

**General Notes**

1. The work embraced herein shall be done in accordance with the appropriate provision of the specifications entitled by City of Madera, Standard Drawings and Specifications, latest revision.
2. The Contractor shall secure an encroachment permit for any off-site construction.
3. All permits including encroachment and barricade plans shall be kept on-site at all times.
4. Application for inspection by the City of Madera shall be made by Contractor at least 24 hours before the inspection services will be required, (559) 661-5418.
5. Two working days prior to commencing utility excavation, the contractor shall notify underground services alert, toll free, at 1-800-227-2600.
6. Prior to acceptance, bond releases and a Certificate of Occupancy, a certified legible as-built drawing must be submitted to the City of Madera. As-built must show all changes and actual field conditions. In the absence of changes, a copy of approved drawings will be required stating "Installed as per drawings" and certified as such by the Developer's engineer.
7. All construction equipment shall be tuned and maintained in accordance with the manufacturer's specifications.
8. Contractor's work crews shall shut off construction equipment when not in use.

**Liabilities**

9. Any existing Section Corner, Quarter Section Corner, Property Corner, Street Centerline Monument, or any Official Benchmark damaged by the Contractor in the course of the work covered by these construction plans, shall be reset to the satisfaction of the City Engineer. A Licensed Land Surveyor or Civil Engineer licensed to perform land surveying shall certify the placement or replacement of all monuments and benchmarks in accordance with all laws, rules and regulations governing such placements or replacements. Placement/replacement and certification shall be completed before final acceptance of the project/work by the City. Bronze caps required for the installation of new or replacement monuments shall be furnished by the Contractor per City Standard Drawing No. E-1 and approved by the City prior to installation.
10. Any existing signing, striping, and stenciling and/or improvement shown on the plans to remain but are damaged, disturbed or faded by construction activities shall be replaced in-kind in accordance with the City of Madera Standards and as directed by the City Engineer.

11. The Contractor shall notify the City Engineering Department at (559) 661-5418 at least forty-eight (48) hours prior to installing or reinstalling any signs, markings, striping or stenciling such as directional arrows, stops, cross walks, etc. damaged or faded by the work. The City Engineering Department shall be informed of all locations, types, dates and schedule of work. (See "Striping").

**Grading**

12. All utility poles in the street right-of-way are to be removed or relocated prior to any paving.
13. Any wells located in areas to be graded, unless otherwise directed by Plans, are to be abandoned per City Standard W-17. A City Building Permit will be required for this work and fees therefore shall be paid for by the Contractor.
14. Any septic tank, leach field or related facilities located in areas to be graded, unless otherwise directed by the Plans, shall be abandoned per County of Madera Health Department standards. A Building Permit will be required for this work and fees therefore shall be paid for by the Contractor.
15. The Contractor shall provide soil compaction test reports prepared by an approved testing agency for all areas where fill is placed.
16. All grading shall conform to the soils report:  
Engineer \_\_\_\_\_  
Date \_\_\_\_\_  
Job Number \_\_\_\_\_
17. The developer shall meet all regulations of the San Joaquin Valley Air Pollution Control District (Regulation VIII) concerning dust suppression during construction of the project. Methods include, but are not limited to; use of water or chemical stabilizers/suppressants to control dust emissions from disturbed area, stock piles, and access ways; covering or wetting materials that are transported off-site; limit construction related speeds to 15 mph on all unpaved areas, use of a stabilized construction entry/exit (e.g. 3-6 inch aggregate or grates) to minimize carryout/trackout from construction vehicles entering public streets; and cease grading and earth moving during periods of high winds (20mph or more).

**Grading/Buildings on Site**

18. All grading shall comply with California Building Code, current edition.
19. The Contractor shall obtain a Grading Permit from the City Building Department prior to any work and abide by all conditions thereof and pay permit fees. For permit purposes only:  
Estimated grading area = \_\_\_\_\_ Acre(s)

