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SECTION 01000 - GENERAL REQUIREMENTS
GENERAL REQUIREMENTS
1. GENERAL CONDITIONS WILL BE AS NEGOTIATED AND AGREED TO, TO MEET THE REQUIREMENTS OF THIS PROJECT.
2. CONTRACTOR SHALL COMPLETE THE BUILDING PERMIT APPLICATION PROCESS AND OBTAIN THE BUILDING PERMIT. CONTRACTOR WILL BE RESPONSIBLE FOR PICKING UP THE PERMIT AND PAY ANY OUTSTANDING FEES.
3. CONTRACTOR SHALL CARRY PROJECT TO 100% COMPLETION AND PROCURE FOR THE OWNER A FINAL, PERMANENT CERTIFICATE OF OCCUPANCY FROM CHARLOTTE-MECKLENBURG CODE ENFORCEMENT PRIOR TO FINAL PAYMENT.
4. PROVIDE A ONE-YEAR LABOR, MATERIALS AND SYSTEMS WARRANTY ON THE ENTIRE PROJECT. PROVIDE THE FOLLOWING COMPONENT WARRANTIES
- 20 YEAR MANUFACTURERS ROOF WARRANTY. THE ROOFER SHALL BE RESPONSIBLE FOR AND WARRANT ALL BLOCKING, FLASHING, DRIP EDGES, FELTS, INSULATION, ETC. THAT ARE PART OF OR NECESSARY FOR THE ROOFING SYSTEMS, REFER TO ROOF SECTION.
- HVAC UNIT WARRANTY AS REQUIRED IN THE MECHANICAL AND PLUMBING DOCUMENTS.
- MANUFACTURERS WARRANTY ON DOORS AND HARDWARE.
- PROVIDE INDUSTRY STANDARD TERMITE WARRANTY BY APPLICATOR CERTIFYING TERMITE WORK WILL PREVENT INFESTATION. WARRANTY SHALL STATE THAT IF DAMAGE IS DISCOVERED DURING THE WARRANTY PERIOD, DAMAGE WILL BE REPAIRED AT NO COST TO OWNER. WARRANTIES SHALL COMMENCE AT SUBSTANTIAL COMPLETION. SUBSTANTIAL COMPLETION IS DEFINED AS THE DATE THE OWNER MAY OCCUPY THE STRUCTURE FOR ITS INTENDED USE.
5. THE PROJECT IS TURNKEY, FULLY COMPLETE AND READY FOR OWNER MOVE IN AND MUST BE BID AS SUCH WITH THE EXCEPTION OF OWNER PROVIDED EQUIPMENT AS NOTED. CONTRACTOR IS REQUIRED TO COORDINATE THE DELIVERY, STORAGE AND INSTALLATION OF ALL OWNER PROVIDED EQUIPMENT.
6. AMBIGUITY, CONFLICTS OR MISINFORMATION WITHIN THE DRAWINGS MUST EITHER BE CLARIFIED BY F&D/INTEGRA PRIOR TO RECEIPT OF PROPOSALS FROM SUBS, SUPPLIERS, VENDORS OR BIDDER AND CONTRACTOR MUST ASSUME THAT THEY WILL PROVIDE, AT NO INCREASE IN COST TO OWNER OR USE OF ANY CONTINGENCY, THE HIGHER QUALITY PRODUCT, GREATER QUANTITY OF MATERIALS OR MORE LABOR INTENSE (THUS MORE EXPENSIVE) INSTALLATION.
7. PROVIDE ALL NECESSARY TEMPORARY FACILITIES FOR CREWS INCLUDING WATER, SANITARY, ETC.
8. CONTRACTOR SHALL SUBMIT AN ITEMIZED SCHEDULE OF VALUES WHICH WILL BE ADJUSTED MONTHLY AND ACCOMPANY THE PAY APPLICATION. AT THE COMMENCEMENT OF THE PROJECT, CONTRACTOR SHALL SUBMIT A SCHEDULE OF PROJECTED MONTHLY DRAWS FOR DURATION OF PROJECT. SEE ADDITIONAL CONDITIONS BY OWNER IN BID MATERIALS.
9. PAYMENTS TO CONTRACTOR ARE TO BE MADE ON A MONTHLY BASIS BASED ON WORK COMPLETED AND IN PLACE, LESS RETAINAGE. ON THE 25TH OF THE MONTH, CONTRACTOR SHALL SUBMIT A DRAFT APPLICATION FOR PAYMENT TO F&D/INTEGRA FOR REVIEW AND COMMENT. UPON RECEIPT OF THIS DRAFT, IT SHALL BE REVIEWED AND COMMENTS RETURNED TO CONTRACTOR FOR EITHER DISCUSSION OR INCLUSION OF CHANGES IN THE OFFICIAL, NOTARIZED PAY APPLICATION. WAIVER OF LIENS SHALL BE PROVIDED BY GC AND MAJOR SUBS/SUPPLIERS AT 50%, 75% AND 100% COMPLETE POINTS IN PROJECT.
10. DEVIATIONS FROM THESE SPECS OR DRAWINGS MUST BE CLEARLY OUTLINED IN A PROPOSAL ALONG WITH ANY COST SAVINGS THAT WOULD RESULT FROM SUCH DEVIATION.
11. CONTRACTOR SHALL CARRY A GENERAL LIABILITY POLICY ALONG WITH ALL OTHER REQUIRED COVERAGES. OVERALL INSURANCE COVERAGE FOR THE SITE AND ITS IMPROVEMENTS SHALL BE COORDINATED BETWEEN CONTRACTOR AND AMSI TO ASSURE APPROPRIATE PROTECTION FOR BOTH PARTIES.
13. TESTING COSTS SHALL BE BORNE BY OWNER. GENERAL CONTRACTOR SHALL COORDINATE TESTING AND INFORM LAB AS REQUIRED FOR FOOTING BEARING, CONCRETE, PARKING SUBGRADE AND OTHER MISCELLANEOUS TESTS. SPECIAL TESTING COSTS AS REQUIRED BY CODE SHALL BE BORNE BY THE OWNER.
14. SECURITY FOR THE BUILDING SITE DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
15. TIME IS OF THE ESSENCE ON THIS PROJECT AND OWNER OCCUPANCY OF THE BUILDING IS CRITICAL. CONTRACTOR SHALL PREPARE AND SUBMIT A SCHEDULE FOR OWNER USE WHICH SHALL BE UPDATED MONTHLY. IT SHALL CLEARLY INDICATE THE PROJECT'S CRITICAL PATH AS WELL AS ALL RELATED TASKS, INCLUDING OWNER'S EQUIPMENT VENDORS' SCHEDULING REQUIREMENTS. THE SCHEDULE SHALL BE PRESENTED IN BOTH A GRAPHIC AND TABULAR FORMAT.
16. A CRITICAL PATH SCHEDULE SHALL BE DEVELOPED INCLUDING ALL PHASES OF THE WORK, PLANNED TO MINIMIZE DISRUPTION OF THE BUSINESS. G.C. SHALL MEET WITH AMSI AND F&D/INTEGRA TO WALK THROUGH THE PHASING BEFORE SUBMITTING FINAL CP SCHEDULE.
17. THE OWNER WILL GENERATE THEIR OWN IN-HOUSE MOVE AND TRANSITION SCHEDULE BASED ON THE GENERAL CONSTRUCTION SCHEDULE. CONTRACTOR'S SCHEDULE NEEDS TO BE REALISTIC AND REFLECTIVE OF THE SCOPE OF THE PROJECT.
18. ALL PRODUCTS, MATERIALS AND SYSTEMS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
19. INTERIOR TEMPERING/CONDITIONING WILL BE REQUIRED IN THE BUILDING DURING THE CONSTRUCTION PROCESS TO ALLOW PROPER FINISH INSTALLATION/APPLICATION. DOORS AND WINDOWS MUST REMAIN CLOSED WHEN AT ALL POSSIBLE TO MINIMIZE HEAT/COOLING LOSSES. PROTECT ALL HVAC UNITS WITH TEMPORARY FILTER MEDIA AT BOTH THE INTAKE AND OUTPUT GRILLES AS WELL AS IN PERMANENT FILTER LOCATION. REPLACE ALL FILTER MEDIA FOLLOWING SUBSTANTIAL COMPLETION.
20. COORDINATE TEMPORARY AND PERMANENT POWER WITH THE APPROPRIATE PROVIDER AND CLIENT. PROVIDE TEMPORARY WIRING FOR TEMPORARY POWER AND LIGHTING TO ALLOW THE TRADES TO SAFELY AND SUCCESSFULLY COMPLETE THEIR WORK. NOTE THE REQUIREMENT FOR TRANSFORMER RELOCATION.

SECTION 011000- COORDINATION REQUIREMENTS

1. SUMMARY
TO BE AND REMAIN A COMPETITIVE CAR SALES AND SERVICE ORGANIZATION REQUIRES DESIGNING AND BUILDING A MODERN CAR SERVICE FACILITY THAT SUCCESSFULLY INTEGRATES MANY SERVICE AND REPAIR COMPONENTS FROM VARIOUS SOURCES TOGETHER INTO A CAREFULLY INTEGRATED, COORDINATED AND ASSEMBLED BUILDING. THE GENERAL CONTRACTOR IS THE LINCHPIN TO THE SUCCESS OF THIS PROCESS. THEREFORE, THE GENERAL CONTRACTOR IS REQUIRED BY THESE DOCUMENTS TO ACT AS THE SINGLE POINT OF COORDINATION ON THIS PROJECT. IT IS THEIR ROLE TO IMPLEMENT THE CONTENT AND INTENT OF THE PERMITTED CONSTRUCTION DRAWINGS IN CONJUNCTION AND IN COORDINATION WITH OWNER IDENTIFIED VENDORS, SUPPLIERS, ETC.

2. ACTIVITIES
INFORMATION ASSEMBLY- AFTER PROJECT AWARD THE OWNER WILL DIRECT THEIR VENDORS TO PROVIDE ALL TECHNICAL INFORMATION AND SHOP DRAWINGS TO THE GENERAL CONTRACTOR FOR WHAT IS TO BE INSTALLED/ PROVIDED FOR/INTEGRATED INTO THE CONSTRUCTION. GENERAL CONTRACTOR'S SUBCONTRACTORS MUST ALSO IDENTIFY THEIR INDIVIDUAL INTERFACE AND COORDINATION NEEDS WITH VENDOR EQUIPMENT.

COORDINATION DRAWINGS- GENERAL CONTRACTOR MUST DEVELOP FOR REVIEW AND APPROVAL BY OWNER AND THEIR VENDORS A DIMENSIONED COORDINATION SET FOR FIELD AND SUPPLIER USE OF SLAB, CEILING AND VERTICAL WALL FACE ITEMS/ INFRASTRUCTURE WHICH CAN BE USED BY ALL TRADES TO IDENTIFY AND CORRECT CONFLICTS BEFORE WORK BEGINS. F&D/INTEGRA WILL MAKE UNSEALED, NON-TITLE BLOCKED AUTOCAD BASE PLANS AND ELEVATIONS AVAILABLE OF THE PROJECT AREAS FOR THE CONTRACTOR TO USE FOR COORDINATION PURPOSES BETWEEN THEMSELVES, THEIR SUBS AND THE SUPPLIERS/VENDORS. THESE PLANS ARE SUBJECT TO CONTRACTOR VERIFICATION AGAINST WHAT IS BUILT IN THE FIELD.

3. AREAS OF CONCERN

TO INCLUDE BUT ARE NOT LIMITED TO:

SLAB/ UNDERSLAB-
LOCATION AND PLACEMENT OF LIFTS (NOTE GC PROVIDED STABILIZING CONC COLLAR) AND CONNECTIONS
LOCATION AND ROUTING OF VEHICLE EXHAUST CAPTURE SYSTEM(S) AND COMPONENTS
PITS/ FLOOR DRAINS/ SLOPED FLOORS
FLOOR BOXES AND CLEAN OUTS
FLOOR TO VERTICAL WALL PATHWAYS/ CONDUITS/ PIPING
UNDERSLAB PIPING, CONDUIT, CONCEALED UNDERSLAB SYSTEMS ETC

CEILINGS--
STEEL JOISTS MUST BE DESIGNED AND FABRICATED TO ACCOMMODATE BOTH SUSPENDED POINT LOADS AND ROOF TOP MOUNTED EQUIPMENT LOADS IN COMPLIANCE WITH CODES.

MECHANICAL UNITS AND DUCT LOCATIONS/ WEIGHTS/ ATTACHMENT METHODS
LIGHT FIXTURES AND ATTACHMENT METHODS
ROUTING OF EXPOSED CONDUIT AND PIPING SHALL BE GROUPED AND APPEAR COORDINATED, AND THEREFORE MAY HAVE SUPPORT POINTS
VENDOR PROVIDED AND INSTALLED HOSE REELS (AND LIQUID WEIGHT) AND SIMILAR SIGNIFICANT RUNS OF VENDOR CONDUIT/PIPING
SENSORS OR SIMILAR DEVICES

WALLS- DUE TO CONCRETE AND CMU CONSTRUCTION IN MOST AREAS COORDINATION OF ELECTRICAL/ DATA AND PLUMBING MUST BE PLANNED PRIOR TO CONSTRUCTION AND WITH FULL INVOLVEMENT OF MASON. SUBCONTRACTORS MUST EXAMINE AND UTILIZE PLAN, ELEVATION AND SECTION DRAWINGS OF THE BID SET TO PROPERLY COORDINATE AND IDENTIFY CONFLICTS. THIS INCLUDES HIGH SPEED DOORS, CONTROLS, SENSORS, WIRELESS [illegible]ES, APPLIANCES, WORKBENCH SYSTEMS, CASEWORK SUPPORTED EQUIPMENT, ETC.

