PROJECT MANUAL

McHENRY COUNTY COLLEGE
CLASSROOM/OFFICE/CORRIDOR
CARPET & PAINT 2014

8900 US Hwy 14

McHenry, Illinois 60012

OWNER

McHenry County College

8900 US Hwy 14

McHenry, Illinois 60012

CONSTRUCTION MANAGER

Pepper Construction

411 Lake Zurich Road

Lake Zurich, Illinois 60010

PROJECT 1427.02

22 April 2014

RuckPate

A R C H I T E C T U R E

22102 North Pepper Road, #201
Barrington, Illinois 60010
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End of Table of Contents

1 **Summary:**

1.1 List of drawing sheets included as bidding and contract documents.

SHEET	TITLE	DATE
A1	Main Level Plan	22 April 2014
A2	Upper Level Plan	22 April 2014
A3	Corridor “E” Plan & Floor Pattern Design	22 April 2014
A3a	Corridor “E” Reflected Ceiling Plan	22 April 2014
A4 - A16	Partial Floor Plans	22 April 2014
A17	Partial Floor Plan, Alternate 1	22 April 2014
A18-19	Partial Floor Plans, Alternate 2	22 April 2014
A20	Partial Floor Plan, Alternate 3	22 April 2014
A21	Door Frame Elevations	22 April 2014
A22	Floor Transition Details	22 April 2014

End of Section

1 **Summary:**

1.1 This Section contains preliminary schedule information which establishes mandatory schedule criteria with which the Contractor is obligated to comply.

1.2 Schedule information contained herein is preliminary in that it establishes minimum requirements. The Contractor shall prepare detailed schedules incorporating and consistent with this preliminary information, and shall execute the Work to achieve the objectives of the Preliminary Schedules.

1.3 Additional schedule information and schedule requirements are contained in the Construction Manager's Bidding Manual.

1.4 The Owner reserves the right to change dates and sequences identified in the Preliminary Schedule subject to equitable adjustment of the Contract Time.

1.5 Information on the Owner's Academic Calendar is available at the Owner's web site www.McHenry.edu.

2 **Time of Commencement**:

2.1 Work shall commence upon execution of the Contract, and delivery to the Owner of Performance and Payment Bonds and satisfactory evidence of Contractor's insurance.

2.1.1 The performance of work on site may be restricted subject to the requirements of Section 01 10 00 Summary, and dates established in the Preliminary Schedule, below.

3 **Completion Date**:

3.1 The Contractor shall achieve Substantial Completion of the Work so the Owner's can occupy and use the Work, for the use for which it is intended, by the date established as the Completion Date.

3.2 When phased completion and occupancy of various portions of the Work is intended, a Completion Date is established for each phase or portion of the Work.

3.3 The Completion Date is a date certain, and may be changed only by Change Order properly executed by the Owner and Architect.

3.4 In the event that the Completion Date in the Contract between Owner and Contractor differs from the Completion Date specified herein, the Completion Date stipulated in the contract shall take precedence.

4 **Preliminary Schedule**

4.1 Refer to Construction Manger's Bidding Manual for schedule of work

4.2 Refer to Construction manager's Bidding Manual for additional information and requirements

End of Section

1 RELEVANT EXPERIENCE

1.1 Years in Business: Bidder shall have conducted business in the current form of business organization for a minimum of five (5) continuous years prior to the date of this bid. (Provide information on AIA A305 ¶ 1.)

1.2 Relevant Projects: Bidder shall have successfully completed, within five (5) years prior to the date of this bid. a minimum of three (3) projects in the State of Illinois of similar scope, complexity and contract amount for institutions of higher education, or institutions of public education, or other public sector experience which is relevant to this project. (Provide information on Supplementary Qualification Statement form included in this Section.)

1.3 Failure to Complete: Bidder shall **not** have failed to satisfactorily complete any project in the past five (5) years except where not due to a material fault of the Bidder. (Provide information on Supplementary Qualification Statement form included in this Section.)

1.4 The Owner shall be the sole judge of the relevance and adequacy of bidder's experience, and may consider information obtained independently from bidder's submittals.

1.5 The Project Manager and Field Superintendent proposed by the Bidder shall not be changed without the Owner's written approval.

2 LICENSURE AND PREQUALIFICATION

2.1 Bidder or bidder's proposed subcontractors shall be appropriately licensed to perform the work of this project at the date of this bid.

2.2 Roofing Work: When the project includes roofing work, either the Bidder or the Bidder's proposed subcontractor shall be licensed in the State of Illinois as a Roofing Contractor.

2.3 Plumbing Work: When the project includes plumbing work, either the Bidder of the Bidder's proposed plumbing subcontractor shall be registered as a plumbing contractor with the Illinois Department of Public Health.

2.4 Paving Work: When the project includes paving work of more than $50,000, either the Bidder or the Bidder's proposed subcontractor shall be pre-qualified by the Illinois Department of Transportation. For the applicable categories of work.

2.5 Subcontractors proposed to satisfy licensure and pre-qualification requirements shall not be changed without written approval of the Owner.

3 MANDATORY BID SUBMITTALS

3.1 Contractor's Qualification Statement, AIA Document A305, latest edition, completed.

3.2 Supplementary Qualifications Statement, using the form provided at the end of this section, with attachments.

4 OPTIONAL BID SUBMITTALS

4.1 The Bidder may optionally submit additional information which will demonstrate the Bidders responsibility. Such information shall be labeled "Optional Submittal".

5 WORK BY OWN FORCES OR BY SUBCONTRACTORS

5.1 The Bidder's ability to perform a portion of the work with its own forces; the qualifications of certain subcontractors and nature and extent of work so performed may be considered essential qualifications.

5.2 When such information is stipulated or required on the Bid Form, Bidder shall provide complete information on the Bid Form and indicated Bid Submittals.

5.3 Work By Own Forces shall include only the labor provided by persons directly employed by the Contractor, whose labor shall be documented by certified payroll records. Labor provided by subcontractors or other independent contractors; equipment, and materials shall not be considered in evaluating Work By Own Forces.

6 WORK BY SUBCONTRACTORS

6.1 The qualifications of certain subcontractors and nature and extent of work so performed may be considered essential qualifications.

6.2 When such information is stipulated or required on the Bid Form, Bidder shall provide complete information on the Bid Form and indicated Bid Submittals.

6.3 Work By Own Forces shall include only the labor provided by persons directly employed by the Contractor, whose labor shall be documented by certified payroll records. Labor provided by subcontractors or other independent contractors; equipment, and materials shall not be considered in evaluating Work By Own Forces.

7 POST-BID SUBMITTALS

7.1 Bidders under consideration for award of Contract shall, within twenty-four (24) hours after request of the Owner or Architect submit the following information:

7.1.1 Audited financial statement.

7.1.2 Proposed construction schedule.

7.1.3 Supporting documentation for proposed substitutions, if any, indicated on the Bid form. Supporting documentation requirements are indicated in Section 01 25 00 Substitution Procedures.

End of Section

(two pages follow)

SUPPLEMENTARY QUALIFICATION STATEMENT

Project: _____ Complete and submit with Bid Form

Bid From: _____

1 On a separate sheet, list all projects for a college, university, institution of higher education or public education, that your organization has completed in the last five years, including the following information for each:

Project Name
Owner Name, address, telephone.
Architect Name, address, telephone
Final Contract Amount
Total Change Order Amount
Scheduled Date of Substantial Completion
Actual Date of Substantial Completion,
Percentage and Description of Work Performed with Own Forces.

2 In the absence of at least 5 projects listed for item 1 above, provide the same information listed above for at least 5 comparable projects (other than higher education) completed within the last five years, including the following information for each:

All items listed for Item 1 above
Explain why each project listed is relevant to the work of this contract.

3 Has you organization incurred any penalties, liquidated damages or compensatory settlements in the last five years? _____. If so, attach a separate sheet of paper listing each such project, including the following information for each:

Project Name
Owner Name, address, telephone.
Amount of the penalty, liquidated damages or settlement
Brief explanation of the matter.

4 Has your organization ever failed to satisfactorily complete any work awarded to it?: _____. If so, attach a separate sheet of paper listing each such project, including the following information for each:

Project Name
Owner Name, address, telephone.
Amount of the penalty, liquidated damages or settlement
Brief explanation of the matter.

(Continued on next page)

5 If project includes roofing::
(if none, mark NA):
IL Licensed Roofing Contractor name: _____ , Lic. #: _____

6 If project includes plumbing:
(if none, mark NA)
IDPH Plumbing Contractor name: _____, Reg..#: _____

7 If project includes paving work in excess of $50,000:
(if none, mark NA)
IDOT pre-qualified Paving Contractor name:_____, . #: _____

8 Signature

Dated this _____ day of _____ 20____

_____
(Name of firm)

The undersigned bidder or agent, being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

_____
(Signature)

_____ _____
(Printed Name) (Title)

Subscribed and sworn before me this _____ day of _____ 20____

Notary Public _____

My commission expires: _____

1 **Summary:**

1.1 Forms used in the process of contract closeout.

2 **Forms:**

2.1 The following forms are hereby incorporated by Reference:

2.1.1 "Contractor's Affidavit of Payment of Debts and Claims", AIA Document G706.

2.1.2 "Contractor's Affidavit of Payment of Release of Liens", AIA Document G706A.

2.1.3 "Consent of Surety to Final Payment", AIA Document G707

2.2 The following forms are included elsewhere in the Project Manual:

2.2.1 Contractor's Request for Substantial Completion Inspection: Section 01 77 00

2.2.2 Contractor's Certification of Final Completion and Request for Inspection: Section 01 77 00

2.2.3 Asbestos Free Construction Certification: Section 00 73 19.01

End of Section

HEALTH AND SAFETY REQUIREMENTS - ASBESTOS
SECTION 00 73 19.01

1 **Summary:**

1.1 Section contains special requirements pertaining to asbestos.

2 **Health and Safety Requirements:**

2.1 Contractor shall ensure that all work under the Contract is performed in compliance with all applicable regulations including, but not limited to:

2.1.1 Asbestos Hazard Emergency Response Act, as amended.

2.1.2 40 CFR 763, 40 CFR 61 and other US EPA Rules and Regulations

2.1.3 Illinois Commercial and Public Building Asbestos Abatement Act (225 ILCS 207/)

2.1.4 Asbestos Abatement for Public and Private Schools and Commercial and Public Buildings in Illinois (77 Ill. Adm. Code 855)

2.1.5 Other rules and regulations promulgated by the Illinois Department of Public Health, municipalities and localities.

2.2 No asbestos or asbestos containing materials shall be used in the Work.

2.3 The Contractor shall certify compliance by submitting the competed form on the following page within SEVEN (7) days of occupancy or use of any portion of the building by the Owner. An duplicate original copy of the certification shall be submitted with the closeout documents.

2.4 Ensure that modifications, patching or demolition required by the work will not disturb asbestos containing materials or release asbestos fibers into the school or environment.

2.5 Suspected asbestos containing materials which have been tested are indicated on the inspection report, a copy of which is available for viewing at the office of the Owner.

2.6 Prior to work commencing on suspect materials verify that all materials which might be disturbed during the course of the work do not contain asbestos.

3 **Testing and Abatement:**

3.1 If a suspect material has not been tested, the testing will be done by the Owner. Costs for testing will be paid for by the Owner.

3.2 If the material tested is found to contain asbestos work will not proceed until an abatement procedure in conformance with the Illinois Asbestos Abatement Act has been completed. Abatement work will be by the Owner. Costs for the work will be paid by the Owner.

3.3 There will be no additional costs or extensions of contract time due to delays of seven (7) calendar days or less as a result of testing or abatement procedures.

4 **Alternative Procedures:**

4.1 Work may be relocated or otherwise changed with the Owner's approval in order to avoid disturbing the asbestos containing materials. There will be no additional costs to the Owner for this work.

End of Section (one page follows)

ASBESTOS FREE CONSTRUCTION CERTIFICATION
MCHENRY COUNTY COLLEGE

Project: _____ Building: _____

Project Address: _____, _____, IL

Architect's Project Number: _____

The undersigned hereby certifies that no asbestos or asbestos containing materials have been used in, or are contained in products used for, the construction of this project through the date of this certification.

Respectfully submitted, this _____ day of _____ 20____

_____
(Name of Firm)

By: _____

Printed Name: _____

Title: _____

Subscribed and sworn before me this _____ day of _____ 20____

Notary Public _____

My Commission expires: _____

If the firm is a corporation, attach a sworn statement signed by an executive officer of the corporation stating that the individual signing this certification is authorized to bind this corporation thereby, and affix the corporate seal.

1 **Illinois Department of Labor Requirements:**

1.1 This contract constitutes the construction of a "public work", within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, as ascertained by the Illinois Department of Labor. The Contractor and each subcontractor rendering services under this contract shall comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties, and shall include in Bids the cost for compliance with the Act.

1.2 A copy of the Illinois Department of Labor Prevailing Wages for location of the project, current as of the date of the Documents, is included at the end of this Section. As changes are made to the prevailing wages, the Contractor and each subcontractors shall conform to the changes and shall determine when such changes are made. No additional costs shall be incurred by the Owner as a result of changes in the prevailing wage.

1.3 The Contractor and each subcontractor shall comply with all record-keeping requirements of the Illinois Prevailing Wage Act, including, but not limited to, (1) make and keep, for a period of not less than three (3) years, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each pay period, the number of hours worked each day, and the starting and ending times of work each day; and (2) shall submit monthly a certified payroll in conformance with law, and in the form and manner specified by the Contract Documents, or otherwise as acceptable to the Owner.

1.4 The Contractor and each subcontractor shall comply with the Employment of Illinois Workers on Public Works Act (30 ILCS 570). All record keeping requirements are the obligation of the Contractor and Subcontractors.

1.5 The Contractor and each subcontractor shall indemnify and hold harmless both the Owner, Architect and their respective officers, employees and agents, from any and all costs incurred, directly or indirectly, by the Owner or Architect in responding to or complying with demands made by the Illinois Department of Labor, or an aggrieved employee of the Contractor or subcontractor, or any third party, as a result of any claimed violation of or inquiry regarding these Acts. Any such cost incurred by the Owner or Architect may be deducted from the Contract Sum. It is the intention that the Owner and Architect shall suffer no time loss or other additional expenses in complying with any inquiry made with regard to these Acts.

End of Section
(5 pages follow)

McHenry County Prevailing Wage for April 2014

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
ASBESTOS ABT-GEN		ALL		37.100	37.600	1.5	1.5	2.0	12.97	9.930	0.000	0.500
ASBESTOS ABT-MEC		BLD		35.100	37.600	1.5	1.5	2.0	11.17	10.76	0.000	0.720
BOILERMAKER		BLD		44.240	48.220	2.0	2.0	2.0	6.970	17.54	0.000	0.350
BRICK MASON		BLD		41.580	45.740	1.5	1.5	2.0	9.700	12.80	0.000	1.040
CARPENTER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
CEMENT MASON		ALL		41.550	43.550	2.0	1.5	2.0	9.500	15.87	0.000	0.500
CERAMIC TILE FNSHER		BLD		34.810	0.000	2.0	1.5	2.0	10.20	7.830	0.000	0.640
COMMUNICATION TECH		BLD		36.360	38.460	1.5	1.5	2.0	12.27	10.25	0.000	0.640
ELECTRIC PWR EQMT OP		ALL		36.610	49.750	1.5	1.5	2.0	5.000	11.35	0.000	0.270
ELECTRIC PWR GRNDMAN		ALL		28.310	49.750	1.5	1.5	2.0	5.000	8.780	0.000	0.210
ELECTRIC PWR LINEMAN		ALL		43.830	49.750	1.5	1.5	2.0	5.000	13.58	0.000	0.330
ELECTRIC PWR TRK DRV		ALL		29.310	49.750	1.5	1.5	2.0	5.000	9.090	0.000	0.220
ELECTRICIAN		ALL		43.660	48.030	1.5	1.5	2.0	12.88	12.29	0.000	0.760
ELEVATOR CONSTRUCTOR		BLD		49.900	56.140	2.0	2.0	2.0	12.73	13.46	3.990	0.600
FENCE ERECTOR	E	ALL		34.840	36.840	1.5	1.5	2.0	12.86	10.67	0.000	0.300
FENCE ERECTOR	S	ALL		45.060	48.660	2.0	2.0	2.0	9.390	17.69	0.000	0.400
GLAZIER		BLD		40.000	41.500	1.5	2.0	2.0	12.49	15.99	0.000	0.940
HT/FROST INSULATOR		BLD		46.950	49.450	1.5	1.5	2.0	11.17	11.96	0.000	0.720
IRON WORKER	E	ALL		42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350
IRON WORKER	S	ALL		45.060	48.660	2.0	2.0	2.0	9.390	17.69	0.000	0.400
IRON WORKER	W	ALL		35.090	36.840	2.0	2.0	2.0	8.340	22.19	0.000	0.500
LABORER		ALL		37.000	37.750	1.5	1.5	2.0	12.97	9.930	0.000	0.500
LATHER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
MACHINIST		BLD		43.920	46.420	1.5	1.5	2.0	6.760	8.950	1.850	0.000
MARBLE FINISHERS		ALL		30.520	0.000	1.5	1.5	2.0	9.700	12.55	0.000	0.590
MARBLE MASON		BLD		40.780	44.860	1.5	1.5	2.0	9.700	12.71	0.000	0.740
MATERIAL TESTER I		ALL		27.000	0.000	1.5	1.5	2.0	12.97	9.930	0.000	0.500
MATERIALS TESTER II		ALL		32.000	0.000	1.5	1.5	2.0	12.97	9.930	0.000	0.500
MILLWRIGHT		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
OPERATING ENGINEER		BLD	1	46.100	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	2	44.800	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	3	42.250	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	4	40.500	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	5	49.850	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	6	47.100	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	7	49.100	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	1	44.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	2	43.750	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	3	41.700	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	4	40.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	5	39.100	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	6	47.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	7	45.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
ORNAMNTL IRON WORKER	E	ALL		42.900	45.400	2.0	2.0	2.0	13.11	16.40	0.000	0.600
ORNAMNTL IRON WORKER	S	ALL		45.060	48.660	2.0	2.0	2.0	9.390	17.69	0.000	0.400
PAINTER		ALL		40.980	42.980	1.5	1.5	1.5	10.00	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
PIPEFITTER		BLD		46.000	49.000	1.5	1.5	2.0	9.000	15.85	0.000	1.680
PLASTERER		BLD		41.250	43.730	1.5	1.5	2.0	11.10	11.69	0.000	0.550
PLUMBER		BLD		44.500	47.500	1.5	1.5	2.0	11.05	12.40	0.000	1.700
ROOFER		BLD		39.200	42.200	1.5	1.5	2.0	8.280	9.690	0.000	0.430
SHEETMETAL WORKER		BLD		43.250	45.250	1.5	1.5	2.0	10.65	12.90	0.000	0.820
SIGN HANGER		BLD		26.070	27.570	1.5	1.5	2.0	3.800	3.550	0.000	0.000
SPRINKLER FITTER		BLD		49.200	51.200	1.5	1.5	2.0	10.75	8.850	0.000	0.450
STEEL ERECTOR	E	ALL		42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350
STEEL ERECTOR	S	ALL		45.060	48.660	2.0	2.0	2.0	9.390	17.69	0.000	0.400
STONE MASON		BLD		41.580	45.740	1.5	1.5	2.0	9.700	12.80	0.000	1.040
SURVEY WORKER		ALL		37.000	37.750	1.5	1.5	2.0	12.97	9.930	0.000	0.500
TERRAZZO FINISHER		BLD		36.040	0.000	1.5	1.5	2.0	10.20	9.900	0.000	0.540
TERRAZZO MASON		BLD		39.880	42.880	1.5	1.5	2.0	10.20	11.25	0.000	0.700
TILE MASON		BLD		41.840	45.840	2.0	1.5	2.0	10.20	9.560	0.000	0.880
TRAFFIC SAFETY WRKR		HWY		28.250	29.850	1.5	1.5	2.0	4.896	4.175	0.000	0.000
TRUCK DRIVER		ALL	1	35.850	36.400	1.5	1.5	2.0	7.200	6.000	0.000	0.150
TRUCK DRIVER		ALL	2	36.000	36.400	1.5	1.5	2.0	7.200	6.000	0.000	0.150
TRUCK DRIVER		ALL	3	36.200	36.400	1.5	1.5	2.0	7.200	6.000	0.000	0.150
TRUCK DRIVER		ALL	4	36.400	36.400	1.5	1.5	2.0	7.200	6.000	0.000	0.150
TUCKPOINTER		BLD		41.950	42.950	1.5	1.5	2.0	8.180	11.78	0.000	0.630

Legend: RG (Region)
TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
C (Class)
Base (Base Wage Rate)
FRMAN (Foreman Rate)
M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.
OSA (Overtime (OT) is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)
H/W (Health & Welfare Insurance)
Pensn (Pension)
Vac (Vacation)
Trng (Training)

Explanations
MCHENRY COUNTY

FENCE ERECTOR (EAST) - That part of the county East and Northeast of a line following Route 31 North to Route 14, northwest to Route 47 north to the Wisconsin State Line.

