LIVERMORE
CALIFORNIA

DEVELOPMENT PLAN CHECK AND PROCEDURES MANUAL

ADOPTED BY CITY COUNCIL
RESOLUTION NO. 2025-044
March 24, 2025

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION APPROVING THE UPDATE TO THE CITY OF LIVERMORE DEVELOPMENT PLAN CHECK AND PROCEDURES MANUAL DATED MARCH 24, 2025 AND DELEGATING DISCRETIONARY AUTHORITY TO THE CITY ENGINEER TO APPROVE FUTURE REVISIONS TO THE MANUAL

The City of Livermore Plan Check and Procedures Manual is used by engineers, developers, contractors, and the general public to prepare and review final maps, improvement plans, deeds, and associated documents. The manual contains standard conditions of approval, procedures, and checklists.

The updated Development Plan Check and Procedures Manual reflects recommendations from City staff and incorporates the latest updates to city processes, laws, and standards. These revisions will help ensure the highest quality of public and private improvements throughout the City.

To preserve the affirmative defense of design immunity, the City Council should delegate discretionary authority to the City Engineer to approve future revisions to the City Development Plan Check and Procedures Manual, including any standards contained therein, in accordance with Government Code section 830.6 and with the Livermore Municipal Code section 2.68.595.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it:

1. Approves the March 24, 2025 update to the City of Livermore Development Plan Check and Procedures Manual, attached hereto as Exhibit A and a copy of which is on file in the office of the City Engineer.

2. Grants the City Engineer, or their designee, discretionary authority to approve revisions to the City of Livermore Development Plan Check and Procedures Manual, including any standards contained therein, in accordance with Government Code section 830.6 and with the Livermore Municipal Code Section 2.68.595, preserving the City's design immunities.

3. Authorizes the City Manager, or her designee, to take whatever actions are necessary and appropriate to carry out the purpose and intent of this resolution.

On motion of Council Member Barrientos, seconded by Council Member Dunbar, the foregoing resolution was passed and adopted on March 24, 2025, by the following vote:

AYES: Council Members Barrientos, Dunbar, Wang, Vice Mayor Branning, and Mayor Marchand

NOES: None
ABSENT: None
ABSTAIN: None

ATTEST:

DocuSigned by:
Deborah L. Elam
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Deborah L. Elam
City Clerk
3/26/2025 | 5:32 PM PDT

APPROVED AS TO FORM:

Signed by:
Molly O'Toole
8C094721E53540E...

Molly A. O'Toole
Assistant City Attorney

Exhibit A – City of Livermore Development Plan Check and Procedures Manual, March 24, 2025

CITY OF LIVERMORE

ENGINEERING DIVISION

DEVELOPMENT PLAN CHECK AND PROCEDURES MANUAL

2025

TABLE OF CONTENTS

I. INTRODUCTION

A. DEFINITIONS

(1) Project Coordinator	City's Engineering staff person who is in charge of the project.
(2) Contact Person	The person designated by the developer, preferably the designer employed by the engineer, to handle all contacts with the City Engineering Division.
(3) Consultant or Engineer	The design firms employed by the developer (including soils engineer, landscape architects and others).
(4) Developer	The project owner
(5) Engineering	The City's Engineering Division
(6) Planning	The City's Planning Division
(7) Building	The City's Building Division
(8) Engineering Inspector	City's Engineering staff person who oversees inspecting the project during construction
(9) Building Inspector	The City's Building staff person who is in charge of inspecting the project during construction.
(10) Caltrans	State of California Department of Transportation
(11) Wheels	Livermore Amador Valley Transit Authority
(12) Zone 7	Zone 7 Water Agency
(13) RWQCB	Regional Water Quality Control Board
(14) LARPD	Livermore Area Recreation and Park District

(15) ACCWP	Alameda County Clean Water Program which is made up of all cities in Alameda County, Alameda County Public Works and Zone 7 Water Agency who jointly hold a RWQCB Stormwater Permit.
(16) Right-of-way	An easement and or fee title ownership over a strip of land and is peculiar in that it is expressly for “passage” purposes, such as for railroads, pipelines, pedestrians, vehicles, and canals, etc. Creation of right-of-way establishes a privilege to pass under, over and across another’s land.
(17) License	Gives a personal privilege that is unassignable and terminable at will, to do something upon another’s land and which contains no interest in the land which is not required by a conveyance. The license does not pass to the heirs or successors in interest of the licensee and does not give third parties a right to sue for interference with its use.
(18) Profit	Permissible servitude upon the land. The right to take something from the land of another such as the right to farm, remove coal, oil, etc.
(19) Natural Rights	Incidental to ownership which attaches to and passes with conveyance of the land. Not easements. Example is a right for normal surface water flow from or onto another’s land.
(20) Negative Easement	Another expression for equitable servitude. It is exemplified by the preservation of light and air space such as in subdivision restrictions, thereby burdening each lot in favor of each other lot.
(21) Dedication	Expresses an intent for the land to be accepted and used for that public purpose. Example: roads on a map.

(22) Vacation	The complete or partial abandonment or termination of the public right to use a street, highway, or public service easement. In Streets and Highways Code Section 8340 the vacation of a street, highway, or public service easement, extinguishes all public easements therein.
(23) Abandonment	Relinquishing rights to an easement, right-of-way or land which is accomplished in a variety of ways. The vacation process transfers ownership to the underlying landowner so private or public underlying property can be transferred. Minor easements created on a map can be abandoned on a map that maps over them and easements or land can be abandoned through a quiet title process.
(24) Grant Deed	A conveyance of real estate, with a written document signed by the Grantor, that transfers in fee (all rights and interested), a described property from the Grantor to the Grantee.
(25) Quitclaim Deed	A deed of conveyance intended to pass along any title interest or claim which the grantor may have (if any) in the property. The grantor remises, releases, and relinquishes any interest he may have in the subject property, without professing that such title is valid.
(26) Grant of Easement	The right of use over the property of another. It can be public or private. An easement granted to the public is one where the rights to enjoyment is vested in the public, generally an entire community, such as an easement for a public street, highway or for utilities. The underlying fee title normally remains with the grantor.
(27) Lost Time	When the revised overall schedule is more than fifteen (15) days beyond the date shown in the first overall schedule. If

	City determines the Developer's Schedule cannot be revised to cure a Lost Time issue, Developer shall pay for additional city staff time.
(28) City Code	Refers to City of Livermore Municipal code. This document is accessible from the City website.
(29) Stormwater Treatment Requirements	Refers to the Regional Water Quality Control Board Municipal Regional Permit requirements that include source control, water quality control and hydromodification.
(30) County Flood Control Requirements	Refers to the Alameda County Hydrology and Hydraulic Manual that was prepared for all work within Alameda County and includes creek set-back requirements.
(31) Hydromodification	Detention of storm water and metering out of storm flows to match the pre-project conditions.

B. OBJECTIVES

This Development Plan Check Manual has been prepared as a source of information and as a guide for engineers and developers. This manual contains standard conditions of approval, procedures, and checklists. It is intended that these items will address several objectives including:

1. Giving the developer and the engineer an overview of what the City's engineering plan check will consist of,

2. Establishing general requirements for improvement plans, maps, and deeds; and

3. Establishing general procedures for checking improvement plans and maps. The checklists of this manual are not intended to be all-inclusive but serve as a general guide to help the design engineer include the necessary design requirements to strive for trouble-free construction, operation, and maintenance of public works facilities. It is the responsibility of the contact person to make complete submittals. Also, it is very important that designs be of a high quality so that the development will not result in excessive future costs being incurred by the City or adjoining property owners.

4. Establishing general requirements and procedures for the electronic review of improvement plans, maps, deeds, and agreements.

An Engineering Division goal is to limit the number of plan checks required in order to approve a project to three. To achieve this goal, the Engineering Division will insist that submittals be complete prior to the start of plan checking. In addition, re-submittals that do not completely respond to comments from the previous plan check will be returned for revision prior to being checked.

The Engineering Division's goal with each plan check is to provide a complete set of comments that identify all items that need to be addressed prior to the next plan check.

As required in the Subdivision Map Act (Section 66456.2(a)) all plan checks will be completed within sixty (60) working days, except that at least 15 working days shall be provided for processing resubmitted improvement plans and maps.

The Engineering Division maintains copies of the Subdivision Map Act, City Standard Details and Specifications, City Benchmark Graphic Information System(GIS) Layer, Slurry Seal Moratorium GIS Layer and Overlay Moratorium Layer, Facilities Planning Guidelines, City Sewer Master Plan, City Storm Drain Master Plan, City Water Master Plan, Recycled Water Master Plan, City Active Transportation Plan , LARPD Design Guidelines, pertinent portions of the Livermore Municipal code, Livermore Development Code, Livermore Downtown Specific Plan, Isabel Neighborhood Specific Plan, Livermore El Charro Specific Plan, South Livermore Valley Specific Plan, Alameda County Clean Water Program Regional Water Quality Control Board Stormwater Permits, Construction General Permit, General Plan. Caltrans Standard Details and Specifications, Caltrans Highway Design Manual, Pavement Management Technical Assistance Program (P-TAP) Report, Asset Management Plans and Traffic Control Device Manual (MUTCD), Traffic Manual for reference during the plan check process. These documents, along with this manual, contain most of the information necessary to design public works facilities.

The City will, from time to time, update or otherwise change this Development Plan Check and Procedures Manual, the Standard Details, the Standard Specifications, the Development Code and the Municipal Code. The engineers must assure themselves that they are using the most recent publication prior to start of design.

II. STANDARD CONDITIONS OF APPROVAL

As noted in the project conditions of approval, the following standard major conditions of approval shall apply to the project, except as modified by the conditions of approval for the project:

A. PRE-CONSTRUCTION & CONSTRUCTION CONDITIONS

1. To the extent permitted by law, the project applicant shall defend, indemnity, and hold harmless the City, its City Council, its officers, boards, commissions, employees and agents from and against any claim, action, or proceeding brought by a third party against the indemnified parties and the applicant to attack, set aside, or void the approval of the project or any permit authorized hereby for the project, including (without limitation) reimbursing the City its attorney's fees and costs incurred in defense of the litigation. The City may, in its sole discretion, elect to defend any such action with attorneys of its choice.

2. Developer shall not begin construction of the improvements until they provide a complete overall submittal list for city review and a submittal of critical and long lead time items and materials, including but not limited to Traffic Signals, poles, cabinets and appurtenances, pipes and pumps, etc. within one month from the execution of the Subdivision Improvement Agreement.

3. Developer shall not begin construction of the improvements until the City Engineer deems in writing that pre-construction items are complete, including critical submittal approvals, confirmation of long lead time item secured, schedule approval, etc.

4. The developer's contractor shall provide the City with an overall project schedule, including any requests for extended work hours (for all on-site and off-site improvements) for both public and private improvements within one month of the execution of the Subdivision Improvement Agreement. The developer shall also provide a monthly update to the overall project schedule by the first day of each month.

5. If the monthly update shows the overall schedule is more than fifteen (15) days beyond the date shown in the first overall schedule, this shall constitute Lost Time. Within five (5) days of the date that any overall Schedule identifies Lost Time, the Contractor shall submit to City proposed revisions to the overall Schedule to recover the Lost Time. As part of this submittal, the contractor shall provide a written narrative for each revision made to recapture Lost Time. If the revisions include sequence changes, the Contractor shall provide a schedule diagram comparing the original sequence to the revised sequence of work. If City determines the Developer's Schedule cannot be revised to cure a Lost Time issue, Developer shall pay for additional city staff time.

6. The developer shall submit a minimum of a two-week look ahead schedule to the City Inspector in a bar chart format which incorporates all changes in progress, services, and scope of work activities.

7. Upon start of construction, Developers contractor shall provide an updated look ahead schedule including a past week schedule showing the prior weeks completed work with each update.

8. Developer shall obtain submittal approval on all critical and long lead time materials and shall have secured and received them prior to start of construction.

9. The developer shall submit all construction submittals to their engineer for review and approval prior to submitting to City for review and approval and shall not install materials without prior City approval.

10. According to the City noise ordinance the City of Livermore prohibits the operation of any loud equipment used in construction, demolition or other repair work during the early morning, evening, weekends and City holidays so this work can only be done Monday through Friday between the hours of 7am – 8pm and Saturday from 9am - 6pm. City Construction inspectors' normal working hours, excluding City-observed holidays, are between the hours of 8:00 a.m. and 5:00 pm., or as authorized in writing by City ("Work Hours"). City reserves the right to charge Developer for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in the overall schedule including reimbursement of unexpected costs incurred for inspection, testing, and construction management services. All holidays and non-working days must be included in the overall schedule calendar. City of Livermore observed holidays are as follows: New Year's Day January 1st; Martin Luther King, Jr. Day (third Monday of January); President's Day (third Monday of February); Memorial Day (last Monday of May); Independence Day July 4th ; Labor Day (first Monday of September); Veteran's Day November 11th ; Thanksgiving Day (third Thursday of November); Day after Thanksgiving Day; Christmas Eve, December 24th; Christmas Day December 25th; New Year's Eve December 31st.

11. The developer shall submit record drawings at the conclusion of each phase to the City Engineer for review and approval prior to acceptance by the City of that phase of the public works improvements for permanent maintenance.

B. STREET IMPROVEMENTS/SIGNING AND STRIPING/TRAFFIC SIGNALS

1. All streets shall have a standard cross section with vertical curbs, gutters, sidewalks, (and landscape medians for major streets), right-of-way widths, and curb-to-curb widths per City Standard Details except as modified by the Project Engineering Considerations (Conditions of Approval).

2. The Developer shall have a certified CASp Specialist review and certify that the design for all pedestrian improvements within the public right-of-way or a public easement complies with a minimum of one the following applicable regulations: American with Disabilities Act (ADA) requirements, the Public Rights-of-Way Accessibility Guidelines (PROWAG), and the latest Caltrans Standard Plan A88a. If an accessibility design cannot meet one of the above listed applicable standards, the Developer shall propose and the CASp Specialist shall concur with a design exception request for approval by the City Engineer or their designee. In addition, the Developer shall have the certified CASp Specialist inspect and certify that pedestrian improvements are installed per the CASp certified design. Certification will include but not be limited to sending a letter to the City Inspector and signing the improvement plans certifying the as-built condition of the pedestrian improvements. Pedestrian improvements include but are not limited to new trails, walkways, sidewalks, accessible ramps, connections between existing and new pedestrian improvements, and modifications to existing pedestrian improvements within or adjacent to the project site, as shown on the approved plans.

3. Pavement widening shall begin where a full City standard pavement section exists. The developer shall have tests performed prior to improvement plan preparation to determine where an adequate street section exists.

4. Any proposed street right-of-way that is in Alameda County outside the city limits that is being dedicated to the City shall be annexed into the City by the developer prior to City approval of the final map and or acceptance of the street right-of-way by separate instruments.

5. When trenching is done in existing improved streets or existing improved streets are widened, the developer shall consult with the City Engineer to determine the appropriate pavement repair needed to restore the structure and surface of the roadway. If an overlay is required, then the developer shall complete a minimum of a two-inch grind with fabric down and a one and one-half inch (1-1/2") thick A.C. overlay over the fabric and the existing pavement. An overlay is necessary for the following reasons: 1) To prevent deterioration of the street as a result of water entering the joint(s) between old and new pavement, 2) To restore a smooth riding surface, 3) To restore the undisturbed appearance of the street surface, 4) To meet current structural section standards, 5) To provide adequate cross-slope, 6) cover utility trench cuts, providing a smooth riding surface.

6. Adequate sight distance based on the Caltrans Highway Design Manual shall be provided at horizontal and vertical curves, and at intersections.

7. Temporary paved turnarounds (30-foot radius) are required on all stub streets over 200 feet long. They shall be of the on-lot (or off-site) design and an easement shall be provided to the City.

8. Bus stop pads (turnouts when on major streets) shall be installed as required by the City and the local bus system authority (Livermore Amador Valley

Transportation Authority LAVTA). All bus stop locations shall be approved by the Engineering Division. The developer is also responsible for contacting LAVTA and getting written approval for bus stop locations. A copy of this written approval shall be provided to the City Engineering Division simultaneously with the second submittal of improvement plans for a particular phase.

9. Roadway bridge and culvert designs shall include a minimum five-foot sidewalk with curb and gutter in accordance with City and/or Caltrans design standards. The hydraulic analysis and structural design of the bridge/culvert shall be subject to the approval of Zone 7 and the City Engineer. At a minimum the bottom of the bridge structure shall be 3 feet above the FEMA 100-year floodplain elevation for any creek crossing.

10. The developer shall submit a separate plan delineating all existing and proposed signing and striping, including transitions to existing striping, for review and approval by the City Engineer. The plan shall be designed in accordance with applicable City Standard Details and Specifications for Public Works Construction and the latest edition of the California Manual on Uniform Traffic Control Devices and Caltrans Standard Plans and Specifications. This plan shall show all driveways and existing and proposed streetlights.

11. The developer shall make all changes related to signing and striping as required by the Engineering Division.

12. Traffic signals shall be in operation at a minimum of fourteen (14) days prior to the first occupancy.

13. A minimum three (3") inch conduit and fiber optic cable as required by the City Engineer for traffic signal interconnection shall be installed along all major streets being constructed with this development. Pull boxes shall be installed at intersections and at regular 200’ intervals. This conduit is to provide for future City-wide interconnection of traffic signals to the central computerized traffic signal operations center.

14. All new traffic signals shall use City approved devices, including but not limited to, traffic controller, controller cabinet assembly, service pedestal, battery backup system, video detection system, accessible pedestrian signals, bicycle signals, and Opticom preemption devices.

15. Street name signs shall be installed at each intersection. Signs at traffic signals shall have Diamond Grade retroreflective sheeting per City Standard Details and Specifications.

16. To facilitate adequate advance project planning, the improvement plans and specifications for each project shall include a traffic control plan for each stage of construction. The plan shall provide for moving pedestrians, bicyclists and motorists through or around construction zones in a safe manner.

17. Traffic control plans shall include signing, striping, and lighting for vehicles and pedestrians for each phase of work.

C. SANITARY SEWERS/STORM DRAINAGE/WATER SUPPLY

1. The capacity of the downstream sanitary sewer system shall be determined from the City Sanitary Sewer Master Plan to determine if the lines are adequately sized to accept the additional sewerage from this development. If the downstream lines are found to be inadequate, the developer shall provide additional facilities to accept the additional sewage expected to be generated by this development.

2. In-tract sewer facilities shall be designed to transport sewage consistent with the Facilities Planning Guidelines.

3. A storm drainage study including all phases of the Tentative Map shall be submitted for approval with the improvement plans for the first phase of development. Run-off volumes shall be calculated in accordance with the storm intensities specified in the City Storm Drainage Master Plan and the City's Facilities Planning Guidelines, or Zone 7 requirements for facilities to be dedicated to Zone 7, or Caltrans requirements for facilities within Caltrans right-of-way. Drainage calculations, design and supportive maps shall be provided with the study submittal. Calculations shall take into consideration all drainage areas within the same drainage basin that drain to the periphery of the development, the in-tract run-off and the existing conditions of the downstream receiving facilities.

4. In-tract facilities shall be designed to transport, in addition to the in-tract design run-off, the upstream run-off in volume consistent with the ultimate upstream development. In-tract system shall be designed to transport the run-off from a ten-year storm consistent with the Facilities Planning Guidelines.

5. A secondary overland flow route (unless an alternative measure is approved by the City Engineer) shall be provided to mitigate flooding should the storm drain system become plugged during a storm.

6. All residential lots shall drain positively to the street. If because of unusual site topography drainage to the street isn't possible, lots shall drain directly to a concrete V-ditch, with an inlet provided at each lot. Private storm drainage maintenance easements shall be provided.

7. The developer's storm drainage study shall investigate downstream facilities to determine compatibility with the in-tract system and the ability of downstream facilities to transport design run-off, in- tract plus up-stream, without the occurrence of flooding in violation of the City's storm drainage criteria either in-tract or off-tract. In the event the developer's storm drainage study calculations indicate that the City's storm drainage criteria are not met, in-tract or off-tract,

developer shall provide additional facilities downstream of the development or provide retention or detention facilities to eliminate the flooding. This is in addition to the stormwater treatment and hydromodification requirements described more fully in Section Y that shall be implemented to comply with the latest Regional Water Quality Control Board Municipal Regional Permit.

8. All adjacent work within the creek, and adjacent to the creek that could cause erosion or environmental impacts, including outfalls, must be designed in accordance with the regulatory agency requirements and have approval from Zone 7 as applicable, prior to filing of the final map for the phase in which creek improvements are required.

9. No work shall be allowed within the creek set back area, per Alameda County Hydrology & Hydraulics Manual, unless approved by the City Engineer and/or Zone 7. The creek set back line shall be shown on the map and improvement plans.

10. Where there is natural upstream drainage entering the development, a dual intercepting drainage system is required. The system shall consist of concrete V-ditches, and storm drainpipes and inlets. All drainage facilities for natural upstream drainage (including City open spaces) are to be privately maintained.

11. Certain or all portions of this development are within a flood-prone area as established by F.E.M.A. and have been designated flood hazard (Zone AE, AH, AO, etc.) areas per Title 16 of the City Code relative to flood control regulations. The Developer shall dedicate those areas within the development as required by the City for flood control purposes.

12. The development shall be compatible with the flood hazard areas and regulations as outlined in Title 16 of the City Code. In the event of a conflict between Chapter 16 and these Engineering Considerations, the more restrictive shall govern.

13. Because this development is in or adjacent to the 100-year flood plain as determined by F.E.M.A. a F.E.M.A elevation certificate is required to be submitted to the Project Coordinator who submits it to the Floodplain Manager prior to development and again after final construction. This requirement is outlined in Title 16 of the City Code.

14. The City is a member of the National Flood Insurance Program (NFIP). Development within the 100-year flood plain requires a letter of map revision (LOMR) or a letter of map amendment (LOMA) from the Federal Emergency Management Agency (F.E.M.A.). The Developer shall be responsible to meet all F.E.M.A.'s requirements for map approval. The City will consider the developer's obligation complete when the City has received a revised map or letter (LOMR or LOMA) from F.E.M.A. after construction is complete. The Developer shall pay all required flood insurance premiums.

15. All developed portions of the site shall be outside the 100-year flood areas as determined by F.E.M.A. Development of this site shall not cause increased flooding on adjacent properties. A FEMA no-rise certificate may be required.

16. Because this site is subject to flooding from the 100-year storm, a flood control plan that meets the criteria of both Zone 7 and the Federal Emergency Management Agency (F.E.M.A.) shall be submitted for approval to Zone 7, F.E.M.A., and the City with the improvement plans for the first phase. The plan must contain hydraulic calculations and analysis that demonstrates that the proposed encroachment into the 100-year flood plain will not violate Federal and Zone 7 standards. The plan shall also show that the 100-year flow (Q100) at build-out of the upstream area can be passed through the site as required by Zone 7 and the City.

17. The plan shall also evaluate the stability of existing creek banks that are proposed to remain natural. Bank stabilization measures shall be included if required and permitted by the California Department of Fish and Wildlife, Army Corps of Engineers or the U.S. Fish and Wildlife Service. The plan shall show minimum setbacks from the top of bank in accordance with the creek set-back criteria in the Alameda County Hydrology & Hydraulics Manual, provide an access road along the top of bank adjacent to the development and provide plans for erosion control and re-vegetation of creek banks.

18. For projects within the City of Livermore Water Service Area, the developer shall prepare a water study for providing service (adequate pressure, flow, and3 storage) to this project. The master study shall be compatible with the City Water Master Plan. The water study shall be signed and stamped by a registered civil engineer licensed in the State of California. Additional transmission lines shall be constructed as required by the Engineering Division where there is inadequate service and as may be required by the Master Plan.

19. For projects within the California Water Service Area, the developer may be required by Cal Water to prepare a water study for providing service (adequate pressure, flow, and storage) to this project. The master study, if required, shall be compatible with the Cal Water Master Plan. The water study shall be signed and stamped by a registered civil engineer licensed in the State of California. Any additional transmission lines shall be constructed as required by the California Water Service Company where there is inadequate service.

20. Pressure reducing valves may need to be installed at all service laterals based on the pressure zone.

21. Backflow prevention devices are required, except as noted below, and shall be approved by either the City of Livermore, Zone 7 or Cal Water(as applicable) and installed as required by the State as described in the State Water Resources Control Cross Connection Control Policy Handbook (Adopted December 19, 2023). Five criteria must all be met to qualify for exclusion from this requirement:(1) residential user with one service connection to a low hazard fire

protection system,(2) single service line splits on property for domestic and fire flows,(3) single water industry standard water meter measures combined domestic and fire flows, (4) fire protection system is constructed of piping materials certified as NSF/ANSI Standard 61 and (5) fire protection system is looped within structure and connected to one or more routinely used fixtures to prevent stagnant water (See Water Resources Division to obtain exclusion). Backflow preventors and fire sprinkler master plan are reviewed by the building and fire departments, certified by the building inspector with a copy of the certification paperwork sent to the City Water Resources Division. If exclusion is granted, project coordinator to confirm with the building department whether the proposed residential facility fire suppression system as designed for construction meets these 5 criteria). If not, the developer shall be required to install backflow preventor.

22. Any existing wells on the site shall be abandoned and sealed per Alameda County Zone 7 specifications and details.

23. All projects in areas of the City with recycled water systems shall connect irrigation systems to the existing recycled water system. The city may require toilet and urinals to be connected to the existing recycled water system. The use of city recycled water requires an application to the City Water Resources Division requesting to use recycled water. All new recycled water lines shall be installed in purple pipe. Many distribution lines are under high pressure requiring pressure reducing valves. Only certain areas of the city have this service option.

D. OTHER UTILITIES (Electrical, Gas, Telephone, Cable, and Television)

1. The Developer must make provisions for the installation of an underground electrical distribution system to serve all lots, an underground gas distribution system, an underground telephone service, and underground communication services. The cost of these systems shall be included in the subdivision bond estimate. Electrical services shall also be provided to all parks, medians, and other landscaped areas to serve irrigation controllers as necessary.

2. All joint trench plans shall be submitted with the initial Final Map and Improvement plan submittal for City review.

3. All joint trench plans shall be approved and signed by all the utilities in the joint trench prior to City approval of the Final Map and Improvement Plans.

E. UNDERGROUNDING OF EXISTING OVERHEAD UTILITIES

1. All existing and new electric (with the exception of any 60kv and higher voltage wires) and communication lines along the project frontage and within the project shall be placed underground to the nearest off-site pole (no new poles shall be set) per Development Code 4.02.090. Electric, gas, Communications, Telephone and Telecommunications utilities are required and shall be placed in a common

trench. All electric transformers shall be placed underground for residential developments. (Commercial and industrial developments may have above ground transformers with proper screening per Planning Division requirements per Development Code 4.05.040).

F. PUBLIC STREETLIGHTS

1. The Developer must make provisions for the installation of streetlights and their connection to a PG&E approved electric power source. The street lighting conduit shall be in the utility joint trench and shown on the Joint Trench Plans. Coordination for street light conduit installation will be between the Developer and the utility company installing the joint trench. The cost of the system shall be included in the subdivision bond estimate.

2. A separate street light plan and detail sheet shall be incorporated into the improvement plan set. Street light numbers for public streetlights shall be assigned by PG&E and shown on the street light plans.

3. Streetlights within public right-of-way shall be maintained by the City.

G. EASEMENTS AND RIGHTS-OF-WAY

1. All property being dedicated to the City of Livermore as a condition of these Engineering Considerations shall be dedicated free of any existing encumbrances, assessments or liens.

2. If not already addressed in either a development agreement or conditions of approval, the developer shall enter into the City's standard right-of-way agreement, which specifies how and when the necessary title to an interest in the land shall be acquired from third-party prior to issuance of any applicable permits. The developer is filing a final map, the developer shall enter into this agreement as soon as possible but not less than before the third plan check of the map and improvement plans are submitted to the City if necessary executed easements haven't been provided.

3. Before the final map can be placed on the City Council agenda, one or more of the following must have occurred:

    a. The City project coordinator has received signed deeds for all off-site right-of-way and easements acquired from a third party; or
    b. The developer has executed the standard City contract for real property acquisition through its powers of condemnation to acquire city right-of-way and/or easements, has deposited the estimated acquisition costs into a City trust account and formally requested and the City Council has approved, a resolution of intent to use its powers of condemnation to acquire the rights-of-way and/or easements.

H. TRAILWAY/BIKEWAY REQUIREMENTS

1. Livermore Trails

   Certain portions of this development are within the latest Livermore Active Transportation Plan. The developer will be required to dedicate and develop that certain land within the development for bikeway and trail purposes.

2. Bikeways

   Certain portions of this development are within the latest Livermore Active Transportation Plan. The developer will be required to dedicate and develop that certain land within his development for bicycle route purposes.

3. Maintenance

   Maintenance responsibilities for all active transportation plan improvements outside of the road right-of-way shall be finalized prior to Final Map approval.

I. PARKS

1. Either park land shall be dedicated and park facilities constructed or parking fees shall be paid per City Code.

2. Maintenance responsibilities for park improvements shall be finalized prior to Final Map approval.

J. MEDIANS AND OTHER PUBLIC LANDSCAPE AREAS

1. A landscape and irrigation plan (with an automatic irrigation system) shall be submitted showing the proposed planting to be installed and shall be subject to the requirements of the Development Plan Check and Procedures Manual and the City Standard Details and Specifications. Landscaping shall be in accordance with City standard master plans for planting currently available.

2. Lots that back onto streets shall be so graded in relation to the backing lot wall that the drainage shall be away from the wall. Backing lot areas shall be landscaped in accordance with City standard master plans for planting currently available.

K. FENCES

1. The need for fencing between houses, parks, school, bike path and channel will be determined prior to filing the final map. The Developer shall install fencing or walls as required by the City Engineering Division and Planning Division. All fencing and sound walls shall be owned and maintained by the private home-owner or Home Owners Association.

2. All fencing, sound walls and their foundations shall be located on private property and/or HOA maintained property.

L. HORTICULTURIST'S REPORT

1. With the first submittal of the final map for plan checking, a Horticultural Report shall be submitted by the Developer to the Engineering Division for approval (for all developments on land north of I-580). The report shall be prepared by a qualified horticulturist and shall include, but not necessarily be limited to, the following:

    a. Chemical analysis of the surface soil and sub-soils.

    b. For lots and public areas, a detailed specification for soils preparation; soils importation or exportation, if needed; soils additives, if required; and watering specifications.

    c. Street tree, shrub, plant, and grass varieties which can be successfully grown in the development and including specifications for planting.

    d. Recommendations relative to on-lot irrigation systems.

2. The Developer shall prepare the soil on each lot as outlined in the Horticultural report in order to assure the lot will be suitable for planting. Concurrent with the presentation to the homeowner of the Disclosure Statement for the Department of Real Estate, a Disclosure Statement shall also be given to the potential homeowner which shall consist of detailed instructions for planting of trees, shrubs, and turf within the tract.

3. Such instructions shall be prepared by a qualified Horticulturist based on the soils report. Said instructions and Disclosure Statement shall have the prior approval of the City Engineer. A copy of the Disclosure Statement executed by each of the homeowners within the tract shall be promptly transmitted to the City Engineer.

M. ELEVATIONS

1. All elevations shall be based on the official City of Livermore datum.

2. A vertical datum point (elevation) shall be added to one monument in each new Final Map based on City’s current benchmark information.

N. LOT AND STREET MONUMENTATION

1. All property corners or reference points shall be set or marked in conformance with the requirements of Chapter 15, Article 5, Section 8772 of the Professional Land Surveyors Act (Business and Professions Code Sections 8700-8805).

2. Developer shall install and establish monumentation for streets as shown on map. A monument certification letter shall be provided by a licensed surveyor.

O. ADDRESSING, MAILBOXES AND STREET NAMES

1. In the event the street names are not approved with the entitlement the Developer shall submit three street names per street for City review and approval prior to the First Plan Check submittal.

2. Upon approval of street names developer shall submit an 8-1/2” x 11” plan(s) showing the development layout with street names and building footprints with front door locations on each lot.

3. In the event the Postal Department will not provide door-to-door delivery, the Developer shall identify locations for standard mailboxes for each unit and submit to City for review and approval prior to submitting to Postal Department.

4. The Developer shall submit a mailbox plan (locations and sizes) that has been approved by the Livermore Post Office and show the mailboxes in the Livermore Post Office approved locations with the first submittal of the improvement plans.

5. The Developer shall submit to the City written correspondence from the Postal Department, confirming that all mailbox locations have been approved, prior to scheduling the final map for approval.

6. The Developer shall install a mailbox for each unit at a location and of a design approved by the Livermore Post Office and the City.

P. RETAINING WALLS

1. Any retaining walls required due to differences in grades between lots and public right-of-way shall be located entirely on private land, including the foundation, and constructed of concrete or concrete block of a design approved by the City Engineer and/or approved with building permits as required.

2. Any retaining walls retaining 3 or more feet of soil, or any retaining wall of any height subject to a surcharge shall be constructed of concrete or concrete block of a design approved by the City Engineer. Design calculations and details shall be submitted with first plan submittal.

3. All designs for retaining walls or other stabilization needed along creek banks or to allow buildings, trails or other features to be located within the creek set-back area or floodplain shall be reviewed by the City Floodplain Administrator/Floodplain Manager and approved by the City Engineer and/or

4. Zone 7. Design calculations and details shall be submitted with first plan submittal.

Q. SUBDIVISION IMPROVEMENT AGREEMENT/SECURITY

1. Following tentative map approval, the Subdivision Improvement Agreement will not be submitted to the City Council until the Developer has submitted all of the documents indicated in the "FINAL APPROVAL OF THE TRACT MAP CHECKLIST".

2. Bonds or other approved security acceptable to the City Attorney's Office shall be provided in final approved form a minimum of thirty (30) days prior to the City Council meeting at which the map will be considered for final approval by the City Council. The security amounts (bond or other) shall be as follows:

    a. **Faithful Performance** - 100% of approved Public Works Improvement Cost Estimate

    b. **Labor and Materials** - 50% of approved Public Works Improvement Cost Estimate

    c. **Maintenance** – 15% of approved Public Works Improvement Cost Estimate

3. Developer shall satisfy the City insurance and business license requirements a minimum of 60 days prior to the City Council Meeting.

R. DEED RESTRICTIONS

1. Any proposed deed restrictions, required by engineering, planning, housing or other city department, shall be submitted with the first Final Map submittal and approved prior to approval of improvement plans.

S. SOILS

With the first plan check submittal, the Developer shall submit one paper and one electronic copy of a soils report prepared by a Registered Civil Engineer. The report shall include the results of an investigation of the following:

1. Geology Report

    A preliminary soils and engineered geology report for excavation and grading prepared in accordance with Chapter 33 and Appendix J of the California Building Code (most current edition).

2. Structural Foundation

    A structural foundation investigation shall be made and if critically expansive soils or other problems are revealed, a soils investigation of each lot shall be prepared.

3. Environmental Contamination

   If soil is found to be contaminated a longer clean-up and approval procedure must be followed according to the Alameda County Environmental Health or Regional Water Quality Control Board.

4. Soil Corrosivity

   Conductivity tests shall be made to establish the degree of soil corrosiveness. The following tests shall be required: (1) resistivity; (2) pH and sulfide; and (3) moisture. The soils engineer shall suggest the proper materials for the protection of water mains, water services, etc. These recommendations shall be incorporated into the improvement plans.

5. Grading Plans

   A grading plan shall be submitted with the first final map for review, and approval based on Chapter 33 and Appendix J of the California Building Code (latest City-adopted edition) and in conformance with Geotechnical Soils report. All residential lots shall be graded to drain to the street (unless otherwise approved by the City Engineer). The grading plan shall provide for dust control, erosion control, sediment control and water treatment per Regional Water Quality Board Stormwater Permit requirements. No work shall be allowed prior to City Engineer approval.

   If Rough Grading is permitted by the City Engineer, the rough grading plan shall be only for rough grading. No underground utilities will be allowed with a rough grading plan. The plan shall provide for dust control, erosion control, sediment control and water treatment per Regional Water Quality Board Stormwater Permit requirements without relying on any new underground utilities. No work shall be allowed prior to City Engineer approval. Developer shall obtain a separate building permit from the Building Division for rough grading and construction of retaining walls.

6. Topsoil

   It will be the Developer's responsibility to remove and stockpile all topsoil and scraped from lots during construction and re-spread it prior to occupancy.

7. Erosion Control

   All erosion control activities shall be in conformance with the Regional Water Quality Control Board General Construction Permit and Municipal Regional Permit.

8. Soil Testing

   Compaction testing in the City right-of-way shall be paid for by the City. Compaction testing for improvements on private property shall be conducted by the Developer's Geotechnical Engineer and paid for by the Developer. A compaction certification for each lot shall be provided to the City prior to building.

9. Material Disposal

   The submittal of the grading plan must include a statement of intent regarding on-site balancing of soil or the removal of soil from the site. The submittal shall also include a statement regarding the removal of existing or future building and/or construction debris. If a significant amount of soil will be off-hauled a roadway impact mitigation fee may be required.

   Prior to tract acceptance for maintenance, the developer shall provide the following to the Engineering Division: a dated and signed letter from the owner of the property, receiving soil, other site material, or construction debris, giving permission to receive the soil. For soil, materials, or debris taken to disposal sites, a copy of a disposal site receipt must be provided prior to building occupancy.

T. FEE AMOUNTS

The Developer will be required to pay the applicable development impact fees and project processing fees due in connection with this subdivision. The fees shall be the amount in effect at the time the fees are required to be paid.

U. VEHICLE ACCESS

Prior to or with the submittal for the first plan check of the tract improvement plans and final map, the Developer shall submit for review and approval a traffic control plan for providing safe entry to and exit from the site. The purpose of the plan is to ensure that there will be safe entry and exit by construction and other vehicles, pedestrians, bicyclists, etc. prior to the installation of the required permanent improvements on the entry street.

V. DEVELOPMENTS WITH PRIVATE ROADWAYS AND UTILITIES (Condominiums, Row Houses, Cluster, etc.)

1. The Developer must submit with the first Final Map Submittal, for City approval, a systems map (on the cover page or second page) showing what is publicly and privately inspected and publicly and privately maintained and the draft Covenants, Conditions, and Restrictions of the Homeowners' Association(s) that shall guarantee the permanent maintenance of all improvements in common areas.

2. Improvements in common areas shall be inspected by the City and maintained by the Homeowners' Association and may include, but not be limited to, the following:

   - Street Lights
   - Surfaced Areas
   - Sanitary Sewers
   - Storm Drains
   - Landscaping, Irrigation and Planted Areas
   - Parks
   - Trails and Sidewalks
   - Water Lines
   - Fire Lanes and Hydrants
   - Area Lighting
   - Retaining Wall & Fencing
   - Emergency Vehicle Access
   - Stormwater Treatment Areas

3. Private streets shall be designed to a structural adequacy based upon soil tests, City of Livermore Details and Specifications, and State standard methods of design with the recommended design submitted within the project soils report. The Developer and the on-site soils engineer shall be responsible for satisfactory inspection of the private improvements and necessary on-site compaction testing.

4. Lighting on private streets shall be provided for safety. The street lighting shall be approved by the City Engineer.

5. The Developer shall have a certified CASp Specialist review and certify that the design for all pedestrian improvements within a public easement complies with the regulations identified in B.2. of these Standard Conditions.

W. ENVIRONMENTAL MITIGATION MEASURES

Site specific environmental mitigation measures listed in the environmental permits should be adhered to for each site. PLEASE REFER TO THE FINAL ENVIRONMENTAL DOCUMENTS AND/OR PERMITS FOR THE PROJECT. Mitigation measures generally include but are not limited to the following:

1. Tree and Shrub and Ground Nesting Surveys completed one week prior to initiation of construction.
2. Perimeter Fencing for Silt Control and Species Exclusion
3. Biological Monitoring
4. Exclusion fencing shall be placed between the creeks and grading areas for construction in the dry season as well as the wet season.
5. Pre-construction survey for western pond turtles.
6. Pre-construction survey for burrowing owls.
7. Avoid and minimize disturbance to waters of the United States.
8. Stop work if buried cultural deposits are found during construction activities.
9. Including but not limited to Tiger Salamander, Red legged frog, Livermore Tar Plant, Kit Fox, etc.

Provide biologist, if needed, for biological monitoring. Biologist to review site to do pre-construction survey prior to work and shall review any proposed work within the creek to determine if there are any biological impacts and if any biological monitoring is needed.

Developer shall provide the necessary evidence that all environmental monitoring, reporting, mitigation measure and deed restriction or conservation easement requirements have been satisfied.

X. STORMWATER INSPECTION AND REPORTING REQUIREMENTS

1. All projects must have an erosion control plan and comply with the Regional Board Section C.3 & C.6 NPDES Permit requirements. In addition to this if a project will be disturbing over one acre of soil a notice of intent must be filed. Qualified Stormwater Developer (QSD) must prepare a Stormwater Pollution Prevention Plan (SWPPP), upload it into the SMARTS system and receive a WID number from the RWQCB prior to grading plan approval. A copy of the SWPPP must be kept on-site at the construction site. Upon completion of improvements a Notice of Termination shall be submitted by the Developer by uploading into the SMARTS system and approved by the RWQCB prior to project acceptance by City Council.

2. At a minimum the Developer shall provide a Qualified Stormwater Developer or Practitioner to inspect the project site during construction.

3. For projects on City of Livermore owned land the Developers QSD/QSP is responsible for entering data and daily reports into the RWQCB SMARTS system. Since the City Manager is the legally responsible party for all city owned land the Developer shall request access from the City to enter data and upload daily reports into the RWQCB SMARTS system.

Y. STORMWATER SOURCE CONTROL MEASURES

The Regional Water Quality Control Board Municipal Regional Permit adopted Order R2-2022-0018 and all adopted updates reissuing the Alameda Countywide NPDES municipal stormwater permit for the Alameda Countywide Clean Water Program. The 17 member agencies, including Livermore, are subject to this permit and all its requirements including the following:

> *"The Permittees shall, as part of their continuous improvement process, submit enhanced new development and significant redevelopment Performance Standards that summarize source control requirements for such projects to limit pollutant generation, discharge, and runoff, to the maximum extent practicable…"*

Trash capture devices shall be incorporated into all developments where trash capture is needed in accordance with the City of Livermore trash capture plan. In accordance with this requirement, the following source control measures are incorporated as part of these Standard Conditions of Approval and required, where applicable, on New Development Projects within the City of Livermore.

Required Source Control Measures

I. STRUCTURAL CONTROL MEASURES

A. Illegal Dumping to Storm Drain Inlets and Waterways

On-site storm drain inlets, except inlet located in landscaped area, shall be clearly marked with the words “No Dumping! Drains to Bay” with a metal marker. Metal discs are available for purchase from the Water Resources Division. For ordering information, please call 925-960-8100. For projects with newly-developed, privately-maintained streets, agency staff will verify that storm drain inlets have been marked before the final sign-off on the project’s building permit or encroachment permit.

B. Interior Floor Drains

Approved interior floor drains shall be plumbed to the sanitary sewer system and shall not be connected to storm drain system. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

C. Parking Garages

Interior level parking garage floor drains shall be connected to a sand/oil interceptor or equivalent water treatment device approved by the Water Resources Division prior to discharging to the sanitary sewer system. For every sand/oil interceptor a sampling/testing area is required to be installed after the water leaves the interceptor and prior to water entering into the sewer system.

D. Pesticide/Fertilizer Application and Irrigation

1. Landscaping shall be designed to minimize irrigation and runoff, promote surface infiltration where possible, minimize the use of fertilizers and pesticides that can contribute to stormwater pollution, and incorporate appropriate Bay-Friendly Landscaping principles.

2. If a landscaping plan is required as part of a development project application, the plan shall meet the following conditions related to reduction of pesticide use on the project site:

    a. Where feasible, landscaping shall be designed and operated to treat stormwater runoff by incorporating elements that collect, detain, and infiltrate runoff. In areas that provide detention of water, plants that are tolerant of saturated soil conditions and prolonged exposure to water shall be specified.

    b. Plant materials selected shall be appropriate to site specific characteristics such as soil type, topography, climate, amount and timing of sunlight, prevailing winds, rainfall, air movement, patterns of land use,

ecological consistency and plant interactions to ensure successful establishment.

c. Existing native trees, shrubs, and ground cover shall be retained and incorporated into the landscape plan to the maximum extent practicable.

d. Unless otherwise specified, proper maintenance of landscaping shall be the responsibility of the property owner.

e. Integrated pest management (IPM) principles and techniques shall be encouraged as part of the landscaping design. Some examples of IPM principles and techniques include the following:

   i. Select plants that are well adapted to soil conditions at the site.
   ii. Select plants that are well adapted to sun and shade conditions at the site. Consider future conditions when plants reach maturity. Consider seasonal changes and time of day.
   iii. Provide irrigation appropriate to the water requirements of the selected plants.
   iv. Select pest and disease resistant plants.
   v. Plant a diversity of species to prevent a potential pest infestation from affecting the entire landscaping plan.
   vi. Use “insectary” plants in the landscaping to attract and keep beneficial insects.

3. Landscaping shall also comply with City of Livermore’s “Water Efficient Landscape Ordinance”. However, areas of a site used for bioswales or other landscaped areas that function as a stormwater treatment measure shall be exempt from the Water Efficient Landscaping requirements.

4. An efficient irrigation system shall be installed in areas requiring irrigation. An example of an efficient irrigation system is one that includes a weather-based (automatic, self-adjusting) irrigation controller with a moisture and/or rain sensor shutoff, and in which sprinkler and spray heads are not permitted in areas less than 8 feet wide.

E. Pool, Spa, and Fountain Discharges

1. New or rebuilt swimming pools, hot tubs, spas and fountains must have a connection to the sanitary sewer to facilitate draining. This connection could be a drain in the pool to the sanitary sewer or a cleanout located close enough to the pool so that a hose can readily direct the pool discharge into the sanitary sewer cleanout.
2. When draining is necessary, a hose or other temporary system shall be directed into a sanitary sewer cleanout, or vegetated areas that are large enough to

accommodate the volume without allowing the discharged water to flow to the storm drain system or receiving water body.

F. Food Service Equipment Cleaning

1. Food service facilities (including grocery stores) shall have a sink or other container for cleaning floor mats, equipment, and hood filters, which is connected to a grease interceptor prior to discharging to the sanitary sewer system. The cleaning area shall be large enough to allow for the largest type of equipment that must be cleaned at the facility. The cleaning area shall be indoors or in a roofed area outdoors and must be plumbed to the sanitary sewer. The discharge of wastewater from these washing activities to the storm drain system is prohibited. Outdoor cleaning areas shall be designed to prevent stormwater run-on from entering the sanitary sewer and to prevent wastewater runoff to the storm drain from washing activities. Signs shall be posted indicating that all food service equipment washing activities shall be conducted in this area.

2. An oil and grease interceptor with a minimum size of 750 gallons is required for all food service facilities (including restaurants and grocery stores). Facilities that do not have any cooking or any other grease generating processes may request an exemption from this requirement.

G. Solid Waste and Recycling Container Enclosures

1. New or redevelopment projects shall provide an enclosed area for recyclable materials, compostable materials, and solid waste materials. An enclosure must accommodate an adequate number of containers with adequate capacity to serve the existing and future occupants of the premises. The area shall be designed to prevent outside storm rain or run-off inside the enclosure, to prevent runoff from inside the enclosure area, and to properly contain recyclable materials, compostable materials, and solid waste materials . If a water supply is required by the Health Department, it shall drain to the sanitary sewer via connection to an approved oil and grease interceptor device.

2. Runoff from a solid waste and recycling container enclosure shall not discharge directly to the storm drain system. The solid waste enclosure shall be designed to avoid outside storm rain or run-off inside the enclosure area. In some cases, drains are not required within the enclosure. Compactors for solid waste or compostable materials must have a drain to the sanitary sewer with an approved oil and grease separator. Any water or utility lines must be protected from damage from collection vehicles and containers.

3. If the enclosure will serve a food cooking business, extra space should be designed for the storage of tallow bins. Stored tallow bins shall not block the franchisee’s vehicle access to recyclable materials, compostable materials, and solid waste.

H. Outdoor Process Activities/Equipment[1]

1. Process activities shall be performed either indoors or in roofed outdoor areas. If performed outdoors, the area shall be designed to prevent the "run-on" of stormwater drainage, as well, as the runoff from the area with process activities.

2. Process equipment areas shall drain to the sanitary sewer system. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

3. Examples of businesses that may have outdoor process activities and equipment include machine shops and auto repair shops, and industries that have pretreatment facilities.

I. Outdoor Equipment/Materials Storage

1. All outdoor equipment and materials storage areas shall be covered and/or contained with a berm or shall be designed with Best Management Practices (BMP) that effectively minimize the potential runoff and contact of stormwater to pollutants.

2. Storage areas containing non-hazardous liquids shall be covered by a roof and be contained by berms, dikes, liners, vaults or similar spill containment devices.

3. All on-site hazardous materials and waste, as defined and/or regulated by the California Public Health Code must be used, managed, and stored in compliance with the applicable Livermore Pleasanton Fire Department's requirements and regulations.

J. Vehicle/Equipment and Commercial/Industrial Cleaning

1. Wastewater from vehicle and equipment washing operations shall not be discharged to the storm drain system. Auto dealerships, however, may rinse off vehicle exterior surfaces for appearance purposes, provided only a minimum volume of water is used without soap or other cleaning agents.

2. Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a roofed, bermed area for washing activities or discourage vehicle/ equipment washing by removing hose bibs (faucets) and installing signs prohibiting such uses. Vehicle/equipment washing areas shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer via an oil water separator with a minimum size of 750-gallons or an approved equivalent pretreatment device.

[1] Examples of businesses that may have outdoor process activities and equipment include machine chops and auto repair shops, and industries that have pretreatment facilities.

3. Commercial car wash facilities shall be designed and operated such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer via an oil water separator with a minimum size of 750-gallons or an approved equivalent pretreatment device.

4. All facilities, which discharge wastewater generated from vehicle or equipment washing, must obtain a wastewater discharge permit from the City of Livermore's Water Resources Division prior to the commencement of the discharge.

K. Vehicle/Equipment Repair and Maintenance

1. Vehicle/equipment repair and maintenance shall be performed in a designated area indoors, or if such services must be performed outdoors, in an area designed to prevent the run-on and runoff of stormwater. Oil and other automotive fluid change service must always be performed indoors.

2. Secondary containment shall be provided for exterior work areas where hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.

3. Vehicle service facilities shall not contain floor drains.

4. Tanks, containers, or sinks used for parts cleaning or rinsing shall not be connected to the storm drain system. Tanks, containers, or sinks used for such purposes shall not be directly connected to the sanitary sewer. Discharges to the sanitary sewer from such operations require prior approval from the Water Resources Division. The applicant shall contact the Water Resources Division for specific connection and discharge requirements.

L. Fuel Dispensing Areas

1. Fueling areas[2] shall have impermeable surfaces (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents stormwater run-on to the maximum extent practicable. The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater

2. Fueling areas shall be covered by a canopy or roof that extends a minimum of ten feet in each direction from each pump. Roof downspouts from the canopy or roof shall not drain onto the fueling area.

[2] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

M. Loading Docks

Loading docks shall be graded to minimize run-on to and runoff from the loading area.

1. Roof downspouts shall be positioned to direct stormwater away from the loading area. Stormwater runoff from loading dock areas shall be connected to a post-construction stormwater treatment measure(s) prior to discharge to the storm drain system.

2. Door skirts between the trailers and the building shall be installed to prevent exposure of loading activities to rain, unless one of the following conditions applies: the loading dock is covered, or the applicant demonstrates that rainfall will not result in an exposure of stormwater to pollutants.

MI. Fire Sprinkler Test Water

Provisions shall be made in the project design and construction to allow for the discharge of fire sprinkler test water to an onsite vegetated area. If this is not feasible, provide for discharge to the sanitary sewer in accordance with current plumbing codes.

MII. Miscellaneous Drain or Wash Water

1. Boiler drain lines shall be connected to the sanitary sewer system and may not discharge to the storm drain system.

2. For small air conditioning units, air conditioning condensate shall be directed to landscaped areas as a minimum BMP. For large air conditioning units, in new developments or significant redevelopments, condensation lines shall be connected to the sanitary sewer system, wherever feasible.

3. Roof drains shall discharge directly into landscaped areas and drain away from the building foundation to landscaped areas, not across pedestrian or bicycle travel ways, wherever feasible.

4. Washing and/or steam cleaning activities must be performed at an appropriately equipped facility that drains to the sanitary sewer as specified in Section J. Any outdoor washing or pressure washing must be in compliance with the City's Stormwater Management Program requirements and managed in such a way that there is no discharge of soaps or other pollutants to the storm drain system. The applicant shall contact the Water Resources Division for specific discharge requirements.

MIII. Architectural Copper Installation

Projects with architectural copper should, if possible, purchase copper materials that have been pre-patinated at the factor. Whether patination is done offsite or onsite, applicant should consider coating the copper materials with an impervious coating that

prevents further corrosion and runoff. If patination is done on-site, implement one or both of the following:

1. Collect rinse water in a tank and pump to the sanitary sewer. Contact the City of Livermore Water Resources before discharging to the sanitary sewer.

2. Collect the rinse water in a tank and haul off-site for proper disposal.

II. OPERATIONAL BMPS

This section details Best Management Practices (BMP) that private property owners and/or the occupants of private property must implement following the construction of projects. Ultimately, the responsibility for implementation of these BMPs rests with the property owners. The City of Livermore's Source Control Program routinely performs inspections of industrial and commercial sites to verify BMP implementation and effectiveness.

A. Paved Sidewalks and Parking Lots

Sidewalks and parking lots shall be swept regularly to minimize the accumulation of litter and debris. Wash water resulting from the pressure washing of parking lots must be captured, pretreated (if necessary) to meet local discharge limits, and discharged to the sanitary sewer. Wash water resulting from the pressure washing of sidewalks may be allowed to drain to the storm drain system provided that (a) no soap or other cleaning agents are used, and (b) all debris are trapped and collected to prevent entry into the storm drain system. Under no circumstances shall wash water containing any soap or other cleaning agents be discharged to the storm drain system.

B. Private Streets, Utilities and Common Areas

1. The owner of private streets and storm drains shall prepare and implement a plan for street sweeping of paved private roads and cleaning of all storm drain inlets.

2. For residential developments, where other maintenance mechanisms are not applicable or otherwise in place, a Property Owners Association, Landscape& Lighting District, or an equivalent mechanism shall be created and shall be responsible for maintaining all private streets and private utilities and other privately owned common areas and facilities on the site including landscaping. These maintenance responsibilities shall include implementing and maintaining stormwater BMPs associated with improvements and landscaping. CC&R's creating the association shall be reviewed and approved by the City prior to the recordation of the Final Map and recorded prior to the sale of the first residential unit. The CC&R's or Landscape & Lighting District shall describe how the stormwater BMPs associated with privately owned improvements and landscaping shall be maintained and detail contact information for the entity responsible for such maintenance activities.

C. Vehicle/Equipment Repair and Maintenance

1. No person shall dispose of, or permit the disposal, directly or indirectly, of vehicle fluids, hazardous materials, or rinsewater from parts cleaning operations into storm drains.

2. No vehicle fluid removal shall be performed outside a building, or on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.

3. No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area that cannot discharge to the storm drain.

D. Fueling Areas

The property owner shall dry sweep the fueling area and spot clean leaks and drips on a routine basis. Fueling areas shall not be washed down with water unless the wash water is collected and prevented from discharging to the storm drain system. Wash water resulting from the pressure washing of fueling areas must be captured, pretreated (if necessary) to meet local discharge limits, and discharged to the sanitary sewer or hauled offsite for proper disposal through a licensed waste hauler.

E. Loading Docks

The property owner shall ensure that BMPs are implemented to prevent potential stormwater pollution. These BMPs shall include, but are not limited to, a regular program of sweeping, litter control, and spill clean-up.

