

Office Copy

DR. O. E. HOWELL COTTAGE

PATRICK HENRY GIRLS' PLANTATION

RUSTBURG, VIRGINIA

CRESS - RHODES

AND

ASSOCIATES

ARCHITECTS

*Small Tube
#66*

INDEX

INVITATION TO BID AND INSTRUCTIONS TO BIDDERS	1
GENERAL CONTRACTOR'S PROPOSAL FORM	2 - 3
GENERAL CONDITIONS	4
SUPPLEMENTARY GENERAL CONDITIONS	5 - 6
SCHEDULE OF DRAWINGS	7
 SPECIFICATIONS	
 DIVISION 1 - GENERAL REQUIREMENTS	
SECTION 1A - GENERAL REQUIREMENTS	1A-1 - 1A-1
 DIVISION 2 - SITEWORK	
SECTION 2A - GRADING, BACKFILLING & SITEWORK	2A-1 - 2A-2
 DIVISION 3 - CONCRETE	
SECTION 3A - CONCRETE AND CEMENT FINISH	3A-1 - 3A-2
 DIVISION 4 - MASONRY	
SECTION 4A - MASONRY	4A-1 - 4A-2
 DIVISION 5 - METAL	
SECTION 5A - MISCELLANEOUS METAL	5A-1 - 5A-1
 DIVISION 6 - CARPENTRY	
SECTION 6A - GENERAL CARPENTRY	6A-1 - 6A-1
SECTION 6B - MILLWORK	6B-1 - 6B-2
SECTION 6C - TRUSSES	6C-2 - 6C-1
 DIVISION 7 - MOISTURE PROTECTION	
SECTION 7A - WATERPROOFING	7A-1 - 7A-1
SECTION 7B - ROOFING AND SHEET METAL	7B-1 - 7B-2
SECTION 7C - INSULATION	7C-1 - 7C-1
SECTION 7D - CAULKING AND BUILDING SEALANT	7D-1 - 7D-1
 DIVISION 8 - DOORS, WINDOWS AND GLASS	
SECTION 8A - WOOD DOORS	8A-1 - 8A-1
SECTION 8B - WOOD WINDOWS	8B-1 - 8B-1
SECTION 8C - FINISHING HARDWARE	8C-1 - 8C-1
 DIVISION 9 - FINISHES	
SECTION 9A - CERAMIC TILE	9A-1 - 9A-1
SECTION 9B - RESILIENT FLOORING	9B-1 - 9B-2
SECTION 9C - CARPET	9C-1 - 9C-1
SECTION 9D - PAINTING	9D-1 - 9D-4
SECTION 9E - DRYWALL	9E-1 - 9E-2
 DIVISION 10 - SPECIALTIES	
SECTION 10A - TOILET ACCESSORY SCHEDULE	10A-1 - 10A-1
SECTION 10B - TOILET PARTITIONS	10B-1 - 10B-1
 DIVISION 15 - MECHANICAL	
SECTION 15A - HEATING AND AIR CONDITIONING	15A-1 - 15A-4
SECTION 15B - PLUMBING	15B-1 - 15B-3
 DIVISION 16 - ELECTRICAL	
SECTION 16 - ELECTRICAL	16-1 - 16-3

INVITATION TO BID AND INSTRUCTIONS TO BIDDERS

YOU ARE INVITED TO SUBMIT A PROPOSAL FOR THE BUILDING AS HEREIN SPECIFIED AND AS SHOWN ON THE DRAWINGS ENTITLED "DR. O. E. HOWELL COTTAGE, PATRICK HENRY GIRLS' HOME". REQUEST FOR ADDITIONAL INFORMATION SHOULD BE ADDRESSED TO THE OFFICE OF THE ARCHITECTS. PLANS, SPECIFICATIONS ARE AVAILABLE AT THE OFFICE OF CRESS - RHODES AND ASSOCIATES, ARCHITECTS, 714 COURT STREET, LYNCHBURG, VIRGINIA 24504. PHONE (804) 845-1221, SUBJECT TO THE FOLLOWING CONDITIONS.

1. THE OWNER RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS.
2. PROPOSALS SHALL BE MADE IN THE FORM PROVIDED HEREIN. THE ENCLOSED FORMAT SHALL BE REPRODUCED ON THE BIDDERS LETTERHEAD. ALL SPACES AS INDICATED SHALL BE FILLED IN BY TYPEWRITER EXCEPT THE SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF THE BIDDER WHICH SHALL BE IN LONGHAND. ALTERATIONS TO THE PROPOSAL MADE ON THE OUTSIDE OF THE OUTERMOST ENVELOPE WILL BE HONORED. PROPOSALS SHALL BE ADDRESSED AND DELIVERED TO THE OWNER AT THE OFFICE OF THE ARCHITECT SO AS TO BE IN THE HANDS OF THE OWNER NOT LATER THAN
AT WHICH TIME THEY WILL BE OPENED AND READ ALOUD. PROPOSALS WILL BE SUBMITTED IN AN OPAQUE ENVELOPE BEARING THE NAME, ADDRESS, AND REGISTRATION NUMBER OF THE BIDDER.
3. THE INSTRUCTIONS TO BIDDERS (A.I.A. DOCUMENT A 701) (APRIL 1976 EDITION) APPLY TO THIS PROJECT.
4. ALL BIDS MUST BE ACCOMPANIED BY AN ACCEPTABLE BID BOND IN THE AMOUNT OF 6% OF THE BASE BID, OR A CERTIFIED CHECK IN THE AMOUNT OF 5% OF THE BASE BID, MADE PAYABLE TO PATRICK HENRY GIRLS' HOME.

GENERAL CONTRACTOR'S PROPOSAL FORM

TO: MR. ROBERT W. MCCULLOUGH, EXECUTIVE DIRECTOR
PATRICK HENRY GIRLS' HOME
RUSTBURG, VIRGINIA

RE: DR. O. E. HOWELL COTTAGE

DATE: _____

1. THE UNDERSIGNED DECLARES THAT HE HAS EXAMINED THE SITE OF THE WORK AS SET FORTH AND DESCRIBED IN THE PLANS AND SPECIFICATIONS AND HAS THOROUGHLY FAMILIARIZED HIMSELF IN REGARD TO ALL CONDITIONS PERTAINING TO THE SITE OF THE CONSTRUCTION; THAT HE HAS THOROUGHLY EXAMINED THE PLANS AND SPECIFICATIONS FOR THIS PROJECT AND THE OTHER CONTRACTURAL DOCUMENTS RELATIVE THERETO; THAT HE HAS READ AND FULLY UNDERSTANDS ALL BULLETINS FURNISHED PRIOR TO THE OPENING OF THE BIDS; THAT HE HAS SATISFIED HIMSELF AS TO ALL CONDITIONS RELATIVE TO THE WORK TO BE PERFORMED.
2. THE BIDDER PROPOSES AND AGREES, IF THIS PROPOSAL IS ACCEPTED, TO CONTRACT WITH PATRICK HENRY GIRLS' HOME, RUSTBURG, VIRGINIA IN THE FORM OF THE CONTRACT SPECIFIED, TO FURNISH ALL MATERIALS, EQUIPMENT, MACHINERY, TOOLS, APPARATUS, MEANS OF TRANSPORTATION, UTILITIES AS REQUIRED, DURING CONSTRUCTION OF THE FOLLOWING PROJECT FOR THE FOLLOWING SUM.

BID PROPOSAL

BASE BID _____ \$ _____

3. THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF ADDENDA NO. _____ AND HAS TAKEN THEM INTO CONSIDERATION IN SUBMITTING THIS PROPOSAL.

4. REGISTERED AS A CONTRACTOR UNDER TITLE 54, CHAPTER 7, CODE OF VIRGINIA 1950, AS AMENDED, CERTIFICATE NUMBER _____ 19_____.

5. ATTACHED HERETO IS BID BOND IN THE AMOUNT OF 6% OF THE BASE BID FOR THE SUM OF \$ _____, OR A CERTIFIED CHECK ON THE BANK OF _____ IN THE AMOUNT OF 5% OF THE BASE BID FOR THE SUM OF \$ _____, MADE PAYABLE TO PATRICK HENRY GIRLS' HOME.

THE UNDERSIGNED AGREES TO FURNISH A PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND, BINDING THE CONTRACTOR AND SURETY UNTO PATRICK HENRY GIRLS' HOME AS OBLIGEE.

DATE

FIRM NAME

ADDRESS

BY _____

GENERAL CONDITIONS

"THE GENERAL CONDITIONS OF THE CONTRACT FOR THE CONSTRUCTION OF BUILDINGS" STANDARD FORM A-201 OF THE AMERICAN INSTITUTE OF ARCHITECTS, APRIL 1976 EDITION, ARTICLES 1 - 14 INCLUSIVE, ARE HEREBY, EXCEPT AS THE SAME MAY BE INCONSISTENT HERewith, MADE A PART OF THESE SPECIFICATIONS, TO THE SAME EXTENT AS IF HEREIN WRITTEN OUT IN FULL. WHERE ANY ARTICLE OF THE A.I.A. "GENERAL CONDITIONS" IS SUPPLEMENTED HEREBY, THE A.I.A. PROVISIONS OF SUCH ARTICLES SHALL REMAIN IN EFFECT. ALL THE SUPPLEMENTAL CONDITIONS SHALL BE CONSIDERED TO BE ADDED HERETO. WHERE ANY SUCH ARTICLE IS AMENDED, VOIDED, SUPERSEDED, ETC., THE PROVISIONS OF SUCH ARTICLES NOT SPECIFICALLY AMENDED, VOIDED, SUPERSEDED, ETC. SHALL REMAIN IN EFFECT.

THE "GENERAL CONDITIONS" INCLUDING MODIFICATIONS AND SPECIAL CONDITIONS HEREIN, SHALL BECOME A PART OF THE CONTRACT AND SHALL APPLY TO ALL CONTRACTORS AND SUB-CONTRACTORS.

A COPY OF THE "GENERAL CONDITIONS" OF THE AMERICAN INSTITUTE OF ARCHITECTS IS AVAILABLE FOR EXAMINATION AT THE OFFICE OF THE ARCHITECT.

SUPPLEMENTARY GENERAL CONDITIONS

THE SUPPLEMENTARY GENERAL CONDITIONS MODIFY AND ADD TO THE GENERAL CONDITIONS AND SHALL FORM A PART OF THIS CONTRACT AND ALL SUB-CONTRACTS.

1.1.3.1 THE FOLLOWING ITEMS OF WORK WILL BE DONE UNDER SEPARATE CONTRACT AND ARE NOT INCLUDED IN THE CONSTRUCTION CONTRACT.

1. DESKS, CHAIRS AND OTHER PORTABLE EQUIPMENT
2. SHADES AND DRAPES
3. SEPTIC SYSTEM FROM POINT 5' OUTSIDE BUILDING LINE
4. WATER SUPPLY SYSTEM FROM WELL AND PUMP
5. DRIVE, PAVING & RELATED PARKING DEVICES

4.4.3 TEMPORARY UTILITIES

REFER TO 4 OF THE GENERAL CONDITIONS. TEMPORARY HEAT REQUIRED FOR THE BUILDING DURING CONSTRUCTION SHALL BE SUPPLIED BY THE GENERAL CONTRACTOR AS HEREINAFTER SPECIFIED. SANITARY FACILITIES SHALL BE PROVIDED FOR ALL WORKMEN AND SHALL BE AS REQUIRED BY STATE OF VIRGINIA DEPARTMENT OF HEALTH REGULATIONS AND LOCAL HEALTH ORDINANCES.

4.7.5 CONTRACTOR'S REGISTRATION LAW

THE ATTENTION OF THE BIDDER IS INVITED TO TITLE 54, CHAPTER 7, CODE OF VIRGINIA, 1950, AS AMENDED, WHICH REQUIRES EVIDENCE OF A CERTIFICATE OF REGISTRATION BEFORE HIS BID MAY BE RECEIVED AND CONSIDERED ON A GENERAL OR SUBCONTRACT OF \$30,000.00 OR MORE. IN COMPLIANCE WITH THIS REQUIREMENT, THE BIDDER WILL PLACE ON THE OUTSIDE OF THE ENVELOPE CONTAINING HIS BID THE FOLLOWING NOTATION:

"REGISTERED CONTRACTOR, VIRGINIA CERTIFICATE NO. _____ 19 _____" AND HE WILL INSERT THE SAME STATEMENT IN HIS BID OVER HIS SIGNATURE.

4.13.2 TEMPORARY FIELD OFFICE.

THE GENERAL CONTRACTOR SHALL MAINTAIN A WATERTIGHT, WELL LIGHTED FIELD OFFICE ON THE SITE. LOCATION SHALL BE APPROVED BY THE ARCHITECT.

11.1.1.1 LIMITS OF CONTRACTORS LIABILITY

THIS CONTRACTOR SHALL SECURE LIABILITY INSURANCE AS REQUIRED BY ARTICLE 11 OF THE GENERAL CONDITIONS IN AT LEAST THE FOLLOWING AMOUNTS.