IRONWORKERS (EAST) - That part of the county East of Routes 47 and 14.

IRONWORKERS (SOUTH) - That part of the county South of Route 14 and East of Route 47.

IRONWORKERS (WEST) - That part of the county West of Route 47.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security systems, fire alarm systems that are a component of a multiplex system and share a common cable, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such

materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover;

Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders.

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman;

Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

PART 1 - GENERAL

1.01 **Section Includes:**

A. General scope of work

B. Owner furnished products

C. Assigned Subcontractors

D. Contractor use of site and premises.

E. General project requirements

1.02 **General Scope of Work:**

A. The intent and meaning of the Contract Documents is that the Contractor shall provide labor, plant, service, transportation, materials and appurtenances thereto which are indicated or reasonably implied by the Drawings and Specifications to provide a complete and functional facility.

1.03 **Work by Owner:**

A. Any items indicated on the Drawings as NIC (Not in Contract) shall be furnished and installed by the Owner, or by separate Owner-employed contractor.

B. Work by Others: The Owner reserves the right to let other contracts for additional work that may be required in connection with this project. There shall be complete cooperation between and among contractors as well as between the Contractor and each Subcontractor to ensure satisfactory progress and performance of the work.

1.04 **Contractor Use of Site and Premises:**

A. Site: non-exclusive use, restricted access.

1. Work can be performed at times lawfully permitted, except that construction activities that may impede vehicle or pedestrian traffic shall be restricted to times of reduced traffic on campus.

2. Work area, space for storage, staging and parking will be restricted to locations designated by the Owner and Construction Manager.

B. Interior of building: non-exclusive use, restricted access.

1. Special time restrictions: Hazardous or potentially disruptive work in or adjacent to occupied areas shall be performed on Saturdays, Sunday or weekdays after 10:00 PM and before 7:00 AM. At the Owner's sole discretion, special accommodations may be possible at other times. Hazardous and potentially disruptive work includes, without limitation, the following:

a. Welding, torch-applied roofing, and other activities involving open flame in or on the buildings.

b. Demolition and construction in public corridors and public spaces, private offices, classrooms, and other normally occupied spaces.

c. Electrical and other utility shut-downs.

(1) Uninterrupted electrical power must be maintained to occupied areas of the campus, except for momentary shut-downs which must be scheduled and coordinated in advance with the Owner.

2. The site and buildings will be occupied for normal operations during the course of the project. See Construction Manager's Bidding Documents and schedule for additional information.

a. Perform work at times to minimize interference with the operation of the College. Determination of the times when work may be performed and the nature and extent of any interference which may be permitted shall be at the sole discretion of the Owner.

b. Schedule work in public and occupied spaces and potentially disruptive work with Owner a minimum of seventy-two (72) hours in advance.

c. Maintain safe conditions.

d. Maintain safe emergency egress from occupied areas of the building

e. Maintain fire alarm and fire suppression systems in operation. Exceptions for service on such systems permitted only when the building is unoccupied, subject to written approval of the Owner and approval of the local fire authority having jurisdiction.

f. Maintain occupied areas free of fumes, noxious odors, and dust.

g. Maintain occupied areas free of excessive noise.

h. Clean work areas at the end of each work shift.

3. If the presence of occupants at any time precludes Contractor's performance of hazardous or disruptive work, the Contractor shall perform such work at times when occupants are not present, without additional cost to the Owner.

1.05 **Scheduling:**

A. Prepare and maintain a Master Schedule for the project.

1. Type and Detail:

a. Use Critical Path Method (CPM).

b. Every line in the Schedule of Values shall be represented by at least one activity.

c. Every activity shall be broken down into components which do not exceed two (2) pay periods (two months) in duration.

d. Activities with internal dependencies shall be broken down into sub-activities (for example: floor prep, floor finish).

e. Include procurement activities for long-lead items

f. Include activities for Work by Others on which timely completion of the contract is dependent.

g. Negative float is prohibited. Revise logic and dependencies to prevent negative float

2. Updates:

a. Update the schedule every two weeks until Substantial Completion of the entire project, and whenever significant changes occur which affect the completion date or the start or completion of any item on the critical path.

b. Actual progress shall be reflected in each update.

c. Logic shall be revised whenever circumstances render previous logic inappropriate.

3. Distribution:

a. Submit original schedule in accordance with the Conditions of the Contract.

b. Distribute schedule and updates to Architect and each subcontractor.

B. Format: provide all of the following:

a. Printed, page size of 8.5 x 11 or 11 x 17 inches, on white paper.

b. Electronic: Adobe PDF (Portable Document Format) file.

C. Schedule with the Owner all events which affect the building or site after Owner's initial occupancy.

D. Prosecute the work to maintain progress in accordance with the Master Schedule and avoid causing delay to other Contractors.

E. If Contractor fails to maintain progress according to the Master Schedule it shall furnish such additional labor, services and expedited delivery as may be necessary to bring its operations up to schedule.

F. Contractor shall provide overtime labor when necessary to maintain or recover its schedule compliance. Such overtime shall be provided without additional cost to the Owner unless the delay is caused by the willful action of the Owner.

G. If the Contractor or any Subcontractor has installed its work in a manner or at such a time as to prevent an other contractor or subcontractor from installing its work, they shall remove such work and reinstall it a proper time without additional cost to the Owner.

1.06 **Meetings:**

A. Construction Manager or General Contractor shall be responsible for the following:

B. Owner-Architect-Contractor Meeting: conduct a meeting weekly with the Architect and Owner to review project status, schedule, pending changes change proposals. Project manager and field superintendent shall be present. Payout review will conducted monthly as part of this meeting. Prepare an agenda for each meeting, to be distributed at the meeting. Prepare minutes of each meeting. Minutes shall be distributed to all attendees, Owner and Architect not later than 7 calendar days following the meeting, and prior to the next meeting.

1. Logs: prepare, maintain and distribute at each meeting the following logs:

a. Change Request Log, include at least the following information: CR number, Description, Originating Party, Requested Amount, Requested Time, Date submitted, Status, Executed Change Order Number.

b. Submittal Log, include at least the following information: Reference Number, Trade, Contractor/Subcontractor, Submittal Type, Submittal Description/Title, Date Submitted, Date Requested, Date Received, Action.

c. RFI Log, include at least the following information: RFI Number, Title/Description, Originating Party, Date Issued, Date Resolved, Status

C. Coordination Meeting: conduct a job progress and coordination meeting a minimum of once a week, at which a responsible decision-making representative from each active Contractor and subcontractor must be present. Prepare an agenda for each meeting, to be distributed at the meeting. Prepare minutes of each meeting. Minutes shall be distributed to all attendees, Owner and Architect prior to the next meeting.

D. Pre-Installation Conferences: Arrange and conduct pre-installation conferences as specified in the individual sections of the Specifications. Prepare and distribute meeting minutes. Report on follow-up activities at subsequent Owner-Architect-Contractor Meetings.

1.07 **Project Communications:**

A. The following project communications shall be made available electronically in PDF (Portable Document Format) files, in addition to printed copy. Files shall be sent to the Architect by email using address(es) provided by the Architect, not later than four (4) hours following distribution of printed copy:

1. Schedules

2. Meeting Minutes

3. Requests For Information (RFI)

4. Change Requests

5. Logs of submittals, RFIs, change requests, etc.

1.08 **Existing Conditions:**

A. Existing conditions are indicated to the best knowledge of the Architect. Actual conditions encountered during demolition and construction may vary. The Architect will cooperate with the Contractor to make modifications to the construction documents, when necessitated by field conditions, in order to accomplish the design intent.

B. The Contractor shall verify measurements and existing conditions at the site and shall be responsible for correctness of same; any discrepancies encountered shall be immediately reported to the Architect, prior to proceeding.

1.09 **Grades, Lines and Levels, Layout and Surveys:**

A. Lay out the project and establish other lines and levels as necessary for the execution of the Work.

B. Verify measurements at site before ordering material for doing work. No extra charge or compensation is allowed on account of differences between actual dimensions and measurements indicated on drawings. Submit any difference to Architect for clarification before proceeding.

1.10 **Application of Documents:**

A. In the absence of any specific instruction or specification, employ workmanship and material approved by Architect with quality equal to that in the Contract Documents.

B. It should be noted that the specification sections are not intended to divide work responsibilities among various subcontractors.

C. The Drawings indicate generally the design and arrangements of equipment, apparatus, fixtures, accessories, etc., necessary to complete the installation of systems. The exact location or arrangement of apparatus and equipment, unless otherwise dimensioned, is subject to minor changes necessitated by field conditions and shall be verified by actual observation at construction site; and Contractor shall be responsible for his work fitting into place in a satisfactory and workmanlike manner and to the approval of the Architect.

B. Contractor shall be responsible for leaving necessary room for all trades. No extra payments will be allowed to cover the cost of removing and relocating equipment found encroaching on space required by others.

D. Manufacturers as listed in each Section of the Specifications are considered as acceptable insofar as they meet the requirements of the Specifications.

1.11 **Material and Workmanship:**

A. The workmanship of trades shall be the best obtainable, and materials shall be installed true to line, level, plumb, and dimension.

B. Any materials, manufactured articles, or equipment which may affect the architectural aspect or appearances of the work shall be subject to the express approval of the Architect, and should such work be rejected for appearance reason, the Contractor shall remove and replace at his own expense and replace with materials, etc. to the satisfaction of the Architect.

C. Any materials, manufactured articles, or equipment which may affect the architectural aspect or appearances of the work shall be subject to the express approval of the Architect, and should such work be rejected for appearance reason, the Contractor shall remove and replace at his own expense and replace with materials, etc. to the satisfaction of the Architect.

D. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturers, unless herein specified to the contrary.

1.12 **Minimum Work Requirements:**

A. Technical requirements and methods of operation and procedures specified under indexed sections of these construction specifications constitute minimum requirements. Manufacturer's guarantees and agreements shall be observed and shall be in effect and valid.

1.13 **Jurisdiction of Work:**

A. The Contractor shall make all appropriate contractual arrangements for proper performance of the Work in accordance with applicable trade jurisdictions and labor agreements. The division of the specifications into various sections does not imply an intent to subdivide the work among subcontracts or trades.

1.14 **Acceptance of Preceding Work:**

A. Before starting any operation, the Contractor and each Subcontractors shall examine work performed by others to which his work adjoins or is applied and shall remedy or report to the Architect conditions that will prevent satisfactory accomplishment of his contract. Failure to notify the Architect in writing of deficiencies or faults in preceding work will constitute acceptance thereof and waiver of any claim of its unsuitability.

1.15 **Damage to Other Work:**

A. The Contractor shall be responsible for damage caused by the work, the contractor’s employees, agents and subcontractors, to adjoining property, existing facilities, present work, and work installed by himself or others.

B. It is the responsibility of the Contractor and each Subcontractor to make a report immediately to the Architect if a utility line or service or any kind is encountered unexpectedly, and to protect and maintain it until instructions for its disposition can be issued.

1.16 **Safety and Health Requirements:**

A. The Contractor and each Subcontractor shall comply with applicable federal, state and local acts and regulations, and without limiting this obligation, and in addition to other indemnities provided for in this contract, shall comply with the Code of Federal Regulations, 29 CFR 1926, Occupational Safety and Health Administration, Safety and Health Regulations for Construction.

B. Additional requirements are specified in Section 00 73 19.01 - Safety and Health Requirements - Asbestos.

1.17 **Clean-up:**

A. The Contractor shall keep the work areas reasonably clean and free of debris and shall obtain and pay for containers and disposal.

B. The Contractor shall remove dirt and debris from the public way surrounding the site to the satisfaction of the authority having jurisdiction.

1.18 **Publicity:**

A. Any publicity giving reference to this project, whether in the form of press releases, brochures, photographic coverage, or verbal announcement shall be only with the general or specific approval of the Owner, and in all instances shall give due mention of the Architect and the Architect's consultants.

PART 2 - PRODUCTS:

Not used.

PART 3 - EXECUTION:

Not used.

End of Section

PART 1 - GENERAL

1.01 **Section Includes:**

A. A description of alternate bids.

1.02 **Alternate Bids:**

A. In spaces provided in the bid form for alternate bids, bidders state the amount for each alternate bid to be added to or deducted from the base bid. Each alternate bid is to include all costs necessary for complete performance of the intent of drawings and specifications for the designated portion of work.

1.03 **Description of Alternate Bids:**

Alternate A1 - Additional Carpet in I.T. Core area

Remove existing carpet and install new carpet tile in I.T. Core Area A110 and A108b - See sketch A-17.

Alternate A2 - Additional Carpet in I.T. Offices

Remove existing carpet and install new carpet tile in I.T. Offices A110a, and A108b - See sketch A-17

Alternate A3 - New Carpet in Office E118

Remove existing carpet and install new carpet tile and base and paint the walls in Office E118 - See sketch A-20

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Procedural requirements for substitutions

1.02 **Consideration of Substitutions:**

A. The Owner and Architect are not obligated to consider substitutions at any time.

B. No consideration will be given to substitutions prior to receipt of Bids.

C. The Owner may choose to consider substitutions proposed by the Contractor when submitted with the bid in the form and manner prescribed herein.

D. After the Contract is executed substitutions will be considered only when in the Owner's interest. In general, a request for substitution will not be considered unless the proposed substitution provides a significant reduction in cost with performance equal to or better than the specified products and materials.

E. The Contractor shall pay:

1. All costs incurred by the Owner for Architect's investigation of a proposed substitution, however cost will not exceed $500 without written notice to the Contractor and opportunity for the Contractor to withdraw the request from further consideration.
2. All costs for changes in the design and documents, and for changes to and coordination of other work to accommodate the proposed substitution.

F. Contractor shall submit all information reasonable requested by the Architect for evaluation of a proposed substitution including, but not limited to, product information, performance data, test results, cost information.

G. No substitution shall be incorporated in the work unless authorized by a written Change Order properly executed by Owner and Architect.

1.03 **Substitutions Proposed with Bid**

A. Bidders may propose substitutions with bid by completing and submitting the Substitution Request Form included at the end of this Section and supporting information with the Bid, however, substitutions shall not be included in the Base or Alternate Bids, which shall be based on specified products and materials..

1.04 **Post-Contract Request For Substitution**

A. Submit a complete request using the form provided at the end of this section together with all necessary information.

B. The cost incurred by the Owner for the Architect's review of the proposed substitution will be deducted from the amount owed the Contractor whether or not the substitution is accepted and authorized by written Change Order.

PART 2 - PRODUCTS Not used.
PART 3 - EXECUTION Not used.

End of Section (one page follows)

REQUEST FOR SUBSTITUTION

INSTRUCTIONS
Complete this form.
Attach additional sheets as necessary.
Attach supporting information
Sign form and submit to the Architect

Project: _____
Project No:: _____

Date: _____

Submitted By _____ (Contractor)

Contact: _____ (Name) _____ (Telephone)

1. **Description of Proposed Substitution**
(Include reference to Specification Section and Paragraph, and to Drawing Sheet and number where applicable. Attach additional sheets as necessary.)

2. **Reason for Proposed Substitution**
(Explain why substitution is proposed and what benefit the Owner will derive. Attach additional sheets as necessary)

3. **Affect on other Work**
(Describe how the proposed substitution will affect other work. Identify what, if any, changes are required to other work or elements of the design to accompdate the proposed substitution)

4. **Affect on Cost:**
(Detail change in cost. Provide detailed breakdown of labor and material)

5. **Affect on Time**
(Indicate how the proposed change affects the project schedule)

6. **Supporting Information**
(Attach all additional data necessary for Architect's evaluation of the proposed substitution. List all that apply)
Product Data:
Performance Data:
Test Results
Preliminary Submittal Drawings:
Schedule

7. The undersigned

A. Has researched the proposed substitution and believes it to be equal to or better than the specified products and materials.
B. Certifies that the information provided is true and accurate.
C. Agrees to pay all costs incurred by the Owner for the evaluation of this proposed substitution, whether or not accepted and incorporated into the work, however cost will not exceed $500 without written notice to the Contractor and opportunity for the Contractor to withdraw this request from further consideration.
D. Agrees to pay all costs necessary for incorporation of the proposed substitution if accepted, including changes to and coordination of other work.

Signature _____ Date _____

Printed Name _____ Title _____

This form shall be signed by the proprietor, partner, or a corporate officer of the Contractor.

PART 1 - GENERAL

1.01 **Description:**

A. This section shall govern payment procedures, including, but not necessarily limited to, the following:

1. Schedule of Values
2. Application for payment.
3. Lien waivers
4. Certified payroll
5. Related documentation.

B. Related sections:

1. Section 00 72 00: General conditions.
2. Section 00 73 00: Supplementary conditions.
3. Section 01 77 00: Closeout procedures.

1.02 **Submittals:**

A. Schedule of values, to be submitted within fourteen (14) days of the signing of the Contract.

B. Cash flow projection: A complete schedule of anticipated pay requests for the duration of the project, to be submitted within fourteen (14) days of the signing of the Contract. This projection is advisory and will neither limit nor assure payment of the amounts indicated.

C. Payment request package, to be submitted monthly.

1.03 **Schedule of Values:**

A. Schedule of Values shall be prepared on Chicago Title Insurance Company form F.3619 "Sworn Statement for Contractor and Subcontractors to Owner", or similar form acceptable to the Architect, in such a manner that each subcontractor is shown as a single line item. In addition, each major portion of the Work being performed by the Contractor shall be listed as a separate line item including supervision, overhead, and profit. Form must be signed, sealed if a corporation, and notarized.

1.04 **Payment Procedure:**

A. Monthly progress payments will be made by the Owner. The Contractor shall submit applications for payment in accordance with the procedure established in the General Conditions.