Estimated excavation = \_\_\_\_\_ CY

Estimated embankment = \_\_\_\_\_ CY

20. A letter from the responsible Civil Engineer or Land Surveyor shall also be submitted certifying that grading conformed to the approved Grading Plan.
21. The Contractor shall have the compaction report filed with the City of Madera Building Department for any lot with six (6) inches or more of fill prior to issuance of a building permit.
22. All fire hydrants are to be in place and working before building construction begins.
23. All fill used to support the foundations of any building or structure shall be placed under the direction of a geo-technical engineer in accordance with the geo-technical report prepared for project, and the fill shall be observed by the geo-technical engineer or his qualified representative.
24. In the event archeological resources are unearthed or discovered during any construction activities on site, construction activities shall cease, and the Community Development Director or City Engineer shall be notified so that procedures required by state law can be implemented.
25. Temporary Signs: Prior to commencing work on any homes beyond the tract models, or as soon as aggregate base (base rock) is placed on streets, whichever comes first, at all intersections the Developer/Contractor shall install temporary street name signs to the following specifications:
  - a. Temporary signs shall be of steel or aluminum backing, with thickness between 0.060" and 0.125".
  - b. Sign backing material shall be 6" in height.
  - c. Signs shall be reflectorized with black letters on white background.
  - d. Signs shall include the street name and block number. Letter height shall be 4" minimum; block numbers shall be 2" minimum height.

### **Street Improvements**

26. All streets shall be surfaced in accordance with the approved plan(s) and the following specifications:
  - a. 6-inch sub grade and all fills in excess of 6 inches will be compacted in accordance with the State of California, Department of Transportation, Section 19 of the Standard Specifications, latest edition.
  - b. Aggregate base and sub-base shall conform to and be placed in accordance with Section 12 of the City Standard using Class 2 aggregate base material (Minimum R-value of 78).

- c. Asphalt concrete, aggregate base, and earth work shall conform to Sections 39, 26, and 19 of the State Standard Specifications latest edition, respectively.
  - d. Asphalt concrete shall be Type A HMA and shall conform to the provisions in Section 39 of the State Standard Specifications, Performance Graded Modified Asphalts designated for the Central Valley, except the asphalt concrete mix design as outlined in section 13-8 of these Specifications. Aggregate for lower course(s) shall conform to the grading specified for the  $\frac{3}{4}$  inch maximum, medium grading and the aggregate for the 0.20-foot upper course shall conform to the grading specified for the  $\frac{1}{2}$  inch maximum, medium grading.
  - e. Paint binder will be as specified by the City Engineer and shall conform to and be applied in accordance with Section 13 of the City Standard Specifications.
  - f. A Fog Seal Coat, SS1H or approved equal, shall be applied to the new asphalt concrete pavement at the rate of 0.05 to 0.10 gallon per square yard, as directed by the Engineer, and shall conform to the provisions in Section 37 of the State Standard Specifications. The Fog Seal Application shall be applied within seven (7) days after asphalt concrete paving is completed.
27. Existing pavement shall not be removed until such time as all utilities are completed and paving contractor is ready to repair within five (5) days.
28. Exact location of all sawcut lines shall be determined in the field by a City of Madera inspector.
29. At Contractor's expense, field thickness measurements shall be made at a rate of 1 per every 300 lineal feet of roadway. The location of field tests shall be chosen by the inspector on a random basis. The pavement thickness criteria are listed below:
- a. If the average of all measurements meets or exceeds the design thickness, with no core more than ten (10) percent less than the design thickness, the placement is acceptable.
  - b. If there is only an isolated thin area (core more than ten (10) percent out), the limits of the area should be identified to determine if a construction resolution is necessary.
  - c. If the core results indicate a consistently thin section, with no core more than fifteen (15) percent less than the design thickness, the Contractor shall propose a construction resolution.
  - d. If the core results yield an average thickness greater than the design thickness but are alternately very high and very low (more than ten (10) percent out), the City Engineer shall reject the placement.

30. For City or Developer projects on major streets (arterials, collectors, expressways), whether new or reconstruction, the Contractor or the Developer shall be responsible to set monuments at centerline intersection points, angle points, and beginning and end of curves (BC & EC). Where manholes or other obstructions prevent the installation of monuments at the prescribed locations, monument ties shall be furnished sufficient in number to re-create the appropriate point.
31. For new development projects involving the construction of new interior minor streets and/or bordering major streets, in addition to the above requirements, the Developer shall set monuments at all property corners, angle points, BCs and ECs along the properties fronting on the major and minor streets.
32. For all of the above, a Licensed Land Surveyor or Civil Engineer licensed to perform land surveying shall certify the placement of all monuments in accordance with all laws, rules and regulations governing such placements or replacements.
33. Storm drainage facilities, sanitary system and house branches, together with water main, gas mains and their respective service connections shall be completed in the street before installation of the street surfacing.
34. All curb and gutter and valley gutters shall be water tested under the direction and in the presence of the City Inspector prior to any street operation. All sags or humps shall be removed and replaced to the satisfaction of the City.