A. WORKMAN'S COMPENSATION	STATUTORY
B. PUBLIC LIABILITY	
EACH PERSON	\$100,000.00
EACH ACCIDENT	300,000.00
C. PROPERTY DAMAGES	
EACH ACCIDENT	10,000.00
AGGREGATE	100,000.00
D. CONTRACTOR'S PROTECTIVE PUBLIC LIABILITY	
EACH PERSON	100,000.00
EACH ACCIDENT	300,000.00
E. CONTRACTOR'S PROTECTIVE PROPERTY DAMAGES	
EACH PERSON	100,000.00
AGGREGATE	100,000.00
F. AUTOMOBILE PROPERTY LIABILITY	
EACH PERSON	100,000.00
EACH ACCIDENT	300,000.00

G. AUTOMOBILE PROPERTY DAMAGE
EACH ACCIDENT

\$100,000.00

IT WILL BE THE RESPONSIBILITY OF THE VARIOUS CONTRACTOR TO SEE THAT THE SUB-
CONTRACTORS CARRY THE PROPER INSURANCE TO CONFORM TO THE ABOVE.

SCHEDULE OF DRAWINGS

SHEETS 1 THROUGH 4

DIVISION 1
GENERAL REQUIREMENTS
SECTION 1A
GENERAL REQUIREMENTS

1. DESCRIPTION OF BIDS:

- A. BASE BID: THE BASE BID SHALL INCLUDE A PRICE FOR FURNISHING OF ALL MATERIALS, EQUIPMENT, ITEMS, DEVICES, LABOR, ETC., AS REQUIRED TO COMPLETELY FINISH THE BUILDING AS INDICATED ON THE PLANS AND SPECIFICATIONS AND DESCRIBED IN THE CONTRACT DOCUMENTS, AND DELIVER THE BUILDING TO THE OWNER, READY FOR OCCUPANCY. THIS WORK SHALL CONFORM TO ADDITIONAL DRAWINGS AND EXPLANATIONS OF THE DETAILS OR MODIFICATIONS AS MAY BE REQUIRED TO BE FURNISHED FROM TIME TO TIME DURING THE PERIOD OF CONSTRUCTION.

2. FINAL CLEANING:

AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL INSPECTION, THOROUGHLY CLEAN THE ENTIRE PROJECT. THIS INCLUDES THE FOLLOWING.

- A. WASH AND WAX ALL WINDOWS AND GLASS.
- B. CLEAN AND POLISH ALL TILE AND VACUUM ALL CARPETING.
- C. REMOVE SMUDGES AND DIRT FROM DECORATED AND FINISHED SURFACES. REPLACE AND REPAINT AS NECESSARY.
- D. WIPE ALL SURFACES CLEAN FROM DUST.

3. EQUIPMENT CONNECTIONS:

THE ROUGHING-IN FOR ALL WORK AND EQUIPMENT TO BE FURNISHED BY OTHERS, INCLUDING THE OWNER, SHALL BE ACCOMPLISHED BY THIS CONTRACT.

4. INTENT OF DOCUMENTS:

THE INTENT OF THE CONTRACT DOCUMENTS ARE COMPLIMENTARY, ONE TO ANOTHER, AND INFORMATION INDICATED ON THE PLANS SHALL BE DEEMED TO APPLY TO THE SPECIFICATIONS. INFORMATION INDICATED IN THE SPECIFICATIONS SHALL BE DEEMED TO APPLY TO THE PLANS. WORK REQUIRED BY EITHER SHALL BE INCLUDED IN THE CONTRACT AS IF CALLED FOR BY BOTH.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

- A. EXCAVATE FOR ALL FOOTINGS, FOUNDATIONS, PIERS, ETC. BACKFILL AND COMPACTION UNDER FLOOR SLABS.
- B. SITE DRAINAGE.

3. WORK NOT INCLUDED IN THIS SECTION:

- A. EXCAVATING, BACKFILLING, INSIDE AND OUTSIDE OF THE BUILDING FOR PLUMBING, HEATING, ELECTRICAL WORK UNDERGROUND, INCLUDING TANKS, PITS, MANHOLES AND CATCH BASINS, IS INCLUDED IN THE RESPECTIVE SUBCONTRACTS.
- B. FINE GRADING AND SEEDING WILL BE BY OTHERS.

4. EXCAVATING:

- A. ESTABLISH FLOOR LEVEL TO CONFORM AS NEAR AS POSSIBLE TO MEET FLOOR LEVELS AS SHOWN ON ELEVATIONS.
- B. TRIM EXCAVATION BOTTOMS TO REQUIRED LINES FOR FOOTINGS. ALL FOOTING EXCAVATIONS TO BE CLEAN AND FREE OF DEBRIS OF ANY KIND AT THE TIME CONCRETE IS POURED.

5. FOOTING EXCAVATION:

- A. THE INTENT OF THIS SPECIFICATION IS THAT THE FOOTING EXCAVATIONS SHALL BE CARRIED TO A DEPTH AS NECESSARY TO MEET EACH AND ALL OF THE FOLLOWING REQUIREMENTS:
 - (1) MINIMUM DEPTH OF 18" BELOW EXISTING FINISHED GRADE.
 - (2) MINIMUM OF 12" BELOW EXISTING GRADE LINES.
 - (3) TO A DEPTH WHERE THE BEARING VALUE OF THE SOIL IS 4000 LBS. PER SQ.FT.
 - (4) THE BID FOR PERFORMING THIS WORK SHALL BE BASED UPON THE FOOTINGS BEING PLACED AT THE ELEVATIONS AS SHOWN ON THE DRAWINGS. AT THE TIME OF CONSTRUCTION, THE CONTRACTOR IS TO VERIFY THAT THE CONDITIONS NO. 1, 2 AND 3 ABOVE ARE MET BY PLACING THE FOOTINGS AT THE ELEVATIONS NECESSARY AND HE SHALL BE PAID AN EXTRA OR THE OWNER SHALL BE GIVEN A CREDIT, WHICHEVER IS APPROPRIATE FOR THE ADJUSTMENTS MADE.
- B. REMOVE ALL MATERIALS NECESSARY TO OBTAIN INDICATED GRADE LINES.

6. UTILITIES:

- A. WHEN ENCOUNTERED IN WORK OR AS INDICATED, PROTECT EXISTING SEWER, ELECTRIC, WATER OR OTHER UTILITY SERVICES OR STRUCTURES AS REQUIRED FOR PROPER EXECUTION OF WORK. RELOCATE THEM AS DIRECTED. IF EXISTING ACTIVE SERVICES ARE NOT INDICATED BUT ARE ENCOUNTERED, REQUIRE PROTECTION OR RELOCATION. REQUEST ARCHITECT IN WRITING FOR DETERMINATION AND DECISION. DO NOT PROCEED UNTIL WRITTEN INSTRUCTIONS ARE OBTAINED.

7. SITE DRAINAGE:

- A. FOOTING DRAIN TILE - 4" PERFORATED TUBING, ADVANCED DRAINAGE SYSTEMS, INC. OR EQUAL.
- B. INSTALL THE DRAIN TILE AS SHOWN IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. EXTEND DRAIN TILE TO POINT WHERE IT CAN DRAIN ON GRADE.

8. BACKFILLING:

- A. BACKFILL USING APPROXIMATELY 8" LAYERS BEFORE COMPACTING.
- B. BACKFILL WILL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY OF THE SOIL. IF THE SOIL IS TOO DRY TO COMPACT, SPRINKLE FILL TO DESIRED MOISTURE CONTENT FOR COMPACTION.
- C. BACKFILLING AROUND EXTERIOR OF BUILDING WILL BE COMPACTED TO PREVENT SETTLEMENT AFTER SEEDING HAS BEEN DONE. FEATHER INTO EXISTING GRADES.

9. CLEANUP:

UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL DEBRIS RESULTING FROM THE OPERATIONS AND SHALL LEAVE THE SITE IN A NEAT, CLEAN AND ACCEPTABLE CONDITION. ALL MATERIALS UNSUITABLE FOR FILL SHALL BE REMOVED FROM THE SITE, OR OTHERWISE DISPOSED OF IN A LEGAL MANNER.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE JOB AS INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN.

3. WORK NOT INCLUDED IN THIS SECTION:

CUT LIMESTONE OR PRE CAST CONCRETE (IF APPLICABLE).

4. MATERIALS:

A. COARSE AGGREGATE: CLEAN LIMESTONE NOT TO EXCEED 3/4" DIAMETER. ASTM C33.

B. SAND: CLEAN, SHARP, FREE OF ORGANIC AND OTHER FOREIGN MATTER.

C. PORTLAND CEMENT: ASTM-C-150, TYPE 1.

D. MIXING WATER: CLEAN AND FREE FROM OILS, ACIDS, ALKALIS AND OTHER SALTS.

E. FABRIC REINFORCING: WIRE FABRIC REINFORCING SHALL BE 6" x 6" x 10/10 WELDED WIRE FABRIC WHERE SHOWN. ASTM A-185.

F. REINFORCING BARS: DEFORMED INTERMEDIATE BILLET BARS OF SIZE INDICATED. BARS TO BE FREE OF RUST, SCALE, ETC. PLACE AS DETAILED.

5. CONCRETE:

A. FOOTINGS - 2500# AT 28 DAYS

B. SLABS (STRUCTURAL AND BASEMENT) - 3500# AT 28 DAYS

C. SLUMP - MAXIMUM 3"

6. PLACING:

REMOVE ALL EXCESS WATER AND DEBRIS FROM THE PLACE OF DEPOSIT OF THE CONCRETE. PRIOR TO THE PLACING OF CONCRETE, INSURE THAT BOTTOMS OF ALL EXCAVATION TO RECEIVE CONCRETE ARE UNDISTURBED EARTH, PROPERLY LEVELED OFF AND TAMPED. ALL METAL REINFORCING, INSULATION, AND VAPOR BARRIERS ARE TO BE IN POSITION PRIOR TO PLACING OF CONCRETE. THIS CONTRACTOR SHALL CUT ALL FOOTINGS TRENCHES AND SUPERVISE THE INSTALLATION AND FORMING OF ALL FOOTING AND FOUNDATION WALLS WHERE APPLICABLE. BEFORE PLACING CONCRETE, ALL ICE, DEBRIS, ETC. SHALL BE REMOVED FROM THE PLACE OF DEPOSIT. THE FORMS SHALL BE THOROUGHLY WETTED (EXCEPT IN FREEZING WEATHER) OR OILED, AND REINFORCING SHALL BE KEPT CLEAN. PLACE NO CONCRETE UNTIL TESTS ON UNDERGROUND PIPE AND DUCTWORK, WHERE APPLICABLE, HAVE BEEN COMPLETED.

7. PLACEMENT OF REINFORCEMENT:

REINFORCING SHALL BE BENT, PLACED AND SUPPORTED ACCORDING TO THE SPECIFICATIONS OF THE LATEST MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCED STEEL INSTITUTE AS A MINIMUM REQUIREMENT. WHERE THE PLANS AND SPECIFICATIONS EXCEED THE ABOVE REQUIREMENTS, THE PLANS AND SPECIFICATIONS ARE TO BE FOLLOWED.

8. INSERTS IN CONCRETE:

INSTALL ALL DOWELS, ANCHORS, BOLTS, SLEEVES, ETC. FURNISHED AND LOCATED BY OTHERS.

9. CONCRETE FLOOR FINISHES:

CONCRETE FLOORS TO BE STEEL TROWELED FINISH. STEEL TROWEL FINISH TO FOLLOW WOOD FLOATING AFTER CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT EXCESS FINE MATERIAL FROM WORKING TO SURFACE. FINISH TO BE BROUGHT TO SMOOTH SURFACE, FREE FROM DEFECTS AND BLEMISHES.

10. PROTECTION AND CURING:

PROTECT CONCRETE FLOOR AGAINST FROST AND RAPID DRYING BY USING A COAT OF HORN CLEAR SEAL, APPLIED AS RECOMMENDED BY THE MANUFACTURER. CONCRETE SUCH AS STEPS THAT WILL BE IN THE FORMS SHALL BE KEPT DAMP BY SPRAYING DURING THE CURING PERIOD. WHEN CONCRETE FORMS ARE REMOVED PRIOR TO THE EXPIRATION OF REQUIRED TIME THE SIDES OF STEPS, ETC. WILL BE SPRAYED FREQUENTLY TO PROHIBIT RAPID DRYING.

11. BASEMENT FLOOR SLAB:

SHALL BE PLACED ON WELL TAMPED SUB-GRADE. LAY VAPOR BARRIER AS SPECIFIED. LAP JOINTS 9" MINIMUM. THIS VAPOR BARRIER TO BE MOISTOP II.

NOTE THAT VAPOR BARRIER EXTENDS UNDER THE ENTIRE SLAB AND TURNS UP AT THE WALL TO WITHIN $\frac{1}{2}$ " OF THE FINISHED FLOOR. FINISH FLOOR SHALL BE TROWELED SMOOTH WITH A STEEL TROWEL SO AS NOT TO LEAVE TROWEL MARKS. PROTECT SLABS WITH SAND AND CURING PAPER DURING CURING PERIOD. CURING TO BE IN ACCORDANCE WITH A.C.I. RECOMMENDATIONS.

12. FORMS:

FORMS SHALL CONFORM TO DIMENSIONS AS CALLED FOR ON PLANS SUFFICIENTLY TIGHT AND PROPERLY BRACED TO MAINTAIN POSITION AND SHAPE. THE FORMING FOR PORCH SLAB AND STEPS WILL BE DONE WITH ACCURATELY MILLED PIECES OF FORMING. AFTER THE STEPS HAVE BEEN POURED AND CURED, FORMS WILL BE REMOVED AND THE SURFACES RUBBED TO A STONE-LIKE FINISH WITH CARBORUNDUM STONE.

