

**SECTION 11 – PRECONSTRUCTION PHOTOGRAPHS AND RECORD DRAWINGS**  
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## **SECTION 11 PRECONSTRUCTION PHOTOGRAPHS AND RECORD DRAWINGS**

### **11-1 GENERAL**

Preconstruction photographs will only be required when specified in the Special Provisions. Record Drawings are required on all Agency Work, unless directed otherwise in writing by the Agency.

### **11-2 PRECONSTRUCTION PHOTOGRAPHS**

Preconstruction photographs shall be taken by the Contractor at one-hundred foot (100') intervals along the route of the Work before any construction begins. The view in each photograph shall include a sign showing the date, name of the Project, lateral or street, and applicable station designation. The sign shall not block the important areas of the view and shall be legible in a three and one-half inch by five inch (3-1/2" x 5") print. Each photograph shall be taken from a point between four feet (4') and eight feet (8') above the ground. All prints shall show good details in both shadow and sunlit areas. Negatives may be of any size provided minimum negative resolution throughout the major area of the negative is one hundred (100) lines per inch multiplied by the enlargement factor necessary to produce an eight inch by ten inch (8" x 10") print. As an alternative to negatives as described above, the Contractor may substitute digital photography files. Such photographs shall be .TIF or uncompressed .JPEG raster files with a minimum resolution of four (4) megapixels.

The views in preconstruction photographs shall include the entire construction zone and, in particular, show the interface between the right-of-way and construction zone, and abutting property features such as, but not limited to, condition of existing streets, sidewalks, driveways, fences, landscaping, buildings abutting work site, and existing surface utility facilities on and close to the Work.

All essential features of the project area shall be shown accurately. The Agency may order additional photographs showing additional features or orientations, if the Agency determines that all essential features are not accurately or adequately shown.

A sample of twenty-four (24) photographs shall be submitted to the Agency for approval before proceeding with the remaining photographs. All photographs which do not conform to these Specifications, as determined by the Agency, shall be retaken.

The Contractor shall submit to the Agency one (1) three and one-half inch by five inch (3-1/2" x 5") color glossy print, and the negative, of each photograph taken. If the Contractor elects to use the digital photography option described above, the Contractor shall submit one (1) three and one-half inch by five inch (3-1/2" x 5") color glossy print and the image file, of each photograph taken. The image files for digital photographs shall be submitted on a read-only memory compact disk (CD-ROM).

Prints shall be submitted in a three-ring photo album binder with clear plastic covered fillers, four (4) photos each side, grouped according to street, lateral or line, and in sequence. The name and number of the Contract and Contractor's name shall appear on the binder cover. Each group of prints shall be identified by a label which projects beyond the edge of filler and is easily recognized. Negatives may be placed within the filler sleeves or submitted separately.

At the Contractor's option, a DVD or a video tape in a VHS format may be submitted in lieu of photographs. Additionally, an AVI or raw Quick Time file shall be provided. The content and quality requirements for the photographs shall apply to the video tape.

### 11-3 RECORD DRAWINGS

The Contractor shall maintain a neat and accurately marked set of Record Drawings, which shall be provided to the Agency for review and approval prior to Final Acceptance of the Work. The Record Drawings shall represent the Work as constructed and document changes to the Work shown on the Project Plans, and shall show the actual as-constructed conditions of installed or modified systems, equipment, and material.

Record Drawings shall be produced by marking a full size copy of the Project Plans as follows:

**Red** - Additions including notes and dimensions.

**Green** - Deletions (by hash marks or appropriate lines through the deletion.)

**Graphite (gray)** - General comments and notes used by Contractor or Agency and not required on the as-built.

**Yellow** - Work completed as shown and used by Agency in field review of the as-built, during the submittal phase.

**Blue** - Agency verification and notes required to be added and noted by Agency in review of the as-built, during submittal phase.

The Record Drawings shall show, by field measured dimensions, the exact locations of all underground work, including all sprinkler system piping and components, and the final elevations and locations of all improvements constructed, modified or adjusted. Record Drawings shall be available for inspection by the Agency at all times and shall be updated at least weekly with all Field Instructions and other written directives, Contract Change Orders, and Contract adjustments shown thereon and initialed by the Agency. Progress payments or portions thereof may be withheld if Record Drawings are not kept up to date.

Unless otherwise specified in the Special Provisions, or directed by the Agency, the Contractor shall submit a minimum of two (2) sets of Record Drawings to the Agency at the final inspection. These Record Drawings shall include certification by the Contractor that the Record Drawings are a true representation of the Work as actually constructed. The Work will not be formally accepted until the Record Drawings are provided to and approved by the Agency. Final payment or a portion thereof may be withheld if final Record Drawings are not provided.

### 11-4 MEASUREMENT AND PAYMENT

When the Contract includes an item for preconstruction photographs, preconstruction photographs will be paid for at a lump sum price.

The lump sum price paid for preconstruction photographs includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in taking and submitting preconstruction photographs, or optional video tape, as specified in these Specifications and the Special Provisions, and as directed by the Agency.

When the Contract does not include an item for preconstruction photographs, full compensation for preconstruction photographs is included in the prices paid for the various items of work and no separate payment will be made.

Full compensation for Record Drawings is included in the prices paid for the various items of work and no separate payment will be made.