MEETINGS: THE GENERAL CONTRACTOR SHALL ARRANGE, MANAGE AND RECORD COORDINATION MEETINGS BETWEEN OWNER SYSTEMS VENDORS, SUPPLIERS AND COMPONENTS REPRESENTATIVES AND THE BUILDING CONSTRUCTION TEAM (INCLUDING SUBS). THESE MEETINGS MUST OCCUR PRIOR TO CONSTRUCTION IN AREAS WHERE INSTALLATION OF SYSTEMS AND MATERIALS IS TO OCCUR.

SECTION 024119 - SELECTIVE DEMOLITION
PART 1 - GENERAL
RELATED DOCUMENTS: DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL DIVISIONS OF THE TECHNICAL SPECIFICATIONS, APPLY TO THIS SECTION.
1.2 SUMMARY: THIS SECTION INCLUDES THE FOLLOWING:
1. DEMOLITION AND REMOVAL OF SELECTED PORTIONS OF A BUILDING OR STRUCTURE AS INDICATED ON THE DRAWINGS.
2. REPAIR PROCEDURES FOR SELECTIVE DEMOLITION OPERATIONS.
1.3 MATERIALS OWNERSHIP:
EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN OWNER'S PROPERTY, DEMOLISHED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE.
1.4 QUALITY ASSURANCE
1. DEMOLITION FIRM QUALIFICATIONS: AN EXPERIENCED FIRM THAT HAS SPECIALIZED IN DEMOLITION WORK SIMILAR IN MATERIAL AND EXTENT TO THAT INDICATED FOR THIS PROJECT.
2. REGULATORY REQUIREMENTS: COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE BEGINNING SELECTIVE DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
3. STANDARDS: COMPLY WITH ANSI A10.6 AND NFPA 241.
1.5 PROJECT CONDITIONS
THE PROJECT TENANT SPACE IS VACANT AND WILL NOT BE OCCUPIED UNTIL COMPLETION OF THIS PROJECT AND A CERTIFICATE OF OCCUPANCY HAS BEEN ISSUED. OWNER ASSUMES NO RESPONSIBILITY FOR CONDITION OF AREAS TO BE SELECTIVELY DEMOLISHED. STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE WILL NOT BE PERMITTED. MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. MAINTAIN FIRE-PROTECTION FACILITIES IN SERVICE DURING SELECTIVE DEMOLITION OPERATIONS. SHUTDOWNS OR INTERRUPTIONS MUST BE COORDINATED 72 HOURS IN ADVANCE. ALL REQUIRED CONCRETE SAW-CUTTING SHALL BE PERFORMED DURING NORMAL WORKING HOURS OF BUSINESS. EXISTING WALLS AND SURROUNDING AREAS MUST BE PROTECTED FROM DIRT, DUST, DEBRIS AND WATER FROM THE SAW-CUTTING. ALL EXITS SHALL BE MAINTAINED AND UNOBSTRUCTED AT ALL TIMES DURING THE PROJECT.
PART 2 - PRODUCTS:
2.1 REPAIR MATERIALS: USE REPAIR MATERIALS IDENTICAL TO EXISTING MATERIALS. IF IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED FOR EXPOSED SURFACES, USE MATERIALS THAT VISUALLY MATCH EXISTING ADJACENT SURFACES TO THE FULLEST EXTENT POSSIBLE. USE MATERIALS WHOSE INSTALLED PERFORMANCE EQUALS OR SURPASSES THAT OF EXISTING MATERIALS. COMPLY WITH MATERIAL AND INSTALLATION REQUIREMENTS SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS OR PER MANUFACTURER'S INSTRUCTIONS.
PART 3 - EXECUTION:
3.1 EXAMINATION:
A. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED PRIOR TO ANY DEMOLITION.
B. SURVEY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
C. INVENTORY AND RECORD THE CONDITION OF ITEMS TO BE REMOVED AND REINSTALLED AND ITEMS TO BE REMOVED AND SALVAGED.
D. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF CONFLICT. PROMPTLY SUBMIT A WRITTEN RFI TO F&D/INTEGRA ARCHITECTURE.
E. THE CONSULTANT SHALL BE IMMEDIATELY NOTIFIED DURING SELECTIVE DEMOLITION IF THE CONTRACTOR DETERMINES THAT THE REMOVAL OF ANY ELEMENT MAY RESULT IN A STRUCTURAL DEFICIENCY OF ANY PORTION OF THE STRUCTURE OR ADJACENT STRUCTURE.
F. PERFORM SURVEYS AS THE WORK PROGRESSES TO DETECT HAZARDS RESULTING FROM SELECTIVE DEMOLITION ACTIVITIES.
3.2 UTILITY SERVICES:
EXISTING UTILITIES: MAINTAIN SERVICES INDICATED TO REMAIN AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES UNLESS AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO AUTHORITIES HAVING JURISDICTION. PROVIDE AT LEAST 7 DAYS NOTICE TO OWNER IF SHUTDOWN OF SERVICE IS REQUIRED DURING CHANGE OVER.
3.3 PREPARATION:
TEMPORARY FACILITIES: PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE (EMPLOYEES AND PUBLIC) AND DAMAGE TO ADJACENT MATERIALS AND FINISHES TO REMAIN. PROTECT WALLS, CEILINGS, FLOORS, AND OTHER EXISTING FINISH WORK THAT ARE TO REMAIN OR THAT ARE EXPOSED DURING SELECTIVE DEMOLITION OPERATIONS. PROVIDE TEMPORARY ENCLOSURES AS REQUIRED TO SECURE THE SPACE DURING CONSTRUCTION, FROM CONSTRUCTION OPERATIONS AND SIMILAR ACTIVITIES.
3.4 POLLUTION CONTROLS:
DISPOSAL: REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
3.5 SELECTIVE DEMOLITION:
DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS AND AS FOLLOWS:
1. PROCEED WITH SELECTIVE DEMOLITION SYSTEMATICALLY, FROM HIGHER TO LOWER LEVEL. COMPLETE SELECTIVE DEMOLITION OPERATIONS ABOVE EACH FLOOR OR TIER BEFORE DISTURBING SUPPORTING MEMBERS ON THE NEXT LOWER LEVEL. NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. USE HAND TOOLS OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING, TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES. TEMPORARILY COVER OPENINGS TO REMAIN.
2. CUT OR DRILL FROM THE EXPOSED OR FINISHED SIDE INTO CONCEALED SURFACES TO AVOID MARRING EXISTING FINISHED SURFACES.
3. DISPOSE OF DEMOLISHED ITEMS AND MATERIALS PROMPTLY.
4. RETURN ELEMENTS OF CONSTRUCTION AND SURFACES THAT ARE TO REMAIN TO CONDITION EXISTING BEFORE SELECTIVE DEMOLITION OPERATIONS BEGAN.
5. EXISTING FACILITIES: COMPLY WITH BUILDING MANAGER'S REQUIREMENTS FOR USING AND PROTECTING WALKWAYS, LOADING DOCKS, BUILDING ENTRIES, VESTIBULES AND OTHER BUILDING FACILITIES DURING SELECTIVE DEMOLITION OPERATIONS.
6. REMOVED AND SALVAGED ITEMS: COMPLY WITH THE FOLLOWING:
A. CLEAN SALVAGED ITEMS.
B. PACK OR CRATE ITEMS AFTER CLEANING. IDENTIFY CONTENTS OF CONTAINERS.
C. STORE ITEMS IN A SECURE AREA UNTIL DELIVERY TO OWNER.
D. PROTECT ITEMS FROM DAMAGE DURING TRANSPORT AND STORAGE.
7. REMOVED AND REINSTALLED ITEMS: COMPLY WITH THE FOLLOWING:
A. CLEAN AND REPAIR ITEMS TO FUNCTIONAL CONDITION ADEQUATE FOR INTENDED REUSE.
B. PACK OR CRATE ITEMS AFTER CLEANING AND REPAIRING. IDENTIFY CONTENTS OF CONTAINERS.
C. PROTECT ITEMS FROM DAMAGE DURING TRANSPORT AND STORAGE.
D. REINSTALL ITEMS IN LOCATIONS INDICATED. COMPLY WITH INSTALLATION REQUIREMENTS FOR NEW MATERIALS AND EQUIPMENT. PROVIDE CONNECTIONS, SUPPORTS, AND MISCELLANEOUS MATERIALS NECESSARY TO MAKE ITEM FUNCTIONAL FOR USE INDICATED.
3.6 PATCHING AND REPAIRS:
GENERAL: PROMPTLY REPAIR DAMAGE TO ADJACENT CONSTRUCTION CAUSED BY SELECTIVE DEMOLITION OPERATIONS.
3.7 DISPOSAL OF DEMOLISHED MATERIALS:
COMPLY WITH REGULATORY AGENCIES FOR PROPER DISPOSAL METHODS.
SECTION 033000 CAST-IN-PLACE CONCRETE
1.0 CONCRETE REPAIR
PROVIDE CONCRETE INFILL WHERE EXISTING SLAB WAS REMOVED DURING DEMOLITION WORK OR FOR THE INSTALLATION OF NEW SYSTEMS UNDER THE CONCRETE SLAB.
INSPECT AND PREPARE TRENCH AND CUT SLAB SURFACES FOR LOOSE MATERIAL, DEBRIS AND FOREIGN MATERIAL WHICH COULD INTERFERE WITH THE BONDING OF THE NEW CONCRETE INFILL. CLEAN BONDING SURFACE WITH WIRE BRUSH. PROVIDE MINIMUM 2" COVERAGE OF COMPACTED STONE BACKFILL OVER ALL PIPES AND\OR CONDUITS. CONCRETE AND THE REINFORCEMENT SHALL BE PLACED IN ACCORDANCE WITH PREVAILING CODES. REINFORCEMENT SHALL CONFORM TO ASTM A 615, GRADE 60 WITH A YIELD STRENGTH OF 60,000 PSI. ANY PORTION OF SLAB UNDERMINED SHALL HAVE CONCRETE CAST TO REPLACE SOIL. PATCH THE EXISTING UNDER-SLAB VAPOR BARRIER. OVERLAP JOINTS MIN. 6". TAPE JOINT WITH APPROPRIATE SEAM TAPE. ALL CONCRETE WORK SHALL CONFORM WITH STANDARDS SET FOR IN ACI. ALL CONCRETE SURFACES SHALL BE COATED WITH A CURING OR SEALING COMPOUND THAT IS WATER SOLUBLE AND ODORLESS, MEETING THE RETENTION REQUIREMENTS OF ASTM C309 SUCH AS SONOSIL AS MANUFACTURED BY SONNEBORN OR APPROVED EQUAL. FOLLOW ACI STANDARDS FOR THE FABRICATION AND PLACEMENT OF REINFORCING. PRE-DRILL EXISTING SLAB WITH 5/8" DIA. HOLE, MIN. 12" DEEP, BOTH SIDES @ 24" O.C. THE LENGTH OF THE TRENCH. EPOXY A #4 REBAR, MIN. 24" LONG, INTO EACH HOLE MIN. 10" EMBEDMENT. REBAR SHALL BE MIN. 2" ABOVE THE BOTTOM OF THE EXISTING SLAB. APPLY BONDING AGENT TO THE EXISTING SURFACE PER MANUFACTURER'S INSTRUCTIONS. USE LATEX BONDING AGENT ONLY FOR NON-LOAD-BEARING APPLICATIONS. USE EPOXY BONDING SYSTEM FOR BONDING TO DAMP SURFACES FOR STRUCTURAL LOAD BEARING APPLICATION. CONCRETE TO BE MINIMUM 28 DAY CONCRETE STRENGTH 3000 PSI (150 PCF), 3" TO 5" SLUMP. POUR 3000 PSI CONCRETE INTO TRENCH OR AREA WHERE CONCRETE IS TO BE REPLACED. NEW CONCRETE SHALL BE SMOOTH STEEL TROWEL FINISH, MINIMIZING BURNISH MARKS AND OTHER APPEARANCE DEFECTS. NEW CONCRETE SHALL BE FLUSH WITH EXISTING ADJACENT CONCRETE SURFACES.
WHERE FLOOR DRAINS ARE INSTALLED, DEPRESS CONCRETE AROUND THE FLOOR DRAIN TO PITCH THE SURFACE UNIFORMLY TOWARD THE DRAIN.