13. WORK WITH OTHER TRADES:

THIS CONTRACTOR SHALL WORK IN COMPLETE COOPERATION AND COORDINATION WITH ALL OTHER CONTRACTORS AND SUB-CONTRACTORS ON THE JOB. BUILD IN AND MAKE CUTOUTS FOR WORK REQUIRING SAME.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

PROVIDE ALL MATERIALS AND EQUIPMENT TO PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE JOB AS INDICATED ON THE DRAWINGS OR HEREIN SPECIFIED.

3. WORK NOT INCLUDED:

- A. PRECAST CONCRETE ITEMS
- B. STEEL LINTELS

4. MATERIALS:

- A. MASONRY CEMENT: MASONRY CEMENT SHALL BE AN APPROVED STANDARD BRAND AND SHALL CONFORM TO ASTM SPECIFICATION C-91, FOR TYPE 11, COLOR TO BE EQUAL TO FLAMINGO C-81.
- B. SAND: CLEAN, SHARP, FREE FROM DELETERIOUS MATERIALS, CONFORM TO ASTM SPECIFICATION C-144.
- C. WATER: WATER SHALL BE POTABLE QUALITY. DRINKING WATER ON THE SITE IS ACCEPTABLE. THE OWNER SHALL FURNISH ALL WATER USED FOR CONSTRUCTION.
- D. BRICK: OVERSIZE SAND FINISH, SUBMIT SAMPLES FOR APPROVAL.
- E. CONCRETE MASONRY UNITS: CONCRETE MASONRY UNITS SHALL BE OF MODULAR DIMENSIONS AND SHALL CONFORM TO ASTM SPECIFICATIONS AS INDICATED BELOW.
 - (1) HOLLOW LOAD-BEARING UNITS FOR USE IN FOUNDATION WALLS: ASTM C-90-66T, GRADE U-1.
 - (2) SOLID LOAD-BEARING UNITS FOR USE AS INDICATED ON THE DRAWINGS: ASTM SPECIFICATION C-145-66T, GRADE U-1.
 - (3) UNITS SHALL BE FREE OF ALL ORGANIC IMPURITIES THAT CAUSE RUST, STAINING, OR POPOUTS TO EXTERIOR OR INTERIOR WALLS AND SHALL CONTAIN NO COMBUSTIBLE MATTER. AGGREGATES TO CONFORM TO ASTM C331-64-T, (LIGHT WEIGHT AGGREGATES). ALL CLOSURE BLOCKS SHALL BE FURNISHED WITH FINISH ENDS.
 - (4) CONCRETE MASONRY LINTELS: PROVIDE CONCRETE MASONRY LINTELS USING THE LIGHTWEIGHT AGGREGATE SPECIFIED ABOVE. LINTELS SHALL BE OF THE SAME TEXTURE AS THE BLOCK. LINTELS SHALL BE REINFORCED AS SCHEDULED IN STANDARD DESIGN HANDBOOK.
- F. MASONRY REINFORCEMENT: JOINT REINFORCEMENT FOR CONCRETE MASONRY WALLS SHALL BE DUR-O-WAL OR EQUAL. IT SHALL BE FABRICATED OF 9 GAUGE DEFORMED MILL-GALVANIZED WIRE AND SHALL BE 2" LESS THAN THE NOMINAL WALL THICKNESS. REINFORCING SHALL BE CONTINUOUS AT CORNERS AND SHALL BE LAPPED NOT LESS THAN 6" AT SPLICES.

JOINT REINFORCEMENT FOR CAVITY WALL SHALL BE DUR-O-WAL "TRIROD" OR EQUAL.
- G. WALL INSULATION: CAVITIES OF EXTERIOR BLOCK WALLS SHALL BE "ZONOLITE" MASONRY FILL WATERPROOF INSULATION OR APPROVED EQUAL.

5. MORTAR:

- A. MORTAR PROPORTIONS: MORTAR FOR BRICK AND MASONRY BLOCK SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C270-68, TYPE S.
- B. MIXING:
 - (1) ALL MORTAR MATERIALS SHALL BE ACCURATELY WEIGHED AND THOROUGHLY MIXED TO A UNIFORM CONSISTENCY.
 - (2) MORTAR SHALL NOT BE MIXED IN GREATER QUANTITIES THAN REQUIRED FOR USE WITHIN 2½ HOURS.
- C. ANTIFREEZE COMPOUNDS: NO ANTIFREEZE LIQUID, SALTS, OR OTHER SUBSTANCES SHALL BE USED IN THE MORTAR TO LOWER THE FREEZING POINT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

6. INSTALLATION AND WORKMANSHIP:

GENERAL: LAY OUT WORK TO TRUE LINE, PLUMB AND LEVEL.

- A. CONCRETE MASONRY UNITS: C.M.U. SHALL BE BUILT AND LAYED IN ACCORDANCE WITH GUIDE SPECIFICATION FOR CONCRETE MASONRY, LATEST EDITION, PUBLISHED BY NATIONAL CONCRETE MASONRY ASSOCIATION.
- B. REINFORCING: INSTALL IN STRICT ACCORD WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS, AT EVERY SECOND COURSE. THE FIRST COURSE ABOVE AND BELOW ALL WALL OPENINGS SHALL BE REINFORCED.
- C. PRECAUTIONS:
 - (1) IN FREEZING WEATHER, NO MASONRY WILL BE LAID WHEN THE TEMPERATURE IS BELOW 32 DEGREES F ON A RISING THERMOMETER AND BELOW 40 DEGREES F ON A FALLING THERMOMETER UNLESS ADEQUATE PROTECTION AGAINST FREEZING IS PROVIDED.
- D. WETTING OF MASONRY UNITS: BRICK SHALL BE WETTED WHEN NECESSARY.
- E. COOPERATION: BUILD IN WORK OF OTHER TRADES, AS REQUIRED, WITHOUT WEAKENING OR DEFACING MASONRY.
- F. BOND: BLOCK SHALL BE RUNNING BOND LAID TO A COURSE OF ONE BLOCK AND ONE JOINT EQUAL 8". JOINTS OF EXPOSED BLOCK UNITS SHALL BE NEATLY TOOLED WITH A CONCAVE TOOL.

BRICK MASONRY UNITS SHALL BE LAYED IN RUNNING BOND. JOINTS SHALL BE FORMED BY THE USE OF A GRAPEVINE TOOL, FIRST TOOLING THE VERTICAL JOINT AND THEN THE HORIZONTAL.

7. SAMPLES:

THE ARCHITECT WILL SELECT THE BRICK FROM SAMPLE PANELS.

8. CLEANING:

- A. BRICK: CLEAN WITH A SOLUTION OF SURE-CLEAN MIXED ACCORDING TO MANUFACTURER'S APPLIED SPECIFICATIONS OR AN APPROVED EQUAL. THOROUGHLY WASH WALL WITH CLEAR WATER AFTER THE SURE-CLEAN APPLICATION.
- B. C.M.U.: CLEAN BY RUBBING WITH CARBORUNDUM STONE AND STIFF BRUSH PRIOR TO APPLICATION OF FINISHES.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

A. FURNISH ALL LABOR, MATERIALS, ITEMS, METHODS, ETC., AS REQUIRED FOR THE INSTALLATION OF THE FOLLOWING:

1. MISCELLANEOUS STEEL ANGLES
2. MISCELLANEOUS PLATES, BOLTS, ANCHORS
3. STEEL RAILS

B. PRIMING OF VARIOUS MATERIALS

C. SHOP DRAWINGS

3. WORK NOT INCLUDED:

A. HOLLOW METAL DOORS, FRAMES AND BORROWED LIGHTS

B. HARDWARE

C. STRUCTURAL STEEL

4. MATERIALS AND WORKMANSHIP:

A. FURNISH AND INSTALL ALL MISCELLANEOUS STEEL, BOLTS, ANCHORS, NUTS, WASHERS, AND OTHER DEVICES REQUIRED FOR ATTACHMENT OF ALL MISCELLANEOUS STEEL. FIELD COAT SHOP PRIME DISRUPTED SURFACES AFTER ERECTION.

B. RAILS: ORNAMENTAL HAND RAILS SHALL BE INSTALLED AS SHOWN ON DRAWINGS. COMPONENTS SHALL BE OF PRODUCTS AS MANUFACTURED BY JULIUS BLUM AS SHOWN ON DRAWINGS. ALL WELDS SHALL BE GROUND SMOOTH AND PAINTED.

C. SHOP PRIMING: ALL ITEMS FURNISHED UNDER THIS SECTION SHALL BE SHOP PRIMED (EXCEPT BRONZE, ALUMINUM AND CHROME PLATED). SHOP COAT IS TO CONSIST OF 95% GRADE (DRY) RED LEAD, TYPE 2, OR ZINC CHROMATE/TITANIUM DIOXIDE PIGMENT WITH ALKYD RESIN VEHICLE. ALL STEEL MUST BE THOROUGHLY CLEANED OF SCALE, RUST, OIL AND GREASE BEFORE PAINTING.

D. FIELD PAINTING: UPON COMPLETION OF ERECTION, MARRED SURFACES, SCARS AND WELDS SHALL BE RECOATED WITH THE SAME MATERIAL USED FOR SHOP COAT.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

- A. PROVIDE ALL MATERIALS AND EQUIPMENT TO PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE JOB AS INDICATED ON THE DRAWINGS OR HEREIN SPECIFIED, INCLUDING THE INSTALLATION OF ALL MILLWORK, AND INSTALLATION OF FINISHING HARDWARE, AND INSTALLATION OF TOILET ACCESSORIES MIRRORS AND OTHER MISCELLANEOUS ITEMS.
- B. FURNISH AND INSTALL ALL HARDWARE SUCH AS SCREWS, NAILS, SPIKES, STAPLES, ETC. FURNISH ALL WOOD CONNECTIONS AND METAL PLATES AND SHAPES LESS THAN 1/8" THICK.
- C. HANG ALL DOORS.
- D. INSTALL TRUSSED RAFTERS.

3. WORK NOT INCLUDED:

- A. MILLWORK
- B. FINISHING HARDWARE
- C. TOILET ACCESSORIES
- D. MIRRORS

4. MATERIALS:

- A. FURRING STRIPS: #1 COMMON SYP, DRESS 2 SIDES OR EQUAL
- B. STUDS AND MISCELLANEOUS FRAMING: WHITE SPRUCE, DRESSED 4 SIDES, KILN DRIED OR EQUAL.
- C. ROOF SHEATHING & SUB-FLOORING: C. C. EXT. DFPA, 1/2" THICK.
- D. BUILDING PAPER: 15# FELT, LAP OVER THROUGH-WALL FLASHING.
- E. FLOORING: STANDARD INT-DFPA (WITH EXTERIOR GLUE) 5/8" THICK.

5. WORKMANSHIP:

- A. INSTALL ALL TRIM, PANELING, MILLWORK, SHELVING, FINISH HARDWARE AND DOORS.
- B. MITER EXTERNAL CORNERS OF FLAT HORIZONTAL MEMBERS AND HOUSE INTERNAL CORNERS. MITER EXTERNAL CORNERS OF MOULDED MEMBERS.
- C. EXECUTE ROUGH CARPENTRY IN THE BEST SUBSTANTIAL WORKMANLIKE MANNER.
- D. USE JUDGMENT IN JOINTING OF MILLWORK TO RENDER JOINTS AS INCONSPICUOUS AS POSSIBLE.
- E. USE THREADED GALVANIZED NAILS FOR APPLYING EXTERIOR MILLWORK. SET HEADS FOR PUTTY BY PAINTING CONTRACTOR.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

PROVIDE ALL FINISHED WOODWORK AS SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED, EXCEPT WOOD DOORS WHICH ARE SPECIFIED UNDER DIVISION 8 OF THESE SPECIFICATIONS. THIS WORK SHALL INCLUDE FABRICATION OF WOOD COUNTERS, CABINETS, CABINET TOPS AND OTHER SHELVING ITEMS THAT MAY BE DETAILED OR REQUIRED.

