

## SECTION 01390

### COLOR AUDIO-VIDEO ELECTROGRAPHY

#### PART 1. GENERAL

##### 1.01 SECTION INCLUDES

- A. Scope
- B. Responsibility of Authority
- C. Condition of Work
- D. Qualifications
- E. Equipment
- F. Audio-Video Digital Recording
- G. Still Photographs
- H. Submittals
- I. Measurement and Payment

##### 1.02 RELATED SECTIONS

- A. Section 01700 - Contract Closeout: Project Record Documents
- B. Section 02110 - Site Clearing

##### 1.03 SCOPE

- A. Provide all labor, materials, and equipment to furnish color audio-video electrography including still pictures for the entire right-of-way for the alignment of the project prior to the start of any construction work.

##### 1.04 RESPONSIBILITY OF AUTHORITY

- A. The Authority shall make available to the Department of Transportation all audio-video material and/or still pictures, as provided by the Contractor under this Section, to aid in settlement of any disputes regarding restoration within Department right-of-way.

##### 1.05 CONDITIONS OF WORK

- A. Audio-Video Digital Recording of rights-of-way shall be done prior to Clearing and Grubbing and removal of paving material. In order to ensure proper recording between turning points, the Contractor shall perform light clearing as required for the movement of audio-video recording equipment. The extent of the light clearing shall be approved by the Authority.
- B. The Contractor shall televise and audio-video record areas with paved roads, through easements, parks, lawns, and open fields. When audio-video recording on private property, the Contractor shall give the Authority sufficient prior notice of such entry so that property owners may be advised of and their permission obtained for the work.
- C. Three (3) attempts must be logged by the Contractor to complete the video project at each private property location that is inaccessible.
- D. At no time will the Contractor be allowed to use any electrical circuits within a building structure in order to protect the electrical circuits from overloading.
- E. All audio-video recordings shall be done during regular business hours, unless otherwise specified by the

Authority.

- F. The Contractor must enter and leave a property in a professional and orderly workmanship-like manner.
- G. When audio-video recording rights-of-way other than in streets, the Contractor and the Authority shall review the days recording, and if audio-video recordings are judged unsatisfactory, the right-of-way shall be re-recorded.
- H. Review of audio-video recordings in the street or paved area shall be done on a random basis. If these audio-video recordings are judged unacceptable, all audio-video recordings shall be reviewed for quality and unacceptable areas re-recorded.
- I. Any re-recordings shall be done at the Contractor's expense and shall be re-recorded within 5 days after being notified of the need to re-record.

#### 1.06 QUALIFICATIONS

##### A. Authority's Requirements

- 1. The Authority may make such investigation as it deems necessary to determine the ability of the Contractor to perform the work, and the Contractor shall furnish to the Authority all such information and data for this purpose as the Authority may request. The Authority reserves the right to question, reject, or modify such justification as submitted by the Contractor of his ability to perform this work as specified.
- 2. The Contractor shall notify the Authority seven (7) calendar days prior to the beginning of the audio-video digital recording.
  - 1. A "sample" route of this project must be recorded by the Contractor for the Authority's review. The sample route will be established by the Authority. If there are paved areas and grass easements on the projects, a sample of both will be required for review by the Authority. It will be the audio-video recording of the sample route that the job quality standards will be based and judged. This "sample" audio-video digital recording shall be submitted to the Authority before any additional recordings are started to allow the recording to be reviewed by the Authority.
  - 2. Based on the findings of the Authority's review, the Contractor may be required to employ a professional company to provide the audio-video digital recording.

## PART 2. PRODUCTS

### 2.01 GENERAL

- A. All equipment, accessories, and materials to perform this service shall be furnished by the Contractor, except the plans of the proposed area to be televised, which are furnished by the Authority.
- B. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall not be less than 12 feet to insure proper perspective.
- C. In some instances, audio-video digital recording coverage will be required in areas not accessible by conventional wheeled vehicles. Such coverage shall be obtained by walking or special conveyance acceptable to the Authority.

## 2.02 ELECTRONIC REQUIREMENTS

- A. Video Camera: Camera shall be of any standard brand capable of providing audio and video tracks to satisfactorily supply information as detailed in this Section.
- B. Camera (Photographs): Any standard camera able to produce 8" x 10" inch colored pictures, satisfactorily clarifying the intent of same.
- C. Audio-Video Digital Recording: A USB Jump Drive, that can be accessed and viewed on a computer.