F. On-site Storm Drains

All on-site storm drains must be inspected and, if necessary, cleaned at least once a year immediately prior to the rainy season.

G. Architectural Copper Cleaning, Treating or Washing

When cleaning, treating or washing architectural copper features, implement one or both of the following:

1. Collect rinse water in a tank and pump to the sanitary sewer. Contact the City of Livermore Water Resources before discharging to the sanitary sewer.

2. Collect the rinse water in a tank and haul off-site for proper disposal.

III. POST-CONSTRUCTION MEASURES

A. All infrastructure (including but not limited to roadways, underground utilities, traffic signals, lighting, etc.) shall be maintained by the Developer until the Development is accepted by the City Council.

B. Before the City Council will accept the project all conditions of approval shall be complied with, and the following must be complete and received by the City Engineer.

1. All construction shall meet the City Occupancy Requirements prior to any building occupancy. City occupancy requirements include, but are not limited to, the following:

    a. All underground facilities.
    b. Buildings
    c. AC pavement
    d. Portland cement concrete improvements including but not limited to curb, gutter, sidewalk, driveways, and access ramps.
    e. Finish grading within the street right-of-way.
    f. Street name signs.
    g. Traffic regulatory signs, striping and markings.
    h. Streetlights and signals installed and energized.
    i. Fire hydrants installed and accepted.
    j. All potential hazards removed within the street right-of-way.
    k. Street and sidewalks and driveways cleaned.
    l. Water meters and boxes installed as well as backflow preventors as applicable.
    m. Sanitary sewers cleaned out.
    n. Street trees installed* (* the Developer may provide a tree bond to receive occupancy).
    o. Pad certifications for all lots.
    p. Compaction certifications for all lots.
    q. CASPs certifications for all ADA accesses.
    r. Manuals for specialty equipment.
    s. All training on equipment or systems satisfactorily completed.
    t. Any reports/final approvals from any permitting agencies.

2. The Developer shall promptly remove all rubbish, debris, unused materials, concrete forms, construction equipment and temporary structures and facilities used during construction. Final acceptance of the Work by the city will be withheld until the Developer has satisfactorily complied with the foregoing requirements for final cleanup of the project site.

3. The Developer shall submit the following items to the City Engineer:

   b. Anything required in the Development Agreement.
   c. Anything required in the Conditions of Approval.
   d. Written guarantees or warranties.
   e. Record drawings as specified in Section 013300 “Submittals” in City Standard Specifications, including, updated Engineering Estimate items and quantities matching As-Built plans for GASB reporting.
   f. Completed Pavement Management Form.
   g. Maintenance stock items, including special parts; spare parts; special tools
   h. Signed-off permits, CASPs certification, and/or certificates of inspection and acceptance by local governing agencies having jurisdiction.
   i. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.

III. SENATE BILL 9 PROCEDURES & CHECKLISTS

In September 2021, the Governor signed Senate Bill 9 into law, pertaining to residential development in residential zoning districts for all California cities. The new legislation, effective January 1, 2022, overrides local zoning controls and allows property owners within a single-family residential zone to build two units and/or subdivide their lot into two parcels for a total of four units.

The City must ministerially approve a project that:1) proposes two units on a parcel in a single-family zoning district; and 2) conforms to the requirements of SB 9. The city must also ministerially approve a project that: 1) proposes to split a parcel in a single-family zoning district into two parcels; and 2) conforms to the requirements of SB 9. The lot split and two-unit provisions may be used together, which allows for a maximum of four units where there was previously one. The city cannot require the correction of structures that don't meet current zoning standards when SB 9 is used. However, when structures cross property lines, special structure accommodations are needed as required by the building code or possible demolition/relocations if building code standards cannot be met.

Properties within single family zones may combine the provisions of SB 9 with state Accessory Dwelling Unit (ADU) law. ADU law specifies the number of ADUs allowed on each parcel based on use, not zoning. Therefore, the number of ADUs allowed is directly related to how many primary dwelling units are located on the parcel. For example, if one primary dwelling unit is located on the parcel, up to one ADU may be placed on the property, as allowed by state ADU law. However, under SB 9, ADUs count towards the maximum number of units allowed on a parcel when a lot split occurs. A maximum of four units, including ADUs, are allowed where there was previously one. To meet the requirements of SB 9, the City developed a procedure to streamline this process. Applicants submit documents listed in the sections below for SB 9 Building and Lot Split Projects.

A. MINISTERIAL DWELLING UNIT (BUILDING PERMIT) REVIEW

1. PROCEDURES

To apply for ministerial approval of two units on a single parcel submit a building permit application, Local Compliance Affidavit and all documents as described in the Building Permit submittal checklist below. This request for approval will be processed by the building division. Building Division staff determine completeness of ministerial approval of two units. Incomplete applications will not be processed. Please note, if proposing both a lot split and two-unit approval the lot split shall be approved and recorded prior to submitting a building permit application for approval of two-units.

The Building Department refers the building permit submittal to the Engineering Admin tech who logs in the project and provides it to the Senior Development Engineer overseeing these ministerial reviews and the Senior Engineer assigns it to the Project Coordinator.

The Project Coordinator reviews these projects for technical compliance against the SB 9 building permit checklist and improvement plan checklist also listed below and carefully make sure there are no conflicts with existing utilities or other underground structures on the site and that all utilities can be connected to the public mains in the fronting street. The health and safety of the residents who are living on the site and those who will live in the future new homes must be considered carefully during the lot split review since no entitlement review will take place.

2. SUBMITTAL CHECKLIST

A. CHECKLIST FOR SUBMITTAL OF PROPOSED MINISTERIAL DWELLING UNITS

1. Provide proposed grading and drainage plans showing functional stormwater runoff with no ponding.

2. Provide proposed and existing utility plans and identify tie-in locations.

   a. If a new accessory dwelling unit is proposed, utilities are to be provided from existing single-family residence.
   b. If a new single-family residence is proposed, provide new utility connections from public right of way.

3. Provide fire access to any new proposed dwelling unit with a minimum of 5 feet clearance. If access to the proposed dwelling unit is greater than 150 feet from the centerline of the public right-of-way to furthest exterior wall, additional fire code requirements may be required.

3. REVIEW CHECKLIST

SB 9 CHECKLIST FOR REVIEW OF PROPOSED MINISTERIAL DWELLING UNITS

___ Planning staff has reviewed the submittal for code requirements.

___ Stormwater Quality Checklist filled out, signed and submitted with Building Permit Submittal. Required for all projects adding or replacing 2,500 square feet or more of impervious surface.

___ Clean Water Site Measures Declaration" filled out, signed and submitted with Building Permit Submittal required for single family residential lot projects replacing under 2,500 square feet.

___ Plan sheet, full size 24" x 36" or 81/2" x 11" for plot plans included showing existing City utilities across or along parcel. City easements are shown with no trees or structures shown within them. Utility base maps are available from the Engineering Division.

___ Plans shall show the property lines with dimensions and public and private easements with dimensions.

___ If the home or multi-family unit is an affordable housing unit, each affordable unit shall be noted on the plan.

___ Plans incorporate all existing utilities and surface improvements for existing frontage improvements for conformance and potential conflicts. Drawings are available from the Engineering Division.

___ If site includes new public street improvements or new public utility mains, use Development Plan Check and Procedures Manual Final Map Improvement Plan Checklists for new improvement requirements. Checklists are annotated and submitted with building permit submittal.

___ City utility information on Geographical Information System (GIS) checked for existing City utilities across or along parcel. No trees or structures within City easements. Utility information is available from the Engineering Division.

___ North arrow and scale (noted and graphical) shown on drawing.

___ Name, address, and telephone number of designer preparing plan shown.

___ Tie-in to public water, sewer, and storm drain shown on plan.

___ Existing utility structures shown (such as P.G. & E. vaults).

___ Grading plan provided showing top of curb elevations, pad elevations, high point elevations, low point elevations, and storm drain system with grate elevations and pipe invert elevations.

___ If stormwater treatment devices are included in the design they shall be designed to meet the latest stormwater C3 requirements and be shown on a stormwater quality control plan sheet with font greater than 1/8inch. The minimum size of Bio-retention swales shall be 0.04 sf per 1s.f. of impervious surface draining into the swale. If new or replaced impervious

surface is over 2,500 sf stormwater calculations are required (shown on plan or submitted separately). If new or replaced impervious surface is over 1 acre, Bay Area Hydrograph Model (BAHM) calculations are also required.

___ The following site data is provided on the plans:

a. (Ex) Site square footage
b. (Ex) Landscape square footage
c. New landscape square footage installed
d. (Ex) hardscape (impervious surface) square footage removed/replaced
e. (Ex) Landscape square footage removed/replaced
f. New hardscape (impervious surface) installed
g. Pad elevation (Existing & New)
h. Finished Floor elevation (Existing & New)

___ Cal Water service requirement and/or state regulations require a backflow preventor to prevent cross contamination from the fire sprinkler system. Residential back flow preventer shall be located as close to the house as possible or within 20 feet of water meter to be shown on plan per Detail W-22. Back flow preventer shall be screened per planning requirements.

___ Off-site improvements constructed in accordance with City Standard Details and Specifications. These documents can be found on the City’s website.

___ Sewer service provided with cleanout per City Standard Detail S-5A.

___ Location and screening of above ground utility box.

___ Sizes, slopes, and invert elevations of all drainage pipes shown.

___ A minimum slope of 2% for ten feet (minimum) from the building pad is required for drainage.

___ Asphalt concrete pavement areas drain at a minimum slope of 1% once beyond the 10' envelope around the building.

___ Portland cement concrete pavement areas drain at a minimum slope of 0.5% once beyond the 10' envelope around the building.

___ Drainage not blocked by on-site curbs.

___ Storm water inlets/area drains provided at all low points (no bird's baths).

___ Upstream natural drainage adequately intercepted and transmitted to the public storm drain system.

___ No drainage onto adjacent properties.

___ Natural drainage from existing adjacent properties accepted. Blockage of natural upstream drainage not permitted.

___ Onsite private storm drainpipes sized to handle flow with minimum size of 3". Public storm drainpipes sized to handle flow with minimum size of 12”.

___ Positive drainage checked for pipes (mathematics of pipe slopes checked).

___ No crossing conflicts between sanitary sewer and storm drain.

___ Landscape plans checked for proper sight distance at driveways. No landscaping or mounding shall be placed 30" above the top of curb in the line of sight. Landscaping in the line of sight shall be no greater than 30" above the top of curb. Full grown tree species shall be such that the canopy shall be a minimum of 8 feet above the top of curb when located in the line of sight.

___ Proper driveway width for one- or two-way traffic.

___ Field check for existing utility conflicts. Plans note relocation of conflicting utilities.

___ Driveways located at existing streetlights, fire hydrants, storm water inlets, or utility boxes, show approved relocation of existing facilities or traffic box provisions OR relocated to avoid the conflicts and meet city clearance/spacing requirements and site distance requirements.

___ No sewer lateral direct connection to sanitary sewer trunk mains (12" diameter and larger). Connections to sanitary sewer trunk mains only permitted with a city standard sanitary sewer maintenance hole.

___ Street trees installed per detail (street tree planting per Planning Division requirements).

___ Excessive utility trenching in existing street requires a resurfacing of street across entire site frontage. See final planning action and approved engineering considerations for type of resurfacing required.

___ Following notes placed on plan:

a. All off-site improvements shall be constructed in accordance with City of Livermore Standard Details and Specifications.
b. An Encroachment Permit shall be obtained from the Permit Center, located at 1052 South Livermore Avenue, prior to the start of any improvements within the public right-of-way.
c. Replace all defective curbs, gutter, sidewalk, and driveway as directed by the City Engineer.
d. All new and upgraded existing utility services shall be installed underground.
e. As-built plans for public improvements provided prior to occupancy.

___ For custom homes, place the following notes on plans:

PAD COMPACTION AND PAD ELEVATION CERTIFICATION LETTERS MUST BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO REQUEST OF FOUNDATION INSPECTION

___ Prior to final acceptance by Building Division, as-built plans of public improvements shall be provided to the Engineering Division.

___ Show all necessary erosion control measures on the improvement plans. In addition, the following notes shall be included on the improvement plans:

Construction Operations - Dust shall be controlled at all times. Wastewater generated during construction shall not be discharged to the storm drain system. This includes waste from painting, saw cutting, concrete work, etc. The contractor shall make arrangements to eliminate discharges to the storm drain system and, if necessary, provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in areas that are designed to prevent exposure to rainfall and to not allow storm water to run onto the area.

B. LOT SPLIT (PARCEL MAP) REVIEW

1. PROCEDURES

To apply for a ministerial lot split, submit a Local Compliance Affidavit along with all the required documents listed in the lot split checklist to the Engineering Division. Engineering Division staff determine completeness of the ministerial approval of lot splits. Incomplete applications will not be processed. The Engineering Division will review the lot split application and work with the owner to file a parcel map, which is processed through the City's Parcel Map Waiver Process, as described below. Please note, if proposing both a lot split and two-unit approval the lot split shall be approved and the Parcel Map recorded prior to submitting a building permit application for approval of two-units. For ministerial approval of lot splits, the Engineering Division receives the application and submitted documents. The Division Clerk logs the projects and forwards them to the Senior Engineer overseeing final map approvals. The Senior Engineer assigns the project to a staff member who becomes the project coordinator. The project coordinator creates the project number in Accela and adds this number to the development log.

The Project Coordinator reviews these projects for technical compliance against both the SB9 final map checklist and improvement plan checklist carefully making sure there are no conflicts with existing utilities or other underground structures on the site and that all utilities can be connected to the public mains in the fronting street. The health and safety of the residents who are living on the site and those who will live in the future new homes must be considered carefully during building permit review since no entitlement review will take place.

2. SUBMITTAL CHECKLIST

PARCEL MAP (LOT SPLIT) CHECKLIST FOR SB9 SUBMITTALS

FINAL MAP NO. _____

The map being submitted with this checklist has been checked by me or under my direction for conformance to the items of this checklist.

Company Name: _____

Signature: _____ LS or RCE No.: _____

Name printed:_____ Date: _____

Telephone No. _____ E-mail: _____

A complete submittal includes the following:

a. One copy of the existing map that created the original parcel.

b. Four copies of the proposed final map.

c. Two copies of the Title Report (dated within the last six months).
Note: "Pro-Forma" Title Reports are not acceptable.

d. One copy of each of the easement or other additional documents noted within title report.

e. Two copies of the Closure calculations which include the following:

1. Boundary closures
2. Boundary ties
3. Block closures
4. Street closures (dedications)
5. Individual lot closures
6. Monument to monument closures
7. Monument line increments and ties to sideline closures
8. Easement closures (if not concentric or parallel)
9. Common Area closure

f. Two copies of deeds for the subject property and for adjoining properties.

g. Two copies of maps and documents referenced on the map.

h. The Map check fee.

i. This map checklist.

j. Provide one copy of an exhibit showing:

1. Existing and proposed property boundary lines.
2. Existing and proposed utilities.
3. Existing and proposed easements (including access easements).
4. Existing and proposed structures.
    i. Including public infrastructure (i.e. curb, gutter, sidewalk and driveway approaches).
    ii. Proposed elevation views including a 75-degree ground ladder exhibit for second story or eaves (if applicable).

3. REVIEW CHECKLISTS

Note: If improvements are required, the map cannot be submitted without the improvement plans. If the parcel map is being processed under the parcel map waiver process all improvements must be installed and accepted by the City of Livermore prior to filing the final map.

SB 9 LOT SPLIT (PARCEL MAP) CERTIFICATE SHEET CHECK LIST
Affidavit Sheet (all offers of dedication shall specify the dedication is dedicated in fee or as an easement for public purposes per Section 66439 of the Subdivision Map Act).

___ Owner's statement (position in the upper left corner of sheet one) Owner's statement includes all dedications of streets and easements shown on the map.

___ Streets dedicated. **(Optional)**

___ All street names and spellings in owner's statement carefully checked to assure they agree with names and spellings on map.

___ One foot barrier strips (parcels) dedicated (at end of stub streets). (Optional)

___ Channel parcels dedicated in fee to the City of Livermore. Storm drain reservation is dedicated when channel dedication must be deferred. (Optional)

___ Parks dedicated in fee to the City of Livermore (Only easements can be required if needed). (Optional)

___ Pedestrian access path parcels dedicated in fee to the City of Livermore. (Optional)

___ Prohibited access or Relinquishment of Abutters Rights dedicated as an easement to the public.

___ Public parcels dedicated in fee to the City. (Optional)

___ Easements dedicated to the public:

- ___ Storm (SDE) – width as required by City Engineer (10’ min.)
- ___ Landscape (LE)
- ___ Water (WLE)
- ___ Public utility (PUE) (4 feet minimum)
- ___ Sewer (SSE) - width as required by City Engineer (10’ min.)
- ___ Emergency access (EVAE)
- ___ Sidewalk (SE)

___ Public access (PAE)
___ Trail (TE)
___ Relinquishment of Abutters Rights (////)
___ Note: This map shows or notes all easements, existing or of record, within the boundary lines of the herein embodied map.

___ Private easements and common areas noted and explained:

___ Private storm drain (PSDE)
___ Private sanitary sewer (PSSE)
___ Access Easement, Private (AEP)
___ Side yard Easement (SYE)

Note: These are private easements, and the facilities therein shall be maintained by the owner or the Homeowners Association.

___ Signature and notary provisions for owner (Notary – sign, don't stamp per subdivision map act section 66436(4)(c). The owner's name must agree with the title report).

___ Owner's acknowledgement (notary statement with disclosure).

___ Trustee's Certificate (if applicable).

___ Trustee's acknowledgement (if applicable with disclosure) (do not stamp per section 66436(4)(c)).

___ Signature and notary provisions for trustee with disclosure.

___ Engineer's/Surveyor's statement (Developer's engineer).

___ Subdivision area (in thousandths).

___ Engineer's /Surveyor's license and expiration date.

___ City Engineer's statement with added Land Surveyor's statement.

___ City Engineer's license and expiration date with Land Surveyor's license and expiration date.

___ Community Development Director's statement.

___ City Clerk's statement (Parcel Map Waiver version – Liability box, staff level approval, no rejections of dedications, etc.).

___ City Clerk's statement (If applicable, Final and Parcel Map Version – specifically accepts or rejects offers of dedication to later accept grants, easements, dedications, relinquishments, etc. The Clerk's statement includes a separate paragraph identifying vacations and abandonments of existing streets and easements not shown on the new map, with their individual recording information).

___ Signatures omitted: statement added (if needed) stating: In accordance with sections 66436(a)(3) (i-viii) of the Subdivision Map Act, signatures of parties owning the following interest, which cannot ripen into fee, have been omitted. (Owners' names are listed below this statement with ownership interest recording data for each signature omitted).

___ Clerk of the Board of Supervisor's statement.

___ County Recorder's statement (position in the lower right corner of sheet one).

___ Description of subdivision under title (i.e. subdivision of Parcel A of Tract 1234).

___ Title Block (position top center on sheet one, and lower right on all other sheets):

- ___ Tract or Parcel Map number
- ___ For condominium purposes (if applicable)
- ___ Brief description of subdivision (i.e. a Subdivision of Parcel A of Tract 1234)
- ___ City of Livermore
- ___ Alameda County, California
- ___ Engineer or Surveyor Company's name
- ___ Date: (Revise and update the map date with each submittal)

SB 9 LOT SPLIT (PARCEL MAP) GENERAL FORM AND CONTENT REQUIREMENTS

___ Title Blocks:

TRACT/PARCEL MAP NUMBER
(A subdivision name is allowed but not required)
Description IE: (Subdivision of Parcel A of Parcel Map 1234, Etc.)
CITY OF LIVERMORE
ALAMEDA COUNTY, CALIFORNIA
SCALE ENGINEER'S/SURVEYOR'S (FIRM) NAME
DATE (to be updated with each map submittal)

___ Name of Engineer - all sheets (including affidavit sheet).

___ Sheet numbers and total numbers of sheets (i.e.: Sheet 1 of 4) position in lower right corner of all sheets (inside border including certificate sheet).

___ North Arrow and scale on all maps - all sheets.

___ Sheet size - 18" x 26" with a 1" margin - all sheets. Note: The 26" dimension shall be along the bottom and top of each sheet.

___ Key map and index required for three or more sheets of maps (certificate sheets excluded).

___ Basis of Bearing referring to a recorded map or to a solar or Polaris observation, or other record acceptable to City Engineer on all map sheets. Describe the line and the map reference data (Ex. The monument line of "A" Street, taken as N 0^{o} 00' 00" W, per Tract 1234, filed in book 00 of maps at page 222, Alameda County Records, as shown hereon).

___ Basis of Bearing: (if applicable) The bearings shown hereon are based upon the California Coordinate System of 1927 (CCS27, ZONE 3), multiply the ground level distances shown hereon by 0.9999027? to obtain grid distances.

___ On major subdivisions (15 lots +) show a California State Plane Coordinate on one boundary corner and on one easily described and accessible street monument. When the new monuments are certified an elevation will be required. City staff will then enter the coordinate and elevation in the "Benchmark and Control Book' (and in the electronic file). (This does not apply to in-fill projects within existing developed areas).

___ Scale - 1" = 100' or larger - all sheets (except for Vicinity and Key maps). Provide a Graphic Scale (state that it is in ground measure in U.S. feet).

___ Legend (various standard City of Livermore symbols):

___ Tract/Parcel Map Boundary (wide black line with three short dashes and one long dash) 

___ New Lot lines (solid medium line) _____

___ Existing Lot Lines (solid narrow line) _____

___ Monument lines (narrow line with two short dashes and one long dash). (Locate Six feet off centerline east and south side of street on all streets except major streets. Major streets to be located 16 feet off centerline. _____ __ __ _____

___ Centerlines (narrow line with one short dash and one long dash)
_____ __ _____

___ Easement lines (narrow line with medium length dashes) (landscape, P.U.E., storm, water, sewer, emergency access)
___ ___ ___ ___ ___ ___ ___ ___

___ Tie Lines etc. (narrow lines with very short dashes) _ _ _ _ _ _ _

___ City boundary (long narrow lines with two dots and a long dash) Be sure label _____. . _____ . . _____

___ Prohibited access/Relinquishment of Abutters Rights (narrow hatch marks along R/W line) /////////////////////////

___ Found City Monument (small circle with smaller solid circle inside) 

___ Set City Monument (small circle with smaller open circle inside) 

___ Found Iron Pipes, Rebars, Spikes as noted with Tag No. (solid medium circle) 

___ Set Iron Pipes (Rebars) with Tag No. (open medium circle) 

___ Monument to Monument M-M

___ Monument to Tract Line M-TL

___ Record and Measure R&M
(list record data and reference)

___	Record Data and References	(Data XX)
___	Radial Bearing	(R)
___	Total	(T)
___	Official Records	OR
___	Searched for Not Found	SFNF
___	Existing	EX
___	Reference (see list of References)	(3)
___	Public Utility Easement	P.U.E.
___	Sanitary Sewer Easement	S.S.E.
___	Storm Drain Easement	S.D.E.
___	Water Line Easement	W.L.E.
___	Storm Water Overflow Easement	S.O.E
___	Landscape Easement	L.E.
___	Landscape and Sidewalk Easement	L.S.E.
___	Sidewalk Easement	S.E.
___	Trail Easement	T.E.
___	Emergency Vehicle Access Easement	E.V.A.E.
___	Private Sanitary Sewer Easement	P.S.S.E.
___	Private Storm Drain Easement	P.S.D.E.
___	Private Water Line Easement	P.W.L.E.
___	Private Public Utility Easement	P.P.U.E.
___	Private Access Easement	P.A.E

SB 9 LOT SPLIT (PARCEL MAP) TECHNICAL REQUIREMENTS

___ Planning staff has reviewed submittal and it conforms with code requirements.

___ If the map is being prepared in Metric Units or if the map is based on the California Coordinate system, note the conversion factor and shown the dimensions in both meters (CCS) and in ground level feet within brackets, i.e. metric distance (feet).

___ Map is in conformance with existing data (recorded deeds, filed maps and public records.

___ Tract boundary adequately shown by symbol and labeled.

___ Street widths and lot configuration in general conformance with the tentative map and the conditions of approval (conditions of approval prevail).

___ Stub streets terminate with one-foot lot “No Access Strip” to the City (easements provided for turnaround if required).

___ Streets intersect at an 80º to 100º angle. (The central angle of the intersection returns shall fall within the 80º to 100º range).

___ A public utility easement is provided with the back edge located at minimum of 16 feet from the face of curb and 4 feet from side and back property lines.

___ Knuckle designs shall be subject to City approval.

___ Pedestrian paths and easements subject to City approval (15 foot wide).

___ Iron pipes (rebars) with tag or a rebar and cap shall be set at each boundary corner at all off-street tract boundary angle points, and Lot Corners (as deemed necessary by project coordinator).

___ Iron pipes with tags or rebar and caps, are required to be set at all non-street frontage lot corners or angle points. In lieu of showing these, place a note on each map sheet similar to the following:

Note: Show the symbols on maps or add the following note:

a. Iron pipe with tag or a rebar and cap will be set at all non-street frontage lot corners and angle points.
b. An “X” or other similar mark will be chiseled in the top of curb at the prolongation of the lot line. (This is not a witness point but is just intended for the owner’s benefit).

___ Each line shall have a (North) bearing and a distance (no dittos).

___ All total distances (dimensions) equal the sum of the individual distances (dimensions). (Adjust one or the other from that shown in the closures so they agree).

___ Show the Radius (R), delta Δ or D), and the arc length (L) for all curves.

___ A “+” mark shall be shown on the map and the bearing and distance from the “+” to the property corner shall also be noted on the map. (The “+” mark shall also be shown on the Improvement plans and the General Notes shall state that a “+” is to be chiseled at the top of curb at the prolongation of the property lines. The “+” mark is considered a witness point per the Subdivision Map Act).

___ Show all non-tangent radial bearings with the symbol (R), either before or after the bearing.

___ Lot and block size acceptable and approved (blocks less than 1500' long).

___ Backing lot treatment per city standards along major streets.

___ Adjacent sheet numbers shown.

___ Line of high water (FEMA 100-year flood plain line) to be shown if subdivision is adjacent to a stream, channel or any body of water or any areas subject to inundation as shown on effective F.E.M.A. maps.

___ A current preliminary title report (dated within 6 months) reviewed for trustees, easements, and correct ownership, etc. (Pro-Forma not acceptable).

___ Review documents referenced in Preliminary Title Report.

___ Water line easements, sanitary sewer easements and storm drain easements are shown and labeled if said public utilities are within private streets.

___ All lots and/or parcels are numbered consecutively.

___ A minimum of two monument ties shall be shown to existing monuments in order to retrace the boundary (preferably at the two opposite tract boundary lines projected to the monument at the existing monument line, if applicable).

___ Ownership and recording information shown for all adjoining, non-tract abutting parcels (metes and bounds type with recording data).

___ Show adjacent subdivisions (Tract/parcel map numbers, lot numbers, and recording data, i.e.: Book and Page) xxx maps xxx.

___ All existing and new street names are shown and are in accordance with the approved Tentative Maps. (All street names must be pre-approved by the City Planning Division). Street names in the owner's statement, City Clerk's statement, and on the map shall match **EXACTLY**.

___ All existing easements and incumbrances shall be shown or addressed with the recording data.

___ Computed distances (New) shall be computed and shown to 3 decimals to the thousandths of a foot (0.000) (If subdivision is a re-subdivision of an earlier map that shows distances to 2 decimals to the hundredth of a foot the new map may be prepared to 2 decimals to agree with that record.

___ Distances measured to the hundredth may be shown as 2 decimals to the hundredth of a foot 0.00).

___ Deed or reference distances (record measurements) are to be shown to the same precision as noted in the document (i.e. if the record measurement is to the nearest foot. Do not add decimals to imply more accuracy).

___ Show the areas of all the new lots and parcels.

___ Monument to monument distances (M-M) or Monument to Tract line (M-TL) distances are shown. Ties from the Monument Lines to the property line returns, curve points and property lines are shown. (All distances shown shall be verified in the closures).

___ Show the tie from the monument in the knuckles to the radius point.

___ Monument lines are to be positioned six (6) feet south or east of all streets, except on major streets (islands) these are to be positioned sixteen (16) feet from the centerlines.

___ Any and all dimensions shown on the map shall be supported with a closure or calculation.

___ All closures are to be map check type closures, showing the error of closure. Inverse closures are not acceptable.

___ All lengths, bearings, arcs, radii, all centers of cul-de-sacs, returns, and elbows shown.

___ The maximum error of closure is 0.005 feet. The Plan checker will mark discrepancies between the map and the closures on final map. The closures are to be revised accordingly.

___ Every bearing and distance checked and shown to the second, i.e.: (_° _____ ' __" and N E S W - Prefer that all bearings are north oriented).

___ The City boundary shall be shown and labeled, if near the tract.

___ All Tract areas to be calculated and shown to the thousandths (0.001) of an acre. Show lot areas to an even foot.

___ Monuments close with existing adjacent monuments.

___ Show and label the city limits, if abutting or near the subdivision.

___ Show monument ties to existing adjacent monuments.

___ Orient all lettering to be read from the bottom or the right.

___ Minimum property line corner radii at intersections as follows:

1. Residential street intersection with a residential street…..... = 20 feet
2. Residential street intersection with a collector street…….. = 20 feet
3. Residential street intersection with a major street……... = 31 feet
4. Collector street intersection with a collector street…….. = 20 feet
5. Collector street intersection with a major street……... = 31 feet
6. Major street intersection with a major street……..... = 40 feet
7. Development ingress/egress intersection and interior Livermore-Pleasanton Fire Department truck circulation route..... = 28 feet.

___ Minimum street centerline radii (with actual value based on an engineering design).

1. Residential minimum C.L. Radius……250 feet
2. Collector minimum C.L. Radius……600 feet
3. Major minimum C.L. Radius……see improvement plan check list

___ Cul-de-sac P.L. Radius = 50 foot minimum.

___ Minimum distance of 250 feet (centerline to centerline) between intersections (150 feet minimum on minor residential streets).

___ To qualify as a parcel map waiver all public improvements must be existing and In good repair. The city will inspect the site and note any deficiencies needed.

Improvements and repairs must be completed prior to the acceptance of the map for filing.

SB 9 LOT SPLIT (PARCEL MAP) CERTIFICATE

1. **TITLE BLOCK (position top center on sheet 1 and position in the lower right corner of all other sheets)**

PARCEL MAP 1234

(A DESCRIPTION IS OPTIONAL)
A PORTION OF LOTS A, Y, Z OF TRACT 4321
FILED IN BOOK 3 OF MAPS AT PAGES 4 THRU 5
ALAMEDA COUNTY RECORDS

CITY OF LIVERMORE
ALAMEDA COUNTY, CALIFORNIA

JONES & JONES
CIVIL ENGINEERS AND SURVEYORS
BIG CITY, CALIFORNIA
(925) 555-5555

FEBRUARY XX, 20XX
(UPDATE WITH EACH SUBMITTAL)

2. **OWNER'S STATEMENT**

THE UNDERSIGNED, HEREBY STATE THAT THEY ARE THE OWNERS OF ALL THE LANDS DELINEATED AND EMBRACED WITHIN THE BOUNDARY LINES UPON THE HEREIN EMBRACED MAP ENTITLED "TRACT XXXX, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", CONSISTING OF XX (XX) SHEETS, THIS STATEMENT BEING ON SHEET ONE THEREOF, THAT THEY HAVE CAUSED SAID MAP TO BE PREPARED FOR RECORD AND DO CONSENT TO THE MAKING AND FILING OF SAID MAP. THAT SAID MAP DOES PARTICULARLY SET FORTH AND DESCRIBE ALL PARCELS OF LAND SO RESERVED FOR PUBLIC PURPOSES BY THEIR BOUNDARY COURSES AND EXTENT, THAT ALL PARCELS SO RESERVED FOR PUBLIC PURPOSES ARE INTENDED FOR THE USES AND PURPOSES OF PUBLIC HIGHWAYS AND ARE DESIGNATED "X ROAD", "Y STREET", AND "Z COURT".

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE (OR EASEMENT) FOR PUBLIC PURPOSES FOREVER, GRANTING TO

PUBLIC USE THOSE PARCELS OF LAND LYING WITHIN THE BOUNDARIES OF "X ROAD", "Y STREET", AND "Z COURT" AS SHOWN AND EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP FOR THE USES AND PURPOSES OF **PUBLIC HIGHWAYS.**

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION, FOR PUBLIC PURPOSES THOSE PARCELS OF LAND LYING WITHIN THE BOUNDARIES OF PARCELS "C" AND "D", AS SHOWN AND DESIGNATED AS "**OPEN SPACE"** AND IS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP. THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION, FOR PUBLIC PURPOSES THAT PARCEL OF LAND LYING WITHIN THE BOUNDARIES OF PARCEL "E" SHOWN AND DESIGNATED AS A **"PUBLIC PARK"** WHICH IS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN PUBLIC UTILITIES AND APPURTENANCES THERETO IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN UPON SAID MAP AS "P.U.E." (**PUBLIC UTILITY EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID PUBLIC UTILITIES *(INCLUDING SIDEWALKS)* AND ANY APPURTENANCES THERETO.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER GRANTING THE RIGHT TO CONSTRUCT, USE, RECONSTRUCT, AND MAINTAIN SANITARY SEWERS AND THE APPURTENANCES THERETO IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN UPON SAID MAP AS "S.S.E." (**SANITARY SEWER EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, AND REPAIRING SANITARY SEWERS AND ANY APPURTENANCES THERETO.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSE FOREVER, GRANTING THE RIGHT TO CONSTRUCT, RECONSTRUCT, AND MAINTAIN STORM DRAINS AND THE APPURTENANCES THERETO IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN UPON SAID MAP AS "S.D.E." (**STORM DRAIN EASEMENT**) THEREON ALL AS EMBRACED WITHIN THE

BOUNDARY LINES UPON SAID MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, AND REPAIRING SAID STORM DRAINS AND THE APPURTENANCES THERETO.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT, USE, RECONSTRUCT, AND MAINTAIN WATER LINES AND APPURTENANCES THERETO IN, ON, OVER AND UNDER THOSE STRIPS OF LAND SHOWN UPON SAID MAP AND DESIGNATED "W.L.E." (**WATER LINE EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING OR REPAIRING SAID WATER LINES AND APPURTENANCES THERETO.

REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN LANDSCAPING, INCLUDING THE CONSTRUCTION AND MAINTENANCE OF PUBLIC SIDEWALKS AND A SCREEN WALL, AND THE APPURTENANCES THERETO, IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN ON SAID MAP AS "L.E." (**LANDSCAPE EASEMENT**) OR "L.S.E." (**LANDSCAPE AND SIDEWALK EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER SAID STRIPS OR PARCELS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REPAIRING AND REPLACING SAID LANDSCAPING, SIDEWALKS AND SCREEN WALLS AND ANY APPURTENANCES THERETO TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS OF THE PUBLIC FOR PEDESTRIAN USE OVER AND ALONG THE PUBLIC SIDEWALKS THEREIN.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION, FOR PUBLIC PURPOSES, THAT ONE FOOT ACCESS STRIP OF LAND DESIGNATED **LOT "A".** AS SHOWN AND EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP; SAID LOT "A" IS TO REVERT TO USE AS A PUBLIC HIGHWAY UPON THE APPROVAL AND FILING OF A FINAL MAP OR PARCEL MAP COVERING THE ADJACENT PROPERTY ABUTTING THE PARTICULAR LOT “A”.

THE UNDERSIGNED HEREBY RELINQUISHES TO THE PUBLIC FOREVER ALL RIGHTS OF VEHICULAR INGRESS AND EGRESS OVER AND ACROSS THE PROPERTY LINES WHERE DESIGNATED "**RELINQUISHMENT OF**

ABUTTERS RIGHTS AND PRIVATE ACCESS PROHIBITED AND SHOWN WITH THE SYMBOL "\\\\\\\\\\\\\\\\"

THE REAL PROPERTY IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING AN **EMERGENCY VEHICLE ACCESS EASEMENT** "E.V.A.E." ON, OVER, AND ACROSS THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED “E.V.A.E.” AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, FOR THE INGRESS AND EGRESS OF EMERGENCY VEHICLES.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING A “S.E.” (**SIDEWALK EASEMENT**) ON, OVER AND ACROSS THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED "S.E.", AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID SIDEWALKS AND ANY APPURTENANCES THERETO, INCLUDING THE RIGHT OF INGRESS AND EGRESS FOR PEDESTRIAN USE OVER AND ALONG SAID SIDEWALKS.

THE PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF AN EMERGENCY STORMWATER OVERFLOW DITCH, PROVIDING AN EMERGENCY OUTLET FOR THE STORMWATER FROM _XXX___ STREET, ACROSS LOT(S) XXX_ AND OUTLETTING, THROUGH THE BACKING LOT WALL/FENCE OR LANDSCAPING TO _THE ZZZZ____ STREET RIGHT-OF-WAY, IN, UNDER, OVER, AND ACROSS A STRIP OF LAND SHOWN UPON SAID MAP AND DESIGNATED "S.O.E." (**STORMWATER OVERFLOW EASEMENT**), TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIP(S) OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID FACILITIES. THIS EMERGENCY OVERFLOW DITCH SHALL BE KEPT OPEN AND FREE FROM CONSTRUCTION OR LANDSCAPING OF ANY KIND THAT WOULD INTERFERE OR OBSTRUCT DRAINAGE.

THE PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN A PUBLIC TRAIL AND ANY APPURTENANCES THERETO, IN, ON, UNDER, OVER AND ACROSS THOSE CERTAIN STRIPS OF LAND SHOWN UPON SAID MAP AS “T.E” (**TRAIL EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE

PURPOSES AND CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID TRAILS AND THE APPURTENANCES THERETO, INCLUDING THE RIGHT OF INGRESS AND EGRESS OF THE PUBLIC FOR PEDESTRIAN, ETC. USE OVER AND ALONG THE PUBLIC TRAILS THEREIN. AFTER THE CONSTRUCTION AND ACCEPTANCE OF THESE TRAIL FACILITIES THE CITY OF LIVERMORE SHALL TRANSFER BY DEED OR LICENSE THE OPERATION AND MAINTENANCE OF THIS TRAIL EASEMENT (TRAIL FACILITIES) TO “L.A.R.P.D.” (LIVERMORE AREA PARKS AND RECREATION DISTRICT).

(NOTE AND DEFINE ANY EASEMENT AND CONDITIONS THAT APPLY)
THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN A WALL, AND ANY APPURTENANCES THERETO, IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED AS “WE” (**WALL EASEMENT**) THERON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, AND REPAIRING SAID WALL, AND ANY APPURTENANCES THERETO.

THE REAL PROPERTY DESIGNATED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING A “PAE” (**PUBLIC ACCESS EASEMENT**) ON, OVER AND ACROSS THOSE CERTAIN STRIPS F LAND SHOWN AND DESIGNATED "PA"", AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP.

THE UNDERSIGNED HEREBY RESERVES A STRIP OF LAND AS A “PSDE” (**PRIVATE STORM DRAIN EASEMENT**) OVER, UNDER AND ACROSS A STRIP OF LAND SHOWN AND DESIGNATED “PSDE”., AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, AND MAY BE GRANTED TO THE HOMEOWNER’S ASSOCIATION BY SEPARATE INSTRUMENT.

MAINTENANCE OF ANY “**PRIVATE STORM DRAIN OR SWALE**”, SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER, HOMEOWNER’S ASSOCIATION, OR LOT OWNER AS APPLICABLE. IF A SWALE OR DRAIN FALLS WITHIN AN INDIVIDUAL LOT THE OWNER SHALL KEEP IT OPEN AND FREE OF ANY OBSTRUCTIONS, INCLUDING FILL FOR LANDSCAPING PURPOSES.

THE UNDERSIGNED HEREBY RESERVES A STRIP OF LAND AS A “PSSE” (**PRIVATE SANITARY SEWER EASEMENT**) OVER, UNDER, AND ACROSS

A STRIP OF LAND SHOWN AND DESIGNATED “PSSE”, AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, AND MAY BE GRANTED TO THE HOMEOWNER’S ASSOCIATION BY SEPARATE INSTRUMENT.

THE P.S.S.E. (**PRIVATE SANITARY SEWER EASEMENT**), P.S.D.E. (**PRIVATE STORM DRAIN EASEMENT**), P.W.L.E. (**PRIVATE WATER LINE EASEMENT**), P.P.U.E. (**PRIVATE PUBLIC UTILITY EASEMENT**), OR P.A.E (**PRIVATE ACESS EASEMENT**), ARE PROPOSED EASEMENTS RESERVED BY THE UNDERSIGNED

MAINTENANCE OF ANY “PRIVATE STORM DRAIN OR SWALE”, SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER OF THE SUBDIVISION, TO BE GRANTED TO A HOMEOWNER’S ASSOCIATION, ETC. BY SEPARATE INSTRUMENT. OPERATION AND MAINTENANCE SHALL BE THE SOLE RESPONSIBILITY OF SAID HOMEOWNERS ASSOCIATION, INDIVIDUAL OWNERS OR OTHER ENTITY AS NOTED IN THE RECORDED INSTRUMENT, C.C.& R’S OR OTHER AGREEMENT

MAINTENANCE OF ANY "P.S.D.E." (**PRIVATE STORM DRAIN EASEMENT**) SHALL BECOME THE SOLE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNERS (WITHIN THEIR RESPECTIVE LOTS) OF LOTS X, X, X, AND X. SAID PRIVATE STORM DRAIN EASEMENT TO BE KEPT OPEN AND FREE FROM CONSTRUCTION OF ANY KIND INCLUDING THE USE OF LANDFILL FOR LANDSCAPE PURPOSES.

THE "P.S.D.E." (**PRIVATE STORM DRAIN EASEMENTS**) ARE EASEMENTS RESERVED BY THE UNDERSIGNED OWNER OF THE SUBDIVISION, AND MAY BE GRANTED TO A HOMEOWNERS' ASSOCIATION BY SEPARATE INSTRUMENT.

MAINTENANCE OF ANY PRIVATE SANITARY SEWER SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER, OR HOMEOWNER’S ASSOCIATION AS APPLICABLE.

THE UNDERSIGNED HEREBY RESERVES A STRIP OF LAND AS A “AEP” (**ACCESS EASEMENT PRIVATE**) OR “PRIVATE STREET”, OVER, UNDER AND ACROSS A STRIP OF LAND SHOWN AND DESIGNATED AS ”AEP”, AS EMBRACED WITHIN THEIR BOUNDARIES OF THE HEREIN EMBODIED MAP, THIS IS A PRIVATE EASEMENT AND MAY BE GRANTED TO THE HOMEOWNER’S ASSOCIATION BY SEPARATE INSTRUMENT.

AND THE UNDERSIGNED HEREBY RESERVES LOT D FOR _____ PURPOSES.

THIS MAP SHOWS OR NOTES ALL EASEMENTS, EXISTING OR OF RECORD, WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP.

IN WITNESS WHEREOF, THE UNDERSIGNED OWNERS HAVE CAUSED THIS STATEMENT TO BE EXECUTED THIS ____ DAY OF _____ 20__.
ABC CORPORATION, A CALIFORNIA CORPORATION

BY: (OWNER NAME) _____
PRINT NAME: _____
PRINT TITLE: _____

3. ALTERNATIVE OWNER'S STATEMENT FORMAT

THE UNDERSIGNED, HEREBY STATE THAT THEY ARE THE OWNERS OF ALL THE LANDS DELINEATED AND EMBRACED WITHIN THE BOUNDARY LINES UPON THIS HEREIN EMBODIED MAP ENTITLED "_____" CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA". CONSISTING OF____ _SHEETS, THIS STATEMENT BEING ON SHEET ONE THEREOF. THAT THEY HAVE CAUSED SAID MAP TO BE PREPARED FOR RECORD AND DO CONSENT TO THE MAKING AND FILING OF SAID MAP, THAT SAID MAP DOES PARTICULARLY SET FORTH AND DESCRIBE ALL PARCELS OF LAND SO RESERVED FOR PUBLIC PURPOSES BY THEIR BOUNDARY COURSES AND EXTENT, AND THAT ALL PARCELS SO RESERVED FOR PUBLIC PURPOSES ARE INTENDED FOR THE USES AND PURPOSES OF PUBLIC HIGHWAYS AND ARE DESIGNATED "_____ROAD", "_____STREET", "_____COURT", AND " _____BOULEVARD". PARCEL "A " AND PARCEL "B", (OPEN SPACE PARCELS) .....PARCEL "C" (PUBLIC PARK) "ALL LOTS OR PARCELS DEDICATED FOR PUBLIC USE, SHALL BE MAINTAINED BY THE CITY."

LOT "A", A ONE FOOT ACCESS RESERVE STRIP. (TO REVERT TO USE AS A PUBLIC HIGHWAY UPON THE FILING OF A MAP COVERING THE ADJACENT PROPERTY ABUTTING SAID LOT "A".

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT, USE AND MAINTAIN THE CERTAIN UTILITIES/FACILITIES DESCRIBED HEREIN ALONG WITH THE RIGHT TO ENTER SAID PROPERTY AS REQUIRED. THER USE AND PURPOSE IS IDENTIFIED AS FOLLOWS:

PUBLIC UTILITY EASEMENT (PUE)…SANITARY SEWER EASEMENT (SSE)
STORM DRAIN EASEMENT (SDE)……WATER LINE EASEMENT (WLE)
SIDEWALK EASEMENT (SE)……PUBLIC ACCESS EASEMENT(PAE)
LANDSCAPE AND SIDEWALK EASEMENT(LSE) …WALL EASEMENT (WE)
EMERGENCY VEHICLE ACCESS EASEMENT (EVAE) TRAIL EASEMENT (TE)
RELINQUISHMENT OF ABUTTERS RIGHTS (PRIVATE ACCESS PROHIBITED) ***//////***

THE UNDERSIGNED HEREBY RESERVES STRIPS OF LAND AS PRIVATE EASEMENTS AS DESCRIBED AND SHOWN HEREIN, AND AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP. THESE MAY BE GRANTED TO THE HOMEOWNERS ASSOCIATION BY SEPARATE INSTRUMENT. THE MAINTENANCE OF ANY IMPROVEMENTS OR FACILITIES THEREIN SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER OR HOMEOWNERS ASSOCIATION AS APPLICABLE.

PRIVATE STORM DRAIN EASEMENT (PSDE)
PRIVATE SANITARY SEWER EASEMENT (PSSE)
PRIVATE STREETS (LABELED)
ACCESS EASEMENT PRIVATE (AEP)
SIDE YARD ACCESS (SYE)

THIS MAP SHOWS OR NOTES ALL EASEMENTS, EXISTING OR OF RECORD, WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP.

IN WITNESS WHEREOF, THE UNDERSIGNED OWNERS HAVE CAUSED THIS STATEMENT TO BE EXECUTED THIS ____ DAY OF _____ 20__.

ABC CORPORATION, A CALIFORNIA CORPORATION

BY: (OWNER NAME) _____
PRINT NAME: _____
PRINT TITLE: _____

4. OWNERS, TRUSTEES OR BENEFICIARIES' ACKNOWLEDGEMENT STATEMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA
COUNTY OF ALAMEDA S.S.

ON _____ 20__, BEFORE ME, _____THE UNDERSIGNED, A NOTARY PUBLIC FOR THE STATE OF CALIFORNIA, PERSONALLY APPEARED,

PERSONALLY KNOWN TO ME (OR 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: _____
PRINT: _____
MY COMMISSION EXPIRES: _____
PRINCIPAL COUNTY OF BUSINESS: _____

Note: 66436(B)(c) The seal is not required on maps. Most Notary Stamp Ink is not designed for use on Mylar and therefore smears making the map unrecordable. If no seal is provided, the name of the notary, county of the notary's principal place of business, and the notary's expiration date must be printed below the notary's acknowledgement.

5. TRUSTEE'S STATEMENT (BENEFICIARIES)

THE UNDERSIGNED _____ TRUSTEE (BENEFICIARY) UNDER THE DEED OF TRUST RECORDED _____SERIES NO._____ OFFICIAL RECORDS OF ALAMEDA COUNTY, CALIFORNIA, CONSENTS TO THE PREPARATION AND FILING OF THE MAP AND JOINS IN ALL OFFERS OF DEDICATION THEREON.

XXXXXXXXXXXXXX, A CALIFORNIA CORPORATION

BY: _____
PRINT NAME: _____
PRINT TITLE: _____

6. SURVEYOR'S (ENGINEER'S) STATEMENT

THIS MAP WAS PREPARED BY ME UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF OWNER'S NAME ON DATE.

I HEREBY STATE THAT THIS TRACT/PARCEL MAP SUBSTANTIALLY CONFORMS TO THE APPROVED OR CONDITIONALLY APPROVED TENTATIVE MAP, IF ANY, AND IS TRUE AND COMPLETE AS SHOWN, THAT THE MONUMENTS WILL BE OF THE CHARACTER AND OCCUPY THE POSITIONS SHOWN IN ACCORDANCE WITH THE SATISFACTORY ASSURANCE GIVEN BY THE OWNER/SUBDIVIDER ON OR BEFORE DATE, AND THAT SAID MONUMENTS WILL BE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.
I FURTHER STATE THAT "TRACT/PARCEL MAP XXXX, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA" IS A SUBDIVISION INTO LOTS OR PARCELS OF LAND CONTAINING XXXX ACRES MORE OR LESS.

_____ DATE_____
SURVEYOR/ENGINEER'S NAME,
L.S./R.C.E. XXXXXXX

LICENSE EXPIRES_____ DATE_____

(LEAVE ROOM FOR SEAL)

NOTE: THE CITY OF LIVERMORE REQUIRES THAT ALL SURVEYS ARE TO BE BASED UPON A FIELD SURVEY ACCORDING TO THE CITY OF LIVERMORE DEVELOPMENT CODE PART 10.03.030.

IV. ENTITLEMENT PROCEDURES

A. ADVANCED TEAM MEETING PROCEDURES

In reviewing an entitlement project, the project coordinator shall note that the City of Livermore has a standing policy that all development pays its own way. Also, just as important, is the expectation of staff to provide excellent customer service. To do both, Advance Team Meetings are held at the very beginning of the project review process to both encourage developers to build in Livermore and to manage their expectations of the process and costs. The Permit Center Manager in the Building Division schedules Advance Team Meetings and invites representatives of all reviewing divisions, including Engineering, Planning, Building, Fire, Police, Housing and Economic Development and Innovation. Projects are reviewed at a high level in a very positive light to provide as much help as possible to develop a constructable project and highlight the pitfalls, costs and alternatives along the way. All staff prepare ahead of the meeting by reviewing the project proposal and research the site to identify all possible conditions of approval. Engineering staff typically research fee history to identify any fee credits, bring utility and hazard maps, visit the site and bring any other pertinent information. Meeting notes are taken by the building division and distributed to the applicant with any maps, fee sheets and other important information. All notes are stored in the building division Advanced Team Project files for further reference. This information is later used to review the future entitlement application. Advanced team meetings are optional but recommended.

B. PROJECT REVIEW

Process

1. Hard copies of the planning referral are no longer sent to engineering. Planning uses Accela to route referrals electronically. Planning sends a notice of a new planning referral to the City Engineer, Senior Engineers (including the Traffic Engineer) and Engineering Admin Staff. The planning referral is assigned by the Senior Civil Engineer managing entitlement review. Engineering Admin Staff logs them into the Engineering Log for use by the Engineering Division The engineer assigned to the planning referral is the project coordinator and the engineering point of contact for the review of the entitlement through the entire entitlement process for that project. The assigned engineer looks up the project assigned to him/her in Accela to get the remaining entitlement documents to review the project.

2. Representatives of all reviewing divisions review the General Plan and all City master plans and regional master plans to determine if there are any traffic signals, roads, creeks, parks, trails, utilities or other public facilities planned in the vicinity of the development to determine how the planned public facility can be

funded and/or constructed by the developer. Development Agreements, Community Facility Districts, Landscape Maintenance Districts and Assessment Districts are all tools to use to effectuate this policy. Development Fee Credits can be given for public infrastructure constructed and Tax Reimbursement Agreements can incentivize developers to pay for and construct public infrastructure now to be reimbursed later. All agreements and negotiations to effectuate this policy are led by the Planning Division under the direction of the City Manager with assistance of City Attorney's Office, City Engineer and staff, Building Official and the Innovation and Economic Development Director.

3. Project Review Meetings are often but not always held for projects that are complex and can benefit from early coordination with the reviewing divisions. A reoccurring meeting time and day is set to secure time on the calendars of all reviewing divisions. If this meeting is not needed it will be cancelled. The Planning Division schedules, prepares the agenda and leads these meetings as often as weekly to go over the entitlement projects that have been distributed for review that week and receive early comments from the reviewing divisions. This meeting serves to expedite the completeness review and the entitlement review and alert the project planner of any complex coordination needed. This meeting is also useful for new staff to attend to see the project review process in action, be introduced to reviewing division representatives and better understand the interactions between the reviewing division representatives and entitlement process. Occasionally, there will be time before the end of the meeting to catch division representatives to ask questions about projects not on the agenda that day.

4. The project coordinator shall coordinate with the traffic engineer to understand their comments uploaded in Accela and write one set of Engineering Considerations with both Traffic and the Project Coordinator's conditions.

5. Each project is reviewed by both Development Engineering and Transportation Engineering. First a completeness check is done and then a completeness or incompleteness memo is sent by email to Planning with a cc to the Senior Development Engineer, Transportation Engineer and engineering admin staff. When the review for this round is complete the project coordinator uploads the review comments/conditions of approval into Accela and emails the original memo and attachments to the assigned planner with a copy to the Senior Development Engineer and a hard copy of the cover memo to Engineering Admin staff to log into the Engineering Log.

6. The entitlement is referred to engineering as many rounds as are needed until the project is deemed complete. For each submittal round a completeness memo is prepared with a cc to the Senior Development Engineer and Transportation Engineer or the project coordinator notes in Accela that there are no comments for the smaller projects with no Engineering issues.

7. Once the submittal is complete the project coordinator and transportation engineer must review the project, and the project coordinator includes conditions from the transportation engineer while writing the engineering considerations(conditions) that have a nexus (connected to the project and proportional to the impact) to the project. If Transportation Engineering has any conditions to place on a project, they must be provided to the Senior Engineer/assigned engineer for inclusion in the Engineering Considerations.

8. It is the project coordinator's responsibility to communicate with the planner to understand the timeframe the conditions are due.

9. After writing the Engineering Considerations the project coordinator gets appropriate approvals from the Senior Development Engineer and Assistant City Engineer and/or City Engineer if high profile and provides the final approved set to Planning. This could happen during any of the submittal rounds.

10. The assigned planner typically provides the conditions of approval to the developer prior to being finalized so that any comments or clarifications can be made prior to finalizing them. This is a courtesy review for the Developer to determine if they agree with the conditions. If any revisions are needed the Senior Engineer must initial the revised set of conditions and inform the Assistant City Engineer and City Engineer of the changes. When the conditions are final, the project coordinator communicates with the planner to find out which Planning Commission and or City Council Meeting the project is scheduled for and attends the pre-Planning Commission and/or pre-City Council meeting to brief the division representative that will attend the meetings.

11. Following Planning Commission and City Council Meetings when conditions are revised by the Commission or Council the Engineering Coordinator shall make revisions to the conditions to reflect this change, noting and dating the changes made during each meeting.

12. Confirm the project is in the city limits, not in the floodplain, has a point of access, requires an entitlement and meets the basic requirements to develop in the City of Livermore.

13. Review entitlement for completeness using the Entitlement review list and Tentative Map review checklist for projects with a Tentative Map. Write a memo to Planning stating whether the submittal is complete or not. Planning has 30 days according to the Permit Streamlining Act to determine completeness so please complete your engineering completeness review and respond to Planning by or before the date requested on the referral.