3. WORK NOT INCLUDED IN THIS SECTION:

- A. TRUSSES (SEE SECTION 6c)
- B. SETTING OF MILLWORK (SEE SECTION 6A)
- C. FINISHING HARDWARE (SEE DIVISION 10 AND SECTION 6A, EXCEPT AS SPECIFIED BELOW)

4. GENERAL REQUIREMENTS:

- A. QUALITY STANDARDS: CONFORM TO "QUALITY STANDARDS OF THE ARCHITECTURAL WOODWORK INDUSTRY" LATEST EDITION, PUBLISHED BY ARCHITECTURAL WOODWORK INSTITUTE, HEREINAFTER CALLED AWI, 5055 SOUTH CHESTERFIELD ROAD, ARLINGTON, VIRGINIA 22206, AS MODIFIED HEREIN AND ON THE DRAWINGS.
- B. COMPETENCE: THE ARCHITECT RESERVES THE RIGHT TO APPROVE THE WOODWORK MANUFACTURER SELECTED TO FURNISH ALL OF THE WOODWORK. THE APPROVED WOODWORK MANUFACTURER MUST HAVE A REPUTATION FOR DOING SATISFACTORY WORK ON TIME AND SHALL HAVE SUCCESSFULLY COMPLETED COMPARABLE WORK.
- C. FIELD DIMENSIONS: THE WOODWORK MANUFACTURER IS RESPONSIBLE FOR DETAILS AND DIMENSIONS NOT CONTROLLED BY JOB CONDITIONS, AND SHALL SHOW ON HIS SHOP DRAWINGS ALL REQUIRED FIELD MEASUREMENTS BEYOND HIS CONTROL. THE GENERAL CONTRACTOR AND THE WOODWORK MANUFACTURER SHALL COOPERATE TO ESTABLISH AND MAINTAIN THESE FIELD DIMENSIONS.
- D. JOB ASSEMBLED WORK: THE GENERAL CONTRACTOR WHEN INSTALLING ITEMS NOT SHOP ASSEMBLED SHALL DISTRIBUTE TO BEST OVER-ALL ADVANTAGE THE DEFECTS ALLOWED IN THE QUALITY GRADE SPECIFIED.
- E. DELIVERY AND STORAGE: THE WOODWORK MANUFACTURER AND THE GENERAL CONTRACTOR SHALL JOINTLY BE RESPONSIBLE TO MAKE CERTAIN THAT ITEMS OF WOODWORK ARE NOT DELIVERED UNTIL THE BUILDING AND/OR STORAGE AREA IS SUFFICIENTLY DRY SO THAT THE WOODWORK WILL NOT BE DAMAGED BY EXCESSIVE CHANGES IN MOISTURE CONTENT.
- F. ALLOWABLE DEVIATIONS: DEVIATIONS FROM THE QUALITY GRADE, SPECIES AND FINISH SELECTED BELOW UNDER "EXTERIOR WOODWORK", "INTERIOR WOODWORK FOR TRANSPARENT FINISH" AND "INTERIOR WOODWORK FOR PAINT FINISH" WILL BE ALLOWED FOR INDIVIDUAL ITEMS OR COMPONENTS ONLY IF SO SPECIFIED UNDER THE SEPARATE HEADINGS COVERING SUCH ITEMS.

5. QUALITY GRADE AND MATERIALS SELECTION:**A. EXTERIOR WOODWORK:**

- (1) **QUALITY GRADE:** MATERIAL AND WORKMANSHIP OF ALL EXTERIOR WOODWORK SHALL CONFORM TO THE CUSTOM GRADE REQUIREMENTS OF THE AWI QUALITY STANDARDS.
- (2) **WOOD SPECIES:** ALL EXTERIOR WOOD SHALL BE HEART REDWOOD OR TREATED FIR.
- (3) **PLYWOOD:** ALL EXTERIOR EXPOSED PLYWOOD SHALL BE PLYRON EXT - DFPA.

B. INTERIOR WOODWORK FOR TRANSPARENT FINISHES:

- (1) **SCOPE:** ALL INTERIOR WOODWORK SHALL BE FOR TRANSPARENT FINISH.
- (2) **QUALITY GRADE:** MATERIAL AND WORKMANSHIP OF ALL INTERIOR WOODWORK FOR TRANSPARENT FINISH SHALL CONFORM TO THE CUSTOM GRADE REQUIREMENTS OF THE AWI QUALITY STANDARDS.
- (3) **WOOD SPECIES:** ALL INTERIOR WOOD FOR TRANSPARENT FINISH SHALL BE B AND BETTER WHITE PINE OR CLEAR FIR. NO FINGER - JOINTING ALLOWED.
- (4) **SHELVING FOR TRANSPARENT FINISH SHALL BE INT B - B, DFPA, EDGE - BANDED. ALL CLOSET AND BOOK SHELVING SHALL BE WHITE PINE SHELVING STOCK.**

C. STANDING AND RUNNING TRIM:

- (1) **SCOPE:** THIS INCLUDES OUT - TO - LENGTH AND LINEAL TYPE WOOD TRIM OF ALL KINDS FOR BOTH INTERIOR AND EXTERIOR USE.
- (2) **QUALITY GRADE AND SPECIES:** ALL EXTERIOR AND INTERIOR STANDING AND RUNNING TRIM SHALL CONFORM TO THE QUALITY GRADE AND SPECIES CALLED FOR HEREIN ABOVE UNDER EXTERIOR WOODWORK AND/OR INTERIOR WOODWORK, QUALITY GRADE IS AS DEFINED IN AWI QUALITY STANDARDS, SECTION 300.

D. EXTERIOR FRAMES:

- (1) **QUALITY GRADE AND SPECIES:** ALL EXTERIOR FRAMES SHALL CONFORM TO THE QUALITY GRADE AND SPECIES CALLED FOR HEREIN ABOVE UNDER EXTERIOR WOODWORK. QUALITY GRADE IS AS DEFINED IN AWI QUALITY STANDARDS, SECTION 900.

E. EXCEPTIONS: WHERE DETAILS OR SPECIES SHOWN ON PLANS CONFLICT WITH THESE SPECIFICATIONS, THE PLANS SHALL GOVERN.**F. ALL FASTENERS FOR EXTERIOR MILLWORK SHALL BE ALUMINUM THREADED NAILS.****G. LAMINATED PLASTIC COUNTER TOPS: FORMICA OR EQUAL, COLOR AND PATTERN AS SELECTED BY ARCHITECT. ADHESIVE: AS RECOMMENDED BY MANUFACTURER.**

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

FURNISH AND INSTALL WOOD TRUSSES COMPLETE WITH ALL CONNECTORS AND BRACING.

3. MATERIALS:

- A. WEST COAST DOUGLAS FIR, WEST COAST HEMLOCK, SOUTHERN YELLOW PINE OR EQUIVALENT MEMBERS AS INDICATED ON DRAWINGS AND HAVING A MINIMUM ALLOWABLE WORKING STRESS OF 1200 PSI IN BENDING OR TENSION, AND SHALL BEAR THE MARK OF A RECOGNIZED GRADING ASSOCIATION OR AGENCY TO IDENTIFY IT AS STRESS - GRADED LUMBER.
- B. CONNECTORS SHALL BE "GANG NAIL", "H-BRACE", SPLIT RING CONNECTORS, OR OTHER APPROVED TYPE OF CONNECTOR THAT WILL DEVELOP FULL STRENGTH OF THE LUMBER. THE MANUFACTURER WILL BE RESPONSIBLE FOR DESIGN, FABRICATION, AND INSTALLATION OF CONNECTORS. MINIMUM ALLOWABLE DESIGN LOADS FOR TOP CHORDS ARE 30# LIVE LOAD AND 10# DEAD LOAD, SUPERIMPOSED ON THE MEMBERS. MINIMUM ALLOWABLE DESIGN LOAD FOR BOTTOM CHORD OF TRUSS SHALL BE 20# PSF LIVE LOAD AND 10# PSF DEAD LOAD, SUPERIMPOSED ON THE MEMBERS. FASTENERS SHALL BE ATTACHED TO BOTH SIDES OF CONNECTORS.

4. FABRICATION:

TRUSSES SHALL BE FABRICATED IN ACCORDANCE WITH "GANG NAIL", "H-BRACE" OR EQUAL, LATEST DETAIL.

PROVIDE NECESSARY BRIDGING AND BRACING.

DIVISION 7
MOISTURE PROTECTION
SECTION 7A
WATERPROOFING

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

PROVIDE ALL MATERIALS AND EQUIPMENT TO PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE JOB AS INDICATED ON THE DRAWINGS OR HEREIN SPECIFIED.

3. WORK NOT INCLUDED:

FLASHINGS ARE UNDER SECTION 7B.

4. MATERIAL:

- A. MEADOWS PREMOULDED MEMBRANE, J.M. MEMBRANE WATERPROOFING WP-1 OR EQUAL ON BELOW GRADE EXTERIOR WALLS.
- B. HYDROCID MASTIC OR EQUAL, COMPLYING WITH FEDERAL SPECIFICATIONS SS-O-153-TYPE 1.
- C. AT CONTRACTORS OPTION, HE MAY USE J.M. 3 PLY MEMBRANE WATERPROOFING.

5. APPLICATION:

- A. APPLY A 1/8" FILM WITH A BASIC COVERAGE OF 8 - 9 GAL/100 SQ.FT.
- B. CARE WILL BE TAKEN NOT TO DAMAGE THE WATERPROOFING WHEN LAYING THE BRICK. ALL WORK WILL COMPLY TO THE RECOMMENDATIONS OF THE MANUFACTURER.
- C. INSTALL BELOW GRADE MEMBRANE WATERPROOFING IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. INSTALL A PROTECTIVE COATING, MEADOWS 5 PLY, 1/2" J.M. WEATHERTITE SHEATHING OR EQUAL PRIOR TO BACKFILLING.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, ITEMS, EQUIPMENT, METHODS, ETC. TO FURNISH ALL ROOFING DETAILS OR HEREIN SPECIFIED. THE SCOPE OF THIS WORK INCLUDES BUT IS NOT LIMITED TO :

- A. ASPHALT SHINGLES
- B. FLASHING, COUNTERFLASHING AND SHEET METAL WORK AND GUTTERS
- C. CAVITY FLASHING
- D. GUTTERS AND DOWNSPOUTS

3. MATERIALS AND INSTALLATION:

A. ROOFING AND FLASHING

- (1) GENERAL: THE ENTIRE SURFACE OF ALL ROOFS, UNLESS OTHERWISE SPECIFIED, AND ALL OTHER SURFACES SO INDICATED HEREIN OR ON THE DRAWINGS, SHALL BE COVERED WITH THE MATERIAL SPECIFIED, IN A PROPER AND WATER - TIGHT MANNER.
- (2) SHINGLES OVERLAPPING SHEET METAL WORK SHALL HAVE NAILS SO PLACED AS TO AVOID PUNCTURE OF THE SHEET METAL. EXPOSED NAILS SHALL BE PERMISSIBLE ONLY WHERE UNAVOIDABLE, AND IN THESE CASES SHALL BE SEALED WITH AN APPROVED COLORED MASTIC.
- (3) NEATLY FIT SHINGLE AROUND ALL PIPES, VENTILATORS AND OTHER VERTICAL SURFACES.
- (4) UPON COMPLETION, ALL SHINGLES MUST BE WHOLE, SOUND AND CLEAN, FREE OF POPS, SPLITS, ETC., AND THE ROOF SHALL BE LEFT WATER - TIGHT IN EVERY RESPECT, AND SUBJECT TO APPROVAL BY THE ARCHITECT.

B. SHINGLES:

- (1) SHINGLES: SHINGLE SHALL BE J. M. 235# ASPHALT SHINGLES OR EQUAL. NO BROKEN CORNERS ON COVERED ENDS WHICH SACRIFICE NAILING STRENGTH OR THE LAYING OF A WATER - TIGHT ROOF WILL BE ALLOWED.
- (2) INSTALLATION: INSTALL ALL SHINGLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
COVER ALL EXPOSED NAIL HEADS WITH ELASTIC CEMENT.
- (3) ROOFING FELT: IMMEDIATELY UPON DECKING THE ROOF STRUCTURE, THE ROOFING CONTRACTOR SHALL FOLLOW IMMEDIATELY BEHIND INSTALLING ONE (1) LAYER OF 15# ASPHALT SATURATED RAG FELT.

FELT SHALL BE LAID IN HORIZONTAL LAYERS WITH JOINTS LAPPED TOWARD THE EAVES AT LEAST 2", AND WELL SECURED ALONG LAPS AND AT ENDS AS NECESSARY TO PROPERLY HOLD THE FELT IN PLACE AND PROTECT THE STRUCTURE UNTIL COVERED WITH THE SHINGLE. ALL FELT SHALL BE PRESERVED UNBROKEN, TIGHT AND WHOLE.

FELT SHALL LAP ALL RIDGES AT LEAST 12" TO FORM DOUBLE THICKNESS AND SHALL BE LAPPED 2" OVER THE METAL OF ANY VALLEYS.

- (4) VALLEYS: ALL VALLEYS SHALL BE LAID TO FORM "OPEN" VALLEYS.

3. MATERIALS AND INSTALLATION:

C. FLASHING, COUNTERFLASHING AND SHEET METAL WORK

- (1) CORNICE FLASHING AND COUNTERFLASHING, VALLEYS, EAVE STRIPS, - 40# TIN
- (2) SOLDER - AS RECOMMENDED BY SHEET METAL MANUFACTURER.

D. BASE FLASHING AND WINDOW AND DOOR HEAD FLASHING: - 3 OZ.

FABROID THRU-WALL FLASHING. PROJECT TO 1" FROM EXTERIOR FACE OF MASONRY WORK, EXTEND VERTICALLY A MINIMUM OF 8" PRIOR TO INSTALLING BUILDING PAPER.

E. PLUMBING VENTS SHALL BE FLASHED WITH 4# LEAD. FLANGE ONTO ROOF AND TURN DOWN INTO STACK A MINIMUM OF 1".

F. GUTTERS AND DOWNSPOUTS SHALL BE FABRICATED TO STOCK PROFILES SIMILAR TO DRAWINGS. MATERIAL SHALL BE 26 GA. GALVANIZED SHEET METAL.

4. WORK WITH OTHERS:

COORDINATE FLASHING WITH CARPENTRY AND MASONRY WORK.