1. The Architect will certify or take other appropriate action on the Application.

a. If the amount is appropriate, and the Owner has no reasonable objection, the Architect will certify payment.

b. If the amount is not appropriate or if necessary documentation is missing, or if the Owner has a reasonable objection, the Architect may certify payment of a reduced amount or may refuse certification, and shall notify the Owner and Contractor of the reasons therefore.

2. The Architect will forwarded the payment request package to the Owner.

3. The Board of Trustees will act upon the payment request certified by the Architect at the next regularly scheduled business meeting of the Board of Trustees.

4. The Owner will make payment as provided in the General Conditions.

1.05 **Application for Payment:**

A. Application for Payment shall be for work properly completed and materials acceptably stored on site through the date of the payout application and not beyond.

B. All payments shall be for the value of work properly completed and materials acceptably stored on site, less retention, in accordance with the General Conditions.

C. At the Owner's sole discretion, the Owner may reduce retention and may reinstate retention in accordance with the provisions of the General Conditions.

D. Retention shall be paid upon final payment after completion of all punch list items from the Certificate of Substantial Completion. An application package is necessary for the final payment.

1.06 **Payment Request Packages:**

A. Payment request packages must be complete and accurate. An improperly prepared package in need of correction may cause the contractor to miss the deadline for application resulting in a month delay in payment. A complete payment request package include the following, in triplicate:

1. Application and Certificate for Payment, AIA Document G702; signed, sealed if a corporation, and notarized.

2. Sworn Statement for Contractor and Subcontractors to Owner, Chicago Title Insurance Company Form F.3619; signed, sealed if a corporation, and notarized.

a. List separately each of the following:

(1) General Conditions.

(2) Overhead and Profit or Fee.

(3) Bonds and project-specific insurance.

(4) Each subcontract.

b. Line items shall be updated monthly to incorporate approved Change Orders and other subcontract changes. Change Orders shall not be listed as separate line items.

3. Certification by Contractor and each sub-conntractor of any tier, as required by the General Conditions, on the form included at the end of section.

4. Waiver Submittal Summary Sheet, form included at the end of this section. Form must be signed, sealed if a corporation, and notarized. Final waivers shall be indicated with an asterisk

(*).

5. Waivers of Lien:

   a. Progress Payments: Submit waivers and affidavit from:

      (1) Contractor, for the amount requested.

      (2) Subcontractors and suppliers, for the amounts paid on the prior request.

   b. Final Payment: Submit waivers and affidavit from:

      (1) Contractor, Subcontractor and suppliers, for the amounts requested.

   c. Forms:

      (1) Partial waiver: Chicago Title Co. Form 1722 (pink)

      (2) Final waiver: Chicago Title Co. Form 3870 (blue)

   d. Instructions:

      (1) Waiver and affidavit must be completed in full.

      (2) The amount waived shall be the actual amount of the payment, not the gross amount before retainage is deducted.

      (3) Subcontractors and suppliers shall be listed on the affidavit, unless identified on the Contractor's Sworn Statement.

      (4) The phrase "All material taken from fully paid stock" shall not be used when lien rights are applicable.

6. Certified payroll records as specified herein, accompanied by the form provided at the end of this section.

B. Certified Payroll Records:

1. The Contractor and each subcontractor, shall submit certified payroll records in conformance with Illinois law, Illinois Department of Labor requirements, and the following:

   a. Certified payroll records shall be included for all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each pay period, the number of hours worked each day, and the starting and ending times of work each day.

   b. The certified payroll records shall be accompanied by a statement signed by the contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by Public Act 94-0515; and (iii) the contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

2. Certified payroll records shall be submitted with the Application for Payment for the period covered by the Application. Records shall be submitted on fors available from the Illinois Department of Labor or other form as may be directed by the Owner.

3. The Contractor and each subcontractor shall make certified payroll records available for inspection upon 2 business days notice, in accordance with law.

1.07 **Samples:**

A. Samples of all payout documents as well as completed forms are available for viewing at the office of the Architect.

1.08 **Accuracy:**

A. Since the payout documents are subject to review by many authorities accuracy is of great importance. Failure of the Contractor to strictly follow these procedures may result in delays of payment.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section
(three pages follow)

CONTRACTOR'S CERTIFICATION

McHENRY COUNTY COLLEGE

PROJECT: _____

PROJECT NO. _____

Regarding the Application for Payment for the period of _____ to _____

Submitted by:

☐ **CONTRACTOR:** _____
(Firm Name)

or

☐ **SUBCONTRACTOR:** _____ for _____ work.
(Firm Name) (Type of Work)

Firm is a ☐ **Sole Proprietorship,** ☐ **Partnership,** ☐ **Corporation.**
(Check one above)

The Undersigned, certifies that:

(1) There are no written claims or mechanics' or materialmen's liens with respect to the Work.

(2) All due and payable bills with respect to the Work have been paid to date or shall be paid from the proceeds of the Application for Payment indicated above.

(3) There is no known basis for the filing of any mechanics' or materialmen's liens on the Work.

(4) Waivers submitted by the Undersigned and by Subcontractors and Sub-Subcontractors of the Undersigned constitute an effective waiver of lien under the laws of Illinois to the extent of payments that have been made or with respect to payments that will be made concurrently with Application for Payment indicated above.

Respectfully submitted, this _____ day of _____ 20_____

By: _____
(Signature)

_____
(Print Name)

_____
(Title)

STATE OF:_____ COUNTY OF: _____
Subscribed and sworn before me this

_____ day of _____ 20____ (seal)

_____
Notary Public
My commission

expires _____

Instructions: If certification is made by other than the Proprietor, a Partner, or an Executive Officer of the corporation, attach a sworn statement signed by the Proprietor, Partner, or an Executive Officer of the corporation, stating that the individual making this certification is authorized to do so on behalf of the firm.

CERTIFIED PAYROLL RECORDS for

McHENRY COUNTY COLLEGE

PROJECT: _____

PROJECT NO. _____

for the period of _____ to _____

Submitted by:

☐ **CONTRACTOR:** _____
(Firm Name)

or

☐ **SUBCONTRACTOR:** _____ for _____ work.
(Firm Name) (Type of Work)

Firm is a ☐ **Sole Proprietorship,** ☐ **Partnership,** ☐ **Corporation.**
(Check one above)

The Undersigned, avers that:

(i) The attached payroll records are true and accurate;

(ii) The hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by this Public Act 94-0515; and

(iii) The Undersigned is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

By: _____
(Signature)

_____
(Print Name)

_____
(Title)

STATE OF:_____ COUNTY OF: _____
Subscribed and sworn before me this

_____ day of _____ 20____ (seal)

_____
Notary Public
My commission
expires _____

Instructions: If certification is made by other than the Proprietor, a Partner, or an Executive Officer of the corporation, attach a sworn statement signed by the Proprietor, Partner, or an Executive Officer of the corporation, stating that the individual making this certification is authorized to do so on behalf of the firm.

Waiver Submittal Summary

Project:
Project No.
Contract For:

PAY REQUEST NO. _____
PAY PERIOD ENDING _____

RuckPate Architecture
22102 N. Pepper Rd Suite 201
Barrington, IL 60010

	CONTRACTOR	TOTAL AMOUNT OF CONTRACT	NET PREVIOUSLY PAID	AMOUNT DUE THIS PAYMENT	AMOUNT OF PREVIOUS WAIVERS	AMOUNT THIS WAIVER	STATUS
1							
	SUBCONTRACTORS AND SUPPLIERS						
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							

CONTRACTOR'S CERTIFICATION

The undersigned certifies that to the best of his/her knowledge, information and belief the above information is accurate.

By: _____

Title: _____

Date: _____

(seal)

State of _____

County of _____

Subscribed and sworn to before me this this _____

day of _____

Notary Public _____

My commission expires: _____

PART 1 - GENERAL

1.01 **Description:**

A. This section regulates the requirements for the submittals required by individual specification sections. The requirements pertain, generally, to the following:

1. Shop drawings, product data, samples and other submittals.

2. Duties of Contractor, Construction Manager and Architect.

3. Fees for third and subsequent submittal review by the Architect.

4. CAD File Availability

B. Related sections:

1. Specific shop drawings and submittal requirements are specified in Specifications Sections of Divisions 2 through 49.

1.02 **Field and Project Records:**

A. One set of reviewed submittals shall be maintained by the Contractor at the project site, throughout the construction project.

B. One set of reviewed submittals shall be complied and maintained by the Contractor for delivery to the Owner prior to Substantial Completions as specified in Section 01 77 00.

1.03 **Definitions:**

A. Shop drawings: shop drawings are original drawings prepared by Contractor, Subcontractor, Sub-subcontractor, supplier or distributor, which illustrate some portion of the work, showing fabrication, layout, setting or erection details.

1. Prepare by qualified detailer.

2. Identify details by reference to sheet and detail numbers shown on Contract Drawings.

3. Minimum sheet size: 8-1/2" x 11".

4. Reproduction of Contract Documents, in whole or in part, for submittals is expressly prohibited.

B. Product data:

1. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, standard schematic drawings and other standard descriptive data.

a. Clearly mark each copy to identify pertinent materials, products or models.

b. Modify to delete information which is not applicable to project.

c. Supplement standard information to provide additional information applicable to project.

d. Show dimensions and clearances required.

e. Show performance characteristics and capacities.

f. Show wiring diagrams and controls.

C. Samples: Physical samples to illustrate materials, equipment or workmanship, and to establish standards by which complete work is judged.

1. Submit two (2) samples, indicate if samples are to be used in construction and should be returned otherwise Architect will retain all samples.

2. Color selection samples: physical samples of actual finish. Reproduced color charts are not acceptable.

3. Office samples: of sufficient size to clearly illustrate:

a. Functional characteristics of product or material, with integrally related parts and attachment devices.

b. Full range of color samples.

c. After review, samples may be used in construction of project.

4. Field samples and mock-ups:

a. Erect at project site at location acceptable to Architect.

b. Construct each sample or mock-up complete, including work of all trades required in finished work.

D. Other Submittals:

1. Certifications: written certification of facts as specified in individual sections, on the form provided or as acceptable to the Architect, with original signatures.

2. Calculations: written and numeric data to support manufacturer/supplier design decisions. Submit in a form acceptable to the Architect, with original signatures.

3. Waste disposal and recycling records: written data documenting disposal and and recycling of demolition debris and construction waste. Submit for record. No review or response by Architect is required

1.04 **Submittal Requirements:**

A. Submittal Schedule: Within 30 days of execution of the Contract submit a schedule indicating submittals and rates of submission to the Architect, include special requirements (i.e. specific order dates or critical time lines.).

B. Submittal Log: Log showing the status of all submittals. Update and submit weekly during the course of the project.

C. Electronic Submittals: The Architect will accept electronic submittals, in lieu of printed copy using data transfer protocols and procedures as may be mutually acceptable to the Architect and Construction Manager.

1. Electronic submittals are **not** acceptable for the following: Certifications, Warranties, Bonds, Applications for Payment, waivers and other documents requiring original signatures.

D. Shop Drawings: two (2) copies. Architect will make reproductions and return four (4) copies of reviewed submittals.

E. Product data: six (6) copies are to be submitted, two (2) copies will be retained by the Architect.

F. Certifications and Calculations: two (2) copies, unless a greater quantity is specified in individual sections. All copies will be retained by the Architect.

G. Accompany submittals with transmittal letter containing:

1. Date.

2. Project title and number.

3. Contractor's name and address.

4. Submittal log number.

5. Notification of deviations from Contract Documents.

6. Supplier and/or manufacturer.

7. Specification section.

H. Furnish the Owner with one copy of final reviewed shop drawings with table of contents as specified in Section 01 77 00 Closeout Procedures.

1.05 **Contractor Duties:**

A. Prepare and submit in a timely manner complete and accurate information for the applicable submittal.

1. Review and approve shop drawings, product data and samples prior to submission, including submittals of subcontractors. Each submittal shall be signed by the Contractor indicating his approval. Failure of the Contractor to review and approve submittals may result in submittals being returned not reviewed.

B. Coordinate submittals with information contained in related documents and transmit to the Architect.

C. Verify:

1. Dimensions.

2. Quantities.

3. Field construction criteria.

4. Catalog numbers and similar data.

5. Means and methods of construction.

D. Coordinate each submittal with requirements of the work and of Contract Documents for other work.

E. Contractor's responsibility for errors and omissions in submittals is not relieved by the Architect's review.

F. Notify Architect in writing at time of submission, of deviations in submittals from Contract Documents.

G. Do not begin any work which requires submittals without having received Architect's approval evidenced by Architect's stamp indicating approval, dated and initialed by the Architect.

H. Resubmission requirements:

1. Shop drawings:

a. Revise initial drawings as required and resubmit as specified for initial submittal.

b. Indicate on drawings all changes which have been made other than those requested by Architect.

2. Product data and samples: Submit new data and samples as required for initial submittal.

3. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selection of fabrication process, for techniques of assembly, errors or omissions in the shop drawings or samples, and for performing his work in a safe manner.

4. For third and subsequent review by the Architect, Contractor shall reimburse the Owner for Architect's services to review the submittal. Architect's time will be billed at the normal hourly rates in increments of 0.5 hour.

I. Maintain at the site one copy of reviewed submittals.

1.06 **Construction Manager's Duties:**

A. Establish and implement procedures for expediting the processing and approval of shop drawings, product data, samples and other submittals.

B. Prepare and submit Submittal schedule and Submittal Log.

C. Review all shop drawings, product data, samples, and other submittals from the Contractors prior to submission to the Architect.

D. Coordinate submittals with information contained in related documents and transmit to the Architect those which have been approved by the Construction Manager.

E. The Construction Manager shall maintain at the Project site one copy of all contracts, drawings, specifications, addenda, change orders, and other modifications, in good order and marked currently to record changes and selections made during construction, and in addition, approved shop drawings, product data, samples, and similar required submittals.

F. The Construction Manager shall make all such records available to the Architect during the course of the project.

1.07 **Architect's Duties:**

A. Review and act on submittals with reasonable promptness.

B. Approval is for general conformance with the design concept expressed in the Contract Documents.

C. Review of separate item does not constitute review of an assembly in which item functions.

D. The Architect may hold shop drawings in cases where partial submission cannot be reviewed until the complete submission has been received or where shop drawings cannot be reviewed until correlated items affected by them have been received. When such shop drawings are held by the Architect, he will advise the Contractor that the shop drawings submitted will not be reviewed until shop drawings for all related items have been received.

E. The Architect will hold color selection samples until all color selection samples have been submitted and a complete color board is approved by the Owner. The Contractor is encouraged to submit color samples as soon as possible in order to prevent any delay in the ordering of materials. The Contractor is solely responsible for all delays as a result of failure to submit all color selection samples.

☐ **APPROVED**
☐ **APPROVED, EXCEPTIONS NOTED**
☐ **REVISE AND RESUBMIT**
APPROVAL IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS PURSUANT TO THE TERMS OF THE OWNER-ARCHITECT AGREEMENT. APPROVAL DOES NOT RELIEVE CONTRACTOR OF THE OBLIGATION TO CONFORM TO THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF DIMENSIONS AND QUANTITIES AND FOR COORDINATION WITH FIELD CONDITIONS AND OTHER WORK
DATE **BY**

F. Affix stamp, date and initials or signature indicating review of submittal, and with instructions for Contractor response.

G. Return submittals to Contractor for response or distribution.

H. Sample Architect's Review Stamp, shown at right:

1.08 **CAD File Availability and Limitations on Use:**

A. The Architect will make available upon request certain CAD files for Contractor's use in preparing certain Shop Drawings for the project.

1. Base Architectural floor plans.

B. CAD Files are provided as a convenience but may not be relied upon to accurately depict the work. CAD files will be supplied as-is, the Architect will not alter formatting or not make modifications.

C. The Contractor must submit a written request on the CAD Agreement form provided.

D. As a condition of the Contract for Construction the Contractor agrees to the Terms of Use contained in the CAD Agreement. Subcontractors and

E. If the Contractor receives CAD files from the Architect, the Contractor shall also submit Record CAD Files as part of the closeout documents. Record CAD Files shall include the complete CAD drawings prepared by the Contractor revised to indicate all record information. Record CAD Files shall be submitted on CD-ROM in both AutoCAD DWG and Adobe PDF formats.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section

(One Page Follows)

CAD FILE REQUEST and TERMS OF USE

Contractor: _____ Firm Name

_____ Address

Architect: RuckPate Architecture
22102 North Pepper Road, Suite 201
Barrington, Illinois 60010

The Contractor wishes to have the Architect supply to the Contractor electronic drawing files produced by the Architect with computer aided design and drafting (CAD) programs. The electronic drawing files will be used by the Contractor for background plans for the shop drawings and record drawings produced by the Contractor for the _____ project for _____, Owner.

The Contractor agrees to the following:

A. CAD files prepared by the Architect are instruments of professional service intended for one-time use in the construction of this project.

B. Due to the potential that the information set forth on electronic media can be modified by the Contractor, unintentionally or otherwise, the Architect will remove all indices of its ownership, professional corporation name, and/or involvement from each electronic display.

C. Contractor may use the electronic drawing files in conjunction with the aforementioned use in connection with the construction of the building, but may not transfer them to any third party other than the Owner. Unauthorized transfer for the purpose of reproducing any or all of the project is expressly prohibited.

D. The Contractor acknowledges that the electronic representation may not be an exact facsimile of the drawings contained in the Contract Documents and that the electronic version is not to be relied upon for dimensional or other information. Furthermore, the automated conversion of information and data from the system and format used by the Architect to an alternate system or format cannot be accomplished without the possibility of introducing inexactitudes, anomalies, and errors.

E. Contractor recognizes that use of such electronic drawing files will be at Contractor's sole risk and without any liability, obligation, risk or legal exposure by the Architect. Furthermore, Contractor shall, to the fullest extent permitted by law, defend, indemnify, and hold harmless the Architect from all claims, damages, losses, expenses including attorney's fees, arising out of or resulting from the use of such electronic media.

Date: _____

CONTRACTOR:

signature

_____
print name & title

ARCHITECT:

_____

Frederick Schuster, Vice President

PART 1 - GENERAL

1.01 **Description:**

A. Perform alterations in accordance with procedures specified herein when explicit indications are not given elsewhere in the Contract Documents for individual cases. Procedures include, but are not necessarily limited to the following:

1. Alterations to existing spaces and materials.

2. Installation of products removed.

3. Transitions in surfaces, levels, and finishes.

4. Patching, infilling, and extending surfaces.

5. Restoration of existing surfaces affected by demolition and cutting.

6. Alterations to existing mechanical and electrical systems when affected by demolition.

7. Chases for mechanical and electrical systems.

8. Adjustment of operational items.

9. Finishing items not otherwise indicated.

B. Submittal of proposed solutions is to ensure an acceptable finished appearance. Review of proposed solutions is not an approval of additional costs. Costs for solutions to meet the design intent of the Project and the requirements of this Section are to be included in the Bid.

C. Related Sections:

1. Section 01 10 00 - Summary

2. Section 01 73 29 - Cutting and Patching

3. Section 07 84 00 - Firestopping

1.02 **Submittals:**

A. Shop drawings: proposed solutions, including dimensions, details, and existing and proposed materials. Submit where required in PART 3 - EXECUTION below.

B. Samples: materials for finish selection. If materials have been reviewed previously for use in other applications resubmittal is not required, reference previous submittal on transmittal, Architect will make selections from previously submitted samples.

PART 2 - PRODUCTS

2.01 **Products for Patching and Extending Work:**

A. New materials: as specified in individual Specification Sections and as required to match existing

materials.