SECTION 030500 - CONCRETE SEALER (POLISHED CONCRETE)
2.1 MANUFACTURER
A. THE EUCLID CHEMICAL COMPANY, 19218 REDWOOD ROAD, CLEVELAND, OHIO 44110. TOLL FREE (800)321-7628. PHONE (216) 531-9222. FAX (216) 531-9596. WEB SITE WWW.EUCLIDCHEMICAL.COM.
2.2 MATERIALS
A. CONCRETE SEALER: EUCO DIAMOND HARD LIQUID DENSIFIER AND SEALER.
1. TYPE: CLEAR, WATER-BASED, BLEND OF SILICONATE POLYMERS.
2. COMPLIANCE:
A. MEETS MAXIMUM VOC CONTENT OF 400 G/L IN ACCORDANCE WITH EPA 40 CFR PART 59, TABLE 1, SUBPART D FOR CONCRETE PROTECTIVE COATINGS.
B. MEETS CALIFORNIA AND NEW JERSEY AIR QUALITY STANDARDS.
3. VOC CONTENT: 0 G/L.
4. USDA APPROVED.
5. ULTRAVIOLET RESISTANT.
6. BLUSH RESISTANT.
7. NON-YELLOWING.
8. NO ODOR.
9. PENETRATING.
PART 3 EXECUTION
INSTALL PER MANUFACTURER'S INSTRUCTIONS.
SECTION [illegible] CONCRETE SEALER (FOR NON-POLISHED CONCRETE)
SEE MATERIAL AND COLOR LEGEND SHEETS. PRODUCTS SHALL BE INSTALLED IN FULL ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

SECTION 0305[illegible] - CONCRETE CURING COMPOUNDS (FOR UNPOLISHED CONCRETE)
2.1 MANUFACTURER
A. THE EUCLID CHEMICAL COMPANY, 19218 REDWOOD ROAD, CLEVELAND, OHIO 44110. TOLL FREE (800)321-7628. PHONE (216) 531-9222. FAX (216) 531-9596. WEB SITE WWW.EUCLIDCHEMICAL.COM.
1.2 MATERIALS
A. VOC COMPLIANT CONCRETE CURING COMPOUND: KUREZ DR VOX
VOC-COMPLIANT CURING COMPOUND.
1. TYPE: HYDROCARBON RESINS.
2. COMPLIANCE:
A. ASTM C 309, TYPE 1 AND 1D, CLASS A AND B.
B. AASHTO M 148, TYPE 1, CLASS A AND B.
C. MEETS MAXIMUM VOC CONTENT OF 350 G/L IN ACCORDANCE WITH EPA 40 CFR PART 59, TABLE 1, SUBPART D FOR CONCRETE CURING COMPOUNDS.
D. MEETS CALIFORNIA AND NEW JERSEY AIR QUALITY STANDARDS.
3. VOC CONTENT: 330 G/L.
4. USDA APPROVED.
5. REDUCED ODOR.
PART 3 EXECUTION
INSTALL PER MANUFACTURER'S INSTRUCTIONS
SECTION 033650 - POLISHED CONCRETE FINISHING
PART 1GENERAL
1.01 SUMMARY
A. SECTION INCLUDES: THIS SECTION SPECIFIES POLISHED CONCRETE.
B. RELATED SECTIONS:
1. MAINTENANCE OF CAST-IN-PLACE CONCRETE
2. CAST-IN-PLACE CONCRETE
3. JOINT FILLERS
REFERENCES
C. AMERICAN CONCRETE INSTITUTE (ACI):
1. ACI 302.1R GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.
D. ASTM INTERNATIONAL:
1. ASTM C309 STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE.
2. ASTM C171 STANDARD SPECIFICATION FOR SHEET MATERIALS FOR CURING CONCRETE.
3. ASTM C779 STANDARD TEST METHOD FOR ABRASION RESISTANCE OF HORIZONTAL CONCRETE SURFACES.
E. NATIONAL FLOOR SAFETY INSTITUTE (NFSI):
1. NFSI TEST METHOD 101-A STANDARD FOR EVALUATING HIGH-TRACTION FLOORING MATERIALS, COATINGS, AND FINISHES.
1.02 SYSTEM DESCRIPTION
A. PERFORMANCE REQUIREMENTS: PROVIDE POLISHED FLOORING THAT HAS BEEN SELECTED, MANUFACTURED AND INSTALLED TO ACHIEVE THE FOLLOWING:
1. ABRASION RESISTANCE: ASTM C779, METHOD A, HIGH RESISTANCE, NO MORE THAN 0.008 INCH (0.20 MM) WEAR IN 30 MINUTES.
2. REFLECTIVITY: INCREASE OF 35% AS DETERMINED BY STANDARD GLOSS METER.
3. WATERPROOF PROPERTIES: RILEM TEST METHOD 11.4, 70% OR GREATER REDUCTION IN ABSORPTION.
4. HIGH TRACTION RATING: NFSI 101-A, NON-SLIP PROPERTIES.
B. DESIGN REQUIREMENTS:
5. HARDENED CONCRETE PROPERTIES:
a. MINIMUM CONCRETE COMPRESSIVE STRENGTH: 3500 PSI (24 MPA).
b. NORMAL WEIGHT CONCRETE: NO LIGHTWEIGHT AGGREGATE.
c. NON-AIR ENTRAINED.
2. PLACEMENT PROPERTIES:
a. NATURAL CONCRETE SLUMP OF 4 1/2 INCHES - 5 INCHES (114 - 127 MM). ADMIXTURES MAY BE USED.
b. FLATNESS REQUIREMENTS:
1) OVERALL FF 40.
2) LOCAL FF 20.
3. HARD-STEEL TROWELED (3 PASSES) CONCRETE: NO BURN MARKS. FINISH TO ACI 302.1R, CLASS 5 FLOOR.
4. CURING OPTIONS:
a. MEMBRANE FORMING CURING COMPOUNDS (ASTM C309, TYPE 1, CLASS B, ALL RESIN, DISSIPATING CURE).
1) ACRYLIC CURING AND SEALING COMPOUNDS NOT ALLOWED.
b. SHEET MEMBRANE (ASTM C171); POLYETHYLENE FILM NOT ALLOWED.
c. DAMP CURING: SEVEN DAY CURE.
1.03 ACTION SUBMITTALS
A. GENERAL: SUBMIT LISTED ACTION SUBMITTALS IN ACCORDANCE WITH CONTRACT CONDITIONS AND SUBMITTAL PROCEDURES.
B. SHOP DRAWINGS: INDICATE INFORMATION ON SHOP DRAWINGS AS FOLLOWS:
1. TYPICAL LAYOUT INCLUDING DIMENSIONS AND FLOOR GRINDING SCHEDULE.
2. PLAN VIEW OF FLOOR AND JOINT PATTERN LAYOUT.
3. AREAS TO RECEIVE COLORED SURFACE TREATMENT.
4. HARDENER, SEALER, DENSIFIER IN NOTES.
C. PRODUCT DATA: SUBMIT PRODUCT DATA, INCLUDING MANUFACTURER'S SPEC-DATA® PRODUCT SHEET, FOR SPECIFIED PRODUCTS.
1. MATERIAL SAFETY DATA SHEETS (MSDS).
2. PREPARATION AND CONCRETE GRINDING PROCEDURES.
3. COLORED CONCRETE SURFACE, DYE SELECTION GUIDES.
1.04 REQUIRED INFORMATION SUBMITTALS
A. QUALITY ASSURANCE:
1. TEST REPORTS: CERTIFIED TEST REPORTS SHOWING COMPLIANCE WITH SPECIFIED PERFORMANCE CHARACTERISTICS AND PHYSICAL PROPERTIES OF ALL MATERIALS, PRODUCTS AND APPLICATION PROCEDURES.
2. CERTIFICATES:
a. PRODUCT CERTIFICATES SIGNED BY MANUFACTURER CERTIFYING MATERIALS COMPLY WITH SPECIFIED PERFORMANCE CHARACTERISTICS AND CRITERIA AND PHYSICAL REQUIREMENTS.
b. LETTER OF CERTIFICATION FROM THE NATIONAL FLOOR SAFETY INSTITUTE CONFIRMING THE SYSTEM HAS BEEN TESTED AND PASSED PHASE TWO LEVEL OF CERTIFICATION WHEN TESTED BY METHOD 101-A.
c. CURRENT CONTRACTOR'S CERTIFICATE SIGNED BY MANUFACTURER DECLARING CONTRACTOR AS AN APPROVED INSTALLER OF POLISHING SYSTEM.
3. MANUFACTURER'S INSTRUCTIONS: MANUFACTURER'S INSTALLATION INSTRUCTIONS.
1.05 CLOSEOUT SUBMITTALS
A. WARRANTY: SUBMIT WARRANTY DOCUMENTS SPECIFIED.
B. OPERATION AND MAINTENANCE DATA: SUBMIT OPERATION AND MAINTENANCE DATA FOR INSTALLED PRODUCTS IN ACCORDANCE WITH APPLICABLE SECTIONS OF THIS PROJECT MANUAL.
1. INCLUDE:
a. MANUFACTURER'S INSTRUCTIONS ON MAINTENANCE RENEWAL OF APPLIED TREATMENTS.
b. MANUFACTURER'S INSTRUCTIONS ON DAILY OR WEEKLY GENERAL MAINTENANCE.
c. PROTOCOLS AND PRODUCT SPECIFICATIONS FOR JOINT FILLING, CRACK REPAIR AND/OR SURFACE REPAIR.
1.06 QUALITY ASSURANCE
A. QUALIFICATIONS:
1. INSTALLER EXPERIENCED IN PERFORMING WORK OF THIS SECTION WHO HAS SPECIALIZED IN INSTALLATION OF WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
2. INSTALLER TRAINED AND HOLDING CURRENT CERTIFICATION FOR FGS PERMASHINE INSTALLATION.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER CAPABLE OF PROVIDING FIELD SERVICE REPRESENTATION DURING CONSTRUCTION AND APPROVING APPLICATION METHOD.
B. REGULATORY REQUIREMENTS.
1. NFSI TEST METHOD 101-A PHASE TWO LEVEL HIGH TRACTION MATERIAL.
C. MOCK-UPS:
1. CONSTRUCT MOCK-UPS IN ACCORDANCE WITH QUALITY CONTROL SECTION OF THIS SPEC.
2. MOCK-UP SIZE: 4 FOOT BY 4 FOOT SAMPLE PANEL AT JOBSITE AT LOCATION AS DIRECTED UNDER CONDITIONS SIMILAR TO THOSE WHICH WILL EXIST DURING ACTUAL PLACEMENT. (ONE SAMPLE WILL SUFFICE FOR BOTH SITES.)
3. MOCK-UP WILL BE USED TO JUDGE WORKMANSHIP, CONCRETE SUBSTRATE PREPARATION, OPERATION OF EQUIPMENT, MATERIAL APPLICATION, COLOR SELECTION AND SHINE.
4. ALLOW 48 HOURS FOR INSPECTION OF MOCK-UP BEFORE PROCEEDING WITH WORK.
5. WHEN ACCEPTED, MOCK-UP WILL DEMONSTRATE MINIMUM STANDARD OF QUALITY REQUIRED FOR THIS WORK. APPROVED MOCK-UP MAY REMAIN AS PART OF FINISHED WORK. IF THE MOCKUP IS FREESTANDING OR REMOTE CONTRACTOR SHALL REMOVE THE MOCK-UP AND DISPOSE OF MATERIALS WHEN NO LONGER REQUIRED AND WHEN DIRECTED BY THE OWNER REPRESENTATIVE MILES BRASWELL.
D. PREINSTALLATION MEETINGS: CONDUCT A PREINSTALLATION MEETING TO VERIFY PROJECT REQUIREMENTS, MANUFACTURER'S INSTALLATION INSTRUCTIONS AND MANUFACTURER'S WARRANTY REQUIREMENTS. REPRESENTATIVES OF ALL MAJOR SUBS SHALL BE PRESENT FOR THIS MEETING SINCE THEY WILL BE HELD RESPONSIBLE FOR PROTECTING THE FLOOR FROM DAMAGE DONE BY THEIR CREWS DURING THEIR RESPECTIVE WORK. REVIEW THE FOLLOWING:
1. PROTECTION OF SLAB PRIOR TO POLISHING
2. ENVIRONMENTAL REQUIREMENTS.
3. SCHEDULING AND PHASING OF WORK FOR BOTH SITES.
4. COORDINATING WITH OTHER WORK AND PERSONNEL.
5. PROTECTION OF ADJACENT SURFACES.
6. SURFACE PREPARATION.
7. REPAIR OF DEFECTS AND DEFECTIVE WORK PRIOR TO INSTALLATION.
8. CLEANING.
9. INSTALLATION OF POLISHED FLOOR FINISHES.
10. APPLICATION OF LIQUID HARDENER, DENSIFIER.
11. PROTECTION OF FINISHED SURFACES AFTER INSTALLATION.
1.07 DELIVERY, STORAGE & HANDLING
A. GENERAL: COMPLY WITH- COMMON PRODUCT REQUIREMENTS. OWNER SHALL NEVER ACT AS RECEIVING AGENT NOR SHALL THEY BE RESPONSIBLE FOR COORDINATING THE DELIVERY, RECEIPT AND DISTRIBUTION OF MATERIALS DELIVERED TO THE SITE ON BEHALF OF THE CONTRACTOR, ANY OF THEIR SUBS, SUPPLIERS OR VENDORS.
B. ORDERING: COMPLY WITH MANUFACTURER'S ORDERING INSTRUCTIONS AND LEAD TIME REQUIREMENTS TO AVOID CONSTRUCTION DELAYS.
C. DELIVERY:
1. DELIVER MATERIALS IN MANUFACTURER'S ORIGINAL PACKAGING WITH IDENTIFICATION LABELS AND SEALS INTACT.
D. STORAGE AND PROTECTION:
1. STORE MATERIALS PROTECTED FROM EXPOSURE TO HARMFUL WEATHER CONDITIONS AND AT TEMPERATURE CONDITIONS RECOMMENDED BY MANUFACTURER.
2. PROTECT CONCRETE SLAB.
a. PROTECT FROM PETROLEUM OR LUBRICANT STAINS DURING CONSTRUCTION.
b. DIAPER HYDRAULIC POWER EQUIPMENT.
c. RESTRICT USE OF PIPE CUTTING MACHINERY TO AREAS WHERE THERE ARE NO CONCRETE SLABS.
d. RESTRICT PLACEMENT OF REINFORCING STEEL ON SLAB.
e. RESTRICT USE OF ACIDS OR ACIDIC DETERGENTS ON SLAB.
f. NO CARBON STEEL SCAFFOLDING, BLOCKING ETC. MAY BE PLACED DIRECTLY ON THE FINISHED SLAB. IT MUST BE SEPARATED FROM THE CONCRETE WITH [illegible]
E. WASTE MANAGEMENT AND DISPOSAL:
1. SEPARATE WASTE MATERIALS FOR REUSE AND RECYCLING TO AS GREAT AND EXTENT AS POSSIBLE IN COORDINATION WITH THE GENERAL CONTRACTOR.
2. REMOVE FROM SITE AND DISPOSE OF PACKAGING MATERIALS AT APPROPRIATE RECYCLING FACILITIES.
1.08 PROJECT AMBIENT CONDITIONS
A. INSTALLATION LOCATION: COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
1.09 SEQUENCING
A. SEQUENCE WITH OTHER WORK: COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR SEQUENCING CONSTRUCTION OPERATIONS.
1.010 WARRANTY
A. PROJECT WARRANTY: REFER TO CONTRACT CONDITIONS FOR PROJECT WARRANTY PROVISIONS.
B. MANUFACTURER'S WARRANTY: SUBMIT, FOR OWNER'S ACCEPTANCE, MANUFACTURER'S STANDARD 20 YEAR WARRANTY DOCUMENT EXECUTED BY AUTHORIZED COMPANY OFFICIAL. MANUFACTURER'S WARRANTY IS IN ADDITION TO, AND DOES NOT LIMIT, OTHER RIGHTS OWNER MAY HAVE UNDER CONTRACT DOCUMENTS.
C. WARRANTY: COMMENCING ON DATE OF PROJECT SUBSTANTIAL COMPLETION BY OWNER.
1.011 MAINTENANCE
A. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS TO MAINTAIN INSTALLED PRODUCT.
1.012 EXTRA MATERIALS
A. GENERAL CONTRACTOR TO PROVIDE MAINTENANCE MATERIALS IN ACCORDANCE WITH SECTION ADDRESSING CLOSEOUT SUBMITTALS.
PART 2PRODUCTS
2.01 MANUFACTURERS
A. ENSURE MANUFACTURER HAS MINIMUM FIVE YEARS EXPERIENCE IN MANUFACTURING COMPONENTS SIMILAR TO OR EXCEEDING REQUIREMENTS OF PROJECT.
2.02 POLISHED CONCRETE FINISHING PRODUCTS: PRODUCTS LISTED BELOW ARE INTENDED TO ONLY SET PERFORMANCE STANDARDS. ALTERNATIVES TO THOSE LISTED WILL BE ACCEPTED FOLLOWING CONTRACTOR SUBMITTAL AND ARCHITECT REVIEW AND APPROVAL THAT CONFIRMS THEY COMPLY WITH THE INTENDED PERFORMANCE REQUIREMENTS.
A. MANUFACTURER: L & M CONSTRUCTION CHEMICALS, INC. OR APPROVED EQUAL.
1. CONTACT: 14851 CALHOUN RD., OMAHA, NE 68152-1140; TELEPHONE: (800) 362-3331
B. PRODUCTS/SYSTEMS:
1. HARDENER, SEALER, DENSIFIER: PROPRIETARY, WATER BASED, ODORLESS LIQUID, VOC COMPLIANT, ENVIRONMENTALLY SAFE CHEMICAL HARDENING SOLUTION LEAVING NO SURFACE FILM.
a. ACCEPTABLE MATERIAL: L & M CONSTRUCTION CHEMICALS, INC., FGS HARDENER PLUS OR APPROVED EQUAL.
2. JOINT FILLER: SEMI-RIGID, 2-COMPONENT, SELF-LEVELING, 100% SOLIDS, RAPID CURING, POLYUREA CONTROL JOINT AND CRACK FILLER WITH SHORE A 80 OR HIGHER HARDNESS.
a. ACCEPTABLE MATERIAL: L & M CONSTRUCTION CHEMICALS, INC., JOINT TITE 750 OR APPROVED EQUAL.
3. OIL REPELLENT SEALER: READY TO USE, SILANE, SILOXANE AND FLUOROPOLYMERS BLENDED WATER BASED SOLUTION SEALER, QUICK DRYING, LOW-ODOR, OIL AND WATER REPELLENT, VOC COMPLIANT AND COMPATIBLE WITH CHEMICALLY HARDENED FLOORS.
a. ACCEPTABLE MATERIAL: L & M CONSTRUCTION CHEMICALS, INC., PETROTEX OR APPROVED EQUAL.
4. CONCRETE DYES: FAST-DRYING DYE, PACKAGED IN PREMEASURED UNITS READY FOR MIXING WITH VOC EXEMPT SOLVENT; FORMULATED FOR APPLICATION TO POLISHED CEMENTITIOUS SURFACES.
a. ACCEPTABLE MATERIAL: L & M CONSTRUCTION CHEMICALS, INC., VIVID CONCRETE DYES OR APPROVED EQUAL.
5. CLEANING SOLUTION: PROPRIETARY, MILD, HIGHLY CONCENTRATED LIQUID CONCRETE CLEANER AND CONDITIONER CONTAINING WETTING AND EMULSIFYING AGENTS; BIODEGRADABLE, ENVIRONMENTALLY SAFE AND CERTIFIED HIGH TRACTION BY NATIONAL FLOOR SAFETY INSTITUTE (NFSI).
a. ACCEPTABLE MATERIAL: L & M CONSTRUCTION CHEMICALS, INC., FGS CONCRETE CONDITIONER OR APPROVED EQUAL.
6. FINISH: HIGH GLOSS, 1800 GRIT.
7. COLOR: TO BE CHOSEN FROM A DYE MANUFACTURER'S STANDARD PRODUCT LINE.
2.03 SOURCE QUALITY CONTROL
A. ENSURE CONCRETE FINISHING COMPONENTS AND MATERIALS ARE FROM SINGLE MANUFACTURER.
2.04 PRODUCT SUBSTITUTIONS
A. SUBSTITUTIONS: FOLLOW APPROVED SUBSTITUTION SUBMITTAL PROCEDURES.
PART 3EXECUTION
3.01 MANUFACTURERS INSTRUCTIONS
A. COMPLIANCE: COMPLY WITH MANUFACTURER'S WRITTEN DATA, INCLUDING PRODUCT TECHNICAL BULLETINS, PRODUCT CATALOG INSTALLATION INSTRUCTIONS, PRODUCT CARTON INSTALLATION INSTRUCTIONS AND ALL APPROPRIATE SPEC-DATA SHEETS.
B. USE ONLY MANUFACTURERS FACTORY CERTIFIED APPLICTORS/INSTALLERS.
3.02 EXAMINATION
A. SITE VERIFICATION OF CONDITIONS:
1. VERIFY THAT CONCRETE SUBSTRATE CONDITIONS, WHICH HAVE BEEN PREVIOUSLY INSTALLED UNDER OTHER SECTIONS OR CONTRACTS, ARE ACCEPTABLE FOR PRODUCT INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS PRIOR TO INSTALLATION OF CONCRETE FINISHING MATERIALS.
B. VERIFY CONCRETE SLAB PERFORMANCE REQUIREMENTS:
1. VERIFY CONCRETE IS CURED TO 28 DAYS AND 3500 PSI STRENGTH UTILIZING INDEPENDENT, CERTIFIED TESTING LABORATORY.
2. VERIFY CONCRETE SURFACES RECEIVED A HARD STEEL-TROWEL FINISH (3 PASSES) DURING PLACEMENT. DO NOT "BURN" THE SURFACE OF THE CONCRETE.
3.03 PREPARATION
A. ENSURE SURFACES ARE CLEAN AND FREE OF DIRT AND OTHER FOREIGN MATTER HARMFUL TO PERFORMANCE OF CONCRETE FINISHING MATERIALS.
B. EXAMINE SURFACE TO DETERMINE SOUNDNESS OF CONCRETE FOR POLISHING.
C. GENERAL CONTRACTOR TO REMOVE SURFACE CONTAMINATION
3.04 INSTALLATION
A. FLOOR SURFACE POLISHING AND TREATMENT:
1. PROVIDE POLISHED CONCRETE FLOOR TREATMENT IN ENTIRETY OF SLAB INDICATED BY DRAWINGS. PROVIDE CONSISTENT FINISH IN ALL CONTIGUOUS AREAS.
2. APPLY FLOOR FINISH PRIOR TO INSTALLATION OF FIXTURES AND ACCESSORIES.
3. DIAMOND POLISH CONCRETE FLOOR SURFACES WITH POWER DISC MACHINE RECOMMENDED BY FLOOR FINISH MANUFACTURER. SEQUENCE WITH COARSE TO FINE GRIT USING DRY METHOD.
a. COMPLY WITH MANUFACTURER'S RECOMMENDED POLISHING GRITS FOR EACH SEQUENCE TO ACHIEVE DESIRED FINISH LEVEL. LEVEL OF SHEEN SHALL MATCH THAT OF APPROVED MOCK-UP.
b. EXPOSE AGGREGATE IN CONCRETE SURFACE ONLY AS DETERMINED BY APPROVED MOCK-UP.
c. ALL CONCRETE SURFACES SHALL BE AS UNIFORM IN APPEARANCE AS POSSIBLE.
4. DYED AND POLISHED CONCRETE (OPTION):
a. LOCATE DEMARCATION LINE BETWEEN DYED SURFACES AND OTHER FINISHES.
b. POLISH CONCRETE TO FINAL FINISH LEVEL.
c. APPLY DILUTED DYES TO POLISHED CONCRETE SURFACE.
d. ALLOW DYE TO DRY.
e. REMOVE RESIDUE WITH DRY BUFFER; REAPPLY AS NECESSARY FOR DESIRED RESULT.
5. APPLY FGS HARDENER PLUS, HARDENER, DENSIFIER AS FOLLOWS:
a. FIRST COAT AT 250 FT2/GAL SECOND COAT AT 350 FT2/GAL
b. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR DRYING TIME BETWEEN SUCCESSIVE COATS.
6. REMOVE DEFECTS AND REPOLISH DEFECTIVE AREAS.
7. FINISH EDGES OF FLOOR FINISH ADJOINING OTHER MATERIALS IN A CLEAN AND SHARP MANNER.
3.05 ADJUSTMENTS
A. POLISH TO HIGHER GLOSS THOSE AREAS NOT MEETING SPECIFIED GLOSS LEVELS PER MOCK-UP.
B. FILL JOINTS FLUSH TO SURFACE.
3.06 FINAL CLEANING
A. DO CLEANUP IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PROJECT AND GASTON COUNTY SCHOOLS.
B. MECHANICALLY SCRUB TREATED FLOORS FOR SEVEN DAYS WITH SOFT TO MEDIUM PADS WITH APPROVED CLEANING SOLUTION.
C. UPON COMPLETION, GENERAL CONTRACTOR MUST REMOVE SURPLUS AND EXCESS MATERIALS, RUBBISH, TOOLS AND EQUIPMENT.
3.07 PROTECTION
A. PROTECT INSTALLED PRODUCT FROM DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH THIS SPECIFICATION AND PROJECT AM
B. PROTECT WITH EZ COVER BY MCTECH CORP., OR COMPARABLE PRODUCT.
1. CONTACT: PHONE: (866) 913-8363; WEBSITE: WWW.EZFORM.NET.

