BuildingName

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**ARCHITECTURE, ENGINEERING AND CONSTRUCTION**

ARCHITECTURE & ENGINEERING

326 East Hoover, Mail Stop B

Ann Arbor, MI 48109-1002

Phone: 734-764-3414

Fax: 734-936-3334

The Description of the Project

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SECTION 013220 - PHOTOGRAPHIC DOCUMENTATION

*DM/PM, please revise this document as needed to align with the requirements of your specific project. Edit the highlighted areas per your project needs. (Delete pink text before saving the final draft)*

**PART 1 – GENERAL**

* 1. **RELATED DOCUMENTS**
1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
	1. **SUMMARY**
2. This Section includes administrative and procedural requirements for the following:
	1. Photographic Documentation
		1. Pre-construction photographs.
		2. Periodic construction photographs.
		3. Final Completion construction photographs.
3. Related Sections include the following:
4. Division 1 Section "Submittal Procedures" for submitting photographic documentation.
5. Division 1 Section "Selective Demolition" for photographic documentation before selective demolition operations commence.
6. Division 1 Section "Closeout Procedures" for submitting digital media as Project Record Documents at Project closeout.
7. Division 1 Section "Demonstration and Training" for submitting videotapes of demonstration of equipment and training of Owner's personnel
	1. **SUBMITTALS**
8. Qualification Data: For photographer.
9. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph and video recording. Indicate elevation or story of construction. Include same label information as correspondingset of photographs and video recording.
10. Digital Photographs: Within ten (10) days of taking digital photographs, the Contractor shall share the digital photographs with the Architect and the Owner. The Contractor shall identify each electronic file by title. The drive shall be identified by project title, project number and date of the photographs.
11. Format: Unaltered, original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in the folder named by date of photograph, accompanied by key plan file.

 *Amend as appropriate for the project.*

1. Identification: Provide the following information with images labeled in groups (folders) or individual images with the description in the file metadata tag:
2. Owner name.
3. Name of Project.
4. Name and contact information for photographer.
5. Architect’s Project Number
6. Name of Architectand Construction Manager.
7. Name of Contractor.
8. Date photograph was taken if not date stamped by camera.
9. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
10. Unique sequential identifier keyed to accompanying key plan.
	1. **QUALITY ASSURANCE**
11. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.
12. Photographer: Engage a qualified commercial photographer to take final construction photographs. A non-professional competent in the operation of the digital camera may take pre-construction and progress photographs.
	1. **COORDINATION**
13. Auxiliary Services: Cooperate with the photographer and provide auxiliary services requested, to adequately portray the extent of work complete.
	1. **USAGE RIGHTS**
14. The photos become the property of The Regents of the University of Michigan, a Michigan Constitutional Corporation.
15. The Contractor, Architect or additional third parties shall not share these photographs without the express written consent of AEC.

**PART 2 – PRODUCTS**

**2.1 PHOTOGRAPHIC MEDIA**

1. Digital Images: Provide images in uncompressed JPG ***[add add’l format if preferred]*** format. Images need to be of sufficient resolution to see details the pictures are intended to convey. Final images should be produced by a digital camera with a minimum sensor size of 8.0 megapixels and at an image resolution of not less than 3200 by 2400 pixels.

**PART 3 – EXECUTION**

**3.1 PHOTOGRAPHS, GENERAL**

1. Date Stamp: Unless otherwise indicated, date and time stamp each photograph as it is taken so the stamp is integral to the photograph.

**3.2 CONSTRUCTION PHOTOGRAPHS**

1. Pre-construction Photographs: Before starting construction, take color photographs of the Project Site and surrounding properties from different vantage points, as directed by the Architect. Take pictures of the interior conditions, including ***[list items here]*** and other items or areas as directed by the Architect. This will serve as a basis for establishment of pre-contract conditions.
	1. Take enough photographs to adequately document the existing conditions relative to the project. Take additional photographs for areas with pronounced deficiencies. Photograph the site surrounding the building and adjoining buildings to show existing conditions adjacent to the property before starting the Work. Examples include settlement or cracking adjacent structures, pavements and improvements or defective, deficient, deteriorated or unusual conditions to the building.
2. Periodic Construction Photographs: Take enough color progress photographs taken ***bi-weekly***. The actual number and location of views shall be directed by the Architect. Photographs shall be taken at the start and finish of various elements of construction designated by the Architect.
3. Time-Lapse Sequence Construction Photographs: Take enough photographs as indicated, to show the status of construction progress since the last photographs were taken.
	1. Frequency: Take photographs ***bi-weekly***, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment.
	2. Vantage Points: The Architect and Contractor shall select vantage points. During each of the following construction phases, take not less than ***[five] (<insert number>)*** of the required shots from the same vantage point each time to create a time-lapse sequence as follows:
		1. Exterior Work, through date of Substantial Completion
		2. Interior Work, through date of Substantial Completion
4. Final Construction Photographs: Take ***[sixty] (<insert number>)*** color photographs after the date of Substantial Completion for submission as Project Record Documents. The Architect will direct the Photographer for desired vantage points.
	1. Do not include the date stamp on Final Construction Photographs.
5. Additional Photographs: The Owner or Architect may issue requests for additional photographs, in addition to the periodic photographs specified. Additional photographs will be paid for by Change Order and not included in the initial Contract Sum.
6. Photographer will be given three (3) days’ notice, where feasible.
7. In emergency situations, Photographer shall take additional photographs within twenty-four (24) hours of request
8. Circumstances that could require additional photographs include, but are not limited to, the following:
	1. Special events planned at Project Site
	2. Immediate follow-up when on-site events result in construction damage or losses.
	3. Photographs to be taken at fabrication locations away from the Project site. These photographs are not subject to unit prices.
	4. Salvage materials prior to removal.
	5. Substantial Completion of a major phase or component of Work.
	6. Extra record photographs at time of final acceptance.
	7. Owner’s request for special publicity photographs.
9. Storage of Images: In addition to the photographs submitted to the Owner and Architect (via email or preferred Google Drive or Dropbox), the Contractor / Construction Manager shall maintain one set of images on USB or external hard drive in the field office at the Project Site, available at all times for reference. Identify images same as for those submitted to the Architect and Construction Manager.