5. GUARANTEE:

THIS CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED UNDER THIS SECTION FOR A PERIOD OF TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

- A. INSULATION OF STUD WALLS
- B. INSULATION OF CEILINGS
- C. PERIMETER INSULATION

3. WORK NOT INCLUDED:

- A. WEATHERSTRIPPING, SEE SECTION 8C

4. MATERIALS:

- A. INSULATION OF STUD WALLS - JOHNS - MANVILLE FOIL - FACED FIBERGLASS INSULATION, 4" THICK OR EQUAL, AND 10" THICK BATTS IN CEILINGS
- B. PERIMETER INSULATION: "STYROFOAM SM", DOW CHEMICAL.

5. WORKMANSHIP:

- A. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- B. STAPLE FLANGES OF BATTS TO THE FACE OF THE STUDS AND TO THE BOTTOM OF THE CEILING JOISTS OR TRUSSED RAFTERS AS TO THE SPECIFIC AREA. CARE WILL BE TAKEN TO PROTECT THE VAPOR BARRIER.
- C. INTEGRATE OTHER CEILING INSULATION WITH THE ACOUSTICAL CEILING TILE INSULATION.
- D. PERIMETER INSULATION: INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS IN EFFECT AT TIME OF CONSTRUCTION.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTAL GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. SCOPE:

FURNISH ALL MATERIALS, EQUIPMENT AND METHOD TO APPLY ALL CAULKING COMPOUNDS AS REQUIRED FOR A COMPLETELY WATER TIGHT JOB.

3. MATERIALS:

A. CAULKING SONNEBORN SONOLASTIC SEALANT, COLOR AS SELECTED BY ARCHITECT.

4. WORKMANSHIP:

CARE WILL BE TAKEN IN APPLYING CAULKING TO RUN A NEAT BEAD, FREE OF SMEARS OR SAGS. JOINTS MORE THAN 3/4" DEEP WILL BE FILLED WITH UNTARED OAKUM OR RECOMMENDED FILLER BY MANUFACTURER.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

- A. WOOD DOORS
- B. GLAZING OF DOORS

3. WORK NOT INCLUDED IN THIS SECTION:

- A. HARDWARE
- B. METAL LOUVERS

4. MATERIALS:

- A. EXTERIOR FRONT DOOR: MORGAN, M-100, 1-3/4" THICK.
- B. EXTERIOR SIDE AND REAR DOORS: MORGAN, M-3984, 1-3/4" THICK.
- C. SCREEN DOORS: 1-1/8" THICK, SEE DOOR SCHEDULE.
- D. INTERIOR DOORS: 1-3/8" THICK SOLID CORE, GOOD GRADE BIRCH.
- E. BI FOLD DOORS: HUTTIG BARTON, OR EQUAL.
- F. GLASS FOR DOORS: 1/8" PLEXIGLASS, OR TEMPERED.

5. GUARANTEE:

ALL DOORS SHALL BE FREE OF DEFECTS AND GUARANTEED AGAINST WARPAGE FOR A PERIOD OF TWO (2) YEARS AFTER ISSUANCE OF CERTIFICATE OF SUBSTANTIAL COMPLETION.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

FURNISH ALL LABOR AND MATERIALS TO COMPLETE ALL WOOD WINDOWS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- A. WOOD DOUBLE HUNG AND PROJECTED WINDOWS
- B. TRANSOMS
- C. STORM WINDOWS AND SCREENS

3. MATERIALS:

- A. DOUBLE HUNG WINDOWS: HUTTIG ARMA - SEAL. FRAMES AND SASH TO BE WESTERN PONDEROSA PINE TREATED WITH WOODLIFE PRESERVATIVE, WATER - REPELLANT AND PRIMED. ALL OPERABLE WINDOWS TO BE FULLY WEATHERSTRIPPED AND FURNISHED WITH MANUFACTURER'S STANDARD BALANCES. AFTER INSTALLATION, EACH SASH SHALL BE ADJUSTED FOR EASE OF OPERATION AND WEATHERTIGHTNESS.
- B. PROJECTED WINDOWS: SHALL BE EQUAL TO ANDERSON BASEMENT WINDOW, TOXIC - TREATED FRAME, PRIMED, WEATHERSTRIPPED AND GLAZED.
- C. STORM WINDOWS AND SCREENS: SHALL BE TRIPLE TRACK, RUSSCO OR EQUAL.
- D. GLAZING: ALL WINDOWS TO BE GLAZED DSB EXCEPT PICTURE WINDOW WHICH SHALL HAVE 3/16" CLEAR SHEET. ALL WINDOWS TO BE PRE - GLAZED. ALL GLASS SHALL BE LEFT WHOLE, FREE OF CRACKS AND WITH PUTTY WEATHERTIGHT AND NEAT. TRANSOM AND SIDE LIGHT SASH SHALL BE GLAZED WITH 1/8" PLEXIGLASS.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

FURNISH ALL ITEMS AND DEVICES OF FINISHING HARDWARE AS REQUIRED FOR A COMPLETE AND SECURE JOB.

3. WORK NOT INCLUDED:

- A. INSTALLATION SHALL BE BY GENERAL CONTRACTOR
- B. BI-FOLD TRACK HARDWARE
- C. BASEMENT WINDOW HINGES

4. KEYING:

ALL LOCKSETS AND CYLINDERS TO BE MASTER KEYED IN ONE SET. FURNISH FOUR (4) EXTRA MASTER KEYS.

5. ALLOWANCE:

ALLOW \$800.00 FOR FINISHING HARDWARE. IF HARDWARE SELECTED EXCEEDS THIS AMOUNT THEN AN EXTRA WILL BE AUTHORIZED. IF SELECTED HARDWARE IS LESS THAN ALLOWANCE, THEN A CREDIT SHALL BE OFFERED.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

FURNISH AND INSTALL THE CERAMIC TILE AS FOLLOWS:

- A. BATH FLOORS AND BASES AND WALLS
- B. CERAMIC ACCESSORIES

3. WORK NOT INCLUDED:

- A. CHROME ACCESSORIES
- B. EPOXY COATINGS

4. MATERIALS:

- A. CERAMIC TILE FLOOR: AMERICAN-OLEAN CERAMIC MOSAIC, MODULAR PATTERN 1 x 1, 1 x 2 AND 2 x 2 OF STOCK COLOR AND PATTERN TO BE SELECTED BY THE ARCHITECT.
- B. BASE: 4½" x 4½" CRYSTALLINE GLAZED
- C. WALL TILE: 4½" x 4½" CRYSTALLINE GLAZED
- D. MARBLE THRESHOLDS: WHITE MARBLE FULL WIDTH OF DOOR. PROJECT ¼" ABOVE BATHROOM FLOOR.

5. WORKMANSHIP:

- A. PRIOR TO COMMENCEMENT OF ANY TILE WORK THE TILE CONTRACTOR SHALL EXAMINE ALL SURFACES AND PLUMBING FIXTURES FOR ACCEPTANCE PRIOR TO WORKING IN THESE SPACES.
- B. FLOORS & BASE: SHALL BE THIN SET METHOD USING L & M FLOOR MIX, GROUT SHALL BE L & M OR EQUAL.
- C. ALL WORK SHALL BE CENTERED AND WORK SHALL BE CAREFULLY LAYED OUT TO AVOID SMALL CUTS. ALL WORKMANSHIP SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE TILE HANDBOOK. ALL CUTS SHALL BE EVEN AND RUBBED SMOOTH. JOINTS FOR FLOORS AND WALLS SHALL BE 1/16" OR LESS. TILE FLOORS AND WALLS SHALL BE LEFT CLEAN AFTER GROUTING AND SHALL BE PROTECTED WITH A SUITABLE COVERING OF PAPER BEFORE OTHER TRADES HAVE ACCESS TO THE ROOM.

USE NO ACID FOR CLEANING OF ANY GLAZED TILE.

6. COOPERATION WITH OTHER TRADES:

THIS CONTRACTOR SHALL COOPERATE WITH ALL OTHER TRADES AFFECTED BY THIS WORK.

7. GUARANTEE:

GUARANTEE ALL WORK INSTALLED UNDER THIS SECTION FOR ONE YEAR FROM DATE OF CERTIFICATE OF SUBSTANTIAL COMPLETION.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

PROVIDE ALL MATERIALS AND EQUIPMENT TO PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE JOB AS INDICATED ON THE DRAWINGS OR HEREIN SPECIFIED, INCLUDING VINYL ASBESTOS TILE AND RUBBER REDUCER STRIPS.

3. WORK NOT INCLUDED:

- A. SLATE TILE WORK
- B. CARPETS

4. MATERIALS:

- A. TILE: ARMSTRONG 1/8" THICK, 12" SQ. EXCELON.
- B. SHEET VINYL: ARMSTRONG, QUIET ZONE II.
- C. RUBBER REDUCER STRIPS - JOHNSONITE
- D. VINYL BASE: 4" HIGH, JOHNSONITE OR EQUAL. USE COVE BASE WITH TILE AND STRAIGHT BASE WITH CARPET.
- E. RUBBER TREADS: JOHNSONITE
- F. ADHESIVE: AS RECOMMENDED BY MANUFACTURER.

5. INSTALLATION AND WORKMANSHIP:

- A. INSPECT THE FLOOR SLAB AND IF FOUND TO BE UNSUITABLE FOR THE TILE, NOTIFY THE ARCHITECT IN WRITING. WHEN THIS CONTRACTOR STARTS HIS WORK, HE THEN ASSUMES THE RESPONSIBILITY OF THE FLOOR BEING SUITABLE FOR HIS MATERIAL.
- B. DO NOT START WORK UNTIL WORK OF OTHER TRADES, INCLUDING PAINTING, HAS BEEN SUBSTANTIALLY COMPLETED. USE ONLY EXPERIENCED WORKMEN.
- C. ALL SECTIONS OF BASE SHALL FIT TIGHTLY AND NEATLY. SET TOP TO STRING LINE.
- D. LAY TILES SQUARE WITH ROOM AXIS.
- E. INSTALL IN ACCORDANCE WITH STANDARD SPECIFICATIONS OF MANUFACTURER.
- F. FIT TILE NEATLY INTO BREAKS, RECESSES, AGAINST WALL, AROUND PIPE AND UNDER SADDLES.
- G. CLEAN OFF SURPLUS ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
- H. MAINTAIN A TEMPERATURE OF AT LEAST 70°F FOR 24 HOURS PRIOR TO INSTALLATION, DURING INSTALLATION, AND FOR 24 HOURS AFTER INSTALLATION.
- I. COLORS WILL BE SELECTED BY THE ARCHITECT.

6. GUARANTEE:

- A. CONTRACTOR SHALL FURNISH WRITTEN GUARANTEE THAT ALL WORK REQUIRED BY THIS SECTION SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR. CONTRACTOR MUST BE NOTIFIED IN WRITING BY OWNER OF ANY DEFECT WITHIN ONE YEAR FROM DATE OF ACCEPTANCE.**
- B. THE OWNER SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL FIXTURES AND EQUIPMENT ATTACHED TO THE SURFACE UPON WHICH THE CORRECTIVE WORK IS TO BE EXECUTED.**

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. DESCRIPTION OF WORK:

THE EXTENT OF CARPET IS SHOWN ON DRAWINGS AND SCHEDULES.

INSTALLER MUST EXAMINE SUBSTRATE AND CONDITIONS UNDER WHICH CARPETING IS TO BE INSTALLED, AND NOTIFY THE CONTRACTOR IN WRITING OF ANY CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS CORRECTED IN A MANNER ACCEPTABLE TO INSTALLER. COMMENCEMENT OF INSTALLATION WILL INDICATE ACCEPTANCE OF SUBSTRATE.

3. MATERIALS:

TYPE: TUFTED THROUGH BACK

PITCH: 1/8" (.125 WIRE)

STITCHES PER INCH: 9 (9 ROWS/INCH)

PILE HEIGHT: 1/8"

FACE MATERIAL: 100% VECTRA OLEFIN

FACE WEIGHT: 33 OZ./YD.

BACKING: PRIMARY BACK - 100% POLYPROPYLENE

PRIMARY COATING - LATEX

SELF PAD - 38 OZ. COMPRESSION TESTED RUBBER

TOTAL WEIGHT: 101 OZ.

WIDTH AND COLOR: MANUFACTURER'S STANDARD

FLAME SPREAD: TO BE LESS THAN 75

THE ABOVE SPECIFICATION IS WELLCO CARPET CORPORATION "DECATHLON".

4. INSTALLATION:

THOROUGHLY VACUUM SUBSTRATE.

INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, USING RECOMMENDED RELEASE-TYPE ADHESIVE, WITH FLAME SPREAD OF LESS THAN 75.

INSTALL WITH JOINTS RENDERED INCONSPICUOUS.

INSTALL CARPET EDGE GUARD AT EVERY LOCATION WHERE EDGE OF CARPET IS EXPOSED TO TRAFFIC.

5. SUBMITTALS:

SUBMIT MANUFACTURER'S DATA ON CARPET AND CARPETING MATERIALS SHOWING THAT MATERIALS COMPLY WITH SPECIFICATIONS. INCLUDE INSTALLATION AND MAINTENANCE INSTRUCTIONS.