SECTION 042100 - MASONRY VENEER
PART 1 GENERAL
1.01 SUBMITTALS
A. PRODUCT DATA: PROVIDE DATA FOR MASONRY UNITS, FABRICATED WIRE REINFORCEMENT, AND MORTAR.
B. SAMPLES: SUBMIT FOUR SAMPLES OF BRICK AND/OR DECORATIVE BLOCK UNITS TO ILLUSTRATE COLOR, TEXTURE, AND EXTREMES OF COLOR RANGE.
1.02 FIELD CONDITIONS
PART 2 PRODUCTS
2.01 CONCRETE MASONRY UNITS
A. CONCRETE BLOCK: COMPLY WITH REFERENCED STANDARDS AND AS FOLLOWS:
1. SIZE: STANDARD UNITS WITH NOMINAL FACE DIMENSIONS OF 16 X 8 INCHES AND NOMINAL DEPTHS AS INDICATED ON THE DRAWINGS FOR SPECIFIC LOCATIONS.
2. NON-LOADBEARING UNITS: ASTM C129.
a. HOLLOW BLOCK, AS INDICATED.
2.02 BRICK UNITS
A. HOLLOW FACING AND BUILDING BRICK: ASTM C652, GRADE MW, TYPE HBA; CLASS H40V.
1. NOMINAL SIZE: AS INDICATED ON DRAWINGS.
2.03 MORTAR AND GROUT MATERIALS
A. MASONRY CEMENT: ASTM C91/C91M TYPE N.
1. COLORED MORTAR: PREMIXED CEMENT AS REQUIRED TO MATCH ARCHITECT'S COLOR SAMPLE.
B. WATER: CLEAN AND POTABLE.
2.04 REINFORCEMENT AND ANCHORAGE
A. JOINT REINFORCEMENT: TRUSS TYPE; ASTM A1064/A1064M STEEL WIRE, HOT DIP GALVANIZED AFTER FABRICATION TO ASTM A153/A153M, CLASS B; 0.1483 INCH SIDE RODS WITH 0.1483 INCH CROSS RODS; WIDTH AS REQUIRED TO PROVIDE NOT MORE THAN 1 INCH AND NOT LESS THAN 1/2 INCH OF MORTAR COVERAGE ON EACH EXPOSURE.
B. MASONRY VENEER ANCHORS: 2-PIECE ANCHORS THAT PERMIT DIFFERENTIAL MOVEMENT BETWEEN MASONRY VENEER AND STRUCTURAL BACKUP, HOT DIP GALVANIZED TO ASTM A 153/A 153M, CLASS B.
1. VERTICAL ADJUSTMENT: NOT LESS THAN 3-1/2 INCHES.
C. METAL-TO-METAL FASTENERS: SELF-DRILLING, SELF-TAPPING SCREWS; CORROSION RESISTANT FINISH OR HOT DIP GALVANIZED TO ASTM A153/A153M.
2.05 FLASHINGS
A. COPPER/KRAFT PAPER FLASHINGS: 1 OZ/SQ FT SHEET COPPER BONDED TO FIBER REINFORCED ASPHALT TREATED KRAFT PAPER.
2.06 ACCESSORIES
A. PREFORMED CONTROL JOINTS: RUBBER MATERIAL. PROVIDE WITH CORNER AND TEE ACCESSORIES, FUSED JOINTS.
B. WEEPS: AS NOTED ON WALL SECTIONS.
C. CAVITY MORTAR CONTROL: SEMI-RIGID POLYETHYLENE OR POLYESTER MESH PANELS, SIZED TO THICKNESS OF WALL CAVITY, AND DESIGNED TO PREVENT MORTAR DROPPINGS FROM CLOGGING WEEPS AND CAVITY VENTS AND ALLOW PROPER CAVITY DRAINAGE.
1. MORTAR DIVERTER: PANELS INSTALLED AT FLASHING LOCATIONS.
2.07 MORTAR AND GROUT MIXES
A. MORTAR FOR MASONRY: ASTM C270, PROPORTION SPECIFICATION. MASONRY BELOW GRADE AND IN CONTACT WITH EARTH: TYPE S. EXTERIOR, NON-LOADBEARING MASONRY: TYPE N. COLORED MORTAR: PROPORTION SELECTED PIGMENTS AND OTHER INGREDIENTS TO MATCH ARCHITECT'S SAMPLE, WITHOUT EXCEEDING MANUFACTURER'S RECOMMENDED PIGMENT-TO-CEMENT RATIO.
C. MIXING: USE MECHANICAL BATCH MIXER AND COMPLY WITH REFERENCED STANDARDS.
PART 3 EXECUTION
3.01 COURSING
A. ESTABLISH LINES, LEVELS, AND COURSING INDICATED. PROTECT FROM DISPLACEMENT.
B. MAINTAIN MASONRY COURSES TO UNIFORM DIMENSION. FORM VERTICAL AND HORIZONTAL JOINTS OF UNIFORM THICKNESS.
C. CONCRETE MASONRY UNITS:
1. BOND: RUNNING.
2. COURSING: ONE UNIT AND ONE MORTAR JOINT TO EQUAL 8 INCHES.
3. MORTAR JOINTS: CONCAVE.
D. BRICK UNITS:
1. RUNNING BOND FIELD TO MATCH EXISTING FRONT FACADE.
2. COURSING: THREE UNITS AND THREE MORTAR JOINTS TO EQUAL 8 INCHES.
3. MORTAR JOINTS: CONCAVE.
3.02 PLACING AND BONDING
A. LAY HOLLOW MASONRY UNITS WITH FACE SHELL BEDDING ON HEAD AND BED JOINTS.
3.03 WEEPS/CAVITY VENTS
A. INSTALL WEEPS IN VENEER WALLS AT 24 INCHES ON CENTER HORIZONTALLY ABOVE THROUGH-WALL FLASHING, ABOVE SHELF ANGLES AND LINTELS, AND AT BOTTOM OF WALLS.
3.04 CAVITY MORTAR CONTROL
A. DO NOT PERMIT MORTAR TO DROP OR ACCUMULATE INTO CAVITY AIR SPACE OR TO PLUG WEEP/CAVITY VENTS.
3.05 REINFORCEMENT AND ANCHORAGE - MASONRY VENEER
A. INSTALL HORIZONTAL JOINT REINFORCEMENT 16 INCHES ON CENTER.
B. LAP JOINT REINFORCEMENT ENDS MINIMUM 6 INCHES.
3.06 MASONRY FLASHINGS
A. WHETHER OR NOT SPECIFICALLY INDICATED, INSTALL MASONRY FLASHING TO DIVERT WATER TO EXTERIOR AT ALL LOCATIONS WHERE DOWNWARD FLOW OF WATER WILL BE INTERRUPTED.
B. EXTEND METAL FLASHINGS TO WITHIN 1/4 INCH OF EXTERIOR FACE OF MASONRY.
C. LAP END JOINTS OF FLASHINGS AT LEAST 4 INCHES AND SEAL WATERTIGHT WITH MASTIC OR ELASTIC SEALANT.
SECTION 042200 CONCRETE MASONRY UNITS (LOAD BEARING)
REFER TO STRUCTURAL DRAWINGS