14. Find out who the Planner is and talk to them. Determine if an advanced team meeting was held for this project and if there is a Development Agreement. If the property is outside the city limits find out if they plan to annex into the City. Confirm you have all the planning related files and talk to the Building Permit Center Manager to confirm you have all the Advanced team meeting files, if any.

15. Research the City site records/files on Shared Drive, in Accela, in paper files to determine if there are any fee credits, overhead utilities, unusual site conditions, natural hazards including whether the site is in the FEMA mapped floodplain. Research previous building permits and encroachment permits issued for the site.

16. Review the GIS information the city has for the site to determine flood hazards, existing utilities, parks, etc. and visit the site at least once to see any site conditions not visible on GIS.

17. Review all utility master plans; including applicable water, recycled water, storm drain, sewer. Review all transportation plans; including, Active Transportation Plan, bike, roads and trails plans, and Traffic Impact Fee proposed improvements.

18. After all research is complete review the submittal package to confirm you have enough information to write Engineering Considerations. Consult with the traffic engineer to confirm you have accurately added their comments in one complete set of Engineering Considerations which will be attached to the Planning Conditions of Approval. If you do not have everything you need please determine what is still needed and send this information to the project planner as soon as you determine it.

C. TENTATIVE MAP AND ENTITLEMENT SUBMITTAL AND REVIEW

ENTITLEMENT SUBMITTAL

1. The submittal requirements and required findings for all planning entitlements; including tentative maps, lot line adjustments and parcel map waivers are listed and described in the Development Code.

2. All lot line adjustments, parcel map waivers, parcel mergers, Vesting and Tentative Tract Maps, Vesting and Tentative Parcel Maps and other subdivisions must first receive an approved entitlement (Exhibit B-1) or other planning approval before moving on to the implementation phase including Final Map review and building permit review, led by Engineering staff, Building Staff or both. Entitlement review includes Tentative and Vesting Tentative tract maps and parcel maps, Annexations, Lot Line Adjustments, Parcel Mergers and any environmental report or exclusions in accordance with a CEQA or NEPA analysis required for an entitlement. Vacations of public land, easements and Capital Improvement Projects within a Capital Improvement Project Budget must first be

found consistent with the General Plan (taken to Planning Commission) before the implementation documents can be processed through the Engineering Division and/or Building Division.

TENTATIVE MAP REVIEW AND EXPIRATION PROCEDURES

The Planning Division is the point of contact for all entitlements; including the Tentative Map review and extension process. Tentative maps are reviewed in accordance with the City Development Code Part 10 and Sections 66452.6(d) and 66463.5(b) of the Subdivision Map Act. Checklists are provided in Section VII of this Development Plan Check Manual for use by engineering staff in their reviews.

The following procedures for Tentative Map Extensions and Expirations will be followed by the Engineering Division in accordance with the City Development Code Part 10 and Sections 66452.6, (d) and 66463.5 (b) of the Subdivision Map Act:

1. The expiration date will terminate a tentative map unless prior to that date an extension by the Planning Commission/City Council has been requested, or a complete submittal of a map and plans conforming to the Engineering and Planning conditions has been made for the first plan check. Tentative Map extension requests shall be sent to the Planning Division.

2. If a complete Final Map submittal is in the plan check process prior to the tentative map expiration date, the map will be extended automatically for up to 365 days if the developer meets the following deadlines for complete re-submittals:

    a. For a first plan check, a complete re-submittal must be made to the City within 35 working days of receipt of comments from the City.

    b. For a second or subsequent plan check, a complete re-submittal must be made to the City within 25 working days of receipt of comments from the City. This includes submittal of bonds, insurance, and signed Subdivision Agreement when requested by the City.

    c. If the re-submittal deadlines are not met, or if 365 days have elapsed, the City Engineer will suspend the plan check process and notify the developer that he or she has 25 working days to apply for a map extension through the Planning Division for approval by the Planning Commission/City Council. Map checking will be suspended until a decision is reached.

    d. A tentative map can only be extended as provided under Section 66452.6 of the Subdivision Map Act.

D. DEVELOPMENT AGREEMENTS

Development Agreements are initiated by the Developer by submitting a planning application requesting a development agreement. The planning division takes the lead on all Development Agreements but needs the support of city staff in all divisions that review development projects. Engineering plays a large role in meeting with the planners and negotiating the development agreement with the developer. Development Agreements may also be initiated by city staff during an entitlement process if there is anything that is needed that does not have a direct nexus to the project impacts. Development Agreements are not required but are entered into consensually by the city and the developer. Development Agreements secure development rights before entitlement for a period of 10 years and can secure vesting rights or undo tentative map vesting rights. The City of Livermore has utilized development agreements to secure major public infrastructure such as highway interchanges and flood control facilities as well as water and sewer distribution lines. Development Impact Fees are typically credited for the constructed infrastructure or land dedicated for public roads or infrastructure improvements. Most of the fee credits granted to developers were granted through development agreements. A spreadsheet detailing the development fee credits remaining can be found on the Engineering Shared Drive. The engineering project coordinator is responsible for updating this spreadsheet when a new development agreement includes fee credits and when fee credits are used.

E. CONDOMINIUM PROCEDURES (IN ACCORDANCE WITH DEVELOPMENT CODE 10.08)

Condominium maps are one lot subdivisions typically processed with the parcel map waiver process. The one lot subdivision establishes the parcel/lot boundaries. Condominium maps must also be submitted to the Department of Real Estate. Use the Condominium Checklist to review this type of Parcel Map Waiver.
Note that a Master Geographic Letter for the City of Livermore is prepared by the City of Livermore engineering division every three years and kept on file with the Department of Real Estate to facilitate the Department of Real Estate's determination that any subdivision has complied with the City approval process. The Master Geographic Letter provides information to the Department of Real Estate regarding the City of Livermore Development requirements. An updated Master Geographic Letter must be provided to the Department of Real Estate every three years unless the City of Livermore indicates a longer timeframe. This letter is usually processed by the Floodplain Manager for the Community Development Director's signature. If there is no Master Geographic Letter on file for the City of Livermore, the Department of Real Estate must request this information from the city for every project. A copy of the letter on file can be found here.

F. PARCEL MAP WAIVERS (IN ACCORDANCE WITH DEVELOPMENT CODE 10.03.020)

Application is made to the Planning Division requesting a parcel map be processed under the waiver process. This process is used to review a SB9 submittal if it qualifies for the parcel map waiver process. A determination is made by the Planning Manager

and City Engineer as to whether the project is eligible for the waiver process. If eligible for the waiver process, the project is referred to engineering and reviewed at a staff level. The Community Development Director signs the map instead of the City Council. If not eligible, the parcel map follows the standard review process which includes the submittal and review of a tentative map, proposed improvements, etc with approval by the City Council.

G. LOT LINE ADJUSTMENTS (IN ACCORDANCE WITH DEVELOPMENT CODE 10.04.030)

The lot adjustment process is intended for minor adjustments to property lines. The adjustment (transfer parcel) shall not exceed 5% of either parcel and shall not put either parcel in violation of the building code or set back requirements in accordance with the Development Code 10.04.030. The Lot Line Adjustment process starts with the submittal of a Planning Application for a Certificate of Compliance for a Lot Line Adjustment. The following documents are submitted to the Planning Division.

Submittal Requirements:

City of Livermore General Planning Application
Current Title Report for Property No. 1(less than 6 mo. old)
Current Title Report for Property No. 2(less than 6 mo. old)
Math closures for all new parcels
LLA Exhibit “A1” , Legal descriptions of adjusted Parcel No. 1
LLA Exhibit “A2” , Legal descriptions of adjusted Parcel No. 2
LLA Exhibit “A3” , Legal descriptions of the transfer parcel(s) (Not required if both Parcels are owned by one party.)
Exhibit “B” Plat to accompany descriptions

The lot line adjustment document; including, Certificate of Compliance, legal descriptions and plat maps of the resulting parcels and the Grant Deed documents; including, legal descriptions and plat maps of the transfer parcels are to be recorded by the City after they have been checked and approved by the city staff (planner, engineer and the city surveyor in accordance the Lot Line Adjustment checklist).

After the Engineering Division has confirmed the technical correctness of the documents the Planning Division prepares a Certificate of Compliance (these show that the proposed adjustments have been approved and are to be recorded to complete the lot line adjustment process). The recordation of the Certificate of Compliance is required to complete the lot line adjustment approval process but does not create the new parcels. Grant Deeds must also be recorded for this. The following documents are uploaded into Agreement Tracker for clerk’s processing, approval, signature of the

Community Development Director and are recorded together to complete the Lot Line Adjustment process:

Certificate of Compliance
LLA Exhibit “A1” , Legal descriptions of adjusted Parcel No. 1
LLA Exhibit “A2” , Legal descriptions of adjusted Parcel No. 2
Exhibit “B” Plat to accompany descriptions
Memo to the City Clerk
Recording Instructions

The preparation and recordation of the Grant Deeds is the responsibility of the owner. Engineering staff should work closely with the owners and the title company to see how they want these grant deed recordings handled. (The title company will help as they ultimately must insure the properties). The Grant Deeds are to be reviewed by the City, when approved, signed and recorded concurrently with the Certificate of Compliance if possible. The following items are to be prepared separately:

Grant Deed for the Transfer parcel (Parcel No. 1 owner transfers property to Parcel No. 2 owner, or visa versa. Owner of parcel transferred, records the grant deed to Owner of parcel to be received).

Grant Deed for Resultant Parcel No. 1 with the Exhibit “B” attached for adjusted Parcel No. 1.(Owner No. 1 Records a grant deed to himself).

Grant Deed for Resultant Parcel No. 2 with the Exhibit “B” attached for adjusted Parcel No. 2.(Owner No. 2 Records a grant deed to himself).

At the bottom of these Grant Deed Cover Sheets for Parcels 1 & 2 above add the following statement:

“This Deed is being recorded to effectuate the legal description created by the Lot Line Adjustment No. XX-XXX Certificate of Compliance, approved by the City of Livermore, which is being recorded concurrently herewith.”

If there is a “Deed of Trust” on the property. (You can determine this by reviewing the Title Report). It may be necessary to get a letter from the lender or trustee authorizing the LLA prior to recording the Grant Deeds. If there is a deed of trust on the property a Deed of Reconveyance may be required (this is determined by the Title Company).

The Lot Line Adjustment including Certificate of Compliance and attached documents showing resultant parcels(records first), Grant Deeds for transfer parcel(records second) and then Grant Deeds for resultant parcels(records third) and then Deed of Reconveyance, if needed records last. If these documents cannot be recorded concurrently, in the order noted above, the engineer and planner involved with the project must ensure that a copy of all of these documents are received by the City of Livermore City Clerk and filed in the City Clerk’s files. Typically, these recorded documents are received by the City Clerk. The City Clerk provides the recorded

document or a link to the recorded document in Lasar Fische to the Engineering Coordinator. After the Engineering Coordinator uploads the recorded document into Agreement Tracker the City Clerk's office will add a Laserfiche link to the document in Agreement Tracker.

Note: The Planning Division issues a certificate of compliance certifying a lot is in conformance with the zoning code. This follows a different process than the one issued for a Lot Line Adjustment. Please direct owner/developer to the Planning Division for submittal requirements.

H. PARCEL MERGERS (IN ACCORDANCE WITH DEVELOPMENT CODE 10.04.040)

a. Parcel mergers may be voluntary mergers initiated by the property owner or mandatory initiated by the City. This procedure is only for voluntary mergers initiated by the property owner. The development code 10.04.040 references the Government Code Sections that establish the authority of the City to merge or unmerge two or more parcels or units of land held by the same owner.

b. Property owners request a parcel merger by filing a General Planning Application requesting the Parcel Merger and submitting with the application the property deeds, plat and legal descriptions of the existing parcels and resultant parcel, current title reports, closure calculations and statements from Trustees or Beneficiaries, as appropriate, consenting to the merger.

c. Submittal Requirements:

    i. City of Livermore General Planning Application
    ii. Current Title Report for Property No. 1 (less than 6 mo. old)
    iii. Current Title Report for Property No. 2 (less than 6 mo. old)
    iv. Math closures for merged parcel
    v. Exhibit "A" Legal description for merged Parcel
    vi. Exhibit "B" Plat to accompany description

d. The City Engineer is the review authority. After the project coordinator reviews the documents and Planning determines the parcels meet the parcel merger qualifications, the plats, legal description, and new deed are technically correct, the project coordinator prepares a notice of merger for the City Engineer's signature. The notice of merger specifies the names of the record owners and has a description of the real property attached.

e. The recordation of the Notice of Parcel Merger is required to complete the parcel merger approval process but does not create the new parcels. Grant Deeds must also be recorded for this. The following documents are uploaded into Agreement Tracker for Attorney review, signature of the City Engineer and are recorded together to complete the Parcel Merger process:

    i. Notice of Parcel Merger
    ii. Exhibit “A” , Legal description of the merged Parcel
    iii. Exhibit “B” Plat to accompany description
    iv. Memo to the City Clerk
    v. Recording Instructions

f. The following items are to be prepared separately. This is the responsibility of the owner. Engineering staff should work closely with the owners and the title company to see how they want these grant deed recordings handled. (The title company will help as they ultimately must insure the properties). The Grant Deeds are to be reviewed by the City, when approved, signed and recorded concurrently with the Notice of Parcel Merger if possible.

    i. Grant Deed with Exhibit “B” attached for merged Parcel (Owner records a grant deed to himself.

g. At the bottom of the Grant Deed Cover Sheet for the merged Parcel add the following statement:

    “This Deed is being recorded to effectuate the legal description created by the Notice of Parcel Merger No. XX-XXX, approved by the City of Livermore, which is being recorded concurrently herewith.”

h. If there is a “Deed of Trust” on the property. (You can determine this by reviewing the Title Report). It may be necessary to get a letter from the lender or trustee authorizing the Notice of Parcel Merger prior to recording the Grant Deeds. If there is a deed of trust on the property a Deed of Reconveyance may be required.

    The Notice of Parcel Merger(records first), Grant Deed for the Merged parcel(records second) and then Deeds of Reconveyance, if needed records last. If these documents cannot be recorded concurrently, in the order noted above, the engineer involved with the project must ensure that a copy of all these documents are received by the City of Livermore City Clerk and filed in the City Clerk’s files. Typically, the recorded documents are received by the City Clerk. The City Clerk provides the recorded document or a link to the recorded document in Lasar Fische to the Engineering Coordinator. After the Engineering Coordinator uploads the recorded document into Agreement Tracker the City Clerk’s office will add a Laserfiche link to the document in Agreement Tracker.

i. The merger of the subject parcels become effective when the City Engineer signs the notice of merger and causes it to be filed for record with the County Recorder. The engineer processing this request must ensure that the City of Livermore City Clerk receives and files the recorded Parcel Merger.

I. GENERAL PLAN CONSISTENCY – VACATION OF CITY LAND AND EASEMENTS – (This requirement can be waived by resolution of the City Council for abandonments of a "minor nature" (see Government Code Section *§ 65402*, the Livermore City Council has waived this requirement by resolution and delegated approval of it to the city clerk. See Final Map Procedures for abandonments by map)

The first step in processing a vacation of land in fee title or a public service easement is to have a consistency finding determined by the Planning Commission for General Plan consistency. Planning division staff assign the General Plan consistency number, prepare the staff report and resolution authorizing a consistency finding for planning commission consideration. It is best to do this during the entitlement process, so it does not need to be taken back to Planning Commission separately after entitlements.

After the consistency determination is made by Planning Commission, the next step is to determine if the vacation of land qualifies to be done using the summary vacation process. This is a shorter process. Please consult with the City Attorney's office to confirm this is the proper process to use. If not, the full vacation process must be used. Both kinds of vacations must go before the City Council for Approval. To do this Engineering staff shall prepare the following:

A. For Summary Vacations, schedule as a consent item. For general (full) Vacations, schedule as a public hearing item. Both items are placed on the Engineering City Council Agenda Log and on Engineering SharePoint link separately or with a map.

B. For a general Vacation, coordinate with the City Clerk's' office by scheduling a public hearing. Add the item to the Master Calendar and submit the Public Hearing notice from the Clerk's page in SharePoint requesting the City Clerk publish and post a notice of the public hearing for the proposed vacation two successive weeks prior to the public hearing.

C. Applicant prepares the Legal documents (Plat & Legal Description) signed by the Land Surveyor for City review and approval. After City staff review and approval applicant provides original wet signed and stamped plat and legal descriptions to Engineering coordinator and Engineering Coordinator prepares the Preliminary Change of Ownership Report (PCOR) for each conveyance to the recipient of the land for tax purposes.

D. Engineering coordinator prepares Quit Claim Deed, memo to the Clerk with recording instructions and memo to the City Manager. Engineering staff should work closely with the title company to see how they want these grant deed recordings handled. (The title company will help as they ultimately must insure the properties).

E. Engineering coordinator uploads the Quit Claim Deeds with associated Plat and Legal Descriptions and memo to the clerk with recording instructions and PCORs and memo to the City Manager for attorney/city clerk review in Agreement Tracker

F. Engineering Coordinator prepares Staff report. In the Staff Report reference the Planning Commission approval date of the consistency finding with the number.

G. Engineering Coordinator prepares location/vicinity map and resolution with a) Quit Claim Deed Exhibits and b) Plat and Legal Description Exhibits

H. Engineering Coordinator uploads Staff report, location/vicinity map, resolution with a) Quit Claim Deed Exhibits and b) Plat and Legal Description Exhibits in PEAK for City Council Approval.

The recordation of the Resolution of Vacation is required to complete the vacation process but does not transfer the property. Quit Claim Deeds must also be recorded to complete the property/easement rights transfer.

A. After City Council Approval the City Manager signs Quit Claim Deeds and the Clerk notarizes them. The City Clerk prepares conform copies of the signed document then contacts the title company to pick-up the original documents and conformed copies along with the recording instructions for recordation.

B. After 30 days the Engineering Coordinator confirms documents have been recorded and conformed copies have been returned to the City. After the Engineering Coordinator uploads the recorded document into Agreement Tracker the City Clerk’s Office will provide a link to the Laserfiche document in Agreement Tracker.

C. Engineering Coordinator puts an electronic copy of the recorded documents in the project folder and sends them to IT to incorporate the changes in the Geographical Information System (GIS).

1. CONSIDERATIONS WHEN VACATING PUBLIC LAND OR EASEMENTS

   It must be remembered that any vacation or abandonment of public held land (whether acquired by an easement, deed, a fee deed or a dedication on a map) only abandons the public's rights or interests. Private rights remain intact. These could be access rights, PG&E structures or lines, or other utilities. It may be necessary to halt any abandonment or to create private easements for these private interests.

   All easements must be abandoned or vacated by separate instrument unless they were created on a map. In accordance with Subdivision Map Act Section 66499.20.2, the filing of a new map over the top of an old map shall constitute the abandonment of all public streets and public easements not shown on the new map, provided that a written notation of each abandonment is listed by reference to the recording date of each and certified to on the map in the City Clerks Statement.

   The Council may simply adopt a resolution of vacation without the necessity of a public hearing and the vacation becomes effective upon recordation, refer to CA Streets and Highway Codes *§ 8335 and 8336*.

   Obviously, a summary vacation procedure is easier to accomplish in that it eliminates the necessity for a public hearing. There may be legitimate reasons to have the proposed vacation be the subject of a hearing, so each vacation should be evaluated on a case-by-case basis.

2. NON-SUMMARY VACATION PROCEDURES

a. The Council can initiate non-summary procedures by either setting a noticed hearing on the proposed vacation or if requested or petitioned to do so by an interested party, refer to CA Streets and Highway Codes *§ 8320*. Notice of the hearing with a map and description of the proposed vacation must be posted and published and the council must consider evidence presented to it at the hearing, refer to CA Streets and Highway Codes *§ 8320 and 8324.*

b. Upon conclusion of the hearing, and if the Council finds that the easement proposed to be vacated is unnecessary for present or prospective public use, the Council may adopt a resolution vacating the easement. This resolution must be recorded, and the vacation is effective as of the date of recordation, refer to CA Streets and Highway Codes *§ 8325*. The Council has the authority to reserve future sewers, storm drains and other utilities and can also except from the vacation any easement or right necessary to maintain, operate, remove, replace, or renew the public utility facilities, refer to CA Streets and Highway Codes *§ 8340*.

c. The effect of the vacation is as follows: if there are no reservations or exceptions made, the vacation of an easement extinguishes all public easements in the area defined as the easement. If the city owns only an easement, title to the property previously subject to the easement reverts to the owner of the fee free from the easement, refer to CA Streets and Highway Codes *§ 8351*. If the city owns the underlying property in fee, the Council can sell or exchange the property previously subject to the easement if it is no longer needed by the public, refer to CA Streets and Highway Codes *§ 8355*.

3. SUMMARY VACATION PROCEDURES

a. Summary vacation procedures can be used in the following situations:

If the street has been superseded by relocation, unless the vacation would cut off all access to a person's property which previously adjoined the street, or the vacation would terminate a public service easement, refer to CA Streets and Highway Codes *(§ 8330*); or

If the street has been impassable for vehicular traffic for five years and no public money has been expended for maintenance during that period, refer to CA Streets and Highway Codes (*§ 8331*); or

Excess right-of-way of a street is no longer required for street purposes, refer to CA Streets and Highway Codes (*§ 8334*); or

A part of a street lies within property under one ownership and does not continue through such ownership or end in touching the property of another refer to CA Streets and Highway Codes (*§ 8334*).

Summary vacation procedures can also be used to vacate public service easements in similar circumstances.

4. VACATION OR ABANDONMENT APPORTIONMENT

a. The exact outline or resulting shape of those areas in the street to be vacated is seldom considered until the street is considered for vacation. There is no absolute law detailing the outline or protraction of these areas.

b. Unless there are special considerations it is generally accepted that the adjoining lots or parcels have the underlying fee to the centerline, and the property lines are projected to the centerline. However, this is not always possible such as in the case of sharp curves with non-radial property lines, 90-degree corners or in cul-de-sacs.

c. In another situation, with older maps, lots and streets were shown on the map, but not dedicated on the map, therefore there was no acceptance by the City Clerk. Use of these streets by the public over the years may create prescriptive rights of the public to these strips. If the streets were never accepted by the City, and this Street is now to be vacated the abutting lots may be entitled to the land to the centerline, the fee may revert to the original owner or his assigns.

d. Another exception is the case of “margin streets”, these are streets along perimeter streets where the entire right-of-way is taken from one parcel of land. If the two adjoining properties are owned by two separate owners, then the abutting properties within the development would claim the lands across the entire vacated street. However, if the developer of the subdivision owned the lands on both sides of property lines at the time of development, then the abutting lands of the street to be vacated would claim the land to the centerline of this margin street. In this case, it is important to work with the Title officer and land surveyor to determine how best to handle this situation.

J. IRREVOCABLE OFFERS OF DEDICATION

Irrevocable offers of dedication must be approved by the Legislative Body, which for the City of Livermore is the City Council, Irrevocable Offers of Dedication are either shown and dedicated on a map (See VI. Final Map Procedures) or by separate instrument. The City Clerk has been given the authority by the City Council by Resolution I-65, passed by the City Council on January 4, 1965, to accept offers of dedication. This authority is used for offers of dedication accepted on a map following the Parcel Map Waiver Process which allows map approval by the Community Development Director certifying the map was processed in accordance with Subdivision Map Act Section 66428(b) or separately by separate instrument with a certificate of acceptance or rejection.

Irrevocable offers of Dedication. According to Subdivision Map Act Section 66477.1, at the time the legislative body or the official designated to approve the final map, they shall also accept the dedication, accept the dedication subject to improvements, or reject any offer of dedication. “Offers of Dedication” shall remain open, and the legislative body may by resolution, accept the offer of dedication without further action by the subdivider. “Offers of Dedication” may be terminated and abandoned in the same manner as described herein for the “Summary Vacation” of a street (See Section 3a. above).

All offers of dedication, whether on a map or separate, shall be reviewed by the City Project Coordinator using the Irrevocable offer of Dedication, Grant Deed, easement plan check list, and by the City Surveyor to make sure the plat, legal descriptions and closures are technically correct. After technical review of the plat and legal description is complete, the plat and legal description is signed and stamped by a surveyor.

The Project Coordinator prepares the cover sheet. The city has a standard easement cover sheet template that is on the shared drive. (If an Agency or Utility Company is granting the IOD or Easement they may have their own cover sheet. This cover sheet may need to be reviewed by the City Attorney. The tax information on the top left corner of this cover sheet can be found in a reference book (available here).

The Project Coordinator prepared the City acceptance certificate. A template for this certificate is also on our shared drive(here). This template is prepared for the City Clerk's signature. The City Clerk signs the acceptance certificate and attaches it to the cover, plat & legal before it is recorded with the County Recorder.

The project coordinator gives all the documents to Supervising Senior Civil Engineer and City Engineer for their review and approval.

After approval by the City Engineer the Engineering Coordinator prepares a memo written to the clerk with recording instructions. If the City Clerk will record the documents please provide a charge number for the clerk to use to pay for the courier who will record the documents. If a title company will record the documents, the Project Coordinator prepares a letter to the Title Company with recording instructions for the City Clerk's signature.

We work through the City Clerk's office, and often the Attorney's office, to record documents. The Clerk's office uses Agreement Tracker to keep track of the recorded documents so, these documents are uploaded into the Agreement Tracker for review and approval. An internal reference number is assigned through Agreement Tracker. After documents are signed and notarized, the signed documents are also uploaded into Agreement Tracker including the memo to the clerk and the letter to the Title Company with recording instructions.

The memo to the clerk is used as a transmittal letter to transmit the original signed and notarized documents. This letter with the wet signed original documents is given to the Engineering Admin staff to log and route to the Clerk's office via the Attorney's office.

To review an irrevocable offer of dedication, receive an easement or land in fee title the Engineering Coordinator shall follow the following procedure:

a. Request the developer/person dedicating easement or land to the City to submit the following:

    i. Title Report confirming ownership of land or easement rights of the dedicator.
    ii. Legal Description of the easement or land to be dedicated or transferred to the City.
    iii. Plat Map depicting the perimeter/boundary of the property described in the legal description along with closure calculations and reference documents.(See submittal checklist)

b. Review the documents submitted for technical correctness.

c. Prepare the cover sheet for Irrevocable offer of dedication, easement, grant deed for execution by the dedicator, the certificate of acceptance, the memo to the Clerk and, if applicable, a letter to the Title Company.

    i. The City Clerk signs the certificate of acceptance and following the instructions in the memo, either records the documents charging the courier cost to the account number provided or calls the Title Company to pick up the original and conform copies of the documents with the recording instructions. Although the City Clerk will follow-up to confirm recording, it is the Project Coordinator's responsibility to follow-up with the Clerk to confirm the documents are recorded and a conformed copy of the recorded document is returned to the city for filing in the official electronic files. An electronic copy of the document will be sent to the project coordinator. The project coordinator uploads the recorded document into Agreement Tracker then the Clerk's office adds a link to the Lasar Fiche document in Agreement Tracker.

PROCEDURE FOR RECEIVING AND REVIEWING OFF-SITE EASEMENTS, RIGHT-OF-WAY, TEMPORARY CONSTRUCTION EASEMENTS, RIGHTS OF ENTRY AND/OR LEASE AGREEMENTS

Off-site easements, right-of-way submittals, temporary construction easements, rights of entry and/or lease agreements are included with the first submittal of an entitlement, final map or building permit submittal. In all cases all items listed on the off-site easement, right-of-way submittal, temporary construction easement right-of-entry and/or lease agreement list shall be included. All submittals shall be in their final form ready for the surveyor to sign and stamp.. If there are more than three off-site easements, right-of-way or other submittals a right-of-way acquisition map shall be included.

K. ANNEXATION OF LAND

The cover sheet for all construction easements shall include a termination date for all off-site construction work.(work with the City Engineer to identify the current Temporary Construction Easement form approved by the City Attorney's office for conveying Temporary Construction Easement.

See Planning Division for latest application submittal requirements and annexation procedures. All annexations are part of an entitlement application process. As part of the entitlement process, an annexation proposal must be submitted to the Planning Division and must be approved by the Planning and Engineering Divisions first before it is submitted to the Local Agency Formation Commission (LAFCO) for approval. Local Agency Formation Commissions are independent regulatory commissions created by

the California Legislature to control the boundaries of cities and most special districts. Filing an annexation proposal with Alameda County LAFCO is an approximate 4-6 month long process in addition to the timelines for the entitlement process. No maps in the City of Livermore can be filed with the County Recorder until the annexation has been approved by LAFCO and completed with the recording of an annexation map.

L. PROPERTY ACQUISITION

Use the Property Acquisition Checklist in this Plan Check Manual to acquire property associated with a Development Project. Use this checklist to (1) assess site to identify if it is in the City's best interest to acquire this property, (2) enter negotiations with the landowner and (3) complete the paperwork needed to acquire the land. Use the Property acquisition procedure and checklist in the Design Manual for property acquisition associated with a Capital Improvement Project.

M. CONDITIONAL USE PERMITS (CUP)

A conditional use permit is an entitlement submitted to the Planning Division following the Planning Division's submittal requirements. Follow the entitlement checklist when reviewing a conditional use permit. Engineering staff must pay careful attention to the calculation of fees for a project with a conditional use permit because the approval is based on certain conditions being followed. If fees are based on certain operational conditions being followed, that when no longer followed do not require re-entitlement measures, care must be taken to ensure the conditions continue to be met. Deferred fee agreements between the developer and City can be executed to ensure additional fees are collected when the condition allowing the lower fee is no longer met.

N. SITE PLAN APPROVALS (SPA)

A site plan approval is an entitlement submitted to the Planning Division following the Planning Division's submittal requirements. Follow the entitlement checklist when reviewing a site plan approval.

O. AFFORDABLE HOUSING PROJECTS

All developments must provide affordable housing or pay an in-lieu affordable housing fee. Affordable housing requirements must be met by developers for commercial and residential development. Residential entitlements of more than 10 units must include affordable housing according to the City of Livermore Affordable Housing regulations. All entitlements are submitted to the Planning Division following the Planning Division's submittal requirements. Follow the entitlement checklist when reviewing any entitlement with Affordable Housing. The Housing and Human Services Division will review the

entitlement, identify housing requirements for the development and negotiate an agreement, if necessary, to provide and secure affordable housing. A Housing Implementation Process (HIP) may be used to allow developers to compete for allotted housing units. Proposals with affordable housing or offering other amenities beyond the City's requirements may make the proposal more competitive allowing developers to be awarded limited annual housing units.

P. ART PROPOSAL AND INSTALLATION

All Developments must provide public art in their project or pay an in-lieu fee based on a percentage of the cost of the construction of the development. Satisfying the art requirement is a planning condition. If art will be constructed as part of the development, the art proposed must be reviewed and approved by the Art Commission. The Planning Division together with the Innovation and Economic Development Department and Library are the City Departments that determine the application, submittal and approval requirements for different types of art projects. Please contact the Planning Division for the latest submittal requirements. City library staff and/or Innovation and Economic Development Department Staff will receive an Art Application, review the submittal and schedule it on the agenda for Art Commission review and approval. Engineering staff must review the art locations to make sure the art location does not interfere with the site drainage and has electricity routed to the installation location if lighting is required. Sometimes an art location map is needed and included on the improvement plans with construction details for approval by the City Engineer prior to construction. A maintenance agreement is also required for installed art. Engineering Staff must coordinate with the Developer, Library and Innovation and Economic Development Department staff and the Construction Inspector to make sure all of these requirements are met, and the finished construction of the art piece is acceptable to the Arts Commission, will be maintained by the developer and the cost of the ongoing maintenance is secured with a maintenance agreement.

Q. TELECOMMUNICATIONS

Telecommunication facilities consist of many types of wired and wireless infrastructure including but not limited to underground in conduits with fiber and other telecommunication wiring located in the public right of way, above ground cabinets/nodes connected to the underground infrastructure located in public utility easement and or public right of way, wireless communication antennas located on towers and or mono poles with associated ground equipment to support the communication antennas located on public agency or private property, small cell antennas located on streetlights located in the public right of way. It is important to note that telecommunication technology is a constantly evolving industry and the infrastructure, and regulatory laws are changing constantly. As a result, it is important that the project coordinator consult with planning on development code requirements and the attorney's office to confirm our legal rights.

Processing timelines and procedures for wireless telecommunications facilities

Planning is taking the lead on implementing state regulations regarding the required timelines for deeming an application complete and approving the entitlement for a project per the telecommunications development code. It is important that the engineering project coordinator work closely with the planner to ensure state required timelines are met.

Requests for placement of telecommunications facilities on city or private land are submitted through the Planning Division as an entitlement. It the request for placement of telecommunications facilities is proposed on City/Airport land then the Planner and/or Engineering Project Coordinator shall direct the applicant to Economic Development to confirm whether or not a lease/license agreement is required and determine if the City will consider encumbering the City land with said agreement. Once confirmed by the Innovation and Economic Development Department the Project Planner will refer planning entitlements to Engineering for review. A telecommunications procedure/policy for City/Airport land has been developed. For facilities on private land the Project Coordinator shall review the entitlement using the entitlement checklist. Telecommunications facilities typically have a restricted timeline during entitlement. It is imperative to make sure the review is completed in a timely manner to ensure compliance with the restricted timelines. Please consult with planning for the timeline for the project you are reviewing.

After telecommunications facilities receive an entitlement, they submit for a building permit and/or encroachment permit as applicable.

1. Confirm Property Ownership of proposed project.

    a. If City owned property, the project coordinator will confirm with Planner that the applicant has been directed to contact the Innovation and Economic Development Director to determine if City would be interested in entering a Lease or License Agreement with the applicant. Get confirmation that Innovation and Economic Development Director is interested in doing a lease or license agreement with the applicant.

        If yes, then put in conditions of approval that an executed lease or license agreement is required prior to approval of a building permit.

        If no, then the Innovation and Economic Development Director shall inform the project planner that the city is not interested in entering into a lease or license agreement and that the application for the proposed site shall be withdrawn.

    b. If City owned Airport property, project coordinator to refer applicant to Innovation and Economic Development Director who will coordinate with the

Airport manager to determine if the City/Airport is interested in entering a Lease or License Agreement with the applicant. Get confirmation that the Airport Manager is interested in doing a lease or license agreement with the applicant.

If yes, the applicant shall work with the Innovation and Economic Development Director and the Airport manager to comply with the Airport Leasing and Development Policy. Planning and Engineering Coordinator shall include these requirements in the project conditions of approval which includes the requirement to execute a lease or license agreement prior to approval of a building permit.

If no, then the Innovation and Economic Development Director shall inform the project planner that the city/Airport is not interested in entering into a lease or license agreement and that the application for the proposed site shall be withdrawn.

c. If Livermore Area Recreation & Parks District (LARPD) owned land project coordinator to proceed with the review of the application for completeness and conditions of approval. Project Coordinator to add to the conditions of approval that the applicant provide Engineering proof of an executed lease or license agreement prior to building permit approval.

d. If private property, project coordinator to proceed with the review of the application for completeness and conditions of approval.

2. Project coordinator to look for key items as part of the review:

   a. If the ground equipment has a diesel generator, project coordinator shall add conditions of approval requiring the generator have a concrete containment dike around it sized to hold 100 percent of the diesel fuel capacity of the generator with a petro-pipe filter or approved equal installed to allow rain water to drain from the containment area but prevent fuels and or oils from entering the city’s storm drain system and or contaminating the property.

   b. Utility work in public right of way and impacts to public street improvements. Project may require that the public roadway be resurfaced after trenching with a micro-seal and or overlay.

   c. New street improvements such as new driveway approaches for access to proposed site.

d. New private access road and ground equipment area improvements Amount of new/replaced impervious surface being created. If new impervious surface improvements exceed 2,500 square feet, then the project coordinator shall confirm that the applicant has completed and signed the city's stormwater checklist indicating how the applicant will be treating the stormwater runoff from the impervious surface.

Review of Telecommunications underground infrastructure in the public right-of-way

a. Telecommunications company provides a copy of their state franchise agreement or prescribed rights certifications. Engineering Coordinator coordinates with City Attorney's office to validate documents.
b. If telecommunication company does not have a state franchise agreement or prescribed rights to be within the public right-of-way then the telecommunications company must enter into a right of way agreement for underground telecommunications infrastructure in the public right of way.
c. Project Engineer to coordinate with City Attorney's office and telecommunication company to negotiate and execute telecommunications and infrastructure agreement. This agreement must go to City Council for final approval. The infrastructure agreement template can be found in the City Attorney's electronic file.
d. Write conditions of approval for their project with a note that the franchise agreement is to be executed prior to issuance of an encroachment permit and/or building permits as applicable. Conditions should include a note specifying that all infrastructure is to be installed underground per the City's underground ordinance in Development Code Section 4.02.090. Any required above ground equipment that cannot be installed underground a condition should note that location of equipment is subject to city approval and shall be screened per Planning standards.

Small Cell License Agreement for small cell antennas/telecommunication facilities installed on city streetlights within the public right-of-way

a. Small cell wireless telecommunications facilities require a Planning application for entitlement.
b. Small cell wireless telecommunications facilities proposed to be installed on City streetlights in the public right-of-way require a small cell license agreement.
c. Project coordinator to coordinate with economic development and city attorney's office to negotiate and execute agreement. Small cell license agreements are required to go to City Council for final approval.

d. Engineering project coordinator takes the lead to review and approve the individual site licenses for installation of a small cell antenna at a specific location on a city streetlight.
e. Project coordinator routes site license agreement applications and plans to city maintenance (streets section) and planning for review and approval.
f. Engineering staff issues the site license and the terms of the small cell license agreement.
g. After site license has been issued project coordinator works with the applicant to get an encroachment permit issued for construction.
h. Engineering staff to assess if additional staff is needed to process a batching request so that we can hire additional consultant staff to review the application to meet the prescribed timelines.
i. Give executed copies of site licenses to Economic Development so they can track all the agreements.
j. All existing agreement live on the L:drive (see Mike Pato).

Encroachment Permit/Building Permit -Telecommunications Facilities Review

Procedures for processing telecommunication facilities

Ask the applicant if they have one of the following:

a. Entitlement
b. Right-of-way Agreement
c. Small cell wireless agreement
d. Lease Agreement on Private Property
e. Airport Property – License Agreement or Lease Agreement

If not, go to planning to apply for an entitlement and Economic Development for any agreements.

Procedures for processing small cell telecommunication facilities on individual street lights site license /encroachment permits per the small cell license agreements

1. The applicant must have the following:
    a. Entitlement
    b. Small cell wireless agreement

2. Applicant to apply for site license per the provisions of small cell wireless agreement.

    a. Project Coordinator to route plans to Planning and Maintenance for review.
    b. Project Coordinator to review plans and coordinate comments from Planning and Maintenance and provide comments to applicant.
    c. Once all comments have been addressed and site license is ready for approval project coordinator shall assess and collect the fees due per the small cell wireless agreement and issue the site license.(Site license forms are in the small cell wireless agreement. Confirm with Engineering Admin for the accounting code to receive payment).
    d. Project Coordinator to provide copies of site licenses to applicant, planning and economic development.
    e. Applicant to attached issued site license as an exhibit attached to their encroachment permit application.
    f. Engineering staff to process encroachment permit including associated fees based on issued site license for the construction of the work.
    g. Engineering staff will incorporate conditions in site license into the conditions for the encroachment permit and site license fees.

V. BUILDING PERMIT PROCEDURES

A. BUILDING PERMIT APPLICATION REVIEW

All building permit applications are submitted to the Building Division. Permit Technicians are assigned the permits to refer to other departments, coordinate the comments and return to the applicant. Accela is the permit system used by the Permit Technicians and all department reviewers to distribute the permit submittal and upload comments into. Building referrals are sent to the Engineering Division, logged by the Administrative Technicians and assigned to Engineering Staff as directed by the Senior Engineer in charge of Final Map and Building Permit reviews. Engineering Staff become the project coordinator for the Engineering Division, coordinate comments from the Traffic Section and review the entire application package for completeness using the Building Permit Checklist (see Section VIII). The Project Coordinator should pay close attention to the checklist and ask questions of their supervisor if they are unsure if any of the listed plan checklist items apply to the project. For projects that have no entitlements the project coordinator shall also use the Standard Conditions of approval as a checklist to confirm that all of the standard engineering conditions have been met.

B. BUILDING PERMITS WITH NO ENTITLEMENT AND NO MAP

Applying for and receiving a building permit is a ministerial process that, for projects without a map, starts after a project is entitled (Planning Commission or City Council approval) or approved at a staff level. Not all projects require Planning Commission or City Council approval before a Building Permit application is submitted. When reviewing a building permit please consult the Planning Division first and then the Building Division when in doubt. Timelines for permit submittals and review are set out by the Building Division in accordance with the Permit Streamlining Act.

Projects that are entitled include the following:

a. Commercial and Residential Buildings noted as CM (Commercial Miscellaneous) may have entitlements noted as Conditional Use Permit (CUP), Site Plan Design Review Approval (SPDR)
b. Single Family Dwelling Units noted as DR (Dwelling Residential)

C. BUILDING PERMITS WITH ENTITLEMENTS BUT NO MAP

Grading Permits for rough grading and retaining walls may be issued when there is no map by submitting an application to the building division for approval. The building division routes plans to engineering and planning as part of their plan review process. Grading Permits for rough grading and retaining walls may be issued prior to filing a

final map only with the City Engineer's approval pursuant to Livermore Development Code Section 10.05.050.

A rough grading permit will be considered for approval prior to filing a Final Map if the following procedure is followed:

1. The developer submits grading plans and interim erosion control plans as part of the overall subdivision improvement plans for plan checking to the project coordinator in Engineering.

2. The subdivision plans, including grading plans and erosion control plans, go through two or more plan checks through Engineering (including Planning and Building via Engineering). This review includes sound walls and retaining walls that might be on private property. The following issues must be completely addressed:

    a. Interim erosion and sedimentation control plans must be complete.
    b. There are no unresolved issues affecting grading or drainage, such as effects upon off-site drainage or adjacent property owners.
    c. All necessary permits and approvals have been obtained from other government agencies such as California Department of Transportation (Caltrans), Alameda County Flood Control and Water Conservation District (Zone 7), Department of Fish and Game, U.S. Army Corps of Engineers, and Alameda County Public Works.
    d. All necessary off-site easements or rights of entry to conduct grading have been obtained.
    e. Drainage study is complete and approved, with a stamped and signed copy placed in the project file.
    f. Projects that propose to rough grade two or more phases simultaneously must have complete improvement plans checked for all phases to be graded as discussed above.

3. The project coordinator calculates the public works inspection fee (grading portion) and the grading permit fee (per City Master Fee Schedule) and informs the developer of the cost for the permit.

4. The project coordinator requests insurance requirements from the Risk Manager and obtains the Insurance Requirement Template for the project.

5. The project coordinator sends a PINS request to Engineering admin to have Developer upload insurance certificate into PINS.

6. Once the grading plans and interim erosion and sedimentation control plans are ready for permit issuance and the insurance is approved in PINS, the project coordinator advises the design engineer to bring in the original grading plans and erosion control plans for review and approval by the City Engineer/Development Section Supervisor.

7. The City Engineer/Development Section Supervisor signs the original grading and erosion control plans.

8. The project coordinator instructs the developer to submit the following directly to Engineering:

    a. Three full size sets and three half size sets of the approved and signed grading and erosion control plans.
    b. Corrective cash grading bond for corrective grading of the site and implementation of erosion control measures based on a City approved estimate (if prior to final map approval). Except in unusual circumstances, this amount is $10,000.
    c. A letter agreement by which the City could use the cash bond for corrective grading has been submitted (see attached sample letter agreement).
    d. Completed grading permit application form.
    e. For projects involving channels, FEMA's Conditional Letter of Map**.** Revision has been issued by FEMA.
    f. For projects adjacent to a channel, FEMA's Elevation Certificate has been completed and signed and stamped by a registered California land surveyor.
    g. Copy of Notice of Intent and WID number to verify compliance with the State Regional Water Quality Control Board general permit.
    h. Copy of application fee sent with Notice of Intent.
    i. Statement from developer of the location of the proposed receiver site of soil spoils, soil export, and other building or construction debris, and the proposed haul route (if there is export).

9. The developer submits the above items to the project coordinator in Engineering.

10. The project coordinator sends the insurance certificate to the City Risk Manager for approval and reviews the corrective grading bond for completeness and accuracy.

11. The project coordinator submits two full size and two half size copies of the grading plans to the Construction Section Supervisor and places one set on Engineering's hanging file.

12. Once the project coordinator is satisfied that all documents are in order (including receiving an "O.K." from the City Risk Manager), the project coordinator notifies the developer. The Project Coordinator prepares the grading permit.

13. The Developer pays the inspection, and permit fees and receives the grading permit. The grading permit will include approval to construct retaining walls. The developer shall schedule a pre-construction conference with the Engineering Construction Section Supervisor.

14. Pre-construction conference (developer, contractor, Engineering inspector, and Engineering project coordinator) is held. Developer brings copy of grading permit to pre-construction conference.

15. Developer's contractor begins grading operation under the inspection of the Engineering inspector. The Engineering inspector will also inspect sound walls and retaining walls that are on private property.

16. Developer submits two copies of certifications to the City Engineer that (a) the recommendations of the preliminary soils report have been complied with, and the lot pads have been properly compacted (soils engineer), and (b) that the pad elevations are at the elevations shown on the plans (land surveyor). These certifications are given to the Construction Section Supervisor, who provides a courtesy copy to the Permit Center (Engineering Desk).

17. The Permit Center (Engineering Desk) tracks the receipt of necessary certifications **and verifies that certifications have been received** before signing off on individual plot plans.

18. Individual plot plans showing detailed final grading for each house will be plan checked by Permit Center personnel. Engineering will not sign off on individual plot plans until the two pad certifications (see Item 14 above) for a particular lot or the entire subdivision have been received. The Building Inspector will check the fine grading of each lot for conformance with the individual plot plan.

19. The Engineering inspector notifies the project coordinator when the grading operation and implementation of erosion and sedimentation plan are complete. A final letter from the soils engineer stating that all recommendations in the preliminary soils report have been complied with is submitted by the developer to the project coordinator.

20. The project coordinator returns the corrective grading bond (if any) to the developer and advises the permit center to close the grading permit. (The corrective grading bond can be returned earlier once a subdivision improvement agreement, and bonds have been approved by the City Council).

D. BUILDING PERMITS WITH ENTITLEMENTS AND A MAP

1. For projects with a map, a building permit application is submitted after the Final Map is approved by City Council. The Engineering Division allows the building permit submittal prior to Final Map Approval if certain requirements are met (See Section B above).

2. Building permit applications for residential homes that are part of a Tract are submitted and issued after the final map is approved. Residential houses and multi-family buildings that are part of a tract are submitted separately to the building division as plot plans. Apartment and Commercial Buildings and custom homes that are part of a Parcel Map or Tract Map are submitted to the building division as site plans. All plot plans or site plans that are associated with a map are referred to the engineering division by the building division and the engineering division Senior Civil

Engineer overseeing Final Maps typically assigns the referrals to the project coordinator who reviewed the tract.

3. The project coordinator checks the plot plans and site plans against the map and improvement plans for conformance and checks the plan against the engineering standards for utility and tree spacing and site distance to confirm compliance. The project coordinator uses the building permit checklists for plot plans, residential and commercial property.

4. The engineering coordinator confirms that a letter from the Surveyor has been received confirming the pad elevation of the proposed house or building. In addition to this, the Engineering coordinator confirms a letter from the soils engineer with compaction tests for each pad is received confirming compliance with the soils report and city soil compaction standards. Pad survey and compaction certifications are submitted to the Building Division for each tract.

E. INFRASTRUCTURE ACCEPTANCE BY CITY COUNCIL WITHOUT A MAP

1. Building Permit Process

Public Improvements can be constructed on private property with a building permit and on public property with an encroachment permit. When constructed on private property, the public infrastructure improvement is maintained by the owner of the private property until an easement or road right-of-way is transferred to the City and accepted by City Council for maintenance.

2. Encroachment Permit Process

The encroachment permit is intended to permit construction in the public right-of-way. It is often used by the City of Livermore more broadly as a catch-all permit for unusual circumstances when no other permit fits the situation. Encroachment permits are issued for construction or storage of materials within the public right of way and on public land. An encroachment permit application is submitted to the engineering division together with the plans. Engineering Administrative staff log encroachment permits when submitted and give them to the Senior Engineer managing final maps and encroachment permits. The Senior Engineer distributes the encroachment permit submittal to staff to review. Encroachment permits can be simple or complicated. Most permits are issued within 2 weeks and are effective for 6 months with a six-month extension upon request. More complicated and unusual encroachment permits can last up to 10 years to match environmental monitoring or other outside agency-imposed maintenance timelines until permit requirements are satisfied. In all situations, encroachment permits are granted by the city for a temporary construction or maintenance activity.

Engineering Coordinators review encroachment permit submittals to make sure the information is complete. If not, the submittal is returned to the applicant. When

complete the submittal is reviewed for compliance with city standards much like improvement plans are reviewed, and conditions of approval are added. Fees are calculated based on the value of the work being requested to cover city administrative and inspection staff time. Fee rates are published in the City Master Fee Schedule. The Engineering Coordinator issues the permit based on the information provided, enters the fees due and adds the conditions of approval. Two copies of the permit are printed on paper with the general conditions on the back. The engineering coordinator signs both copies of the permit on behalf of the City Engineer, attaches a copy of the plans and notifies the applicant the permit is ready to pick up. When the applicant pays the fees and signs both copies of the permit, one copy is given to the inspector and one copy is given to the applicant. The applicant is directed to call for inspection 48 hours in advance. After the construction is complete the permit is finalized by the inspector and retained in the engineering files. If City of Livermore public infrastructure is constructed by a Developer with an encroachment permit that infrastructure must be accepted by City Council along with any easements or public right of way as applicable. See Section E.3. below City Council Acceptance of Public Infrastructure Without A Map.

3. City Council Acceptance of Public Infrastructure Without a Map

a. After construction of a public improvement is complete and all the special conditions of the Encroachment have been satisfied the construction inspector notifies the project coordinator that the improvements are ready for City Council acceptance.

b. If easements are planned to be recorded after construction, the project coordinator uploads the signed easement into Agreement Tracker along with a memo with recording instructions to the Clerk and a letter to the title company. If any documents are time sensitive items (like a resolution or contract) that are needed immediately following the City Council meeting it is the drafter's responsibility to communicate that in advance of the meeting in the comments section of Peak and via email to the Clerk team before the meeting. Please keep in mind that it generally takes 1 week to finalize agenda items after a meeting. If you need anything prior to that timeframe, it must be communicated prior to the Council Meeting so the clerk team can plan accordingly.

c. Project coordinator writes staff report in PEAK and uploads location map, copy of easement and resolution in PEAK. When complete work flow is initiated for review by supervisor. Easements must be signed and notarized by the outside party when the staff report is submitted. If you don't have the signed and notarized easement, please move the item to a future meeting.

d. Project coordinator scans signed original documents and uploads them each separately in Agreement Tracker and saves them in the engineering Sharepoint file.

e. 25 days prior to the Council Meeting:

i. All staff reports, resolutions, ordinances and attachments are approved in PEAK and in the Assistant City Clerk's Que.

f. 16 days prior to the Council Meeting:

i. The City Clerk publishes the agenda package.
ii. Project Coordinator prepares a PowerPoint presentation and provides it to the Clerk.

g. Day of the Council Meeting (Monday):

i. Practice session is typically held in the afternoon of the City Council Meeting. Check with the City Clerk's Office for current places, dates and times.

ii. The Council Meeting is normally held on the second and fourth Mondays of the month at 7:00 p.m. at the Council Chambers at S. Livermore Avenue. Check with the City Clerk's Office for current places, dates and times.

After the City Council has accepted the public improvement for maintenance:

1. The project coordinator will deliver the public improvements to City maintenance staff for maintenance.

2. The City Clerk will notify the developer's title company to pick up the easement for recording.

After easements have been recorded:

1. The title company provides an electronic copy of the recorded easement to the Engineering Division.

2. The project coordinator follows up with the title company or clerk after 30 days to verify that the easement has recorded and to ensure that the City receives a copy of any other recorded documents (easement, irrevocable offers of dedication, etc.).

VI. FINAL MAP PROCEDURES

A. FINAL MAP AND PLAN PRE-SUBMITTAL

1. The developer and engineer are highly encouraged to meet with the Project Coordinator, if assigned, or Senior Engineer managing development review during the design process to review the conditions of approval and to discuss design issues prior to the first formal submittal of the project for review.

2. If off-site right-of-way is required for the project, the developer needs to make contact and begin negotiations with the affected property owners The developer requests a sample letter from the Project Coordinator and drafts a letter to be submitted to the Senior Engineer or Project Coordinator, if assigned, prior to being sent to the property owners.

3. It is important for the developer to know the following before filing a final map (submitting a final map and plans to the city for review, approval and recording with the county surveyor):

   a. Filing a final map is a ministerial process that is performed in accordance with the Permit Streamlining Act after a Tentative map is approved by the Planning Division and an Exhibit B-1 or other planning approval is received.

   b. The Developer has one year to apply for filing a final map. A Tentative Map approval may be extended (see Section C) for Tentative Map Extension Procedures).

   c. As required in the Subdivision Map Act (Section 66456.2(a)) all plan checks will be completed within sixty 60 working days, except that at least 15 working days shall be provided for processing resubmittal improvement plans and maps. This is approximately 12 weeks (not including the time it takes the Developer's engineer to make revisions between the plan reviews by the city). The City of Livermore Engineering Division has interpreted this to mean that the first plan review by City staff is 5 weeks, the second plan review by City staff is 4 weeks and the third and each subsequent review after the second review is 3 weeks. The goal for City engineering staff review is three plan reviews totaling 12 weeks.

   d. A final map application is completed by preparing design plans, maps, supporting calculations and other required documents (see corresponding final map checklist in Section IX). All final maps are reviewed and approved by the Engineering Division. The Engineering Design Manual lists the procedures for preparing design plans and specifications for public projects. All private projects that are considered a subdivision (Lot Line Adjustment, Parcel Map, Tract Map, Parcel Merger, etc.), must be submitted first to the

engineering division for review and approval before final design plans can be submitted to the Building Division for a building permit.

e. The initial submittal of all project documents and estimated fees submitted to the engineering division are received by the Senior Engineer managing plan reviews. The submittal received is given to engineering admin to log in and then have the engineering manager assign to a Project Coordinator.

f. The Project Coordinator is either the assigned engineer or the assigned engineering technician and will be the main point of contact throughout the review process.

g. When the map and/or plans are approved, and permits are received to begin construction, the primary engineering point of contact transfers to the Construction Manager who assigns it to an engineering inspector. The assigned engineering inspector we be the primary point of contact and the Project Coordinator will remain a secondary point of contact and assist the inspectors during the construction process and project close out. The Project Coordinator shall prepare a construction memo that identifies the project cost accounting information along with the developer and contractor contact information for the project. In addition, the Project Coordinator shall provide the construction team with full size and half size drawing sets that are to be provided by the Developer (in the amount requested by the Construction Manager).

h. If the Developer proposes a revision to the approved plan set, the Developer shall submit a written request for revision with appropriate justification for City review. Developer shall not proceed with revisions until the City has provided approval in writing. Upon approval, the Developer shall reflect the changes in the as-built plans.

B. FINAL MAP AND PLAN SUBMITTAL

1. Initial Submittal

   a. Original submittal of up to ten copies and one electronic copy must be complete. (The Project Coordinator/Senior Engineer should be contacted to answer any questions about what constitutes a complete submittal, especially if a project has special features).

   b. The Submittal is made to the supervisor of the Development Section of the Engineering Division then logged in by Engineering Admin staff.

   c. The Project Coordinator is assigned to the project, and a project number is created to allow staff to track their time to the project. The project coordinator provides this billing time code to everyone the submittal is sent to for review.

d. The Developer is required to designate a contact person for the project. The Project Coordinator will process all plans and maps through the designated contact person.