B. Match existing products and work for patching and extending work.

C. Determine type and quality of existing products by inspection and any necessary testing. Presence of a product, finish, or type of work, requires that patching, extending, or matching shall be performed as necessary to make work complete and consistent, unless otherwise indicated.

PART 3 - EXECUTION

3.01 **Inspection:**

A. Verify that demolition is complete, and areas are ready for installation of new work.

B. Beginning of restoration work means acceptance of existing conditions.

3.02 **Preparation:**

A. Cut, move, or remove items as necessary for access to alterations and renovations work.

B. Remove unsuitable material not marked for salvage, such as rotted wood, rusted metals, and deteriorated masonry and concrete.

C. Remove debris and abandoned items from area and from concealed spaces.

D. Prepare surfaces and remove surface finishes to provide for proper installation of new work and new finishes.

E. Insulate ductwork and piping to prevent condensation in exposed areas.

F. Perform additional cutting to allow space for patching and infilling and for constructing transitions.

3.03 **Installation:**

A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate Owner occupancy.

B. Replace and restore all materials cut moved or removed for alteration and renovation work to proceed.

C. Replace unsuitable materials, as determined by the Architect, with material matching original condition of the item removed and as specified for finish work.

D. Project shall be complete in all respects, including operational mechanical and electrical systems.

E. Remove, cut and patch work in a manner to minimize damage and to provide means of restoring products and finishes to original condition, unless otherwise indicated.

F. In addition to specified replacement of equipment and fixtures, restore existing plumbing, heating, ventilation, air conditioning and electrical systems to full operational condition.

G. Install products as specified in individual Specification Sections.

3.04 **Transitions:**

A. Where new work abuts or aligns with existing, make a smooth and even transition. Cut back existing construction to allow for adequate thickness of patch and infill construction.

B. Where finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division. Submit proposed solution to Architect for review prior to execution.

C. Where removal of partitions results in adjacent spaces becoming one, rework floors, walls, and ceilings create transitions as specified below.

D. Floor surface transitions shall be smooth and shall be level unless change in elevation is required. If change of elevation is required:

1. Provide sloped transition not exceeding 1:50 for change of 1" or less, 1:16 in other cases. Where a change of elevation of 1/4" or more occurs, submit proposed slope transition to Architect for review before execution.

2. At doorways an offset threshold of up to 1/2" may be used.

E. Ceiling surface transitions:

1. Separate junctions between dissimilar materials in the same plane with a 1/2" x 1/2" metal reveal.

2. When difference in elevation exists construct soffit to accommodate difference as follows, submit proposed solution to Architect for review prior to executing transition.

a. Matching acoustical ceilings: acoustical soffit.

b. Differing acoustical ceilings, acoustical and gypsum board ceilings: gypsum board soffit.

c. Other unspecified conditions: soffit matching either ceiling surface, or adjacent wall surface, as selected by Architect.

F. Trim existing doors as necessary to clear new floor finishes; refinish trimmed surfaces.

3.05 **Extending and Infilling Surfaces:**

A. Where existing finished surfaces are extended by the addition of area in the same plane, and when openings in existing finished surfaces are infilled, and refinishing of the entire area is not indicated, proceed as follows:

1. Construct extended area and infill to allow subsequent finishing with minimum visual and textural difference.

2. Adjacent concrete masonry: extend and infill surfaces with concrete masonry units having same face dimensions and similar texture. Match bond pattern. Tooth-in units except when adjacent masonry is laid in stack bond. Finish as specified below.

3. Adjacent brick surface: construct extended areas and infill areas with matching brick and mortar, if possible use brick salvaged from areas of demolition and tooth-in new brick. If brick selected for project has noticeable difference in color and texture divide surfaces with full height vertical control joints. Architect may direct either method to be used in individual areas before work on the area is commenced.

4. Adjacent wood surfaces: extend and infill surfaces with wood materials of same species and cut (graining), and jointing as existing. Finish extended area to matching existing appearance. Refinish entire area when infilled to achieve a uniform appearance matching the original.

5. Adjacent plaster surfaces: extend and infill surfaces with plaster matching existing texture.

6. Adjacent gypsum board: extend and infill surfaces without visible joints. Finish as specified below.

7. Adjacent ceramic and quarry tile finish: finish extended areas and infill areas with matching tile and grout. If tile materials cannot be obtained to achieve an exact match submit a range of options for selection by Architect.

8. Adjacent acoustical ceiling: extend ceiling into added area and infill openings with materials matching existing. If possible use materials salvaged from areas of demolition.

   a. Align grid with existing grid if possible.

   b. Double grid members and acoustical tiles of less than six inches (6") are not acceptable.

9. Adjacent resilient floor finish: finish extended areas and infill areas with matching resilient floor finish.

10. Adjacent carpeted finish: finish extended areas and infill areas with matching carpet.

11. Adjacent painted surface: prepare surfaces, paint extended areas and infill areas and repaint entire existing surface for uniform appearance.

12. Adjacent vinyl wall covering: remove existing wall covering and finish entire surface with wall covering as selected by Architect.

13. Adjacent resilient base: extend and infill resilient base with matching material. When an exact match cannot be achieved, remove existing base to nearest corner or other break and replace with new resilient base.

14. Other unspecified conditions: patched work shall match existing adjacent work in texture and appearance. When an exact match is not possible submit the range of options for selection by Architect.

3.06 **Restoration:**

A. When surfaces affected by demolition and cutting are to remain exposed at completion of the project cut back existing construction to allow patching.

B. When interior walls and partitions are removed exposing uneven concrete surfaces cut and remove concrete to a depth to allow patching: 1/4" for polymer-modified cementitious patching materials, 2" for concrete and grout patches.

C. When interior walls and partitions are removed exposing uneven and broken masonry: cut out masonry units to a depth of at least 2", and fill solidly with masonry as specified for infill applications. For bearing walls submit proposed solution to Architect for review prior to executing patching.

   1. Architect may elect to permit patching by grinding and surfacing with rubbed mortar in certain cases where a patched appearance is acceptable.

   2. Architect may elect to allow holes in masonry from removed fasteners to be patched with colored mortar in certain cases where a patched appearance is acceptable.

D. When interior walls and partitions and other elements are removed leaving gaps in ceiling: patch ceiling as specified for infill applications, construct specified transition if elevation difference exists.

E. When interior equipment, fixtures or other construction is removed exposing uneven surfaces, residue of mortar, adhesive or uneven surfacing: scrape or grind to remove protrusions, fill and patch substrate to obtain a smooth uniform surface. Minor variations in texture of finished surface are acceptable.

3.07 **Mechanical and Electrical Systems:**

A. Where existing mechanical and electrical lines, devices or equipment are located in an area of existing construction indicated to be demolished and disposition of existing items is not indicated:

1. When elements are to remain active: remove and reroute lines, relocate devices and equipment to nearest suitable location.

2. When elements are inactive or unnecessary: remove lines to point of nearest activity and terminate. Remove devices and equipment. Remove abandoned wiring back to electrical panels.

B. Where existing mechanical and electrical or equipment are located in an area which would be obstructed by new construction: relocate as specified under paragraph 3.07A.

C. Where existing clearance is not adequate to accommodate installation of new work and work is indicated to be concealed: reroute to allow concealment.

D. Submit proposed solution to Architect for review prior to executing removal.

3.08 **Chases:**

A. Where mechanical and electrical lines (conduits, raceways, pipes, ducts, etc.) are to be run through finished spaces and no means of concealment is indicated.

1. Vertically: construct chases matching adjacent wall construction and finish to provide concealment.

2. Horizontally: construct soffits matching ceiling finish to provide concealment.

3. Lines may remain exposed when space has exposed structure, a predominance of existing exposed mechanical or electrical lines and when explicitly indicated to be exposed.

B. Conform to requirements specified in Section "Electrical Remodeling" for treatment of electrical conduits and raceways.

3.09 **Adjustment of Operational Items:**

A. Operational items include, but are not limited to doors, hardware and equipment, and other items with movable operating parts.

B. Where operational items are indicated to have any work performed on that item adjust the item for proper operation when the project is complete.

C. Contractor will **not** be required to replace broken or defective operational equipment on the basis of this Section. Broken and defective items shall be identified by the Contractor in writing to the Architect.

D. As it may be difficult to determine if broken or defective items were in that condition prior to construction or became broken and defective as a result of the Work, the Contractor's failure to promptly identify broken and defective operational items in writing to the Architect shall constitute an acceptance of the responsibility to return broken and defective items to a fully operational condition, by repair or replacement, as part of the Work.

3.10 **Repair of Damaged Surfaces:**

A. Patch or replace portions of existing surfaces which are damaged, discolored, or showing other imperfections.

B. Patch and prepare surfaces to be refinished to achieve finish quality equal to new work.

3.11 **Finishes:**

A. Finish surfaces as specified in individual Specification Sections.

B. Finish all new surfaces which will remain exposed when project is complete. Where finishing is not indicated elsewhere in the Contract Documents:

1. Paint interior wall surfaces, apply resilient base.

2. Apply finish to interior floor surfaces to match adjacent rooms or spaces.

3. Paint ceiling or exposed structure.

4. Omit finishing for materials with integral finish such as brick and factory-finished items.

5. Submit proposed solution for finishing to Architect for review prior to execution.

C. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.12 **Penetrations:**

A. Provide penetrations of floors, walls, ceilings and roof structure to accommodate installation of other work. When specific requirements for constructing penetrations are not indicated elsewhere in the Documents:

1. Cut penetrations as specified in Section 01 73 29.

2. Reinforce openings in floor and roof structure. If specific reinforcement is not indicated in the Documents use members sizes and details of construction similar to those used in similar applications. Fabricate and install steel reinforcements as specified in Sections 05 12 00 and 05 50 00.

3. Seal penetrations and openings through fire rated walls and floors, whether penetrations and openings were made as part of the Work or discovered during alteration and renovation work, as specified in Section 07 84 00.

4. Seal penetrations of exterior building envelope watertight and weather-tight. Seal and flash penetrations using details similar to those used for similar work.

5. Submit proposed solutions for penetration, reinforcement, and sealing to Architect for review prior fabrication and execution.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Section includes particular requirements pertaining to building codes, code administration and compliance procedures including, but not limited to, the following:

1. Applicable Building Code.

2. Authorities Having Jurisdiction.

3. Permits, Fees and Notices.

4. CCDD (Clean Construction and Demolition Debris):

1.02 **Principal Codes:**

A. Applicable Building Code:

1. International Building Code 2006.

B. Other Codes:

1.	International Mechanical Code 2006	
2.	International Fuel Gas Code 2006	
3.	National Electrical Code 2005	
4.	ASHRAE 90.1 2010, as amended by 71 Ill Adm Code 600	
5.	Fire Prevention and Safety	41 Ill. Adm. Code 100
6.	Boiler and Pressure Vessel Safety	41 Ill Adm Code 120
7.	Illinois Accessibility Code	71 Ill Adm Code 400
8.	Illinois Energy Conservation Code	71 Ill Adm Code 600
9.	Illinois Plumbing Code	77 Ill Adm Code 890

1.03 **Authorities Having Jurisdiction:**

A. The following is a summary of the primary Authorities Having Jurisdiction for the project, provided for informational purposes..

1. Building: Architect.

2. Site Development and local roads: City of Crystal Lake.

3. State highway: Illinois Department of Transportation.

4. County highway: County Department of Transportation.

1.04 **Permits, Fees and Notices:**

A. Permits:

1. Building Permit: No building permit required. Owner will obtain project approval from Illinois Community College Board.

2. Contractor shall obtain and pay for all other permits legally required for the execution of the Work.

B. Fees:

1. Other: Contractor shall pay all fees legally required for the execution of the Work.

2. Contractor shall give the Owner seven (7) calendar days notice of the amount of any fees to be paid pursuant to applications filed by the Contractor as provided herein.

C. Notices and Inspections:

1. Contractor shall give all notices and arrange all inspections legally required for the execution of the Work.

1.05 **CCDD (Clean Construction and Demolition Debris)**:

A. Owner responsibility:

B. Contractor Responsibility:

1. Provide services of a Licensed Professional Engineer for testing and applicable LPC-663 certification of CCDD to be removed from the project site.

2. Ensure construction activity is performed in accordance with applicable provisions of 415 ILCS 5/22 et seq, Illinois Public Act 096-1416, 35 Ill Adm Code 1150 and other applicable rules of the Illinois EPA, and the following:

3. Provide source certification for imported uncontaminated soil and imported CCDD when applicable.

a. LPC-662 (Site Owner/Operator) certification if site of origin is non-commercial/industrial.
b. LPC-663 (Professional Engineer) certification if site of origin is commercial/industrial.

4. Create and maintain records for every load of material imported to the project site:

a.: Site of origin address, owner or operator name, contact
b. Material type
c. Quantity, in tons or cubic yards
d. Hauler name
e. Date and time of delivery to project site
f. Purpose and location in project
g. Copy of LPC-662 or LPC-663 certification for uncontaminated

5. Deliver copy of all records to Owner upon Substantial Completion, and from time to time as may be required by the Architect.

PART 2 - PRODUCTS Not used.

PART 3 - EXECUTION Not used.

End of Section

PART 1 - GENERAL

1.01 **Section Includes:**

A. Definitions

B. Abbreviations and acronyms

C. Reference Standards

1.02 **Related Sections:**

A. Additional definitions are contained in the General Conditions and in the various Sections of the Project Manual

1.03 **Definitions:**

A. As used in the Contract Documents, the terms below shall have the meanings described in this Section. Any definitions given in the General Conditions shall take precedence in the case of a conflict in the definition of the same term:

Addenda: Written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions clarifications or corrections. For projects performed under a Construction Manager, Addenda include instruments issued by the Construction Manager which modify or interpret those portions of the Bidding Documents prepared by the Construction Manager.

Alternate Bid: An Alternate Bid (or Alternate) is the amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted by the Owner and incorporated into the contract for the Work.

Base Bid: The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

Bid: A Bid is a complete and properly signed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

Bidder: A Bidder is a person or entity who submits a Bid.

Completion Date: The date required by the Contract Documents for Substantial Completion of the Work or of a particular Phase of part of the Work.

Final Completion: Final completion occurs when the contractor has completed the contract requirements, the Architect has certified final payment, and and the Owner has made final payment to the contractor in accordance with the provisions of § 9.10 of the General Conditions..

Furnish: To supply and deliver to the project site, ready for installation.

Install: To place in final position and make ready for service or use.

Product: Material(s), equipment, and system(s).

Provide: To furnish and install.

Sub-bidder: A Sub-bidder is a person or entity who submits a quote or bid to a Bidder for materials, equipment or labor for a portion of the Work.

1.04 **Abbreviations and Acronyms**

A

AB	Anchor Bolt
ACI	American Concrete Institute
ACOUST PNL	Acoustic Panel
ACS DR	Access Door
ACS PNL	Access Panel
ACT	Acoustic tile
ADJ	Adjustable, Adjacent
AGGR	Aggregate
A/C	Air conditioning
ALT	Alternate
ALUM	Aluminum
L	Angle
ARCH	Architectural
ASB	Asbestos
ASPH	Asphalt
ASTM	ASTM International
@	At
AUTO	Automatic
AVG	Average

B

B/B	Back-to-Back
BBD	Bulletin Board
BC	Bottom Curb
BD	Board
BIT	Bituminous
BLDG	Building
BLK	Block
BLKG	Blocking
BLT-IN	Built-In
BM	Beam
BOT	Bottom
BPL	Base Plate
BRDG	Bridging
BRG	Bearing
BRKT	Bracket
BRZ	Bronze
BSMT	Basement

C

C	Channel
CAB	Cabinet
CB	Catch Basin
CEM	Cement
CFM	Cubic feet per minute
CH	Coat Hook
CHK BD	Chalk Board
CI	Cast Iron
C JT	Control joint
CLKG	Caulking
CL	Center Line
CLO	Closet
CL RM	Class Room
CLG	Ceiling
CMU	Concrete Masonry Units (Concrete block)
CO	Clean Out
COL	Column
COMP	Composition
CONT	Continuous
CONC	Concrete
CONN	Connection
CONST	Construction
CONST JT	Construction Joint
CONTR	Contractor
CONV	Convector
CONT	Continuous
CPT	Carpet
CORR	Corridor
CSK	Counter sunk
CT	Ceramic Tile
C - C	Center-to-Center
CTR	Center
CU FT	Cubic feet
CW	Cold Water

D

DP	Dampproofing
DL	Dead load
DET	Detail
DK	Deck
DIA	Diameter
DIM	Dimension
DML	Demolish
DO	Ditto
DIV	Division
DR	Door

DSA	Double strength A grade glass
DSB	Double strength B grade glass
DS	Down Spout
DWG	Drawing
DF	Drinking fountain
DN	Down

E

ELEC	Electrical
ELEV	Elevator
EG	Existing
EL	Elevation
ENCL	Enclosure
EQUIP	Equipment
EWC	Electric water cooler
EXIST	Existing
EXPN BLT	Expansion Bolt
EXPN JT	Expansion Joint
EXP	Exposed
EP	Epoxy

F

FAB	Fabricate
FIN	Finish
FE	Fire Extinguisher
FC	Fire Code
FEC	Fire Extinguisher Cabinet
FHC	Fire Hose Cabinet
FND	Fem. Napkin Dispenser
FLASH	Flashing
FHMC	Flat Head Machine Screw
FHWC	Flat Head Wood Screw
FL	Floor
FD	Floor Drain
FTG	Footing
FLG	Flooring
FND	Foundation
FS	Full Size
FR	Frame
FA	Fresh Air

G

GALV	Galvanized
GI	Galvanized iron
GRD	Grade
GCB	Glazed Concrete Block
GA	Gauge
GEN CONT	General Contractor
GEN COND	General Conditions
GFI	Ground Fault Interruption
GL	Glass, glaze
GMU	Glazed masonry units
GYP	Gypsum
GYP BD	Gypsum Board (Drywall)
GVL	Gravel
GRND	Ground
G	Gutter

H

HD BD	Hardboard
HDW	Hardware
HDWD	Hardwood
HS	High Strength
HD	Head
HC	Hollow Core
HT	Height
HTR	Heater
HM	Hollow Metal
HTG	Heating
HORIZ	Horizontal
HB	Hose bibb
HW	Hot Water
HWH	Hot Water Heater
HP	High Point

I

INCAND	Incandescent
INCL	Include
INSUL	Insulation
INSUL GL	Insulated Glass
INT	Interior
INV EL	Invert elevation
ID	Inside diameter

J

J	Jamb
JAN	Janitor
JT	Joint
JST	Joist
JB	Junction Box
JC	Jan Closet

K

KIT	Kitchen
KD	Knock Down
KP	Kick Plate

L

LKR	Locker
LAB	Laboratory
LAM	Laminate
LIB	Library
LAV	Lavatory
LTG	Lighting
LP	Low Point
LL	Live load
LS	Limestone

M

MH	Manhole
MFR	Manufacturer
MO	Masonry opening
MAT	Material
MAX	Maximum
MBH	1000 x BTU
MECH	Mechanical
MC	Medicine cabinet
MEMB	Membrane
MET	Metal
MTL	Material
MET PAN	Metal Pan
MIN	Minimum
MIR	Mirror
MISC	Miscellaneous
MLDG	Moulding
MOD	Module
MED	Medium

N

NOM	Nominal
NAP	Napkin
NIC	Not in contract
NTS	Not to scale
NO	Number
NG	New grade

