

IMPROVEMENT PLAN NOTES

GENERAL NOTES

1. All work shall conform to the latest edition of the City of Orange Standard Plans and Specifications, and the Standard Specifications For Public Works Construction. (Green Book)
2. Public and private utilities and the accompanying substructures shown on these plans are from available public data. The contractor shall be responsible for locating and protecting all utilities and substructures within the construction limits. Damage to such resulting from construction operations shall be the contractor's responsibility.
3. All underground utility and other subsurface work shall be completed prior to completing the final surfacing or landscaping. Sewer laterals to be installed prior to curb and gutter.
4. The contractor shall notify the following utilities regarding any problems.

Randy Largent	City of Orange Street Trees	714-532-6470
Chris Laface	City of Orange Traffic Division	714-532-6426
Phyllis Then	City of Orange Transportation Permit	714-744-5536
Son Tran	City of Orange Water Division	714-288-2497
David Zapalac	AT&T (Telephone Services)	714-237-6949
Valentina Gipson	AT&T (Liaison)	714-666-5467
Greg Burnett	Kinder Morgan	909-873-5174
Robert Hoerning	MCI - WorldCom	714-923-5900
Jason King	XO Communications, Inc.	949-417-7430
Walter Werstiuk	AT&T	714-963-7964
Michael Orduno	Southern California Edison	626-302-4387
Diana Caballero	Southern California Gas Distribution	714-634-3115
Rosalyn Squires	Southern California Gas Transmission	818-701-4546
Chris Donnelly	Time Warner Communications	714-903-8307
Mark Strickert	Orange County Transportation Authority	714-560-5883
Malcolm Brown	Verizon Wireless	949-286-8772
Jim Bassler	Qwest Communication	562-777-2225
Ernie Morris	Level 3 Communications	858-292-2134

5. For inspection, contact City of Orange Public Works, 714-744-5526, forty-eight (48) hours prior to the required date.
6. The contractor shall notify City of Orange Public Works Maintenance Division, 714-532-5480, seventy-two hours prior to any road closure and/or detour.
7. Contractor shall notify Underground Service Alert (dial 811 or 1-800-227-2600) forty-eight hours prior to the required date.

8. All pipelines and substructures are to be constructed beginning from the downstream end. Verify downstream points of connection (horizontal and vertical locations) prior to construction and report any discrepancies to the City of Orange.
9. Construction survey work for the lines and grades for construction of this project shall be the responsibility of the contractor.
10. Contractor shall preserve all permanent survey markers including all centerline ties as specified in Section 2-9.1 of the City of Orange Standard Plans and Specifications.
11. The engineer represents that he has made a reasonable engineering determination that there are no underground utility lines or structures except as shown on these plans.
12. The contractor shall protect from damage all utility lines and substructures.
13. No driveway openings to be constructed within three feet of a fire hydrant or curb return.
14. Install street lights as required by the Public Works Department specifications and special provisions for street lights and in accordance with City Standard Plan 415.
15. Install street trees as required by the City Community Services Department.
16. Landscaping and Irrigation Plans as required shall be approved by the Community Services Department.
17. All street signs, markers, and street markings shall be furnished and installed by developer in accordance with City Standard Plan 414.
18. All street construction shown is based on street centerline stations and elevations.
19. An Encroachment Permit from the City Public Works Department is required for all works within public right of way.
20. At the completion of the construction, submit to the city construction inspector a complete set of **video inspection of the sewer system and the storm drain system**. The video inspection shall be for the entire length of the system. Location and stationing information shall be included in the video recording.
21. For construction within the Old Towne Area, the concrete color and finish shall be regular concrete mix with an application of water-based top-surface retarder that is washed away using pressured water for a sand blast finish effect. The retarder shall be Grade 05 – Powder Blue Violet (color coded) per Grace Construction Products (www.graceconstruction.com (877) 423-6491) or approved equal.

STORM DRAIN NOTES

1. All storm drain construction shall comply with the City of Orange Standard Plans and Specifications.
2. No concrete shall be placed until the forms and reinforcing steel has been placed, inspected and approved.
3. Adjust all mainholes to grade after placing final lift of asphalt.
4. Transverse reinforcements and traverse joints shall be placed at right angles (or radial) to conduit centerline except as otherwise shown on the drawings.
5. All concrete shall be Portland cement concrete with an ultimate 28 day compressive strength of 3000 psi.
6. All exposed edges shall be finished with a $\frac{3}{4}$ " chamfer.
7. All steel adjacent to the face of concrete shall have a 2-1/2" clearance unless otherwise specified.
8. Reinforcement shall be deformed bars of intermediate grade steel as per ASTM A 615.
9. All bar bends and hooks shall conform to the American Concrete Institute "Manual of Standard Practice."
10. The contractor shall check the flow line elevation of existing juncture against control provided prior to construction. If the existing flow line varies from the plan elevation by more than +0.10' the engineer shall adjust the grades between the juncture and the next unstream manhole, with the approval of the City Engineer.

SEWER NOTES

1. All main line sewer construction shall comply with the City of Orange Standard Plans and Specifications.
2. Standard Plans and Specifications of the City of Orange are available from City Engineering Division, or at the City web site: "<http://www.cityoforange.org/>".
3. Sewer stationing does not necessarily coincide with street improvement stationing.
4. All pipe, pipe joints and pipe fittings to be extra strength V.C.P. meeting Federal Specifications SSP-3616 with wedgelock joints meeting A.S.T.M. Spec C-425.
5. The use of Portland cement in joints is prohibited.
6. House laterals are shown approximate only and the exact location of wyes and laterals shall be determined in the field at the time of construction except in cases where grade requires field control.
7. Sewer pipes shall be balled in the presence of the City Inspector after final testing and manhole covers have been brought to grade upon completion of paving.
8. The design engineer signing these plans shall be responsible for determining the correct locations and elevations of existing sewer facilities shown herein prior to construction. All elevations shown shall be on the latest datum of the Orange County Surveyor.
9. The sewer construction shall start at the connection of existing sewer facility and proceed upgrade.
10. All abandoned sewer lines shall be crushed in place.