SUBMIT SAMPLE 12" x 12" OF MANUFACTURER'S STANDARD COLOR LINE FOR SELECTION.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

A. PAINT OR FINISH ALL OF THE FOLLOWING:

- (1) ALL MILLWORK
- (2) ALL EXTERIOR EXPOSED STEEL
- (3) ALL INTERIOR EXPOSED STEEL
- (4) INTERIOR DRYWALL AS CALLED FOR ON FINISH SCHEDULE, EXCEPT VINYL COATED DRYWALL.
- (5) INTERIOR CONCRETE, LESS WALKING SURFACES
- (6) ALL WOOD DOORS AND FRAMES

B. THE PAINTING CONTRACTOR SHALL FURNISH ALL BRUSHES, LADDERS, SANDPAPER, SCRAPERS, PAINT, CAULKING COMPOUND, ETC. TO ACCOMPLISH THE CONTRACT.

3. WORK NOT INCLUDED:

- A. PREFINISHED PANELING**
- B. ACOUSTICAL CEILINGS**
- C. COPPER FLASHINGS AND CAPS.**

4. MATERIALS AND FINISHES:

A. MATERIALS:

ALL MATERIALS USED ON THE WORK SHALL BE FIRST QUALITY MATERIALS OF PRATT AND LAMBERT OR OTHER MANUFACTURER OF THE SAME QUALITY OF THE PRODUCT SPECIFIED BY NAME. PRODUCTS OF GLEEM, O'BRIEN, BENJAMIN MOORE OR SHERWIN WILLIAMS SHALL BE ACCEPTABLE IF THEY MEET THE ABOVE REQUIREMENTS.

B. SCHEDULE OF FINISHES:

- (1) EXTERIOR OF STEEL (PRIMED)
 - (A) REMOVE RUST
 - (B) TOUCH-UP PRIMING ON THE STEEL OR PRIME IF UNPRIMED
 - (C) TWO COATS EXTERIOR ENAMEL
- (2) INTERIOR STEEL
 - (A) REMOVE RUST AND SCALE
 - (B) TOUCH UP PRIMER OR FIRST COAT PRATT & LAMBERT #25 ZINC CHROMATE PRIMER IF UNPRIMED
 - (C) TWO COATS PRATT & LAMBERT NOXIDE METAL PAINT
- (3) EXTERIOR WOOD SURFACES:
 - (A) ONE COAT PRATT & LAMBERT PAINT EXTERIOR PRIMER
 - (B) TWO COATS PRATT & LAMBERT HOUSE PAINT
- (4) INTERIOR DRYWALL
 - (A) ONE COAT SEALER (TINTED)
 - (B) TWO (2) COATS LATEX, ROLLER APPLIED (FOR TOILETS, SHOWERS AND KITCHEN, SUBSTITUTE SEMI-GLOSS ENAMEL)

4. MATERIALS AND FINISHES:

B. SCHEDULE OF FINISHES:

- (5) PAINTED INTERIOR WOOD WORK
 - (A) TWO COATS OF PRATT & LAMBERT LYT- ALL DOUBLE DUTY PRIMER, TINTED SECOND COAT
 - (B) ONE COAT PRATT & LAMBERT VITRALITE EGGSHELL ENAMEL
- (6) INTERIOR WOOD WORK STAINED INCLUDING FLUSH DOORS
 - (A) ONE COAT PRATT & LAMBERT VARMOR FILLER- SEALER
 - (B) ONE OR MORE COATS OF PRATT & LAMBERT TONETIC WOOD STAIN AS REQUIRED FOR INTENSITY OF STAIN.
 - (C) TWO COATS OF PRATT & LAMBERT VARMOR CLEAR FINISH
 - (D) ONE COAT OF PRATT & LAMBERT VARMOR CLEAR FINISH, SATIN
 - (E) SEAL AND STAIN DOOR TOPS, BOTTOMS AND SIDES
- (7) INTERIOR EXPOSED CONCRETE
 - (A) TWO COATS PRATT & LAMBERT VAPEX FLAT WALL FINISH
- (8) ALL CABINET & DRAWER INTERIORS
 - (A) 1 COAT PRATT & LAMBERT PALE TRIM VARNISH, GLOSS
 - (B) 1 COAT PRATT & LAMBERT FALE TRIM VARNISH, SATIN
- (9) EXTERIOR METAL, GALVANIZED
 - (A) 1 COAT GALVANIZED IRON PRIMER
 - (B) 2 COATS SUB- PROOF HOUSE PAINT
- (10) INTERIOR MASONRY
 - (A) 1 COAT BLOCK- FILL, TINTED
 - (B) 2 COATS LATEX, ROLLER- APPLIED
- (11) EXTERIOR CONCRETE & STUCCO
 - (A) 1 COAT PENETRATING PRIMER
 - (B) 2 COATS PRATT & LAMBERT VAPEX MASONRY PAINT

5. WORKMANSHIP:

THE WORKMANSHIP SHALL BE THE VERY BEST. ONLY SKILLED MECHANICS SHALL BE EMPLOYED.

WHERE INTERIOR OR EXTERIOR WOOD AND METAL ARE PRIMED IN THE MILL OR SHOP AS PART OF THE PAINTING CONTRACT, THE MATERIALS SHALL IN EVERY CASE BE THAT SPECIFIED FOR THAT SUCH SURFACE AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS FOR THE FIRST OR PRIMING COAT.

EXTERIOR PAINTING SHALL NOT BE DONE WHILE THE SURFACE IS DAMP, OR DURING COLD RAINY OR FROSTY WEATHER, OR WHEN THE TEMPERATURE IS LIKELY TO DROP TO FREEZING. AVOID PAINTING SURFACES WHILE THEY ARE EXPOSED TO THE HOT SUN.

FLOORS AND ADJACENT SURFACES AS WELL AS SURFACES TO BE PAINTED SHALL BE CLEANED BEFORE PAINTING.

ALL KNOTS, PITCH STREAKS AND SAPPY SPOTS SHALL BE TOUCHED UP BEFORE PRIMING WITH P & L WP- 578 SEALER ON EXTERIOR WOOD. ON INTERIOR WOOD USE SHELLAC FOR THIS PURPOSE.

ALL NECESSARY PUTTYING OF NAIL HOLES, CRACKS AND OTHER DEFECTS SHALL BE DONE AFTER THE FIRST COAT, WITH A PUTTY OF A COLOR TO MATCH THAT OF THE FINISH. PUTTY SHALL BE BROUGHT FLUSH WITH THE ADJOINING SURFACE BY THE USE OF A PUTTY KNIFE.

5. WORKMANSHIP:

ALL METAL SURFACES SHALL BE WASHED WITH MINERAL SPIRITS TO REMOVE ANY DIRT, OIL, GREASE BEFORE APPLYING MATERIALS. REMOVE RUST AND SCALE BY WIRE BRUSHING OR SANDING BEFORE PAINTING. SHOP COATS OF PAINT THAT HAVE BECOME BADLY WEATHERED, WORN OR MARRED SHALL BE CLEANED AND TOUCHED UP BY THE PAINTING CONTRACTOR WITH A P & L PRODUCT SPECIFIED.

ALL GALVANIZED STEEL SURFACES SHALL BE PRETREATED WITH PROPRIETARY ACID-BOUND RESINOUS OR CRYSTALLINE ZINC PHOSPHATE PREPARATIONS, USED ACCORDING TO THE MANUFACTURERS DIRECTIONS PRIOR TO PAINTING.

ALL EXTERIOR TRIMS SHALL BE BACKPRIMED AND PRIMED WITH P & L EXTERIOR HOUSE PRIMER PRIOR TO INSTALLATION.

ALL INTERIOR TRIM SHALL BE PRIMED AND SANDED PRIOR TO APPLICATION OF FINISHED MATERIAL. SAND BETWEEN COATS.

TOPS, BOTTOMS AND EDGES OF UNFINISHED DOORS SHALL BE FINISHED THE SAME AS THE BALANCE OF THE DOORS, AFTER THEY HAVE BEEN FITTED BY THE CARPENTER.

THE PAINTING CONTRACTOR SHALL SECURE COLOR SCHEDULES FOR PAINTING THE BUILDING BEFORE APPLYING ANY PAINT OR FINISH. ALL PRIMING COATS AND UNDERCOATS SHALL BE TINTED TO THE APPROXIMATE SHADE OF THE FINAL COAT. THE ARCHITECT RESERVES THE RIGHT TO JOB TINT ALL COLORS.

ALL SUCTION SPOTS OR "HOT SPOTS" IN CEMENT OR PLASTER, AFTER THE APPLICATION OF THE FIRST COAT, SHALL BE TOUCHED UP BEFORE APPLYING THE SECOND COAT. ALL CLOSETS AND INTERIORS OF ALL CABINETS SHALL BE FINISHED SAME AS THE ADJOINING ROOMS, UNLESS OTHERWISE DIRECTED. ALL OTHER SURFACES SHALL BE FINISHED WITH THE SAME OR NEAREST OF ADJOINING SURFACES, UNLESS OTHERWISE DIRECTED OR SPECIFIED BY THE ARCHITECT.

COPPER, BRONZE, CHROMIUM PLATE, NICKLE, STAINLESS STEEL, ALUMINUM, MONEL METAL, LEAD, AND LEAD-COATED COPPER SHALL NOT BE PAINTED OR FINISHED, EXCEPT AS OTHERWISE SPECIFIED.

ALL MATERIALS SHALL BE APPLIED UNDER ADEQUATE ILLUMINATION, EVENLY SPREAD AND SMOOTHLY FLOWED ON WITHOUT RUNS OR SPECKS.

6. PROTECTION:

THE PAINTING CONTRACTOR SHALL NOT ONLY PROTECT HIS WORK AT ALL TIMES, BUT SHALL ALSO PROTECT ALL ADJACENT WORK AND MATERIALS BY SUITABLE COVERING OR OTHER METHOD DURING PERIOD OF HIS WORK. UPON COMPLETION OF THE WORK HE SHALL REMOVE ALL PAINT AND VARNISH SPOTS FROM THE FLOORS, GLASS AND OTHER SURFACES. HE SHALL REMOVE FROM THE PREMISES ALL RUBBISH AND ACCUMULATED MATERIALS OF WHATEVER NATURE, NOT CAUSED BY OTHERS, AND SHALL LEAVE HIS PART OF THE WORK IN A CLEAN, ORDERLY, AND ACCEPTABLE CONDITION.

7. STORAGE:

ALL MATERIALS USED ON THE JOB SHALL BE STORED IN A SINGLE PLACE DESIGNATED BY THE OWNER AND ARCHITECT. SUCH STORAGE SPACE SHALL BE KEPT NEAT AND CLEAN. THE DAMAGE THERETO OR ITS SURROUNDINGS WILL BE MADE GOOD BY THE PAINTING CONTRACTOR. ALL SOILED OR USED RAGS, WASTE AND TRASH MUST BE REMOVED FROM THE BUILDING AND EVERY PRECAUTION TAKEN TO AVOID THE DANGER OF FIRE.

8. EXTRAS:

THE PAINTING CONTRACTOR SHALL NOT BE ENTITLED TO PAYMENT IN EXCESS OF AMOUNT AGREED UPON IN HIS CONTRACT FOR ANY EXTRA WORK OVER OR ABOVE THAT SPECIFIED, UNLESS AUTHORIZED IN WRITING BY THE ARCHITECT OR THE ARCHITECT'S DULY AUTHORIZED REPRESENTATIVE.

SURFACE PREPARATION, APPLICATION AND SAFETY PRECAUTIONS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S-PRINTED INSTRUCTIONS.

1. GENERAL

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

FURNISH ALL MATERIALS AND LABOR TO FURNISH ALL ITEMS OF DRYWALL WALLS AND CEILINGS AS CALLED FOR ON PLANS, SPECIFIED HEREIN, OR REQUIRED FOR COMPLETE AND WORKMANLIKE JOB.

3. MATERIALS:

- A. GYPSUM WALLBOARD: $\frac{1}{2}$ " TAPERED EDGE SHEETROCK SW GYPSUM WALLBOARD AS MANUFACTURED BY U.S. GYPSUM CO. WALLBOARD SHALL BE IN LENGTHS AS LONG AS PRACTICAL TO MINIMIZE THE NUMBER OF JOINTS.
- B. CORNER BEAD SHALL BE DUR-A-BEAD #103. ($1\frac{1}{4}$ " x $1\frac{1}{4}$ ")
- C. METAL TRIM #200 B SERIES FOR $\frac{1}{2}$ " WALLBOARD AT INTERIOR CORNERS.
- D. DRYWALL NAILS: USG, $1\frac{1}{4}$ " ANNUAL RING.
- E. PRE-FILL MATERIAL: USE DURABOND 90 JOINT COMPOUND - MULTI-PURPOSE.
- F. JOINT REINFORCEMENT: USG PERF-A-TAPE REINFORCEMENT.
- G. JOINT COMPOUNDS:
 - (1) DURABOND JOINT COMPOUND - TAPING
 - (2) DURABOND JOINT COMPOUND - TOPPING
 - (3) USG READY MIXED JOINT COMPOUND - ALL PURPOSE
- H. WALLBOARD FOR TOILET AREAS TO BE $\frac{1}{2}$ ", TYPE WP.

