

LAS VEGAS VALLEY WATER DISTRICT

ENGINEERING SYSTEMS

TECHNICAL BULLETIN NO. 15

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WATER SERVICE DURING PHASED CONSTRUCTION

During the review/approval process, the water plans are matched with the building permit application or subdivision maps. All variations in the scope of work between the two (2) plans must be resolved prior to approval, which often results in unnecessary delays. In most cases, phasing of a project can be accommodated if addressed early in the process.

Some approvals have been obtained for early construction of model homes prior to the recordation of the subdivision map. In these situations, a second set of water plans may be required for review and approval by the District for the model homes. Some additional issues that are considered for these partial systems are an adequate supply of water for fire protection, availability of Right-of-Way, and water quality constraints.

Phasing of a project should be taken into consideration during the design and hydraulic analysis of the proposed water distribution system. Unless the fire flow requirements are waived by the fire departments having jurisdiction, the distribution system must be capable of meeting the fire flow requirements for each phase of a project as it is constructed. Additionally, full street improvements adjacent to future lots should be scheduled in order to avoid pavement cuts during construction of subsequent phases.

If you have any questions, please contact Linda Davies at 258-3249.

WATER PLAN REVIEW ACCEPTANCE FORM

The Las Vegas Valley Water District (District) has initiated the use of a Water Plan Review Acceptance form for all new water plan submittals. Based on a preliminary review of the water plan submittal, the form will be annotated to reflect the acceptance of the submittal for review or indicate additional material that is required prior to plan review. The District's project number will be noted on the form to facilitate follow-up inquiries concerning the status of the project. A copy of the form will be retained in the District's file, and additional copies will be provided to the engineering firm and the project developer.

This form was developed to identify additional items required for review but not included in the initial plan submittal package. Early identification of these items and their timely submission can significantly reduce the "hold" time for water plan review at the District.

If you have any questions concerning the use of this form, please contact the District at 258-3165 or 258-3166.

ANGLE METER STOPS

Some time ago, the District completed a study on the use of angle meter stops (AMS) in its system and concluded that it would be in the best interest of the District to limit the approved AMS selection to those which meet our specification requirements and have a 360 degree tee head rotation.

For implementation of the revision to only 360 degree tee head rotation, we are allowing a transition period. Between now and November 1, 1996, AMSs listed on the current pre-approved materials list will be accepted. However, **effective on November 1, 1996**, the pre-approved materials list will be revised to indicate only the 360 degree rotation type as being acceptable.

If you have any questions regarding this item, please contact Nebraska "Benny" Scott at 258-3290.

HYDRAULIC ANALYSIS, A PLANNING TOOL

A timely hydraulic analysis can save time and help keep your project on schedule. Currently, a hydraulic analysis report is required by the District for subdivision projects, projects with high fireflow or domestic requirements, and projects located in areas with low static pressure, as outlined in Section 2.03 of the Uniform Design and Construction Standards for Water Distribution Systems. In many cases, these analyses are submitted concurrently with or following the submission of water plans. This reduces the benefit of using the hydraulic analysis report as a planning tool. Hydraulic analyses are useful in sizing both on and off-site piping to meet the District's minimum pressure criteria. More importantly, the hydraulic analysis report is a valuable means of identifying and resolving potential water supply problems early in the project development schedule.

Any problems identified during the plan review stage of a project can have a serious impact on project schedules. Submission of a hydraulic analysis report prior to submission of water plans for review provides the opportunity to address any of these problems in the early stages of a project, and helps resolve any difficulties before they seriously impact the project schedule. For example, in many cases limited fireflow availability to a site can be addressed in the building design by the use of sprinklers or additional fire walls in lieu of constructing extensive water facilities. Similarly, oversizing agreements or temporary service arrangements may be developed and addressed early in the review process. There is no application fee required for the submission of the hydraulic analysis report, and the potential benefits are great.

If you have any questions concerning the hydraulic analysis, please contact the LVVWD Planning Division at 258-3122.

WATER PLAN SUBMITTALS WITH AUTOCAD FILES

In the revised LVVWD Service Rules, which were published October 1994, Section 10, "The Installation of Water Facilities," described the requirements for the submission of water plans. One of the items listed was the submission of a floppy disk containing the final parcel or subdivision map in a format compatible for the District's use in its AutoCAD mapping program. The requirement had not been strongly enforced, primarily because to do so may have caused a hardship for smaller engineering firms which didn't have the necessary resources to comply. Today, however, it is apparent that approximately 98% of the water plans and subdivision maps are prepared by the civil engineers using AutoCAD software, or computer drafting software which can be converted to a DXF exchange file, and imported into AutoCAD. Since all parcels and subdivisions are plotted on the District's quarter section base maps (Quad Sheets), along with installed water facilities and appurtenances, it would be a time-saving benefit not to have to redraw what's already been drawn!

For this reason, the District is encouraging all firms to include a diskette at some point during the plan review process, even if it only contains a tentative subdivision map. The features that are important for mapping include street names, street center lines, right-of-way lines, lot lines, lot numbers, block numbers, and a north arrow, using separate layers for those entities. Submission in digital form of the final approved water plan for a pipe installation project would also be useful for the completion of the as-built process after acceptance of the facilities. With the ability to quickly update the District's base maps by inserting the subdivision or water facilities directly into the AutoCAD map files, current information can be made available earlier to the engineering community for their use in designing yet another project! It's a "Win-Win" scenario.

Any questions can be directed to Chris Wall, CAD Supervisor, AM/FM/GIS Section, LVVWD Engineering, 258-3807.

INSTALLATION OF PRESSURE REDUCING VALVES (PRVs)

The Uniform Plumbing Code requires that individual, on-site (private) PRVs be installed whenever water pressure exceeds 80 PSI. The District attempts to identify these areas during the review of the water plans; however, the ultimate responsibility rests with the developer. Customers are also notified of the high pressure service when the services are activated or transferred. The installation of PRVs for the services is the developer's responsibility and the District does not inspect or accept the final installation.