## PART 3. EXECUTION

### 3.01 GENERAL

- A. The Authority shall supply to the Contractor 1 complete set of Plans describing the project and indicating the project stationing, said stationing to be used by the Contractor when describing structures, topographical features, etc.
- B. Prior to the beginning of the audio-video digital recording, the Contractor shall make a visual survey of the project alignment, noting those features not visible when recording along project route (street and rights-of-way). In order to determine the feasibility of recording those features not readily visible from the project alignment, the Contractor shall, prior to recording, review those special features with the Authority.
- C. No recording will be permitted if the weather is not acceptable such as snow, rain, fog, etc. or if it is late afternoon when elongated shadows distort perception and tend to prevent clear resolution and periods when there is snow on the ground area.

### 3.02 LOCATION INFORMATION

- A. Audio
  - 1. Each audio-video digital recording shall begin with the current date, Authority's name and project name, and be followed by the general location, i.e., name of the street, viewing side, and direction of progress.
- B. Video
  - 1. The engineering station numbers must be continuous, be accurate, correspond to the project stationing, and include the standard engineering symbols, i.e., 14 + 84. This information must appear in the viewing screen.

### 3.03 AUDIO-VIDEO DIGITAL RECORDING COVERAGE

- A. The area of coverage shall be defined as the recording of those areas a minimum of 15 feet outside the actual right-of-way (Roadway, Construction, etc.). No detail recording of the exterior of buildings outside the area of coverage will be required unless so ordered by the Authority. Recording may be ordered outside of the area of coverage in order to establish those features deemed necessary by the Authority.
- B. The color audio-video digital recording of surface features of the construction area located within the area of coverage of construction specified by the Authority shall have the following audio-video coverage:
  - 1. Audio-Video coverage shall include all surface features located within the area of coverage of construction supported by appropriate audio description. Audio description shall be made simultaneously with video coverage. Such coverage shall include, but not be limited to, all existing

driveways, sidewalks, curbs, ditches, roadways, landscaping, trees, culverts, headwalls and retaining walls or buildings located within such area of coverage. The diameter size and types of trees in the area of coverage shall be detailed.

2. Houses and buildings shall be identified visually by house number, when visible, in such a manner that structures of the proposed system, i.e. manholes on a sewer system and gate valves and hydrants on a water system, can be located by reference. Building exterior coverage shall include, but not be limited to, all masonry features of the building such as walls, foundations, chimneys, or porches.
3. The average rate of travel during a particular segment of coverage (e.g., coverage of one side of a street) shall be inversely proportional to the number, size, and value of the surface features within that construction area of coverage. The following table, which characterizes typical areas, shall be used to establish approximate limits on actual average rates of travel:

<u>Area</u>	<u>Typically Characterized By</u>	<u>Avg Rate Max</u>
a. High Density (e.g. developed subdivision)	Hard surface streets, curbs, drives, and sidewalks; 50 ft. lots; very few empty lots	30 ft/min
b. Medium Density (e.g. partially developed subdivision)	Gravel roads, hard and soft surface drives, no sidewalks, culverts, and headwalls, 100 ft. lots, few empty lots	60 ft/min
c. Low Density (e.g. suburban fringe)	Gravel roads, small fields or woods, occasional houses	80 ft/min
d. Extra Low Density (e.g. rural)	Gravel roads, large fields, sparse number of houses	100 ft/min

4. The Authority shall designate what areas may be omitted or added for audio-video coverage.
5. When taping water mains, the Authority will provide the location of all pipe turning points.

### 3.04 STILL PHOTOGRAPHS

- A. The Contractor shall provide clear, sharp color photographs of isolated spots or locations which the audio-video digital recording cannot or may not clearly show.
- B. These "still" photographs shall be taken at the request of the Authority when they believe added clarification is needed.

- C. Photographs shall be 8 inches by 10 inches in size.
- D. Provide 2 copies of all still photographs.

3.05 SUBMITTALS

- A. All audio-video digital recordings (USB Jump Drives ) shall be properly identified by number, location, and project name and municipality in a manner acceptable to the Authority.
- B. A record of the contents of each recording shall be supplied by a run sheet identifying each segment in the recording by location, i.e. roll number, street or road viewing, viewing side, point starting from, traveling direction, and ending destination point.
- C. Submit 2 copies of each audio-video digital recording and still photographs, along with identification and content records, to the Authority prior to starting any work. This material will become part of the Project Record Documents.