

DESIGN AND CONSTRUCTION STANDARDS MANUAL

For

SEWERAGE FACILITIES

NOVEMBER, 2022



SECTION II

DEVELOPMENT REQUIREMENTS

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II. DEVELOPMENT REQUIREMENTS

A. DEVELOPMENT PROGRAM

The program mission is to meet the sewerage and street lighting needs of development occurring within the community through a comprehensive approach to planning, design, and construction of required facilities.

The Development Requirements section of the Design and Construction Standards Manual 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 sewerage 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 sewerage system development work within the District's service area.

B. ABOUT THE DEVELOPMENT REQUIREMENTS

The Development Requirements section of the Design and Construction Standards Manual is a guide for persons and/or entities associated with the establishment of new developments within the District and are applicable to developers, design engineers, construction contractors, and other parties conducting development activities within the District. The requirements will commonly refer to this group of stakeholders as "Developer".

The Development Requirements 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. This section is organized into the following individual sections that mirror key phasing in the development process:

- 1. Pre-Design
- 2. Design
- 3. Construction
- 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 sewer facilities needed to support the proposed development. Another objective of these requirements is to clearly identify the responsibilities and financial obligations of the Developer in this effort.

To initiate the development application process, please include the Request for Sewer Availability as part of your first submittal to the District.

C. DISTRICT FEES AND 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. The deposit of "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 sewer facility charges and advance payment against actual cost.

1. Sewer Facilities Charges

The sewer facility charges as shown in "Current Charges and Deposits" (Appendix G of Section VII) 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.

2. Advance Payment Against Actual Cost (Deposit)

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 additional deposits include:

- Sewer Availability Determination (availability letter)
- Grease Interceptor Waiver Request
- Plan-check
- Industrial Waste System Review
- 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.

D. PRE-DESIGN PHASE

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

1. About the District's Design and Construction Standards Manual

Products, manufacturing techniques, construction methodologies, and District operational and design parameters are constantly evolving and improving. As such, the District's Design and Construction 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 (www.edgemontcsd.specialdistrict.org). 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.

2. Sewer Availability Letter Requests

The Developer makes the request for a Sewer Availability Letter using the "Sample Template – Availability Letter Request" (Appendix H of Section VII) and submits it to the District with the items identified on the "Requirements and Procedures for Requests of Availability Letter" (Appendix H of Section VII) along with the appropriate Advance Payment of Deposit. The District's Engineer will write the Sewer Availability Letter 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.

E. 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 sewer facilities for the District's review and approval. The Developer will, if required by the Planning agency, initiate proceedings for street light annexation. The District may require the Developer to execute a Construction Agreement.

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.

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 "Plan Check Submittal Checklist" (Appendix N of Section VII), the District will follow the procedures outlined in Section III, Paragraph B entitled "Plan Check Procedural Guidelines".

When the District's Engineer is satisfied with the current plan-check submittal, the Developer's Engineer will be authorized to produce and submit Mylar drawings to the District for final review and signature by the District's General Manager.

Prior to mylars being approved and 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.
- All appropriate easements be executed using the "Grant of Permanent Easement" template (Appendix B of Section VII), and if required by the District, the execution of the Construction Agreement between the Developer and the District.

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.

The deposits and fees owed by the Developer are required at the time the Mylars are signed.

The deposit for the District's inspection services, which is required for the Construction Phase of the Project, will be provided by the Developer after the Mylars are signed. The Inspection Deposit is calculated as a minimum deposit.

2. About the District's Construction Agreement

Some Developer-funded projects may require that the Developer enter into a construction agreement with the District (Appendix C of Section VII). 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-by-case basis, at the discretion of the Board.

3. Proceedings for Street Lighting Annexation

The Developer's project may be required by the Planning Agency to annex into a Street Lighting District as part of a condition for approval. The District forms Lighting Districts 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 street lighting annexation (Appendix I of Section VII), which outlines the proceedings for street light annexation, the Developer must

follow the procedures detailed in the "Requirements of Developer for Street Lighting Annexation" (Appendix I of Section VII), along with the required fees.

4. <u>Industrial Waste Review Process for Industrial, Commercial, and Non-</u> 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 "Wastewater Discharge Survey" form (Appendix J of Section VII), along with the items specified on the form to begin the process. The District's Industrial Wastewater section 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.

a. Assessment of Industrial Waste (Sewage) Fees for 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 Wastewater Discharge Survey form.

b. Re-assessment of Industrial Waste (Sewage) Fees for Non-Residential

Under certain situations (as described in the following), the District will re-assess the annual sewer charge.

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 "Wastewater Discharge Survey" form (Appendix J of Section VII) along with the items specified on the form to begin the process. As described in the section above (reassessment subsequent full occupancy), the annual sewer charge will be re-assessed and, if required, an adjustment in payment will be made.

F. 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 sewer facilities per the approved plan.

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. The District's Inspector will be monitoring for quality assurance, all locations along the excavation that cross the District's facilities such as, 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.

As part of the construction procedures for all sewer facilities VCP or PVC pipe is used, 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 facilities meet the District's specifications (see procedures for Video Inspections contained in this section).