2. Initial submittal & re-submittal review process:

   a. The Project Coordinator will review each submittal first for completeness and then for technical correctness and content. A letter stating completeness will be sent within 5 business days after receipt of each submittal. This letter shall include the date the submittal was received, any critical outstanding work items that must be performed (such as gaining approved PG&E, Cal Water and joint trench plans prior to Final Map Acceptance), the initial or final plan check fee that is due at this time based on the engineering cost estimate (for 1st and last submittal only) and the date when this review is estimated to be complete.

   b. If the submittal is incomplete or is not in general conformance with the conditions of approval, an "Incomplete Submittal" an incomplete letter will be sent to the contact person within 5 business days. The letter will include a complete list of items that need to be addressed in order to constitute a complete submittal. See check list items in Section IX. The City's plan check review time for each review will not start until a complete submittal is accepted by the City.

3. Re-submittals

   All re-submittals shall be made directly to the project coordinator and shall include the following:

   Hard copies as determined by the project coordinator and one electronic copy of revised drawings. (All revisions other than those made in response to City comments shall be brought to the Project Coordinator's attention).

   The previous plan check set (redlined plans along with written City comments) annotated with developers responses to redlines and written comments. If the City's last plan check set is not returned, the submittal will be deemed incomplete until they are received. If they are lost, the City will need to re-check the whole set of plans, and therefore supplemental plan check fees shall be paid. For ease of back-checking, no marks, other than response to City comments, shall be made on the plans. Use of anything to highlight or obliterate City comments shall require supplemental plan check fees to be paid.

   Any other requested documents.

C. FINAL MAP AND PLAN CHECK

1. The Developer must secure all required entitlements prior to submitting a final map and plans for plan review. The project coordinator starts the plan check process when complete submittal is received (as defined by this document and by the conditions of approval).

2. The project coordinator refers submitted items to other departments and other agencies, as appropriate, for comments via a referral memo/letter sent by interoffice mail/mail and email. The referral letter specifies a response date. The final map, the annotated conditions and/or conditions matrix, the improvement plans (including the landscape plans) are always referred to the Planning Division.

3. The improvement plans are always referred to the Fire Department, Traffic Engineer, Water Resources staff in 1) Collections and (2) Water & Recycled Water, Public Works staff in (1) Landscaping and (2) Streets, Construction Manager, Building Department Structural Engineer (if structures are proposed) and any outside agencies involved as appropriate. The project coordinator is responsible for reviewing all submitted documents.

   a. If any consultants are assisting the project coordinator, the project coordinator shall refer the map, closure calculations and all map related documents to the contract Surveyor and all documents to an assisting Consultant Plan Checker.

   b. After the consulting plan checkers complete their review it is the Project Coordinator's responsibility to review their work and consolidate their comments in order to clearly communicate all the review comments to the Developer and respond to any questions they may have. Plans are referred to the Construction Manager on the second and subsequent submittals after the plans are complete. Both the plans and the plan check list are sent with each referral.

   c. All reviewers shall use the Final Map Process Checklists (including check lists for the following: improvements, bond estimate, Joint Trench Plan), the Standard Details, Project Conditions of Approval, Development Agreements and all other relevant agreements and checklists when reviewing the map, plans and additional required documents. The plan check includes a site visit.

4. The project coordinator marks comments in red on the submitted items. Numerical values and other information that are correct on the submitted documents will be highlighted in yellow. Major items may be listed in a typed transmittal letter addressed to the contact person. The project coordinator verifies that he or she has all referral responses and includes those comments

after reviewing them for consistency. The project coordinator returns the red-lined documents with the plan check comment letter to the contact person for revisions.

5. Second and subsequent plan checks follow steps 1 through 4 above until the submitted documents have been approved by all departments, divisions, and agencies.

6. The contact person may ask the project coordinator for a meeting to discuss the plan check. The contact person shall provide a written agenda for the meeting at the time the meeting is requested. This will allow the project coordinator to determine the best time to schedule the meeting.

7. After final corrections from the second/third plan review have been made, and the plans are nearly complete, the project coordinator refers the plans to the Construction Supervisor and the City Engineer for review before the plans are signed.

8. After final corrections from the second/third map review have been made to both the map and improvement plans (100% complete plans with minor corrections needed), the project coordinator sends an email to the Risk Manager/Assistant Risk Manager describing the project and requesting the insurance template form number to use when requesting the Developer to submit insurance certificates in the PINS system and the template to use in the Subdivision Improvement Agreement as Exhibit B.

9. Contact the Engineering Admin staff for the current PINS procedure. The project coordinator refers the map to the section supervisor and the City Engineer for review before the map is ready to be signed. At this time the project coordinator prepares the subdivision improvement agreement and bond forms for City Attorney review to form and receives a pdf copy of the document approved to form with an attorney document date. After the document is approved to form no additional changes can be made. The agreement and the bond forms are ready to be sent to the applicant for signature. If the applicant must make any changes to the agreement or bond forms, the document with proposed revisions must be re-sent to the City Attorney to be approved to form before a pdf of the revised agreement can be signed by the applicant.

10. When the map and plans have been reviewed and approved by the Development Section Supervision/City Engineer and are ready to be signed by the City Engineer, the following actions shall occur:

11. The project coordinator determines the final map check fee and final plan check fee and notifies the contact person that any remaining balance needs to be paid prior to approval of the plans.

12. The project coordinator calculates the inspection fee. The project coordinator then notifies the contact person that either: (1) If a grading permit has been taken out, then the balance of the inspection fee is due prior to either the pre-construction conference for the balance of the improvements, or the approval of the final map (whichever comes first), or (2) The total inspection fee is due with the grading permit (or prior to any inspection if a grading permit is not required).

13. The project coordinator reviews the Final Approval of Tract Map Checklist listing items needed prior to City Council Approval and sends a letter to the contact person with final comments in a cover letter requesting the original signed plans and map and documents needed on the checklist.

14. The contact person submits the original plans and map with all signatures properly executed, one set of prints, any plan check fee balance and the inspection fee balance (if a grading permit has been taken out) and all remaining documents requested of the contact person that remain on the Final Approval of Tract Map Checklist for items required prior to City Council approval.

15. The project coordinator submits the plans and map to the development section supervisor for approval and to the City Engineer for approval and signature.

16. The improvement plans are a public record document after being signed by the City Engineer/Development Section Supervisor.

    a. The contact person provides five sets of full-size prints and five sets of half size prints of the signed improvement plans to the project coordinator. One set of the plans is placed on the stick file and the electronic file placed in the Construction folder of the project file, two hard sets are forwarded to the Construction Section Supervisor, one hard set is forwarded to the City Maintenance Division, and one hard set is forwarded to the Water Manager for projects located in the City water service area.

17. The joint trench plans shall be submitted as a separate set of plans and conform to the approved improvement plans such that there are no conflicts with fire hydrants, streetlights, street trees, sewer laterals, water services, and other utilities. The contact person shall provide the project coordinator with the information necessary to demonstrate this conformance, including signatures on the cover page of the joint trench plans from all utility companies with utilities in the joint trench, prior to issuance of an Encroachment Permit for the joint trench work. This may require preparation of a composite plan (a set of improvement plans on which all joint trench facilities have been plotted to scale and located with the improvement plan stationing) showing the location of all joint trench facilities in relationship to all public improvements (sidewalks, curbs and gutters, driveways, sewer laterals, water services, street lights, street trees, fire hydrants, etc.).

18. A public street light conduit plan (includes wiring design by an Electrical Engineer) shall be included in the improvement plan set and submitted prior to the third plan check submittal.

19. As soon as the signed map is received the Project Coordinator also schedules the map for City Council Approval per Section X, Final Map & City Council Approval Procedures. The Project Coordinator utilizes the Final Approval of Tract Map & City Council Approval Checklist to make sure all items needed prior to the City Council approval, prior to recordation and after recordation are completed during the process. The Project Coordinator should not feel pressured into scheduling an item for City Council approval before it is ready, and all documents needed have been received.

20. The Project Coordinator should make sure all original documents are routed through both the City Attorney's office and the Clerk's office before being sent to the Developer's Title Company for recording. The Project Coordinator should follow-up with the Clerk 30 days after City Council Approval to make sure all documents are returned to the City from the recorder's office and double check that any appropriate bonds or surety have been returned or reduced, and stormwater agreements have been recorded with copies of recorded documents filed electronically.

21. When the construction of the project is complete the Construction Supervisor will send the project coordinator a notification that the project is ready for City Council Acceptance. The project coordinator shall review all elements of the project using the Council Final Acceptance checklist; including but not limited to reviewing the as-built plans and confirming all of the conditions of approval have been met and everything required has been constructed, paid for or has funding secured, and confirming the project is ready for City Council acceptance.

D. GRADING PERMIT REVIEW PRIOR TO MAP APPROVAL PROCEDURES

Grading Permits for rough grading and retaining walls may be issued prior to final map approval only with the City Engineer's approval.

A rough grading permit will be considered for approval prior to Final Map approval if the following procedure is followed:

1. The developer submits grading plans and interim erosion control plans as part of the overall subdivision improvement plans for plan checking to the project coordinator in Engineering.

2. The subdivision plans, including grading plans and erosion control plans, go through two or more plan checks through Engineering (including Planning and Building via Engineering). This review includes sound walls and retaining walls

that might be on private property. The following issues must be completely addressed:

a. Interim erosion and sedimentation control plans must be complete.

b. There are no unresolved issues affecting grading or drainage, such as effects upon off-site drainage or adjacent property owners.

c. All necessary permits and approvals have been obtained from other government agencies such as California Department of Transportation (Caltrans), Alameda County Flood Control and Water Conservation District (Zone 7), Department of Fish and Game, U.S. Army Corps of Engineers, and Alameda County Public Works.

d. All necessary off-site easements or rights of entry to conduct grading have been obtained.

e. Drainage study is complete and approved, with a stamped and signed copy placed in the project file.

f. Projects that propose to rough grade two or more phases simultaneously must have complete improvement plans checked for all phases to be graded as discussed above.

3. The project coordinator calculates the public works inspection fee (grading portion) and the grading permit fee (per City Master Fee Schedule) and informs the developer of the cost for the permit.

   a. The project coordinator requests insurance requirements from the Risk Manager and obtains the Insurance Requirement Template for the project.

   b. The project coordinator sends a PINS request to Engineering admin to have Developer upload insurance certificate into PINS.

   c. Once the grading plans and interim erosion and sedimentation control plans are ready for permit issuance and the insurance is approved in PINS, the project coordinator advises the design engineer to bring in the original grading plans and erosion control plans for review and approval by the City Engineer/Development Section Supervisor.

   d. The City Engineer/Development Section Supervisor signs the original grading and erosion control plans.

e. The project coordinator instructs the developer to submit the following directly to Engineering:

   i. Three full size sets and three half size sets of the approved and signed grading and erosion control plans.

   ii. Corrective cash grading bond for corrective grading of the site and implementation of erosion control measures based on a City approved estimate (if prior to final map approval). Except in unusual circumstances, this amount is $10,000.

   iii. A letter agreement by which the City could use the cash bond for corrective grading has been submitted (see attached sample letter agreement).

   iv. Completed grading permit application form.

   v. For projects involving channels, FEMA's Conditional Letter of Map Revision has been issued by FEMA.

   vi. For projects adjacent to a channel, FEMA's Elevation Certificate has been completed and signed and stamped by a registered California land surveyor.

   vii. Copy of Notice of Intent and WID number to verify compliance with the State Regional Water Quality Control Board general permit.

   viii. Copy of application fee sent with Notice of Intent.

   ix. Statement from developer of the location of the proposed receiver site of soil spoils, soil export, and other building or construction debris, and the proposed haul route (if there is export).

   x. The developer submits the above items to the project coordinator in Engineering.

4. The project coordinator sends the insurance certificate to the City Risk Manager for approval and reviews the corrective grading bond for completeness and accuracy.

5. The project coordinator submits two full size and two half size copies of the grading plans to the Construction Section Supervisor and places one set on Engineering's hanging file.

6. Once the project coordinator is satisfied that all documents are in order (including receiving an "O.K." from the City Risk Manager), the project coordinator notifies the developer. The Project Coordinator prepares the grading permit.

7. The Developer pays the inspection, and permit fees and receives the grading permit. The grading permit will include approval to construct retaining walls. The developer shall schedule a pre-construction conference with the Engineering Construction Section Supervisor.

8. Pre-construction conference (developer, contractor, Engineering inspector, and Engineering project coordinator) is held. Developer brings copy of grading permit to pre-construction conference.

9. Developer's contractor begins grading operation under the inspection of the Engineering inspector. The Engineering inspector will also inspect sound walls and retaining walls that are on private property.

10. Developer submits two copies of certifications to the City Engineer that (a) the recommendations of the preliminary soils report have been complied with, and the lot pads have been properly compacted (soils engineer), and (b) that the pad elevations are at the elevations shown on the plans (land surveyor). These certifications are given to the Construction Section Supervisor, who provides a courtesy copy to the Permit Center (Engineering Desk).

11. The Permit Center (Engineering Desk) tracks the receipt of necessary certifications **and verifies that certifications have been received** before signing off on individual plot plans.

12. Individual plot plans showing detailed final grading for each house will be plan checked by Permit Center personnel. Engineering will not sign off on individual plot plans until the two pad certifications (see Item 14 above) for a particular lot or the entire subdivision have been received. The Building Inspector will check the fine grading of each lot for conformance with the individual plot plan.

13. The Engineering inspector notifies the project coordinator when the grading operation and implementation of erosion and sedimentation plan are complete. A final letter from the soils engineer stating that all recommendations in the preliminary soils report have been complied with is submitted by the developer to the project coordinator.

14. The project coordinator returns the corrective grading bond (if any) to the developer and advises the permit center to close the grading permit. (The corrective grading bond can be returned earlier once a subdivision improvement agreement, and bonds have been approved by the City Council).

E. BOND ESTIMATE REVIEW

The bond estimate is used to calculate the bond amounts that the developer submits to the City to secure the performance of the contractor in installing all of the public improvements and some private improvements needed for the safety of the occupants of the tract. A bond estimate is submitted with the first final map submittal. It is also used to calculate the Improvement Plan Check fees that are due with the first submittal. The project coordinator shall review the bond estimate using the Final Map Bond Estimate Check List and the latest costs for public works construction signed by the City Engineer.

The checklist identifies the percentages to include for bond enforcement, inflation, and construction contingencies. Design contingencies may also need to be included in the bond estimate if bonds are required before the plans are 100% complete. The contingency for bond enforcement is added to the bond amount to provide the city enough funds to cover the city's administrative costs to call the bonds and receive the money needed to either complete the construction of the public improvements or return the site to its original condition. Three bonds are required: Faithful Performance (100% of bond amount), Labor and Materials (50% of bond amount) and Maintenance (15% of bond amount). The Faithful Performance and Labor and Materials Bonds are required prior to approval of the Subdivision Agreement. The Maintenance bond is required prior to acceptance of the final map and public improvements. Consult your supervisor for any actions that may be necessary due to any unique circumstances.

F. JOINT TRENCH PLAN REVIEW

Joint trench plans are submitted as a separate set for review with the improvement plans and map. The approved joint trench plan set may only be included as a part of the improvement plans as a reference document. The final approved joint trench plans shall show all dry utilities on them and shall be approved and signed by all utility companies with facilities on the plans. The dry utilities shown on the plans are reviewed by the project coordinator with the improvement plans and map to confirm that none of the dry utilities interfere with any improvements on the improvement plans and are located in the public street or a public utility easement. Dry utilities shall only be installed in public road right-of-way or public utility easements as shown on the Final Map. If in the field the utility cannot fit in the designated public utility easement or road right-of-way then a public utility easement must be recorded for the portion of the utility that did not fit into the designated easement or right-of-way and documented with a Joint Trench Plan and improvement plan revision or as-built plans and with a map revision or separate easement recorded after the map is filed.

G. ELECTRONIC PLAN AND MAP REVIEW

a. Submit an electronic copy of every printed plan and supporting document on a flash drive or link with the hard submittal. Until the city implements an entirely

electronic submittal and review process the city will be using both the electronic copy and hard copy in the review process. The flash drive should be titled with the Project name and Tract number as appropriate. The files on the flash drive or link should be listed in the same order as the hard submittal.

b. The project coordinator shall create a project folder on Share Point when available. All electronic documents are uploaded to the project folder in a subfolder entitled First Plan Check. Project Coordinator provides a link to staff and access by reviewing agencies to the folder.

c. The project coordinator creates a workflow in Accela when referring electronic plans to all reviewing departments and agencies.

d. The project coordinator creates subfolders for all encroachment permits, right-of-way and agreements associated with the project.

e. When the project coordinator completes the plan review, he/she saves any electronic comments and red-lined plans to the electronic file. The project coordinator then consolidates the comments and prepares one letter to the developer with all the comments included in it and emails it to the developer's engineer with a copy to the Senior Development Engineer, developer and owner. The project coordinator then forwards the comment letter to the consultants reviewing the project and the referring departments.

H. FINAL APPROVAL OF TRACT MAP & CITY COUNCIL APPROVAL

Follow the Final approval of Tract Map Checklist to confirm you have completed each of the steps to finalize the map, improvement plans and agreement. Confirm all of the conditions of approval have been met or they will be met through future preparation or construction that is secured in an agreement with bonds or formation of an improvement funding or maintenance funding district. Follow the Electronic Plan and Review procedures above and the Electronic Plan and Review procedures checklist to confirm that you have uploaded and electronically filed all the necessary documents for City Council Approval (See City Council Approval Procedures below) and map and document recording. Follow-up with the City Clerk after the City Council Meeting is held to provide any additional information and confirm timelines for recording. When the recording time has come follow up with the Clerk again to confirm recording and obtain electronic copies of recorded documents for filing in Engineering Shared Files and to provide to IT/GIS to include in the electronic document archival system.

Note: Also reference: "Final Approval of Tract Map & City Council Approval Checklist" section of the Development Plan Check Manual Final Map Checklist.

1. *Before considering putting the Final Map on the City Council Agenda the following must be complete:*

    a. The review of the map, plans and all documents in the Final Map submittal is complete and delivered to the Developer for signature.

    b. The bond estimate is approved by the project coordinator and bond amounts are calculated. Bond forms are filled out and sent to the developer. Bonds are then requested from the Developer (see Bond Estimate checklist).

    c. The map and plans have been signed by the Developer and all remaining items are complete and ready for City Engineer final review, approval and signature (see Final Map checklist).

    d. Credits and reimbursements have been calculated (see fee credit checklist).

    e. The project coordinator has prepared the subdivision improvement agreement (SIA), including any credits, reimbursements and other special requirements. All special requirements shall be written into the "Special Conditions" of the subdivision improvement agreement.

    f. The project coordinator has prepared all other agreements required for the project; including but not limited to, Stormwater O&M Agreement, Purchase and Sale Agreement, Reimbursement Agreement, etc., preparing and including all applicable exhibits into the agreement.

    g. By or before the third plan check, the project coordinator emails the Risk Manager for appropriate insurance requirements along with a brief description of the project, list of public improvements/special features and performance bond amount for all agreements. (Upon request coordinator sets up a meeting with attorney and Risk Manager ahead of time (during 3rd plan check)). Allow 7 working days to the receive insurance requirements template.

    h. Risk Manager sends the project coordinator the applicable insurance requirements template(s) (Exhibit B). This is Exhibit B to the SIA and all other applicable agreements. The project coordinator includes both the Engineering Considerations (Exhibit A) and the insurance requirements template (Exhibit B) into the SIA. The project coordinator includes Exhibits A-D into the Stormwater O&M agreement. All pages of agreement and exhibits are numbered consecutively.

    i. The project coordinator sends a PINS insurance request to Engineering Admin using the form provided by Engineering Admin with the Developer's contact information and insurance form number. Engineering Admin sends request for insurance to Developer in the PINS system requesting Developer

to provide insurance by uploading it into the PINS system. Project coordinator shall confirm with Developer that insurance has been uploaded and confirm with Engineering Admin that it is in the PINS system. Confirm with both Engineering Admin and the Risk Manager that the insurance is approved.

j. In preparing the Subdivision Improvement Agreement and bonds, always download the locked template to use (always use the SharePoint link located on the City Attorney's SharePoint folder in case updates to template have been made. Do not use old agreements). Once agreement and bonds are completed, upload them into agreement tracker for attorney review and approval. After it is reviewed by the Attorney's Office, send it to developer for review and signature. Developer shall return one wet signed and notarized agreement and bonds to the project coordinator. Project Coordinator shall upload a copy of the signed and notarized agreement and bonds into agreement tracker for final review and approval.

k. (The following is for a separate staff cheat sheet: If the locked template, send email to administrative support staff at the City Attorney's Office requesting the locked template be unlocked for editing and confirm with attorney that a pre-review will be done via email for the agreement before it is uploaded to agreement tracker. a) Once you receive the unlocked template, modify the document with tracked changes on and proceed to review and revise via email correspondence with the attorney and Risk Manager until it is approved by their team. b) Once approved, upload into agreement tracker and add a note "approved as to form by the attorney's office prior to upload" to remind them that this has already gone through a pre-review process).

l. Financing District (LMD/CFD) is formed or documents to annex, modify, etc. are well on the way to being complete prior to City Council Meeting (see Financing District section for CFD/LMD procedures).

m. Any special Development Agreement Requirements are met.

n. Engineer's Report and Assessment Diagram for Landscape Maintenance District are approved (see Financing District section for CFD/LMD procedures).

2. Two months before the City Council meeting):

a. Project coordinator confirms that the Planning Division has indicated that the project is in conformance with the conditionally approved tentative map.

b. The subdivision improvement agreement with bond forms and all other related original signed and notarized agreements and documents have been received from the developer for recording.

c. The developer requests and the Project Coordinator places the subdivision on the Council Agenda for approval. Remember that the City Council has historically gone dark (no council meetings) during the month of August.

d. The original signed mylar of the map is provided to City Surveyor for signature and then provided to the City Engineer for signature.

e. The City Engineer signs the improvement plans if they haven't been signed already and references the pages of the plans in the Subdivision Improvement Agreement.

f. Final drafts of Engineer's Reports for Formation of a Maintenance District and landowner consent form must have been submitted to the project coordinator. A cash deposit of 30 times the annual maintenance, operation, and administration costs of the district must have been submitted to the City if the public hearing isn't concurrent with final map approval.

g. The project coordinator uploads a memo with recording instructions to the Clerk and a letter to the title company into Agreement Tracker with the Subdivision Improvement Agreement with a note referencing the map, agreements and other documents to be recorded. If any documents are time sensitive items (like a resolution or contract) that are needed immediately following the City Council meeting it is the drafter's responsibility to communicate that in advance of the meeting in the comments section of Peak and via email to the Clerk team before the meeting. Please keep in mind that it generally takes 1 week to finalize agenda items after a meeting. If you need anything prior to that timeframe, it must be communicated prior to the Council Meeting so the clerk team can plan accordingly.

h. Project coordinator writes staff report in PEAK and uploads location map, copy of map and resolution in PEAK. When complete work flow is initiated for review by supervisor. Contracts and amendments must be signed by the outside party when the staff report is submitted. If you don't have the signed contract, please move the item to a future meeting.

i. Project coordinator scans signed original documents including but not limited to a copy of the signed Final Map Mylar and any separate easements and uploads them each separately in Agreement Tracker and saves them in the engineering Sharepoint file.

3. 25 days prior to the Council Meeting:

a. All staff reports, resolutions, ordinances and attachments are approved in PEAK and in the Assistant City Clerk's Que.

4. *6 days prior to the Council Meeting:*

    a. The City Clerk publishes the agenda package.

    b. Project Coordinator prepares a PowerPoint presentation, has it reviewed by their supervisor/division manager/department head and approved by the City Manager then provides it to the City Clerk's office. The PowerPoint is due the Friday before the City Council Meeting.

5. *Day of the Council Meeting (Monday):*

    a. Practice session is held in the afternoon of the City Council Meeting Check with the City Clerk for time and place.

    b. The Council Meeting is normally held on the second and fourth Mondays of the month at 7:00 p.m. at the Council Chambers at S. Livermore Avenue.

    c. Check with the City Clerk's Office for current places, dates and times.

        1. After the City Council has approved the Map:

            a. The project coordinator will deliver the map to City staff members for execution (if not already executed) of their certificates.

            b. The City Clerk will notify the developer's title company to pick up the map for recording.

        2. *After the Map has been Recorded:*

            a. The developer's title company provides an electronic copy of the recorded map to the Engineering Division.

            b. The project coordinator follows up with the title company after 30 days to verify that the map has recorded and to ensure that the City receives a mylar copy of the recorded map, a recorded copy of the subdivision improvement agreement and any other recorded documents (easement, irrevocable offers of dedication, etc.).

I. ESTABLISHING OR AMENDING A FINANCIAL DISTRICT

Please check with the City Attorney's office on each project to make sure that the formation or annexation of a Financial District is the best way to assist the Developer in

financing the Capital Improvement, Fees or the maintenance of their project. Also confirm that you have the latest procedures according to the current laws. Not all projects are eligible for public financing. Please consult your supervisor for the current city policy.

The information provided in Section X describes the procedures and provides checklists for formation and annexation into a Landscape Maintenance District, Community Facilities District and SCIP Communities Facilities District.

Generally, the project coordinator, with the help of consultants, prepares the initiation documents, a Description of Services and works with the City Maintenance Division and Engineering Division to calculate the costs of either the Capital Improvements, Maintenance and or Fees. The project coordinator works with the Attorney's office, their bond counsel and consultants on contract who specialize in Financial District formation, the Finance Division and the City Manager's office. Once the formation documents are prepared and finalized a staff report is prepared and reviewed to obtain City Council Approval on the formation of a new district or annexation into an existing district. After this step formation documents are prepared and a second staff report is prepared and reviewed to obtain City Council Approval to form the district. The process and timelines are different for the different types of districts. All formation documents are recorded with the County Recorder's office and documents should be recorded as soon as possible after the City Council meeting where the final formation of the district was approved and authorized After the Finance District is formed the Finance Division issues bonds, the County Assessor's office levy's taxes or assesses the property and the Maintenance Division maintains the new improvements with the funds from the bond sales/taxes/assessments. An engineer's report, tax or assessment may be required annually.

J. SEGREGATION OF ASSESSMENTS

Assessment Districts are formed to finance public infrastructure. Private land owners enter into a development agreement with the City to dedicate land or construct public improvements for the rights to develop their land with commercial or residential buildings. When the City or another public agency works with the developer to form an assessment district and sell bonds to finance the public infrastructure assessments are placed on the private property to pay back the city for the bonds over time. This is a form of a loan. Assessments are the mechanism for the city or other public agency to pay back the loan. When assessments are on one parcel of land and that land is divided into two or more parcels the assessments need to be divided and places on the new parcels. This is called the segregation of assessments. The engineering coordinator must review the title reports of all projects to see if there are any assessments on the land. If no assessments there is nothing more to do. If there are assessments, the engineering coordinator shall contact the finance division or their consultant to find out the amount of the assessments remaining on the parcel and ask the developer if they want to pay off the remaining balance or prepare the paperwork to segregate the assessments. If they choose to segregate the assessments then the

Engineering Coordinator works with the Consultant to the Finance Division and the Developer's engineer to prepare the necessary paperwork to do this. This typically involves a revised engineering report and assessment map that usually need to be recorded with the County Recorder and submitted to the tax assessor. Contact the County Tax Assessor to confirm deadlines for the annual tax assessment and when the paperwork must be received by the County for the next year.

K. TRANSMITTAL OF TRACT MAP AND PLANS TO CONSTRUCTION

1. After the improvement plans are signed by the City Engineer, the contact person picks up the originals and provides five (5) sets of 24" x 36" prints and five (5) half size sets to the project coordinator.

2. The inspection fees are paid (or the balance of the inspection fees are paid if the grading permit has been issued before the approval of the final map).

3. The grading permit is issued (or has already been issued) by the project coordinator.

4. The project coordinator places one set of the approved plans on the "plan check" stick file.

5. The project coordinator sends five sets of the approved plans (full and half size) to the construction section supervisor via a memo with the developer's name, contact person and phone number only after the inspection fees have been paid.

6. When the project is located within the City of Livermore water service area, one set of plans is forwarded to the Water Manager.

7. After receiving the approved plans, the construction supervisor will set up a pre-construction meeting upon request by the contact person. A copy of the grading permit must be brought to this meeting.

8. The Senior Construction Inspector runs the pre-construction meeting. The project coordinator attends this meeting.

9. During construction, the construction section will contact the project coordinator if plan revisions are required. The project coordinator will then request a revised plan from the contact person. The revised plan must be approved by the Engineer. Revisions must be accompanied by a letter from a registered civil engineer to the project coordinator saying that he or she has reviewed and approved the revisions and stating the reason for the change and at whose request. Revised plans will be reviewed by the project coordinator. For the City, the City Engineer must approve major revisions, while minor revisions may be approved by the development section supervisor.

10. The developer/contractor shall provide TV inspection on their own sanitary sewer and storm drain pipelines after installation according to the TV inspection requirements in Section XII. Video tapes labeled with the project name, tract /project number, date and CCTV inspector shall be provided to the City inspector.

11. Construction Inspector and Project Coordinator shall release bonds in accordance with the current requirements in the Subdivision Map Act.

12. After construction, the contact person has the Engineer revise the original improvement plans to show as built conditions. A final set of mylars with each sheet marked "record drawing" is submitted to the construction inspector by the contact person.

13. The construction section supervisor will deliver a memo to the development section supervisor stating that the improvements are ready for acceptance. The project coordinator will review the "Subdivision Final Acceptance Checklist" and place the subdivision on the Council pre-agenda if it is ready for acceptance.

L. TRANSMITTAL OF PLANS TO MAINTENANCE AND INFORMATION TECHNOLOGY DIVISIONS

Approved plans are transmitted to Maintenance and the Information Technology sections by the Engineering Coordinator at the same time as they are transmitted to construction. The memo transmitting them identifies the Developer and all City Division staff that have reviewed the project. It also states that the project is under construction and that the Engineering Coordinator will notify maintenance and information technology sections when the project infrastructure is accepted by the City Council and will transmit the electronic copy of the final map and/or as-built plans at that time. One hard copy of the approved map and set of plans is transmitted with the electronic copy to the Maintenance Division. Only the electronic copy of the map and plans are transmitted to the Information Technology Section.

After the project is accepted by City Council the project coordinator notifies maintenance and the information technology sections. One hard copy and electronic copy of the final map and as-built plans are transmitted to Maintenance. Only the electronic copy of the final map and as-built plans are transmitted to the information technology section.

M. INSPECTION AND PLAN CHECK FEE CALCULATIONS

1. Public Works Inspection Fees are based on the total approved construction bond estimate for the project. The following items are included within this construction bond estimate:

a. Public Works Improvements;
b. Private improvements required of the subdivision such as private streets, storm drains, sewers, grading, etc.
c. Cal Water improvements;
d. Joint trench improvements;
e. Retaining walls and sound walls (in public easements);
f. Landscaping in public easements;
g. Grading and erosion control;
h. Construction contingency.

The construction bond estimate is based on a City approved preliminary cost estimate for publicly bid public works projects, not the developer's bid prices for the project.

2. Plan Check Fees are based on the total approved bond estimate, as listed above, less the following items:

a. Cal Water Service Company water main improvements;
b. 75% of the cost of the joint trench improvements;
c. The contingency overhead on these items ("a" and "b").

Note: For purposes of calculating inspection fees and plan check fees, the following items are **not** included in calculating the fee base:

a. Bond enforcement costs;
b. Inflation factor;
c. Construction engineering;
d. Utility undergrounding.

N. SUBDIVISION FINAL ACCEPTANCE BY CITY COUNCIL

1. The City inspector prepares a final punch list, emails a copy of it to the Project Coordinator and walks the project with the contractor.

2. When the contractor has completed the items on the final punch list the City Inspector sends a memo to the Project Coordinator to schedule the project for City Council Acceptance.

3. Inspector and Project Coordinator utilize the Subdivision Final Acceptance Checklist to verify all the remaining items have been completed.

4. Project Coordinator prepares a staff report for final tract acceptance and release of sureties.

5. For all documents that need recording, the project coordinator uploads a memo with recording instructions to the Clerk and a letter to the title company into Agreement Tracker with a note referencing the documents to be recorded. If any documents are time sensitive items (like a resolution or contract) that are needed immediately following the City Council meeting it is the drafter's responsibility to communicate that in advance of the meeting in the comments section of Peak and via email to the Clerk team before the meeting. Please keep in mind that it generally takes 1 week to finalize agenda items after a meeting. If you need anything prior to that timeframe, it must be communicated prior to the Council Meeting so the clerk team can plan accordingly.

6. Project coordinator writes staff report in PEAK and uploads location map, copy of map and resolution in PEAK. When complete work flow is initiated for review by supervisor. Contracts and amendments must be signed by the outside party when the staff report is submitted. If you don't have the signed contract, please move the item to a future meeting.

7. Project coordinator scans signed original documents including but not limited to a copy of the signed Final Map Mylar and any separate easements and uploads them each separately in Agreement Tracker and saves them in the engineering Sharepoint file.

Two meetings ahead of the scheduled Council Meeting:

a. All staff reports, resolutions, ordinances and attachments are approved in PEAK and in the Assistant City Clerk's Que.

7 days prior to the Council Meeting:

a. The City Clerk publishes the agenda package.

Day of the Council Meeting (Monday):

a. The Council Meeting is normally held on the second and fourth Mondays of the month at 7:00 p.m. at the Council Chambers at S. Livermore Avenue.
b. Check with the City Clerk's Office for current places, dates and times.

After the City Council has accepted the public improvements and easements

a. The City Clerk will notify the title company to pick up any easements for recording.

After the easement has been Recorded:

a. The developer's title company provides an electronic copy of the recorded easement to the Engineering Division.
b. The project coordinator follows up with the title company after 30 days to verify that the easement has recorded and to ensure that the City receives a recorded copy of the easement, and any other recorded documents (easement, irrevocable offers of dedication, etc.). This information to be provided to the City Clerk's Office.

O. LIVERMORE RECREATION AND PARKS DEPARTMENT (LARPD) DEVELOPMENT PROJECT PROCESSING PROCEDURES

The following is a list of tasks to process LARPD Facilities after the LARPD Facilities are entitled as part of a Livermore Development Project.

1. Conceptual Plans are approved by the LARPD Board

This is a three step task that entails discussion and approval from three bodies:

a. City/LARPD Staff to Staff. City Staff to schedule for approval.
b. LARPD Facilities Committee. City Staff to schedule for approval.
c. LARPD Board. City Staff to write staff report for LARPD Board approval.

2. Developer hires Landscape Designer and begins preparing improvement plans per LARPD Standards.

3. Developer submits LARPD plans to City Engineering with the first plan check submittal of the Development Improvement Plans for review by both LARPD and Engineering Staff. A complete set of LARPD plans includes the following:

a. Civil plans for trail and/or park construction with a complete set of landscape and irrigation plans
b. Bond estimate for the LARPD improvements separate from the bond estimate for the City improvements
c. All draft legal descriptions and plats for both on-site and off-site dedications to LARPD

If submittal is complete City Engineering is required by the Subdivision Map Act to return plan checks (including LARPD staff comments) according to the following timeline:

a. First Check - 25 working days (5 weeks)
b. Second Check - 20 working days (4 weeks)
c. Third check - 15 working days (3 weeks)
d. Subsequent checks - 10 working days (2 weeks)

4. After all comments have been addressed and all design issues have been resolved the LARPD plans must go to the following bodies for approval before the General Manager can sign the final LARPD improvement plans:

    a. City/LARPD Staff to Staff. City Staff to schedule for approval.
    b. LARPD Facilities Committee, City staff to schedule for approval
    c. LARPD Board (See # 5 for specific procedures for final Board Approval)

    The Development Engineer is responsible for the addition of the project to the agendas of these bodies. This task must be completed before the Final Map and Improvement Plans are approved by the City (approximately 1 month before target Council Date).

5. To obtain final LARPD Board approval of the improvement plans and all agreements the following tasks must be completed:

    a. Final bond estimate must be approved by the Development Engineer.
    b. Final dedication documents must be approved by the Development Engineer.
    c. Development Engineer prepares final LARPD Improvement Agreement and final Easement Agreement (if any). These documents are then provided to the developer approximately 1 month before the target board date that has been set by the LARPD Facilities Committee.
    d. The developer must provide the signed and notarized LARPD Improvement Agreement and Easement Agreement (if any) together with bonds and insurance for LARPD and $50,000 inspection deposit to the Development Engineer approximately 2-1/2 weeks before the target board date that has been set by the LARPD Facilities Committee.
    e. The Development Engineer provides the final Improvement Agreement and the final Easement Agreement (if any) with all exhibits, bonds and insurance to LARPD's attorney for review at least two weeks before the target Board date. The Development Engineer also submits the inspection deposit to LARPD staff.

6. After LARPD Board approval of the improvement plans and all agreements, the General Manager signs the plans and agreements and LARPD staff arrange for the recordation of the documents and send recorded copies to the City and developer. The final signed plans are then sent to the Development Engineer.

7. The Development Engineer schedules the entire project for Council approval.

8. After City Council approval the Development Engineer provides a final set of signed plans to the developer for duplication.

9. The developer provides 4 sets of the improvement plans to the Development Engineer for distribution to LARPD and City Inspector.

10. City Inspector schedules a preconstruction meeting and invites LARPD staff to attend. Inspection protocols will be discussed at the preconstruction meeting.

11. After construction of LARPD facilities is completed, LARPD staff schedules the project for LARPD acceptance.

12. After the acceptance of improvements by LARPD Board, LARPD staff release bonds accordingly and begin to maintain the improvements.

P. PROPERTY ACQUISITION FOR DEVELOPMENT PROJECTS

Before receiving or acquiring property for the City of Livermore be sure to assess whether there is any reason the City would not want to possess the property. Reasons why the city would want or not want to own property includes the following:

a. Property contains a creek on it that is subject to flooding
b. Property is a brownfields site and requires environmental clean-up
c. Property is environmentally sensitive
d. Property has naturally occurring oil
e. Property has an earthquake fault
f. Property is subject to landslides or fires
g. Property has no access from a public roadway
h. Consult with the City Attorney's office to see if there are any other legal reasons not to acquire the property. Also confirm with your supervisor, the city engineer and upper management. If needed, write a staff report and provide supporting documentation to receive City Council Approval to negotiate with the owner.
i. If the city agrees to pursue acquisition, enter into a contract with a company that provides appraisals by a licensed appraiser and have an appraisal of the property completed.
j. Negotiate with the property owner. If negotiations reach an impasse and the property is essential for a public purpose the city may consider proceeding with a condemnation process. Consult with the City Attorney to confirm the current process to do this.
k. If the property owner agrees to sell the property, contract with a Title Company to facilitate the sale and provide title insurance. Draft a purchase and sale agreement using the boiler plate template from the City Attorney's office. Contract with a Land Surveyor to prepare exhibits, plats and legal descriptions describing the property.
l. If ever unsure about the process to use consult with the Senior Engineer managing final map review, the Assistant City Engineer, City Engineer and City Attorney's office to determine the appropriate process for acquiring and receiving dedicated property and if any agreements accompanying the property transfer documents are needed.

VII. ENTITLEMENT CHECKLISTS

A. ADVANCED TEAM MEETING

___ Provide excerpts of GIS or improvement plan sheets showing existing utilities in the vicinity of the proposed development.

___ Provide any project specific information as to undergrounding of utilities or new utilities or utility upgrades needed at the proposed site.

___ Provide information on fees and any fee credits applicable to the development at the proposed site.

___ Evaluate project as you would during entitlement to determine what conditions of approval may be needed to build the project at the location proposed.

B. TENTATIVE MAP AND ENTITLEMENT SUBMITTAL AND REVIEW

___ Gather all information received (refer to form and content of a Tentative Map in Development Code Section 10) and submitted from Acela: soil & geotechnical report, environmental studies, tree surveys, stormwater check list and calculations, etc.

___ Confirm submittal is complete and enough information is provided to write conditions.

___ Review site existing utilities and utility master plan needs for utility upgrades.

___ Review demolition plans to determine what is being demolished to identify possible fee credits that can be granted for the site; including but not limited to existing buildings, impervious surfaces and utility connections.

___ Review Active Transportation Plan to determine if any multi-modal ways are required such as pedestrian path ways, bike lanes, trails, improvements and or easements, etc. are required.

___ Review Traffic Impact Fee Study to determine the road improvements needed in and around the project area.

___ Consult with the Traffic Engineer to determine if any signal, road, sidewalk or regional transportation improvements are needed.

___ Consult with Planner to determine which Specific Plans or neighborhood plan if any apply to this project and determine if there are any special requirements required for the project area.

___ Determine if there is an existing Development Agreement or a need for a new Development Agreement, Easement Agreement or other agreement.

___ If the developer chooses to commission and install art to meet the art requirement, find out where the art will be installed and how it affects the improvement plans. To do this coordinate with the Project Planner. The Project Planner will receive or forward the developer's application to the appropriate person to approve the selection, location, installation and maintenance of the art and enter into agreement with Developer to secure long term maintenance.

___ Review stormwater checklist, BMP's proposed and BAHM Calculations.

___ Review title report to determine if there are any existing assessments and if there is a need for segregation of assessments.

___ Review the site to determine if the site has access to an existing public roadway. If not, access must be created to allow the site to develop.

___ Review the floodplain maps to determine if the site is in a floodplain, earthquake zone or other hazard zone.

___ If the site is in a hazard zone (earthquake fault, flood zone, landslide area, creek or mudslide or erosion prone area), these hazards must be avoided, mitigated for and shown on the map. If the site is in a FEMA AE flood zone consult the City Floodplain Manager to determine if a letter of map change is needed. If it is acceptable for the site to remain in a FEMA AE flood zone the outline of the flood zone must be shown on the map.

___ Determine if the site is adjacent to a Special Flood Hazard Area. If it is, a FEMA elevation certificate is required for all new and existing buildings after construction of each building is complete. A draft elevation certificate shall be submitted during the design process to confirm the grades achieve what is intended for removal from the floodplain or floodproofing allowed only for commercial development.

___ Determine if any vacations, summary vacations, off-site improvements, irrevocable offers of dedication, lot line adjustments, phasing or annexation are needed.

___ Tentative Map provided. Use Development Code Section 10 to confirm map form and contents are complete.

___ Visit site.

___ Determine if land needs to be dedicated to the City for open space, creek use, road, trail or sidewalk use or if easements are needed.

___ Gather comments and conditions from Engineering Division Traffic Section and write one set of Engineering Considerations.

___ Prepare Engineering Considerations (Conditions).

___ Inform developer of lead time needed for PG&E and other dry utility companies and lead time needed for purchase of City water meters.

___ Check with Planner to see which Planning Commission Meeting the project is scheduled for and the deadline to submit Engineering Considerations.

C. PROJECT REVIEW

___ Gather all information received and submitted from Acela: stormwater checklist, soil & geotechnical report, tree surveys, stormwater check list and calculations, etc.

___ Review form and contents as described and listed in the City's Development Code for the entitlement type.

___ Review site existing utilities and utility master plan needs for site utility upgrades if needed.

___ Confirm submittal is complete and enough information is provided to write conditions.

___ Review site existing utilities and utility master plan needs for site utility upgrades if needed.

___ Review fee credits that can be granted for site; including existing building impervious surfaces and utility connection to remain or to be demolished.

___ Review stormwater checklist, BMP's proposed and BAHM Calculations if needed.

___ Review title report to determine if there is a need for segregation of assessments.

___ Determine if site has access to a public roadway. If not, a roadway access must be provided.

___ Review City and regional master plans to determine if any public facilities are planned and funded. If so condition them in the Engineering considerations.

___ If there is a facility to be required or agreed upon with no connection between what impact they have and what is required (no nexus) work with the planner to consider a development agreement or other mechanism to document the negotiation. The planner takes the lead in consulting with the Planning Manager, City Manager, Attorney's and other departments to determine how the public facility can be funded and built (ATP, specific plans, neighborhood plans, etc.).

___ Review site location to determine if any vacations, summary vacation, off-site improvements, irrevocable offers of dedication, lot line adjustments, annexation, maps or anything else is needed.

___ If the site is in a hazard zone (earthquake fault, flood zone, landslide area, creek or mudslide or erosion prone area) these hazards must be avoided, mitigated for and shown on the map. If the site is in a FEMA AE flood zone consult the City Floodplain Manager to determine if a letter of map change is needed. If it is acceptable for the site to remain in a FEMA AE flood zone the outline of the flood zone must be shown on the map.

___ Determine if the site is next to a creek. If it is, an elevation certificate is required for all new and existing buildings after construction of the new development is complete.

___ Visit site.

___ Determine if there is a Development Agreement or a need for a Development Agreement, Easement Agreement or other agreement.

___ Determine if land dedications or easements are needed.

___ Gather comments and conditions from Engineering Division Traffic Section and write one set of Engineering Considerations.

___ Determine if intersection radii requirements by Livermore-Pleasanton Fire Department are met

___ Reference any Development Agreements or other agreements as appropriate.

___ Prepare Engineering Considerations (Conditions).

___ Inform developer of lead time needed for PG&E and other utility companies.

___ Prepare development impact fee estimate if requested.

___ Review area, existing improvements and development impacts, land and/or public facilities needed.

D. PARCEL MAP WAIVER CHECKLIST

Project coordinator determines if a development qualifies for the parcel map waiver process. (This is determined before the design process).

___ If Project is submitted under SB9 (please see Section III).

___ Consult Development Code Section 10.03.020 for Parcel Map Waivers requirements.

___ Public improvements are in and meet current City Standards (streets, sewer, water, storm, utilities, overhead utilities placed underground, etc.) or

___ The city has approved the design and constructed or secured the construction through an improvement agreement ahead of processing the map.

___ The site is not in a hazard zone. If the site is in a hazard zone (earthquake fault, flood zone, landslide area, creek or mudslide or erosion prone area these hazards must be avoided, mitigated for and shown on the map. If the site is in a FEMA AE flood zone the outline of the flood zone must be shown on the map.

Verify the project meets the parcel map waiver requirements.

___ Qualifies for the parcel map waiver process (Meets requirements in Section D above).

___ Public improvements are in and meet current City Standards (streets, sewer, water, storm, utilities, overhead utilities placed underground, etc).

___ If parcel is in an assessment district, project coordinator calls to determine amount of assessment still owned. Project coordinator informs owner of amount and asks if they want to pay assessment balance. If so, they must pay if off before map files. If not, they must prepare segregation of assessment documents to divide the assessment between the new parcels prior to filing of final map.

___ Request a site plan to show where existing private and public improvements are with respect to proposed improvements.

___ Inspect sidewalk to verify compliance with current standards. If repairs or upgrades are needed coordinate with developer as to when repairs will be made. Request construction inspector to inspect sidewalk and mark repairs needed prior to time repair work is done. Map cannot be filed until improvements are completed and accepted by the City.

Also check for and do the following:

___ Review the title report to determine if parcel is in an assessment district. If it is project coordinator calls to determine amount of assessment still owned. Project coordinator informs owner of amount and asks if they want to pay assessment balance. If so, they must pay if off before map files. If not, they must prepare segregation of assessment documents to divide the assessment between the new.

___ Hazardous materials form.

___ If the map does not qualify for a Parcel Map Waiver, follow the tentative map

entitlement process.

E. CONDOMINIUM CHECKLIST

Condominium maps are one lot subdivisions typically processed with the parcel map waiver process. The one lot subdivision establishes the parcel/lot boundaries. Condominium maps must also be submitted to the Department of Real Estate (See information regarding Department of Real Estate requirements).

___ Use Tentative Map or Parcel map waiver checklist.

In addition, please provide the following:

___ Show/define the common area within the parcel boundaries.

___ Provide CC&R's that show maintenance responsibilities for the common area and/or any needed stormwater treatment.

___ The building outline and setbacks are shown and comply with local ordinances.

(Please show the building footprint in dashes and show at least two ties to the property line. The City Engineer and staff need this information to verify compliance with the building codes. Please note that while the individual condominium units need not be shown, the City Engineer may request them for city information or compliance purposes).

___ If the site is in a hazard zone (earthquake fault, flood zone, landslide area, creek or mudslide or erosion prone area these hazards must be avoided, mitigated for and shown on the map. If the site is in a FEMA AE flood zone the outline of the flood zone must be shown on the map.

___ Show private utility easements on a separate information sheet so future city reviewers and property owners are clear where all utility easements are located.

___ Show the parking spaces and the driveways to ensure the required parking spaces are adequate per ordinance.

___ Show the maximum number of condominium units that were approved. The number of units approved may not be exceeded, a lesser number of units is acceptable.

F. LOT LINE ADJUSTMENTS

___ Site plan provided showing proposed and existing property lines, setbacks, improvements, and structures (including fences and driveways).

___ If the site is in a hazard zone (earthquake fault, flood zone, landslide area, creek or mudslide or erosion prone area) these hazards must be avoided,

mitigated for, shown on the plats and described in the legal descriptions. If the

site is in a FEMA AE flood zone the outline of the flood zone must be shown on the plat and described in the legal description.

___ Preliminary title report (less than 6 months old) for each parcel (to ensure bond to accompany legal description. The transfer parcel(s) shall not exceed 5% of either parcel and shall not put either parcel in violation of the building code or set back ownership) submitted.

___ Easements of record shown.

___ Necessary segregation of assessment documents received and approved by the bond counsel's office prior to approval.

___ Legal descriptions of all proposed lots (including metes and bounds) with plat to accompany legal description.

___ Plot plan for Lot Line Adjustment includes:

a. New lot lines labeled
b. Lot lines to be deleted are labeled and are shown as dashed
c. Assessor's parcel numbers of existing lots
d. Subdivisions and lot numbers of existing lots
e. Distances and bearings
f. New lot numbers

___ Grant Deeds for the Transfer parcel(s).

___ Grant Deeds with Exhibit B (plot map) attached for all adjusted parcels.

___ A letter from the lender or trustee authorizing the LLA and a Deed of Reconveyance if required. (If there is a "Deed of Trust").

G. PARCEL MERGERS

___ Project Coordinator confirms with the development code Parcel Merger section and Subdivision Map Act that the project qualifies for the Parcel Merger Process.

___ Owner Submits the following:

a. Planning Application requesting parcel merger,
b. 8-1/2"x11" plat of resulting parcel and resulting legal description
c. Grant Deeds for existing property
d. Title Report for existing property

___ Engineering Coordinator checks submittal for technical accuracy and finalizes grant deed cover, plats and legals.

___ Coordinator prepares the notice of Parcel Merger form for the City Engineer to sign along with plat and legals to record with the grant deed.

___ Site plan provided showing proposed and existing property lines, setbacks, improvements, and structures (including fences and driveways).

___ If the site is in a hazard zone (earthquake fault, flood zone, landslide area, creek or mudslide or erosion prone area these hazards must be avoided, mitigated for, shown on the plats and described in the legal descriptions. If the site is in a FEMA AE flood zone the outline of the flood zone must be shown on the plat and described in the legal description.

___ Preliminary title report (less than 6 months old) for each parcel (to ensure ownership) submitted.

___ Easements of record shown.

___ Necessary segregation of assessment documents received and approved by the bond counsel's office prior to approval.

___ Closure calculations for all proposed lots submitted.

___ Legal description of portion being transferred (including metes and bounds) with plat to accompany legal description. The transfer parcel(s) shall not exceed 5% of either parcel and shall not put either parcel in violation of the building code or set back.

___ Legal descriptions of all proposed lots (including metes and bounds) with plat to accompany legal description.

___ Plot plan for Notice of Parcel Merger includes:

a. New lot lines labeled
b. Lot lines to be deleted are labeled and are shown as dashed
c. Assessor's parcel numbers of existing lots
d. Subdivisions and lot numbers of existing lots
e. Distances and bearings
f. New lot number

___ Grant Deeds for the merged parcel.

___ Grant Deed with Exhibit B (plot map) attached for merged parcel.

H. VACATION OF LAND AND EASEMENTS CHECKLIST

___ Determine that Public land and or easements to be vacated are no longer needed by the City or anyone else (utility companies, etc.).

___ Hire surveyor to prepare plat and legal descriptions or request applicant to provide application package including plat and legal descriptions, title report, deed and map references. Original conveyance documents shall be submitted to the city for existing public land, easements and/or public right-of-way to be vacated including:

"Offers of Dedication", "Grant Deeds" or "Grant of Easements"

___ Review Title report for ownership (Title Report within the last 60 days).

___ Plat, description, and deed sheet submitted.

___ Plat and description agree with submitted closures.

___ Scale, north arrow, and title for plat.

___ Deed and map references in descriptions checked against records.

___ Assessor's parcel number shown correctly on deed cover sheet.

___ Right-of-way vacation control map submitted for three or more off-site deeds (including temporary construction easements) to be vacated.

___ If underlying fee owner is the City, Project coordinator prepares deed transferring property to private or other ownership after vacation.

___ Project coordinator determines if there are any utilities or anyone else relying on the public right of way for their easement. If so, project coordinator to work with utility companies to prepare easement documents for easement conveyance prior to vacation.

___ If a full vacation is needed, do the following:

- ___ Schedule item for a public hearing on the City Council Master Calendar at least two meetings ahead of scheduled meeting.
- ___ Create a notice of the hearing with a map and description of the proposed Vacation**.**
- ___ Post public notice at the site and at typical public notice bulletin boards.

___ If a summary vacation process can be used, do the following:

___ Schedule item for City Council Agenda on the Consent Calendar at least 60 working days in advance of the meeting.

___ For both a full vacation and summary vacation do the following:

___ Project coordinator prepares staff report and resolution for City Council meeting and submits both documents to the City Attorney's office for pre-review.

___ Project coordinator prepares a memo to the Clerk with recording instructions and a letter (for City Clerk to sign) to applicant's title company with recording instructions or, if city owned property and no conveyance will occur, project coordinator provides a charge number to the Clerk to pay for the courier to take documents to be recorded.

___ Project coordinator initials and notes file in lower right corner of original document.

I. OFF-SITE EASEMENT AND RIGHT-OF-WAY SUBMITTAL LIST

___ The first plan check submittal shall include two copies of a plat or sketch drawn to scale clearly showing the location and rough dimensions of all the required off-site right-of-way and easements corresponding to the submitted improvement plans. The plat shall clearly indicate the following:

- ___ a. Name of the property owner(s)
- ___ b. Existing property line and easement lines
- ___ c. Proposed right-of-way or easement lines
- ___ d. Approximate area in square feet of the required dedication

___ If there are three or more offsite dedications required for a project, two copies of a Right-of-Way Acquisition map shall accompany each submittal. This map shall clearly indicate the location of all of the dedications (each of which is labeled with an index number) for the project with true dimensions and bearings.

A summary table shall be included on the map with the following information:

Index #	APN	Type of Dedication	Grantor	Grantee	Parcel size

___ The second plan check submittal shall include two copies of the following items for each dedication:

- ___ a. Deed Cover Sheet
- ___ b. Plat
- ___ c. Legal Description

___ d. Closure Calculations
___ e. Preliminary Title Report

___ This information shall be submitted in a folder or binder with all of the information for each parcel together and clearly referenced to the index map (if necessary).

___ If there are significant comments from the second plan check on the plats, legal description, or improvement plans, the submittal information required by number 2 above will be required again until complete. Upon direction by the City plan check engineer, the subsequent plan check submittal shall include each of the fully executed and notarized original documents suitable for recording and one copy of each executed document.

J. PROPERTY ACQUISITION

___ Assess site to identify both the reasons why the site is needed by the city and any reasons why the city may not want to purchase the land; including, but not limited to the following: subject to flooding, erosion, landslides, earthquakes, fires, environmental sensitivity, brownfields site, etc.