SECTION 048010 - LIGHTWEIGHT INSULATED BRICK UNITS
PART I - GENERAL
1.01 SCOPE
A. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO APPLY THE LIGHTWEIGHT INSULATED BRICK VENEER OVER EXTERIOR VERTICAL WALLS OF ACCEPTABLE SUBSTRATES.
1.02 DESCRIPTION
A. LIGHTWEIGHT, INSULATED BRICK VENEER THAT IS APPROVED FOR APPLICATION OVER SUBSTRATES SHOWN IN CONTRACT DOCUMENTS.
B. DESIGN REQUIREMENTS
1. DEFLECTION OF THE SUBSTRATE SYSTEM SHALL NOT EXCEED 1/360 TIMES THE SPAN.
2. SUBSTRATE SYSTEMS SHALL MEET ALL LOCAL BUILDING CODE REQUIREMENTS AND SHALL BE APPROVED FOR USE OF THIS PROJECT.
3. VAPOR RETARDERS – THE USE AND LOCATION OF VAPOR RETARDERS WITHIN A WALL ASSEMBLY IS THE RESPONSIBILITY OF THE PROJECT DESIGNER AND SHALL COMPLY WITH LOCAL BUILDING CODE REQUIREMENTS. THE TYPE AND LOCATION SHALL BE NOTED ON THE PROJECT DRAWINGS AND SPECIFICATIONS.
NOTE: VAPOR RETARDERS MAY BE INAPPROPRIATE IN CERTAIN CLIMATES AND CAN RESULT IN CONDENSATION WITHIN THE WALL ASSEMBLY. REFER TO DRYVIT PUBLICATION, DS159 FOR ADDITIONAL INFORMATION.
4. BRICK VENEER UNITS SHALL BE DESIGNED FOR USE ON EXTERIOR VERTICAL WALL APPLICATIONS.
5. THE SUBSTRATE SHALL BE CLEAN, SMOOTH, PLANAR AND FREE OF SURFACE IMPERFECTIONS THAT WOULD INTERFERE WITH APPLICATION OF THE BRICK UNITS.
6. SEALANTS
a. SHALL BE MANUFACTURED AND SUPPLIED BY OTHERS.
b. SHALL BE COMPATIBLE WITH MATERIALS BEING UTILIZED.
c. THE SEALANT BACKER ROD SHALL BE CLOSED CELL.
C. PERFORMANCE REQUIREMENTS: SHALL BE TESTED AS FOLLOWS:
1. EXTRUDED POLYSTYRENE INSULATION :

XPS Insulation Physical Properties		
Property	Test Method	Results
Density	ASTM D 1622	1.5 lb/ft3 (24 kg/m3)
Thermal Resistance	ASTM C 518	5.0 °F·ft2·h/Btu (0.88 m2·K/W) @ 75 °F (23.9 °C)
Water Absorption	ASTM C 272	0.5 % by volume
Compressive Strength	ASTM D 1621	20 psi (140 kPa) min.
Shear Strength	ASTM C 273	25 psi (170 kPa)
Shear Modulus	ASTM C 273	300 psi (2068 kPa)
Tensile Strength	ASTM D 1623	30 psi (240 kPa) min
Flexural Strength	ASTM C 203	40 psi (276 kPa) min
Flexural Modulus	ASTM C 203	1500 psi (10342 kPa)
Flame Spread Index	ASTM E 84	15
Smoke Developed Index	ASTM E 84	165
Oxygen Index	ASTM D 2863	Min. 24%
Water Vapor Permeance	ASTM E 96	Max. 1.5 Perm for 1 in (25.4 mm) thickness

2. Brick Testing

NewBrick Testing			
Test	Test Method	Criteria	Results
Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects1 after 2000 hrs.	Passed
Freeze Thaw	ASTM E 2485	No deleterious effects1 after 10 cycles	Passed
Water Resistance	ASTM D 2247	No deleterious effects1 after 14 days exposure	Passed
Salt Spray Resistance	ASTM B 117	No deleterious effects1 after 300 hrs. exposure	Passed
Tensile Bond – adhesive to underlying substrate	ASTM C 297	Minimum 15 psi	Passed
Surface Burning Characteristics	ASTM E 84	ICC and ANSI/EIMA 99-A-2001 Flame Spread <25 Smoke Developed <450	Passed
Water Vapor Transmission	ASTM E 96 Procedure B	ICC: Vapor Permeable No ANSI/EIMA Criteria	40 Perms
Mildew Resistance	ASTM D 3273	ANSI/EIMA 99-A-2001 28 days, No growth	60 days, No growth
Abrasion Resistance	ASTM D 968 Method A Falling Sand	ANSI/EIMA 99-A-2001 528 quarts (500 liters), No deleterious effects1	1057 quarts (1000 liters) No deleterious effects1
	ASTM D 4060 Taber Abrasion (1 kg load)	No ICC or ANSI/EIMA Criteria	1000 cycles: 83 mg mass loss
Ignitability	NFPA 268	No ignition at 12.5 kW/m2 at 20 minutes	Passed
Intermediate Multi-Story Fire Test	NFPA 285	Resist flame propagation over the exterior surface 2 Resist vertical spread of flame within combustible core/component of panel from one story to the next 3 Resist vertical spread of flame over the interior surface from one story to the next 4 Resist lateral spread of flame from the compartment of fire origin to adjacent spaces	Passed
1. No cracking, checking, rusting, crazing, erosion, blistering, peeling, or delamination when viewed under 5x magnification			

