restricting the flow. This code should be used when the cross-sectional area lost is greater than 50% and the roots are ENTIRELY WITHIN the main sewer pipe. (Refer to PACP Reference manual page 6-7)



### EXAMPLE SUMMARY TABLE:

	Date	Start MH	Stop MH	Total Pipe Length	Tot. Length	Quick main! rate	Quick struct rate	Section No
1	01/05/2020	0+00	3+15	315	314.01	0000	1100	1
2	01/05/2020	3+15	6+40	325	322.02	2211	3100	2
3	01/05/2020	6+40	9+40	300	301.01	0000	0000	3
4	01/05/2020	9+40	12+00	320	320.99	1300	1300	4

### EXAMPLE OBSERVATION TABLE:

	Section No	Position	oc	Observation	Struct Gr	O+M Grade
1	4	0	AMH	Upstream Manhole, Survey Begins		
2	4	0	MWL	Water Level, 15 % of cross sectional area, from 05 to 07 o'clock		
3	4	22.24	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: NO		
4	4	38.47	CM	Crack Multiple, from 10 to 04 o'clock, within 8 inch: YES	3	
5	4	71.32	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: NO		
6	4	114.58	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: NO		
7	4	137.54	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: NO		
8	4	245.94	AMH	Downstream Manhole, Survey Ends		
9	5	0	AMH	Upstream Manhole, Survey Begins		
10	5	0	MWL	Water Level, 15 % of cross sectional area, from 05 to 07 o'clock		
11	5	10.01	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: NO		
12	5	51.02	MWM	Water Mark 10 % of cross sectional area		2
13	5	100.7	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: NO		
14	5	115.94	AMH	Downstream Manhole, Survey Ends		

## SUBMITTAL CHECK LIST:

The following items shall be included in your submittal to JCSD before it will be processed for the Acceptance of Sewer into the JCSD.

\_\_\_\_\_ High capacity USB thumb drive(s) or a rectangular shaped hard drive or containing:

\_\_\_\_\_ WinCan database file (mdb),  
\_\_\_\_\_ Video files (mp4), and  
\_\_\_\_\_ Photo files (jpg).

(NOTE: VHS video tapes, CDs and DVDs will not be accepted)

\_\_\_\_\_ A hardcover white clear view 3-ring binder labeled as described in Section 4 .3 including the following items:

\_\_\_\_\_ Footage calibration report for each CCTV camera used.  
\_\_\_\_\_ PACP Certificate copies of all operators.  
\_\_\_\_\_ Summary table of all pipeline segments inspected with the following fields in the order listed:

Column 1: Date of Inspection  
Column 2: Start Manhole GIS  
Column 3: Stop Manhole GIS  
Column 4: Total Pipe Length (per as-built plan)  
Column 5: Feet CCTV'd Televised Length  
Column 6: Quick Maintenance Rating (per PACP)  
Column 7: Quick Structure Rating (per PACP)  
Column 8: Section Number

(\*NOTE: The table shall be sorted by Start Manhole)

\_\_\_\_\_ An observation table of all pipeline segments inspected with the following fields in the order listed:

Column 1: Section Number  
Column 2: Position of Defect  
Column 3: Observation Code (per PACP)  
Column 4: Observation Description (per PACP)  
Column 5: Structural Grade (per PACP)  
Column 6: O&M Grade (per PACP)

(\*NOTE: The table shall be sorted by Section Number)