O

OFF	Office
OC	On Center
OD	Outside diameter
OPNG	Opening
OPP	Opposite
O - O	Out to out
OA	Overall
OZ	Ounce
OH	Overhead

P

PTD	Paper Towel Dispenser
PART	Partition
PLAST	Plaster
PLAS	Plastic
PLAS LAM	Plastic Laminate
PL	Plate
PLBG	Plumbing
PWD	Plywood
PR	Pair
PT	Paint
PNL	Panel
POL	Polished
PORC	Porclain
PREC	Precast
PREFAB	Prefabricated
PREFIN	Prefinished
PROP	Property

Q

QT	Quarry Tile

R

RAD	Radiator
R	Radius, riser
RA	Return air
RB	Rubber base
RECP	Receptacle
REINF	Reinforcing
REQ	Require
REQD	Required
REG	Register
RETG	Retaining
REV	Revision
RM	Room
RFG	Roofing
RF	Roof
RD	Roof drain
RUB	Rubber
ROW	Right of way

S

SCHED	Schedule
SB	Splash Block
SCR	Screw
SECY	Secretary
SECT	Section
SLR	Sealer
STL	Steel
SV	Stain and Varnish
SS	Service sink
SERV	Service
SHT	Sheathing
SHT MET	Sheet Metal
STD	Standard
SHT	Sheet
SHR	Shower
SH	Shelves
SIM	Similar
SPEC	Specification
SPKLR	Sprinkler
SQ FT	Square Foot
SST	Stainless Steel
SK	Sink
STWY	Stairway
SLOT	Slotted
STOR	Storage
SP	Stand Pipe
SF	Split Face
STRUCT	Structural

SGFT	Structural Glazed Facing Tile
SUSP CLG	Suspended Ceiling
S4S	Smooth four sides
T	
T	Tread
TEL	Telephone
T BD	Tack Board
TEMP	Tempered
TERR	Terrazzo
THK	Thick, Thickness
T & G	Tongue & Groove
TOIL	Toilet
TC	Top of curb
TS	Top of steel
TV	Television
TYP	Typical
TR	Towel rod
TPH	Toilet Paper Holder
THRU	Through
U	
UNFIN	Unfinished
UH	Unit Heater
UR	Urinal
UV	Unit Ventilator
UL	Underwriters Laboratory
V	
VB	Vinyl Base
V	Vinyl
VG	Vertical grain
VIF	Verify in field
VTR	Vent thru roof
VEST	Vestibule
VERT	Vertical
VWG	Vinyl wall cover
VCT	Vinyl Composition Tile
VT	Vinyl Tile
W	
WIND	Window
WAINS	Wainscot
W.D.	Window dimension
WD	Wood
WT	Weight
WP	Work Point
WF	Wide flange
WWF	Welded wire fabric
W GL	Wire glass
WH	Water heater
WC	Water closet
WCR	Water cooler
WP	Water proof, weather proof
WR	Water
W/O	Without
W/	With

1.05 **Reference Standards and Industry Specifications:**

A. Any material or operation specified by reference to published specifications of a manufacturer, a society, an association, a code, or other published standard, shall comply with requirements of the listed document which is current sixty (60) days prior to the date of the Project Manual. In case of a conflict between referenced document and the Specifications, the Specifications shall govern.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Provide all temporary facilities and controls required to properly prosecute the Work in accordance with applicable codes, laws, and regulations and to comply with requirements contained herein including, but not necessarily limited to, the following:

1. Temporary facilities:

   a. Field office.
   b. Storage and fabrication sheds.

2. Temporary utilities:

   a. Water.
   b. Sanitary facilities.
   c. Heating, ventilation and humidity control.
   d. Electric power.
   e. Lighting.

3. Support facilities:

   a. Traffic controls.
   b. Parking.
   c. Temporary signs.
   d. Waste disposal facilities.
   e. Lifts and hoists.
   f. Temporary elevator use.
   g. Temporary stairs.
   h. Scaffolding and runways.
   i. Shoring and bracing..

4. Security and protection facilities:

   a. Environmental protection.
   b. Indoor air quality during construction.
   c. Barricades, warning signs and lights.
   d. Walkways and temporary egress.
   e. Temporary enclosures.
   f. Temporary fire protection.

B. Related sections:

1. Section 01 41 00: NPDES compliance and other regulatory requirements.

2. Section 03 30 00: Cold weather requirements for cast-in-place concrete work.

3. Section 04 00 00: Cold weather requirements for masonry work.

4. Divisions 02 - 16: Special environmental requirements are specified in the individual Sections.

5. Division 22: Requirements for plumbing, heating, cooling and ventilating work.

6. Division 26: Requirements for electrical work.

7. Section 31 00 00: Barricade requirements for open excavations, dewatering, other excavation requirements.

1.02 **Temporary Facilities and Controls, General:**

A. Design, furnish, install, operate and maintain all temporary facilities and controls necessary for the prosecution of the work and for the safety of workers, the Owner, and the public. Remove temporary facilities and controls when no longer necessary.

B. Temporary connections to utilities and services shall be acceptable to the Architect, Owner and the Authorities Having Jurisdiction. OSHA standards and regulations shall apply if more restrictive. Make such connections, remove same when no longer required and restore services and sources of supply to proper operating condition.

C. Temporary utilities shall be installed in accordance applicable codes and regulations.

D. Pay all costs of temporary facilities and controls.

E. Maintain strict supervision of use of temporary utilities.

1. Enforce conformance with applicable codes and standards.

2. Enforce safe practices.

3. Prevent abuse of service.

4. Prevent damage to permanent construction.

F. The Contractor shall be exclusively responsible for the safe condition and use of temporary facilities and controls.

1.03 **Temporary Facilities:**

A. Field Office: none required or provided.

B. Storage and fabrication sheds: none required or provided. Location subject to Owner's approval if provided by the Contractor.

1.04 **Temporary Utilities:**

A. Water: water may be obtained for construction use from existing sources at the facilities.

B. Sanitary facilities: designated public toiles on site will be available for use by workers.

C. Heating, ventilation and humidity control

1. Permanent building HVAC system will remain in operation during the project. Protect existing system from contamination by the Work.

(1) Suitable filters are provided and maintained on all air inlets wherever dust and may be present.

(2) Operation is strictly supervised to prevent damage.

(3) Equipment is serviced and new filters installed in equipment prior to Substantial Completion.

(4) Warranty is extended to provide the specified term of coverage beginning with Substantial Completion.

(5) Ductwork and equipment are thoroughly cleaned and restored if contaminated.

2. Protect work in place from damage due to heat, cold and high humidity. Provide insulating materials, heating, ventilation and dehumidification to prevent damage.

3. Take all necessary measures to prevent smoke, fumes, vapors, odors, particulates and other noxious substances entering Owner-occupied areas from the work area. Provide temporary ventilation of work area and temporary modifications to permanent HVAC system and operations to maintain satisfactory environmental quality in Owner-occupied areas.

D. Electric power: electrical power for construction use not exceeding 120VAC-20A per circuit may be obtained from existing facilities, however caution shall be exercised to avoid overloading existing circuits or interfering with Owner's ongoing operations.

1. Provide portable generation or extend existing services to usable locations, restore existing equipment to original condition when temporary extensions are no longer needed.

E. Lighting: Existing lighting may be used for work in existing spaces. Provide temporary portable lighting when existing lighting is inadequate for construction purposes .

1.05 **Support Facilities:**

A. Traffic controls

1. Provide barricades, signage, warning lights flaggers and other controls necessary for traffic control and public safety.

B. Parking: Park only in locations designated by the Owner.

C. Temporary signs:

1. Provide directional and warning signs for vehicles and pedestrians.

2. Provide temporary signs for identification work areas, wet paint, etc.

3. Provide signage for temporary egress facilities.

D. Waste disposal facilities:

1. Provide containers and disposal service for safe, prompt and lawful off-site recycling and disposal of all debris and waste produced by the work.

2. Recycle at least 50% of all waste materials by volume. Prepare and implement a construction waste management plan to maximize recycling of eligible materials, including, but not limited to, concrete debris, metals, glass, plastics, paper and cardboard, gypsum products, Provide separate containers for recyclable and non-recyclable materials. Maintain records for recycling and disposal and enforce appropriate waste handling and disposal practices on the job site.

E. Lifts and hoists:

1. Provide, operate, and maintain construction hoists and derricks, as may be required for execution of work.

2. Provide necessary guards, signals and safety devices required for a safe operation, and suitable runways from the hoists to each floor level and roof. Construction and operation of material hoist shall comply with applicable requirements of ANSI A10.5, and AGC Manual of Accident Prevention in Construction, OSHA, and to applicable state and municipal codes. Prohibit the use of material hoist for transporting personnel.

F. Temporary elevator use: construction use of permanent elevators is not permitted without Owner's express written permission.

G. Temporary stairs:

1. Temporary use of permanent stairs is permitted

2. Provide temporary stairs, ladders and ramps necessary for proper execution of the Work.

H. Scaffolding, runways, work platforms:

1. Provide scaffolding, runways, work platforms, temporary bracing and temporary supports necessary for proper execution of the Work..

I. Shoring and bracing:

1. Provide shoring and bracing to facilitate the safe and proper execution of the work. Repair damage caused by unsuitable shoring or bracing or lack of adequate support during construction.

1.06 **Security and Protection Facilities:**

A. Environmental protection:

1. Comply with all applicable requirements for environmental protection including, but not limited to pollutant discharge control, noise control, dust control, and waste disposal.

2. Supervise and enforce measures specified in Section 00 41 00.

B. Indoor Air Quality During Construction:

1. Prepare and implement a Construction Indoor Air Quality Plan to minimize contamination of interior building spaces in accordance with SMACNA “IAQ Guidelines For Occupied Buildings Under Construction”

C. Barricades, warning signs and lights

1. Provide barricades, warnings, and other protective measures for the protection of workers, visitors, and the public. Such measures installed in the public way shall be satisfactory to local and other authorities having jurisdiction.

2. Barricades and construction aids shall comply with the requirements of OSHA and all other applicable federal, state and local laws, regulations, and requirements.

D. Walkways and temporary egress

1. When construction will occur in any part of the building or site occupied by the Owner or accessible by the public, provide walkways and temporary egress facilities.

a. Maintain permanent exit doorways and paths of travel at all times when building is occupied. Provide temporary exits and egress if permanent facilities are obstructed. Temporary exits and egress facilities are subject to the prior review and approval of the Owner.

b. Provide safe, smooth, weather-resistant walkways with barricades for travel through exterior work areas.

c. Provide protective covering where falling-object hazard may exist.

d. Provide exit and directional signage, illuminated or luminescent for interior egress paths

e. Provide battery-powered emergency illumination of interior egress paths.

f. All walkways and temporary egress facilities shall be acceptable to the Authorities Having Jurisdiction.

E. Temporary enclosures

1. Provide dust partitions to limit the spread of dust and when temporary partitions are needed in place for 14 days or less. Dust partitions shall consist of 6 mil or heavier polyethylene film with sufficient framing and attachment to maintain position. Provide fire retardant material in lieu of polyethylene film if work involves sparks, open flame or fire hazard.

2. HVAC Protection

a. Systems under construction and materials in storage:

(1) Cover all duct openings and protect equipment and stored duct materials with tight-fitting plastic film coverings to prevent entrance of dirt or moisture.

b. Prior to start-up and during operation for temporary purposes, if and when permitted:

(1) Provide temporary filters on all HVAC exhaust and return inlets. Filters shall have a MERV 8 rating or higher per ASHRAE 52.2. Inspect filters weekly and replace when dirty.

(2) Provide temporary filters in all HVAC system filter banks as specified for permanent use.

F. Fire Prevention:

1. Take adequate precautions against fire; keep flammable material at absolute minimum; and ensure that such material is properly handled and stored.

2. Construction practices, including cutting and welding, and protection during construction, shall be in accordance with the published standards of the National Fire Protection Association (NFPA). Provide a sufficient number of approved portable fire extinguishers distributed about the project.

3. Gasoline and other flammable liquids shall be stored in safety containers and dispensed in accordance with the National Board of Fire Underwriter's recommendations. Flammable liquids shall not be stored within the building.

4. Tarpaulins used for any purpose during the construction of the work shall be made of materials which are resistant to fire, water, and weather.

5. Do not light fire of any kind in or about the premises.

6. The use of open flame heaters is forbidden without prior written approval.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. This section pertains to the selection and handling of materials and equipment including, but not necessarily limited to, the following:

1. Products.

2. Transportation and handling.

3. Storage and protection.

B. Related sections:

1. Section 01 25 00: Substitution Procedures

2. Additional requirements are contained in individual sections of the specifications.

1.02 **Products:**

A. Products: means new material, machinery, components, equipment, fixtures, and systems forming the work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the work. Products may also include existing materials or components required for reuse.

B. Any materials, manufactured articles, or equipment which may affect the architectural aspect or appearances of the Work shall be subject to the express approval of the Architect, and should such work be rejected for appearance reasons, the Contractor shall remove and replace at his own expense to the satisfaction of the Architect.

C. Provide products which comply with requirements, and which are undamaged and unused at time of installation and which include accessories, trim, finish, safety guards, and other devices and details needed for installation, intended use, and effect.

D. Comply with capacity size, make, type, and quality specified.

E. Standard products: where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.

F. Products shall be suitable for service conditions.

G. Continued availability: Where additional amounts of product, by nature of application, are likely to be needed by Owner at later date for maintenance and repair or replacement work, provide standard, domestically produced product which is likely to be available to Owner at such later date.

H. Manufacture like parts of duplicate units to standard interchangeable sizes and gauges. Two or more items of same kind shall be identical and shall be produced by the same manufacturer.

I. In the absence of more stringent requirements:

1. Design, fabricate and assemble products in accordance with engineering and shop practices normal to trade.

2. Comply with manufacturer's standards and published specifications.

J. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

K. Nameplates:

1. Except for testing laboratory approval labels, and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces or products which will be exposed to view either in occupied spaces or on exterior of work.

2. Locate required labels and stamps on concealed surface or where required for observation after installation on accessible surface which in occupied spaces is not conspicuous.

L. Equipment nameplates:

1. Provide permanent nameplate on each item of service connected or power operated equipment.

2. Indicate manufacturer, product name, model number, serial number, capacity, speed, ratings and similar essential operating data.

3. Locate nameplates on an easily accessed surface which in occupied spaces is not conspicuous.

1.03 **Transportation and Handling:**

A. Deliver, handle, and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration and loss including theft.

B. Coordinate delivery and installation to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

C. Immediately upon delivery, inspect shipments to assure compliance with requirements of contract documents.

D. Deliver products in undamaged condition, in manufacturer's original containers and prepackaging, with identifying labels intact and legible.

E. Promptly remove non-complying materials from site.

F. Furnish equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.04 **Storage:**

A. Store products and materials subject to damage from exposure to weather in weathertight storage facilities of suitable size with floors raised above ground. Products or materials not subject to weather damage may be stored on blocks off ground.

B. When materials such as pipe, fittings, valve, steel fabrications, heavy machinery, and similar items are stored in the building protect floors with plywood or hardboard sheets. Store large items on blocks off floor.

C. Store fabricated products in accordance with manufacturer's instructions with seals and labels intact and legible. Maintain temperature and humidity within ranges required by manufacturer's instructions.

D. Cover materials which are subject to deterioration with impervious sheet covering providing adequate

ventilation to avoid condensation.

E. Cover openings of HVAC equipment and ductwork with tight-fitting plastic sheet to prevent contamination of airstream surfaces.

F. Store loose granular materials in well-drained area on solid surfaces to prevent mixing with foreign matter and cover during inclement weather. Store cementitious and clay products clear of earth or concrete floors away from walls.

G. Arrange storage in manner to permit access for inspections.

H. Protect metal from damage, dirt, and dampness. Furnish flat, solid support for sheet products during storage.

I. Do not use materials in work which have deteriorated, become damaged, or are otherwise unfit for use.

J. Make periodic inspections of stored materials to verify that products are maintained under specified conditions and are free from damage or deterioration.

K. Store and mix paints in assigned room or area kept under lock and key.

L. Remove oil, rags and other combustible materials daily and take precautions to prevent fire hazards.

M. Do not overload structure during construction by storing materials with load greater than structure is designed to bear. Special attention should be paid to the storage of materials on the roof.

1.05 **Manufacturer's Instructions:**

A. Review manufacturer's printed instructions prior to start of installation. Distribute copies of instructions to parties involved in installation. Notify Architect in writing of conflict between Manufacturer’s instructions and job conditions or requirements of the Contract Documents. Obtain clarification before proceeding with installation.

B. Maintain one set of complete instructions at jobsite during installation and until completion.

C. Maintain copies of manufacturers printed instructions for project record documents.

D. Handle, install, connect, clean, condition, and adjust products in strict accord with manufacturer's instructions and in conformity with specified requirements. Perform work in accordance with manufacturer's instructions. Do not omit preparatory steps or installation procedures unless specifically modified or exempted by contract documents.

E. Inspect substrate to receive work and conditions under which work is to be performed.

F. Install work during conditions of temperature, humidity, exposure, forecasted weather, and status of project completion which will ensure best possible results for each item of material or equipment.

G. Isolate incompatible materials to prevent deterioration.

1.06 **Protection:**

A. Protect products against weather.

B. Maintain work, materials, apparatus, and fixtures free from damage.

C. Protect items having factory finish to prevent damage to finish and equipment.

D. At end of day's work, cover new work likely to be damaged or otherwise protect as necessary.

E. After installation, provide substantial protective coverings as necessary to protect installed products from damage from traffic and subsequent construction operations.

F. Remove protection when no longer needed. Upon completion of work, remove storage facilities from site.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Perform cutting and patching required to complete the work and make its several parts fit together properly, as specified herein.

B. Related Sections:

1. Section 01 35 16: special procedures for alterations projects.

1.02 **Submittals:**

A. Submit written request in advance of cutting or alteration which affects:

1. Structural integrity of any element of project.

2. Integrity of weather-exposed or moisture-resistant element.

3. Efficiency, maintenance, of safety of any operational element.

4. Visual qualities of sight-exposed elements.

5. Work of Owner or separate contractor.

B. Include in request:

1. Identification of project.

2. Location and description of affected work.

3. Necessity for cutting or alteration.

4. Description of proposed work, and products to be used.

5. Alternatives to cutting and patching.

6. Effect on work of Owner or separate contractor.

7. Written permission of affected separate contractor.

8. Date and time work will be executed.

PART 2 - PRODUCTS

2.01 **Materials:**

A. Those required for original installation.

B. For any change in materials, submit request for substitution under provisions of Section 01 60 00.

PART 3 - EXECUTION

3.01 **General**:

A. Execute cutting, fitting and patching including excavation and fill, to complete work, and to:

1. Fit the several parts together, to integrate with other work.

2. Uncover work to install ill-timed work.

3. Remove and replace defective and non-conforming work.

4. Remove samples of installed work for testing.

5. Provide openings in elements of work for penetrations of mechanical and electrical work.

3.02 **Inspection:**

A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.

B. After uncovering, inspect conditions affecting performance of work.

C. Beginning of cutting or patching means acceptance of existing conditions.

3.03 **Preparation:**

A. Provide supports to assure structural integrity of surroundings; devices and methods to protect other portions of project from damage.

B. Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

3.04 **Performance:**

A. Execute work by methods to avoid damage to other work, and which will provide proper surfaces to receive patching and finishing.

B. Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.

C. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

D. Restore work with new products in accordance with requirements of contract documents.

E. Fit work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

F. At penetrations of fire-rated wall, ceiling, or floor construction, completely seal voids with fire-resistant material, full thickness of the construction element, to maintain rating.

G. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. This section governs the required procedures for closing out the construction contract, including, but not necessarily limited to, the following:

1. Closeout procedures.

2. Final cleaning.

3. Adjusting.

4. Project record documents.

5. Operation and Maintenance Data.

6. Warranties.

7. Spare parts and maintenance materials.

B. Related sections:

1. Section 01 10 00: Summary

2. Section 01 33 00: Submittal Procedures

3. Section 01 78 00: Closeout Submittals

1.02 **Definition:**

A. Closeout is defined to include general requirements near the end of Contract Time, in preparation for Substantial Completion, final completion, final payment, normal termination of Contract, occupancy by Owner and similar actions evidencing completion of the Work.

B. Time of closeout may be a series of time periods for individual parts of the work which have been certified as complete at different dates. That time variation shall be applicable to other provisions of this Section, regardless of whether resulting from "phased completion" originally specified by the Contract Documents or subsequently agreed upon by Owner and Contractor.

1.03 **Quality Assurance:**

A. Contractor is responsible to complete the project in accordance with the Contract Documents and enforce the requirements on employees, suppliers and subcontractors.

1.04 **Prerequisites to Substantial Completion:**

A. Submit a listing of incomplete work with the monetary value of each item, the reason each item is incomplete, and the expected date of completion.

B. Advise Owner of insurance change-over requirements.

C. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final

certifications and similar documents.

D. Submit record drawings, maintenance manuals, test and balance reports, damage or settlement survey, and similar final record information.

E. Submit one copy of all shop drawings.

F. Complete start-up testing of systems, and schedule instructions to Owner's operating/maintenance personnel. Discontinue and remove from work site temporary facilities and services, along with construction tools and facilities, mock-ups and similar elements.

G. Complete keying schedule and make final changes to lock cylinders and plan for shifting responsibility for security to Owner.

H. Deliver replacement and maintenance stock of material.

I. Complete final cleaning requirements and restore all damaged finishes.

J. Submit written request for Architect's inspection on the form provided herein.

1.05 **Substantial Completion:**

A. In order to act upon the Contractor's request for Substantial Completion, the Architect will inspect the work.

B. If the work is found to be substantially complete, the Architect will issue a Certificate of Substantial, AIA Document G704, completion and a "punch list" inspection report indicating items, in addition to the Contractor's list, required for completion and acceptance.

C. Any non-conforming or incomplete work detected during this period will be added to the list.

D. The Contractor will proceed immediately to complete all items and will transmit to the Architect every other week a report of the progress on or completion of each item on the "punch list" and the Contractor's list. Any non-conforming or incomplete work detected during this period will be added to the list.

E. If the work is found not to be substantially complete, the Architect will notify the Contractor of work that must be performed prior to issuance of a Certificate of Substantial Completion.

F. Should Architect be required to perform additional substantial completion inspections because the work or portion of the work is not substantially complete, or because of failure of work to comply with original certifications of Contractor, Owner will compensate Architect for additional services and deduct amount paid from final payment to Contractor.

1.06 **Final Cleaning:**

A. Execute final cleaning prior to Substantial Completion inspection.

B. Clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains and foreign substances. polish transparent and glossy surfaces, vacuum carpeted and soft surfaces. Damaged, broken or scratched glass shall be replaced.

C. Clean equipment and fixtures to a sanitary condition.

D. Replace filters of operating equipment.

E. Clean debris from roofs, gutters, downspouts, and drainage systems.

F. Clean site; sweep paved areas, rake clean landscaped surfaces.

G. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.07 **Adjusting:**

A. Adjust operating products and equipment to ensure smooth unhindered operation.

1.08 **Project Records Documents:**

A. Regulatory Submittals:

1. Structural members fabricated off-site:

a. Without fabricator approval: final inspection reports for off-site *special inspections*.

b. With fabricator approval: Certification of Compliance by Approved Fabricator

B. Record Drawings: each trade shall keep current a marked set of Contract Documents indicating accurately in words and dimensioned drawings any deviations from the Contract Documents and final location of concealed items or items indicated schematically in the Contract Documents, including but not limited to:

1. Significant changes in schedules, plans, sections, elevations and details, such as shifts in location of walls, doors, stairs, etc., made during construction.

2. Significant changes in foundations, columns, beams, openings, concrete reinforcing, lintels, concealed anchorages and knockout panels made during construction.

3. Final location of electric panels, final arrangement of electric circuits, conduits, and significant changes made in electrical design as a result of job conditions.

4. Final location and arrangement of mechanical equipment and major concealed mechanical work items, including, but not limited to, supply and circulating mains, vent stacks, drainage lines, control and shut-off valves, dampers, and diverters.

5. Final location and arrangement of all connections and routing of utilities, including, but not limited to, sanitary, storm, heating, electric, gas, water, and telephone.

6. All points of control or adjustment.

7. All work as a result of change order or clarifications.

C. At the end of the project the Owner will provide the Contractor with a set of reproducible transparencies of the Contract Documents onto which all changes of each trade shall be transferred.

D. Control diagrams:

1. Control and zone valve lists and diagrams for plumbing and heating systems shall be framed under glass and mounted on the wall of the Mechanical Room.

2. Wiring and control schematic drawings for each major system and piece of equipment shall be mounted under glass adjacent each piece of equipment, including but not limited to air handlers, boilers, and elevator.

E. Record Specifications: submit a copy of the Project Manual annotated to designate the actual manufacturer or system used when multiple manufacturers or systems are specified.

1.09 **Regulatory Submittals:**

A. Submit reports, documents and certifications as specified including, but not limited to:

1. Section 00 73 19.01: Asbestos-Free Construction Certification

2. Section 01 45 26: Certifications and reports for off-site fabricated structural items.

B. Submit other reports, documents and certifications as required by Authorities Having Jurisdiction.

1.010 **Operation and Maintenance Data:**

A. Submit in accordance with Section 01 78 00.

1.11 **Warranties and Bonds:**

A. Submit in accordance with Section 01 78 00.

1.12 **Attic Stock:**

A. Provide extra materials as specified in individual Sections. Deliver to Owner and submit to the Architect a written description of materials and quantities.

1.13 **Closeout Procedures:**

A. Submit written certification on the form provided that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with contract documents and ready for the Architect's final inspection.

B. Submit a final application for payment complete with all final waivers of lien.

1. Submit Consent of Surety to Final Payment, AIA Document G706.

2. Submit "Contractor's Affidavit of Payment of Debts and Claims", AIA Document G706.

3. Submit "Contractor's Affidavit of Payment of Release of Liens", AIA Document G706A.

1.14 **Final Inspection:**

A. The Architect will, make the final inspection.

B. Should Architect consider that work is finally complete in accordance with requirements of Contract Documents, he shall indicate final completion.

C. Should Architect consider that work is not finally complete: he shall notify Contractor, in writing, stating reasons. Contractor shall take immediate steps to remedy the stated deficiencies, and send additional written notice to the Architect. This procedure shall continue until the work is finally complete.

D. Should Architect be required to perform additional final completion inspections because of failure of work to comply with original certifications of contractor, Owner will compensate Architect for additional services and deduct amount paid from final payment to contractor.

1.15 **Final Payment:**

A. After final inspection is complete, liquidated damages and other costs to be deducted from Contractor's final payment, if any, shall be included in a final change order.

B. The Contractor shall submit a final pay request package to the Architect who will certify final payment.

C. The Contractor shall submit Consent of Surety to final payment with the final pay request.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section
(two pages follows)

CONTRACTOR'S REQUEST FOR SUBSTANTIAL COMPLETION INSPECTION

Project: _____
Architect's Project Number: _____

Date: _____

From Contractor: _____
_____
_____

To: RuckPate Architecture
22102 North Pepper Road, Suite 201
Barrington, Illinois 60010

Please be advised that the ____ entire project _____ part of the project _____ is substantially complete. We hereby request your inspection of the work.

The following documents are attached: *(all are required)*

___ A listing of all incomplete work, including the monetary value of each item, the reason each item is incomplete, and the expected date of completion.

___ Instructions to the Owner regarding insurance change-over requirements.

The following items have been submitted previously: *(check all that apply)*

___ All warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.

___ Record drawings, maintenance manuals, test and balance reports, and other final record information.

___ One record copy of all shop drawings for Owner's use.

___ Final keying schedule.

The following items have been completed: *(check all that apply)*

___ Start-up testing of all systems, instructions to Owner's operating/maintenance personnel.

___ Removal of temporary facilities and services.

___ Installation of final lock cylinders.

___ Final cleaning.

___ Delivery of replacement and maintenance stock material to Owner.

___ Delivery of permanent keys to Owner.

By: _____
signature

_____
name

CONTRACTOR'S CERTIFICATION OF FINAL COMPLETION AND REQUEST FOR INSPECTION

Project: _____
Architect's Project Number: _____

Date: _____

From Contractor: _____
_____
_____

To: RuckPate Architecture
22102 North Pepper Road, Suite 201
Barrington, Illinois 60010

I hereby certify that:

I have reviewed the Contract Documents, and

I have inspected the work and found it to be complete and in accordance with the contract documents,

The work is ready for final inspection.

I therefore request the Architect's final inspection.

The following documents are attached: *(check all that apply)*

___ Final Application for Payment.

___ All final waivers of lien.

___ Consent of Surety to Final Payment.

___ "Contractor's Affidavit of Payment of Debts and Claims", AIA Document G706.

___ "Contractor's Affidavit of Payment of Release of Liens", AIA Document G706A.

By: _____
signature

_____
name

_____
title

PART 1 - GENERAL

1.01 **Description:**

A. This section contains requirements for submittals in connection with closing out the construction contract, including, but not necessarily limited to, the following:

1. Project record documents.

2. CAD records and other electronic formats.

3. Operation and Maintenance Data.

4. Warranties, bonds and maintenance contracts.

5. Spare parts and maintenance materials.

6. Regulatory submittals.

7. Submittals Required for Final Payment.

B. Related sections:

1. Section

2. Various specification sections with requirements for extended warranties, bonds and maintenance contracts.

1.02 **Project Record Documents:**

A. Record Drawings: Contractor and each subcontractor shall keep current a marked set of Contract Documents indicating accurately in words and dimensioned drawings any deviations from the Contract Documents and final location of concealed items or items indicated schematically in the Contract Documents, including but not limited to:

1. Plans and sections of all concealed work, particularly concealed piping and conduit, and deviations from conditions shown on the Contract Drawings, shall be shown and dimensioned on the record drawings. Contractor shall develop layout drawings for all concealed work that is schematically indicated on Contract Drawings.

2. Changes in schedules, plans, sections, elevations and details, such as shifts in location of walls, doors, stairs, etc., made during construction.

3. Significant changes in foundations, columns, beams, openings, concrete reinforcing, lintels, concealed anchorages and knockout panels made during construction.

4. Final location of electric panels, final arrangement of electric circuits, conduits, and significant changes made in electrical design as a result of job conditions.

5. Final location and arrangement of mechanical equipment and major concealed mechanical work items, including, but not limited to, supply and circulating mains, vent stacks, drainage lines, control and shut-off valves, dampers, and diverters.

6. Final location and arrangement of all connections and routing of utilities, including, but not limited to, sanitary, storm, heating, electric, gas, water, and telephone.

7. All points of control or adjustment.

8. All work as a result of change order or clarifications.

B. Record CAD files:

a. Shop drawings prepared using CAD electronic formats furnished by the Architect shall be submitted in CAD electronic format.

C. Record Specifications: submit a copy of the Project Manual annotated to designate the actual manufacturer or system used when multiple manufacturers or systems are specified.

D. Record Shop drawings: Final reviewed shop drawings shall be compiled and maintained by the Contractor.

1.03 **Operation and Maintenance Data:**

A. Compile product data and related information for Owner's maintenance and operation of products furnished under contract.

1. Prepare operating and maintenance data as specified in this section, as referenced in other pertinent sections and as necessary to operate the completed work.

2. Include copies of control diagrams provided as specified for Project Record Documents.

3. Operations and maintenance data shall be available to the Owner at time of Substantial Completion.

B. Demonstrate operation of equipment when required by individual specifications.

C. Instruct Owner's personnel in the maintenance of products and in the operation of equipment and systems.

1.04 **Warranties, Bonds and Maintenance Contracts:**

A. No submittal is required for the contractual correction-period established by the General Conditions.

B. Assemble warranties, bonds and maintenance contracts, executed by each of the respective manufacturers, suppliers and subcontractors, co-executed when so specified. Review submittals to verify compliance with contract documents.

1.05 **Spare Parts and Maintenance Materials:**

A. Provide extra materials as specified in individual Sections. Deliver to Owner with listing of materials and quantities. Obtain signed receipt. Submit copy of list and receipt to Architect.

1.06 **Format of Submittals:**

A. Record Documents:

1. Record Drawings: submit one (1) set, rolled.

2. Shop Drawings:

a. One (1) set, hard copy. Fold submittals and place in covered file storage boxes, in sequence by submittal specification Division and submittal number. Include copy of Log or Table of Contents listing indicating contents of each box.

b. One (1) set, PDF electronic format

3. Record CAD files:

a. Submit 1 set, on CD or DVD, standard (ISO 9660) format.

(1) CD/DVD shall contain a text file, named README.txt, in ASCII text format, listing each file with a brief description of the contents.

(2) CAD files shall be in AutoCAD dwg format.

(3) Label CD/DVD, printed or handwritten, indicating Project, Contractor Name, content.

b. Construction Manager shall consolidate all files to a single DVD or set of DVD media. Place media in punched clear plastic pocket(s), inserted in three ring binder with other O&M data.

B. Operating and Maintenance Data:

1. Mechanical and electrical operating manuals: Submit copies at time equipment is delivered to the site, as provided by the General Conditions, in addition to submittals required for closeout.

2. Submit one (1) draft, two (2) final hard copies.

3. Submit one PDF electronic format.

4. Prepare data in the form of an instructional manual for use by Owner's personnel.

5. Manual format - hard copy:

a. Three-ring binders, "Vue" type with transparent covers, maximum ring size of 2-1/2". When multiple binders are used, correlate the data into related consistent groupings. Use one or more separate binders for each category of submittal.

b. Sheets: 8-1/2" x 11", 20 pound white paper, printed, typed or legible xerographic copies.

c. Cover and Spine: identification inserted in binder cover, similar to sample at end of Section.

d. Index tabs and Table of Contents:

(1) Provide tabs for each piece of operating equipment or system.

(2) Table of Contents for each volume, arranged in a systematic order. listing contents of each tab with subcontractor and supplier names, addresses and phone numbers, similar to sample at end of this Section.

6. Manual format - PDF electronic format: Adobe PDF Portfolio with each item and section bookmarked.

7. Large format drawings and booklets:

a. Fold oversize drawings.

b. Insert in plastic file pockets in 3-ring binders.

8. Product data:

a. Include only those sheets which are pertinent to the specific product.

b. Annotate each sheet to:

(1) Clearly identify the specific product or part.

(2) Clearly identify the data applicable to the installation.

(3) Delete references to inapplicable information.

9. Drawings:

a. Supplement product data with drawings as necessary to clearly illustrate:

(1) Relations of component parts of equipment and systems.

(2) Control and flow diagrams.

b. Coordinate drawings with information on Record Documents to assure correct depiction of completed installation.

c. Do not use Record Documents as maintenance drawings.

10. Written text, as required to supplement product data for the particular installation:

a. Organize in a consistent format under separate headings for different procedures.

b. Provide a logical sequence of procedure instructions.

11. Warranties, bonds and maintenance contracts:

a. Original warranty, bond or maintenance contract.

b. Provide complete information for each bond or maintenance contract.

(1) Product or work item.

(2) Firm, with name of principal, address and telephone number.

(3) Scope.

(4) Date of beginning of warranty, bond or maintenance contract.

(5) Duration.

(6) Provide information for Owner's personnel:

(a) Proper procedure in case of failure.

(b) Instances which might affect the validity of warranty or bond.

(7) Contractor, name of responsible principal, address and telephone number.

C. Permit Drawings: Submit original permit drawings.

1. On set, original hard copy

2. One set, PDF electronic format.

D. Closeout submittals shall be submitted prior to Final Payment. .

1.07 **Quality Assurance:**

A. Preparation of Closeout Submittals shall be done by personnel:

1. Completely familiar with requirements of this section.

2. Skilled as a technical writer to the extent required to communicate essential data.

3. Skilled as a draftsman competent to prepare drawings.

4. Operation and Maintenance Data: Trained and experienced in maintenance and operation of the described products.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

End of Section
(sample forms - three pages follow)

OPERATIONS AND MAINTENANCE DATA

PROJECTNAME

CONTRACT

CONTRACTOR NAME
CONTRACTOR ADDRRESS
CONTRACTOR PHONE

(sample binder cover insert)

PROJECTNAME **O & M DATA** **CONTRACT**

(sample binder spine insert)

OPERATIONS & MAINTENANCE DATA **TABLE OF CONTENTS**

PROJECTNAME
CONTRACT
CONTRACTOR

(sample Table of Contents)

PART 1 - GENERAL

1.01 **Description:**

A. Provide hydraulic cement underlayments as indicated on the Drawings and specified herein. The Work includes, but is not necessarily limited to the following:

1. Surface preparation.

2. Primers.

3. Self-leveling cementitious underlayment.

4. Trowelable cementitious underlayment.

B. Related Sections:

1. Section 01 35 16: requirements for filling of and transitions in floor surfaces being modified.

1.02 **Quality Assurance:**

A. Tolerances: achieve smooth even surfaces, true to plane within 1/8" in 10'.

PART 2 - PRODUCTS

2.01 **Acceptable Manufacturers:**

A. Ardex Engineered Cements.

B. Conspec.

C. Custom Building Products.

D. L & M Construction Chemicals, Inc.

2.02 **Underlayment:**

A. Self-leveling and trowelable underlayment systems conforming to the following requirements:

1. Resin-modified portland cement based product. Products containing gypsum are prohibited.

2. Compressive strength greater than 3000 PSI, per ASTM C109/mod.

3. Product(s) recommended by the manufacturer for the specific application.

4. System shall include all necessary primers and other materials necessary for the specific application.

B. Applications include, but are not necessarily limited to the following:

1. Filling depressions in concrete floors slabs, over bare substrate, to maximum depth of approximately 1-1/4".

2. Filling depressions, leveling uneven surfaces and creating transitions in a variety of conditions.

3. Surfacing concrete floor slabs, over cutback asphalt mastic residue where applicable, to an maximum depth of approximately 1/4".

PART 3 - EXECUTION

3.01 **Preparation:**

A. Inspect substrates and conditions. Select product suitable for specific combination of substrate, thickness, and other conditions.

B. Verify that substrates are suitable to receive underlayment. Verify lines, level, and measurements before placing underlayment.

C. Do not disturb asbestos-containing materials, including asbestos-containing adhesive residue, if present.

3.02 **Installation:**

A. Provide underlayments wherever necessary to achieve smooth, even floor surfaces

1. In areas that are affected by demolition or cutting.

2. Where indicated in the documents.

3. To correct floor substrates which do not meet tolerance requirements, and installation of underlayment is acceptable to the Architect in lieu of removal and replacement of the defective work.