1.05 SUBMITTALS
A. PRODUCT DATA:
1. THE CONTRACTOR SHALL SUBMIT TO THE OWNER/ARCHITECT, MANUFACTURER'S PRODUCT DATA SHEETS DESCRIBING PRODUCTS, WHICH ARE PROPOSED FOR USE ON THE PROJECT FOR REVIEW AND APPROVAL PRIOR TO BID SUBMISSION.
2. SUBMIT PHYSICAL SAMPLES OF COLORS AND TEXTURES FOR FINAL SELECTION BY ARCHITECT. RIGHT IS RESERVED TO MODIFY COLOR SECTIONS SHOWN IN THE CONTRACT DOCUMENTS.
B. MOCK-UP
1. A MINIMUM 8 FT X 8 FT (2.4 M X 2.4 M) MOCK-UP WALL SHALL BE PREPARED BY THE APPLICATOR/CONTRACTOR WITH THE BRICK MATERIALS, WITH MORTAR INSTALLED, TO ESTABLISH A STANDARD OF ACCEPTANCE BY THE OWNER, ARCHITECT OR PROJECT MANAGER. THE MOCK-UP MAY BE PART OF THE BUILDING OR A SEPARATE STRUCTURE.
1.06 QUALITY ASSURANCE
A. MANUFACTURER
1. DRYVIT SYSTEMS, INC., NEWBRICK IS BASIS OF DESIGN, AN APPROVED EQUAL WILL BE CONSIDERED.
1.07 DELIVERY, STORAGE AND HANDLING
A. ALL MATERIALS SHALL BE DELIVERED TO THE JOB SITE IN THE ORIGINAL, UNOPENED PACKAGES WITH LABELS INTACT.
B. UPON ARRIVAL, MATERIALS SHALL BE INSPECTED FOR PHYSICAL DAMAGE, FREEZING OR OVERHEATING. QUESTIONABLE MATERIALS SHALL NOT BE USED.
1. MATERIALS SHALL BE STORED AT THE JOB SITE, AND AT ALL TIMES, IN A COOL, DRY LOCATION, OUT OF DIRECT SUNLIGHT, PROTECTED FROM WEATHER AND OTHER SOURCES OF DAMAGE. STORAGE TEMPERATURE FOR LIQUID PRODUCTS SHALL BE BETWEEN 40 °F (4°C) - 100 °F (38°C).
C. PROTECT ALL PRODUCTS FROM INCLEMENT WEATHER AND DIRECT SUNLIGHT.
1.08 PROJECT CONDITIONS
A. ENVIRONMENTAL REQUIREMENTS
1. APPLICATION OF WET MATERIALS SHALL NOT TAKE PLACE DURING INCLEMENT WEATHER UNLESS APPROPRIATE PROTECTION IS PROVIDED. PROTECT MATERIALS FROM INCLEMENT WEATHER UNTIL THEY ARE COMPLETELY DRY.
2. AT THE TIME OF PRODUCT APPLICATION, THE AIR AND WALL SURFACE TEMPERATURES SHALL BE FROM 40 °F
(4 °C) MINIMUM TO 100 °F (38 °C) MAXIMUM.
3. THESE TEMPERATURES SHALL BE MAINTAINED WITH ADEQUATE AIR VENTILATION AND CIRCULATION FOR A MINIMUM OF
24 HOURS THEREAFTER, OR UNTIL THE PRODUCTS ARE COMPLETELY DRY. REFER TO PUBLISHED PRODUCT DATA SHEETS FOR MORE SPECIFIC INFORMATION.
B. EXISTING CONDITIONS: THE CONTRACTOR SHALL HAVE ACCESS TO ELECTRIC POWER, CLEAN WATER AND A CLEAN WORK AREA AT THE LOCATION WHERE THE MATERIALS ARE TO BE APPLIED.
1.09 SEQUENCING AND SCHEDULING:
1. APPLICATION OF THE BRICKS SHALL BE COORDINATED WITH OTHER CONSTRUCTION TRADES.
2. SUFFICIENT LABOR AND EQUIPMENT SHALL BE EMPLOYED TO ENSURE CONTINUOUS OPERATION.
1.10 LIMITED MATERIALS WARRANTY
A. MANUFACTURER SHALL OFFER A WRITTEN LIMITED MATERIALS WARRANTY AGAINST [illegible] MATERIALS UPON WRITTEN REQUEST.
B. THE APPLICATOR SHALL WARRANT WORKMANSHIP SEPARATELY.
1.11 MAINTENANCE
A. MAINTENANCE AND REPAIR PROCEDURES SHALL BE FOLLOWED IN ACCORDANCE WITH THE MANUFACTURERS' APPLICATION INSTRUCTIONS FOR THE SPECIFIC SYSTEM UTILIZED.
B. MORTAR, SEALANTS, FLASHINGS AND OTHER BUILDING ENVELOPE COMPONENTS SHALL BE INSPECTED ON A REGULAR BASIS AND REPAIRS MADE AS NECESSARY TO MAINTAIN IN A SERVICEABLE CONDITION.
PART II – PRODUCTS
2.01 GENERAL
A. ALL PRODUCTS SHALL BE SUPPLIED BY A SINGLE MANUFACTURER AND ITS AUTHORIZED DISTRIBUTORS.
2.02 MATERIALS
A. PORTLAND CEMENT: SHALL BE TYPE I OR II, MEETING ASTM C 150, WHITE OR GRAY IN COLOR, FRESH AND FREE OF LUMPS.
B. WATER: SHALL BE CLEAN AND POTABLE.
C. MORTAR: SHALL MEET ASTM C 270 TYPE N OR S MORTAR MODIFIED WITH MORTAR ADMIX.
2.03 COMPONENTS
A. AIR/WATER-RESISTIVE BARRIER (WHEN SPECIFIED), BASE COAT OF ADHESIVE SHALL BE SYSTEM COMPATIBLE.
B. NEW INSULATED LIGHTWEIGHT INSULATED BRICK UNITS: A PRE-FINISHED INSULATED BRICK PRODUCT AVAILABLE AS FOLLOWS:
1. SIZES:
a. MODULAR, UTILITY
2. COLORS:
a. AT LEAST 12 STANDARD COLORS.
b. AT LEAST 4 STANDARD BLENDS MUST BE AVAILABLE.
3. EFFECTS AVAILABLE:
a. FLASHED
b. IRON SPOT
c. FLASHED IRON SPOT
4. TEXTURES:
a. SMOOTH
b. VELOUR
c. WIRE CUT
d. COARSE CUT
5. CONFIGURATIONS:
FLAT BRICKS: DESIGNED WITH AN INTEGRAL HORIZONTAL MORTAR SPACING FEATURE. FLAT BRICKS ARE USED IN
FIELD-OF-WALL APPLICATIONS.
END BRICKS: USED AT EXPANSION JOINTS AND TERMINATIONS WITHOUT RETURNS
CORNER BRICKS: "L"-SHAPED BRICKS DESIGNED FOR USE AT OUTSIDE CORNERS, SILLS AND OTHER AREAS.
1.5 FLAT BRICK: USED FOR CORBEL DETAILING.
EDGE CAP BRICKS: USED AT SILL, JAMBS AND OTHER AREAS.
EDGE CAP CORNER BRICK: USED AT SILL, JAMBS AND OTHER AREAS.
PART III EXECUTION
3.01 EXAMINATION
A. PRIOR TO APPLICATION OF THE BRICKS, THE CONTRACTOR SHALL ENSURE THAT THE SUBSTRATE IS ACCEPTABLE FOR THE PRODUCT TO BE USED, AND INFORM ARCHITECT OF ANY ISSUES.
B. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL NEEDED FLASHINGS AND OTHER WATERPROOFING DETAILS HAVE BEEN COMPLETED, IF SUCH COMPLETION IS REQUIRED PRIOR TO THE APPLICATION OF MATERIALS.
C. THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND/OR ARCHITECT AND/OR OWNER OF ALL DISCREPANCIES. WORK SHALL NOT PROCEED UNTIL DISCREPANCIES HAVE BEEN CORRECTED.
3.02 SURFACE PREPARATION
A. THE SUBSTRATE SHALL BE FREE OF FOREIGN MATERIALS SUCH AS OIL, DUST, DIRT, FORM-RELEASE AGENTS, EFFLORESCENCE, PAINT, WAX, WATER REPELLENTS, MOISTURE, FROST, AND ANY OTHER MATERIALS THAT INHIBIT ADHESION.
B. THE SUBSTRATE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' CURRENT PUBLISHED LITERATURE UP TO THE BASE COAT.
1. THE REINFORCING MESH SHALL BE COMPLETELY EMBEDDED IN THE BASE COAT.
2. THE BASE COAT SHALL BE FULLY DRIED (A MINIMUM OF 24 HOURS, OR LONGER, DEPENDING ON WEATHER CONDITIONS).
3. THE BASE COAT SHALL BE FREE OF ANY IMPERFECTIONS THAT WOULD AFFECT THE APPLICATION OF THE MATERIALS.
3.03 INSTALLATION
A. MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH CURRENT APPLICATION INSTRUCTIONS OF THE MANUFACTURERS.
B. MORTAR SHALL BE INSTALLED PER THE MORTAR MANUFACTURER'S REQUIREMENTS.
3.04 FIELD QUALITY CONTROL
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THE MATERIALS.
B. THE CONTRACTOR SHALL CERTIFY IN WRITING THE QUALITY OF WORK PERFORMED RELATIVE TO THE SUBSTRATE SYSTEM, DETAILS, INSTALLATION PROCEDURES, WORKMANSHIP AND AS TO THE SPECIFIC PRODUCTS USED.
3.05 CLEANING
A. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR IN ACCORDANCE WITH CONTRACT PROVISIONS AND AS REQUIRED BY APPLICABLE LAW.
3.06 PROTECTION
A. THE INSTALLED MATERIALS SHALL BE PROTECTED FROM WEATHER AND OTHER SOURCES OF DAMAGE UNTIL PERMANENT PROTECTION IN THE FORM OF FLASHINGS, SEALANTS, ETC. ARE INSTALLED. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT CONDENSATION AND/OR HEAT BUILD-UP WHEN USING A TARP OR PLASTIC AS PROTECTION.
054000 COLD-FORMED METAL FRAMING:
PART 1 GENERAL:
1.01 SECTION INCLUDES
A. FORMED STEEL STUD INTERIOR WALL FRAMING.
1.02 RELATED REQUIREMENTS
A. SECTION 061000 - ROUGH CARPENTRY: WOOD BLOCKING AND MISCELLANEOUS FRAMING.
B. SECTION 072100 - THERMAL INSULATION: INSULATION WITHIN FRAMING MEMBERS.
C. SECTION 079200 - JOINT SEALANTS.
D. SECTION 092116 - GYPSUM BOARD ASSEMBLIES: LIGHTWEIGHT, NON-LOAD BEARING METAL STUD FRAMING.
E. SECTION 092116 - GYPSUM BOARD ASSEMBLIES: GYPSUM-BASED SHEATHING.
F. SECTION 095100 - ACOUSTICAL CEILINGS: CEILING SUSPENSION SYSTEM.
1.03 REFERENCE STANDARDS
A. AISI SG02-1 - NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS; AMERICAN IRON AND STEEL INSTITUTE; 2001 WITH 2004 SUPPLEMENT. (REPLACED SG-971)
B. ASTM A153/A153M - STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE; 2009.
C. ASTM A653/A653M - STANDARD SPECIFICATION FOR STEEL SHEET, ZINC-COATED (GALVANIZED) OR ZINC-IRON ALLOY-COATED (GALVANNEALED) BY THE HOT-DIP PROCESS; 2013.
D. ASTM C955 - STANDARD SPECIFICATION FOR LOAD-BEARING (TRANSVERSE AND AXIAL) STEEL STUDS, RUNNERS (TRACKS), AND BRACING OR BRIDGING FOR SCREW APPLICATION OF GYPSUM PANEL PRODUCTS AND METAL PLASTER BASES; 2011C.
E. ASTM C1396/C1396M - STANDARD SPECIFICATION FOR GYPSUM BOARD; 2014.
1.04 ADMINISTRATIVE REQUIREMENTS
A. COORDINATE WITH WORK OF OTHER SECTIONS THAT IS TO BE INSTALLED IN OR ADJACENT TO THE METAL FRAMING SYSTEM, INCLUDING BUT NOT LIMITED TO STRUCTURAL ANCHORS, CLADDING ANCHORS, UTILITIES, INSULATION, AND FIRESTOPPING.
1.05 SUBMITTALS
A. SHOP DRAWINGS: INDICATE COMPONENT DETAILS, FRAMED OPENINGS, BEARING, ANCHORAGE, LOADING, WELDS, AND TYPE AND LOCATION OF FASTENERS, AND ACCESSORIES OR ITEMS REQUIRED OF RELATED WORK.
1. INDICATE STUD LAYOUT.
2. DESCRIBE METHOD FOR SECURING STUDS TO TRACKS AND FOR BOLTED FRAMING CONNECTIONS.
3. PROVIDE DESIGN ENGINEER'S STAMP ON SHOP DRAWINGS.
B. MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE SPECIAL PROCEDURES, CONDITIONS REQUIRING SPECIAL ATTENTION.
1.06 QUALITY ASSURANCE
A. DESIGNER QUALIFICATIONS: DESIGN FRAMING SYSTEM UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED.
B. MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING THE TYPES OF PRODUCTS SPECIFIED IN THIS SECTION, AND WITH MINIMUM THREE YEARS OF DOCUMENTED EXPERIENCE.
C. INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN PERFORMING THE WORK OF THIS SECTION WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE AND APPROVED BY MANUFACTURER.
PART 2 PRODUCTS:
2.01 MANUFACTURERS
A. METAL FRAMING:
1. CLARKWESTERN DIETRICH BUILDING SYSTEMS LLC; WWW.CLARKDIETRICH.COM.
2. MARINO: WWW.MARINOWARE.COM.
3. APPROVED EQUAL.
B. FRAMING CONNECTORS AND ACCESSORIES:
1. SAME MANUFACTURER AS METAL FRAMING.
2.02 FRAMING SYSTEM
A. PROVIDE PRIMARY AND SECONDARY FRAMING MEMBERS, BRIDGING, BRACING, PLATES, GUSSETS, CLIPS, FITTINGS, REINFORCEMENT, AND FASTENINGS AS REQUIRED TO PROVIDE A COMPLETE FRAMING SYSTEM.
B. DESIGN CRITERIA: PROVIDE COMPLETED FRAMING SYSTEM HAVING THE FOLLOWING CHARACTERISTICS:
1. DESIGN: CALCULATE STRUCTURAL CHARACTERISTICS OF COLD-FORMED STEEL FRAMING MEMBERS ACCORDING TO AISI NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.
2. STRUCTURAL PERFORMANCE: DESIGN, ENGINEER, FABRICATE, AND ERECT TO WITHSTAND SPECIFIED DESIGN LOADS FOR PROJECT CONDITIONS WITHIN REQUIRED LIMITS.
3. DESIGN LOADS: IN ACCORDANCE WITH APPLICABLE CODES.
4. ABLE TO TOLERATE MOVEMENT OF COMPONENTS WITHOUT DAMAGE, FAILURE OF JOINT SEALS, UNDUE STRESS ON FASTENERS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO SEASONAL OR CYCLIC DAY/NIGHT TEMPERATURE RANGES.
5. ABLE TO ACCOMMODATE CONSTRUCTION TOLERANCES, DEFLECTION OF BUILDING STRUCTURAL MEMBERS, AND CLEARANCES OF INTENDED OPENINGS.
2.03 FRAMING MATERIALS
A. STUDS AND TRACK: ASTM C955; STUDS FORMED TO CHANNEL, "C", OR "SIGMA" SHAPE WITH PUNCHED WEB; U-SHAPED TRACK IN MATCHING NOMINAL WIDTH AND COMPATIBLE HEIGHT.
1. GAGE AND DEPTH: AS INDICATED ON THE DRAWINGS AND AS PER MANUFACTURER'S DESIGN.
B. FRAMING CONNECTORS: FACTORY-MADE, FORMED STEEL SHEET.
1. MATERIAL: ASTM A653/A653M SS GRADE 33 AND 40 (MINIMUM), WITH G90/Z275 HOT DIPPED GALVANIZED COATING FOR BASE METAL THICKNESS LESS THAN 10 GAGE, 0.1345 INCH, AND FACTORY PUNCHED HOLES AND SLOTS.
2. STRUCTURAL PERFORMANCE: MAINTAIN LOAD AND MOVEMENT CAPACITY REQUIRED BY APPLICABLE CODE, WHEN EVALUATED IN ACCORDANCE WITH AISI NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.
3. MOVEMENT CONNECTIONS: PROVIDE MECHANICAL ANCHORAGE DEVICES THAT ACCOMMODATE MOVEMENT USING SLOTTED HOLES, SHOULDERED SCREWS OR SCREWS AND [illegible] OR STEPPED BUSHINGS, WHILE MAINTAINING STRUCTURAL PERFORMANCE OF FRAMING. PROVIDE MOVEMENT CONNECTIONS AT THE FOLLOWING LOCATIONS:
A. WHERE TOP OF STUD WALL TERMINATES BELOW ROOF, CONNECT STUDS TO STRUCTURE IN MANNER ALLOWING VERTICAL MOVEMENT OF ROOF WITHOUT AFFECTING STUDS; ALLOW FOR MAXIMUM MOVEMENT OF [illegible] INCH.
B. PROVIDE TOP TRACK WITH LONG LEG TRACK AND HEAD OF WALL MOVEMENT CONNECTORS; MINIMUM TRACK LENGTH OF 12 FEET.
4. WALL STUD BRIDGING CONNECTIONS: PROVIDE MECHANICAL LOAD-TRANSFERRING DEVICES THAT ACCOMMODATE WIND LOAD TORSION AND WEAK AXIS BUCKLING INDUCED BY AXIAL COMPRESSION LOADS. PROVIDE BRIDGING CONNECTIONS PER MANUFACTURER'S DESIGN.
5. PRODUCTS:
A. SIMPSON STRONG TIE, LOAD RATED STEEL STUD CONNECTORS; SSC4.25: WWW.STRONGTIE.COM.
B. SIMPSON STRONG TIE, LOAD RATED STEEL STUD FRAMING CONNECTORS; SF[illegible]: WWW.STRONGTIE.COM.
C. SIMPSON STRONG TIE, HEAD OF WALL MOVEMENT CONNECTORS; SCW 3.25 HEAD-OF-WALL CLIP: WWW.STRONGTIE.COM.
2.04 FASTENERS
A. SELF-DRILLING, SELF-TAPPING SCREWS, BOLTS, NUTS AND WASHERS: HOT DIP GALVANIZED PER ASTM A153/A153M.
B. ANCHORAGE DEVICES: POWDER ACTUATED.
PART 3 EXECUTION:
3.01 INSTALLATION OF STUDS
A. INSTALL COMPONENTS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS, ASTM C1007 REQUIREMENTS, AND PER MANUFACTURER'S ENGINEERED DESIGN.
B. COORDINATE PLACEMENT OF INSULATION IN MULTIPLE STUD SPACES MADE INACCESSIBLE AFTER ERECTION.
C. INSTALL INTERMEDIATE STUDS ABOVE AND BELOW OPENINGS TO ALIGN WITH WALL STUD SPACING.
D. PROVIDE DEFLECTION ALLOWANCE IN STUD TRACK, DIRECTLY BELOW HORIZONTAL BUILDING FRAMING AT NON-LOAD BEARING FRAMING.
SECTION 061000 ROUGH CARPENTRY:
PART 1 GENERAL:
1.01 SECTION INCLUDES: CONCEALED WOOD BLOCKING, NAILERS, AND SUPPORTS. FIRE RETARDANT TREATED WOOD
1.02 REFERENCE STANDARDS:
A. PS 20 - AMERICAN SOFTWOOD LUMBER STANDARD; NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (DEPARTMENT OF COMMERCE).
B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
1. ASTM D 5516 STANDARD TEST METHOD FOR EVALUATING THE FLEXURAL PROPERTIES OF FIRE RETARDANT TREATED SOFTWOOD PLYWOOD EXPOSED TO ELEVATED TEMPERATURES.
2. ASTM D 5664 STANDARD TEST METHOD FOR EVALUATING THE EFFECTS OF FIRE-RETARDANT TREATMENTS AND ELEVATED TEMPERATURES ON STRENGTH PROPERTIES OF FIRE-RETARDANT TREATED LUMBER.
3. ASTM E 84 STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
C. AMERICAN WOOD PROTECTION ASSOCIATION (AWPA):
1. AWPA STANDARD P25 STANDARD FOR WATERBORNE PRESERVATIVES.
2. AWPA STANDARD P49 FIRE RETARDANT FORMULATIONS.
3. AWPA STANDARD U1, USE CATEGORY SYSTEM.
E. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):
1. NFPA 255 STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
1.03 DELIVERY, STORAGE, AND HANDLING:
GENERAL: COVER WOOD PRODUCTS TO PROTECT AGAINST MOISTURE. SUPPORT STACKED PRODUCTS TO PREVENT DEFORMATION AND TO ALLOW AIR CIRCULATION.
PART 2 PRODUCTS:
2.01 GENERAL REQUIREMENTS:
DIMENSION LUMBER: COMPLY WITH PS 20 AND REQUIREMENTS OF SPECIFIED GRADING AGENCIES.
SPECIES: SOUTHERN YELLOW PINE OR DOUGLAS FIR, UNLESS OTHERWISE INDICATED. LUMBER FABRICATED FROM OLD GROWTH TIMBER IS NOT PERMITTED.
2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS, MISCELLANEOUS FRAMING, BLOCKING, NAILERS, GROUNDS, AND FURRING:
LUMBER: S4S, NO. 2 OR STANDARD GRADE.
BOARDS: STANDARD OR NO. 3.
PART 3 EXECUTION:
3.01 BLOCKING, NAILERS, AND SUPPORTS:
PROVIDE FRAMING AND BLOCKING MEMBERS AS INDICATED AND AS REQUIRED TO SUPPORT FINISHES, FIXTURES, CASEWORK, MILLWORK SPECIALTY ITEMS, AND TRIM. IN WALLS, PROVIDE BLOCKING ATTACHED TO STUDS AS BACKING AND SUPPORT FOR WALL-MOUNTED ITEMS, UNLESS ITEM CAN BE SECURELY FASTENED TO TWO OR MORE STUDS OR OTHER METHOD OF SUPPORT IS EXPLICITLY INDICATED. SPECIFICALLY, PROVIDE THE FOLLOWING NON-STRUCTURAL FRAMING AND BLOCKING:
CABINETS AND SHELF SUPPORTS, WALL BRACKETS FOR MONITORS, WALL-MOUNTED DOOR STOPS, MARKER BOARDS/BULLETIN BOARDS, OWNER INSTALLED I.T. RACKS., RESTROOM GRAB BARS. TOILET ACCESSORIES, WALL MOUNTED PLUMBING FIXTURES, ACCENT WALL FEATURES, WALL SCONCES, CLOCKS, COAT AND TOWEL HOOKS, SPEAKERS
3.02 CLEANING:
WASTE DISPOSAL: COMPLY WITH THE REQUIREMENTS OF SECTION 01732. COMPLY WITH APPLICABLE REGULATIONS. DO NOT BURN SCRAP ON PROJECT SITE. DO NOT BURN SCRAPS THAT HAVE BEEN PRESSURE TREATED. DO NOT SEND MATERIALS TREATED WITH PENTACHLOROPHENOL, CCA, OR ACA TO CO-GENERATION FACILITIES OR "WASTE-TO-ENERGY" FACILITIES. DO NOT LEAVE ANY WOOD, SHAVINGS, SAWDUST, ETC. ON THE GROUND. PREVENT SAWDUST AND WOOD SHAVINGS FROM ENTERING THE STORM DRAINAGE SYSTEM.