4. APPLICATION:

- A. WALLBOARD - SHEETROCK SW GYPSUM WALLBOARD SHALL FIRST BE APPLIED TO CEILING AND THEN TO WALLS. TO MINIMIZE END JOINTS, USE WALL BOARD OF MINIMUM PRACTICAL LENGTH. BOARDS SHALL BE BROUGHT INTO CONTACT BUT NOT FORCED INTO PLACE. WHERE ENDS OR EDGES ABUT, THEY SHALL BE NEATLY FITTED. ALL ENDS AND EDGES SHALL OCCUR ON NAILING MEMBERS EXCEPT WHERE JOINTS ARE AT RIGHT ANGLES TO FRAMING MEMBERS AS IN HORIZONTAL APPLICATION OF WALLS.
- B. WALLBOARD SHALL BE ATTACHED TO FRAMING MEMBERS USING USG $1\frac{1}{4}$ " GWB-54 ANNULAR RING NAILS. NAIL HEADS SHALL PROVIDE A SLIGHT DEPRESSION BELOW THE SURFACE OF THE WALLBOARD WITHOUT BREAKING THE FACE PAPER. NAILS SHALL NOT BE DRIVEN CLOSER THAN $\frac{3}{8}$ " FROM THE THE EDGES AND ENDS OF THE BOARDS. APPLY TO EXTERIOR WALLS, 1ST FLOOR BY LAMINATING DIRECT TO MASONRY WALLS. WHEN THE FASTENERS ARE BEING DRIVEN, THE WALLBOARD SHALL BE HELD FIRMLY IN PLACE. ATTACHMENT SHOULD PROCEED FROM THE CENTER AND WORK PROGRESSED TOWARD THE EDGES.

METAL CORNER BEADS AND METAL TRIM AS SPECIFIED UNDER MATERIALS SHALL BE SECURELY ATTACHED IN A MANNER APPROVED BY THE MANUFACTURER. APPLY ONLY SINGLE LENGTHS.

4. APPLICATION:

C. JOINT TREATMENT - PRIOR TO COMMENCEMENT OF JOINT TREATMENT, THE BUILDING SHALL BE HEATED TO A TEMPERATURE OF 55 - 70° AND THIS TEMPERATURE MAINTAINED. TEMPORARY HEAT SHALL BE FURNISHED BY THE GENERAL CONTRACT.

- (1) PRE-FILL DURABOND "90" COMPOUND SHALL BE MIXED AND USED ACCORDING TO MANUFACTURER'S DIRECTIONS.
- (2) TAPING OR EMBEDDING SHALL BE PERFORMED WITH DURABOND JOINT COMPOUND MIXED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TAPE SHALL BE PROPERLY FOLDED AND EMBEDDED IN ALL ANGLES TO PROVIDE A TRUE ANGLE. DURABOND JOINT COMPOUND-TAPING NEED ONLY HAVE HARDENED PRIOR TO APPLICATION OF THE NEXT COAT.

D. INSTALL TEXTONE WITH DURABOND 400 ADHESIVE APPLIED WITH A CAULKING GUN TO FACE OF STUDS.

5. FILLING:

DURABOND JOINT COMPOUND TAPING SHALL BE APPLIED OVER THE EMBEDDING COAT, FILLING THE BOARD TAPER FLUSH WITH THE SURFACE. ON JOINTS WITH NO TAPER THE FILL COAT SHALL COVER THE TAPE AND FEATHER OUT AT LEAST 4" ON EITHER SIDE ON THE TAPE. NO FILL COAT IS NECESSARY TO INTERIOR ANGLES.

6. FINISHING:

A. USG READY MIXED JOINT COMPOUND ALL-PURPOSE SHALL BE SPREAD EVENLY OVER AND EXTENDED SLIGHTLY BEYOND THE FILL COAT ON ALL JOINTS AND FEATHERED TO A SMOOTH UNIFORM FINISH. ON TAPERED JOINTS, THE FINISH COAT SHALL NOT PROTRUDE BEYOND THE PLANE SURFACE. ALL TAPED ANGLES SHALL RECEIVE A FINISH COAT OVER THE TAPE AND TAPING COMPOUND PROVIDING A TRUE ANGLE.

WHERE NECESSARY, SANDING SHALL OCCUR BETWEEN COATS AND FOLLOWING THE FINAL APPLICATION OF COMPOUND TO PROVIDE A SMOOTH SURFACE READY FOR DECORATION.

B. FILLING AND FINISHING OF FASTENER DEPRESSIONS: A TAPING OR ALL PURPOSE COMPOUND MUST BE APPLIED AS THE FIRST COAT TO ALL FASTENERS DEPRESSIONS. THIS SHALL BE FOLLOWED BY A MINIMUM OF 2 ADDITIONAL COATS OF ALL PURPOSE COMPOUND, LEAVING ALL DEPRESSIONS LEVEL WITH THE PLANE OF THE SURFACE. DURABOND JOINT COMPOUND-TAPING SHALL BE USED ONLY FOR THE FIRST COAT ON FASTENERS.

C. APPLICATION OF PERF-A-TRIM AND PERF-A-BEAD CORNER REINFORCEMENT A TAPING OR ALL PURPOSE COMPOUND SHALL BE USED TO APPLY AND EMBED THE PAPER FLANGES. ALL-PURPOSE COMPOUND.

D. FINISHING BEADS AND TRIMS:

- (1) FILL COAT: DURABOND JOINT COMPOUND-TAPING SHALL BE APPLIED TO ALL BEAD AND TRIM AND PROPERLY FEATHERED OUT FROM THE GROUND TO THE PLANE OF THE SURFACE. DURABOND JOINT COMPOUND TAPING NEED ONLY HAVE HARDENED PRIOR TO THE APPLICATION OF THE NEXT COAT.
- (2) SECOND FILL COAT: DURABOND JOINT COMPOUND-TOPPING SHALL BE APPLIED IN THE SAME MANNER AS THE FIRST COAT AND EXTENDING SLIGHTLY BEYOND ONTO THE SURFACE OF THE BOARD. THE COMPOUND MUST BE THOROUGHLY DRY PRIOR TO APPLICATION OF THE FINISH COAT.
- (3) FINISH COAT: USG READY MIXED JOINT COMPOUND - ALL PURPOSE, SHALL BE APPLIED TO ALL BEAD AND TRIM EXTENDING SLIGHTLY BEYOND THE SECOND FILL COAT AND PROPERLY FEATHERED FROM THE GROUND TO THE PLANE OF THE SURFACE. THE FINISH COAT SHALL BE SANDED AS NECESSARY TO PROVIDE A FLAT SMOOTH SURFACE READY FOR DECORATION.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

PROVIDE ALL MATERIALS AND EQUIPMENT TO PERFORM ALL OPERATIONS AS REQUIRED TO INSTALL TOILET ACCESSORIES IN A SECURE, SAFE MANNER.

3. SCHEDULE OF ACCESSORIES:

GUEST BATH

1 SHOWER ROD	
1 RECESSED PAPER HOLDER	MIAMI - CAREY 8057
1 TOOTHBRUSH/TUMBLER HOLDER	MIAMI - CAREY 8040
1 SOAP DISH	MIAMI - CAREY 8001
1 MEDICINE CABINET	MIAMI - CAREY CRP - 22A - 16
2 TOWEL BARS	MIAMI - CAREY 8018
1 ROBE HOOK	MIAMI - CAREY 6006

BATH #1 AND BATH #2

EACH TO HAVE:

2 SHOWER RODS	
RECESSED PAPER HOLDER (3 REQ.)	MIAMI - CAREY 8057
MIRROR, 1/4" POL. PLATE (SEE ELEV. FOR SIZE)	
6 ROBE HOOKS	MIAMI - CAREY 6006
SOAP DISPENSER BY OWNER	
PAPER TOWEL DISPENSER BY OWNER	
2 SOAP DISHES	MIAMI - CAREY 8001
3 TOWEL RINGS	MIAMI - CAREY 179

BATH #3

1 PAPER HOLDER	MIAMI - CAREY 8057
1 MEDICINE CABINET	MIAMI - CAREY CRP - 22A - 16
1 TOOTHBRUSH/TUMBLER HOLDER	MIAMI - CAREY 8040
1 SOAP DISH	MIAMI - CAREY 8001
2 TOWEL BARS	MIAMI - CAREY 8018
1 ROBE HOOK	MIAMI - CAREY 6006
1 SHOWER ROD	

1. TYPE

TOILET COMPARTMENTS SHALL BE NORMANDIE - FLOOR SUPPORTED WITH DIVIDING PANELS MECHANICALLY FASTENED TO BUILDING WALLS, AS MANUFACTURED BY THE SANYMETAL PRODUCTS CO., INC.

2. MATERIALS

PRE-FINISHED COMPONENTS SHALL BE FROM MELA-MATE CURRENT COLOR SELECTION AND SHALL CONSIST OF MELAMINE RESIN-IMPREGNATED PAPER THERMAL-FUSED TO FACE OF 45 LB./CU./FT. DENSITY INDUSTRIAL GRADE PARTICLE BOARD. ALL EXTERNAL EDGES SHALL BE BONDED WITH COLOR MATCHING BANDING STRIP. THICKNESS OF COMPONENTS TO BE: PANELS - 3/4", PILASTERS - 1 1/2", DOORS - 1".

3. HARDWARE

BRACKETS FOR PANELS AND PILASTERS SHALL BE HEAVY, EXTRUDED ALUMINUM, HEAT-TREATED, ANODIZED AND POLISHED.

TOP HINGE SHALL BE SANYMETAL NO. 6101 RECESSED INTO DOOR APPROXIMATELY 2" FROM TOP WITH PIN SUPPORTED IN DOOR ABOVE AND BELOW TOP HINGE BRACKET.

BOTTOM POWER HINGE NO. 6100 TO BE AN ASSEMBLY OF ZYTEL CAMS UNDER SPRING TENSION, CONCEALED WITHIN DOOR AND TO PROVIDE ADJUSTABLE DOOR REST POSITION.

DOOR WEIGHT TO BE CARRIED ON FIXED THRUST BEARING, NOT ON A CAM.

HINGE BRACKET SHALL BE: TOP-NO. 7361, BOTTOM-NO. 7360.

DOOR KEEPER AND STOP NO. 8861 WITH RUBBER BUMPER LOCKED IN PLACE.

DOOR LATCH SHALL BE SANYMETAL NO. 6550 CONCEALED WITHIN THE DOOR THICKNESS AND BE STAINLESS STEEL BULLET NOSE WITH BRASS-POLISHED CHROME ESCUTCHEON PLATE AND KNOB.

PILASTER SHOES SHALL BE POLISHED 302 STAINLESS STEEL.

4. INSTALLATION

SHALL BE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS AND SANYMETAL INSTALLATION INSTRUCTIONS. INSTALL PARTITIONS RIGID, STRAIGHT, PLUMB AND LEVEL IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. SET UNITS WITH NOT MORE THAN 1/2" BETWEEN PILASTERS AND PANELS, AND NOT MORE THAN 1" CLEARANCES BETWEEN PANELS AND WALLS.

HARDWARE ADJUSTMENTS: ADJUST AND LUBRICATE HARDWARE FOR PROPER OPERATION AFTER INSTALLATION.

SET HINGES ON IN-SWING DOORS TO HOLD DOORS OPEN APPROXIMATELY 30 DEGREES FROM THE CLOSED POSITION WHEN UNLATCHED.

5. CLEANING AND FINAL ADJUSTMENTS

PERFORM FINAL ADJUSTMENTS TO LEVELING DEVICES, DOOR HARDWARE, AND OTHER OPERATING PARTS. CLEAN EXPOSED SURFACES AND TOUCH UP MINOR FINISH IMPERFECTIONS USING MATERIALS AND METHODS RECOMMENDED BY PARTITION MANUFACTURED.

REPLACE DAMAGED UNITS WHICH CANNOT BE SATISFACTORILY FIELD REPAIRED, AS DIRECTED BY ARCHITECT.

1. GENERAL

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION

- A. FURNISH ALL LABOR, EQUIPMENT, MATERIALS, METHODS, ETC. TO COMPLETELY INSTALL A COMPLETE AND SATISFACTORY HEATING AND AIR CONDITIONING SYSTEM AS SPECIFIED AND INDICATED ON THE DRAWINGS AND AS REQUIRED FOR A COMPLETE, WORKABLE, BALANCED SYSTEM.
- B. FURNISH AND INSTALL ALL LOW VOLTAGE WIRING AND ALL LINE VOLTAGE WIRING FROM DISCONNECT AT EQUIPMENT LOCATION INSTALLED BY ELECTRICAL CONTRACTOR.

3. WORK NOT INCLUDED IN THIS SECTION

THE ELECTRICAL CONTRACTOR WILL DO ALL LOW VOLTAGE WIRING TO A DISCONNECT SWITCH NEAR EACH AHU AND OUTSIDE UNIT.

4. CODES

ALL WORK UNDER THIS SECTION SHALL CONFORM TO THE LOCAL CODES GOVERNING THE SPECIFIC WORK AS A MINIMUM REQUIREMENT. WHERE THE PLANS AND SPECIFICATIONS EXCEED THE REQUIREMENTS OF THE CODE, THE PLANS AND SPECIFICATIONS SHALL BE FOLLOWED. WHERE CODE REQUIREMENTS EXCEED REQUIREMENTS OF PLANS AND SPECIFICATIONS, THE CODE REQUIREMENTS SHALL BE FOLLOWED.

5. SYSTEMS

THE SYSTEMS SHALL CONSIST OF TWO (2) AIR-TO-AIR HEAT PUMP SYSTEMS, INCLUDING ALL EQUIPMENT, CONTROLS, AIR DISTRIBUTION SYSTEM AND OTHER ITEMS REQUIRED FOR A COMPLETE AND WORKMANLIKE JOB.