### **Water**

35. Water mains are to be installed and tested per City of Madera Standard Specifications Section 22, "Water Facilities".
36. No water main valves shall be closed by the Contractor except in the case of an emergency such as a broken main. The Contractor shall notify City Engineering Department and the City Public Works Department immediately whenever a valve is closed or after a line is broken. In all other cases, such as making connections to existing mains, arrangements shall be made a minimum of 24 hours in advance with City Engineering Department and the City Public Works Department for closure of any valves.
37. Tracer wire shall be installed with all water mains and fire hydrant runs. Tracer wire shall be bare copper wire, Type TW, Size AWG #10 installed per Section 22-3.3.
38. Connections made to existing water mains shall be performed by wet tap method.
39. When Polyvinyl Chloride (PVC) C900 pipe is used for water mains, a coring cutter is required for each wet tap. A City Public Works Department representative or Engineering Department inspector must be on site during all work on existing City water mains.

40. All 1-inch to 2-inch water services and meter boxes shall be located outside of driveway areas and installed per Madera Standard Drawing W-9A or W-10 and W-9B.
41. All valves shall be located outside of driveways, valley and curb gutters.
42. Physical separation/gaps between water mains will be required on new water mains at connections to existing mains until the new water main is tested and approved for connection to any existing water mains per Madera Standard Drawing W-13. A City Public Works Department representative or Engineering Department inspector shall be present at all water main tie-ins.
43. All dead ends shall have water main blow-offs installed per City of Madera Standard Drawing W-28, "Blow-Off Assembly Type B."
44. All flanged ductile iron fittings to be coated with EC-244 and wrapped with 120 mil thick polyethylene.
45. All fire hydrants required for this project shall be identified and installed per City of Madera Standard W-26, "Fire Hydrant Installation". Install blue reflective marker per same standard drawing. Fire service lines without hydrants at the end shall be equipped with blow-offs.
46. Water meters shall be installed per Madera Standard Drawing W-9A, W-9B, W10, or W-24 as required by Public Works and shall read in cubic feet and be located within City right-of- way.
47. Any backflow prevention assembly installed shall be of an approved type and be installed on private property downstream and adjacent to water meters be installed per Madera Standard Drawing W-14, W-15 or W-16 as required by Public Works Water Quality Division. The backflow prevention assembly shall be tested and approved by a City of Madera approved AWWA certified tester within five (5) days of installation with the results sent to the City Public Works Department.
48. A separate Building Permit is required for the installation of fire sprinkler systems in buildings. Such installations are not a part of these Plans. Fire sprinkler services with Fire Department Connections (FDC's) shall have RPDA Backflow Preventers per Madera Standard Drawing W-15.
49. Bacteria test cost shall be paid by developer prior to acceptance of improvements.

### **Sewer Mains**

50. Sewer mains are to be installed and tested per City of Madera Standard Specifications Section 17, "Sanitary Sewer Pipe and Appurtenances".
51. Prior to the installation of, and/or connection to, any sewers, the Contractor shall field verify and compare all existing flowlines with those indicated on the approved construction plans prior to connecting to any existing sewer mains. Any discrepancies

and/or conflicts with the approved plans shall immediately be brought to the attention of the City and the design engineer. An alternate design shall be prepared and submitted to the City for approval prior to commencement of work.

52. Except where otherwise noted or approved in writing by the City Engineer, trenches shall be excavated only as far in advance of pipe laying as can be backfilled in the same day.
53. The maximum total length of open trench shall be 600 feet, except where approved in writing by the City Engineer.
54. Excavations shall be considered open trench until all aggregate sub-base material for pavement replacement has been placed and compacted.
55. When a water line is less than 12-inches above a sewer main, below a sewer main, above or below a force main or within 10 feet horizontally of a sewer main, protection of the water line must be considered in accordance with Section 21-9 of the City of Madera Standard Specifications and Title 22 California Code of Regulations, Section 64572.
56. Sand and Grease Interceptor per City Standard Drawing S-11 shall be installed when in opinion of Public Works Department, it is necessary for proper handling of liquid wastes containing grease in excessive amounts, sand or other harmful ingredients. All Sand and Grease Interceptors shall be located as to be readily and easily accessible for cleaning and inspection. All house laterals to be laid to minimum 2 percent slope and installed per Madera Standard Drawing S-12.
57. Sewer mains only to be laid in sewer trenches.
58. All Contractors installing sewer mains that will be under the jurisdiction of the City of Madera must be Class "A" or "C34" Contractors.
59. A mechanical plug of adequate strength and size shall be installed at first sewer manhole on-site, upstream of City sewer main connection to prevent infiltration into the public sewer system until such time as the City authorizes its removal. Air filled bladder type plugs are not permitted.