___ Confirm with City Manager and City Attorney's office there are no political nor any legal constraints.

___ Confirm the city wants to receive or acquire property.

___ Confirm property owner wants to convey property.

___ Work with supervisor, city engineer and city attorney's office to determine the method of conveyance and what paperwork is required.

___ Hire consultants and work with consultants the city has on contract to prepare the required documents.

___ Follow established procedures for reviewing and gaining approval of maps and other conveyance documents, recording and filing them.

___ Obtain approval to contact landowner and begin negotiations. Contact supervisor to start the approval process. City Council approval may be needed.

___ Contact property owner and begin negotiations. Obtain right of entry, if needed, for appraisal, soil testing/investigation.

___ Contract with Land Appraiser to have an appraisal prepared.

___ Contract with a Title Company to facilitate land purchase and sale and obtain title Insurance, prepare Deed and Title Report.

___ Contract with a Land Surveyor to survey property, if needed, and prepare plat and legal description of the property.

___ Prepare property Acquisition Agreement using latest City Attorney template. Request Insurance requirements. Upload agreement into Agreement Tracker for city attorney review and approval.

___ Prepare staff report, resolution and supporting exhibits and upload these and agreement into PEAK for review prior to City Council Meeting.

K. DEED, EASEMENT AND IRREVOCABLE OFFER OF DEDICATIONS

All public easement and public right-of-way dedications offered by private owners will be "Offers of Dedication", rather than "Grant Deeds" or "Grant of Easements" unless otherwise conditioned or required by outside agencies.

The following shall be submitted to the City for review and approval:

___ Title report reviewed for ownership.

___ Plat, legal description, and deed printed on 8-1/2” x 11” sheet in black & white format.

___ Plat map, legal description, and closures (both parcel and monument tie closures as applicable) Note: closures are a reference to check technical correctness of Plat map and legal description. They do not get recorded.

___ Plat map and legal description agrees with closures.

___ Scale, north arrow, and title shown on plat.

___ Deed and maps referenced in descriptions. Check plat and legal description against these records.

___ Assessor's parcel number (APN) shown correctly on deed cover sheet along with correct owner information (matching title report) and correct exemptions and tax codes (see latest reference from the Alameda County Recorder’s Office). APN to be added to bottom of legal description.

___ Deed and map references shown for adjacent parcels on plat map.

___ Project coordinator prepares a memo to the Clerk and a letter (for City Clerk to sign) to applicant’s title company with recording instructions.

___ Project coordinator uploads all documents in Agreement Tracker.

___ Project coordinator gives the memo to the Clerk with all original signed documents to Engineering Admin staff to log and route to the clerk via the Agreement Tracker .

___ Project coordinator confirms documents are recorded and sends an electronic copy of the recorded document to IT/GIS specialist to have information incorporated into the City's GIS system.

L. TEMPORARY CONSTRUCTION EASEMENTS, RIGHT OF ENTRY OR LEASE AGREEMENTS

___ Right of Entry or Temporary Construction Easement (use form approved by Attorney's office) with a termination date provided for all off-site construction work.

M. RECORDING DOCUMENTS

N. ANNEXATION OF LAND

Note: See Planning Division for latest application submittal information.

___ Applicant Submits Application for annexation and the following (follow the Alameda County LAFCO Application submittal requirements):

___ Annexation Map depicting land to be annexed. This map shall be reviewed and approved by Engineering Project Coordinator prior to being sent to LAFCO.

___ Site plan showing existing and proposed improvements.

___ Planning Application.

When application is referred to Engineering from the Planning Division be sure to check the following:

___ The title of the annexation map to make sure it follows the same naming convention as the other annexation maps adjacent to it or in the vicinity.

___ The annexation number (North Livermore Avenue Annexation No. 1) was not previously used.

___ Surrounding Annexation map references (North Livermore Avenue Annexation No.1) are shown as applicable.

O. CONDITIONAL USE PERMITS (CUP)

Use the entitlement checklist for all conditional use permits paying careful attention to building use and hours of use and their fee consequences. Inform the applicant of

future fee consequences so adjustments can be made during the entitlement process.

P. SITE PLAN APPROVALS (SPA)

Use the entitlement checklist for all site plan approvals paying careful attention to building use and hours of use and their fee consequences. Inform the applicant of future fee consequences so adjustments can be made during the entitlement process.

Q. AFFORDABLE HOUSING PROJECTS

See Housing Division for latest application submittal information. When planning application related to affordable housing development is referred to Engineering from the Planning Division be sure to check the following:

___ Review application as for any entitlement per checklist above.

___ Review housing conditions that are a part of the tentative map approval and conditions that are in an Affordable Housing Agreement.

___ Coordinate with Housing Division and carefully review the site for existing conditions (incl. easements, property lines, structures, drainage, stormwater treatment and low impact development devices, stormwater agreements, assessments, etc.).

___ Review conditions of approval to see if an affordable housing agreement is required.

___ If required, obtain a copy of the recorded housing agreement prior to approving a final map and/or improvement plans for the housing project.

___ Review housing agreement to confirm fee payment requirements and/or exemptions.

R. ART PROPOSAL AND INSTALLATION

___ Review the art locations to confirm they do not impact drainage and have access to electricity, if lighting or power is needed.

___ An art location map is submitted if more than three locations are identified for the artwork.

___ Prior to approving grading plans and scheduling map for City Council approval, confirm application has been submitted and agreements are drafted and able to be completed prior to the issuance of the first building permit.

S. TELECOMMUNICATIONS

___ Determine who owns the property the telecommunication facility is on.

___ If on City property, project coordinator shall inform economic development to confirm that proposal is acceptable to the City. If acceptable, coordinate with Economic Development in processing application, lease/license agreements.

___ If on private property, the owner must sign off on application to confirm permission is granted.

For all telecommunications projects check for the following during entitlement review to ensure plans or documents are submitted with the following information:

___ Access – easements may be required.

___ Generators – containment to avoid stormwater contamination may be required.

___ Source of power and communication from public utility in public right-of-way required for project.

___ Frontage improvements in the public right-of-way required for proposed access and utility improvements. If no curb, gutter and sidewalk exist then these also may be required.

___ Zone 7 Impervious Surface worksheet and stormwater treatment checklist.

___ Lease agreement is entered into prior to building permit approval (for projects on City and/or Airport Property).

___ Determine if the utility is in or near a hazard zone (flood zone, fault line, etc.).

___ Prior to issuance of a permit the agreement addresses stormwater inspection, reporting.

___ Enter into a stormwater O&M agreement (report to Economic Development, Airport manager so they can put it into lease agreement).

VIII. BUILDING PERMIT CHECKLISTS

A. RESIDENTIAL SITE PLAN (See plot plan checklist for housing tracts and commercial checklist for apartments)

This checklist is for site plans for existing and new residential lots submitted as new lots after a map has been filed.

(*Submittal documents and items essential to complete plan check)

___ *Engineering Considerations, if any, incorporated into design and a copy included with building application submittal. (Project Coordinator for an assigned subdivision usually plan checks plot plans for the assigned subdivision).

___ *Stormwater Quality Checklist filled out, signed and submitted with Building Permit Submittal. Required for all projects adding or replacing 2,500 square feet or more of impervious surface.

___ *“Clean Water Site Measures Declaration” filled out, signed and submitted with Building Permit Submittal required for single family residential lot projects replacing under 2,500 square feet.

___ *Plan sheet, full size 24” x 36” or 81/2” x 11” for plot plans included showing existing City utilities across or along parcel. City easements are shown with no trees or structures shown within them. Utility base maps are available from the Engineering Division.

___ *Plans shall show the property lines with dimensions and public and private easements with dimensions.

___ *If the home or multi-family unit is an affordable housing unit, each affordable unit shall be noted on the plan.

___ *Plans incorporate all existing utilities and surface improvements for existing frontage improvements for conformance and potential conflicts. Drawings are available from the Engineering Division.

___ *If site includes new public street improvements or new public utility mains, use Development Plan Check and Procedures Manual checklists for new improvement requirements. Checklists are annotated and submitted with building permit submittal.

___ City utility information on Geographical Information System(GIS) checked for existing City utilities across or along parcel. No trees or structures within City easements. Utility information is available from the Engineering Division.

___ *North arrow and scale (noted and graphical) shown on drawing.

___ *Name, address, and telephone number of designer preparing plan shown.

___ *Tie-in to public water, sewer, and storm drain shown on plan.

___ *Existing utility structures shown (such as P.G. & E. vaults).

___ *Grading plan provided showing top of curb elevations, pad elevations, high point elevations, low point elevations, and storm drain system with grate elevations and pipe invert elevations.

___ *If stormwater treatment devices are included in the design they shall be designed to meet the latest stormwater C3 requirements and be shown on a stormwater quality control plan sheet with font greater than 1/8inch. The minimum size of Bio-retention swales shall be 0.04 sf per 1s.f. of impervious surface draining into the swale. If new or replaced impervious surface is over 2,500 sf stormwater calculations are required (shown on plan or submitted separately). If new or replaced impervious surface is over 1 acre Bay Area Hydrograph Model (BAHM) calculations are also required.

___ *Provide the following site data on plans:

1. (Ex) Site square footage
2. (Ex) Landscape square footage
3. New landscape square footage installed
4. (Ex) hardscape(impervious surface) square footage removed/replaced
5. (Ex) Landscape square footage removed/replaced
6. New hardscape(impervious surface) installed
7. Pad elevation (Existing & New)
8. Finished Floor elevation (Existing & New)

___ All new and/or existing water services per state regulations require a backflow preventor to prevent cross contamination from the fire sprinkler system. Residential back flow preventer shall be located as close to the house as possible or within 20 feet of water meter to be shown on plan per Detail W-22 and W-10.

___ Back flow preventer shall be screened per planning requirements.

___ Off-site improvements constructed in accordance with City Standard Details and Specifications. These documents can be found on the City’s website.

___ Sewer service provided with cleanout per City Standard Detail S-5A.

___ Location and screening of above ground utility box.

___ Sizes, slopes, and invert elevations of all drainage pipes shown.

___ A minimum slope of 2% for a distance of ten feet (minimum) from the building pad is required for drainage.

___ Asphalt concrete pavement areas drain at a minimum slope of 1% once beyond the 10' envelope around the building.

___ Portland cement concrete pavement areas drain at a minimum slope of 0.5% once beyond the 10' envelope around the building.

___ Drainage not blocked by on-site curbs.

___ Storm water inlets/area drains provided at all low points (no bird's baths).

___ Upstream natural drainage adequately intercepted and transmitted to the public stormdrain system.

___ No drainage onto adjacent properties.

___ Natural drainage from existing adjacent properties accepted. Blockage of natural upstream drainage not permitted.

___ Onsite private storm drain pipes sized to handle flow with minimum size of 3". Public storm drain pipes sized to handle flow with minimum size of 12”.

___ Positive drainage checked for pipes (mathematics of pipe slopes checked).

___ No crossing conflicts between sanitary sewer and storm drain.

___ Landscape plans checked for proper sight distance at driveways. No landscaping or mounding shall be placed 30" above the top of curb in the line of sight. Landscaping in the line of sight shall be no greater than 30" above the top of curb. Full grown tree species shall be such that the canopy shall be a minimum of 8 feet above the top of curb when located in the line of sight.

___ Proper driveway width for one or two way traffic.

___ Field check for existing utility conflicts. Plans note relocation of conflicting utilities.

___ Driveways located at existing street lights, fire hydrants, storm water inlets, or utility boxes, show approved relocation of existing facilities or traffic box provisions OR relocated to avoid the conflicts and meet city clearance/spacing requirements and site distance requirements.

___ No sewer lateral direct connection to sanitary sewer trunk mains (12" diameter and larger). Connections to sanitary sewer trunk mains only permitted with a City standard sanitary sewer maintenance hole.

___ Street trees installed per details (street tree planting per Planning Division requirements).

___ Excessive utility trenching in existing street requires a resurfacing of street across entire site frontage. See final planning action and approved engineering considerations for type of resurfacing required.

___ If using reclaimed water for irrigation and/or fire service, provide an application. An engineer's report is required for the distribution and use of recycled water for toilet flushing per State Department of Health Services Guidelines. Contact the City Water Resource Division for Assistance.

___ Following notes placed on plan:

1. All off-site improvements shall be constructed in accordance with City of Livermore Standard Details and Specifications.
2. An Encroachment Permit shall be obtained from the Permit Center, located at 1052 South Livermore Avenue, prior to the start of any improvements within the public right-of-way.
3. Replace all defective curb, gutter, sidewalk, and driveway as directed by the City Engineer.
4. All new and upgraded existing utility services shall be installed underground.
5. As-built plans for public improvements provided prior to occupancy.

___ For custom homes, place the following notes on plans:

PAD COMPACTION AND PAD ELEVATION CERTIFICATION LETTERS MUST BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO REQUEST OF FOUNDATION INSPECTION

___ Prior to final acceptance by Building Division, as-built plans of public improvements shall be provided to the Engineering Division.

___ Show all necessary erosion control measures on the improvement plans. In addition, the following notes shall be included on the improvement plans:

Construction Operations - Dust shall be controlled at all times. Wastewater generated during construction shall not be discharged to the storm drain system. This includes waste from painting, saw cutting, concrete work, etc. The contractor shall make arrangements to eliminate discharges to the storm drain system and, if necessary, provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in areas that are designed to prevent exposure to rainfall and to not allow storm water to run onto the area.

B. PLOT PLAN CHECKLIST (See residential site plan checklist for existing lots and new custom lots and commercial checklist for apartments)

This checklist is for plot plans for existing and new single-family and multi-family lots submitted as new lots after a map has been filed.

(*Submittal documents and items essential to complete plan check)

___ *Engineering Considerations, if any, incorporated into design and a copy included with building application submittal. (Project Coordinator for an assigned subdivision usually plan checks plot plans for the assigned subdivision).

___ *Stormwater Quality Checklist filled out, signed and submitted with Building Permit Submittal. Required for all projects adding or replacing 2,500 square feet or more of impervious surface.

___ *"Clean Water Site Measures Declaration" filled out, signed and submitted with Building Permit Submittal required for single family residential lot projects replacing under 2,500 square feet.

___ *Plan sheet, full size 24" x 36" or 81/2" x 11" for plot plans included showing existing City utilities across or along parcel. City easements are shown with no trees or structures shown within them. Utility base maps are available from the Engineering Division.

___ *Plot plans shall show the property lines with dimensions and public and private easements with dimensions.

___ *If the home or multi-family unit is an affordable housing unit, each affordable unit shall be noted on the plot plan.

___ *Plans incorporate all existing utilities and surface improvements for existing frontage improvements for conformance and potential conflicts. Drawings are available from the Engineering Division.

___ *If site includes new public street improvements or new public utility mains, use Development Plan Check and Procedures Manual checklists for new improvement requirements. Checklists are annotated and submitted with building permit submittal.

___ City utility information on Geographical Information System(GIS) checked for existing City utilities across or along parcel. No trees or structures within City easements. Utility information is available from the Engineering Division.

___ *North arrow and scale (noted and graphical) shown on drawing.

___ *Name, address, and telephone number of designer preparing plan shown.

___ *Tie-in to public water, sewer, and storm drain shown on plan.

___ *Existing utility structures shown (such as P.G. & E. vaults).

___ *Grading plan provided showing top of curb elevations, pad elevations, high point elevations, low point elevations, and storm drain system with grate elevations and pipe invert elevations.

___ *If stormwater treatment devices are included in the design they shall be designed to meet the latest stormwater C3 requirements and be shown on a stormwater quality control plan sheet with font greater than 1/8inch. The minimum size of Bio-retention swales shall be 0.04 sf per 1s.f. of impervious surface draining into the swale. If new or replaced impervious surface is over 2,500 sf stormwater calculations are required (shown on plan or submitted separately). If new or replaced impervious surface is over 1 acre Bay Area Hydrograph Model (BAHM) calculations are also required.

___ *Provide the following site data on plans:

1. (Ex) Site square footage
2. (Ex) Landscape square footage
3. New landscape square footage installed
4. (Ex) hardscape(impervious surface) square footage removed/replaced
5. (Ex) Landscape square footage removed/replaced
6. New hardscape(impervious surface) installed
7. Pad elevation (Existing & New)
8. Finished Floor elevation (Existing & New)

___ All new and/or existing water services per state regulations require a backflow preventor to prevent cross contamination from the fire sprinkler system. Residential back flow preventer shall be located as close to the house as possible or within 20 feet of water meter to be shown on plan per Detail W-22 and W-10.

___ Back flow preventer shall be screened per planning requirements.

___ Off-site improvements constructed in accordance with City Standard Details and Specifications. These documents can be found on the City’s website.

___ Sewer service provided with cleanout per City Standard Detail S-5A.

___ Location and screening of above ground utility box.

___ Sizes, slopes, and invert elevations of all drainage pipes shown.

___ A minimum slope of 2% for a distance of ten feet (minimum) from the building pad is required for drainage.

___ Asphalt concrete pavement areas drain at a minimum slope of 1% once beyond the 10' envelope around the building.

___ Portland cement concrete pavement areas drain at a minimum slope of 0.5% once beyond the 10' envelope around the building.

___ Drainage not blocked by on-site curbs.

___ Storm water inlets/area drains provided at all low points (no bird's baths).

___ Upstream natural drainage adequately intercepted and transmitted to the public stormdrain system.

___ No drainage onto adjacent properties.

___ Natural drainage from existing adjacent properties accepted. Blockage of natural upstream drainage not permitted.

___ Onsite private storm drain pipes sized to handle flow with minimum size of 3". Public storm drain pipes sized to handle flow with minimum size of 12”.

___ Positive drainage checked for pipes (mathematics of pipe slopes checked).

___ No crossing conflicts between sanitary sewer and storm drain.

___ Landscape plans checked for proper sight distance at driveways. No landscaping or mounding shall be placed 30" above the top of curb in the line of sight. Landscaping in the line of sight shall be no greater than 30" above the top of curb. Full grown tree species shall be such that the canopy shall be a minimum of 8 feet above the top of curb when located in the line of sight.

___ Proper driveway width for one or two way traffic.

___ Field check for existing utility conflicts. Plans note relocation of conflicting utilities.

___ Driveways located at existing street lights, fire hydrants, storm water inlets, or utility boxes, show approved relocation of existing facilities or traffic box. provisions OR relocated to avoid the conflicts and meet city clearance/spacing requirements and site distance requirements.

___ No sewer lateral direct connection to sanitary sewer trunk mains (12" diameter and larger). Connections to sanitary sewer trunk mains only permitted with a City standard sanitary sewer maintenance hole.

___ Street trees installed per details (street tree planting per Planning Division requirements).

___ Excessive utility trenching in existing street requires a resurfacing of street across entire site frontage. See final planning action and approved engineering considerations for type of resurfacing required.

___ If using reclaimed water for irrigation and/or fire service, provide an application. An engineer's report for the distribution and use of recycled water for toilet flushing per State Department of Health Services Guidelines. Contact the City Water Resource Department for Assistance.

___ Following notes placed on plan:

1. All off-site improvements shall be constructed in accordance with City of Livermore Standard Details and Specifications.
2. An Encroachment Permit shall be obtained from the Permit Center, located at 1052 South Livermore Avenue, prior to the start of any improvements within the public right-of-way.
3. Replace all defective curb, gutter, sidewalk, and driveway as directed by the City Engineer.
4. All new and upgraded existing utility services shall be installed underground.
5. As-built plans for public improvements provided prior to occupancy.

___ For custom homes, place the following note on plans:

PAD COMPACTION AND PAD ELEVATION CERTIFICATION LETTERS MUST BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO REQUEST OF FOUNDATION INSPECTION

___ Prior to final acceptance by Building Division, as-built plans of public improvements shall be provided to the Engineering Division.

___ Show all necessary erosion control measures on the improvement plans. In addition, the following note shall be included on the improvement plans:

Construction Operations - Dust shall be controlled at all times. Wastewater generated during construction shall not be discharged to the storm drain system. This includes waste from painting, saw cutting, concrete work, etc. The contractor shall make arrangements to eliminate discharges to the storm drain system and, if necessary, provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in areas that are designed to prevent exposure to rainfall and to not allow storm water to run onto the area.

C. BUILDING PERMIT CHECKLIST – COMMERCIAL AND RESIDENTIAL

(*Submittal documents and items essential to complete plan check)

___ *Engineering Considerations incorporated into design and a copy included with building application submittal.

___ *Stormwater Quality Checklist filled out, signed and submitted with Building Permit Submittal. Required for all projects adding or replacing 2,500 square feet or more of impervious surface.

___ * Or Clean Water Site Measure Declaration for single family lot projects replacing under 2,500 square feet.

___ *Plan sheet included showing existing City utilities across or along industrial or commercial parcel. City easements are shown with no trees or structures shown within them. Utility base maps are available from the Engineering Division.

___ *Plans incorporate "as-built" improvement plans for existing frontage improvements for conformance and potential conflicts. Drawings are available from the Engineering Division.

___ *Development Plan Check and Procedures Manual checklists followed for sites that include new public street improvements or new public utility mains. Checklists are annotated and submitted with building permit submittal.

___ 100 scale utility base maps checked for existing City utilities across or along industrial or commercial parcel. No trees or structures within City easements. Utility base maps are available from the Engineering Division.

___ *North arrow and scale (noted and graphical) shown on drawing.

___ *Name, address, and telephone number of designer preparing plan shown.

___ *Tie-in to public water, sewer, and storm drain shown on plan.

___ *Existing utility structures shown (such as P.G. & E. vaults).

___ *Grading plan provided showing top of curb elevations, pad elevations, high point elevations, low point elevations, and storm drain system with grate elevations and pipe invert elevations.

___ *If stormwater treatment devices are included in the design they shall be designed to meet the latest stormwater C3 requirements and be shown on a stormwater quality control plan sheet with font greater than 1/8inch. The minimum size of Bio-retention swales shall be 0.04 sf per 1s.f. of impervious surface draining into the swale. If new or replaced impervious surface is over

5,000 sf stormwater calculations are required (shown on plan or submitted separately). If new or replaced impervious surface is over 1 acre Bay Area Hydrograph Model (BAHM) calculations are also required.

___ *Provide the following site data on plans:

1. (Ex) Site square footage
2. (Ex) Landscape square footage
3. New landscape square footage installed
4. (Ex) hardscape square footage removed
5. (Ex) Landscape square footage removed
6. New hardscape installed
7. Pad elevation (Existing & New)
8. Finished Floor elevation (Existing & New

___ All new and/or existing water services per state regulations require a backflow preventor to prevent cross contamination from the fire sprinkler system. Residential back flow preventer shall be located as close to the house as possible or within 20 feet of water meter to be shown on plan per Detail W-22.

___ Back flow preventer shall be screened per planning requirements. Industrial/commercial fire service with back flow preventer to be shown on plan per Detail W-10. Fire service lateral shown and fire service called out per Fire Department requirements. Back flow preventer shall be screened per planning requirements.

___ Industrial/commercial sites shall have separate domestic water meters and irrigation meters. Meter sizes noted on plans and are to be installed per City Standard W-2 if in City Water service area or per California Water Standards if in Cal Water service area.

___ Off-site improvements constructed in accordance with public works standards. City Standard Details and Specifications may be purchased from the City's Engineering Division.

___ Sewer service provided with cleanout per City Standard Detail S-5A.

___ Restaurant or food processing facilities requiring grease interceptors are required to have City standard sanitary sewer maintenance holes at the point of connection of sewer laterals to the City main.

___ Restaurant or food processing facilities requiring grease interceptors reviewed and approved by the Water Resources Division (925) 960-8110.

___ Location and screening of above ground utility box.

___ Sizes, slopes, and invert elevations of all drainage pipes shown.

___ A minimum slope of 2% for a distance of ten feet (minimum) from the building pad is required for drainage.

___ Asphalt concrete pavement areas drain at a minimum slope of 1% once beyond the 10' envelope around the building.

___ Portland cement concrete pavement areas drain at a minimum slope of 0.5% once beyond the 10' envelope around the building.

___ Drainage not blocked by on-site curbs.

___ Storm water inlets provided at all low points (no bird's baths).

___ Upstream natural drainage adequately intercepted and transmitted.

___ No drainage onto adjacent properties.

___ Natural drainage from existing adjacent properties accepted. Blockage of natural upstream drainage not permitted.

___ Storm drain pipes sized to handle flow with minimum size of 6".

___ Positive drainage checked for pipes (mathematics of pipe slopes checked).

___ No crossing conflicts between sanitary sewer and storm drain.

___ Landscape plans checked for proper sight distance at driveways. No landscaping or mounding shall be placed 30" above the top of curb in the line of sight. Landscaping in the line of sight shall be no greater than 30" above the top of curb. Full grown tree species shall be such that the canopy shall be a minimum of 8 feet above the top of curb when located in the line of sight.

___ Proper driveway width for one or two way traffic.

___ Field check for existing utility conflicts. Plans note relocation of conflicting utilities.

___ Driveways located at existing street lights, fire hydrants, storm water inlets, or utility boxes, show approved relocation of existing facilities or traffic box provisions.

___ Connections to sanitary sewer trunk mains only permitted with a City standard sanitary sewer maintenance hole.

___ Street trees installed per details (industrial landscaping and street tree planting per Planning Division requirements).

___ Excessive utility trenching in existing street requires a resurfacing of street across entire site frontage. See final planning action and approved engineering considerations for type of resurfacing required.

___ If using reclaimed water for irrigation and/or fire service, provide an engineer's report for the distribution and use of recycled water per State Department of Health Services Guidelines. Contact the City Water Resource Department for Assistance.

___ Following notes placed on plan:

1. All off-site improvements shall be constructed in accordance with City of Livermore Standard Details and Specifications for Public Works Construction.
2. An Encroachment Permit shall be obtained from the Permit Center, located at 1052 South Livermore Avenue, prior to the start of any improvements within the public right-of-way.
3. Replace all defective curb, gutter, sidewalk, and driveway as directed by the City Engineer.
4. All utility services shall be underground.
5. As-built plans for public improvements provided prior to occupancy.

___ For multi-family developments including townhomes and apartments, place the following notes on plans:

PAD COMPACTION AND PAD ELEVATION CERTIFICATION LETTERS MUST BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO REQUEST OF FOUNDATION INSPECTION

___ Prior to final acceptance by Building Division, as-built plans of public improvements shall be provided to the Engineering Division.

___ Show all necessary erosion control measures on the improvement plans. In addition, the following notes shall be included on the improvement plans:

Construction Operations - Dust shall be controlled at all times. Wastewater generated during construction shall not be discharged to the storm drain system. This includes waste from painting, saw cutting, concrete work, etc. The contractor shall make arrangements to eliminate discharges to the storm drain system and, if necessary, provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in areas that are designed to prevent exposure to rainfall and to not allow storm water to run onto the area.

___ When applicable submit Joint Trench and/or Street light plans for review and approval.

Prepare fees considering the following:

___ Review existing uses, fees paid and existing conditional uses, if any.

___ If no tentative map approval or conditions were prepared for this project, carefully review the site for existing conditions (incl. easements, property lines, structures, drainage, stormwater treatment and low impact development devices, stormwater agreements, assessments, agreements, etc.).

D. BUILDING PERMIT CHECKLIST – HOME ADDITIONS AND ADDITIONAL DWELLING UNITS (SDU, ADU, JADU)

Include all of the following with your building permit submittal:

___ *Complete this Development Plan Checklist.

___ *Provide a copy of the Engineering Considerations (where applicable) and annotate how you have incorporated them into design with building application submittal.

___ *Provide a ***Storm Water Quality Declaration form*** for all additions and secondary residential projects adding or replacing less than 2,500 sf of impervious surface. Provide a ***Storm Water Quality Checklist*** for all single and multi-family residential projects adding or replacing 2,500 square feet or more of impervious surface.

___ *Provide Alameda County Zone 7 Impervious Surface form.

Verify that all of the following items have been incorporated in the plans:

___ *Show on a site plan the size and location of the existing utilities in the street and across the frontage. Also show the utility services from the street to the primary residence. If there is a secondary structure show the proposed new utilities from the existing home to the new addition or new secondary dwelling unit. No new utilities are allowed to service a secondary dwelling unit or addition from the street. Utility base maps are available from the Engineering Division upon request for City utility locations.

___ *Show all easements on the plan sheet. No trees and or other permanent structures shall be located within the easements.

___ *Show existing and proposed frontage improvements e.g. driveway, sidewalk, landscape and street trees for conformance and potential conflicts. “As-built” drawings are available from the Engineering Division upon request. Show new improvements bolded and clearly labeled as new.

___ *North arrow and scale (noted and graphical) shown on drawing.

___ *Name, address, and telephone number of person preparing plans shown.

___ A site plan showing how the water drains away from the home and towards the street. A surveyed grading plan is preferred; however, a site plan with arrows and percent slopes shown around the proposed improvements will suffice for additions and secondary dwelling units that have grades referenced off the existing primary structure.

1. A minimum slope of 2% up to 5% for a distance up to ten feet from the building pad is required for drainage per building code section 1804.3.
2. Asphalt pavement and landscape areas shall drain at a minimum slope of 1% once beyond the 10' envelope from back of property towards the front of property around the building.
3. Portland cement concrete pavement areas shall drain at a minimum slope of 0.5% once beyond the 10' envelope from back of property towards the front of property around the building.
4. All drainage shall route from the back of the property to the front of the property. (When site topography is a constraint, drainage may be directed to a storm drain easement).
5. Drainage shall not be blocked by on-site curbs, planters or driveways.
6. Upstream natural drainage shall be adequately intercepted and transmitted through the site. Natural drainage from existing adjacent properties shall continue to be accepted. Blockage of natural upstream drainage not permitted.
7. No drainage from the site shall flow onto adjacent properties.
8. All down spouts shall drain to grade and have splash blocks deflecting the storm water runoff away from the foundation.

___ *Provide the following site data on plans (this data should match both the storm water treatment declaration and Zone 7 Impervious Surface form):

1. (Ex) Site square footage
2. (Ex) Landscape square footage
3. New landscape square footage installed
4. (Ex) hardscape(impervious surface) square footage removed/replaced
5. (Ex) Landscape square footage removed/replaced
6. New hardscape(impervious surface) installed
7. Pad elevation (Existing & New)
8. Finished Floor elevation (Existing & New)

___ Existing sewer service lateral to the primary residential unit shall have a cleanout that conforms to City Standard Detail S-5A.

___ New Driveway approaches shall be installed per City Standard Detail ST-4 where there is a separated sidewalk and per City Standard Detail ST-7 where there is a monolithic sidewalk. The minimum width including flares shall be 18 feet. Top of

driveway flares shall be a minimum of 4 feet away from the property line and shall avoid conflicts with existing utilities structures and street trees. If the driveway approach cannot avoid a conflict with an existing utility structure or street tree, then show an approved relocation of the utility structure and or street tree.

___ **Following notes shall be placed on plans:**

1. All off-site improvements shall be constructed in accordance with City of Livermore Standard Details and Specifications for Public Works Construction.

2. An Encroachment Permit shall be obtained from the Permit Center, located at 1052 South Livermore Avenue, prior to the start of any improvements within the public right-of-way.

3. Replace all defective curb, gutter, sidewalk, and driveway as directed by the City Engineer. (Secondary Dwelling Units Only)

4. All new utility services shall be underground.

5. Rain leaders on the dwelling shall drain to landscaping and treated to the maximum extent practicable.

6. A minimum slope of 2% for a distance of ten feet (minimum) from the building pad is required for drainage. Asphalt concrete pavement areas must drain at a minimum slope of 1% beyond the 10' envelope around the building. Surface drainage must be filtered; new impervious surface will be treated by landscape to the maximum extent practicable.

Construction Operations: Dust shall be controlled at all times. Wastewater generated during construction shall not be discharged to the storm drain system. This includes waste from painting, saw cutting, concrete work, etc. The contractor shall make all necessary arrangements to eliminate discharges to the storm drain system and provide an area for on-site washing activities during construction. Materials that could contaminate storm runoff shall be stored in the areas that are designed to prevent exposure to rainfall and to not allow storm water to run onto the area.

___ Show all necessary erosion control measures on the improvement plans.

IX. FINAL MAP CHECKLISTS

A. PARCEL MAP, FINAL MAP, AND PARCEL MAP WAIVER CHECKLIST (FOR ALL MAPS EXCEPT SB9 PROJECT MAPS)

FINAL/PARCEL MAP NO. _____ ___

The map being submitted with this checklist has been checked by me or under my direction for conformance to the items on this checklist.

Company Name _____

Address_____

Signature:_____ LS or RCE No.: _____EXP._____

Name printed:_____ Date: _____

Telephone No. _____ E-mail _____

A complete submittal includes the following in paper copies and a complete electronic copy of submittal transmitted by a link or on a flash drive:

1. One copy of the stamped and approved Tentative Final Map or Parcel Map.

2. Two copies of the existing map or deed that created the original parcel.

3. Two copies of a site plan showing topography and property lines. (*This is needed also for a parcel map waiver, with no tentative*).

4. Two copies of the Final Action Letter with the Conditions of Approval attached.

5. Two copies of the Conditions of Approval with each condition annotated to identify how the condition is met within the plan submittal and/or will be met in the future.

6. Two copies of the proposed Tract/Parcel map.

7. Two copies of a current Title Report (*dated within the last six months*).
   Note: "Pro-Forma" Title Reports are not acceptable. It may be necessary to provide an updated Title Report prior to signing to show any changes or construction loans, etc.

8. Two copies of each vesting deed, existing easements, agreements (*Subdivision Improvement, Development Agreement*) and any documents noted within the title report. (*If these documents are linked to the Title Report separate copies may not be needed*).

9. **For parcel maps being processed under the parcel map waiver process:** Confirm project qualifies for the waiver process. (*The parcel map qualifies for the waiver process only if all public improvements are in and meet current City standards: streets, sewer, water, storm, utilities, overhead utilities placed underground, etc.*) This map can also qualify for the waiver process if public works improvements can be constructed before the map is filed. If improvements are needed and cannot be constructed prior to filing the map, then the project cannot use the parcel map waiver process.

10. If property is in an assessment district provide necessary segregation documents. These documents must be received and approved by bond counsel's office prior to tract map, parcel map or parcel map waiver approval.

11. "Parcel Map, Final Map, or Parcel Map Waiver Checklist" completed, signed and submitted.

12. The certificate sheet on the Parcel Map Waiver includes approval by the City Engineer and Community Development Director (Council approval not required on Parcel Map Waivers) and City Clerk’s Statement.

13. Two copies of the closure calculations which shall include the following (Note: (1) true map closures & inverse closures are not acceptable, (2) provide a closure for any calculated course shown on the map, (3) all dimensions shall be shown to three decimals):

    a. Boundary closures
    b. Boundary ties
    c. Block closures
    d. Street right-of-way closures (dedications)
    e. Individual lot and parcel closures
    f. Monument to monument closures
    g. Monument line increments with ties to right-of-way side-line closures include ties from the Monument Lines to the Property Corners and Curve Points
    h. Easement closures (if not concentric or parallel to the property lines)
    i. Provide Closures (Calc’s) for any dimension shown on the map.
    j. Map prepared using the Metric System or California Coordinate System shall show the U.S. foot ground measure equivalents in brackets ( )

14. Show ad joiner reference on adjacent properties. The Lot/Parcel No. and Map No. is usually adequate ad joiner reference.

15. Two copies of maps and documents referenced on the map are not already referenced in the Title Report.

16. The map check fee.

17. Two copies of (*Preliminary Drafts*) deeds, legal descriptions, easements, plats and map check closures, closure calculations and plats for all off-site rights-of-ways and easements, and preliminary title reports dated within the last 6 months.

18. Two copies of a right-of-way acquisition map/log if three or more off-site easements or dedications are required.

19. One copy of an exhibit showing home locations, front doors, streets, approved street names (if any), lot lines, lot numbers, and north arrow together with an electronic file. This exhibit will be used to assign and distribute addresses.

20. Use improvement plan submittal checklist if improvements are being provided.

21. If the site is adjacent to a creek or improvements will encroach on the floodplain:

    a. Show on map the Creek set-back line (calculated per Western Alameda County Flood Control Manual)
    b. Show on the map the FEMA floodplain
    c. Provide a copy of the FEMA elevation certificate

22. Drainage calculations are provided if at the bottom of an undeveloped watershed.

23. If off-site easement will be provided also submit the following:

    a. One copy of draft deeds, legal descriptions and plats including closures and calculation for all off-site easements, rights of way, and preliminary title reports.
    b. A right of way acquisition map/log if three or more off-site easements or dedications are required.

Note: If improvements are required, the map cannot be submitted without the improvement plans. If the parcel map is being processed under the parcel map waiver process all improvements must be installed and accepted by the City of Livermore prior to filing the final map.

1. **Final Map Check List (For all maps except SB9 project maps)**
   This checklist identifies City of Livermore standards that must be met unless a custom standard is specified in the Conditions of Approval for the Final Map. Please note this change if applicable on this checklist.

   Affidavit Sheet (all offers of dedication shall specify the dedication is dedicated in fee or as an easement for public purposes per Section 66439 of the Subdivision Map Act).

   ___ Owner's statement (*position in the upper left corner of sheet one*) Owner's statement includes all dedications of streets and easements shown on the map.

   ___ Streets dedicated in fee or easement. Dedication language must specify fee or easement.

   ___ All street names and spellings in owner's statement carefully checked to assure they agree with names and spellings on map.

   ___ One foot barrier strips (*parcels*) dedicated (*at end of stub streets*).

   ___ Channel parcels dedicated in fee to the City of Livermore. Storm drain reservation is dedicated when channel dedication must be deferred.

   ___ Parks dedicated in fee to the City of Livermore.

   ___ Pedestrian access path parcels dedicated in fee to the City of Livermore.

   ___ Prohibited access or Relinquishment of Abutters Rights dedicated as an easement to the public.

   ___ Public parcels dedicated in fee to the City.

   ___ Easements dedicated to the public:

   - ___ Storm – width as required by City Engineer (10’ min.) (SDE)
   - ___ Landscape (LE)
   - ___ Water (WLE)
   - ___ Public utility (6 feet minimum) (PUE)
   - ___ Sewer - width as required by City Engineer (10’ min.) (SSE)
   - ___ Emergency access (EVAE)
   - ___ Sidewalk (SE)
   - ___ Public access (PAE)
   - ___ Wall (WE)
   - ___ Trail (TE)
   - ___ Relinquishment of Abutter’s Rights (////)

___ Private Easements (*Note: State that these are private easements, and the facilities therein shall be maintained by the owner or the homeowner's association*):

- ___ Private Storm Drain (PSDE)
- ___ Private Sanitary Sewer (PSSE)
- ___ Access Easement, Private (AEP)
- ___ Side yard Easement (SYE)

___ Note: This map shows or notes all easements, existing or of record, within the boundary lines of the herein embodied map.

___ Private easements and common areas noted and explained.

___ Signature and notary provisions for owner (*Owner's name must agree with the title report. Notary – sign, don't stamp per subdivision map act section 664364(c).*)

___ Owner's acknowledgement (notary statement with disclosure).

___ Trustee's Certificate (*if applicable*).

___ Trustee's acknowledgement (*If applicable with disclosure. Do not stamp per section 66436(4)(c)*).

___ Signature and notary provisions for trustee with disclosure.

___ Engineer's (*Surveyor's*) statement (Developer's engineer).

___ Subdivision area (in thousandths).

___ Engineer's (*Surveyor's*) license and expiration date.

___ City Engineer's statement with added Land Surveyor's statement.

___ City Engineer's license and expiration date with Land Surveyor's license and expiration date.

___ Community Development Director's statement (necessary for Parcel Map Waivers only).

___ City Clerk's statement (*Parcel Map Waiver version – Liability box, staff level approval, no rejections of dedications, etc*.).

___ Clerk's statement (*Final and Parcel Map Version - specifically accepts or rejects with right to later accept grants, easement, dedications, relinquishments, etc. The Clerk's statement includes a separate paragraph identifying vacations and abandonments of existing streets and easements not shown on the new map, with their individual recording information*).

___ Signatures omitted: In accordance with sections 66436(a)(3) (i-viii) of the subdivision map act, signatures of parties owning the following interest, which cannot ripen into fee, have been omitted. (List with data).

___ Clerk of the Board of Supervisor's statement.

___ County Recorder's statement (position in the lower right corner of sheet one).

___ Description of subdivision under title (i.e. subdivision of Parcel A of Tract 1234).

___ Title Block *(position top center on sheet one, and lower right on all other sheets):*

- ___ Tract or Parcel Map number
- ___ For condominium purposes (if applicable)
- ___ Brief description of subdivision (i.e. a Subdivision of Parcel A of Tract 1234)
- ___ City of Livermore
- ___ Alameda County, California
- ___ Engineer or Surveyor Company’s name
- ___ Date: (Revise and update the map date with each submittal

2. Final Map General Form and Content Requirements (For all maps except SB9 project maps)

___ Title Blocks:

TRACT/PARCEL MAP NUMBER
(A subdivision name is allowed but not required)
Description IE: (Subdivision of Parcel A of Parcel Map 1234, Etc.)
CITY OF LIVERMORE
ALAMEDA COUNTY, CALIFORNIA
SCALE
ENGINEER’S SURVEYOR’S (FIRM) NAME
DATE (to be updated with each map submittal)

___ Name of Engineer - all sheets (including affidavit sheet).

___ Sheet numbers and total numbers of sheets (i.e.: Sheet 1 of 4) position in lower right corner of all sheets (inside border including certificate sheet).

___ North Arrow and scale on all maps - all sheets

___ Sheet size - 18" x 26" with a 1" margin - all sheets. Note: The 26” dimension shall be along the bottom and top of each sheet.

___ Key map and index required for three or more sheets of maps (certificate sheets excluded).

___ Basis of Bearing referring to a recorded map or to a solar or Polaris observation, or other record acceptable to City Engineer on all map sheets. Describe the line and the map reference data (*Ex. The monument line of "A" Street, taken as N 0º 00' 00", per Tract 1234, filed in book 00 of maps at page 222, Alameda County Records, as shown hereon).*

___ Basis of Bearing: (if applicable) The bearings shown hereon are based upon the California Coordinate System of 1927 (CCS27, ZONE 3).

___ On major subdivisions (15 lots+) show a California State Plan Coordinate on one boundary corner and on one easily described and accessible street monument. When the new monuments are certified an elevation will be required. City staff will then enter the coordinate and elevation in the "Benchmark and Control Book" (and in the electronic file). (This does not apply to in-fill projects within existing developed areas).

___ Scale - 1" = 100' or larger - all sheets (except for Vicinity and Key maps). Provide a Graphic Scale (*state that it is in ground measure in U.S. feet*).

___ A Condominium Subdivision Map shall show the general dimensioned footprint of the building(s), together with ties from the building(s) to the property lines. (This is a special requirement of the City Engineer, to identify and dimension the open area outside of the building envelope and locate the general location of the "Air Space" condominium units within the lot).

___ Legend (various standard City of Livermore symbols):

___ Tract Boundary (wide black line with three short dashes and one long dash).

___ New Lot lines (solid medium line) _____

___ Existing Lot Lines (solid narrow line) _____

___ Monument lines (narrow line with two short dashes and one long dash). Six feet off centerline east and south side of street on all streets except major streets. Major streets to be 16 feet off centerline.

_____ __ __ _____

___ Centerlines (narrow line with one short dash and one long dash)

_____ __ _____

___ Easement lines (narrow line with medium length dashes) (landscape, P.U.E., storm, water, sewer, emergency access)

___ ___ ___ ___ ___ ___ ___ ___

___ Monument Tie Lines etc. (narrow lines with very short dashes) _ _

___ City boundary (long narrow lines with two dots and a long dash)
Be sure label _____ . . _____ . . _____

___ Prohibited access/Relinquishment of Abutters Rights (narrow hatch marks along R/W line). /////////////////////////

___ Found City Monument
(small circle with smaller solid circle inside) 

___ Set City Monument
(small circle with smaller open circle inside) 

___ Found Iron Pipes, Rebars, Spikes as noted with Tag No. (solid medium circle) 

___ Set Iron Pipes (Rebars) with Tag No.
(open medium circle) 

___ Monument to Monument M-M

___ Monument to Tract Line M-TL

___ Record and Measure R&M
(list record data and reference)

___ Record Data and References (Data XX)

___ Radial Bearing (R)

___ Total (T)

___ Official Records OR

___ Searched for Not Found SFNF

___ Existing EX

___ Reference (see list of References) (3)

___ Public Utility Easement P.U.E.

___ Sanitary Sewer Easement S.S.E.

___ Storm Drain Easement S.D.E.

___	Water Line Easement	W.L.E.
___	Storm Water Overflow Easement	S.O.E.
___	Landscape Easement	L.E.
___	Landscape and Sidewalk Easement	L.S.E.
___	Sidewalk Easement	S.E.
___	Trail Easement	T.E.
___	Emergency Vehicle Access Easement	E.V.A.E.
___	Private Sanitary Sewer Easement	P.S.S.E.
___	Private Storm Drain Easement	P.S.D.E.
___	Private Water Line Easement	P.W.L.E.
___	Private Public Utility Easement	P.P.U.E.
___	Private Access Easement	P.A.E.

3. Technical Requirements (for all maps except SB9 project maps)

___ Conformance in all respects with approved tentative map and conditions (Approved Exhibit B-1).

___ If the map is being prepared in Metric Units or if the map is based on the California Coordinate system, note the conversion factor and also shown the dimensions in both meters (CCS) and in ground level feet within brackets, i.e.: metric distance (feet).

___ Map is in conformance with existing data (recorded deeds, filed maps and public records.

___ Tract boundary adequately shown by symbol and labeled.

___ Street and lot configuration in substantial conformance with the tentative map and conditions of approval (conditions of approval prevail).

___ Stub streets terminate with one-foot lot “No Access Strip” to the City (easements provided for turnaround if required).

___ Street widths agree with tentative map requirements.

___ Streets intersect at an 80^{o} to 100^{o} angle. (The central angles of intersection returns shall fall within this 80^{o} to 100^{o} range.

___ A public utility easement is provided with the back edge located 16 feet from the face of curb and 4 feet from side and back property lines.

___ Knuckles and Cul-de-Sac designs shall be subject to City approval.

___ Pedestrian paths and easements subject to City approval (5-25 feet wide).

___ Iron pipes (rebars) with tags or rebar and caps, are required to be set at all non street frontage lot corners or angle points. In Lieu of showing these, place a note on each map sheet similar to the following:

Note: Show the symbols on maps or add the following note.

a. Iron pipe with tag or a rebar and cap will be set at all non-street frontage lot corners and angle points.

b. An “X” or other similar mark will be chiseled in the top of curb at the prolongation of the lot line. (This is not a witness point but is just intended for the owner’s benefit).

___ Each line shall have a (North) bearing and distance (no dittos).

___ All total distances (dimensions) equal the sum of the individual distances (dimensions). (Adjust one or the other from that shown in the closures so they agree).

___ Show the Radius (R), delta (Δ or D), and the arc length (L) for all curves.

___ A “+” mark shall be shown on the map and the bearing and distance from the “+” to the property corner shall also be noted on the map. (The “+” mark shall also be shown on the Improvement plans and the General Notes shall state that a “+” is to be chiseled at the top of curb at the prolongation of the property lines. The “+” mark is considered a witness point per the Subdivision Map Act).

___ Show all non-tangent radial bearings with the symbol (R), either before or after the bearing.

___ Lot and block size acceptable and approved (blocks less than 1500' long).

___ Backing lot treatment per city standards along major streets.

___ Adjacent sheet numbers shown.

___ Line of high water (100-year flood plain) shown if subdivision is adjacent to a stream, channel or any body of water and any areas subject to inundation as shown on effective F.E.M.A. maps.

___ A current preliminary title report (dated within 6 months) reviewed for trustees, easements, correct ownership, etc. (Pro-Forma is not acceptable).

___ Review documents referenced in Preliminary Title Report.

___ Water line easements and sanitary sewer easements are shown and labeled if said public utilities are within private streets.

___ All lots and/or parcels are numbered consecutively.

___ A minimum of two monument ties shall be shown to existing monuments in order to retrace the boundary (preferably at the two opposite tract boundary lines projected to the monument at the existing monument line, if applicable).

___ Ownership and recording information shown for all adjoining, non-tract a Butting parcels (metes and bounds type with recording data).

___ Show adjacent subdivisions (Tract/parcel map numbers, lot numbers, and recording data, i.e.: Book and Page). xxx maps xxx

___ All existing and new streets names are shown and are in accordance with the approved Tentative Maps. (All street names must be pre-approved by the City Planning? Division). Street names in owner's statement, City Clerk’s statement and on the map shall match **EXACTLY.**

___ All existing easements and incumbrances shall be shown or addressed with the recording data.

___ Computed distances (New) shall be computed and shown to 3 decimals to the thousandths of a foot (0.000) (If subdivision is a resubdivision of an earlier map that shows distances to 2 decimals to the hundredth of a foot (0.00) the new map may be prepared to agree with that record.

___ Distances measured to the hundredth may be shown as 2 decimals to the hundredth of a foot 0.00).

___ Deed or reference distances (record measurements) are to be shown to the same precision as noted in the document. (i.e.: if the record measurement is to the nearest foot, do not add decimals to imply more accuracy).

___ Shown the areas of all the new lots and parcels.

___ Monument to monument distances (M-M) or Monument to Tract line (M-T/L) are shown. Ties from the Monument Line to the property line returns, curve points, and property lines are shown. (All distances shown shall be verified by the closures).

___ Show the tie from the monument in the knuckles to the radius point.

___ Monument lines are to be positioned six (6) feet south or east of all streets, except on major streets (islands) these are to be positioned sixteen (16) feet from the centerlines.

___ Any and all dimensions shown on the map shall be supported with a closure or Calculation.

___ All closures are to be map check type closures, showing the error of closure. Inverse closures are not acceptable.

___ All lengths, bearings, arcs, radii, all centers of cul-de-sacs, returns, and elbows shown.

___ The maximum error of closure is 0.005 feet. The Plan checker will mark discrepancies between the map and the closures on final map. The closures are to be revised accordingly.

___ Every bearing and distance checked and shown to the second, i.e.: (° __' __" and N E S W) – Prefer that all bearings are north oriented).

___ The City boundary shall be shown and labeled, if near the tract.

___ All Tract areas to be calculated and shown to the thousandths (0.001) of an acre. Show lot areas to an even foot.

___ Monuments close with existing adjacent monuments.

___ Show and label the city limits, if abutting or near the subdivision.

___ Show monument tiles to existing adjacent monuments.

___ Orient all lettering to be read from the bottom or the right.

___ Property line corner radii(returns) at intersections as follows:

a. Residential street intersection with a residential street = 20 feet
b. Residential street intersection with a collector street = 20 feet
c. Residential street intersection with a major street = 30 feet
d. Collector street intersection with a collector street = 20 feet
e. Collector street intersection with a major street = 30 feet
f. Major street intersection with a major street with a major street = 40 feet

___ Minimum street centerline radii (with actual value based on an engineering design):

a. Residential minimum C.L. Radius….250 feet
b. Collector minimum C.L. Radius…..... 600 feet
c. Major minimum C.L. Radius……...see improvement plan check list

___ Cul-de-sac C.L. Radius - 50 foot minimum.

___ Minimum distance 250 feet (centerline to centerline) between intersections (150' minimum on minor local residential street).

___ To qualify as a parcel map waiver all public improvements must be existing and in good repair. The city will inspect the site, and note any deficiencies needed. Improvements and repairs must be completed prior to the acceptance of the map for filing.

___ Developer shall provide the following prior to final map approval/subdivision acceptance or release of bonds securing the following:

a. A monument certification of all installed monuments from the surveyor or Engineer*. Include on the certification a minimum of one easily accessible monument noting the Elevation and California coordinate, Zone III. This data will then be entered into the City Data Base for GIS and future developments.*
b. An elevation certificate of all pads from the surveyor or engineer.
c. A pad compaction certificate for all pads from the geotechnical engineer of record.

Note: On the Final Map the surveyor or engineer shall note the California Grid Coordinate, Zone III of one tract corner together with the ground to grid conversion factor (The map will show ground measurements). Also, note that besides being an aid to future development this will aid the GIS program.

4. Final and Parcel Map Certificates and/or Statements (For all maps except SB9 project maps)

a. TITLE BLOCK (position top center on sheet 1 and position in the lower right corner of all other sheets):

TRACT / PARCEL MAP 1234

FOR CONDOMINIUM PURPOSES (IF APPROPRIATE)
A # UNIT CONDOMINIUM SUBDIVISION (IF APPROPRIATE)

(A DESCRIPTION IS OPTIONAL)
A PORTION OF LOTS A, Y, Z OF TRACT 4321
FILED IN BOOK 3 OF MAPS AT PAGES 4 THRU 5
ALAMEDA COUNTY RECORDS

CITY OF LIVERMORE
ALAMEDA COUNTY, CALIFORNIA

JONES & JONES
CIVIL ENGINEERS AND SURVEYORS
BIG CITY, CALIFORNIA
(925) 555-5555

FEBRUARY XX, 2023
(UPDATE WITH EACH SUBMITTAL)

b. OWNER'S STATEMENT

THE UNDERSIGNED, HEREBY STATE THAT THEY ARE THE OWNERS OF ALL THE LANDS DELINEATED AND EMBRACED WITHIN THE BOUNDARY LINES UPON THE HEREIN EMBRACED MAP ENTITLED "TRACT XXXX, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", CONSISTING OF XX (XX) SHEETS, THIS STATEMENT BEING ON SHEET ONE THEREOF, THAT THEY HAVE CAUSED SAID MAP TO BE PREPARED FOR RECORD AND DO CONSENT TO THE MAKING AND FILING OF SAID MAP, THAT SAID MAP DOES PARTICULARLY SET FORTH AND DESCRIBE ALL PARCELS OF LAND SO RESERVED FOR PUBLIC PURPOSES BY THEIR BOUNDARY COURSES AND EXTENT, THAT ALL PARCELS SO RESERVED FOR PUBLIC PURPOSES ARE INTENDED FOR THE USES AND PURPOSES OF PUBLIC HIGHWAYS AND ARE DESIGNATED "X ROAD", "Y STREET", AND "Z COURT".

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE (*OR EASEMENT*) FOR PUBLIC PURPOSES FOREVER, GRANTING TO PUBLIC USE THOSE PARCELS OF LAND LYING WITHIN THE BOUNDARIES OF "X ROAD", "Y STREET", AND "Z COURT" AS SHOWN AND EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP FOR THE USES AND PURPOSES OF **PUBLIC HIGHWAYS.**

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION, FOR PUBLIC PURPOSES THOSE PARCELS OF LAND LYING WITHIN THE BOUNDARIES OF PARCELS "C" AND "D", AS SHOWN AND DESIGNATED AS ”**OPEN SPACE”** AND IS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION, FOR PUBLIC PURPOSES THAT PARCEL OF LAND LYING WITHIN THE BOUNDARIES OF PARCEL "E" SHOWN AND DESIGNATED AS A **“PUBLIC PARK”** WHICH IS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN PUBLIC UTILITIES AND APPURTENANCES THERETO IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN UPON SAID MAP AS "PUE." (**PUBLIC UTILITY EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID PUBLIC UTILITIES *(INCLUDING SIDEWALKS)* AND ANY APPURTENANCES THERETO*.*

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER GRANTING THE RIGHT TO CONSTRUCT, USE, RECONSTRUCT, AND MAINTAIN SANITARY SEWERS AND THE APPURTENANCES THERETO IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED AS "SSE" (**SANITARY SEWER EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, AND REPAIRING SAID SANITARY SEWERS AND ANY APPURTENANCES THERETO.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT, RECONSTRUCT, AND MAINTAIN STORM DRAINS AND THE APPURTENANCES THERETO IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED AS "SDE" (**STORM DRAIN EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES UPON SAID MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, AND REPAIRING SAID STORM DRAINS AND ANY APPURTENANCES THERETO.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT, USE, RECONSTRUCT, AND MAINTAIN WATER LINES AND APPURTENANCES THERETO IN, ON, OVER AND UNDER THOSE STRIPS OF LAND SHOWN AND DESIGNATED "WLE" (**WATER LINE EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID WATER LINES AND ANY APPURTENANCES THERETO.

REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN LANDSCAPING, INCLUDING THE CONSTRUCTION AND MAINTENANCE OF PUBLIC SIDEWALKS AND A SCREEN WALL, AND THE APPURTENANCES THERETO, IN, UNDER, ON AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED "LE" (**LANDSCAPE EASEMENT**) OR "LSE" (**LANDSCAPE AND SIDEWALK EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OR PARCELS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REPAIRING AND REPLACING SAID LANDSCAPING, SIDEWALKS AND SCREEN WALLS AND ANY APPURTENANCES THERETO, TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS OF THE PUBLIC FOR PEDESTRIAN USE UPON, OVER AND ALONG SAID SIDEWALKS THEREIN).

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION, FOR PUBLIC PURPOSES, THAT ONE FOOT ACCESS STRIP OF LAND DESIGNATED **LOT "A"** AS SHOWN AND EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP; SAID LOT "A" IS TO REVERT TO USE AS A PUBLIC HIGHWAY UPON THE APPROVAL AND FILING OF A FINAL MAP OR PARCEL MAP COVERING THE ADJACENT PROPERTY ABUTTING THE PARTICULAR LOT “A’.

THE UNDERSIGNED HEREBY RELINQUISHES TO THE PUBLIC FOREVER ALL VEHICULAR INGRESS AND EGRESS OVER AND ACROSS THE PROPERTY LINES WHERE DESIGNATED "**RELINQUISHMENT OF ABUTTERS RIGHTS** AND PRIVATE ACCESS PROHIBITED” AND SHOWN WITH THE SYMBOL "\\\\\\\\\\\\\\\"

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING AN **EMERGENCY VEHICLE ACCESS EASEMENT** "EVAE" ON, OVER, AND ACROSS THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED “EVAE” AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, FOR THE INGRESS AND EGRESS OF EMERGENCY VEHICLES.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING A "SE" (**SIDEWALK EASEMENT**) ON, OVER AND ACROSS THOSE STRIPS OF LAND SHOWN AND DESIGNATED “SE’, AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID SIDEWALKS AND ANY APPURTENANCES THERETO, INCLUDING THE RIGHT OF INGRESS AND EGRESS FOR PEDESTRIAN USE OVER AND ALONG SAID SIDEWALKS.

THE PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT TO THE CITY OF LIVERMORE, A MUNICIPAL CORPORATION FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF AN EMERGENCY STORMWATER OVERFLOW DITCH, PROVIDING AN EMERGENCY OUTLET FOR THE STORMWATER FROM _XXX___ STREET, ACROSS LOT(S) XXX AND OUTLETTING, THROUGH THE BACKING LOT WALL/FENCE OR LANDSCAPING TO _THE ZZZZ____ STREET RIGHT-OF-WAY, IN, UNDER, OVER, AND ACROSS A STRIP OF LAND SHOWN UPON SAID MAP AND DESIGNATED "SOE." (**STORMWATER OVERFLOW EASEMENT**), TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIP(S) OF LAND FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID FACILITIES. THIS EMERGENCY OVERFLOW DITCH SHALL BE KEPT OPEN AND FREE FROM CONSTRUCTION OR LANDSCAPING OF ANY KIND THAT WOULD INTERFERE OR OBSTRUCT DRAINAGE.

THE PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT AND MAINTAIN A PUBLIC TRAIL AND ANY APPURTENANCES THERETO, IN, ON, UNDER, OVER AND ACROSS THOSE CERTAIN STRIPS OF LAND SHOWN UPON SAID MAP AS “TE” (**TRAIL EASEMENT**) THEREON, ALL AS EMBRACED WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS OF LAND FOR THE PURPOSES AND CONSTRUCTING, RECONSTRUCTING, MAINTAINING AND REPAIRING SAID TRAILS AND ANY APPURTENANCES THERETO, INCLUDING THE RIGHT OF INGRESS AND EGRESS OF THE PUBLIC FOR PEDESTRIAN, ETC. USE OVER AND ALONG THE PUBLIC TRAILS THEREIN.

(Note and define any easement and conditions that apply)

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING, THE RIGHT TO CONSTRUCT AND MAINTAIN A WALL, AND ANY APPURTENANCES THERETO, IN, UNDER, ON, AND OVER THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED AS “WE” (**WALL EASEMENT**) THEREON, ALL AS EMBRACED

WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP, TOGETHER WITH THE RIGHT TO ENTER UPON SAID STRIPS FOR THE PURPOSES OF CONSTRUCTING, RECONSTRUCTING, MAINTAINING, AND REPAIRING SAID WALL, AND ANY APPURTENANCE THERETO.

THE REAL PROPERTY DESIGNATED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING A “PAE” (**PUBLIC ACCESS EASEMENT**) ON, OVER AND ACROSS THOSE CERTAIN STRIPS OF LAND SHOWN AND DESIGNATED “PAE”, AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP.

THE UNDERSIGNED HEREBY RESERVES A STRIP OF LAND AS A “PSDE” (**PRIVATE STORM DRAIN EASEMENT**) OVER, UNDER AND ACROSS A STRIP OF LAND SHOWN AND DESIGNATED “PSDE”, AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, AND MAY BE GRANTED TO THE HOMEOWNER’S ASSOCIATION BY SEPARATE INSTRUMENT.

MAINTENANCE OF ANY “PRIVATE STORM DRAIN OR SWALE”, SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER, HOMEOWNER’S ASSOCIATION, OR LOT OWNER AS APPLICABLE. IF A SWALE OR DRAIN FALLS WITHIN AN INDIVIDUAL LOT THE OWNER SHALL KEEP IT OPEN AND FREE OF ANY OBSTRUCTIONS, INCLUDING FILL FOR LANDSCAPING PURPOSES.

THE UNDERSIGNED HEREBY RESERVES A STRIP OF LAND AS A “PSSE” (**PRIVATE SANITARY SEWER EASEMENT**) OVER, UNDER, AND ACROSS A STRIP OF LAND SHOWN AND DESIGNATED “PSSE”, AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP, AND MAY BE GRANTED TO THE HOMEOWNER’S ASSOCIATION BY SEPARATE INSTRUMENT.

MAINTENANCE OF ANY PRIVATE SANITARY SEWER SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER, OR HOMEOWNER’S ASSOCIATION, AS APPLICABLE.

THE UNDERSIGNED HEREBY RESERVES A STRIP OF LAND AS AN “AEP” (**ACCESS EASEMENT PRIVATE**) OR “PRIVATE STREET”, OVER UNDER AND ACROSS A STRIP OF LAND SHOWN AND DESIGNATED AS “AEP”, AS EMBRACED WITHIN THEIR BOUNDARIES OF THE HEREIN EMBODIED MAP, THIS IS A PRIVATE EASEMENT AND MAY BE GRANTED TO THE HOMEOWNER’S ASSOCIATION BY SEPARATE INSTRUMENT.

MAINTENANCE OF ANY ACCESS EASEMENT OR PRIVATE STREET SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER, OR HOMEOWNER’S ASSOCIATION AS APPLICABLE.

THE P.S.S.E. (PRIVATE SANITARY SEWER EASEMENT), PSDE (PRIVATE

STORM DRAIN EASEMENT), PWLE (PRIVATE WATER LINE EASEMENT), PPUE. (PRIVATE PUBLIC UTILITY EASEMENT), OR PAE (PRIVATE ACCESS EASEMENT), ARE PROPOSED EASEMENTS RESERVED BY THE UNDERSIGNED.

OWNER OF THE SUBDIVISION, TO BE GRANTED TO A HOMEOWNER'S ASSOCIATION, ETC. BY SEPARATE INSTRUMENT. OPERATION AND MAINTENANCE SHALL BE THE SOLE RESPONSIBILITY OF SAID HOMEOWNERS' ASSOCIATION, INDIVIDUAL OWNERS OR OTHER ENTITY AS NOTED IN THE RECORDED INSTRUMENT, C.C.& R'S OR OTHER AGREEMENT

MAINTENANCE OF ANY "PSDE" (PRIVATE STORM DRAIN EASEMENT) SHALL BECOME THE SOLE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNERS (WITHIN THEIR RESPECTIVE LOTS) OF LOTS X, X, X, AND X. SAID PRIVATE STORM DRAIN EASEMENT TO BE KEPT OPEN AND FREE FROM CONSTRUCTION OF ANY KIND INCLUDING THE USE OF LANDFILL FOR LANDSCAPE PURPOSES.

THE "PSDE" (PRIVATE STORM DRAIN EASEMENTS) ARE EASEMENTS RESERVED BY THE UNDERSIGNED OWNER OF THE SUBDIVISION, AND MAY BE GRANTED TO A HOMEOWNERS' ASSOCIATION BY SEPARATE INSTRUMENT.

AND THE UNDERSIGNED HEREBY RESERVES LOT D FOR _____ PURPOSES.

THIS MAP SHOWS OR NOTES ALL EASEMENTS, EXISTING OR OF RECORD, WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP.

IN WITNESS WHEREOF, THE UNDERSIGNED OWNERS HAVE CAUSED THIS STATEMENT TO BE EXECUTED THIS ____ DAY OF _____ 20__.

ABC CORPORATION, A CALIFORNIA CORPORATION

BY: (*owner's signature*) _____
PRINT NAME: (*insert the owner's name*),
PRINT TITLE (*insert the owner's title*)

Note: When other dedications are required, use this general format for the paragraphs.

c. ALTERNATIVE OWNER'S STATEMENT FORMAT

(THE OWNER'S STATEMENT IS GETTING TOO LONG. THIS ONE IS PROPOSED TO SHORTEN THE STATEMENT MAKING IT MORE CONCISE)

THE UNDERSIGNED, HEREBY STATE THAT THEY ARE THE OWNERS OF ALL

THE LANDS DELINEATED AND EMBRACED WITHIN THE BOUNDARY LINES UPON THIS HEREIN EMBODIED MAP ENTITLED “_____” CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA”. CONSISTING OF____SHEETS, THIS STATEMENT BEING ON SHEET ONE THEREOF. THAT THEY HAVE CAUSED SAID MAP TO BE PREPARED FOR RECORD AND DO CONSENT TO THE MAKING AND FILING OF SAID MAP, THAT SAID MAP DOES PARTICULARLY SET FORTH AND DESCRIBE ALL PARCELS OF LAND SO RESERVED FOR PUBLIC PURPOSES BY THEIR BOUNDARY COURSES AND EXTENT, AND THAT ALL PARCELS SO RESERVED FOR PUBLIC PURPOSES ARE INTENDED FOR THE USES AND PURPOSES OF PUBLIC HIGHWAYS AND ARE DESIGNATED “_____ROAD”, “_____STREET”, “_____COURT”, AND “ _____BOULEVARD”.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED IN FEE TO THE CITY OF LIVERMORE FOR PUBLIC PURPOSES FOREVER, GRANTING TO PUBLIC USE THOSE PARCELS OF LAND DESCRIBED AS FOLLOWS AND EMBRACED WITHIN THE BOUNDARIES OF THIS MAP.

“_____ROAD”, “_____STREET”,
“_____COURT”, “ _____BOULEVARD”.

PARCEL "A “AND PARCEL "B”, (OPEN SPACE PARCELS) ……. PARCEL “C” (PUBLIC PARK) “ALL LOTS OR PARCELS DEDICATED FOR PUBLIC USE, SHALL BE MAINTAINED BY THE CITY.”

LOT “A”, A ONE FOOT ACCESS RESERVE STRIP. (TO REVERT TO USE AS A PUBLIC HIGHWAY UPON THE FILING OF A MAP COVERING THE ADJACENT PROPERTY ABUTTING SAID LOT “A”.

THE REAL PROPERTY DESCRIBED BELOW IS HEREBY DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES FOREVER, GRANTING THE RIGHT TO CONSTRUCT, USE AND MAINTAIN THE CERTAIN UTILITIES/FACILITIES

DESCRIBED HEREIN ALONG WITH THE RIGHT TO ENTER SAID PROPERTY AS REQUIRED. THER USE AND PURPOSE IS IDENTIFIED AS FOLLOWS:

PUBLIC UTILITY EASEMENT (PUE)
SANITARY SEWER EASEMENT (SSE)
STORM DRAIN EASEMENT (SDE)
WATER LINE EASEMENT (WLE)
SIDEWALK EASEMENT (SE)
PUBLIC ACCESS EASEMENT(PAE)
LANDSCAPE AND SIDEWALK EASEMENT(LSE)
WALL EASEMENT (WE)
EMERGENCY VEHICLE ACCESS EASEMENT(EVAE)
TRAIL EASEMENT (TE)
RELINQUISHMENT OF ABUTTERS RIGHTS (PRIVATE ACCESS PROHIBITED)***//////***

THE UNDERSIGNED HEREBY RESERVES STRIPS OF LAND AS PRIVATE EASEMENTS AS DESCRIBED AND SHOWN HEREIN, AND AS EMBRACED WITHIN THE BOUNDARIES OF THE HEREIN EMBODIED MAP. THESE MAY BE GRANTED TO THE HOMEOWNERS' ASSOCIATION BY SEPARATE INSTRUMENT. THE MAINTENANCE OF ANY IMPROVEMENTS OR FACILITIES THEREIN SHALL BE THE RESPONSIBILITY OF THE UNDERSIGNED OWNER OR HOMEOWNERS' ASSOCIATION AS APPLICABLE.

PRIVATE STORM DRAIN EASEMENT (PSDE)
PRIVATE SANITARY SEWER EASEMENT (PSSE)
PRIVATE STREETS (LABELED)
ACCESS EASEMENT PRIVATE (AEP)
SIDE YARD ACCESS (SYE)

THIS MAP SHOWS OR NOTES ALL EASEMENTS, EXISTING OR OF RECORD, WITHIN THE BOUNDARY LINES OF THE HEREIN EMBODIED MAP.

IN WITNESS WHEREOF, THE UNDERSIGNED OWNERS HAVE CAUSED THIS STATEMENT TO BE EXECUTED THIS ____ DAY OF _____ 20__.

ABC CORPORATION, A CALIFORNIA CORPORATION

BY: (*owner's signature*) _____
PRINT NAME: (*insert the owner's name*),
PRINT TITLE (*insert the owner's title*)

Note: When other dedications are required, use this alternative general format for the paragraphs or the format shown in section 4b.

d. OWNERS, TRUSTEES OR BENEFICIARIES' ACKNOWLEDGEMENT STATEMENT

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA)
COUNTY OF ALAMEDA) S.S.

ON _____, 20_, BEFORE ME, (*notary's name*),
THE UNDERSIGNED, A NOTARY PUBLIC FOR THE STATE OF CALIFORNIA, PERSONALLY APPEARED,

(*insert the owner, trustee or beneficiary's name*)

PERSONALLY KNOWN TO ME (OR 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 IF NOT ON A MYLAR)

SIGNATURE: *(signature of notary),*
PRINT: (*notary's name*),
MY COMMISSION NUMBER: _____
MY COMMISSION EXPIRES:_____

PRINCIPAL COUNTY OF BUSINESS: _____

Note: 66436(B)(c) The seal is not required on maps. Most Notary Stamp Ink is not designed for use on Mylar and therefore smears making the map unrecordable. If no seal is provided, the name of the notary, county of the notary's principal place of business, and the notary's expiration date must be printed below the notary's acknowledgement.

e. TRUSTEE'S STATEMENT (OR BENEFICIARIES STATEMENT)

THE UNDERSIGNED _____, TRUSTEE (BENEFICIARY) UNDER THE DEED OF TRUST RECORDED _____, SERIES NO. _____, OFFICIAL RECORDS OF ALAMEDA COUNTY, CALIFORNIA, CONSENTS TO THE PREPARATION AND FILING OF THE MAP AND JOINS IN ALL OFFERS OF DEDICATION THEREON.

XXXXXXXXXXXXXX, A CALIFORNIA CORPORATION

BY: (*trustee or beneficiary's signature*) _____
PRINT NAME: (*trustee or beneficiary's name*),
PRINT TITLE (*trustee or beneficiary's title*)

f. SURVEYOR'S (ENGINEER'S) STATEMENT

THIS MAP WAS PREPARED BY ME UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF OWNER'S NAME _____ ON_____ DATE_____.

I HEREBY STATE THAT THIS TRACT/PARCEL MAP SUBSTANTIALLY CONFORMS TO THE APPROVED OR CONDITIONALLY APPROVED(VESTING) TENTATIVE MAP, IF ANY, AND IS TRUE AND COMPLETE AS SHOWN.

I HEREBY STATE THAT THE MONUMENTS WILL BE OF THE CHARACTER AND OCCUPY THE POSITIONS SHOWN IN ACCORDANCE WITH THE SATISFACTORY ASSURANCE GIVEN BY THE OWNER/SUBDIVIDER ON OR BEFORE__DATE, 20___, AND THAT SAID MONUMENTS WILL BE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

I FURTHER STATE THAT "TRACT/PARCEL MAP XXXX, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA" IS A SUBDIVISION INTO LOTS OR PARCELS OF LAND CONTAINING XXXX (3 DECIMALS) ACRES MORE OR LESS

_____ DATE_____
SURVEYOR/ENGINEER'S NAME,
L.S./R.C.E. XXXXXXX

LICENSE EXPIRES_____DATE_____ (LEAVE ROOM FOR SEAL)

NOTE: THE CITY OF LIVERMORE REQUIRES THAT ALL SURVEYS ARE TO BE BASED UPON A FIELD SURVEY. THE SUBDIVISION MAP ACT DOES NOT REQUIRE THE SURVEYOR'S LICENSE EXPIRATION DATE BUT THE CITY OF LIVERMORE DOES.

g. CITY ENGINEER'S STATEMENT (FOR USE ON FINAL/PARCEL MAPS)

I, (*confirm/insert the current name*), CITY ENGINEER OF THE CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA, DO HEREBY STATE THAT I HAVE EXAMINED THIS MAP ENTITLED "_FINAL/PARCEL MAP XXX__, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", AND THE SUBDIVISION SHOWN HEREON IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE APPROVED TENTATIVE MAP AND ANY APPROVED ALTERATIONS THEREOF, AND THAT ALL PROVISIONS OF STATE LAWS AND LOCAL ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE (VESTING)TENTATIVE MAP HAVE BEEN COMPLIED WITH.

(*confirm & insert the current name*), DATE_____
CITY ENGINEER, R.C.E. XXXXX
EXPIRES ON XXXXXXX XX, XXXX
CITY ENGINEER, CITY OF LIVERMORE
ALAMEDA COUNTY, CALIFORNIA (*LEAVE ROOM FOR STAMP))*

I, (*confirm/insert the current name*), A LICENSED LAND SURVEYOR FOR THE CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA, DO HEREBY STATE THAT I HAVE EXAMINED THIS MAP ENTITLED "_FINAL/PARCEL MAP XXXX,_____ CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", AND I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

_____ DATE_____

(*confirm & insert the current name*), LS#_____

EXPIRES_____ (*LEAVE ROOM FOR STAMP)*)

h. CITY ENGINEER'S STATEMENT FOR USE ON PARCEL MAP WAIVERS ONLY

I,(*confirm & insert the current name*), CITY ENGINEER OF THE CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA, DO HEREBY STATE THAT I HAVE EXAMINED THIS MAP ENTITLED "PARCEL MAP XXXX_____, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", AND THE SUBDIVISION SHOWN HEREON IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE APPROVED TENTATIVE MAP (IF ANY) AND ANY APPROVED ALTERATIONS THEREOF, AND THAT ALL PROVISIONS OF STATE LAWS AND LOCAL ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH. THIS MAP WAS PROCESSED UNDER THE CITY'S PARCEL MAP WAIVER PROCEDURES.

(*confirm & insert the current name*) DATE_____
CITY ENGINEER, R.C.E. XXXXX
EXPIRES ON XXXXXXX XX, 20XX
CITY ENGINEER, CITY OF LIVERMORE (*LEAVE ROOM FOR STAMP))*
ALAMEDA COUNTY, CALIFORNIA

I, (*confirm & insert the current name*) , A LICENSED LAND SURVEYOR FOR THE CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA, DO HEREBY STATE THAT I HAVE EXAMINED THIS MAP ENTITLED "_PARCEL MAP XXXX,__ CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", AND I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

_____ DATE_____

(*confirm & insert the current name*), LS_____

EXPIRES_____ (*LEAVE ROOM FOR STAMP*)

i. COMMUNITY DEVELOPMENT DIRECTOR'S STATEMENT (PARCEL MAP WAIVERS ONLY):

PARCEL MAP XXXX CONFORMS WITH THE CONDITIONALLY APPROVED TENTATIVE MAP, IF ANY, AND WAS PROCESSED IN ACCORDANCE WITH THE SUBDIVISION MAP ACT SECTION 66467 AND 66428(b), AND LOCAL ORDINANCES.

(*confirm & insert the Community Development Director's name*), DATE
COMMUNITY DEVELOPMENT DIRECTOR
CITY OF LIVERMORE
ALAMEDA COUNTY, CALIFORNIA

j. CITY CLERK STATEMENT (FINAL MAPS)

STATE OF CALIFORNIA)
COUNTY OF ALAMEDA) S.S.

I, (*confirm/insert city clerk's name*),CITY CLERK AND CLERK OF THE CITY COUNCIL OF THE CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA, DO HEREBY STATE THAT THIS MAP ENTITLED "TRACT __XXX_____, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA", WAS PRESENTED TO THE CITY COUNCIL OF THE CITY OF LIVERMORE, AT A MEETING THEREOF HELD ON _____ , 20___, AND THE COUNCIL DID BY RESOLUTION NO. APPROVE THE MAP AND ACCEPT ON BEHALF OF THE PUBLIC ALL THOSE PARCELS OF LAND, EASEMENTS, AND OTHER LEGAL INTERESTS IN LAND OFFERED FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF THE OFFER, EXCEPT FOR THE FOLLOWING WHICH THE COUNCIL DID REJECT AT THIS TIME (RESERVING THE RIGHT TO ACCEPT THE OFFERS AT A FUTURE DATE SUBJECT TO GOVERNMENT CODE SECTIONS 66477.2 AND 7050):

SANITARY SEWER EASEMENTS	SIDEWALK EASEMENTS
STORM DRAIN EASEMENTS	EMERGENCY VEHICLE ACCESS EASEMENTS
PUBLIC UTILITY EASEMENTS	LANDSCAPE EASEMENTS
LIST OF STREETS DEDICATED	TRAIL EASEMENTS
WATER LINE EASEMENTS	

(Confirm all offers to be rejected and accepted at a future date comply with the Subdivision Map Act Government Code Sections.)

(If public interests are being vacated and abandoned add the following statement)

NOTE: PER SECTION 66499.20.2, THE FILING OF THIS MAP SHALL CONSTITUTE A LEGAL MERGER AND RESUBDIVISION OF THE LAND AFFECTED THEREBY, AND SHALL ALSO CONSTITUTE THE VACATION AND ABANDONMENT OF ALL PUBLIC STREETS AND PUBLIC EASEMENTS NOT SHOWN ON THIS MAP, PROVIDED THAT A

WRITTEN NOTATION OF EACH ABANDONMENT IS LISTED BY REFERENCE TO THE RECORDING DATA CREATING THESE PUBLIC STREETS OR PUBLIC EASEMENTS, AND CERTIFIED HERETO BY THE CITY CLERK OF THE CITY OF LIVERMORE, AS FOLLOWS:

"TRACT ____. XXX m X" –8/1/23, VACATION OF A PORTION OF ____ STREET "2023-1XXXXX O.R."- 9/12/2004, VACATION OF THE S.S.E. ACROSS – PARCEL Y, XXX M X

IN WITNESS, WHEREOF, I HAVE HEREUNTO SET MY HAND THIS _____, 20__.

(city clerk's)_____
Deborah L. Elam (*confirm/insert city clerk's name*),
CITY CLERK AND CLERK OF THE CITY COUNCIL CITY OF LIVERMORE,
ALAMEDA COUNTY, STATE OF CALIFORNIA

(In connection with the above vacation note in the Clerk's Statement, a statement similar to the following should be placed on the individual map sheets affected).

NOTE:
THE FOLLOWING LISTED PARCELS AND EASEMENTS NOT SHOWN ON THIS MAP ARE DEEMED VACATED AND ABANDONED PER SECTION 66499.20.2 OF THE SUBDIVISION MAP ACT:

(LIST PARCELS AND EASEMENTS NOT SHOWN, IF DATA LISTED IS INCOMPLETE SAY "SEE CITY CLERK'S STATEMENT FOR THE COMPLETE INFORMATION").

k. CITY CLERK'S STATEMENT (PARCEL MAP WAIVER)

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF CALIFORNIA)
COUNTY OF ALAMEDA) S.S.

ON THIS __ DAY OF _____, 20_, BEFORE ME, (*insert city clerk's name*), CITY CLERK, CITY OF LIVERMORE, ALAMEDA COUNTY, CALIFORNIA, PERSONALLY APPEARED __(*confirm & insert Community Development Director's name*)____PERSONALLY KNOWN TO ME TO BE THE COMMUNITY DEVELOPMENT DIRECTOR OF THE CITY OF LIVERMORE, AND IS THE PERSON AUTHORIZED BY THE CITY OF LIVERMORE MUNICIPAL CODE TO APPROVE THIS MAP.

I FURTHER CERTIFY THAT THE INTEREST IN ALL OF THOSE PARCELS OF LANDS, EASEMENTS AND OTHER LEGAL INTERESTS IN LAND OFFERED FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF THE OFFER, IS HEREBY ACCEPTED BY THE UNDERSIGNED CITY CLERK ON BEHALF OF THE CITY COUNCIL PURSUANT TO AUTHORITY CONFERRED BY RESOLUTION NO. 1-65 OF THE CITY COUNCIL ADOPTED ON JANUARY 4, 1965.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND THIS _____ DAY OF _____ 20__.

NAME (*insert the current name of the current city clerk*)
CITY CLERK AND CLERK OF THE CITY COUNCIL CITY OF LIVERMORE, ALAMEDA COUNTY, STATE OF CALIFORNIA

(NOTE A PARCEL MAP WAIVER IS APPROVED ON A STAFF LEVEL AND DOES NOT GO BEFORE THE CITY COUNCIL; THEREFORE, OFFERS OF DEDICATION CANNOT BE REJECTED. ALSO, NOTE THAT THE CLERK IS FUNCTIONING AS A NOTARY FOR THE COMMUNITY DEVELOPMENT DIRECTOR'S SIGNATURE.)

I. CLERK OF THE BOARD OF SUPERVISOR'S STATEMENT

STATE OF CALIFORNIA)
COUNTY OF ALAMEDA) S.S.

I, ANIKA CAMPBELL-BELTON (*confirm/insert the current name*), CLERK OF THE BOARD OF SUPERVISORS OF THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA, HEREBY CERTIFY THAT CERTIFICATES HAVE BEEN FILED AND DEPOSITS HAVE BEEN MADE IN CONFORMANCE WITH THE REQUIREMENTS OF SECTIONS 66492 AND 66493 OF THE GOVERNMENT CODE OF THE STATE OF CALIFORNIA, AS CHECKED BELOW:

[ ] AN APPROVED BOND HAS BEEN FILED WITH THE SUPERVISORS OF THE SAID COUNTY AND STATE IN THE AMOUNT OF $___ , CONDITIONED FOR THE PAYMENT OF ALL THE TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES WHICH ARE NOW A LIEN AGAINST SAID LAND OR ANY PART THEREOF BUT NOT YET PAYABLE, AND WAS DULY APPROVED BY SAID BOARD IN SAID AMOUNT.

[ ] ALL TAXES AND SPECIAL ASSESSMENTS COLLECTED AS TAXES HAVE BEEN PAID, AS CERTIFIED BY THE TREASURER-TAX COLLECTOR OF THE COUNTY OF ALAMEDA.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND THIS ___ DAY OF _____, A.D. 20__.

ANIKA CAMPBELL-BELTON (confirm/insert the current name)
CLERK OF THE BOARD OF SUPERVISORS OF THE
COUNTY OF ALAMEDA, STATE OF CALIFORNIA

BY:
DEPUTY COUNTY CLERK

m. COUNTY RECORDER'S STATEMENT:

(POSITION THIS STATEMENT IN THE LOWER RIGHT-HAND CORNER OF SHEET NO. 1)

FILED THIS __ DAY OF ____, 20__, AT ____, IN BOOK __ OF MAPS AT PAGES_____ ____ INCLUSIVE, RECORDER'S SERIES NO. _____ AT THE REQUEST OF _____.

FEE $_____ PAID

MELISSA WILK *(confirm/insert the current name)*
COUNTY RECORDER IN AND FOR THE COUNTY OF ALAMEDA
STATE OF CALIFORNIA

BY:
DEPUTY COUNTY RECORDER

B. IMPROVEMENT PLAN CHECKLIST

CITY OF LIVERMORE

SUBDIVISION OR PARCEL MAP NO._____

The plans being submitted with this checklist have been checked for conformance to the items of this checklist.

ENGINEERING COMPANY: _____

CONTACT PERSON: _____ DATE: _____

TELEPHONE NUMBER: _____

E-MAIL ADDRESS: _____

A complete submittal includes the following in paper copies and a complete electronic copy of submittal transmitted by a link or on a flash drive:

1. One copy of the stamped and approved tentative map.

2. Two copies of the FINAL PLANNING ACTION letter with the conditions of approval attached. Note: The City Planning Division (Phone (925) 960-4450) should be contacted to obtain the approved tentative map and the Final Planning Action letter for planning conditions with the conditions of approval attached.

3. Provide two copies of a matrix of the Final Conditions of Approval that provides information on how applicant has complied with each condition of approval and where it can be found in the submittal.

4. This improvement plan checklist.

5. Two copies of the construction bond estimate.

6. The Improvement Plan Check fee. See current Development Fees for fee schedule.

7. Seven copies of the complete improvement plan which include the following as required:

    a. landscaping and irrigation plans (the irrigation plan is not required until the submittal for the second plan check. With the submittal for second plan check, verification of Design Review/Planning Commission approval must also be submitted),

b. a separate signing, striping and signals plan,
c. grading plan,
d. erosion control plan,
e. construction phasing plan,
f. traffic control plan,
g. cross sections,
h. joint trench plans with a separate street light conduit and wiring plan,
i. sound wall plan.

8. Two copies of the hydrology map.

9. Two copies of the hydrology and hydraulic calculations, which have been signed and stamped by a registered civil engineer licensed in the State of California.

10. Two copies of the stormwater quality checklist signed by the landowner.

11. Two copies of the Zone 7 form signed by the landowner with impervious surface totals matching and consistent with the stormwater quality checklist.

12. Two copies of the stormwater plan, calculations and Bay Area Hydromodification (BAHM) calculations signed by the landowner and signed and stamped by a registered civil engineer licensed in the State of California.

13. Two copies of any storm, water and/or sanitary sewer calculations and mitigations (if required).

14. Three copies of the soil and geotechnical report, signed and stamped by a professional engineer authorized to practice soils engineering in the State of California.

15. Three copies of the geology report or other special reports (if required), signed by a California licensed Certified Engineering Geologist or appropriate licensed professional.

16. Three copies of the Traffic Study (if required), which have been signed and stamped by a registered civil engineer licensed in the State of California.

17. Three copies of the sight distance calculations (if required) that have been signed and stamped by a registered civil engineer licensed in the State of California.

18. Three copies of the Horticulturist Report (if required). A horticulturist report is required for all projects north of I-580.

19. Three copies of the Arborist’s Report (if required).

20. Three copies of the draft Conditions, Covenants and Restrictions (CC&R's), (if required).

21. With the submittal for the first plan check, two copies of the draft Engineer's Report (and assessment diagram) for formation of a Landscape Maintenance District or annexation into an existing Landscape Maintenance District (if required).

22. With the submittal for the first plan check, two copies of the draft Community Facilities District (CFD) draft formation documents and/or Statewide Community Infrastructure Program (SCIP) application or annexation into an existing CFD (if required).

23. Two copies of structural calculations for sound walls and retaining walls, stamped and signed by a registered civil engineer licensed in the State of California.

24. The first plan check should include a sheet showing the public and private improvements and who is responsible for maintaining each of the improvements, including but not limited to the following:

    a. Private Improvements: HOA, COA, private assessment district
    b. Public Improvements: City maintained, public assessment district (CFD, LMD, etc.).

25. Applicant to provide proposed street names by first plan check. Street names will be reviewed and approved by the City. Street names change at all elbows.

26. The first plan check submittal shall include two copies of a plat or sketch drawn to clearly showing the location and rough dimensions of all the required off-site right-of-way and easements corresponding to the submitted improvement plans together with an appropriate title report (the Preliminary Title Report must be dated within the last six months). The plat shall clearly indicate the following:

    ___ a. Name of the property owner(s)
    ___ b. Existing property line and easement lines
    ___ c. Proposed right-of-way or easement lines
    ___ d. Approximate area in square feet of the required dedication

27. If there are three or more off-site dedications required for a project, two copies of a Right-of-Way Acquisition map shall accompany each submittal. This map shall clearly indicate the location of all of the dedications (each of which is labeled with an index number) for the project. A summary table shall be included on the map with the following information:

Index Number	Grantor
APN	Grantee
Type of Dedication	Parcel Size

28. The second plan check submittal shall include two copies of the following items for each dedication:

    ___ a. Irrevocable Offer of Dedication cover sheet

    ___ b. Plat

    ___ c. Legal description

    ___ d. Closure calculations

    ___ e. Preliminary title report

    ___ f. Copies of deeds and easement referenced in title report

    This information shall be submitted in a folder or binder with all of the information for each parcel together and clearly referenced to the index map (if necessary).

29. The submittal information required by number 27 above will be required again until complete. If there are no significant comments from the second plan check on the plats, legal description, or improvement plans and upon direction of the City plan check engineer, the applicant shall submit the fully executed and notarized original documents suitable for recording and one copy of each executed document.

30. The engineer shall either make the appropriate changes to the plans requested by the city on each plan check or provide an explanation as to why the changes are not being made on the plans.

31. A letter responding to each item noted in the city’s plan check letters shall be provided with each plan check resubmittal.

32. Any revisions made to the plans by the engineer that were not shown on the previously submitted plan check shall be noted in the letter accompanying the plan check submittal.

Improvement Plan Check List

INSTRUCTIONS: For each item mark an "X" if the plans comply or N/A if the item does not apply. Mark an "R" and attach a written statement for any requested exceptions.

1. General Requirements

___ All construction shall be shown graphically to scale. The use of notes is not a substitute for showing construction graphically.

___ Subdivision Number.

___ Vicinity Map shown on cover sheet.

___ General Notes (see Section 15).

___ City elevation datum and benchmarks used (Certifications of the Monuments and Benchmarks installed as shown on the map and improvement plans shall be provided prior to acceptance of tract and improvements).

___ Legend provided.

___ All sheets (including landscaping and street light wiring plans) 24" x 36".

___ Plans adequate for digital scanning (min 1/8" text, 15% max. shading).

___ Joint trench plans are to be submitted as a separate set with signature blocks for all utilities shown on the plans to sign before encroachment permit is issued.

___ Sheet index and key map on cover sheet for three or more street improvement plan sheets.

___ Adjacent sheet numbers shown.

___ Margin: 1" all around.

___ Sheet No. __ of __ sheets-all sheets numbered consecutively. Sheet numbers are also shown in the sheet index on the first page.

___ North arrow - all sheets.

___ Street Index Map provided.

___ Final approved street names shown.

___ Scale shown on all sheets.

___ Graphical scale required on all sheets.

___ No dark shading/cross-hatching over text. Must be high contrast, suitable for electronic scanning for City's Document Imaging Program.

___ Improvement plan horizontal scale: 1" = 40' (1" = 10', 1" = 20', 1"= 30', also allowed). Grading plans may be at 1" = 50'. Signing and striping plans shall be at 1" = 20' or 1" = 40'.

___ Plan and profiles on all construction (except water profile not required in Cal Water area).

___ All crossing pipelines shown with elevations at crossings.

___ Easements obtained for all off-tract utilities (i.e., sewer, storm and water) and street improvements.

___ Soils Report reviewed and recommendations incorporated into design.

___ Identify permits required from other agencies (Zone 7, Fish and Game, Army Corp of Engineers, Alameda County Public Works, Caltrans). Copies of permits are required before grading plans are approved.

___ Check for conformance with adjacent tracts (grading, drainage, fencing, existing structures, easements, utilities, etc).

___ Scaled systems information provided with the following items on the improvement plans:

Sewers (maintenance holes and sizes)
Storm (maintenance holes, inlets, sizes)
Water (valves, sizes)
Streetlights
Fire hydrants
Public Irrigation controllers

___ Title block on each sheet shall identify the area of work covered on that sheet.

___ Sheet index on sheet 1 (showing all sheets including wall and landscaping plans). Title conforms to title block on individual sheets. The sheet index also shows the numerical page number.

___ The revision block on each sheet shall have a place for City approval and shall only be used for revisions that occur after the City Engineer has signed the plans as approved. (Plan check revisions are not to be shown in the revision

approval block). One column in revision block shows the revision number. The second column describes the change for that revision. The third column provides a space for the City to initial and date the revision.

___ The cover sheet has a master revision table, in addition to the revision block, that summarizes all revisions in the plan set and has a fourth column that shows the sheets that are affected by the various revisions.

___ Field review to ensure existing conditions and problems are reflected on the plans. (i.e., signing, striping, utilities, drainage, structures, etc).

___ Improvement plans reviewed for conformance with "as-builts" for existing adjacent infrastructure.

___ Registered Engineer's signature, number and expiration date on cover sheet, signature and R.E. stamp on each sheet (signed and stamped on cover sheet on final documents only).

___ City Engineer's approval block, R.E. number and expiration date on Cover Sheet and on the first sheet of the grading plans.

___ Street name sign plate legend for public streets per detail at the end of this Development Plan Check Manual. Block numbering assigned by the City during the second plan check.

2. Streets

___ Minimum slope with concrete gutters 0.50% (all else 1%).

___ Maximum street grade 10% on residential and 5% on major streets; cross section in accordance with City Standards.

___ Street crown profile provided within limits of street intersections if either street slope exceeds 3% within the limits of the curb returns.

___ Vertical curves provided on grade changes of 1.0% or more, per Caltrans stopping sight distance (minimum length of 20 feet).

___ As a general guideline, under standard conditions sight distance shall be provided per the Caltrans Highway Design Manual based on the following design speeds:

Local streets = 35 m.p.h.
Collector streets = 40 m.p.h.
Major streets = 50 m.p.h.

___ Widths and location of streets agree with approved tentative map.

___ Applicant to provide proposed street names by first plan check. Street names will be reviewed and approved by the City. Street names change at all elbows.

___ Curb to curb width of street and curb to property line dimension shown at least once each plan view, including adjacent streets.

___ Pavement section design chart provided and checked following Caltrans Highway Design Manual using soils report for "R" values and City Standard ST-11 for traffic index as a minimum unless a higher index has been required by the project Engineering Considerations.

___ Paved turnarounds shall be provided at the end of stub streets over 200 feet in length. They shall be either on-site or off-site. If off-site an easement shall be provided to the City. A cash bond with letter describing why it is being provided shall be provided to the City for future removal of temporary turnarounds.

___ Minimum curve radius of 250' on local streets. Minimum radius of 600' on collector streets. The minimum radius of the inside lane (lane closest to the radius point) for a major street will be based on design speeds using Caltrans criteria. Super-elevation of streets is not permitted without special written permission of the City Engineer.

___ Minimum drainage (cross slope) of 1% from crown to gutter within limits of curb returns, in elbows, and from pavement crowns to lip of gutter at midpoints (at access ramps). Where this drainage can't be provided, all concentrated drainage upstream of intersection shall be prohibited from entering the intersection by location of a storm water inlet at the upstream curb return.

___ The crown of a collector street or a minor street shall intersect a major street at the outside edge of outside lane.

___ The crowns of minor streets or collector streets shall match at centerlines of intersections.

___ Grade breaks of tangents to vertical curves are not allowed (tangent line of curve shall equal slope of projected line for a minimum distance of 30 feet from the BC and EC).

___ Street stationing agrees with distances on final map.

___ Design elevations for widening of an existing street based on street cross sections and sufficient profiles. Submit cross sections at 50-foot maximum intervals to assure proper conform. Cross sections need not be included as part of final plans.

___ Provide sufficient grades and cross sections at ties with existing streets to demonstrate that a proper conform has been provided.

___ Conform new pavement per Detail ST-25A-indicate on plans (25' on minor streets, 50' on major streets).

___ 1-1/2 inch AC Overlay or other treatment of existing streets shall be reviewed by and/or specified by the City Engineer to confirm it is adequate to restore the strength and driving surface of the street after a utility cut. (Typical treatment is a 1-1/2 inch grind and 1-1/2 inch overlay with fabric).

___ Barricade and signing provided at end of stub streets and at end of sidewalks.

___ All walls, including footings, shall be located **outside the public right-of-way on private land** and shall be shown on the street improvement plans in plan and profile (show "stair-stepping" of wall). Show top of wall elevations, bottom of wall elevations, and horizontal location of wall. Structural details of wall and footings shall be shown on plans. Separate building permits are required for all walls and footings.

___ Backing lot wall, and adjacent building pad elevations shall be shown in street profile.

___ Structural calculations shall be submitted to the Building Division for a permit for private backing lot walls and other retaining walls. Structural calculations shall be wet signed and wet stamped by a Registered Civil Engineer with the building permit submittal.

___ Monuments shown per final map locations.

___ Lot lines shown.

___ Streets intersect at 80º to 100º angle. The central angles of intersection return fall within 80º to 100º.

___ On local streets, the centerlines of streets not in alignment must be off set a minimum of 150 feet. On collector streets, the centerlines of streets not in alignment must be off set a minimum of 250 feet. On major streets, the minimum off set must be 250 feet.

___ Decorative pavement conforms to Detail ST-10.

___ Street trees shall be shown with stations on the street improvement plans. (Not on a separate sheet). Street tree types shall be noted on engineering plans (and agree with landscaping plans, if any).

___ Street grades match grading plan grades.

__ Typical street cross sections are shown and all street names labeled. All street cross sections on same sheet. Separate street cross sections provided for a street with more than one street width.

___ "Future Construction" notes are not allowed on improvement plans unless needed to coordinate phasing. If this is the case notes shall be shown faded out. "Existing Construction" shall be shown with dashed lines.

___ When constructing a roadway that will directly connect with an existing roadway of a different width, it is necessary to install a transition between the two. The length of the transition conforms to Caltrans standards.

___ Top of driveway flare has clearance of 4 feet from property line, streetlight, fire hydrant (10' in commercial areas), another driveway flare. Top of driveway flare has clearance of 8 feet from street tree. Top of driveway flare has clearance of 10 feet from curb return (Note: Driveway widths do not include flares).

___ Permanent slope easements provided for streets located in cuts or fills on existing side slopes. Easement to extend a minimum 10 feet below toes of slopes.

3. Curb, Gutters and Sidewalk

___ Top of curb profiles shall be shown (including for cul-de-sac bulbs, knuckles, and for curb returns with vertical curves).

___ Minimum slope = 0.5%; 0.6% on cul-de-sac and curb returns.

___ Top of curb elevations and stations shown at curb returns, grade breaks, BC and EC, vertical curves, lot lines, fire hydrants and electroliers.

___ Maximum elevation difference between curb returns at a single return is 2 feet.

___ Maximum gutter slope at an access ramp is 4% for drainage purposes. If the drainage requirements exceed what is allowed for A.D.A./ CASP requirements the developer shall provide a CASP certified exception for review and approval by the City Engineer.

___ Separate curb stationing provided along the face of curb on knuckles and cul-de-sac bulbs.

___ Curb elevations check mathematically.

___ Valley gutters per Detail ST-16. Valley gutters are only permitted across cul-de-sac entrances and should be avoided if possible.

___ All proposed sidewalks shall be shown on the street improvement plans.

___ Vertical curves used on knuckles, or cul-de-sac bulbs with a grade change exceeding 1.5% (profile provided). Minimum length for a vertical curve or compound vertical curve is 20 feet.

___ Curb return details provided showing return, quarter point, and center point top of curb elevations, vertical curves recommended.

___ Pedestrian walkways provided per ST-30.

___ Sidewalks provided per ST-3 or ST-4.

___ Access ramps shown at each return per Caltrans Standards.

___ Median islands shall not extend into crosswalks.

___ Driveway centerline stations shown on plans. Widths of driveways specified in notes or on plan.

___ Show on improvement plan sheets a “+” at the top of curb at the prolongation of the property lines with a note number. The requirement for a chiseled “+” is included in the General Notes (see Section 15). The “+” is also included in the map checklist to be shown on the map with a bearing and distance to the property corner. A chiseled “+” is considered a witness point in the Subdivision Map Act.

4. Storm Drainage

___ Hydrology/hydraulic study completed in accordance with the City's Facilities Planning Guidelines.

___ Confirm that the watershed map includes drainage areas and stormwater flows from the hillside and streets upstream.

___ System agrees with City's storm drain master plan.

___ Creek or Channel plans submitted by developer to Zone 7 for approval.

___ Creek or Channel plans submitted to Engineering Division for information and review of compatibility with City facilities.

___ Plan and profile shown. Hydraulic grade lines and ten-year flows noted on the Profiles.

___ Lines adequately sized per City's storm drain master plan for ten-year storm and to handle all future upstream development. Hydraulic calculations checked (Minimum pipe size = 12").

___ All lines have adequate cover in accordance with City Standard Detail G-1.

___ All pipes with less than 3 feet of cover from sub-grade must show the type of pipe on the plans (profile view). Pipe type must be per the City's Engineering Design Criteria listed in Section IX of this plan check manual.

___ For Type I Storm Water Curb Inlets between 8 feet to 10 feet deep use Type II Maintenance Hole Base per S-3. For Type II Storm Water Curb Inlets deeper than 10 feet or for pipes larger than 60 inches, provide special engineered design prepared by a licensed Civil Engineer. Special design and calculations submitted for deck transition between maintenance hole base and inlet top.

___ For Type I and Type II Maintenance Holes greater than 20 feet deep or for pipes larger than 60 inches, provide special engineered design prepared by a licensed Civil Engineer.

___ Ten-foot gravel access road provided to all maintenance holes or inlets outside of paved area per Standard Detail S-4. Turnarounds, knuckles, and sufficient turning radii provided.

___ Storm lines located per City Standard Detail ST-12.

___ Check conflicts with other utilities.

___ Actual elevations and locations of existing facilities shown and tied into existing facilities checked.

___ Elevations and distances mathematically correct. All grades and inverts shown on profile.

___ System can easily be extended to serve future development.

___ All drainage channels fenced with 6' high chain link fence per Alameda County Zone 7 standards.

___ Access provided to drainage channels for maintenance equipment.

___ On street drainage does not exceed a maximum gutter run as follows:

Average Street Slope	Maximum Gutter Run
.005	500 feet
.006	550 feet
.007	600 feet
.008	650 feet
.009	700 feet
.010	750 feet
Etc.	Etc.

The maximum gutter run shall not exceed 1500 feet, regardless of street slope.

___ Drainage inlets provided at all low points, with at least two feet clearance from curb returns, five feet clearance from top of driveway flares, five-foot clearance from fire hydrants (City Standard Detail L-3A).

___ Concrete interceptor ditches provided on uphill side of tract to carry all off-tract drainage to a storm drain. Provide necessary easements. For interim conditions, where there is a tentative map approval on the adjacent property or future phase, interim interceptor ditches may be constructed of asphalt. Minimum slope of A.C. or concrete ditches is 0.5%.

___ Maximum distance between storm maintenance holes or inlets shall be 500'.

___ Minimum velocity allowed in pipe is 2.5 feet per second when half full.

___ Hydraulic grade line shown on profile. Minimum top of curb elevations to be 1.25 feet above hydraulic grade line.

___ Field inlet grate elevations 0.75 feet above hydraulic grade line.

___ Storm drains cross other underground facilities at no less than a 45-degree angle, and a 90-degree angle where possible.

___ Pipe sizes fit inlet dimensions. Pipes are not permitted to enter through the corner of a structure. If not, provide detail of special inlet.

___ Beveling of storm drainpipes is not permitted. Curved storm drain pipes must follow allowable joint deflection per pipe manufacturer's recommendations.

___ Private on-site rear drainage system required for lots draining to rear (concrete "V" ditch, etc).

___ Cross section shown for concrete "V" ditches. Provide hydrology and hydraulic calculations for ditches (100-year design storm) demonstrating adequate capacity.

___ Storm lines extended to all tract boundaries.

___ Dead ends plugged.

___ Existing downstream facilities are adequately sized to handle new flows.

___ Cross-sections shown for all drainage/bio-retention swales. Swales are adequately sized to carry design flows. Minimum swale slope is 1%. Maximum slope is 3%. Side slopes shall be 2:1 or flatter.

___ Any sidewalk next to a bio-retention swale shall be setback a minimum of one foot from the top of the slope of the swale. A moisture barrier shall be installed behind the sidewalk 6 inches below the bioretention swale or street section whichever is lower.

___ Elevations shown in profile for all existing underground facilities crossed by new storm drain lines. Existing elevations are verified by design drawings or potholing.

___ Include note that all storm drain lines in the public right-of-way shall be videotaped with audio explanations after installation to confirm they have been properly cleaned and patched.

___ Include note that all storm drain lines in the public right-of-way or public easement shall be videotaped with audio explanations before construction to confirm the condition of the existing line.

5. Stormwater Treatment and Hydromodification Facilities

___ Zone 7 impervious surface form has been submitted and is signed by the owner.

___ Storm water calculation form has been submitted and signed by the owner.

___ Stormwater quality control plan with stormwater treatment calculations is consistent with site hydraulic calculations.

___ Areas of existing and new impervious surface on Zone 7 impervious surface form match stormwater treatment form.

___ Where applicable hydomodification calculations are consistent with both site calculations and stormwater treatment calculations.

___ Stormwater does not pond in the street at a depth greater than 6 inches and overflows have a controlled path to drain to the public stormdrain system and/or are controlled with detention basins, notches in curbs or under walls.

___ Check utility and tree locations to confirm they do not interfere with the function of the stormwater treatment and detention devices.

___ Confirm that the engineered soil needed for water treatment supports the growth of the trees and other landscaping specified in the design.

___ Confirm that the watershed map includes drainage areas and stormwater flows from the hillside and streets upstream. Confirm off-site flows are conveyed around the site if they are not treated with the on-site flows.

6. Sanitary Sewer

___ Sewer study based upon the City's Facilities Planning Guidelines.

___ New lines are adequately sized. Minimum size = 8". Sized to handle all future upstream development.

___ System agrees with City's sewer master plan.

___ Plan and profile shown.

___ All lines have adequate cover. In general, all lines shall have at least 5 feet of cover from finished grade. If it is impossible to provide 5 feet of cover, absolute minimum pipe covers as required by the City's Pipe Design Criteria near the end of this plan check manual.

___ All pipes with less than 3 feet of cover from subgrade must show the type of pipe on the plans (profile view). Pipe type must be per the City's Pipe Design Criteria listed near the end of this plan check manual.

___ All sewer laterals shall have a 4” two-way (residential) or 6” one-way (industrial/commercial) cast iron cleanout behind the curb per City Standard Detail S-5A.

___ Sewer laterals provided to all lots, parks, and school sites.

___ Five foot minimum between sewer/water laterals (City's Standard Detail ST-12).

___ Sewer mains are located at centerline of street on all streets without medians. In streets with medians, sewers should be located in the center of lane next to median. On curved streets, sewer stays a minimum of 5' from the gutter lip. Sewer mains located at least 5' from storm drains.

___ No sewer maintenance holes located in medians.

___ Deep sewer mains may require extra wide easements.

___ Check conflicts with other utilities.

___ Sanitary sewer lines cross other underground facilities at no less than a 45-degree angle, and a 90-degree angle when possible.

___ Ten-foot minimum clearance maintained between parallel water and sewer lines (City Standard Detail G-2A).

___ Elevations and locations at tie in points to existing systems determined by field survey and accurately shown.

___ The system can easily be extended to serve future development.

___ Existing downstream facilities are adequately sized.

___ Elevations and distances mathematically correct - plan and profile shown for all mains.

___ All main lines end at a maintenance hole (rodding inlets not permitted).

___ VCP required in all industrial parks and all lines that serve upstream industrial users.

___ Maintenance holes spaced a maximum of 400' apart.

___ No curved sewers permitted.

___ Velocities maintained between 2 feet per second and 10 feet per second at half full.

8" - .0033 minimum slope
10" - .0025 minimum slope
12” and larger - .0020 minimum slope

___ Sewer mains shall be extended to all tract boundaries. Maintenance holes shall be placed at the limit of tract boundary. Stubs at last maintenance hole shall be 1' long.

___ No connections allowed to existing mains (trunk lines) over 24" in diameter.

___ 0.10' drop at angles through maintenance holes.

___ Pad elevations shall be 1' higher than nearest upstream maintenance hole rim. Otherwise, an overflow device is required for lots without the required pad elevations. Provide details of overflow device on the improvement plans and note which lots the device is required for.

___ A ten-foot gravel access road provided to all maintenance holes outside of paved area per Standard Detail S-4. Turnarounds, knuckles, and sufficient turning radii provided.

___ Laterals with stations shown. Laterals a minimum of 10' from street trees, and a minimum of 2 feet from driveways. Laterals beneath driveways are not permitted (except in cul-de-sac bulbs where compliance with this requirement isn't feasible).

___ Elevations shown in profile for all existing underground facilities crossed by new sewer lines. Existing elevations are verified by design drawings or potholing.

___ Include notes that all sanitary sewer drain lines in the public right-of-way shall be videotaped with audio explanations after installation to confirm they have been properly cleaned and patched.

___ Include note that all existing sanitary sewer drain lines in the public right-of-way or public easements within or near the work area shall be videotaped with audio explanations to confirm the existing condition prior to start of work.

6. Water and Fire Hydrants

___ Water line plan view shown and four-foot minimum depth to top of pipe indicated.

___ Comments from Water Resources Division incorporated in design.

___ Comments from Fire Department were incorporated in design. Fire hydrants located per Fire Marshal's requirements. Fire flow meets Fire Department requirements.

___ Agrees with City master plan.

___ Existing adjacent fire hydrants shown.

___ Fire hydrant spacing maximums:
400' residential
300' industrial and commercial

___ Fire hydrants located on the same side of the street as the water main.

___ Fire hydrants located 4' from driveways (10’ in commercial areas), 5' from water services, sewer laterals, street trees, and the outside edge of storm water inlets.

___ Either Cal Water approves design (in their service area), or valves shall be as follows:

- ___ a. At least every 500' on all mains
- ___ b. Four at cross intersections
- ___ c. Three at T intersections
- ___ d. 8" to be resilient wedge gate valves
  10" and larger to be butterfly valves.
- ___ e. For new fire hydrants in a Cal Water area confirm the connection detail needed to connect to Cal Water system.

___ Air release valves at all high points.

___ Pressure reducing valves installed on individual residences where water service pressure exceeds 80 p.s.i. (noted on plans where applicable).

___ Pressure regulating valves installed between pressure zones.

___ Five foot minimum between sewer/water laterals (City Standard Detail ST-12).

___ For large multi-family development, a backflow preventor may be needed. Check with Water Division to see if a backflow preventor is needed.

___ Water service and meter provided to all lots, park sites, medians, and other public or private landscaped areas. One meter per single family dwelling or condo unit. Apartment buildings are a commercial development and shall have no more than one meter per building.

___ Water lines cross other facilities at no less than a 45- degree angle.

___ Cal Water main locations approved by Cal Water.

___ City water mains to be located approximately 10' from f/c on north and west sides of street (City Standard Detail ST-12) for 40' curb-to-curb width streets, and 8' from f/c for 36' curb-to-curb width streets.