B. Prepare and fill cracks in substrate prior to installation of underlayment using material recommended by underlayment manufacturer.

C. Apply primer to substrate when recommended by manufacturer.

D. Mix and pump, pour, or trowel underlayment in accordance with manufacturer's recommended procedures and installation instructions to achieve required lines, levels and surfaces. Use tools and equipment of type recommended by underlayment manufacturer.

E. Protect underlayment until ready to receive traffic or finish materials without detriment.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Furnish and install ceramic tile, quarry tile, and accessories as shown on the Drawings and as specified herein, including, but not necessarily limited to, the following:

1. Porcelain tile floors and base.

1.02 **Submittals:**

A. Product data: submit printed data and installation instructions for setting materials, accessories and cleaners.

B. Samples:

1. Submit samples for color selection from manufacturer's complete product line, as follows:

a. One sample kit for each type of tile for preliminary selection.

b. Color samples for grout and sealant..

2. Acceptance samples: after color selection, submit 12" x 12" hardboard mounted samples grouted with selected color of grout for final review.

C. Quality control submittal: at the time of delivery, submit Master Grade Certificate stating that tile complies with Standard Grade Tile as required by ANSI A137.1.

1.03 **Quality Assurance:**

A. Qualifications:

1. Tile manufacturer: manufacturer shall certify that tile meets the requirements of TCA A137.1.

2. Grout: the grout and grout additive must be from one manufacturer. The dry-set mortar and additive must be from one manufacturer. The grout and dry-set mortar may be from different manufacturers.

3. Installer: company specializing in the installation of products specified in this section with minimum five years experience.

B. Reference Standards: conform to the applicable provisions of ANSI/TCA A137.1 and Tile Council of America "Handbook for Ceramic Tile Installation".

1.04 **Delivery, Storage, and Handling:**

A. Deliver and store materials on the site in original containers with seals unbroken and labels intact, until time of use, in accordance with manufacturer's directions.

B. Labels shall show grade of tile. Do not open containers until reviewed.

C. Deliver adhesive, mortars and grouts to site in water resistant containers, IN GOOD condition and full weight. Damaged or fractional packages will be rejected.

1.05 **Site Conditions:**

A. Environmental requirements: for interior, do not install tile until the space is enclosed, ventilated and maintained between 50°F. and 90°F.

B. Protection:

1. Close area to traffic during installation of floor tile.

2. Cover floor with Kraft paper after completion of work and maintain in position during curing period.

1.06 **Maintenance:**

A. Replacement materials: at completion provide one (1) unopened carton of ceramic and quarry tile including base materials for the Owner's use in future repairs. Supply one box for each different type or style of tile. Additional materials shall be from the same lot as the materials installed. Furnish in original boxes, properly marked, and store as directed by Owner.

PART 2 - PRODUCTS

2.01 **Porcelain Tile Materials:**

A. Tile performance:

Tile Performance Characteristics		
Attribute	**Standard**	**Value**
Breaking Strength	ASTM C648	>250 lbf.
Bond Strength	ASTM C482	>200 psi
Chemical Resistance	ASTM C650	Unaffected
Frost Resistance	ASTM C1026	Resistant
Water Absorption	ASTM C373	< 0.10%
Scratch Hardness	MOH's Scale	≥6
COF- Dry	ASTM C1028	> 0.65
COF- Wet	ASTM C1028	> 0.6

B. Floor Tile: Crossville “EcoCycles”; represented locally by Virginia Tile Company, Wood Dale, IL (630) 595-0515 or equivalent by Daltile or American Olean

1. Size: 11-3/4" x 11-3/4" x 5/16"

2. Colors: as selected by Architect

3. Trim: cove base, cove base corners left and right and inside corner.

2.01 **Quarry Tile Materials:**

A. Tile performance:

Tile Performance Characteristics		
Attribute	**Standard**	**Value**
Breaking Strength	ASTM C648	>400 lbf.
Chemical Resistance	ASTM C650	Unaffected
Water Absorption	ASTM C373	< 3%
Scratch Hardness	MOH's Scale	≥7
COF- Dry	ASTM C1028	> 0.7
COF- Wet	ASTM C1028	> 0.7

2.0B. **Setting Materials:**

C. Provide setting products complying with the requirements of the Contract Documents and made by one of the following:

1. Latticrete.

2. Custom Building Products.

3. Mappei.

D. Thin-Set system for porcelain tile on floor slabs on grade; TCA method F113 with proprietary materials:

1. Crack isolation membrane: "Laticrete Blue 92", apply membrane over all substrate cracks and slab control joints.

2. Latex-Portland Cement Adhesive: "Laticrete 4237 Latex Mortar Additive" with "Laticrete 211 Crete Filler Powder", Laticrete International, Inc.

3. Grout: "Laticrete SpectraLock Pro Premium" epoxy grout, color as selected, Laticrete International, Inc. Color as selected from Classic Color Group I.

2.02 **Miscellaneous Materials:**

A. Crack isolation membrane: preformed elastomeric sheet, one of the following "Latticrete Blue 92", Latticrete International, Inc.: "Custom 9240", Custom Building Products, "Mapeguard2", Mapei Corp.

B. Cleaners: pre-mixed, proprietary type, manufactured by Laticrete, Mapei .or Custom Building Products.

C. Sealant: Silicone, ASTM C–920, Type S, Grade NS, Class 25, Use NT, I, M, G; "Latasil" Laticrete International, Inc. or approved equal, colors as selected.

D. Metal edge trim: Schluter "Schiene" aluminum square-edge trim, size to suit tile. Provide at ceramic tile transition tp vinyl composition tile, and at perimeter floor mats abutting ceramic tile.

E. Sealer for quarry tile: Custom Building Products "TileLab SurfaceGard" penetrating sealer

PART 3 - EXECUTION

3.01 **Examination:**

A. Verify that surfaces are ready to receive work. Examine the areas and conditions which tile is to be applied. Do not proceed with work until unsatisfactory conditions have been corrected.

B. Beginning of installation means acceptance of existing conditions.

3.02 **Preparation:**

A. Protect surrounding work from damage or disfiguration.

B. Broom clean or vacuum clean substrate and damp mop to remove construction dust.

C. Roughen vertical concrete surfaces by bush hammering or sandblasting as necessary to rid surfaces of coating, oil, wax or other material which would prevent the proper bonding of mortar or adhesives.

D. Scarify horizontal concrete surfaces to remove curing compounds and provide required "tooth" for the proper bonding of the leveling bed.

3.03 **Installation, General:**

A. Install tile and grout in accordance with the TCA and ANSI Standards specified herein, manufacturer's recommendations and the following:

1. Wall tile shall be placed to elevations indicated; if not indicated, to one-course above suspended ceilings. Tile shall be laid in straight joint patterns.

2. Make interior corners of field tile on vertical surfaces square; external corners rounded using wrap-around stretcher shapes, and corresponding cove base shapes.

3. Center fields and patterns on applied areas so that, in general, no tile is less than half size. All floors, cove base, and wall joints shall line up.

4. Fit tile accurately around all equipment, fixtures, pipes, etc., without damaging tile, and so that plates, escutcheons and collars will overlap cuts. Arrange accessories in proper location, level, plumb and with correct projections; anchor in accordance with manufacturer's directions.

5. Treat cracks and joints in concrete substrate with crack isolation membrane.

6. Prepare surface and install membrane in accordance with manufacturer's instructions.

a. For joints 3/8" or wider, rake- or grind-out existing joint filler to a depth of 2", clean joint of dust, and fill flush with setting mortar or cementitious underlayment having an minimum compressive strength of 3000 PSI.

7. Apply membrane strip, a minimum of three times tile size centered on crack or joint, so that every tile over or adjacent to the crack or joint is set fully on the membrane.

B. Provide expansion joint on maximum 16-foot centers in both directions as directed, and at perimeters where tile abuts a vertical surface..

C. Joint width:

1. Porcelain floor tile: 1/4"

D. Tool joints slightly concave as directed. Avoid excessive tooling of joints.

E. At edges where porcelain tile butt against another type floor covering and tile is not indicated to be recessed, aluminum edge trim. In locations where tile is indicated to be recessed, tile shall finish with the floor covering it butts against.

3.04 **Cleaning and Protection:**

A. At the completion of work, clean all tile so that it is free from setting and grouting material spillage and waste. Remove and excess materials from adjoining surfaces and restore those surfaces to original condition.

B. Use commercially available compounds formulated for the purpose. Use in accordance with manufacturer's instructions..

C. Protect finished tile from damage. Do not permit traffic over finished floor surface.

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Furnish and install modular carpet as indicated on the drawings or herein specified. This work includes, but is not necessarily limited to the following:

1. Carpet tile, installed with releasable adhesive.

2. Surface preparation

3. Accessories.

B. Related Sections:

1. Section 02 41 18 - Selective Demolition: Removal and recycling of existing carpet

2. Section 09 30 00 - Tiling

3. Section 09 65 00 - Resilient Flooring

1.02 **Submittals:**

A. Shop drawings: none

B. Mock-Up: install 100 SF of carpet and 20 LF of resilient base in location at directed by Owner for approval of color and pattern before ordering materials.

C. Samples:

1. Carpet: none

2. Submit samples of each resilient edge and transition accessories.

D. Product Data:

1. Product data on carpet and carpet treatments.

2. Product data on adhesives, subfloor filler, and other installation materials and accessories material.

3. Evidence of compliance with environmental requirements for all materials

E. Certifications:

1. Manufacturer's certification of compliance with Carpet and Rug Institute (CRI) Indoor Air Quality testing program.

1.03 **Quality Assurance:**

A. Sole Source Responsibility: Adhesives, sealers and other installation materials shall be manufactured by or approved in writing by the carpet manufacturer and shall be consistent with manufacturer’s

recommendations and warranty requirements applicable to the project.

B. Installer: company with minimum five (5) years experience with and successful completion of similar projects.

C. Dye Lots: All carpet of the same type in continuous areas shall be from the same dye lots.

1.04 **Environmental Requirements:**

A. Carpet Face Yarn: Third party certified as an Environmentally Preferred Product (EPP) under US Executive Order 13101.

B. Low Emitting Materials:

1. Carpet and all installation components including adhesives, sealers, seam welds and seam sealers must meet the Low Emitting Materials standards as outlined in U.S. Green Building Council LEED criteria.

2. Carpets shall bear CRI Green Label Plus.

3. Adhesives must meet VOC emissions standards per South Coast Air Quality Management District Rule #1168.

C. End of Life Reclamation: Carpet must have an existing methodology actively in place to achieve landfill diversion.

1.05 **Project Conditions:**

A. Store materials for three days prior to installation in area of installation to achieve temperature stability.

B. Maintain temperature between 65 - 85 degrees F and humidity between 10% to 50% three days prior to, during, and continuously after installation.

C. Ensure building ventilation system is in continuous operation at maximum outdoor air rates; twenty four hours prior to installation, during installation. Provide additional ventilation as necessary eliminate odors. For 72 hours after installation continue operation of ventilation system at maximum outdoor air rates. After the initial 72 hour period operate ventilation system continuously at normal outdoor air rates, not less than 10%, until acceptance of space by Owner.

1.06 **Product Handling:**

A. Deliver, store, and handle materials in accordance with section 01 60 00.

B. Deliver carpeting materials in original mill protective package with mill register numbers and tags attached. Maintain wrappers and protective covers in place until carpet is ready for installation. Store inside, in well-ventilated area, protected from weather, moisture and soiling.

C. Before beginning installation, inspect carpet for defects, color variations, or shipping damage and be immediately replaced if any of these conditions exist at no additional cost to the Owner. Carpet tiles shall be inspected to insure that carpet tiles are from the same dye lot.

D. Condition carpet in conditioned spaces on site for 24 hours prior to actual installation at temperature within 5 deg F and humidity within 10 percentage points of conditions at installation locations.

1.07 **Warranty:**

A. Manufacturer's Warranties: Mohawk Group standard lifetime warranties applicable to the specified products, subject to manufacturer's standard terms and conditions.

1. Lifetime Modular Warranty, including coverage of Adhesive Bond to substrate, Wear, Static Protection, Ravel/ Zippering, Delamination, Dimensional Stability; for the lifetime of and including repair replacement of carpet.

2. Lifetime Duracolor Stain Resistant Warranty, including coverage of Acid stain resistance, Colorfastness and Wetfastness. for the lifetime of the installation, and including repair or at manufacturer's discretion purchase price refund or replacement of carpet.

3. Lifetime Static

1.08 **Extra Materials:**

A. Carpet tile: provide extra carpet tile, 5% of installed area of each color. Stock shall be delivered to Owner in un-opened cartons when carpet materials are delivered to the site.

PART 2 - PRODUCTS

2.01 **Materials:**

A. Carpet tile:

1. Manufacturer: Mohawk Carpet, LLC.
2. Brand: Lees
3. Styles: (both are required)

a. F1 - Character Lines Modular, #GT099

(1)	Surface Texture:	Multi-level colored patterned loop
(2)	Gauge:	1/12"
(3)	Stitches per inch:	11.5
(4)	Pile Thickness:	.154"
(5)	Dye method:	Solution dye/yarn dye
(6)	Yarn Weight:	20 oz. per sq. yd.
(7)	Face Yarn:	Duracolor premium nylon with Antron Legacy

b. F2 - PhotoFinish Modular, #DK943

(1)	Surface Texture:	Patterned loop
(2)	Gauge:	1/12"
(3)	Stitches per inch:	9.5
(4)	Pile Thickness:	.129" avg.
(5)	Dye method:	Yarn dyed
(6)	Yarn Weight:	22 oz. per sq. yd. minimum.
(7)	Face Yarn:	Antron® Legacy Nylon 6,6 with DuraTech Soil Protection by Invista

c. Forward Vision Modular, #GT135

(1)	Surface Texture:	Patterned loop
(2)	Gauge:	1/12"

(3)	Stitches per inch:	10.0
(4)	Pile Thickness:	.124" avg.
(5)	Dye method:	Solution dyed/Yarn dyed
(6)	Yarn Weight:	20 oz. per sq. yd. minimum.
(7)	Face Yarn:	Duracolor Premium Nylon

d. HorsePower, #DK953

(1)	Surface Texture:	Patterned loop
(2)	Gauge:	1/12"
(3)	Stitches per inch:	10.1
(4)	Pile Thickness:	.107" avg.
(5)	Dye method:	Yarn deyed
(6)	Yarn Weight:	24 oz. per sq. yd. minimum.
(7)	Face Yarn:	Antron® Legacy Nylon 6,6 with DuraTech Soil Protection by Invista

4.	Colors:	4 colors as selected from manufacturer's standard ranges.
5.	Construction:	Tufted.
6.	Fiber Technology	Duracolor Stain Resistant System. Passes GSA requirements for permanent stain resistant carpet.
7.	Dry Soil Retardant:	DuraTech
8.	Backing:	EcoFlex ICT Fiberglass reinforced composite, 35% minimum pre consumer recycled content
9.	Size:	24" x 24"
10.	CRI TARR Rating:	Severe
11.	NSF 140	Gold
12.	CRI Certified:	Green Label Plus 1098
13.	Static Control:	3.0 KV or less, per AATCC-134 70 deg F./20% RH
14.	Pill Test DOC-FF-1-70:	Passes.
15.	Floor Radiant Panel test:	Meets NFPA Class 1 when tested per ASTM-E-648 glue down.
16.	Smoke Density:	NBS Smoke Chamber/NFPA 258: Less than 450 Flaming Mode.

B. Substrate Sealer:

1. Standard sealer: Mohawk Group "SureSeal"

2. Moisture sealer, for concrete with RH above 80% but less than 90%: Mohawk Group "EverSeal".

C. Subfloor filler: cementitious type, as recommended by carpet manufacturer and suitable for specific application.

D. Base: ASTM F 1861, Type TS vulcanized rubber base, manufactured by Johnsonite, Roppe or Flexco, 4" and 4-1/2" heights, with pre-molded inside and outside corners, colors as selected. 4-1/2" height may be used throughout a room in lieu of 4" height when approved by the Architect where existing adhesive residue or drywall surface damage would show above 4" base. Rubber base shall have cove at bottom of base.

E. Edge and transition accessories: rubber, profile to suit application, colors as selected.

1. 1/4" Carpet to 1/8" resilient tile:
   a. Johnsonite CTA-H (2-1/2" exposed width)
   b. Roppe #61 (1-1/2" exposed width)
   c. Flexco #167 (1-13/32" exposed width)

2. 1/4" Carpet to Concrete:

a. Johnsonite CTA-J (2-1/2" exposed width)
b. Roppe #174 (2" exposed width)
c. Flexco #186 (2" exposed width)

3. 1/4" Carpet to Ceramic Tile: Johnsonite CCA or CWA or equal product of Roppe or Flexco

F. Adhesives: CRI Green Label Plus approved, compliant with SCAQMD Rule 1168:

1. Carpet: pressure-sensitive, releasable type, zero VOC, with MicroSept antimicrobial: Mohawk Group "EnPress PSA".

2. Wall base, less than 40 g/L VOC, with anti-microbial: Flexco #1100 Wall Base Adhesive.

3. Rubber accessories: less than 5 g/L VOC, Flexco #77 Solvent-Free Epoxy or Flexco Spray-Grip Adhesive for Rubber Tile.

PART 3 - EXECUTION

3.01 **Removal of Existing Flooring:**

A. Remove existing flooring, resilient base and transition accessories in areas to receive carpet. Avoid damage to gypsum board wall surfaces.

B. Recycle carpet and resilient materials.

3.02 **Examination:**

A. Verify that substrate is flat and level within tolerance of 1/8" in 10'.

B. Verify that substrates are smooth and free from cracks, holes, ridges, and other defects that might inhibit adhesive bond or impair durability or appearance of completed work.

C. Inspect substrates to determine that they are free from curing, sealing, or parting compounds; residual adhesives, or other coatings or foreign material that might inhibit adhesive bond or impair durability of complete work.

D. Perform moisture test on substrate in each major area, minimum one (1) per 2,000 square feet, prior to installation. Moisture Vapor Transmission (MVT) rate shall not exceed 80% RH per ASTM F2170 or five (5) pounds per 1,000 square feet per 24 hour day, per calcium chloride test ASTM F1869, nor shall conditions exceed limits recommended by flooring manufacturer. Do not proceed with work until results of moisture condition tests are acceptable.

E. Perform alkalinity or pH test on substrate in each major area, pH shall be between 5 and 9.

F. Perform adhesive bond test on substrate in each major area, minimum one (1) per 2,000 square feet, prior to installation. Examine after 72 hours to determine whether bond is solid and no moisture is present. Do not proceed with work until results of bond test are acceptable.

G. Report unsatisfactory conditions, take corrective actions as specified. Do not install flooring until unsatisfactory conditions have been corrected. Beginning of installation means acceptance of existing substrate and site conditions.

3.03 **Preparation:**

A. Do not start work until other trades have substantially completed their work within room or space where finish materials are to be installed.

B. Prepare surfaces in accordance with recommendations and specifications of carpet manufacturer.

C. Mechanically remove paint, oils, release agents, sealers, waxes and other coatings and foreign material that might inhibit adhesive bond or impair durability of complete work. Remove curing compounds which are not compatible with materials to be installed. Remove residual adhesives. Do not use solvents for removal.

D. Smooth substrates, removing rough areas, projections, ridges, and bumps, and filling low spots, control and construction joints and other defects. Grind or shot-blast concrete substrates to remove high spots and deleterious residues. Fill voids and depressions and smooth irregular surfaces with cementitious underlayment recommended by flooring manufacturer for the specific application

.