### **Striping**

60. The Contractor shall notify the Engineering Department at least 48 hours in advance of any work. Any changes to the approved Plan shall be approved by the City Engineer prior to any work thereon.
61. Any existing signing and/or barricades to be removed shall be salvaged to the City Public Works Yard located at 1030 S. Gateway Drive.

62. Striping to be removed shall be ground off completely and the surface slurry sealed with a Type "II" slurry prior to re-striping. Any voids created by grinding shall be filled by using a Type "II" slurry.
63. All stenciling (arrows included) to be removed by grinding shall be done in a manner to provide a rectangular shape encompassing the area to be removed. No grinding shall "shadow" the shape of the stenciling to be removed.
64. Crosswalks and pavement markings shall be installed using thermoplastic in accordance with State Standard Specifications. Longitudinal lines (center lines, lane lines, edge lines, etc.) and symbols associated with bike lanes shall be waterborne paint, applied at a minimum thickness of 15 mils, per State Standard Specifications.
65. Type I or II glass beads shall be applied immediately after application, minimum rate of 5 lbs. per gallon of paint used.
66. All pavement markers and road signs installed shall conform to the provisions in the latest edition of the California Supplement to the Manual of Uniform Traffic Control Devices (MUTCD), Section 84 of the State Standard Specifications, State Standard Plans, pages A20-A through F and pages A73-A through C along with the City of Madera Standard Specifications.
67. All concrete median nose faces shall be painted for a distance of three (3) feet along both sides with reflective yellow paint.
68. The Contractor shall furnish and install new OM2-2H markers on all median island noses, unless otherwise noted on the plans.
69. Signs shall be placed a minimum of four (4) feet from the edge of pavement when installing along streets where curb and gutter are not present.
70. Sign placement shall allow for 5 feet clear walking path between post and back of curb or any other obstruction.
71. Where signs are to be installed, light poles should be used, in lieu of posts, whenever possible.
72. Street sign installation on metal streetlight or signal poles shall require the use of stainless-steel banding material. No hose clamps are allowed.

### **Traffic Control**

73. Before any work is started in the right-of-way, the contractor shall install all advance warning signs for the construction zone. The contractor shall install temporary stop signs at all new street encroachments into existing public streets immediately after the first grading work is accomplished and shall maintain said signs until permanent signs are installed. All construction signing, barricading, and traffic delineation shall conform to the California supplement to the Manual of Uniform Traffic Control



Devices, latest edition, issued by the State of California Department of Transportation and be approved by the City of Madera before construction begins. Compliance with the requirements of said manual shall be considered as a minimum requirement and it shall be the responsibility of the Contractor to provide additional safety devices when necessary to maintain a safe condition.

74. One 12-foot driving lane must be maintained in each direction of travel at all times unless otherwise approved by the City Engineer.
75. Prior to completion of work each day, the Contractor shall backfill and provide temporary trench resurfacing before leaving the site.
76. No public street shall be closed without prior approval from the City Engineer.
77. If the project improvements necessitate, temporary removal and or relocation of traffic control signs, markings or any other traffic control devices, they shall be maintained throughout the entire duration of the project and shall be restored to the satisfaction of the City Engineer.
78. Encroachment permits issued to allow work in the public right-of-way shall be revoked if the above requirements are not stringently complied with by the Developer's forces during off-site street improvement operations. Revoked permits shall not be re-issued until such time as the City Engineer is satisfied that the Developer's Contractors will perform their operation in compliance with the above requirements including the conditions of the street work permit.

#### **General Fire Department Notes**

79. Water truck must be equipped with an approved air gap separation which shall be a minimum of twice the diameter of the supply line above the overflow of the water tank. Plumbing for air gap shall be attached to outside of tank.
80. If during construction it becomes necessary to close any control valve or place a hydrant out of service, the City Public Works Department shall be notified.
81. At all times during construction, suitable emergency vehicle access roads must be maintained. Roadways must be smooth, compacted and capable of supporting the imposed loads of all emergency vehicles.
82. All fire hydrants are to be in place and working before building construction begins.
83. Contractor must apply for temporary construction site meter through Public Works Department. Construction site water meters will be set and relocated only by Public Works Department. All water trucks being filled from fire hydrants or from any other connection to the City water system must have an air gap between the receiving vessel and delivery pipe. Air gap must be at least two times the diameter of the delivery pipe. All delivery pipes must be externally mounted on the truck to facilitate

visual inspection. Presence of an R.P. on the hydrant will not exempt trucks from the air gap requirement. No construction water may be taken from the water system through a hose unless it is downstream of the R.P. and meter.