SECTION 06410 CABINETS:
PART 1 GENERAL:
1.01 SECTION INCLUDES: SPECIALLY FABRICATED CABINET UNITS, CABINET HARDWARE, FACTORY FINISHING, PREPARATION FOR INSTALLING UTILITIES.
1.02 RELATED REQUIREMENTS:
SECTION 06100 - ROUGH CARPENTRY: SUPPORT FRAMING, GROUNDS, AND CONCEALED BLOCKING.
SECTION 06415 - COUNTERTOPS.
1.03 REFERENCE STANDARDS:
AWI/AWMAC (QSI) - ARCHITECTURAL WOODWORK QUALITY STANDARDS ILLUSTRATED; ARCHITECTURAL WOODWORK INSTITUTE AND ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA.
BHMA A156.9 - AMERICAN NATIONAL STANDARD FOR CABINET HARDWARE; BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (ANSI/BHMA A156.9).
GSA CID A-A-1936 - ADHESIVE, CONTACT, NEOPRENE RUBBER; FEDERAL SPECIFICATIONS AND STANDARDS.
1.04 SUBMITTALS:
SHOP DRAWINGS: INDICATE MATERIALS, COMPONENT PROFILES AND ELEVATIONS, ASSEMBLY METHODS, JOINT DETAILS, FASTENING METHODS, ACCESSORY LISTINGS, HARDWARE LOCATION AND SCHEDULE OF FINISHES, PLASTIC LAMINATE GRADE AND ADHESIVES.
PRODUCT DATA: PROVIDE DATA FOR HARDWARE ACCESSORIES.
1.05 QUALITY ASSURANCE:
PERFORM WORK IN ACCORDANCE WITH AWI/AWMAC ARCHITECTURAL WOODWORK QUALITY STANDARDS ILLUSTRATED, CUSTOM QUALITY, UNLESS OTHER QUALITY IS INDICATED FOR SPECIFIC ITEMS.
MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM THREE YEARS OF DOCUMENTED EXPERIENCE.
1.06 DELETED
1.07 DELIVERY, STORAGE, AND HANDLING:
PROTECT UNITS FROM MOISTURE DAMAGE.
1.08 FIELD CONDITIONS: DURING AND AFTER INSTALLATION OF CUSTOM CABINETS, MAINTAIN TEMPERATURE AND HUMIDITY CONDITIONS IN BUILDING SPACES AT SAME LEVELS PLANNED FOR OCCUPANCY.
PART 2 PRODUCTS:
2.02 LAMINATE MATERIALS:
SELECTED BY ARCHITECT FROM SUBMITTED SAMPLES SUBMITTED BY CONTRACTOR FROM THE MANUFACTURERS LISTED BELOW.
MANUFACTURERS:
AS SPECIFIED IN THE MATERIAL, FINISH AND EQUIPMENT SCHEDULE
HIGH PRESSURE DECORATIVE LAMINATE (HPDL): NEMA LD 3, TYPES AS RECOMMENDED FOR SPECIFIC APPLICATIONS.
PROVIDE SPECIFIC TYPES AS SCHEDULED.
HORIZONTAL SURFACES: HGS, 0.048 INCH NOMINAL THICKNESS
VERTICAL SURFACES: VGS, 0.028 INCH NOMINAL THICKNESS
2.03 ACCESSORIES:
ADHESIVE: TYPE RECOMMENDED BY FABRICATOR TO SUIT APPLICATION.
FASTENERS: SIZE AND TYPE TO SUIT APPLICATION.
BOLTS, NUTS, WASHERS, LAGS, PINS, AND SCREWS: OF SIZE AND TYPE TO SUIT APPLICATION; GALVANIZED OR CHROME-PLATED FINISH IN CONCEALED LOCATIONS AND STAINLESS STEEL, OR CHROME-PLATED FINISH IN EXPOSED LOCATIONS.
GROMMETS: STANDARD PLASTIC OR RUBBER GROMMETS FOR CUT-OUTS, IN COLOR TO BLEND WITH ADJACENT SURFACE.
2.04 HARDWARE:
HARDWARE: BHMA A156.9, TYPES AS INDICATED FOR QUALITY GRADE SPECIFIED.
DRAWER AND DOOR PULLS: "U" SHAPED WIRE PULL, STEEL WITH SATIN NICKEL FINISH, 4 INCH CENTERS.
DRAWER SLIDES:
TYPE: FULL EXTENSION, BALL BEARING SLIDE
STATIC LOAD CAPACITY: EXTRA HEAVY DUTY GRADE
MOUNTING: SIDE MOUNTED.
STOPS: INTEGRAL TYPE.
FEATURES: PROVIDE SELF CLOSING/STAY CLOSED TYPE.
MANUFACTURERS:
ACCURIDE INTERNATIONAL, INC: WWW.ACCURIDE.COM.
HAFELE AMERICA CO: WWW.HAFELE.COM/USA.
KNAPE & VOGT MANUFACTURING COMPANY: WWW.KNAPEANDVOGT.COM.
HINGES: GRADE 2 EUROPEAN STYLE CONCEALED 3-WAY ADJUSTABLE SELF-CLOSING TYPE, STEEL WITH POLISHED FINISH, FULL OVERLAY.
MANUFACTURERS:
HAFELE AMERICA CO: WWW.HAFELE.COM/USA
HARDWARE RESOURCES; PRODUCT: EQUAL TO HAFELE: WWW.HARDWARERESOURCES.COM.
BLUM, INC; PRODUCT: EQUAL TO HAFELE: WWW.BLUM.COM.
2.05 FABRICATION:
CABINET STYLE: FLUSH FULL OVERLAY.
CABINET DOORS AND DRAWER FRONTS: FLUSH STYLE.
DRAWER CONSTRUCTION TECHNIQUE: DOVETAIL JOINTS.
ASSEMBLY: SHOP ASSEMBLE CABINETS FOR DELIVERY TO SITE IN UNITS EASILY HANDLED AND TO PERMIT PASSAGE THROUGH BUILDING OPENINGS.
EDGING: FIT SHELVES, DOORS, AND EXPOSED EDGES WITH SPECIFIED EDGING. DO NOT USE MORE THAN ONE PIECE FOR ANY SINGLE LENGTH. (EDGING APPEARANCE SHALL MATCH LAMINATE.)
FITTING: WHEN NECESSARY TO CUT AND FIT ON SITE, PROVIDE MATERIALS WITH AMPLE ALLOWANCE FOR CUTTING. PROVIDE MATCHING TRIM FOR SCRIBING AND SITE CUTTING.
PLASTIC LAMINATE: APPLY PLASTIC LAMINATE FINISH IN FULL UNINTERRUPTED SHEETS CONSISTENT WITH MANUFACTURED SIZES. FIT CORNERS AND JOINTS HAIRLINE; SECURE WITH CONCEALED FASTENERS. SLIGHTLY BEVEL ARRISES. LOCATE COUNTER BUTT JOINTS MINIMUM 2 FEET FROM SINK CUT-OUTS. APPLY LAMINATE BACKING SHEET TO REVERSE SIDE OF PLASTIC LAMINATE FINISHED SURFACES.
CAP EXPOSED PLASTIC LAMINATE FINISH EDGES WITH MATERIAL OF SAME FINISH AND PATTERN. PROVIDE CUTOUTS FOR PLUMBING FIXTURES. VERIFY LOCATIONS OF CUTOUTS FROM ON-SITE DIMENSIONS. PRIME PAINT CUT EDGES W/2 COATS OF PRIMER.
PART 3 EXECUTION:
3.01 EXAMINATION: VERIFY ADEQUACY OF BACKING AND SUPPORT FRAMING. VERIFY LOCATION AND SIZES OF UTILITY ROUGH-INS ASSOCIATED WITH WORK OF THIS SECTION.
3.02 INSTALLATION: SET AND SECURE CUSTOM CABINETS IN PLACE, ASSURING THAT THEY ARE RIGID, PLUMB, AND LEVEL. USE FIXTURE ATTACHMENTS IN CONCEALED LOCATIONS FOR WALL MOUNTED COMPONENTS. USE CONCEALED JOINT FASTENERS TO ALIGN AND SECURE ADJOINING CABINET UNITS. CAREFULLY SCRIBE CASEWORK ABUTTING OTHER COMPONENTS, WITH MAXIMUM GAPS OF 1/32 IN. DO NOT USE ADDITIONAL OVERLAY TRIM FOR THIS PURPOSE.
3.03 ADJUSTING: ADJUST INSTALLED WORK. ADJUST MOVING OR OPERATING PARTS TO FUNCTION SMOOTHLY AND CORRECTLY.
3.04 CLEANING: CLEAN CASEWORK, COUNTERS, SHELVES, HARDWARE, FITTINGS, AND FIXTURES.

