503 CONCRETE CATCH BASINS

Standard Drawings C-15.10 through C-15.92 show several types and sizes of catch basins to fit varying situations and requirements. Project Plans prepared for local governments may include drawings that may differ from the ADOT standard drawings. The Project Plans and bidding schedule will indicate the type or types to be constructed.

Precast catch basins must be from an approved supplier. A list of approved precast units may be found on the Department's Approved Products List. Testing of the precast units will be conducted by the Materials Group (Structural Materials Testing Section) for dimensional compliance and compressive strength requirements, as determined by the rebound hammer (ASTM C 805). Calibration of the rebound hammer may be necessary; the Structural Materials Testing Section should be notified as soon as a precast source has been selected by the contractor. ADOT Field staff should verify test results upon delivery of precast units. All precast units tested and approved by Materials Group will be stenciled "ADOT" in black letters. Project personnel are to verify that the ADOT stencil is authentic by contacting the Materials Group.

Care should be taken to construct catch basins to the proper gradient so they will function as they are designed. Finishing and curing of concrete above the ground level should conform to the requirements of structural concrete. When required, catch basin surfaces should meet adjacent sidewalk, curb, and gutter surfaces.

It is important that the contractor determine the "H" dimension (and ADOT verify) for catch basins in the field prior to casting.

Some important inspection points for catch basins are:

- Do the materials conform to the Project Plans and Standard Specifications and are material certifications available for those items requiring them?
- Was the "H" dimension determined and verified prior to precast?
- Is backfill around structures thoroughly compacted in 8 inch lifts before compaction?
- Does backfill material notch into firm material?
- Are connections with new or existing pipe water tight?
- Are the reinforcement bars in the walls as specified?
- When the forms are stripped, is the basin cleaned out?
- Has the invert been constructed to ensure the proper flow of water?
- Is an approved patching compound used for any patching necessary to bevel pipe/wall junctions?
- Is the catch basin at the correct elevation and height?
- When precast basins are used, have the units been checked for the ADOT stamp and inspected for any damage before installation?
- Is the gutter opening per the Standard Drawing? If the height of the opening is greater than shown on the Standard Drawing then a safety hazard is created.
- Does the grate rest securely on the frame?