___ Water main angle point monuments and details shown on the plans when location of angle point won't be obvious from location of valves.

___ Size and type of pipe shown.

___ Minimum line size 8".

___ Install one water sampling station for each 75 homes within a subdivision. Each subdivision shall have a minimum of one water sampling station.

___ Blow-offs (City Standard Detail W-5A through W-5C) provided as follows:

- ___ 1. Temporary on any line with future extension
- ___ 2. Permanent on cul-de-sacs where hydrant is not proposed
- ___ 3. All lows points in the line

___ All mains and hydrants are within dedicated right-of-way or easements.

___ Check conflicts with other utilities.

___ Water services a minimum distance of 5' from trees.

___ Details provided where not covered by City Standards.

___ Any details shown on plans conform to City Standards.

___ Thrust blocks detailed where not covered by City Standards.

___ Check soil report and proposed material type (metal pipe or fittings) to see if Cathodic Protection is needed. Cathodic Protections System provided as follows:

___ Requirements shown if tying into existing cathodically protected system
___ New design provided if metallic pipe specified

___ Water mains extended to all tract boundaries.

___ Water services with stations shown.

___ A ten-foot gravel access road provided to all structures (valves, blow-offs, etc.) outside of paved area per Standard Detail S-4. Turnarounds, knuckles, and sufficient turning radii provided.

7. Traffic Sight Distance and Signing and Striping

___ Street name sign provided at each intersection and advance street name signs provided on major streets.

___ Street name sign plate legend filled out properly. Sample plate legend detail is located in Section VI of this Plan Check Manual. City will provide block addresses with the second plan check. (Check South Livermore design guidelines for projects in the South Livermore Valley Specific Plan Area).

___ Speed limit signs installed where appropriate.

___ School signing and markings provided near schools (yellow cross walks).

___ Crosswalks and limit lines shown per City Standard Detail ST-26. Crosswalk installed only where required by the City Engineer.

___ Check crosswalks/public paths in, around and across public streets meet ADA requirements.

___ No stopping signs (R26S) shown on major streets 250'-400' on center both sides, installed only on streetlights poles if possible.

___ R30 sign ("No Parking 12 a.m. to 6 a.m. no exceptions") 250'-400' on industrial streets only.

___ Thermoplastic and reflective markers used for traffic striping. Painted striping not permitted. Skid resistant thermoplastic shall be used for striping within bike lanes and crosswalks.

___ Bike lanes shown per City Standard Detail ST-27 & ST-27B.

___ Separated or Buffered Bike lane signage and legend shown per Caltrans Standards or City Standard Detail ST-27.

___ Appropriate warning signs and markings provided.

___ Transition signing and striping detailed at street tie-ins and widening per Caltrans Standards.

___ Existing signing and striping shown, and modifications or removal shown as appropriate for new conditions.

___ Replacement striping shown on plans in areas receiving pavement overlays.

___ Where a "no outlet" area is being connected to other developments, existing "no outlet" sign removed. Where new "no outlet" area being created, new "no outlet" sign installed.

___ New striping shown in areas of street construction or street overlays.

___ Median R7 signs provided at first median nose (only).

___ One-way signs shown in median opposite driveways and streets where appropriate.

___ Stop signs provided where requested by the City Engineer.

___ Centerline striping provided where appropriate.

___ Streetlight and driveway locations shown on the signing and striping plan (locations must match street improvement plans and systems map).

___ As a general guideline, under standard conditions sight distance for medians and intersections shall be provided per the Caltrans Highway Design Manual based on the following design speeds:

Local streets = 35 m.p.h.
Collector streets = 40 m.p.h.
Major streets = 50 m.p.h.

___ At all intersections, a sight distance triangle shall be provided. The triangle shall be formed between the curb lines extended and the diagonal line joining points on the curb lines that are 40 feet from their intersection. Within the triangle there shall be no sight obscuring wall, fence, sign, foliage (without trimming being required) or berming higher than 30 inches above the curb, or for trees no foliage less than eight feet above the street pavement surface. The signing and striping plan shall show the location of any wall, fence, utility box or other objects which may limit the sight distance within this area.

___ All signing and striping not covered by City Standards shall be per Caltrans current standards.

___ Fire hydrant markers shown on signing and striping plan.

___ Street lighting reviewed, including adjacent lighting that may no longer be needed (Check Downtown Specific Plan Area and Isabel Neighborhood Plan Area Design standards for specialty lighting and connection to power source and that the circuits can carry all the street and specialty lighting loads).

___ Specialty lighting along streetscape is designed to handle the loads.

___ Left turn lane length determined by traffic study based on ultimate traffic volume and deceleration length. Minimum left turn lane length of 50'. Transition taper is 60' for streets with speed limits of 30 m.p.h. or less, 90' for streets with speed limits between 30 m.p.h. and 40 m.p.h. and 120' for streets with speed limits greater than 40 m.p.h.

___ Street barricades shown on signing and striping plans.

___ Sign installed on barricades "This street is planned to be extended" per ST-20B.

___ Traffic control plans for each stage include lighting, signing, striping, barricades, and other traffic control devices as necessary.

___ Low ground cover and small shrubs only (less than 30" height when full grown) within the "sight distance triangle".

___ Planting in medians does not obstruct line of sight for traffic traveling at design speeds (minimum unobstructed line of sight provided at all locations per Caltrans Highway Design Manual - Section 405.1). Obstruction is defined as an object higher than 3 feet above the level of the edge of pavement of the adjacent street within the sight distance triangle. Trees shall be trimmed (to the trunk) to a line at least 8 feet above the level of the intersection or center of the street.

8. Traffic Signals

___ Traffic signals shown where required.

___ Emergency Vehicle Pre-emption equipment shown per Fire Department requirements and specified as compatible with existing City equipment.

___ Street name signs mounted on pole mast arms and meet current City Standards.

___ A copy of technical provisions by the City for signal design and installation has been used. Special provisions reprinted on improvement plans.

___ 3" minimum signal interconnect conduit with fiber optic cable and pull boxes at 200’ intervals provided.

9. Street Trees

___ Approved street tree species shown in the improvement plans per conditions of approval and Planning Division. Raywood Ash and Moraine Ash trees not permitted.

___ Trees located 5' from water services and fire hydrants, 8' from sewer laterals, 8' from driveways, and 20' from streetlights and from curb returns (when there is separated sidewalk).

___ Street trees shown and stationed on the street improvement plans.

10. Landscaping

General Requirements:

___ Horticulture report provided with first submittal of landscape plans (where appropriate – North of I-580).

___ Scale of plans is 1"=20' or 1"=10'.

___ 12" wide concrete divider strips provided at project boundaries, planting limits, or between public and private maintenance boundaries per Detail L-15.

___ Water barrier included in cost estimate. Water barrier per Standard Detail L-1.

___ Note provided stating that all landscaping, irrigation, and construction shall conform to the "City of Livermore Engineering Division Standard Details and Specifications".

___ Planning Division has notified Engineering that planting plan meets Planning requirements.

___ Above ground utility boxes (transformers, etc.) shown and labeled on landscaping plans by the second plan check. Location/spacing of plants shall meet utility box clearance requirements and planning division screening requirements of utility boxes.

Landscape Grading:

___ Maximum slope of 3:1 in groundcover or shrub areas.

___ Minimum of 1 foot level area in front of walls, 2-foot level area behind walls, and 3-foot area behind sidewalk sloped at 2%.

___ Maximum slope of 4:1 in turf areas.

___ Minimum slope of 1% in paved areas.

___ Minimum slopes of 2% in planted areas.

___ No drainage pockets or depressions.

___ All areas drain away from foundations of buildings.

___ Minimum swale slope of 1%.

___ Landscaped areas graded to drain away from sidewalks (except in backing lot areas where drainage must be to the street).

Planting:

___ Planting materials appear in the City Standard Details and Specifications, or else are approved by the Engineering Division.

___ Planting conforms with Conditions of Approval.

___ Chart showing botanical name, common name, size, and class of planting (tree, shrub, or groundcover) provided on plan. Plants agree with recommendations of horticulture report (if required).

___ Square footage of planted areas and turf areas clearly shown on the plans, subtotaled by backing lot landscaping and by median landscaping.

___ Street tree varieties shall conform with conditions of approval.

___ Minimum street tree size is 24" box.

___ Minimum shrub size 5 gallons.

___ Ground cover size 1 gallon or flats.

___ Trees within six feet of paved areas have root deflectors.

___ Note provided stating that the contractor shall provide maintenance of all plants and planted areas for a period of 120 days after acceptance by City inspector.

___ Street trees 20' minimum from standard streetlights.

___ Street trees 15’ minimum from decorative streetlights.

___ Street trees 8' minimum from sewer laterals.

___ Street trees 5' minimum from water laterals.

___ Street trees 8' minimum from driveways.

___ Street trees 20' minimum from curb returns (10' minimum from curb returns in residential areas with monolithic curb, gutter and sidewalk).

___ Plantings do not impair required sight distance at intersections and driveways.

___ Trees do not interfere with existing overhead power lines.

Irrigation:

___ Irrigation service points (power connection to be shown on irrigation plans and streetlight plans).

___ Project coordinator to obtain street addresses to all irrigation controllers and water meters prior to plan approval.

___ Proper backflow prevention devices specified.

___ WELO calculations are provided on plans: 1) Service pressures shown at water meter on plans 2) Plans show flow rates in G.P.M. and precipitation rates in inches per hour, 3) Adequate pressure provided at each sprinkler to maintain "head-to-head" irrigation.

___ Head-to-head sprinkler spacing (second sprinkler located within radius of spray of first sprinkler). Sprinklers shall be located in a triangular arrangement.

___ Areas in different exposures and containing plants with different requirements irrigated on different circuits by different valves.

___ In developments where the backing lot areas are within a Landscaping Maintenance District, and medians are maintained by the City, two separate irrigation and electrical systems shall be provided.

___ Lines crossing cross at a minimum angle of 45 degrees.

___ Sleeves provided at all crossings through concrete, pavement, or masonry. Sleeves shall be Schedule 40 P.V.C. and twice the size of irrigation pipe.

___ Quick Coupling Valve provided per 200 linear feet of planting area, or at each median.

___ Irrigation pressures checked. Minimum service pressures as called for in nozzle charts provided. (Check pressure losses through water meter, backflow preventer, pipe, and valve for valve farthest from irrigation source).

___ Irrigation for medians and backing lot areas on separate water meters (for those areas where medians will be maintained by the City, and the backing lot areas will be maintained by a Landscaping and Lighting District).

Irrigation Materials:

___ Remote controllers per City Standard Specifications provided to operate remote control valves.

___ Controller selected which will operate correct number of valves.

___ Where irrigation heads are more than 200' from the controller, remote control units shall be provided per City Standard Specifications.

___ Sprinkler heads shall be per City Standard Specifications.

___ Pop-up only sprinklers.

___ All irrigation pipes shall have sizes shown on plans. Pipe types must be per City Standard Specifications.

___ Backflow Preventer provided at water meter per City Standard Specifications (within 5’ from water meter).

___ Provide proper controllers (per City Standard Specifications) to operate actual number of valves.

___ Project coordinator to request address for meter locations.

___ Low trajectory nozzles used in median islands to minimize street runoff.

___ Separate valves and water meter for each phase of landscaping.

Walls:

___ All walls including foundations shall be located on private property out of the public right-of-way.

___ For major streets, two feet of berming against 8-foot-high walls on the street side of the wall, or 6-foot walls on 2-foot berms. (Top of walls at least 8 feet above adjacent curb, and 7 feet above pad, with only 6 feet of exposed wall on the street side).

___ For collector streets, top of backing lot wall is 6 feet above highest adjacent grade (at least 6 feet above adjacent curb and 6 feet above pad).

___ Reduced allowable soil bearing pressures reflected in structural calculations for sound walls located above slopes or on berms. Alternatively, one additional foot of pier depth provided.

___ Plans submitted to Building division for walls requiring structural review. A special inspection may be required during construction.

___ One wall design maintained between natural breaks such as streets.

___ Walls, including grades, and stations shown in plan and profile view on the street improvement plans.

___ Backing lot walls meet articulation requirements as shown on Standard Detail L-17.

11. Trails/Bikeways

Trails and bikeways shall be designed in accordance with the City of Livermore's Active Transportation Plan.

Trails and bikeways that are to be owned and maintained by the Livermore Area Recreation and Park District shall be reviewed by the City of Livermore and the Park District. Park District standards may be required in the design and the plans shall be signed and approved by the Park District.

___ Trail shall be a minimum width of 10 feet of asphalt with 2-foot graded shoulders on both sides.

___ The minimum design speed for trails shall be 25 mph except when steeper than 4% and longer than 500 feet the minimum design speed shall be 30 mph.

___ The design of the trail as it relates to horizontal alignment, super-elevation, stopping sight distance, vertical alignment, and drainage shall conform to the Highway Design Manual Chapter 1000.

___ The design of the trail as it relates to desired cross-section, vertical clearance, structural sections, edge details, treatments at roadway crossings and signing and striping should conform to the Active Transportation Plan.

___ Trail plans must indicate sufficient pavement section at points where vehicular traffic crosses trail.

___ Trail plans must show drainage provisions.

___ Trail plans must show limits of grading around trail.

___ Provide all easement documentation for the dedication and construction of trail segments. These may include but are not limited to trail easements, temporary construction easements, slope easements, public utility easements or access easements. Public utility easements must indicate responsibility of trail repair should utilities be repaired.

___ Provide structural sections for AC pedestrian and decomposed granite paths.

___ Trail plans must show an adequate number of cross sections to describe the changes in trail section in respect to changes in terrain and edge of roadway conditions (i.e., meandering around trees, utility poles, obstructions, grade changes, right-of-way conditions, utilities).

___ Trail plans must show the merging of the two trail sections where the trail crosses public streets.

___ Trail plans must incorporate driveway access to existing homes, businesses and E.V.A.'s where appropriate. These types of crossings must be able to support appropriate vehicle loads. The plans should also clearly delineate and provide appropriate signage for these types of trial crossings.

___ Trail plans to include appropriate signing and striping plans.

___ Trail plans are to include landscape plans with appropriate irrigation plans as well.

___ Trail plans are to include a list of appropriate plant materials that are drought resistant and that do not have invasive roots or thorns.

___ Trail plans must show how the trail connects to existing paths, sidewalks or trails.

___ Irrigation plans must include the location of the water service, irrigation controller, electric service and possible phone service.

___ Trail plans must include erosion control measures.

___ Where the trail runs close to or traverses PG&E tower easements, plans are to show anti-tower climbing provisions.

____ A letter addressing all comments must be provided with the trail plans. The letter must state how each comment was addressed, including the sheet number that shows the correction.

12. Streetlights

___ Streetlights located and spaced per City Standard Detail ST-14B. Verify with Traffic Engineer the model number of streetlights to be used. Incorporate model number into the plan set as streetlight model to be used.

___ Minimum of one streetlight at each intersection and at the throat of every cul-de-sac.

___ Adjacent existing lights are shown on improvement plans and on signing and striping plan.

___ Streetlight and street light box locations shown with conduit to proposed PG&E service point.

___ Wiring design by an Electrical Engineer. Street light wiring diagram must be included in the improvement plan set and listed in the index of sheets. Review wiring diagram and conduit runs to make sure they match Joint Trench Plans.

___ Streetlight numbers assigned by PG&E and shown on plans shall match streetlight numbers shown on Joint Trench Plans.

___ Irrigation controller with wire run and service point shown on plans.

___ Public streetlights are not metered. Ensure joint trench and streetlight plans reflect power coming from PG&E secondary box and not a power meter for all public streetlights.

13. Grading Plan

___ Appropriate construction notes repeated on grading plan sheets.

___ Truck haul route (per conditions of approval) shown on grading sheets.

___ Stormwater/Water Quality Control/Storm water treatment requirements and best management practices are noted and shown on plans.

___ Compare grading plans with stormwater water quality control/treatment plans and calculations to make sure the proposed stormwater treatment devices are sized and shown at the correct locations on the grading plans.

___ Existing surface and subsurface structures, buildings, wells, and trees (to remain or be removed) shown on grading plan.

___ Existing contours shown (both on-site, and off-site for a distance of 50 feet beyond the project).

___ Provide spot elevations at each corner of the project boundaries and adjacent properties and top of curb elevations at all lot corners abutting streets.

___ Retaining wall provided if grade discrepancies at grading boundary exceed 6 inches. Wall detail provided.

___ In hillside areas terracing, interceptor ditches, and building pad setbacks from toes of slopes provided per the latest City adopted U.B.C. requirements.

___ Retaining wall locations (stationed) are fully inside of private property, including the foundation. No retaining walls or foundations shall be in the public right-of-

way. Top and bottom of wall elevations dimensioned or noted on plans. Details of retaining walls shown on plans shall match the structural plans and calculations. Structural calculations and details shall be submitted by a registered civil engineer. All structural calculations and details shall be reviewed by the Building Division.

___ Method of drainage behind retaining walls shown in detail and on plan (subdrains and drainage locations). If overland release is needed through a retaining wall, retaining wall shall be designed so opening is large enough to pass the flows needed to provide the overland release.

___ Make sure drainage on grading plans entering into treatment devices matches drainage management area on stormwater quality control/treatment plans.

___ Ensure that plans provide overland release to city public storm drain system. Maximum ponding before overland release should not exceed top of curb elevation.

___ All high points shall have an overland drainage release to the public street. The maximum elevations of the high points shall not exceed the elevation of adjacent properties and/or the elevation of 6 inches below the finished floor of the building structure.

___ All lots drain positively to street frontage with minimum 1% slope (direction of drainage swale shown with arrows). Proposed grades shown at rear property corners and existing grades on adjacent lots.

___ Pads drain 2% min. away from building foundation (for 10 feet and 1% after that to meet building code requirements) to swale high points.

___ Maximum slope 2:1 on all cuts and fills; 3:1 maximum slope in planted areas; 4:1 maximum slope in turf areas.

___ Longitudinal slope along asphalt roadways and landscape areas shall be a minimum of 1%.

___ Longitudinal slopes across concrete surfaces including sidewalks and gutter flowlines shall be a minimum of 0.5%.

___ Maximum driveway slope is 15%.

___ Slope of 2% for 3 feet behind back of sidewalk.

___ Stormwater drains away from backing lot walls to street at a minimum slope of 2%.

___ Pad elevations shall be 1' higher than nearest upstream maintenance hole rim. Otherwise, an overflow device is required for lots without the required pad elevations. Provide detail of overflow device on the improvement plans and note which lots the device shall be installed.

___ All area drains placed at low points along swales.

___ Street grades (elevations, slopes, and property line stations) shown and match street improvement plans.

___ Pad elevations shall be shown on all plans.

___ All cut and fill quantities shall be shown on plans.

___ If the property is in the floodplain consult the City of Livermore Floodplain Manager. Flood hazard zones are delineated as AE and shaded X.

___ Notes and details on grading plans shall include requirements in environmental permit conditions.

___ Storm Water Pollution Prevention Plan (SWPPP) has been prepared and/or a permit under the Regional Water Quality Control Board General Construction Permit has been issued with a WDID number.

___ Name of Qualified Stormwater Developer (QSD) and Qualified Stormwater Practitioner (QSP) with telephone number are printed on the plans along with WDID number.

___ Owner who is “Legally Responsible Party” has delegated data entry to QSD/QSP in the field so they can enter stormwater data during construction. If development is on City owned land, such as the Airport, the “Legally Responsible Party” is the City Manager.

___ Soils engineer wet stamps and signs original grading plan to indicate plan conformance with recommendations of soils report.

___ No grading within drip lines of existing trees to remain. Provide a tree protection fence at the drip line of every existing tree to remain prior to start of grading operation.

14. Erosion and Sedimentation Control Plan

___ Interim rough grading plan (no storm drain) shall show method of sedimentation control and erosion control during grading and construction of public works improvements shown.

___ Final grading plan (with storm drain) showing details of specific measures to be constructed on-site or off-site to prevent surface erosion and/or deposition of sediment in City storm drains and in channels.

___ Interim and final erosion and sedimentation control plans in conformance with the latest edition of the Erosion and Sediment Field Manual published by the San Francisco Regional Water Quality Control Board (SFRWQCB) and/or latest edition of the "CASQA Construction Best Management Practices Handbook" in conformance with the General Construction Permit including but not limited to the following:

___ Fiber rolls (sediment logs or wattles) provided at base of all slopes adjacent to public rights of way.

___ All slopes higher than 2' and steeper than 10% shall be protected from erosion (example: hydro mulching). If hydroseeding, provide specifications in the notes and on the plans (blown straw with tackifier, 2000 lbs./acre).

___ Check dams provided at every two-foot change in elevation along drainageways (such as gutters or swales), both before and after paving.

___ Materials for erosion and sedimentation control stored on-site.

___ Calculations for sediment basins (required for drainage areas larger than one acre) checked in accordance with RWQCB General Construction permit requirements.

___ Other appropriate measures in accordance with RWQCB General Construction permit requirements and best management practices incorporated into plan.

___ All erosion and sedimentation control measures on plans are consistent with SWPPP submitted to RWQCB and General Construction permit requirements.

15. General Notes

___ All of the following notes included in the following sequence in general note listing on first or second sheet of improvement plans, as applicable.

a. All construction shall conform to the latest City of Livermore Standard Details and Specifications.

b. BENCHMARK: The City monument at _____.

c. Truck Access and Haul Roads
Access to the development by construction equipment, material delivery and other heavy loads shall be limited by the developer to the following route:

(Insert route here)

Such heavy loads will not be allowed on existing residential streets in the vicinity of the development. The wheel loading on the above routes shall not exceed state load limits. Excessive trips are subject to a City roadway impact fee determined by the City to compensate for excessive wear and tear on the roadway.

d. A chiseled "+" mark shall be cut into the top of curb at the prolongation of the property lines. A chiseled "+" mark is considered a witness point per the Subdivision Map Act.

e. Finish grade profile represents the top of curb.

f. All lot fills shall be done in conformance to the Soils Engineer's recommendations. See the soils report dated _____ by Company.

g. Any existing wells encountered shall be abandoned and sealed per Alameda County Zone 7 requirements.

The contractor is responsible to notify all utilities 48 hours prior to any excavation so that their lines can be marked. Those to be notified include, but may not be limited to:

a. Underground Service Alert - 811
b. PG&E, SBC, AT&T, Comcast/Xfinity Cable, California Water Service Company, Zone 7 and the City of Livermore.

i. Any deviations or changes in these plans without official approval of the design engineer shall absolve the design engineer of any and all responsibility of said deviation or change (optional).

j. The surveyor shall be notified 48 hours in advance of when field staking is to be required.

k. Compaction tests will be performed on all trenches and street work to verify that compaction conforms to City Standards. The initial test and one re-test will be performed by the City (24-hour notice required). All additional testing will be at the Developer's/Contractor's expense.

l. All work adjacent to the existing pavement section shall be butt up to full existing section. Where a full section is not encountered, continue removal of additional pavement until a full section is found. See City Standard Detail ST-25.

m. If the pavement resurfacing extends to the intersection, it shall continue through the intersection.

n. Monuments shall be installed at locations shown on the final map in accordance with the City Standard Detail ST-13 and in accordance with City Specifications.

o. If a road is not shown on a final map with the monument locations, and is constructed or reconstructed, resurfaced or otherwise modified such that the existing monuments are destroyed or altered, a record of survey is required to set or reset new monuments.

p. The street light facilities shall not be installed until the Developer has provided Joint Trench Plans approved and signed by PG&E.

q. Street trees to be planted at each lot prior to occupancy.

r. Mailbox location and specifications shall be approved by the City and the Post Office. Mailboxes shall be installed in accordance with Post Office requirements.

s. All pipe grades shown as flow line elevations.

t. One 4" sanitary sewer lateral and cleanout shall be installed to each single family residential lot at locations shown on the drawings and an "S" stamped on the face of curb above the lateral (for residential).

u. One 6” sanitary sewer lateral and cleanout shall be installed to each building (for commercial). An “S” stamp is not needed when a manhole is provided to delineate public/private property.

v. A City-approved overflow device shall be installed on the sewer laterals of the following lots:_____.

w. All water lines shall have a minimum cover of 48".

x. Developer/Design Engineer to submit a schedule for water system thrust blocks per City Standard Specifications.

y. A certified CASp Specialist shall inspect all public ADA improvements and certify that they comply with the CASp certified design as shown on these improvement plans. Pedestrian improvements include but are not limited to

new trails, walkways, sidewalks, accessible ramps, connections between existing and new pedestrian improvements, and modifications to existing pedestrian improvements within or adjacent to the project site, as shown on the approved plans.

In California Water Service Co. Area

All construction on the water system shall be per Cal Water details and standards and will be subject to final inspection and approval by Cal Water and the City of Livermore

a. One water lateral shall be installed to each lot and a "W" stamped on the face of curb above the lateral.

b. Whenever possible, sanitary sewer laterals cross under water mains. If not possible, special approval from Cal Water and the State is required.

c. Fire hydrants and valves shall be per City Standards. Pavement markers shall be installed at each fire hydrant location per City Standard Detail W-1.

d. All fire hydrant installations will be subject to approval by the Fire Chief. Flow testing by the Fire Department will only be made at the request of the Construction Inspector at such time as all work in the water supply system has been completed.

e. Two weeks prior to beginning any work on existing streets, contractor shall install advance warning signs (C18 and C13) per the traffic control plan

f. Traffic Control and considerations for pedestrians and bicyclists shall be provided in accordance with the approved traffic control plans and with the Caltrans " California Manual on Uniform Traffic Control Devices" current edition. Failure to comply may result in immediate stoppage of work until the proper traffic control is in order.

g. The developer/owner shall have a job superintendent or a designated responsible representative on the job site anytime work is in progress during the construction of the project. The developer/owner shall advise the City Engineer whom the designee is in writing. The notice shall include an emergency notification phone number. The City shall be advised in writing if there is to be a change in job-site representative.

h. A pre-construction meeting of all the contractor's representatives involved in the project shall be held by the City Inspector prior to the start of construction at the request of the City of Livermore City Engineer.

i. The design engineer shall provide "as-built" drawings for installed traffic signals within fourteen (14) calendar days of traffic signal turn on. Failure to do so shall result in immediate halt to all subdivision construction, and no additional occupancies being granted by the City.

Add additional general notes as required or desired. Examples listed below:

Construction contractor agrees that in accordance with generally accepted construction practices, construction contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to normal working hours, and construction contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of design professional.

Permits shall be obtained whenever the work comes under the jurisdiction of any of the following agencies. After permit is obtained, the agency must be notified prior to work being done as required in the permit:

***** SHOW ONLY THOSE THAT APPLY *****

Alameda County Road Department, 399 Elmhurst Street, Hayward, CA 94544 Phone: (510) 670-5480

Caltrans, 111 Grand Avenue #300, Oakland, CA 94612 Phone: (925) 926-6112

Alameda County Flood Control and Water Conservation District, Zone 7, 100 North Canyons Parkway, Livermore, CA 94551 Phone: (925) 454-5000

City of Livermore, Engineering Division, 1052 South Livermore Avenue, Livermore, CA 94550 Phone: (925) 960-4500

City Encroachment Permits required for joint trench and California Water Service Company improvements.

(Permits may also be required by affected Railroad Companies or other utility companies. List these).

(Permits may also be required by affected resource agencies such as Fish and Game, Army Corps of Engineers, Cal/OSHA. List these).

a. In industrial areas, all sanitary sewers shall be extra strength VCP.

b. Channel construction shall conform to Alameda County Flood Control District Zone 7 Standards and as shown on these plans.

c. Contractor shall provide samples of median hard surfacing for City approval per the Specifications.

d. All property lines shall be marked with an indentation, a chiseled +", in the face of curb.

e. Developer shall provide the following to the City prior to tract acceptance for maintenance:

   i. A Monument and Benchmark Certification of all installed monuments from the surveyor. Note on the plans the benchmark these monuments are based upon. Project Coordinator to verify these monuments elevations are added to the City benchmark book.

f. An elevation certification of all pads from the surveyor.

g. A certification (final soils report) from the soils engineer stating that all grading has been completed in accordance with the recommendations of the preliminary soils report.

h. Development Street Inventory for new public streets (see Section VI).

i. A FEMA elevation certificate for all buildings in or adjacent to a floodplain.

j. The street structural sections shown on the plans are preliminary only. Final structural sections will be determined based on actual "R" value tests in the field following Caltrans flexible pavement design criteria.

k. Construction, Demolition and Debris Operations – Must be managed in accordance with building division and RWQCB permit requirements. Wastewater generated during construction shall not be discharged to the storm drain system. This includes waste from painting, sawcutting, concrete work, etc. The contractor shall make arrangements to eliminate discharges to the storm drain system and, if necessary, provide an area for on-site washing activities during construction. Materials which could contaminate storm runoff shall be stored in areas which are designed to prevent exposure to rainfall and to not allow storm water to run onto the area.

l. Pavement cleaning - Flushing of streets/parking lots to remove dirt and construction debris is prohibited unless proper sediment controls are used. Preferably, areas requiring cleaning should be swept.

m. Storm Drain Inlets - Storm drain inlets shall be marked with a Brass Plaque with the following statement: "NO DUMPING, DRAINS TO BAY". Brass Plaque may be obtained from the Water Resources Division of the Public Works Department.

j. Erosion and sedimentation control measures shall be implemented in accordance with RWQCB General Construction Permit.

k. A City Transportation Permit is required for oversized loads. Contact the City of Livermore Engineering Division at (925) 960-4500 for permit.

The following notes shall be on both the grading plans and the street improvement plans:

a. During grading operations, the contractor shall implement dust control measures both on-site and on the haul route, including (list actual haul route street names). Streets shall be swept a minimum of two times a day or as required by the City Engineer.

b. All grading shall be in accordance with the Storm Water Pollution Prevention Plan prepared by the developer per the Notice of Intent on file with the State Water Quality Control Board.

c. Submit City of Livermore Development Street Inventory Form prior to pre-construction meeting.

d. Developer is limited to working Monday through Friday, excluding City-observed holidays, between the hours of 7:00 a.m. and 3:30 p.m., or as authorized in writing by City ("Work Hours"). City reserves the right to charge Developer for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in the overall schedule, including reimbursement of unexpected costs incurred for inspection, testing, and construction management services.

16. Improvement Plan Signature blocks

a. Plans prepared by City of Livermore staff:

PREPARED UNDER
THE DIRECTION OF:

_____ _____
(INSERT NAME) DATE
CITY ENGINEER
R.C.E. XXXXX EXPIRES XX/XX/XX

(RCE stamp required – provide sufficient space for stamp)

b. Plans prepared by outside consultants:

CITY OF LIVERMORE
APPROVED BY:

_____ _____
(INSERT NAME) DATE
CITY ENGINEER
R.C.E. XXXXX EXPIRES XX/XX/XX

(RCE stamp required – provide sufficient space for stamp)

Outside consultant's signature block:

(COMPANY NAME)

_____ _____
(INSERT NAME) DATE
(INSERT TITLE)
R.C.E. XXXXX EXPIRES XX/XX/XX

(RCE stamp required – provide sufficient space for stamp)

c. Plans prepared by the developer's engineer:

APPROVAL OF THESE PLANS DOES NOT RELEASE THE DEVELOPER OF RESPONSIBILITY FOR CORRECTION OF MISTAKES, ERRORS, OR OMISSIONS CONTAINED THEREIN. IF DURING THE COURSE OF CONSTRUCTION OF THE IMPROVEMENTS PUBLIC INTEREST REQUIRES A MODIFICATION OF OR A DEPARTURE FROM THE SPECIFICATIONS AND DETAILS OF THE CITY OF LIVERMORE OR THESE PLANS, THE CITY ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUCH MODIFICATIONS OR DEPARTURE AND TO SPECIFY SUCH MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH SAME IS TO BE MADE.

APPROVED AS TO DESIGN ONLY BASED ON INFORMATION SUBMITTED HEREON.

APPROVED FOR THE CITY OF LIVERMORE:

_____ _____
(INSERT NAME) DATE
CITY ENGINEER
R.C.E. XXXXX EXPIRES XX/XX/XX

Developer's Engineer's signature block:

(COMPANY NAME)
PREPARED UNDER THE DIRECTION OF:

_____	_____
(INSERT NAME)	DATE
DEVELOPER'S ENGINEER	
R.C.E. XXXXX	EXPIRES XX/XX/XX

(RCE stamp required – provide sufficient space for stamp)

d. CASp Statement to add to all Public Improvement Plans:

The design for all pedestrian improvements within the public right-of-way and public easements as shown on these approved plans have been reviewed by the undersigned and found to comply with the following applicable regulations: American with Disabilities Act (ADA) requirements, the Public Rights-of-Way Accessibility Guidelines (PROWAG), the requirements found in Chapter 11B of the latest City Adopted California Building Code. In addition, all design exceptions shown on these approved plans that cannot meet the above listed applicable standards have been reviewed by the undersigned and are recommended for approval.

Name: _____

Signature: _____

CASp Certification Number: _____

C. GRADING PERMIT PRIOR TO MAP APPROVAL CHECKLIST

___ Confirm the subdivision improvement plans, including grading plans and erosion control plans, have gone through two or more plan checks through Engineering (including Planning and Building via Engineering). This review includes sound walls and retaining walls that might be on private property.

___ Interim erosion and sedimentation control plans must be complete.

___ There are no unresolved issues affecting grading or drainage, such as effects upon off-site drainage or adjacent property owners.

___ All necessary permits and approvals have been obtained from other government agencies such as California Department of Transportation (Caltrans), Alameda County Flood Control and Water Conservation District (Zone 7), Department of Fish and Game, U.S. Army Corps of Engineers, and Alameda County Public Works.

___ All necessary off-site easements or rights of entry to conduct grading have been obtained.

___ Drainage study is complete and approved, with a stamped and signed copy placed in the project file.

___ Projects that propose to rough grade two or more phases simultaneously must have complete improvement plans checked for all phases to be graded as discussed above.

___ Inspection fee and grading fee is calculated and developer is informed of the cost for the permit.

___ Risk Manager has determined the insurance needed and the insurance certificate has been uploaded and approved in PINS.

___ Prepare grading permit and letter agreement for corrective grading.

___ Provide letter agreement for corrective grading to developer to sign and return with cash bond in the amount of $10,000 or 10% of cost of rough grading and erosion control on the project whichever amount is greater.

___ Notify developers design engineer to bring in the original grading plans and erosion control plans for final review, approval and signature.

___ Return original signed grading plans to developer and request developer's design engineer to submit the following directly to engineering:

a. Three full size sets and three half size sets of the approved and signed grading and erosion control plans.

b. Insurance certificate (in accordance with subdivision requirements).

c. Corrective cash grading bond for corrective grading of the site and implementation of erosion control measures based on a City approved estimate (if prior to final map approval). Except in unusual circumstances, this amount is $10,000.

d. A letter agreement by which the City could use the cash bond for corrective grading has been submitted (see attached sample letter agreement).

e. Completed grading permit application form.

f. For projects involving channels, FEMA's Conditional Letter of Map Revision has been issued by FEMA.

g. For projects adjacent to a channel, FEMA’s Elevation Certificate has been completed and signed and stamped by a registered California land surveyor.

h. Copy of Notice of Intent and WID number to verify compliance with the State Regional Water Quality Control Board general permit.

i. Copy of application fee sent with Notice of Intent.

j. Statement from developer of the location of the proposed receiver site of soil spoils, soil export, and other building or construction debris, and the proposed haul route (if there is export).

___ Grading Permit submittal with the items listed above is received.

___ Insurance certificate submitted to Risk Management through PINS and approved.

___ Corrective Grading Bond Agreement reviewed for completeness and accuracy.

___ Two full size and two half size copies of the grading plans submitted to the Construction Section Supervisor and one copy kept in the Engineering file.

___ Work with Construction supervisor to schedule pre-construction conference.

___ Attend Pre-construction conference

D. BOND ESTIMATE CHECKLIST (Note to Developers/Design Engineers:

The City of Livermore has approved unit prices for bond estimates. (Ask the project coordinator for the latest version)

Note: A separate estimate shall be prepared for items that will be eligible for credits or reimbursements under the City’s Traffic Impact Fee Program.

a. Grading

___ Clear and grub

___ Demolition of existing infrastructure

___ Tree removal and preservation

___ Rough grading

___ Fine grading (R.O.W.)
___ Retaining Walls
___ Fine Grading of Lots
__ Erosion Control
___ Stabilized construction entrance(s)

b. Street

___ Pavement and base
___ Curb and gutter
___ Sidewalk
___ Curb returns (including access ramps and curb and gutter)
___ Driveways
___ Median curb
___ Water barrier
___ A.C. overlay (fabric with 2-inch overlay or other treatment adequate to restore the pavement surface as specified by the City Engineer)
___ Grinding existing pavement (2-inch grind or other treatment specified by the City Engineer)
___ Bridges
___ Concrete valley gutter
___ Redwood header

c. Storm

___ Pipe
___ Storm water inlets (street and field)
___ Maintenance holes
___ Channels
___ Outfall structures
___ Gravel access road
___ Concrete/asphalt "V" ditches

d. Stormwater Treatment Devices (approved by latest Municipal Regional Permit)

___ Pipes
___ Outfall structures
___ Bioswales
___ Stormwater Planters
___ Stormwater Tree Wells
___ Trash Capture Devices
___ Underground storage vaults
___ Hydromodification Basins
___ Permeable Pavers
___ CDS units (if necessary)

e. Sewer

___ Mains
___ Laterals with cleanouts
___ Maintenance holes
___ Gravel access road
___ Sleeves/Casings

f. Water (including Cal Water area)

___ Mains
___ Services
___ Fire hydrants
___ Gravel access road
___ Pressure reducing stations
___ Blow offs
___ Air Release Valves
___ Butterfly valves
___ Gate valves
___ Angle point markers
___ Pressure reducing valves (for individual water services)
___ Water sampling station
___ Cathodic Protection Measures
___ Sleeves/Casings

g. *Dry Utilities*

___ Joint trench facilities (PG&E, Cable TV, Telephone)

___ Streetlights

___ Undergrounding of existing overhead utilities

h. *Miscellaneous*

___ Monuments

___ Masonry wall

___ Street trees (and tree wells)

___ Median hard surfacing

___ Public landscaping and irrigation

___ Irrigation controller

___ Water meter development fee for public landscaping irrigation meter

___ Street signs (stop, name, parking, traffic, etc.)

___ Traffic signals and related appurtenances

___ Striping

___ Signing

___ Barricades

___ Chain Link Fence

___ Multi-use Trail

___ Class 4 separate bike lanes

___ Bus stop turnouts & shelters

i. ___ 10% Construction contingency on all construction.

j. ___ Increase for projected inflation computed to the estimated end of construction. Factor is for a one-year period (based on the change in the E.N.R. San Francisco Construction Cost Index for the previous calendar year). Note that this item is not included in the base for calculating plan check fees or inspection fees.

k. ___ Bond enforcement costs calculated as the greater of $25,000 or 5 percent of the bond estimate. Note that this item is not included in the base for calculating plan check fees or inspection fees.

l. ___ 12% Construction engineering costs. If inspection fees are paid prior to City Council approval of the final map, construction engineering is calculated as only 6%. Note that this item is not included in the base for calculating plan check fees or inspection fees.

E. JOINT TRENCH PLAN CHECKLIST

___ Scale of joint trench plans matches scale of street improvement plans.

___ Street light locations shown on joint trench plans agree with street light locations shown on street improvement plans.

___ All street trees shall be shown (all existing and proposed).

___ All wet utilities shall be shown (all existing and proposed).

___ Utility boxes are located at least 4 feet from sewer and water services and street trees. For utility boxes located in planter strips, 20-foot minimum separation between boxes and trees (This minimizes conduit/tree conflicts).

___ Above ground utility box locations agree with locations shown on landscaping plans. All above ground utility boxes must be shown on the approved landscaping plans if developers want them permitted with the joint trench plans.

___ Service points shown on joint trench plans match those shown on improvement plans.

___ The joint trench located underneath the sidewalk.

___ Plan must be wet signed and stamped by a Registered Professional Electrical Engineer or plans may be wet signed and stamped by a Registered Professional Civil Engineer and submitted along with voltage calculations.

___ Street light locations match locations shown on improvement plans.

___ Conduit run between light and secondary power source shown with wire # and size (minimum size if #8).

___ PG&E assigned street light numbers shown.

___ Sheet numbers on plans match sheet number shown in the sheet index on the tract improvement plans.

___ Traffic signal interconnect conduit(s) shown.

___ Irrigation controller and power source shown.

___ Electrolier wattage shown and consistent with City Standard Detail ST-14.

___ Lights are City owned and shall operate under PG&E rate schedule LS-2A.

F. ELECTRONIC PLAN AND MAP REVIEW CHECKLIST

___ Project Coordinator obtains access to Bluebeam, Acella, Agreement Tracker and Civic Square PEAK.

___ Project Coordinator arranges.

G. FINAL APPROVAL OF TRACT MAP & CITY COUNCIL APPROVAL CHECKLIST

1. Prior to placing it on City Council agenda for approval.

___ Review of project submittal, including map, improvement plans and all related documents, is complete.

___ Any special Development Agreement Requirements are met.

___ Project Coordinator arranges for an appraisal of dedicated T.I.F. right-of-way (if any). T.I.F. credits, reimbursements, and special conditions incorporated into the subdivision improvement agreement by project coordinator. (City Engineer approval required for special conditions or T.I.F. credits/reimbursements to be included in subdivision improvement agreement).

___ Project Coordinator approves Bond Estimate.

___ The Landscape Maintenance District/Community Facilities District is formed (see LMD/CFD procedures). Include cash bond (40 times total annual assessment) in Subdivision Improvement Agreement if the LMD or CFD is not formed prior to the approval of the Subdivision Improvement Agreement.

___ Final actions approved by the Local Agency Formation Commission for public right-of-way being annexed to the City.

___ Request Insurance Requirements from Risk Manager by sending an email with a description of the project (size, location, type and number of units/buildings, any special features of the site (creek, hazardous materials, bridge, etc.), Developers/Owner's name).

___ Send PINS request to admin staff to send Developer a request to upload insurance be sure to ask the Developer to inform you when the insurance has been uploaded.

___ Upload the Subdivision Agreement, Stormwater O&M Agreement and all other Agreements required for project into Agreement Tracker for review by attorneys at least 2 months before the City Council meeting. (see Final Approval of Tract Map Procedures). (If changes are required to the template allow three (3) additional months to give Attorney's time to approve revised template).

___ Upload the Stormwater Treatment Device Agreement for review by attorneys at least 2 months before the City Council meeting. (If changes are required to the template allow three (3) additional months to give Attorney's time to approve revised template). (see Final Approval of Tract Map Procedures).

___ After Subdivision Improvement Agreement is approved to form, have a copy signed and notarized. Upload signed and notarized copy into Agreement Tracker before preparing staff report.

___ After Stormwater Agreement is approved to form, have a copy signed and notarized. Upload the Stormwater Treatment Device Agreement into Agreement Tracker complete with Notarized Signatures.

___ Bonds or alternate surety in accordance with the City Standard Subdivision Agreement submitted, based on an approved cost estimate of public works improvements. Maintenance security may be deferred until the developer requests the improvements be accepted for permanent maintenance.

___ Insurance Certificates (per the subdivision agreement) submitted and approved by the City Risk Manager through the PINS system.

___ Notice of Intent submitted and WDID No. received and provided along with a Stormwater Pollution Prevention Plan (SWPPP) if required.

___ Planning, Water, Streets, Landscape, Traffic, Building and Fire approval received.

___ School mitigation requirements are satisfied if land or improvements are provided instead of in-lieu fees.

___ Approved Landscaping and or Community Facilities Report for district formation and all necessary exhibits and information submitted. If maintenance district public hearing held after final map approval, developer's cash bond to ensure formation provided.

___ Final map or parcel map originals in conformance with the conditions of approval with signatures submitted.

___ Provision made for segregation of existing assessments concurrently with recording of final map.

___ Improvement plans (Exhibit "A-1", Engineering Considerations, to the subdivision improvement agreement) approved with sheet numbers of approved plans written in on page one of subdivision improvement agreement.

___ Required off-site deeds and easements submitted (or the standard City contract for property acquisition executed and required acquisition funds provided by developer). Deeds must be signed and notarized.

___ Copy of developer's right(s)-of-entry for off-site construction. (Note: City must have a formal easement, and developer must have its own separate right-of-entry).

___ Approval from "Wheels" (Bus Service).

___ Notice from Post Office approving mailbox locations.

___ Cash payment or bond received for future removal of on-site turnarounds.

___ Plan check fee balance paid.

___ Balance of inspection fee paid (if grading permit was issued before final map approval).

___ F.E.M.A. elevation certificate prepared and signed by a registered land surveyor for all buildings in and adjacent to the F.E.M.A. floodplain.

___ Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR) received from F.E.M.A. for projects modifying the floodplain or locating buildings in the floodplain.

2. Two months before the City Council meeting

___ Placed on City Council Agenda at least two months before City Council Meeting.

3. Prior to Recordation of Final Map

___ Certificate sheet signed and stamped (electronic) by City Engineer and signed by City Clerk.

___ Save an electronic copy of the unrecorded signed final map in Engineering files.

___ Final Map and conform copies of the Final Map submitted to City Clerk for filing along with off-site easements and dedications with a letter prepared by project coordinator for City Clerk's signature with instructions for recording and certificates of rejection/acceptance attached to each document for City Clerk's signature.

___ Project coordinator is to obtain the Escrow Number, if required, from the title company and reference in the letter to the Title Company.

___ Return corrective grading bond (if any) to developer.

___ Agenda Request sent to add project to City Council Agenda.

___ Staff Report and Resolution written in PEAK and location map, Agreements and map is uploaded in PEAK. Workflow has been created and forwarded to supervisor for review.

___ Corrections responded to in PEAK during staff report review process.

___ Signed and notarized Subdivision Improvement Agreement, Stormwater O&M Agreement and all other agreements, Bonds and related documents are uploaded separately in Agreement Tracker.

___ Memo to clerk and Letter to Title Company with recording instructions emailed to clerk for clerk' signature to use to transmit to Title Company with Maps, agreements and all other documents that will be recorded.

4. After Recordation

___ 30 days after notice is received from the City Clerk's office that the final map and related documents (subdivision improvement agreement, stormwater treatment measures maintenance agreement, offers of dedication, etc.) have been sent to the title company. The project coordinator shall check agreement tracker/laser fiche to see if the City Clerk has uploaded the recorded documents and an electronic copy of the final map. If recording has not occurred, the project manager shall call the title company and determine what the reason is for the delay and take necessary action to ensure that the map is recorded in a timely fashion or returned to the City for Council action to rescind the previous approval, if necessary.

___ 60 days after notice is received from the City Clerk's office that the final map and related documents have been sent to the title company, the project manager shall confirm that the recorded map has been received and forwarded for the Information Technology Division to include in the permanent records on Document Imaging Program.

H. FINANCIAL DISTRICT FORMATION CHECKLIST

Financial district formation procedures and checklists can be found in Chapter X.

I. SEGREGATION OF ASSESSMENTS CHECKLIST

J. CONSTRUCTION TRANSMITTAL CHECKLIST

K. INSPECTION AND PLAN CHECK FEE CHECKLIST

L. SUBDIVISION FINAL ACCEPTANCE

Inspector:

___ City Inspector final approval granted.

___ Streetlights activated by PG&E.

___ Cash bonds placed for unfinished items:

- ___ (a) Street trees
- ___ (b) Mailboxes

___ Certification of monuments received (location and elevation).

___ A dated and signed letter received from the owner of a site receiving export soil, other site material, or construction debris.

___ Pad grading certification (compaction) letter received.

___ Final soils report (or letter), indicating that recommendations of preliminary soils report have been complied with, has been submitted.

___ Pad compaction certified for all lots.

___ Street inventory sheet submitted.

___ As-built copy of the record drawings submitted and approved by engineering Inspector.

___ Council acceptance of tract requested by the construction section.

Project Coordinator:

___ All fees have been paid.

___ Benefit Districts set up.

___ Storm Drain and other credits distributed.

___ Cash bonds placed for unfinished items:
- ___ (a) Street trees
- ___ (b) Mailboxes

___ Maintenance security (15%) either on file or provided by developer.

___ Engineering has closed grading permits, and grading bonds have been returned.

___ A copy of the recorded subdivision map has been submitted and sent to the Information Technology Division for inclusion in Digital Imaging System.

___ The Landscape Maintenance District formation bond returned to developer.

___ All special conditions of the subdivision improvement agreement have been complied with.

___ Replace signed improvement plans in electronic engineering file with As-Built copy.

___ Acceptance forms for rejected offers of dedication of off-site dedications to the Clerk for recording.

___ F.E.M.A. elevation certificate prepared, signed, and stamped by a land surveyor registered in California for all constructed buildings in or adjacent to the F.E.M.A. floodplain.

___ F.E.M.A. Final Letter of Map Revision (LOMR) received from F.E.M.A. or a cash bond received to complete the LOMR approval process.

M. LARPD FACILITY REVIEW CHECKLIST

N. INFRASTRUCTURE ACCEPTANCE WITHOUT A MAP CHECKLIST

O. TRANSMITTAL OF PLANS TO MAINTENANCE CHECKLIST

X. FINANCING DISTRICT REPORT REQUIREMENTS

A. GENERAL INFORMATION ABOUT FINANCING DISTRICTS

1. FINANCING DISTRICTS SET-UP BY THE CITY OF LIVERMORE

The City of Livermore has set-up and administered several assessment districts to fund both the construction of capital improvements and the maintenance and replacement of these public facilities after they are constructed. Resolution 2009-005 approved City of Livermore Goals and Policies for Land Secured Financings and on October 12, 2015 the City Council authorized the use of Community Facility Districts to fund the maintenance of public infrastructure within or directly serving new residential and /or commercial development. Each type of district is governed by certain laws and must be set-up, maintained and annexed into following a certain procedure. Since laws frequently change it is important to always consult the City Attorney's Office to determine the current laws to follow. Financing Districts are expensive to set-up and to administer so it is also important to determine if the staffing effort and cost is justified and the cost for both is recovered. The Planning Manager, City Engineer, Community Development Director, Finance Director, City Attorney, and City Manager may need to assist staff during the entitlement process in determining which financing district if any is an option.

2. STATEWIDE COMMUNITY INFRASTRUCTURE PROGRAM

The Statewide Community Infrastructure Program (SCIP) is a program administered by the California Statewide Communities Development Authority (CSCDA) that enables developers to fund impact fees and public infrastructure costs through the sale of municipal bonds. SCIP currently sells these bonds typically three times a year. If developers use this program, they work with both the CSCDA and the City of Livermore. The CSCDA sets-up the assessment districts and administers the program at no cost to the City of Livermore. Since the effort to apply to this program is relatively small this option is usually available to all developers. More information is available on the CSCDA website: CSCDA.org. SCIP provides financing for the Pre-Funding of Impact Fees Program, Reimbursement of Impact Fees Program and the Infrastructure Acquisition Program as described below.

a. Pre-Funding of Impact Fees Program

This program pre-funds the SCIP eligible development impact fees prior to the issuance of a building permit. Not all impact fees are SCIP eligible. The only development impact fees that will be eligible for prepayment under this program are:

City Storm Drain - On-site

City Storm Drain - Roadway

City Sewer
City Water
Park Facilities
TIF - Transportation Impact Fee
TVTDF - Tri-Valley Transportation Development Fee

The remaining development fees that are not SCIP eligible must still be paid to the City prior to the issuance of the building permit.

b. Reimbursement of Impact Fees Program

This program will reimburse the developer for the SCIP eligible development impact fees after the building permit fees have been paid and the bonds have been sold. Bonds sold for the purpose of reimbursing impact fees need to be taxable bonds. Not all impact fees are SCIP eligible. The only development impact fees that will be eligible for reimbursement under this program are listed above in the pre-funding program.

c. Infrastructure Acquisition Program

This program will reimburse the developer for the construction of public improvements only, such as utilities, grading, paving, sidewalks, curbs, gutters, medians and landscape that will be public located in the public right-of-way. Reimbursements will not be available to the developer for these improvements until bonds are sold and the City accepts the improvements for permanent maintenance. Acceptance of improvements is a City Council action that takes place about two months after the City Inspector has notified Development Engineering in writing that all improvements are ready for acceptance. This program also requires an acquisition agreement between the CSCDA and the City for the public improvements. This agreement must be approved by City Council prior to the filing of the final map. It is imperative that developers keep good records of their construction expenses because they may need to provide supporting documentation to CSCDA to request reimbursements after the bond sale.

B. LEGAL CONSIDERATIONS REGARDING FINANCING DISTRICTS

Landscape and Lighting Act

The Landscaping and Lighting Act of 1972 authorizes assessments to install, construct, and maintain landscaping, lighting and park and recreation facilities. On November 5, 1996, the California voters enacted Proposition 218, titled the *Right to Vote on Taxes Act,* to amend the California Constitution and require public agencies to comply with new procedural and substantive requirements for the imposition of new or increased taxes. Proposition 218 applies to landscape maintenance district assessments.

Since the Landscaping and Lighting Act was enacted prior to Proposition 218, and new and increased assessments must comply with Proposition 218, it is important to reconcile both statutory schemes, however the notice, hearing and protest provisions of the Omnibus Implementation Act supersede those requirements in existence on July 1, 1997.

The Proposition 218 Omnibus Implementation Act ("Omnibus Implementation Act") which is set forth in Government Code Section 53750 et. seq. restates and supplements the procedural requirements of Proposition 218.

Special versus General Benefits

Landscape maintenance district assessments are authorized for certain improvements that provide special benefit to the assessed properties. Proposition 218 includes detailed procedures for the imposition of benefit assessments on real property. A benefit assessment or "special assessment" is a charge imposed on particular real property for a local public improvement of direct benefit to that property, such as a street improvement or lighting improvement. The rationale of a special assessment is that the assessed property has received a special benefit over and above that received by the general public. The general public should not be required to pay for special benefits for the few, and the few specially benefitted should not be subsidized by the general public.

An assessment in a defined area is known as an assessment district. Each assessment district must include all properties (or businesses) that will specially benefit from the improvements or services to be funded by the assessment. Virtually, all assessments are levied against real property. Generally, they are collected on the property tax roll, secured by a lien against the assessed property, and subject to the requirements of Proposition 218.

Prop 218 Requirements

There are four basic requirements of Proposition 218:

a. Identify all benefitted parcels. All parcels that will have a special benefit conferred upon them and upon which an assessment will be imposed must be identified in the engineer's report and included in the assessment district. Government owned parcels cannot be excluded absent clear and convincing evidence which demonstrates that the parcel receives no special benefit.

b. Distinguish general from special benefit. The general benefits must be distinguished from the special benefits conferred on the parcels.

c. Proportionality. The proportionate special benefit derived by each parcel

must be determined in relationship to the entirety of the capital cost of the public improvement, the maintenance and operation expenses of a public improvement, or the cost of the property related service being provided.

d. Reasonable cost. The assessment must be apportioned so that the amount assessed to a parcel does not exceed the reasonable cost of the proportional special benefit conferred on that parcel and does not include any costs attributable to general benefits. The portion of a project cost associated with general benefit must be funded from non-assessment revenues, and a city which lacks other funds will not be able to use assessment financing, since few cases sustain a conclusion that a project has no general benefit.

Community Facilities District Act of 1982

The Community Facilities District (CFD) Act of 1982, also known as the Mello-Roos Act, was enacted by the Legislature in response to the passage of Proposition 13 (which limits taxes based on the assessed value of real property). A Mellow-Roos tax is an alternative revenue method available to the City. Current law (California Proposition 218 (1996)) constitutionally requires two-thirds (2/3) voter approval to approve the formation of a Mello-Roos District. Once approved, a Mello-Roos Community Facilities District is formed. Once formed, a special tax (which is different from regular property tax) is imposed on all property within the community facilities district. The Mello-Roos special tax is in addition to the regular ad valorem property tax on the property. The Mello-Roos special tax is based on a formula that is specific to that district, that was approved in proceedings. The formula can be based on a variety of factors but cannot be based on the value of the property. Mello-Roos community facilities districts commonly base the special tax on formulas, such as the square footage of the improvements, or the proximity to a specific improvement, or based on the acreage of a lot.