SECTION 064150 COUNTERTOPS:
PART 1 GENERAL:
1.01 SECTION INCLUDES: COUNTERTOPS FOR ARCHITECTURAL CABINETWORK.
1.02 RELATED REQUIREMENTS:
SECTION 064100 - CABINETS.
1.03 SUBMITTALS:
PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING: PREPARATION INSTRUCTIONS AND RECOMMENDATIONS. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS. SPECIMEN WARRANTY.
SHOP DRAWINGS: COMPLETE DETAILS OF MATERIALS AND INSTALLATION; COMBINE WITH SHOP DRAWINGS OF CABINETS AND CASEWORK SPECIFIED IN OTHER SECTIONS.
SELECTION SAMPLES: FOR EACH FINISH PRODUCT SPECIFIED, COLOR CHIPS REPRESENTING MANUFACTURER'S FULL RANGE OF AVAILABLE COLORS AND PATTERNS.
VERIFICATION SAMPLES: FOR EACH FINISH PRODUCT SPECIFIED, MINIMUM SIZE 6 INCHES SQUARE, REPRESENTING ACTUAL PRODUCT, COLOR, AND PATTERNS.
INSTALLATION INSTRUCTIONS: MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
MAINTENANCE DATA: MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR MAINTENANCE AND REPAIR OF COUNTERTOP SURFACES.
1.04 QUALITY ASSURANCE: FABRICATOR QUALIFICATIONS: SAME FABRICATOR AS FOR CABINETS ON WHICH TOPS ARE TO BE INSTALLED. INSTALLER QUALIFICATIONS: FABRICATOR.
1.05 DELIVERY, STORAGE, AND HANDLING: STORE PRODUCTS IN MANUFACTURER'S UNOPENED PACKAGING UNTIL READY FOR INSTALLATION. STORE AND DISPOSE OF SOLVENT-BASED MATERIALS, AND MATERIALS USED WITH SOLVENT-BASED MATERIALS, IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
PART 2 PRODUCTS:
2.01 COUNTERTOP ASSEMBLIES:
1. PLASTIC LAMINATE COUNTERTOPS: HIGH PRESSURE DECORATIVE LAMINATE SHEET BONDED TO SUBSTRATE. LAMINATE SHEET, UNLESS OTHERWISE INDICATED: NEMA LD 3 GRADE HGP, FOR POST-FORMING, 0.039 INCH NOMINAL THICKNESS.
A. FINISH:
MATTE OR SUEDE, GLOSS RATING OF 5 TO 20.
SURFACE COLOR , PATTERN AND MANUFACTURER AS SPECIFIED IN THE MATERIAL, FINISH AND EQUIPMENT SCHEDULE
B. EXPOSED EDGE TREATMENT: SQUARE, SUBSTRATE BUILT UP TO MINIMUM 1-1/2" INCH THICK; COVERED WITH MATCHING LAMINATE. U.N.O.
C. BACK AND END SPLASHES: SAME MATERIAL, SAME CONSTRUCTION. U.N.O.
D. FABRICATE IN ACCORDANCE WITH AWI/AWMAC QUALITY STANDARDS ILLUSTRATED PREMIUM GRADE.
2.02 ACCESSORY MATERIALS:
PLYWOOD FOR SUPPORTING SUBSTRATE: PS 1 EXTERIOR GRADE, A-C VENEER GRADE, MINIMUM 5-PLY; MINIMUM 3/4 INCH THICK; JOIN LENGTHS USING METAL SPLINES (WATERPROOF PLYWOOD AT SINKS).
ADHESIVES: CHEMICAL RESISTANT WATERPROOF ADHESIVE AS RECOMMENDED BY MANUFACTURER OF MATERIALS BEING JOINED.
JOINT SEALANT:
PERMANENTLY FLEXIBLE, COLORS TO MATCH PLASTIC LAMINATE.
FIXTURE MOUNTING: STAINLESS STEEL, SUITABLE FOR TOP MOUNTING AND COUNTERTOP CONSTRUCTION.
2.03 FABRICATION:
MISC. PLASTIC LAMINATE:
FABRICATE TOPS AND SPLASHES IN THE LARGEST SECTIONS PRACTICABLE, WITH TOP SURFACE OF JOINTS FLUSH.
JOIN LENGTHS OF TOPS USING BEST METHOD RECOMMENDED BY MANUFACTURER. FABRICATE TO OVERHANG FRONTS AND ENDS OF CABINETS 1 INCH EXCEPT WHERE TOP BUTTS AGAINST CABINET OR WALL.
PREPARE ALL CUTOUTS ACCURATELY TO SIZE; REPLACE TOPS HAVING IMPROPERLY DIMENSIONED OR UNNECESSARY CUTOUTS OR FIXTURE HOLES.
PROVIDE BACK/END SPLASH WHEREVER COUNTER EDGE ABUTS VERTICAL SURFACE UNLESS OTHERWISE INDICATED. SECURE TO COUNTERTOP WITH CONCEALED FASTENERS AND WITH CONTACT SURFACES SET IN WATERPROOF GLUE.
FINISH: 4 INCHES, UNLESS OTHERWISE INDICATED.
WALL-MOUNTED COUNTERS: PROVIDE SKIRTS, APRONS, BRACKETS, AND BRACES AS INDICATED ON DRAWINGS, FINISHED TO MATCH.
B. GRANITE AND SOLID SURFACE:
GENERAL:
1. COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING REFERENCE STANDARDS:
a. NBGQA'S "STANDARD SPECIFICATIONS FOR ARCHITECTURAL GRANITE". MARBLE INSTITUTE OF AMERICA'S "DIMENSION STONE DESIGN MANUAL."
2. CUT EDGES, CORNERS, INTERSECTIONS, OPENINGS SQUARE, TRUE, AND STRAIGHT UNLESS OTHERWISE INDICATED.
3. SEAM WIDTH: 1/8 INCH (0.30 CM) MAXIMUM.
4. LIPPAGE MISMATCH: 1/16 INCH (0.15 CM) MAXIMUM.
5. CUT OPENINGS IN SHOP AND GRIND EDGES TO REMOVE CUT MARKS.
a. FINISH EXPOSED EDGES OF CUT OUTS TO MATCH EXPOSED FINISH OF GRANITE PIECE.
LAYOUT:
1. FIELD VERIFY DIMENSION BEFORE FABRICATING COMPONENTS.
2. LAYOUT WORK TO MINIMIZE THE NUMBER OF SEAMS.
3. ALIGN SEAMS WITH JOINTS IN [CABINETS] [AND] [CASEWORK].
4. DO NOT LOCATE SEAMS AT LARGE OPENINGS, SUCH AS SINKS.
COUNTER:
1. SINK MOUNT: TOP-MOUNT
2. CUTOUTS: COORDINATE SIZE AND LOCATION WITH OTHER TRADES AND COMPLY WITH SINK MANUFACTURER'S PRODUCT SPECIFICATIONS.
a. ACCURATELY LOCATE AND SIZE CUTOUTS.
b. POLISH EDGES OF CUTOUTS.
3. CORNERS CONDITION: MITER SEAM THROUGH ENTIRE COUNTERTOP SURFACE.
SPLASHES:
1. PROVIDE SEPARATE FROM COUNTERTOPS FOR FIELD INSTALLATION.
2. CORNERS CONDITION: BUTT
PART 3 EXECUTION:
3.01 EXAMINATION: DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED. IF SUBSTRATE PREPARATION IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY GENERAL CONTRACTOR OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING. VERIFY THAT WALL SURFACES HAVE BEEN FINISHED AND MECHANICAL AND ELECTRICAL SERVICES AND OUTLETS ARE INSTALLED IN PROPER LOCATIONS.
3.02 PREPARATION: CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION. PREPARE SURFACES USING THE METHODS RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
3.03 INSTALLATION: SECURELY ATTACH COUNTERTOPS TO CABINETS USING CONCEALED FASTENERS. MAKE FLAT SURFACES LEVEL; SHIM WHERE REQUIRED. ATTACH PLASTIC LAMINATE COUNTERTOPS USING SCREWS WITH MINIMUM PENETRATION INTO SUBSTRATE BOARD OF 5/8 INCH. SEAL JOINT BETWEEN BACK/END SPLASHES AND VERTICAL SURFACES.
"DRY ASSEMBLE" GRANITE AND SOLID SURFACE PIECES TO VERIFY FIT BEFORE APPLYING ADHESIVES. SHIM PIECES AS REQUIRED TO PRODUCE SURFACES THAT ARE PLUMB, LEVEL, FLUSH, ALIGNED, AND TRUE. APPLY ADHESIVES ONLY AFTER FINAL ADJUSTMENTS AND CORRECTIONS TO FIT HAVE BEEN MADE, FILL SEAMS WITH SEALANTS BEFORE FINAL POSITIONING.
INSTALL COUNTERTOP TO SUBSTRATE WITH ADHESIVE. PROVIDE MAX. SEAM OF 1/8 INCH GAP AND FILL WITH SEALANT.
3.04 CLEANING: CLEAN COUNTERTOPS SURFACES THOROUGHLY.
3.05 PROTECTION: PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.

070243 ALUMINUM COMPOSITE PANEL SYSTEM (ACM)- PROPRIETARY

WHERE INDICATED AS "ACM", CONTRACTOR SHALL PROVIDE AND INSTALL COMPLETE TURN-KEY COMPOSITE WALL PANEL DRY JOINT, PRESSURE-EQUALIZED RAINSCREEN SYSTEM, WITH ACCESSORIES INCLUDING SUB GIRTS, ALUMINUM PANEL SPLINES, ALUMINUM PANEL BASES, HEAD FLASHINGS, CLIPS, SHIMS, FASTENERS, AND ALUMINUM TRIM PREFINISHED TO MATCH ALUMINUM WALL PANELS. THIS PROPRIETARY INSTALLATION MUST BE IN FULL COMPLIANCE WITH HYUNDAI GDSI STANDARDS.
HYUNDAI HAS ESTABLISHED A NATIONAL VENDOR PROGRAM FOR THE ACM PANEL MANUFACTURE AND INSTALLATION BY AGI. CONTACT JODY MUNSEY WITH AGI AT 865-692-1242, EX 3218 FOR PRICING AND INFORMATION. AGI MUST BE UTILIZED FOR ALL ACM.
THERE ARE 3 MAIN ELEMENTS INDICATED IN THE CONSTRUCTION DOCUMENTS--
ACM-1, SHAPED SKY METAL FASCIA- A COMPLETE RAIN SCREEN SYSTEM, BLACK, WITH 4MM SHAPED SKY PANEL OVERLAY IN BRONZE. LOCATION- FASCIA AT SHOWROOM AND SERVICE DRIVE.
ACM-2, SHAPED SKY METAL CEILING PANELS- 2'X 2' METAL PANELS, BLACK, WITH 4MM SHAPED SKY PANE OVERLAY, BRONZE. GC PROVIDE AND INSTALL ARMSTRONG PRELUDE XL 15/16" BLACK GRID. GRID MUST BE INSTALLED PER MANUFACTURERS RECOMMENDATION TO ACHIEVE CEILNG PANEL SUPPORT OF 2 LBS/SF OVER AND BEYOND LIGHTING/ MECHANICAL LOADS FROM THE BUILDING SYSTEMS. LOCATIONS- CEILING WHERE INDICATED, AND ABOVE LEAD CAR DISPLAY PAD IN SHOWROOM.
AMC-3, ENTRY ELEMENT, IN HYUNDAI BRONZE. CONTRACTOR TO FRAME OPENINGS/ ENTRY VESTIBULE AND PROVIDE J BOX FOR SIGNAGE BY OTHERS.

CONTINUE ON SP002

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HYUNDAI
HYUNDAI OF SOUTH CHARLOTTE

Revisions:

Number	Date	Description

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HYUNDAI
SOUTH CHARLOTTE

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PINEVILLE, NC 28134

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