1. Pre-Construction Meeting

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 District's Engineer or his designee (using the District's Pre-Construction Meeting Agenda) conducts the pre-construction meeting. The Development Supervisor, 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 City representative present at the pre-construction meeting, but it is not a requirement.

2. Requirements for Pre-construction Meeting

The following requirements must be met prior scheduling a preconstruction meeting:

a. The District's Engineer 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-Construction Conference and Notice to Proceed checklist (Appendix F of Section VII) have been completed.

- b. A District Inspector has been assigned to the project.
- c. All necessary material submittals for the project have been reviewed and approved by the District's Engineer or his designee a minimum of five working days prior to scheduling the preconstruction meeting.
- d. The Developer has presented to the District:
 - (1) Complete cut-sheets for the first three hundred (300) feet for each crew's start location.
 - (2) Completed "Contractor's Data Sheet" (Appendix D of Section VII)
 - (3) A copy of the Contractor's safety program.
 - (4) A list of the Certified Competent Persons who will be on the project.
 - (5) A copy, from the contractor, of the certifications for each person and a Certified Competent Person for confined space entry on the job.
- e. The District's Engineer who has reviewed the information supplied by the Developer and contractor will determine if the preconstruction meeting can proceed.
- f. The District's Engineer coordinates with the attendees to set a time and date for the pre-construction meeting to be conducted.

The pre-construction meeting is conducted in accordance with the requirements found in Appendix F of Section VII, 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 checklist are provided to those in attendance.

After the pre-construction meeting is complete, the District, along with the District's Inspector, sets a start-work date within two (2) working days; and the Development Supervisor will sign and issue a Notice to Proceed to the Developer.

3. Video Inspection of Sewer Pipe Lines

Video inspections of sewer lines on development projects are done to ensure that the newly installed sewer lines meet the District's standards and specifications for material and installation. 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 Contractor, using the Contractor's video inspection equipment, with the

District's Representative present, conducts the video inspection per the requirements outlined in "Sewer Pipeline Construction Specifications" (Section V). 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 MM-DD-20YY. The Developer is responsible for contracting directly with a qualified video inspection company and shall submit said qualifications to the District for review and approval prior to initiating the subject work. Refer to the Section V. Basic Specifications. Section C entitled "Sewer Pipeline Construction Specifications" for said qualifications. If the District did not approve the video inspection company the District has the right to reject all work performed by the unapproved video inspection company.

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. All sewer lines, laterals and manholes have been installed per the approved plans.
- d. All lines have been cleaned to the satisfaction of the District Inspector.
- e. All manholes are accessible to the video truck and at the elevation and grade for base paving.

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 District 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 Engineer for the project file and a copy is given to the District 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.

After the District 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.

4. <u>Use of Sewer Plugs and Bulkheads</u>

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 proposed placement and location of these plugs and bulkheads will be submitted to the District for review. 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 Engineer.

Under no circumstances are these plugs or bulkheads to be removed without permission from the District.

5. 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.

G. 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 prepare the project for final inspection by the District's Engineer. Also, during this phase the District will be working with the Developer's Superintendent and Contractor to ensure that all of the items identified on the "Project Close-Out Checklist" (Appendix K of Section VII) are completed and that all outstanding financial obligations are met. Also included on the Project Close-out Checklist, in addition to the mylar plans, ECSD requires submission of three digital copies of the as-built drawings in the form of digital disks for Tracts, Plot Plans, and Parcel Maps, etc. After Board approval, the District 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.

1. <u>Final Inspection</u>

The Final Inspection is a much more thorough inspection of the sewerage facilities compared to the pre-occupancy inspection. The Final Inspection is normally conducted after homes are occupied or 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 sewerage facilities have been installed and after final street cap paving is complete. The District's 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:

- a. The Developer requests final close-out and acceptance for the project by sending a letter request to the District.
- b. The District's Engineer will verify that all items on the Project Closeout checklist 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.
- c. 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 Engineer and notifies them that the project is ready for a final inspection.
- d. The District's Engineer schedules a time for the final inspection.
- e. Once the required persons have accepted the time and date of the final inspection, the District's Engineer 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 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.
- f. The District's 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.
- g. 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 Engineer will request that the Developer resubmit the CD if any inaccuracies are identified.

h. After review and approval by the District's Engineer, the District schedules the project for consideration of acceptance at the next Board meeting. Upon approval by the Board, the District will send the appropriate letter to the City notifying them of the District's acceptance of the facilities.

2. Issuance of Sewer Permit

This District will issue the Sewer Permit for the project upon the completion of all required close-out items, Board acceptance, final inspection, meeting all financial obligations, and final inspections of all other agencies. The Developer shall submit the following information to assist in permit issuance (Section VII, Appendix L).

- a. Provide Project Description (No. of Units, Residential, Commercial, Industrial, Retail, Restaurant, Other)
- b. Project Address, Lot No., Tract/Parcel Map No.
- c. Project's Assessor Parcel Number
- d. Owner's Name
- e. Owner's Mailing Address
- f. Owner's Telephone Number

This information must be provided and incorporated into the sewer permit. Once the sewer permit is completed it must be signed and fully executed by the District and the District's Inspector in order for the project to be fully accepted and released.