C. PROCEDURES FOR FORMATION OF NEW FINANCING DISTRICTS AND PREPARATION OF REPORTS
(Str. & Hwy Code Sections 22500-22679 and Gov't Code Section 53750 et. seq.)

There are several different kinds of maintenance districts. Landscape Maintenance Districts were the first financing districts formed to finance maintenance costs in the City of Livermore. The City administers LMD's by keeping track of expenses, identifying assessments needed for the next year and preparing an annual Engineer's Report for approval by City Council. An annual public hearing is held and assessments for all LMD's in the City are sent to the County assessor office to send to property owners by August 10th of each year. In 2009, new stormwater requirements became effective requiring the construction and maintenance of basins and other stormwater quality improvements that cannot be included in a Landscape Maintenance District (LMD), so the City decided a Community Facilities District (CFD) would be the

appropriate mechanism to use to finance the maintenance of these additional facilities.

The City has formed CFD's for many years to fund infrastructure. The City began forming maintenance CFD's in 2012 to fund the maintenance of landscape, stormwater treatment devices, walls, trails, and a wide variety of other improvements. The city also administers CFD's by keeping track of expenses, identifying the tax needed for the next year, preparing a special notice of tax lien and recording it each year. The special notice of tax lien is sent to the county assessor's office by August 10th of each year also. The special notice of tax lien is prepared by calculating the amount of tax to be assessed on each parcel according to the rate and method established with the formation of the CFD. No annual public hearing is needed nor is an engineer's report is needed.

Since there are existing assessment districts, LMD's and CFD's throughout the City of Livermore for funding maintenance and capital improvements to provide funding to repair damages due to natural disasters in the future, it is important to understand the structure of the existing financing districts in and near a proposed development to determine the most appropriate maintenance funding mechanism to use. The City typically conditions a project to provide a funding mechanism for maintenance. The Developer chooses the mechanism along with input from the City during the plan review process.

The general steps for formation of maintenance assessment districts are as follows:

Step 1 – Adoption of a Resolution Initiating Proceedings

Step 2 – Preparation of an Engineer's Report for LMD's (Must be prepared by a registered Civil Engineer in the State of California) or Rate and Method for CFD's

Step 3 – Adoption of a Resolution of Intension

Step 4 – Preparation and Mailing of the Notice

Step 5 - Handling of Ballots

Step 6 – Holding a Public Hearing

Step 7 – Record Keeping

In early 2018, the ongoing administration of assessment districts was transferred from the Engineering Division to the Public Works Maintenance Division. A memo was sent from the City Attorney's Office to the Public Works Department, dated April 12, 2018, outlining the legal requirements to form and administer maintenance assessment districts.

D. PROJECT COORDINATION PROCEDURES FOR FORMING A FINANCING DISTRICT OR ANNEXING AN AREA INTO AN EXISTING DISTRICT DURING THE FINAL MAP FILING PROCESS

Before the City can approve a final map, it must be assured that an appropriate funding mechanism is in place for the costs of landscape, stormwater quality, walls, trails and the maintenance and operation of other public improvements. When given the option of forming or annexing the area to be developed into an assessment district the developer must choose one of the following options to provide maintenance funding.

1. **Option 1** - Formation of a new Landscape Maintenance District (LMD) or Community Facilities District (CFD) or annexation into an existing LMD or CFD prior to the City approving the Final Map (the descriptions below are current as of March 31, 2025. Please contact the City Attorney's Office to confirm these are the latest procedures and the documents referenced are current).

   Formation of a New Landscape Maintenance District. The City Council must adopt a resolution of intention to create a new landscape maintenance district and then mail out ballots at least 45 days before holding a public hearing on the district formation. All landowners within the district will be given a ballot to vote on forming a new maintenance district. In order to minimize the delay in approving the final map, the developer should obtain City approval of the project's Engineer's Report for creation of a landscape maintenance district at the earliest opportunity (ideally no later than the end of the second plan check), so that the public hearing process can begin. The final map cannot be approved by the City Council until the City has received a positive vote for formation of a landscape maintenance district and the public hearing for that district formation has been held by the City Council. Due to the limitations of what can be included in an LMD the City no longer creates new LMDs.

   Formation of a new Community Facilities District. The City Council must adopt a resolution of intention to form a new Community Facilities District and then mail out ballots a certain amount of days before holding a public hearing on the district formation, please check in with the Bond Counsel and the Special Tax Consultant for mail out dates before holding a public hearing on the district formation. All landowners within the district will be given a ballot to vote on forming a new maintenance district.

   Annexation into an Existing Landscape Maintenance District. Development areas to be annexed into existing Landscape Maintenance District's (LMD) that foresaw the annexation of this future area need only to amend the original assessment diagram and Engineer's report but do not need to vote on the inclusion of the area or hold a public hearing. If the existing LMD did not foresee the area to be added in the future, then the original assessment diagram and Engineer's report must be amended, and a vote and a public hearing must be held.

Annexation into an Existing Community Facilities District. Requires same procedures for the formation of a new CFD.

Annexation into an Existing Community Facilities District with Unanimous Approval provisions. The City of Livermore has established two CFDs with Unanimous Approval provisions. The first is the City-wide CFD 2021-1 and the second is the Isabel Neighborhood Specific Plan CFD 2023-1. The procedures set forth for annexation are described in Section H.

2. **Option 2** - Submit funds for the perpetual maintenance of landscape and or other public improvements.

   The developer will submit a principal payment to guarantee maintenance of landscaping in perpetuity. The City has determined that the developer must make a principal payment in an amount equal to 30 times the current annual maintenance costs in order to ensure perpetual funding. With these funds in hand, formation of a landscape maintenance district would not be necessary, and approval of the final map wouldn't be delayed. This method offers the developer the advantage of being able to market lots that are free of all landscape district assessments.

3. **Option 3** - Submit funds for the perpetual maintenance of landscaping and/or other improvements pending formation of a 1) new landscaping and lighting maintenance district, or the 2) annexation of the development into an existing landscape maintenance district or the 3) annexation of the development into an existing community facilities district.

   The developer will make a cash deposit with the City of Livermore in the above amount to be place into a non-interest-bearing account, which would be refunded upon the successful conclusion of district formation proceedings and public hearing. This option also wouldn't involve a delay in approval of the final map. If the formation is unsuccessful then this cash deposit will be used to guarantee perpetual maintenance funding as discussed in 2 above. This option will be included as a special condition in the subdivision improvement agreement. The resolution of intention for the public hearing would be approved concurrently with the final map.

   The developer should let the City plan check coordinator know at the earliest possible opportunity which option he or she wishes to pursue to fund the maintenance and operation of landscaping improvements.

E. DOCUMENTS FOR FORMATION OF A NEW LANDSCAPE MAINTENANCE DISTRICT AND ANNEXATION INTO AN EXISTING DISTRICT

Procedure for preparing an Engineer's Report for formation of a new landscape maintenance district.

a. An Engineer's Report is prepared by the developer's engineer and submitted with the first plan check of the improvement plans for the project. This submittal

must follow Design Review/Planning Commission Approval of the landscaping, walls, decorative paving, and/or special amenities that will be publicly maintained. **The City will not accept a draft Engineer's Report which does not reflect Design Review/Planning Commission approval of landscaping and other amenities that will be publicly maintained.**

b. **Prior to placing a council item initiating proceedings for the formation of a new maintenance district, the Engineer's Report must be in a final form acceptable to the City. The following must be received at least 32 days prior to Council adoption of a resolution of intention:**

   i. One copy of Engineer's Report, with reduced 8-1/2" x 1 1" copy of assessment diagram attached.
   ii. One signed and notarized copies of the "Landowner Petition For Consent to Formation of Maintenance District" form. All landowners within the proposed district must sign the form.
   iii. Two18" x 26" paper copies the of assessment diagram.
   iv. One 18" x 26" mylar originals of assessment diagram.
   v. An electronic copy via e-mail of the following files:

      a. MS Excel file of Parts B, and C of the Engineer's Report. File name shall be xxxBC.xls where xxx represents the district number (i.e. 814BC.xls).

      b. MS Word files. of the Cover sheet, Description of Assessment, and Parts A, D, E and F of the Engineer's Report. File name shall be xxxreport.doc where xxx represents the district number (i.e. 814report.doc).

Form and content of an Engineer's Report for formation of a new landscape maintenance district

The Engineer's Report includes the following items:

a. A cover sheet;
b. An introduction to the Report and an explanation of the assessment;
c. Part A – Description - A description of the maintenance activities to be performed.
d. Part B - Cost Estimate - A presentation of the costs to be paid from the District.
e. Part C - Assessment Roll - The assessment by parcel with ownership shown.
f. Part D - Method of Assessment - The way the assessment is apportioned.
g. Part E - Plans and Specification and Assessment Diagram.
h. Part F – Certifications.

Additionally, the "Landowner Petition for and Consent to Formation of Maintenance District" must be prepared. Instructions for preparing this form follow the instructions for preparing the Engineer’s Report.

The seven individual parts of the Engineer's Report are to be prepared as follows:

1. LANDOWNER PETITION AND CONSENT FORM

A landowner consent form must be provided concurrently with the Engineer's Report. This form is in a Word file labeled "newconsent2003.doc".

a. Enter the district number, tract name (if any) and tract or parcel number in the header.

b. Enter the district number in the subject line and in Items 3 and 5.

c. Enter the tract number in the subject line.

d. Enter the lot numbers, tract number(s) and assessor's parcel number under the property description.

e. List the name and addresses and provide a signature line for all owners. All signatures must be dated and notarized. Provide two signed, notarized originals of the form to the city.

f. Attach Part "A" of the Engineer's Report as described in item 3 above. This description must be identical to the description in the Engineer's Report.

2. SPECIAL REQUIREMENTS FOR MULTI-PHASE PROJECTS

For a multi-phase project, the developer or the developer's engineer shall consult with the Engineering Division to discuss the formation of a maintenance assessment district. At the City's discretion, one of the following methods shall be employed for multi-phase projects:

a. All phases of the project form a single maintenance district. In this case a single master plan for all phases of landscaping shall be approved by the Design Review/Planning Commission, and this master plan shall be reflected in the Engineer's Report maintenance quantities.

b. Each phase of the project shall form its own maintenance district.

3. REQUIREMENTS FOR INDUSTRIAL AND COMMERCIAL PROJECTS

Unless otherwise pre-approved by the Engineering Division, the method of spread for industrial and commercial parcels shall be on a lot square footage basis, rather than on a per lot basis as is done for residential lots. This will require a modification of the standard Engineer's Report boilerplate.

F. DOCUMENTS FOR FORMATION OF A NEW COMMUNITY FACILITIES DISTRICT

There is an 8-step process that is required to form a viable bonded Community Facilities District (CFD).

1. **Step 1** – **Initiation of CFD**: It begins with an initiation process where a property owner or government entity begins the process of establishing a CFD.

    a. Developer requests City to form a CFD. If the City determines that the request is beneficial to the City the Developer provides a signed petition requesting the formation of a CFD.
    b. City works with Developer on a list of services to be financed.
    c. When list is agreed upon. The engineering coordinator works with the City Attorney's Office to ask the City's Bond Counsel to prepare the required documents for initiation of the CFD. Engineering Coordinator works with Special Tax Consultant to begin preparing the CFD Report and RMA.
    d. Engineering Coordinator places the Resolution of Intention to form a CFD on the next City Council Agenda and follows the City procedures (prepares a staff report) for City Council to formally receive the landowner petition and initiate the CFD process. Bond Counsel will prepare the Resolution of Intention.

2. **Step 2 Establishment of Rate of Apportionment** (RMA) Following the laws for California, the Rate and Method of Apportionment must be developed and determined. The Rate and Method of Apportionment (RMA) outlines how a tax will be levied or charged, on which property, under what conditions, for how long and at what rate.

    a. Bond Counsel prepares the resolution of intention.
    b. The special tax consultant prepares the Rate and Method of Apportionment (RMA).

3. **Step 3 – Public Hearing:**

    a. Engineering coordinator follows the City procedures to schedule a public hearing, prepare a staff report and resolutions with the help of the Bond Counsel and Special Tax Consultant. The documents include: 1) Resolution of Formation, 2) Resolution to incur debt, 3) etc. 4) Presentation to City Council and a script for the Mayor, Notice of Public Hearing
    b. A public hearing is held and if there are no majority objections by the participants, then the CFD formation process continues.

4. **Step 4 – Election:** An election is held amongst the property owners. In order to establish a CFD, a two-thirds affirmative vote of property owners is required if there are no more than 12 registered voters living within the proposed district. However, if more than 12 registered voters are living in the district, a two-thirds vote of registered voters is required.

5. **Step 5 – Resolution of Formation/Resolution to Incur Debt**: This step is when the district is approved to be formed, and the issuance of debt is authorized for bonded districts.

6. **Step 6** – **Second Reading of Ordinance:** Engineering Coordinator follows the City procedures to schedule and prepare a staff report for the second reading of the ordinance for CFD formation at the meeting following the Public Hearing.

7. **Step 7 – Recordation of Special Tax Lien:** Engineering Coordinator works with City Clerk to arranged for the recordation of Special Tax Lien.

8. **Step 8 – Issue Debt:** The last step in the formation process is to issue any debt necessary such as land-secured municipal bonds or bank loans. Engineering Coordinator shall work with Finance, Bond Counsel and the Special Tax Consultant to complete this step.

Once the formation process is complete, a special tax is imposed on all property within the Community Facilities District. This tax is not an ad valorem property tax. It is in addition to the standard property tax that exists in that region.

G. DOCUMENTS FOR ANNEXATION INTO AN EXISTING COMMUNITY FACILITIES DISTRICT

In general the procedure for a property to annex into an existing CFD follows the same basic procedure and documentation as for the formation of a new CFD. Consult with City Attorney, Bond Counsel and Special Tax Consultant for any modifications to the process as they pertain to the project.

H. DOCUMENTS FOR ANNEXATION INTO AN EXISTING COMMUNITY FACILITIES DISTRICT WITH UNANIMOUS APPROVAL PROVISIONS

1. The City of Livermore has established two CFDs with provisions to simplify the annexation process to one Council meeting. These CFDs were created with a Unanimous Approval provision. The two CFDs with Unanimous Approval at this time are CFD 2021-1 City-wide District with the provision to annex additional areas into the District City-wide and CFD 2023-1 Isabel Neighborhood Specific Plan.

Properties that annex into CFD 2021-1 will need to establish the maintenance items and maintenance costs to be included in the annexation.

Properties that annex into CFD 2023-1 will need to utilize the established rate for maintenance per acre in the RMA and follow the procedure as outlined below except for the establishment of maintenance items and estimate as they were already established at district formation.

a. Below is the procedure for preparing the documents for Annexation into CFD 2021-1 the existing City-wide district.

   i. Establish maintenance items and request draft “Description of Services to be Financed” and estimate of maintenance costs from Developer.

   ii. Work with Maintenance to review and comment on the drafts and provide redlines to Developer with plan check comments for the project.

   iii. Once drafts go through 2-3 plan review rounds, share with Senior Development Engineer for comments along with the plans. Incorporate any comments and recalculate as necessary.

   iv. Request the developer to provide a recent preliminary title report.

b. Preparation of Rate and Method of Assessment (RMA).

   i. Once maintenance costs are close to their final form provide the following to Bond Counsel and the Special Tax Consultant :
      1. Description of services
      2. Estimate of Maintenance Costs
      3. Preliminary Tract or Parcel Map
      4. Preliminary Title Report
      5. Signature block for entity signing the ballot, and evidence of authority for signor.

2. Provide NBS with the target to return RMA, Revised Tax Zone Map, the Council date and the deadline for final documents to make this date. Please copy Senior Development Engineer, and Attorney’s Office.

   i. The City’s consultant (NBS) prepares the draft Rate and Method of Assessment (RMA) and provides to City Staff. If necessary, staff redlines RMA and returns to consultant for corrections.

   ii. Consultant provides written confirmation from the County that there are no registered voters on the parcel/annexing parcel.

iii. When RMA is in final form Project Coordinator prepares the Draft Unanimous Approval complete with all Exhibits.

iv. Provide draft Unanimous Approval with all exhibits to Bond Counsel and Special Tax Consultant for review together with items as noted above. Let them know the deadline to make the target date for City Council.

v. Revise draft Unanimous Approval if necessary.

vi. Provide the final Unanimous Approval to the Developer with all final Exhibits with deadline to make the target City Council date.

vii. Bond Counsel prepares the annexation resolution and amendment to the Notice of Special Tax Lien.

3. City Council Approval

   Upon receipt of executed Unanimous Approval, Project Coordinator prepares staff report for Annexation on the consent calendar. Following Council approval Special Tax Consultant records the amendment to the Notice of Special Tax Lien. Project Coordinator will provide the Clerk with contact information to record the Notice of Special Tax Lien.

   After receiving all executed documents, Project Coordinator to record annexation date in the Annexation List.

4. The City has established a City-wide Community Facilities District and an Isabel Community Facilities District. Both CFD's have established a shorter annexation process when there is unanimous approval of the annexation. This process is described in this section. This process is as follows:

XI. CITY ENGINEERING DESIGN CRITERIA

FLEXIBLE AND SEMI-RIGID PIPE DESIGN GUIDELINES

This document has been prepared to outline some of the basic principles of semi-rigid and flexible pipe design focusing mainly on the pipe deflection caused by soil loading in trench conditions. The methodology presented herein does not address surcharge loading (e.g. buildings), embankment conditions, buckling (e.g. vacuum or hydrostatic pressure), railroad or airport loads. The information presented herein is intended to assist in the design of the following semi-rigid and flexible pipe types:

	Pipe Type	**Specification Section**
1.	Corrugated Polyethylene Non-pressure Pipe	02631
2.	Ductile Iron Pipe	05060
3.	PVC Composite Sewer Pipe	02533
4.	ABS Composite Sewer Pipe	02533
5.	ABS Non-pressure Pipe	02534
6.	Small PVC Non-pressure Pipe	02534

EXTERNAL LOADS - DEFLECTION DESIGN

When a trench load of sufficient magnitude is applied, semi-rigid and flexible pipe will deflect until sufficient passive resistance from the sidefill soil is developed, thereby transmitting part of the trench load to the sidefill soil. Thus, the load-carrying capacity of semi-rigid and flexible pipe is a function of the soil stiffness and the pipe stiffness.

The original formula for the design of flexible pipe was developed by Spangler later modified by Watkins and Spangler or otherwise referred to as the Modified Iowa Formula. Semi-rigid pipe types steel and ductile iron also use the same or similar formula to determine deflection as described in AWWA M11 and M41. The general form of any deflection formula includes the load on the pipe as the numerator, with the sum of pipe and soil stiffness terms as the denominator. The Modified Iowa Formula is used herein and shown below. An explanation of the terms used in the formula follows:

The Modified Iowa Formula

$$\Delta X = \frac{[D_L * K_B * \left(W_E + \frac{W_L}{D_L}\right) * r^3]}{EI + 0.061Er^3}$$

Where ΔX = The predicted horizontal deflection or change in diameter (in.).

D_L = The deflection lag factor, which adjusts initial deflection to consider consolidation of the soil load and the soil modulus over time. When

the soil prism load is used, D_L = 1.0, since the maximum load on the pipe after full soil consolidation is the prism load. When the soil prism load is not used a design value between 1.25 to 1.50 should be used.

K_B = The Bedding constant which accounts for variability of haunch compaction is dependent upon the angle subtended by the pipe bedding.

W_E = Earth load on pipe (pounds per linear inch).

W_L = Live load on pipe (pounds per linear inch).

r = Mean radius of the pipe (in.).

E = Modulus of elasticity of the pipe material (psi).

I = Moment of inertia of the pipe wall per unit length ($t^3/12$) (in^3).

t = Pipe wall thickness (in.).

E' = Modulus of soil reaction. This is the long-term effective stiffness of the soil and embedment in resistance to deformation (psi).

Many plastic pipe types (e.g. PVC, HDPE, and ABS) incorporate the design parameter pipe stiffness (PS) into the Modified Iowa formula. PS is measured, according to ASTM D 2412, "Standard Test Method for External Loading Properties of Plastic Pipe by Parallel-Plate Loading, "

at a datum of 5 percent deflection. Incorporating PS into the Modified Iowa formula shown above the following equation results:

$$\frac{\Delta\%}{D} = \frac{D_L * K_B * [W_E + W_L] * 100}{0.149PS + 0.061E'}$$

Where: W_E = The soil prism load, in psi, equal to the weight of soil over the pipe. The Value is equal to the unit weight of soil (pcf) times the depth of cover (ft), divided by 144 in^2/ft^2.

W_L = Live loads, in psi.

PS = Pipe stiffness, in psi. Minimum pipe stiffness is Measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D 2412), or calculated from manufacturer's data.

Δ%/D = Percent Deflection

D = Outside pipe diameter (in.)

DESIGN TABLES

The attached design for various semi-rigid and flexible pipe types are to be used for general design purposes only. The consider deflection criteria only (except for DP which also considers bending stress). Vacuum and internal pressures are not evaluated in these but should be considered in determining the pipe wall thickness of pressure pipe. Internal pressure and vacuum design criteria for DIP and steel pipe can be found in AWWA C150 and M41 for DIP and AWWA C200 and M11 for steel pipe.

It should also be noted that the design tables do not include surcharge loads such as building foundations, embankments, adjacent railroads, airport loads and high groundwater. HS-20 live loads due to traffic loading are considered for depths of cover less than 10 feet. Generally, live loads tend to be insignificant in the overall pipe wall thickness design when depth of cover is greater than 10 feet.

Design parameters unique to each pipe material are shown on each pipe design table worksheet and discussed as appropriate in footnote.

CORRUGATED POLYETHYLENE NONPRESSURE PIPE (TYPE S HOPE)
SECTION 02631
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Pipe Size (in)	PS[5] (psi)	Minimum Pipe Cover[8] (ft)	Maximum Pipe Cover[9] (ft)
12	50	2.5	19
15	42	2.5	19
18	40	2.5	19
24	34	2.5	19
30	28	2.5	19
36	22	2.5	19

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

PVC COMPOSITE SEWER PIPE (TRUSS PIPE)
SECTION 02533
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Pipe Size (In)	PS[5]	Minimum Pipe Cover[8]	Maximum Pipe cover[9]
8	200	2.5	34
10	200	2.5	34
12	200	2.5	34
15	200	2.5	34

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

ABS COMPOSITE SEWER PIPE (TRUSS PIPE)
SECTION 02533
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L	=	1.0 (Deflection Lag Factor)
K_B	=	0.096 (Bedding Constant)[2]
W_E		(Dead Load=Soil Prism Load)[3]
Soil Density	=	120 pcf[2]
W_L		(Live Load, psi)[4]
E'	=	400 psi (Modulus of Soil Reaction)[6].
Max Deflec	=	5%[7]

Minimum and Maximum Pipe Cover

Pipe Size (In)	PS[5] (psi)	Minimum Pipe Cover[8]	Maximum Pipe Cover[9]
8	200	2.5	34
10	200	2.5	34
12	200	2.5	34
15	200	2.5	34

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

ABS NONPRESSURE PIPE
SECTION 02534
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)

K_B = 0.096 (Bedding Constant)[2]

W_E (Dead Load=Soil Prism Load)[3]

Soil Density = 120 pcf[2]

W_L (Live Load, psi)[4]

E' = 400 psi (Modulus of Soil Reaction)[6].

Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Size	SDR	PSS	Minimum Pipe Cover[e]	Maximum Pipe Cover[s]
4	35	45	2.5	19
4	23.5	150	2.5	29
6	35	45	2.5	19
6	23.5	150	2.5	29

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

SMALL PVC NONPRESSURE PIPE
SECTION 02534
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

	SDR	pss•	Minimum Pipe Cover[e]	Maximum Pipe Cover[9]
4	35	46	2.5	19
4	26	115	2.5	26
6	35	46	2.5	19
6	26	115	2.5	26
8	35	46	2.5	19
8	26	115	2.5	26
10	35	46	2.5	19
10	26	115	2.5	26
12	35	46	2.5	19
12	26	115	2.5	26
15	35	46	2.5	19
15	26	115	2.5	26

NOTES

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE-Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

DUCTILE IRON PIPE
SECTION 05060
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)

K_B = 0.096 (Bedding Constant)[2]

K_x = 0.157 (Bending Moment Coefficient)

W_E (Dead Load=Soil Prism Load)[3]

Soil Density = 120 pcf[2]

W_L (Live Load, psi)[4]

E' = 400 psi (Modulus of Soil Reaction)[6].

E = 2400ksi (Pipe Material Modulus of Elasticity)

Max Deflec = 3%[7]

Pipe Size	Minimum/Maximum Pipe Cover for Various Pipe Thickness[9]																		
	t, in.	0.25	0.260	0.280	0.300	0.310	0.320	0.330	0.340	0.360	0.370	0.380	0.400	0.410	0.420	0.430	0.450	0.460	0.47
3		1/100+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4		1/80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6		1/45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8		1.5/33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10		NA	1.5/27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12		NA	NA	1.5/27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14		NA	NA	1.5/22	1.5/25	1.5/26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16		NA	NA	NA	1.5/23	NA	1.5/25	NA	1/25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18		NA	NA	NA	NA	1.5/21	NA	NA	1.5/25	1/26	NA	NA	NA	NA	NA	NA	NA	NA	NA
20		NA	NA	NA	NA	NA	NA	1.5/21	NA	1/25	NA	1/27	NA	NA	NA	NA	NA	NA	NA
24		NA	NA	NA	NA	NA	NA	2/16	NA	NA	1.5/19	NA	1/23	NA	NA	1/27	NA	NA	NA
30		NA	NA	NA	NA	NA	NA	NA	2/12	NA	NA	2/14	NA	NA	1.5/17	NA	1/19	NA	NA
36		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2/13	NA	NA	1.5/14	NA	NA	NA	1/15
42		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2/12	NA	NA	NA	NA	1/14

Pipe Size	Minimum/Maximum Pipe Cover for Various Pipe Thickness[9]																			
	t, in.	0.490	0.510	0.520	0.540	0.560	0.570	0.580	0.610	0.630	0.640	0.650	0.680	0.700	0.720	0.760	0.790	0.800	0.830	0.870
30		1/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
36		NA	1/18	NA	NA	1/22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42		NA	NA	1/15	NA	NA	1/18	NA	NA	1/21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
48		NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/17	NA	NA	1/20	NA	NA	NA	NA	NA	NA
54		NA	1/10	NA	NA	NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/17	NA	1/20	NA	NA	NA
60		NA	NA	NA	1/10	NA	NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/17	NA	NA	1/20	NA
64		NA	NA	NA	NA	1/10	NA	NA	NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/16	NA	1/19

Notes

1. The equation used to develop the table above is based upon design methodology from AWWA C150 and AWWA Manual M41. Table does not account for internal pressure. Internal pressure design should be performed in accordance with AWWA C150.
2. Value estimated based upon City of Livermore standard trench detail.
3. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to all depths of cover per the recommendations of Ductile Iron Pipe Association. In certain situations other super-imposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values of E' for Iowa formula) of ACSE – Manuals and Reports on Engineering Practice No. 60.
6. As Recommended by AWWA C150.
7. NA- Pipe thickness not available in this pipe diameter.
8. Dash means that design parameters do not allow the use of this pipe thickness.
9. Minimum cover measured from top of subgrade. Minimum value is calculated value based upon equations and methodology presented herin. It is not recommended that pipe cover be less than 30 inches unless special circumstances exist, and a thorough analysis is performed verifying the structural integrity of the pipe. Maximum cover measured from finished grade.
10. Value provided by the Ductile Iron Pipe Research Association based upon a Type 4 trench condition which closely simulates the City of Livermore's standard trench detail

RIGID PIPE DESIGN GUIDELINES

This document has been prepared to outline some of the basic principles of rigid pipe design focusing on pipe strength and • soil loading in trench conditions. The methodology presented herein does not address surcharge loading (e.g. buildings, embankment conditions, railroad or airport loads). The information presented herein is intended to assist in the design of the following rigid pipe types:

Pipe Type	Specification Section
I . Vitrified Clay Pipe	02536.
2. Reinforced Concrete Pipe .	02632

DESIGN TABLES

The attached design tables for vitrified clay and reinforced concrete pipe are to be used for general design purposes only.

It should also be noted that the design tables do not include surcharge loads such as building foundations, embankments, adjacent railroads, airport loads and high groundwater. HS-20 live Loads due to traffic loading are considered for depths of cover less than 10 feet. The earth load determination is calculated using the Marston Equation which is defined with its parameters in the pipe design tables.

PIPE STRENGTH DETERMINATION

The pipe strength determination for vitrified clay pipe (VCP) is determined by calculating the computed Three-Edge-Bearing Strength as defined by •the extra strength pipe design criteria for extra strength VCP and ASTM C12 and C700. The pipe strength determination for reinforced concrete' pipe (RCP) is determined by calculating the computed D-Load as defined by the attached pipe design criteria for reinforced concrete pipe and ASTM C76.

REFERENCES

1. Concrete Pipe Design Manual, November 1992, American Concrete. Pipe Association.
2. Clay Pipe Engineering Manual, 1995, National Clay Pipe Institute.
3. ASTM C 12 Practice for Installing Vitrified Clay Pipe Lines.
4. ASTM C76 Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
5. ASTM C700 Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.

PIPE DESIGN CRITERIA FOR EXTRA STRENGTH VCP

A. General: Extra strength vitrified clay pipe shall be designed in accordance with the requirements of ASTM C 12 and ASTM C700 as applicable and as modified in this Section. The pipe bearing strength and trench section shall be as determined by the equations in paragraphs "B" through "D". The table shown for the minimum and maximum depths of cover for extra strength vitrified clay pipe for a trench condition shall be used for normal conditions. The cover requirements shown in the table are based on the maximum trench width shown in the table. If unusual conditions exist, the equations shall be used. The methodology presented herein does not address surcharge loading (e.g. buildings), embankment conditions, railroad or airport loads.

GUIDELINES FOR MINIMUM AND MAXIMUM DEPTH OF COVER FOR EXTRA STRENGTH VITRIFIED CLAY PIPE			
Nominal Pipe Diameter (in)	Minimum Cover from Subgrade (ft)	Maximum Cover from Final Grade (ft)	Maximum Trench Width (in)
6	2	19	54
	2	17	54
10	2	15	54
12	2	13	54
15	2	12	54
18	2	11	57
	2	11	60
24	2	11	63
27	2	11	66
30	2	10	69
33	2	1 1	72
36	2	11	75
39	2	12	78
42	2	12	81

B. Three-Edge-Bearing Strength Determination: The computed three-edge bearing strength shall be determined using the following equation:

Impact Factor	--	Varies see paragraph "D" below
Factor of Safety	--	1.25 Minimum
Load Factor conforms to	=	1.5, provided trench section City Standard
Computed Three-Edge Bearing Strength		$\frac{Total\ Load\ x\ Factor\ of\ Safety}{Load\ Factor}$
Total Load	=	Calculated Load on Pipe in lbs/Linear foot (earth load plus live load including impact factor, see paragraph "D" below) Trench Section details
Specified Three-Edge Bearing Strength		Specified Three-Edge Bearing Test Strength in lbs/linear foot per ASTM C700. The computed Three-Edge-Bearing Strength shall be less than or equal to the specified Three-Edge-Bearing Strength

C. **Earth Load Determination**: The earth loads will be computed using the following Marston Equation for trench loading as applicable.

1. Trench Condition:
   $W_d wB_d^2$

Where:	W_d	=	Earth load in pounds per linear foot
	C_d	=	Calculation coefficient
	K_u	=	0.11
	w	=	$120/ft^3$ (unit weight for the fill material)
	B_d	=	Trench width at top of pipe, or "transition width," whichever is less, feet
	B_f	=	Transition width

Use B_d if "Trench Width" is less than "Transition Width"

Use B_f if "Trench Width" is greater or equal to "Transition Width".

D. For depths of cover of more than 3 feet and less than 10 feet HS-20 live load shall be included. For depths of cover of 3 feet or less, HS-20 live load and impact factors shall be as recommended by AASHTO in “Standard Specifications for Highway Bridges.”

PIPE DESIGN CRITERIA FOR REINFORCED CONCRETE PIPE

A. **General**: Reinforced concrete pipe shall be designed in accordance with the requirements of ASTM C 76 as applicable and as modified in this Section. The computed D-load on the pipe and trench section shall be as determined by the equations in paragraphs "B" through "D" for trench conditions with no surcharge • loads. The table shown for minimum and maximum depths of cover for Reinforced Concrete Pipe for a trench condition shall be used for normal conditions. The cover requirements shown in the table are based on the maximum trench width shown in the table. If unusual conditions exist, the equations shall be used. The methodology presented herein does not address surcharge loading (e.g. buildings), embankment conditions, railroad or airport loads.

GUIDELINES FOR MINIMUM AND MAXIMUM DEPTH OF COVER FOR REINFORCED CONCRETE PIPE				
Nominal Diameter	Minimum Class Reinforced Concrete	Minimum Cover from Subgrade	Maximum Cover from Final Grade	Maximum Trench Width. (in)
12	Class III	2.0	8	54
12	Class IV	1.5	13	54
12	Class V	1.0	20	54
15	Class III	2.0	8	54
15	Class IV	1.5	13	54
15	Class V	1.0	20	54
18	Class III	2.0	8.5	59
18	Class IV	1.5	13	59
18	Class V	1.0	21	59
24	Class III	2.0	9	66
24	Class IV	1.0	14	66
24	Class V	-	21	66
30	Class III	2.0	9	73
30	Class IV	1.0	14	73
30	Class V	-	21	73
.33	Class III	2.0	9	77
33	Class IV	1.0	14	77
33	Class V	-	21	77
36	Class III	2.0	9	80
36	Class IV	1.0	14	80
36	Class V	-	22	80
48	Class III	2.0	9	94
48	Class IV	1.0	14	94
48	Class V	-	25	94

B. **D-Load Determination**: The computed. D-load for the pipe strength shall be determined using the following equation:

Computed D-Load	=	$\frac{Total\ Load\ x\ Factor\ of\ Safety}{Bedding\ Factor\ x\ Inside\ Pipe\ Diameter(ft)}$
D-Load to produce a 0.01-inch crack	=	Design requirements for the Class of Pipe as shown in ASTM C76. Computed Load must be less than D-Load to produce a 0.01-inch crack for the specified pipe class per ASTM C76.
Total Load	=	Calculated Load on pipe in lbs/linear foot (earth load plus live load, including impact factor, see paragraph "D" below")
Impact Factor	=	Varies, see paragraph "D" below
Factor of Safety Concrete	=	1.0 Minimum (in accordance with American Pipe Association)
Bedding Factor Standard	=	1.5 provided trench section conforms to City Trench Section details

C. Earth Load Determination: The earth loads will be computed using the following Marston Equation for trench or embankment loading as applicable:

1. Trench Condition

$$W_d = C_d w B_d^2$$

Where:

W_d	=	Earth load in pounds per linear foot
C_d	=	Calculation coefficient
K_u	=	0.11
w	=	120 lbs/ft^3 (unit weight of fill material)
B_d	=	Trench width at top of pipe, feet
B_f	=	Transition width

Use B_d if "Trench Width" is less than "Transition Width"
Use B_f if "Trench Width" is greater or equal to "Transition Width"

D. For depths of cover more than 3 feet and less than 10 feet HS-20 live load shall be included. For depths of cover of 3 feet or less, HS-20 live load and impact factors shall be as recommended by AASHTO in "Standard Specifications for Highway Bridge.

XII. CITY CONSTRUCTION INSPECTION CRITERIA

CITY OF LIVERMORE CLOSED CIRCUIT TELEVISION(CCTV) INSPECTION EQUIPMENT AND REPORTING REQUIREMENTS

The city requires the developer/contractor to provide TV inspection on their own sanitary sewer and storm drain pipelines after installation. Below are the requirements of TV inspection to provide to the contracted consultants.

1) Closed Circuit Television Equipment

   a. Color camera specifically designed and constructed for CCTV inspection of sanitary and storm sewer mainline application, and capable of providing VHS format Video Tape.
   b. Color camera specifically designed and constructed for CCTV inspection of sanitary and storm sewer pipeline services laterals, and capable of providing VHS format Video Tape.
   c. The camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the City,
   d. Videotape recordings shall include an audio commentary recorded by the inspection technician during the actual inspection work describing the parameters of the line being inspected (i.e., location, depth, diameter, pipe type), as well as describing connections, defects and unusual conditions observed during the inspection.
   e. Video Tapes shall be labeled showing the project name, tract/project number, date, and the name of the CCTV Inspector.

2) Television Inspection Logs

   a. The television inspection logs shall include any visual defects or other points of significance, such as changes of pipe materials, size, unusual conditions, etc.
   b. Maps shall be attached to the report that clearly shows the manholes and pipes or laterals inspected. The manhole, catch basin. Field inlet, residential lot numbers shall be labeled on the map.

3) Inspection requirements

   a. All mainline sanitary or storm sewer pipe inspections shall start from interior wall of manhole, catch basin, etc. to the interior wall of the next manhole, catch basin, etc.
   b. All sanitary and storm sewer service lateral connections entering the mainline are to be noted.
   c. All sanitary service laterals mist be CCTV from the top of riser located at the property line to the mainline, noting type of cleanout installed.

d. Storm laterals entering the mainline must be inspected from the interior surface of their point of origination, i.e. catch basin, field inlet, etc.

The Modified Iowa Formula

$$\Delta X = \frac{[D_L * K_B * \left(W_E + \frac{W_L}{D_L}\right) * r^3]}{EI + 0.061Er^3}$$

Where ΔX = The predicted horizontal deflection or change in diameter (in.).

D_L = The deflection lag factor, which adjusts initial deflection to consider consolidation of the soil load and the soil modulus over time. When the soil prism load is used, DL=1.0, since the maximum load on the pipe after full soil consolidation is the prism load. When the soil prism load is not used a design value between 1.25 to 1.50 should be used.

K_B = The Bedding constant which accounts for variability of haunch compaction is dependent upon the angle subtended by the pipe bedding.

W_E = Earth load on pipe (pounds per linear inch)

W_L = Live load on pipe (pounds per linear inch)

r = Mean radius of the pipe (in.) .

E = Modulus of elasticity of the pipe material (psi)

I = Moment of inertia of the pipe wall per unit length ($t^3/12$) (in^3)

t = Pipe wall thickness (in.)

E' = Modulus of soil reaction. This is the long-term effective stiffness of the soil and embedment in resistance to deformation (psi)

Many plastic pipe types (e.g. PVC, HDPE, and ABS) incorporate the design parameter pipe stiffness (PS) into the Modified Iowa formula. PS is measured, according to ASTM D 2412, "Standard Test Method for External Loading Properties of Plastic Pipe by Parallel-Plate Loading, "

at a datum of 5 percent deflection. Incorporating PS into the Modified Iowa formula shown above the following equation results:

$$\frac{\Delta\%}{D} = \frac{D_L * K_B * [W_E + W_L] * 100}{0.149PS + 0.061E'}$$

Where: W_E = The soil prism load, in psi, equal to the weight of soil over the pipe. The Value is equal to the unit weight of soil (pcf) times the depth of cover (ft), divided by 144 in^2/ft^2.

W_L = Live loads, in psi.

PS = Pipe stiffness, in psi. Minimum pipe stiffness is Measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D 2412) or calculated from manufacturer's data.

$\Delta\%/D$ = Percent Deflection

D = Outside pipe diameter (in.)

DESIGN TABLES

The attached design for various semi-rigid and flexible pipe types are to be used for general design purposes only. The consider deflection criteria only (except for DP which also considers bending stress). Vacuum and internal pressures are not evaluated in these but should be considered in determining the pipe wall thickness of pressure pipe. Internal pressure and vacuum design criteria for DIP and steel pipe can be found in AWWA C150 and M41 for DIP and AWWA C200 and M11 for steel pipe.

It should also be noted that the design tables do not include surcharge loads such as building foundations, embankments, adjacent railroads, airport loads and high groundwater. HS-20 live loads due to traffic loading are considered for depths of cover less than 10 feet. Generally, live loads tend to be insignificant in the overall pipe wall thickness design when depth of cover is greater than 10 feet.

Design parameters unique to each pipe material are shown on each pipe design table worksheet and discussed as appropriate in footnote

CORRUGATED POLYETHYLENE NONPRESSURE PIPE (TYPE S HOPE)
SECTION 02631
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Pipe Size (in)	PS[5] (psi)	Minimum Pipe Cover[8] (ft)	Maximum Pipe Cover[9] (ft)
12	50	2.5	19
15	42	2.5	19
18	40	2.5	19
24	34	2.5	19
30	28	2.5	19
36	22	2.5	19

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

PVC COMPOSITE SEWER PIPE (TRUSS PIPE)
SECTION 02533
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Pipe Size (In)	PS[5]	Minimum Pipe Cover[8]	Maximum Pipe cover[9]
8	200	2.5	34
10	200	2.5	34
12	200	2.5	34
15	200	2.5	34

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

ABS COMPOSITE SEWER PIPE (TRUSS PIPE)
SECTION 02533
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Pipe Size (In)	PS[5] (psi)	Minimum Pipe Cover[8]	Maximum Pipe Cover[9]
8	200	2.5	34
10	200	2.5	34
12	200	2.5	34
15	200	2.5	34

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

ABS NONPRESSURE PIPE
SECTION 02534
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)

K_B = 0.096 (Bedding Constant)[2]

W_E (Dead Load=Soil Prism Load)[3]

Soil Density = 120 pcf[2]

W_L (Live Load, psi)[4]

E' = 400 psi (Modulus of Soil Reaction)[6].

Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

Size	SDR	PSS	Minimum Pipe Cover[e]	Maximum Pipe Cover[s]
4	35	45	2.5	19
4	23.5	150	2.5	29
6	35	45	2.5	19
6	23.5	150	2.5	29

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE- Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage
9. Measured from finished grade

SMALL PVC NONPRESSURE PIPE
SECTION 02534
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
Max Deflec = 5%[7]

Minimum and Maximum Pipe Cover

	SDR	pss•	Minimum Pipe Cover[e]	Maximum Pipe Cover[9]
4	35	46	2.5	19
4	26	115	2.5	26
6	35	46	2.5	19
6	26	115	2.5	26
8	35	46	2.5	19
8	26	115	2.5	26
10	35	46	2.5	19
10	26	115	2.5	26
12	35	46	2.5	19
12	26	115	2.5	26
15	35	46	2.5	19
15	26	115	2.5	26

NOTES

1. The equation used to develop the table above is the Modified Iowa formula. Refer to the Flexible Pipe Design Methodology presented in the pipe design guidelines. For complete specifications on corrugated polyethylene nonpressure pipe refer to ASHTO M294.
2. Value estimated based upon the City of Livermore standard trench detail.
3. In order to determine the maximum cover, dead load is solved for in the Modified Iowa formula, henceforth this variable is left blank. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of the cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to depths of cover less than 3 feet. Live load is neglected for depths of cover greater than 10 feet. In certain situations other superimposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. Pipe Stiffness is used in a modified version of the modified Iowa formula, replacing the variables E and l. Minimum pipe stiffness is measured in accordance with ASTM standards, determined by the parallel plate loading test at 5% deflection (ASTM D2412), or calculated from manufacturers data.
6. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values E' for Iowa formula) of ASCE-Manuals and Reports on Engineering Practice No. 60.
7. Deflection Criteria per Section A. 1.1.3 of AWWA C900.
8. Measured from top of subgrade. Value shown is the calculated value based upon equations and methodology presented herein. It is not recommended that pipe cover be less than 30 inches due to flexibility of pipe causing pavement damage.
9. Measured from finished grade.

DUCTILE IRON PIPE
SECTION 05060
DESIGN TABLES

Design Variables (Flexible Pipe Design)[1]

D_L = 1.0 (Deflection Lag Factor)
K_B = 0.096 (Bedding Constant)[2]
K_x = 0.157 (Bending Moment Coefficient)
W_E (Dead Load=Soil Prism Load)[3]
Soil Density = 120 pcf[2]
W_L (Live Load, psi)[4]
E' = 400 psi (Modulus of Soil Reaction)[6].
E = 2400ksi (Pipe Material Modulus of Elasticity)
Max Deflec = 3%[7]

Pipe Size	Minimum/Maximum Pipe Cover for Various Pipe Thickness[8]																		
	t, in.	0.25	0.260	0.280	0.300	0.310	0.320	0.330	0.340	0.360	0.370	0.380	0.400	0.410	0.420	0.430	0.450	0.460	0.47
3		1/100+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4		1/80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6		1/45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8		1.5/33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10		NA[7]	1.5/27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12		NA	NA	1.5/27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14		NA	NA	1.5/22	1.5/25	1.5/26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16		NA	NA	NA	1.5/23	NA	1.5/25	NA	1/25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18		NA	NA	NA	NA	1.5/21	NA	NA	1.5/25	1/26	NA	NA	NA	NA	NA	NA	NA	NA	NA
20		NA	NA	NA	NA	NA	NA	1.5/21	NA	1/25	NA	1/27	NA	NA	NA	NA	NA	NA	NA
24		NA	NA	NA	NA	NA	NA	2/16	NA	NA	1.5/19	NA	1/23	NA	NA	1/27	NA	NA	NA
30		NA	NA	NA	NA	NA	NA	NA	2/12	NA	NA	2/14	NA	NA	1.5/17	NA	1/19	NA	NA
36		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2/13	NA	NA	1.5/14	NA	NA	NA	1/16
42		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2/12	NA	NA	NA	NA	1/14

Pipe Size	Minimum/Maximum Pipe Cover for Various Pipe Thickness[8]																			
	t, in.	0.490	0.510	0.520	0.540	0.560	0.570	0.580	0.610	0.630	0.640	0.650	0.680	0.700	0.720	0.760	0.790	0.800	0.830	0.870
30		1/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
36		NA	1/18	NA	NA	1/22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42		NA	NA	1/15	NA	NA	1/18	NA	NA	1/21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
48		NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/17	NA	NA	1/20	NA	NA	NA	NA	NA	NA
54		NA	1/10	NA	NA	NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/17	NA	1/20	NA	NA	NA
60		NA	NA	NA	1/10	NA	NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/17	NA	NA	1/20	NA
64		NA	NA	NA	NA	1/10	NA	NA	NA	NA	1/12	NA	NA	NA	1/14	NA	NA	1/16	NA	1/19

Notes

1. The equation used to develop the table above is based upon design methodology from AWWA C150 and AWWA Manual M41. Table does not account for internal pressure. Internal pressure design should be performed in accordance with AWWA C150.
2. Value estimated based upon City of Livermore standard trench detail.
3. These tables design for the soil prism load over the pipe (unit weight of soil (pcf) times the depth of cover (ft) divided by 144).
4. Live load is based upon H20 loading with an impact factor of 1.5 applied to all depths of cover per the recommendations of Ductile Iron Pipe Association. In certain situations other super-imposed loads such as building footings, railroads, and nearby embankments should be quantified and added into the equation.
5. E' value based on a CL type soil (stiff clay) with a liquid limit less than 50 and moderate compaction (85-95% Proctor). E' value taken from Table 9-10 (Bureau of Reclamation Average Values of E' for Iowa formula) of ACSE – Manuals and Reports on Engineering Practice No. 60.
6. As Recommended by AWWA C150.
7. NA- Pipe thickness not available in this pipe diameter.
8. Dash means that design parameters do not allow the use of this pipe thickness.
9. Minimum cover measured from top of subgrade. Minimum value is calculated value based upon equations and methodology presented herin. It is not recommended that pipe cover be less than 30 inches unless special circumstances exist and a thorough analysis is performed verifying the structural integrity of the pipe. Maximum cover measured from finished grade.
10. Value provided by the Ductile Iron Pipe Research Association based upon a Type 4 trench condition which closely simulates the City of Livermore's standard trench detail

RIGID PIPE DESIGN GUIDELINES

This document has been prepared to outline some of the basic principles of rigid pipe design focusing on pipe strength and • soil loading in trench conditions. The methodology presented herein does not address surcharge loading (e.g. buildings, embankment conditions, railroad or airport loads). The information presented herein is intended to assist in the design of the following rigid pipe types:

Pipe Type	Specification Section
I . Vitrified Clay Pipe	02536
2. Reinforced Concrete Pipe .	02632

DESIGN TABLES

The attached design tables for vitrified clay and reinforced concrete pipe are to be used for general design purposes only.

It should also be noted that the design tables do not include surcharge loads such as building foundations, embankments, adjacent railroads, airport loads and high groundwater. HS-20 live Loads due to traffic loading are considered for depths of cover less than 10 feet. The earth load determination is calculated using the Marston Equation which is defined with its parameters in the pipe design tables.

PIPE STRENGTH DETERMINATION

The pipe strength determination for vitrified clay pipe (VCP) is determined by calculating the computed Three-Edge-Bearing Strength as defined by •the extra strength pipe design criteria for extra strength VCP and ASTM C12 and C700. The pipe strength determination for reinforced concrete' pipe (RCP) is determined by calculating the computed D-Load as defined by the attached pipe design criteria for reinforced concrete pipe and ASTM C76.

REFERENCES

1. Concrete Pipe Design Manual, November 1992, American Concrete. Pipe Association.
2. Clay Pipe Engineering Manual, 1995, National Clay Pipe Institute.
3. ASTM C 12 Practice for Installing Vitrified Clay Pipe Lines.
4. ASTM C76 Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
5. ASTM C700 Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.

PIPE DESIGN CRITERIA FOR EXTRA STRENGTH VCP

A. General: Extra strength vitrified clay pipe shall be designed in accordance with the requirements of ASTM C 12 and ASTM C700 as applicable and as modified in this Section. The pipe bearing strength and trench section shall be as determined by the equations in paragraphs "B" through "D". The table shown for the minimum and maximum depths of cover for extra strength vitrified clay pipe for a trench condition shall be used for normal conditions. The cover requirements shown in the table are based on the maximum trench width shown in the table. If unusual conditions exist, the equations shall be used. The methodology presented herein does not address surcharge loading (e.g. buildings), embankment conditions, railroad or airport loads.

GUIDELINES FOR MINIMUM AND MAXIMUM DEPTH OF COVER FOR EXTRA STRENGTH VITRIFIED CLAY PIPE			
Nominal Pipe Diameter (in)	Minimum Cover from Subgrade (ft)	Maximum Cover from Final Grade (ft)	Maximum Trench Width (in)
6	2	19	54
	2	17	54
10	2	15	54
12	2	13	54
15	2	12	54
18	2	11	57
	2	11	60
24	2	11	63
27	2	11	66
30	2	10	69
33	2	1 1	72
36	2	11	75
39	2	12	78
42	2	12	81

B. Three-Edge-Bearing Strength Determination: The computed three-edge bearing strength shall be determined using the following equation:

Impact Factor	--	Varies see paragraph "D" below
Factor of Safety	--	1.25 Minimum
Load Factor conforms to	=	1.5, provided trench section City Standard
Computed Three-Edge Bearing Strength		$\frac{Total\ Load\ x\ Factor\ of\ Safety}{Load\ Factor}$
Total Load	=	Calculated Load on Pipe in lbs/Linear foot (earth load plus live load including impact factor, see paragraph "D" below) Trench Section details
Specified Three-Edge Bearing Strength		Specified Three-Edge Bearing Test Strength in lbs/linear foot per ASTM C700. The computed Three-Edge-Bearing Strength shall be less than or equal to the specified Three-Edge-Bearing Strength

C. **Earth Load Determination**: The earth loads will be computed using the following Marston Equation for trench loading as applicable.

1. Trench Condition:
   $W_d wB_d^2$

Where:	W_d	=	Earth load in pounds per linear foot
	C_d	=	Calculation coefficient
	K_u	=	0.11
	w	=	$120/ft^3$ (unit weight for the fill material)
	B_d	=	Trench width at top of pipe, or "transition width," whichever is less, feet
	B_f	=	Transition width

Use B_d if "Trench Width" is less than "Transition Width"

Use B_f if "Trench Width" is greater or equal to "Transition Width".

D. For depths of cover of more than 3 feet and less than 10 feet HS-20 live load shall be included. For depths of cover of 3 feet or less, HS-20 live load and impact factors shall be as recommended by AASHTO in “Standard Specifications for Highway Bridges.”

PIPE DESIGN CRITERIA FOR REINFORCED CONCRETE PIPE

A. **General**: Reinforced concrete pipe shall be designed in accordance with the requirements of ASTM C 76 as applicable and as modified in this Section. The computed D-load on the pipe and trench section shall be as determined by the equations in paragraphs "B" through "D" for trench conditions with no surcharge loads. The table shown for minimum and maximum depths of cover for Reinforced Concrete Pipe for a trench condition shall be used for normal conditions. The cover requirements shown in the table are based on the maximum trench width shown in the table. If unusual conditions exist, the equations shall be used. The methodology presented herein does not address surcharge loading (e.g. buildings), embankment conditions, railroad or airport loads.

GUIDELINES FOR MINIMUM AND MAXIMUM DEPTH OF COVER FOR REINFORCED CONCRETE PIPE				
Nominal Diameter	Minimum Class Reinforced Concrete	Minimum Cover from Subgrade	Maximum Cover from Final Grade	Maximum Trench Width. (in)
12	Class III	2.0	8	54
12	Class IV	1.5	13	54
12	Class V	1.0	20	54
15	Class III	2.0	8	54
15	Class IV	1.5	13	54
15	Class V	1.0	20	54
18	Class III	2.0	8.5	59
18	Class IV	1.5	13	59
18	Class V	1.0	21	59
24	Class III	2.0	9	66
24	Class IV	1.0	14	66
24	Class V	-	21	66
30	Class III	2.0	9	73
30	Class IV	1.0	14	73
30	Class V	-	21	73
.33	Class III	2.0	9	77
33	Class IV	1.0	14	77
33	Class V	-	21	77
36	Class III	2.0	9	80
36	Class IV	1.0	14	80
36	Class V	-	22	80
48	Class III	2.0	9	94
48	Class IV	1.0	14	94
48	Class V	-	25	94

B. **D-Load Determination**: The computed. D-load for the pipe strength shall be determined using the following equation:

Computed D-Load	=	$\frac{Total\ Load\ x\ Factor\ of\ Safety}{Bedding\ Factor\ x\ Inside\ Pipe\ Diameter(ft)}$
D-Load to produce a 0.01-inch crack	=	Design requirements for the Class of Pipe as shown in ASTM C76. Computed Load must be less than D-Load to produce a 0.01-inch crack for the specified pipe class per ASTM C76.
Total Load	=	Calculated Load on pipe in lbs/linear foot (earth load plus live load, including impact factor, see paragraph "D" below")
Impact Factor	=	Varies, see paragraph "D" below
Factor of Safety Concrete	=	1.0 Minimum (in accordance with American Pipe Association)
Bedding Factor Standard	=	1.5 provided trench section conforms to City Trench Section details

C. Earth Load Determination: The earth loads will be computed using the following Marston Equation for trench or embankment loading as applicable:

1. Trench Condition

$W_d = C_d w B_d^2$

Where:

W_d	=	Earth load in pounds per linear foot
C_d	=	Calculation coefficient
K_u	=	0.11
w	=	120 lbs/ft^3 (unit weight of fill material)
B_d	=	Trench width at top of pipe, feet
B_f	=	Transition width

Use B_d if "Trench Width" is less than "Transition Width"
Use B_f if "Trench Width" is greater or equal to "Transition Width"

D. For depths of cover more than 3 feet and less than 10 feet HS-20 live load shall be included. For depths of cover of 3 feet or less, HS-20 live load and impact factors shall be as recommended by AASHTO in "Standard Specifications for Highway Bridges".