E. Seal concrete substrate after removal of existing adhesive residue using sealer recommended by manufacturer's for the specific application.

1. If moisture is not more than 80% RH and pH is not more than 9: apply TMG SureSeal sealer.

2. If substrate contains trace residue of cutback adhesive, apply TMG SureSeal sealer.

3. If moisture content is greated than 80% RH, but less than 90% RH, or pH is greater than 9 but less than 11: apply TMG EverSeal moisture sealer.

F. Make substrate free from dust, dirt and foreign materials. Vacuum surfaces to be covered immediately before the application of adhesive.

G. Mask-off adjacent surfaces before applying spray adhesives.

H. After three (3) day storage to achieve temperature stability, lay carpet, unrolled, in each room to receive carpeting 24 hours prior to installation.

3.04 **Installation:**

A. Install sealers, carpet, accessories and adhesives in accordance with manufacturer's instructions

B. Use a roller to smooth out any ridges in adhesive prior to installation of carpet tiles.

C. Cut carpet evenly and accurately to fit neatly at walls, columns, and projections.

D. Carpet layout: ashlar as directed by Architect.

E. Edges, direction changes and color changes at doorways shall be centered under the door

F. Extend carpet under open-bottomed and raised-bottom obstructions, and under removable flanges of floor cover plates and similar obstructions.

G. Carpet shall be free from ripples, ravels, frays, puckers and raw exposed edges. Trim all edges to eliminate fuzzy seams.

H. Transitions:

1. Abutting ceramic tile: Build-up underlayment transition adject to tile edge trim so that carpet pile finishes flush with tile surface.

2. Expansion joint covers. Butt carpet to metal flange of cover or install under beveled overlapping covers.

3. Provide resilient transition strips wherever carpet edge does not abut a vertical surface unless

other accessories are indicated.

3.05 **Cleaning and Protection:**

A. Maintain work area in a clean and orderly condition during operation. Remove all waste and debris from work area at the end of each workday.

B. Neatly trim all loose yarns. Remove all visible adhesive from floor, base, and wall surfaces without damage to those surfaces. Remove and replace soiled and damaged carpet with new material.

C. Dispose of all trash, scraps, empty containers and other debris. Remove debris from project site and dispose lawfully.

D. Upon completion of carpet laying vacuum clean all carpet and wipe clean adjacent surfaces.

E. Protect newly installed carpet with continuous cover of kraft paper until completion of all installation work. Restrict traffic to normal foot traffic for a minimum of two days. Remove protection material prior to final acceptance.

F. Deliver usable, uncut carpet tiles to Owner' where directed. Box or wrap and label extra material.

3.06 **Schedule:**

A. F1 - “Classroom” carpet in Room A205, A206, A211 and A213
B. F2 - Alternate 1 - carpet located in I.T Central Core Area A108b and A110 as shown on sketch A-17
C. F2 - Alternate 2 - Corridor A108, I.T Rooms A110, A110a, A110b, A110c, A110d, A110h, A110i, A110j, A110k, and A1110l as shown on sketch A-18 and A-19
D. Area E Corridor Color C1 thru C5 - any color from any of the (4) carpet lines specified in this Section as shown on sketch A-3

End of Section

PART 1 - GENERAL

1.01 **Description:**

A. Perform all work necessary to complete all painting and related work as shown on the Drawings and as specified herein. Work includes furnishing all required labor and materials including, but not necessarily limited to, the following principal items:

1. Surface preparation.

2. Painting interior wall, soffit and gypsum board ceiling surfaces.

3. Painting of door frames, and previously painted doors (if any) in affected areas

4. Painting existing items within painted surfaces which have been previously field-painted to match the adjacent surface.

5. Paint around existing permanently mounted items such as marker boards and tack boards. Owner will remove existing temporary hanging items such as posters, banners and similar items prior to painting.

B. Painting not included:

1. Brick and tile.

2. Wood doors and wood trim with transparent finish.

3. Acoustical ceilings

4. Pre-finished items: do not paint existing factory-finishing items such as (but not limited to) finished mechanical and electrical equipment including light fixtures, switchgear and distribution cabinets, electrical device plates, fire alarm devices.

5. Concealed surfaces: unless otherwise indicated, painting is not required on surfaces such as walls or ceilings in concealed areas and inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, and duct shafts.

6. Finished metal surfaces: metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials will not require finish painting.

7. Operating parts and labels:

a. Do not paint any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sinkages, sensing devices, motor and fan shafts, unless otherwise indicated.

b. Do not paint over any code-required labels, such as underwriters' laboratories and factory mutual, or any equipment identification, performance rating, name, or nomenclature plates.

1.02 **Definitions:**

A. Conform to ANSI/ASTM D16 - Definitions of Terms Relating to Paint, Varnish, Lacquer, and Related Products.

B. "Paint" as used herein means all coating systems materials, including primers, emulsions, enamels, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

C. Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatment specified under other sections.

D. DFT

1. Dry Film Thickness.

2. The thickness of the dry film of a coating measured either in mils or microns.

E. Mil

1. One one-thousandth of an inch.

2. Used to measure the thickness of coating films.

F. Gloss or Sheen Levels: Percentage reflection as measured on a 60 degree Gloss Meter.

1.	Flat:	Up to 5% reflection
2.	Eggshell / Low Lustre:	5% to 15% reflection
3.	Pearl / Low Lustre:	15% to 25% reflection
4.	Satin / Soft Gloss:	35% to 55% reflection
5.	Semi-Gloss:	35% to 60% reflection
6.	Gloss:	60% or greater reflection

1.03 **Submittals:**

A. Submit a list of proposed materials including manufacturer's name and trade names. Provide a listing of material and application for each coat of each finish sample. Include manufacturer's installation instructions.

B. Samples: Submit draw-down samples for Architect's review of color and texture only. Compliance with all other requirements is exclusive responsibility of the Contractor.

C. Project Record Documents: submit in accordance with the Project Manual; material list, paint schedule, complete information including color number and color mixing data for custom colors.

1.04 **Mock-up:**

A. Prepare a mock-up for each combination of interior wall field and accent colors:

1. For bidding, assume (4) mock-ups will be required.

B. Apply complete coating system to a full wall surface of at least 100 square feet each for field and accent

color combinations.

C. Mock-ups shall be reviewed by Architect and Owner's representative prior to application of prime and finish coats to other surfaces. Mock-up shall be maintained until substantial completion of the painting work. Acceptable mock-ups may be incorporated in the permanent work.

1.05 **Quality Assurance:**

A. Applicator Qualifications: company specializing in commercial painting and finishing with minimum five years experience on comparable projects.

B. The current edition of "A Modern Guide to Painting Specifications", shall hereby be made part of this specification insofar as applicable.

C. Manufacturer's standard specifications and recommendations for preparation and application of his products are hereby made a part of this specification and shall be adhered to in all cases. Diluting or thinning of materials is absolutely prohibited except when specified, or approved by manufacturer.

D. Product compatibility:

1. Provide barrier coats over incompatible primers or remove and reprime as required. Notify the architect in writing of any anticipated problems using the coating systems as specified with substrates primed by others.

2. Provide finish coats which are compatible with the prime paints used. Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of the total coatings system for the various substrates. Upon requests from other subcontractors, furnish information on the characteristics of the specified finish materials, to ensure that compatible prime coats are used.

1.06 **Regulatory Requirements:**

A. Use only materials meeting current Volatile Organic Compound (VOC) regulations for the project location.

B. In the event that specified products exceed the allowable VOC limits provide alternative VOC compliant products with equivalent appearance and durability characteristics.

1.07 **Environmental Requirements:**

A. Do not use hyrdocarbon or volatile organic solvents inside the building..

B. Use only materials which:

1. Meet current Volatile Organic Compound (VOC) regulations for the project location.

2. Meet the performance and environmental requirements, including Volatile Organic Compound (VOC) content limits established in Green Seal Standard GS-11, Paints, 3rd Edition, Aug 17, 2011

1.08 **Delivery, Storage, and Handling:**

A. Deliver paints and enamels ready-mixed to job site.

B. Deliver all materials to the job site in original, new and unopened containers bearing manufacturer's name and label.

C. All materials used on the job shall be stored in a single place. Storage place shall be kept neat and clean and all damage thereto or to its surroundings shall be made good. All oily rags, waste, etc., must be removed from the building every night and every precaution taken to avoid danger of fire. Paints shall not be stored, mixed or applied in any room having finished floor installed without taking approved methods of protection. Used containers shall have labels cancelled and shall be clearly marked as contents.

D. Do not bring gasoline, benzine or other flammable materials into the buildings.

1.09 **Site Conditions:**

A. Environmental conditions:

1. Do not apply water-base paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 50°F., unless otherwise permitted by paint manufacturer's printed instructions.

2. Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 45°F., unless otherwise permitted by paint manufacturer's printed instructions.

3. Do not apply paint in snow, rain, fog or mist; or when the relative humidity exceeds 85%; or to damp or wet surfaces; unless otherwise permitted by paint manufacturer's printed instructions. Painting may be continued during inclement weather only if areas and surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer during application and drying periods.

B. Maintain uniform temperatures of minimum 60 degrees F, and humidity of 20 to 40 percent prior to, during and after installation.

C. Maintain adequate illumination in work areas during application of coatings and for review of mock-ups.

D. Provide ventilation as necessary eliminate fumes and odors. Ensure building ventilation system is in continuous operation for a period of two weeks following completion of interior finish coats, with not less than 10% outdoor air supply.

1.010 **Maintenance:**

A. Extra stock: provide a one gallon container of each color and surface texture to the owner. Label each container with color, texture, room locations, in addition to manufacturer's label.

PART 2 - PRODUCTS

2.01 **Manufacturers:**

A. Sherwin Williams (no substitution).

2.02 **Colors and Finishes:**

A. Prior to start of work the Architect will provide chips or color numbers for preliminary color selection. Provide custom colors as necessary to match the chips and identified colors of other paint manufacturers.

B. Final acceptance of colors will be from samples applied on the job.

C. It is understood and agreed that the various rooms and spaces may have certain walls painted a different color than other walls in the same room and that ceiling and trim may be a different color or colors than the walls.

D. Deep tints:

1. Classrooms: Assume that 2 adjacent walls will be painted with a deep tint color.
2. Offices: Assume that the longest wall will be painted with a deep tint color.
3. Rooms with more than 2 colors are indicated o the Drawings.

2.03 **Material Quality:**

A. Provide the best quality of the various types of coatings as regularly manufactured by the paint materials manufacturers listed. Materials not displaying the manufacturer's identification as a standard, best-grade product will not be acceptable.

B. Provide undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits. Base coats and undercoats of paints shall be tinted or shaded differently than the finish coats.

PART 3 - EXECUTION

3.01 **Examination:**

A. Examine the areas and environmental conditions under which painting work is to be applied. Do not proceed with work until unsatisfactory conditions have been established.

B. Examine surfaces scheduled to receive paint and finishes for condition that will adversely affect execution, permanence or quality of work and which cannot be put into an acceptable condition through preparatory work. Report in writing to the Architect all unsatisfactory conditions, errors, or deficiencies prior to proceeding with work.

C. Starting of painting work will be construed as acceptance of the surfaces and conditions within any particular area.

3.02 **Surface Preparation:**

A. General:

1. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to the formation of a durable paint film.

2. Perform preparation and cleaning procedures in strict accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition.

3. Remove all hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for complete painting

of items and adjacent surfaces. Following completion of each space or area, reinstall removed items by workmen skilled in trades involved.

4. Remove all loose coatings, oil, dust, grease, dirt, loose rust, and other foreign material from surfaces to be finished.

5. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.

B. Previously painted surfaces:

1. Wash as applicable with detergent and clean water rinse to remove grease, dirt and surface contaminants.

2. Remove loose and flaking existing coatings. Test existing paint film for adhesion.

3. Apply compatible barrier coat or adhesion primer if necessary for proper adhesion of finish, or for hiding and color uniformity of finish coat.

C. Gypsum board:

1. Fill narrow, shallow cracks and small holes with spackling compound.

2. Rake deep, wide cracks and deep holes. Patch with setting-type compound and finish with spackling compound.

3. Allow to dry then sand smooth. Do not raise nap of paper or wallboard.

D. Cementitious materials:

1. Prepare surfaces of concrete and concrete block to be painted by removing all efflorescence, chalk, dust, dirt, grease, oils, and by roughening as required to remove glaze.

2. Fill minor cracks and irregularities with spackling compound to provide uniform surface texture.

E. Wood:

1. Clean wood surfaces to be painted of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth finished surfaces exposed to view, and dust. Scrape and clean small, dry, seasoned knots and apply thin coat of white shellac or other approved sealer, before application of priming coat.

2. Fill minor cracks and holes with paste wood filler, sand smooth and dust.

F. Ferrous metals:

1. Clean ferrous surfaces, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.

2. Touch-up shop-applied prime coats wherever damaged or bare, where required by other sections of these specifications. Clean and touch-up with the same type shop primer.

G. Aluminum and galvanized metal:

1. Clean surfaces with non-solvent degreaser and water to remove residue.

2. Dry with a clean cloth.

H. Existing Structure to be exposed:

1. Blow-off accumulated dust with air blast. Coordinated cleaning sequence with cleaning of existing ductwork to be exposed exposed.

2. Remove loose paint and remaining foreign material and surface contaminants by hand scraping, brush and vacuum and other methods appropriate to the surface conditions.

I. Existing Ductwork to be exposed:

1. Blow-off accumulated dust with air blast. Blow-off unexposed surfaces (such as top) as well as exposed surfaces (such as sides and bottoms). Coordinated cleaning sequence with cleaning of exposed structure.

2. Exposed surfaces of metal ductwork: clean as specified for aluminum or galvanized metal

3. Exposed surfaces of insulated ductwork:

a. Test cleaning method before full-scale use.

b. For moisture-resistant foil-covering: clean with damp sponge and detergent, wipe clean with damp sponge and clean water. Dry with a clean cloth.

c. For fabric or other moisture-sensitive covering:: remove dust with vacuumand soft brush.

3.03 **Materials Preparation:**

A. Mix and prepare painting materials in accordance with manufacturer's directions.

B. Stir materials before application to produce a mixture of uniform density, and stir as required during application of materials. Do not stir surface film into the material. Remove film and if necessary, strain the material before using.

3.04 **Prime Coats:**

A. Apply prime coat to material to be painted or finished, and which has not been previously primed or painted. Omit the primer on metal surfaces which have been shop-primed and touch-up painted, unless otherwise directed.

B. Recoat primed and sealed walls and ceilings where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

C. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends, face, undersides, and backsides of such wood, including cabinets, counters, cases, etc. When transparent finish is required, use spar varnish for backpriming

D. After priming wood, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.

3.05 **Application:**

A. Paint all exposed surfaces whether or not colors are designated in "schedules", except where the natural finish of the material is obviously intended and/or specifically noted as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint these the same as adjacent similar materials or areas.

B. Method of application:

1. Apply paint in accordance with the manufacturer's directions. Use applicators and techniques best suited for the type of material being applied.

2. Apply paint with suitable brushes, rollers, or spraying equipment.

3. Apply stain and varnish with brushes.

4. The provision under which spraying paint will be allowed include, but are not necessarily limited to, the following:

a. Airless spray shall be used.

b. No thinning of paints or coatings allowed.

c. Same separate, adequately dried, number of coats shall be applied as specified for brush or roller application. Passes with spray gun will not be accepted as separate coats.

d. Same mill thickness shall be applied as brush or roller would provide.

5. Rate of application shall not exceed average rate-of-coverage recommended by paint manufacturer for type of surface involved, less 10 percent allowance for losses.

C. Apply additional coats when undercoats, stains or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance.

D. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.

E. Paint the back sides of access panels, and removable or hinged covers to match the exposed surfaces.

F. On wood or metal surfaces thoroughly and uniformly sand each coat, except final coat with #00 sandpaper, or other equal abrasive, removing all surface defects and providing a smooth, even surface for subsequent coats.

G. First application of stain shall provide desired result. "Second-coating" will not be permitted. Materials that are not properly stained with first application shall be replaced with new materials at no additional cost.

H. Completely finish each coat in an area or space and obtain architect's approval thereof before proceeding with following coat. In multi-coat paint work, tint each coat for easy identification by using varying degrees of required finish color for tinting of undercoats.

I. When applying latex coatings, the product has to be "hung-up" and "laid-off" to get good flow which is necessary to good hiding quality.

J. If, for whatever cause, there is a lack of proper coverage, Contractor shall apply additional coats of paint or finish as required to cover surfaces completely to provide uniform color and appearance.

K. Whenever necessary to obtain required results, a whole wall shall be refinished rather than "spot-finishing" where a portion of finish is unsatisfactory.

L. Minimum drying time shall comply with that recommended by paint manufacturer. Each coat shall be thoroughly dry before application of succeeding coats.

M. Make edges of paint adjoining other materials or colors sharp and clean, and without overlapping.

N. For window frames that are required to be painted, apply primer before glazing is executed.

O. Change colors at outside corner of door stop where colors differ between adjoining spaces or rooms and where door frames match wall colors.

P. Closets shall be finished the same as adjoining rooms unless otherwise specified.

Q. Where ferrous metal panels, boxes, access doors, registers, louvers or grilles occur in finished doors, walls or ceilings, paint in with surrounding surfaces unless otherwise directed.

R. Pigmented (opaque) finishes: completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, roughness or other surface imperfections will not be acceptable.

S. Completed work: match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

3.06 **Minimum Coating Thickness:**

A. Apply each material at not less than the manufacturer's recommended spreading rate, to provide a total dry film thickness of not less than 5.0 Mils for the entire coating system of prime and finish coats for 3-coat work.

B. Provide a total dry film thickness of not less than 3.5 Mils for the entire coating system of prime and finish coat for two (2)-coat work, for non-epoxy coating.

3.07 **Clean-up and Protection:**

A. Clean-up: during progress of the work, remove from project daily all discarded paint materials, rubbish, cans and rags.

B. Protection: protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damages by cleaning, repairing or replacing, and repainting, as directed by the Architect.

C. Provide "wet paint" signs as required to protect newly-painted finishes. Remove temporary protective wrappings after completion of painting operations.

(Continued on next page)

3.08 **Paint Schedule:**

A. Primer:

1. Color Primer, For deep tint color or hiding existing deep-tint color: S-W Prep-Rite 200 Interior Latex Primer B28W200, 1.1 mils DFT.

2. Adhesion/Barrier Primer: For adhesion or as a barrier to incompatible undercoats: provide primer suitable for the specific conditions encountered.

B. Interior topcoat finishes:

1. Gypsum board ceilings and soffits, previously painted: Latex, Flat: One (1) coat S-W Pro-Mar 200 Zero VOC Interior Latex Flat B30W2600 Series, 1.6 mils DFT/coat.

2. Gypsum board walls, previously painted: Latex, Eggshell: One (1) coat S-W ProMar 200 Interior Latex Eg-Shel Enamel B20W2200 Series, 1.3 mils DFT/coat.

3. Concrete block: Latex, Semi-Gloss: One (1) coat S-W ProMar 200 Interior Latex Semi-Gloss Enamel B31W2200 Series, 1.5 mils DFT/coat.

4. Door frames: Acrylic, Semi-Gloss: One (1) coat S-W Zero VOC Acrylic, Semi-Gloss Enamel B66-600 Series, 1.5 mils DFT/coat.

End of Section