6. EXCAVATION

THIS CONTRACTOR SHALL DO ALL NECESSARY EXCAVATION TO COMPLETE WORK UNDER THIS CONTRACT. NO FOUNDATIONS OR STRUCTURAL MEMBERS SHALL BE UNDERMINED OR WEAKENED BY CUTTING EXCEPT WHERE PROVISIONS ARE MADE TO STRENGTHENED THE MEMBERS SO UNDERMINED OR WEAKENED. THIS WORK SHALL PROCEED ONLY WITH THE APPROVAL OF THE ARCHITECT.

7. CUTTING AND PATCHING

THE GENERAL CONTRACTOR SHALL DO ALL CUTTING FOR THE HEATING CONTRACTOR WHERE FINISHED WORK IS CUT OR OTHERWISE INJURED AS A RESULT OF THE NECESSARY CUTTING OR PATCHING FOR THE COMPLETION OF THIS CONTRACT, THEN THE HEATING CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH DAMAGES AND SHALL HAVE THE SAME REPAIRED OR REPLACED TO THE COMPLETE SATISFACTION OF THE ARCHITECT.

8. INTENT

- A. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY; I.E. THE WORK INDICATED ON THE DRAWINGS BUT NOT SHOWN IN THE SPECIFICATIONS IS TO BE FURNISHED AND INSTALLED; AND THE WORK INDICATED IN THE SPECIFICATIONS BUT NOT SHOWN ON THE DRAWINGS IS TO BE FURNISHED AND INSTALLED; AND THE WORK INDICATED IN THE SPECIFICATIONS BUT NOT SHOWN ON THE DRAWINGS IS TO BE FURNISHED AND INSTALLED.
- B. WHERE THE MANUFACTURER OF ANY EQUIPMENT IS SPECIFIED BY NAME, THIS CONTRACTOR SHALL MAKE NO SUBSTITUTION WITHOUT EXPRESS WRITTEN PERMISSION OF THE ARCHITECT BEFORE

8. B. (CONTINUED)

COMMENCEMENT OF FABRICATION, PURCHASING OR PROCEEDING WITH THE INSTALLATION OF SAME.

C. THE INDICATIONS OF DUCTWORK, PIPEWORK AND EQUIPMENT AS SHOWN ON THE DRAWINGS ARE GENERAL IN NATURE. THIS CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS IN THE FIELD TO ACCOMMODATE THE WORK OF OTHER TRADES AND THE STRUCTURE OF THE BUILDING.

9. SHOP DRAWINGS AND BROCHURES

PRESENT 4 COPIES OF ALL EQUIPMENT, SPECIALTIES, AND COMPONENTS OF ALL SYSTEMS FOR APPROVAL.

10. ELECTRICAL WORK

- A. THE HEATING CONTRACTOR SHALL FURNISH AND INSTALL ALL THE NECESSARY COMPONENTS OF THE HEATING AND AIR CONDITIONING SYSTEMS WITH RELATED THERMOSTATS.
- B. THE ELECTRICAL CONTRACTOR WILL PROVIDE WIRING (AND CONDUIT AS REQUIRED) TO A DISCONNECT SWITCH FOR EACH AIR HANDLING UNIT (AHU) AND OUTSIDE CONDENSING UNITS. THE HEATING CONTRACTOR SHALL FURNISH ALL WIRING, CONDUIT, CONTROL RELAYS AND CONTROL COMPONENTS. ALL WIRING FROM THE POINT OF DISCONNECT SWITCHES SHALL BE PERFORMED BY A QUALIFIED ELECTRICIAN EMPLOYED BY THE HEATING CONTRACTOR. THE QUALIFIED ELECTRICIAN EMPLOYED BY THE HEATING CONTRACTOR SHALL CONNECT ALL CONTROL WIRING AND CONTROLS AS RELATED FOR THE SAFE AND PROPER OPERATION OF THE HEATING AND AIR CONDITIONING EQUIPMENT.

11. EQUIPMENT

(ALL GENERAL ELECTRIC)

TERRACE LEVEL:

BLOWER/COIL - WE 936G 100 C

CONDENSER - WB 936A 100 A

ELECTRIC DUCT HEATER - AY96 x 321 E (21.12 KW @ 240V, (1) 40A CIRCUIT + (1) 48A CIRCUIT, (1) ODT)

FIRST FLOOR:

BLOWER/COIL - WE 060C 100 B OR C

CONDENSER - WA 860 R1B

EDH - AY 96 x 112 A (25.92 KW @240V, 3 STAGE, (2) O.D.T.)

12. DUCTWORK

- A. DUCTWORK: THIS CONTRACTOR SHALL PERFORM ALL WORK AND FURNISH ALL MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO INSTALL COMPLETE AIR DISTRIBUTION SYSTEM AS GENERALLY INDICATED ON THE DRAWINGS.
- B. DUCT THICKNESS, DUCT BREAKING, JOINTS (LONGITUDINAL AND TRANSVERSE), HANGERS AND ALL GENERAL DUCT CONSTRUCTION SHALL BE ON ACCORDANCE WITH THE RECOMMENDATIONS OF THE "DUCT MANUAL AND SHEET METAL CONSTRUCTION FOR VENTILATING AND AIR CONDITIONING SYSTEMS", AS PREPARED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION.
- C. DUCTWORK SHALL BE GALVANIZED STEEL, WHEELING "SOFTLITE" MANUFACTURER OF GAUGES AS RECOMMENDED BY THE ABOVE MANUAL FOR THE RESPECTIVE SIZES, OR AT CONTRACTOR'S OPTION, MAY BE 1" THICK DUCTBOARD (OWENS/CORNING OR J/M, TYPE 475 OR 800). ALL CONSTRUCTION IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.

12. DUCTWORK

- D. DUCT FITTINGS SHALL BE EQUIVALENT TO AIR DISTRIBUTION INSTITUTE STANDARD FITTINGS AS A MINIMUM REQUIREMENT. ALL ROUND DUCTS SHALL HAVE SCREWED JOINTS WITH AN APPROVED PLASTIC TAPE APPLIED DIRECTLY TO THE DUCT TO PROVIDE PERMANENT AIR-TIGHT JOINT. ALL RECTANGULAR AND SQUARE DUCT TO HAVE S-CLIP DRIVE JOINTS, SEALED WITH AN APPROVED TAPE TO PROVIDE A PERMANENT AIR-TIGHT JOINT.
- E. WHERE MAINS SPLIT, PROVIDE SPLITTER DAMPERS.
- F. WHERE INDICATED ON THE DRAWINGS AND WHERE REQUIRED FOR A WORKMANLIKE JOB, PROVIDE AND INSTALL BARBER-COLEMAN "AIR-TURNS".
- G. INSTALL DEFLECTROL DEFLECTORS AT ALL TAKE OFFS FROM MAIN TRUNK.

13. DUCT INSULATION

- A. ALL SUPPLY AND RETURN DUCTS TO HAVE 1" EXTERNAL INORGANIC INSULATION WITH VAPOR BARRIER.
- B. ALL INSTALLATION TO BE INSTALLED IN A GOOD AND WORKMANLIKE MANNER WITH ALL JOINTS EXTENDED, CLOSE, STAPLED AND TAPED. THE COMPLETED INSULATION SHALL ALLOW NO VAPOR TO GET TO THE SURFACE OF ANY INSULATED DUCT.
- C. RETURN AIR PLENUMS AND RISERS SHALL BE INTERNALLY INSULATED WITH ½" MICROBAR OR EQUAL.
- D. ALL VOLUME DAMPERS SHALL BE LEFT ACCESSIBLE.
- E. PROVIDE ACCESS PANELS TO GENERAL CONTRACTOR FOR INSTALLATION.

14. GRILLES AND REGISTERS

ALL GRILLES AND REGISTERS SHALL BE AS SCHEDULED ON THE DRAWINGS. FURNISH AND INSTALL COMPLETE WITH VOLUME DAMPERS. GRILLES AND REGISTERS SHALL BE CENTERED IN THEIR PROPER AREA AND INSTALLED IN A PERFECTLY TRUE AND LEVEL MANNER.

15. THERMOSTATS

THERMOSTATS SHALL BE AS DESIGNED FOR THE SPECIFIC EQUIPMENT USED AND WILL BE CAPABLE OF AUTOMATIC OR MANUAL OPERATION AND OF OPERATION ON FAN ONLY.

16. BALANCING AND GUARANTY

- A. THE HEATING CONTRACTOR SHALL PERFORM ALL THE NECESSARY BALANCING BEFORE THE COMPLETION OF THE JOB AND THE NECESSARY RE-BALANCING OF THE HEATING AND AIR CONDITIONING DURING THE FIRST HEATING AND THE FIRST COOLING SEASON IN ORDER TO LEAVE THE SYSTEM IN SUCH A MANNER THAT A UNIFORM TEMPERATURE MAY BE MAINTAINED IN ALL HEATED AND COOLED SPACES. THE HEATING CONTRACTOR SHALL GUARANTEE THE ENTIRE SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER, AND SHALL CORRECT WITHOUT ANY EXPENSE TO THE OWNER, ANY DEFECTS DEVELOPING DURING THE FIRST YEAR AFTER INSTALLATION, PROVIDING SUCH DEFECT BE CAUSED BY FAULTY EQUIPMENT, MATERIALS OR INSTALLATION (WORKMANSHIP).
- B. THE HEATING CONTRACTOR SHALL FURNISH VERBAL AND TYPEWRITTEN INSTRUCTIONS TO THE OWNER COVERING ALL PHASES OF OPERATION AND PREVENTATIVE MAINTENANCE.
- C. THE COMPLETED SYSTEM SHALL BE CAPABLE OF MAINTAINING 75° DB INDOORS WITH OUTDOOR TEMPERATURE OF 5 DEGREES DB. COOLING SYSTEM SHALL BE CAPABLE OF MAINTAINING 75° DB, 50% RELATIVE HUMIDITY WHEN OUTDOOR TEMPERATURE IS 95° DB. 76°WB.

17. FIRE DAMPERS

PROVIDE UL APPROVED FIRE DAMPERS FOR ALL DUCT OPENINGS PASSING BETWEEN FLOORS.
PROVIDE ACCESS PANELS AS REQUIRED.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTARY GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED:

FURNISH ALL MATERIALS, ITEMS, EQUIPMENT, METHODS, ETC. TO COMPLETE ALL PLUMBING AS SHOWN ON THE DRAWINGS, HEREIN SPECIFIED AND/OR AS REQUIRED TO COMPLETE ALL PLUMBING AS SHOWN ON THE DRAWINGS, AND AS REQUIRED TO COMPLETE THE BUILDING. THIS SECTION INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- A. EXCAVATION AND BACKFILLING FOR UNDERGROUND PIPING.
- B. SANITARY DRAINAGE SYSTEM AND SEWAGE SYSTEM COMPLETE, INCLUDING ALL ROUGHING CONNECTIONS, PIPING, HANGERS, STACKS, SOILS, VENTS, WASTES, CLEANOUTS, AND FITTINGS FOR HOUSE SEWER TO A POINT 5 FEET FROM BUILDING.
- C. DOMESTIC HOT WATER AND COLD WATER SYSTEM.
- D. PIPE INSULATION.
- E. FIXTURES.
- F. PERMITS, TESTS AND INSPECTIONS.
- G. FLOOR DRAIN.
- H. GUARANTEE.

3. MATERIALS:

- A. CAST IRON PIPE AND FITTINGS: STANDARD WEIGHT PIPE, UNIFORM WEIGHT, THICKNESS AND QUALITY. CONNECT CLOSETS WITH 3 LBS. LEAD.
- B. LEAD PIPE: 3 LB. LEAD.
- C. COPPER PIPE: ALL HOT AND COLD WATER PIPES SHALL BE HARD TYPE "L" COPPER PIPE, SUCH AS MANUFACTURED BY MUELLER BRASS CO., FITTINGS OF SAME MANUFACTURE.
- D. CLEANOUTS: ZURN, FULL SIZE OF PIPE.
- E. VALVES: SIMILAR TO AMERICAN STANDARD - 125 LB. WORKING PRESSURE
- F. LAWN FAUCETS: EQUAL TO WOODFORD 14 CP HOSE BIB FROSTPROOF; THREADED FOR HOSE CONNECTION. LOCATE AS SHOWN ON DRAWINGS.
- G. HANGERS: PERFORATED STRAPS, SAME MATERIAL AS PIPE.
- H. SLEEVES AND ESCUTCHEONS: CHROME-PLATED, SPLIT-RING TYPE. ALL PIPES PASSING THROUGH MASONRY WALLS AND CONCRETE FLOORS SHALL BE PROVIDED WITH SLEEVES OF SAME MATERIAL AS PIPE. ALLOW SUFFICIENT SPACE AROUND PIPE FOR CAULKING AND WATERPROOFING.
- I. INSULATION: 3/4" AIR CELL PASTED AND SANDED. FITTINGS CEMENTED FLUSH WITH PIPE COVERING.
- J. FLOOR DRAINS: CHROME-PLATED STRAINER.
- K. FIXTURES: SEE SCHEDULE.

4. INSTALLATION AND WORKMANSHIP:

- A. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE PLUMBING CODE OF THE COUNTY AND OTHER CODES OR ORDINANCES HAVING JURISDICTION.
- B. PERMITS, FEES, ETC.: THIS CONTRACTOR SHALL PROVIDE AND PAY FOR ALL FEES, PERMITS, ETC. REQUIRED FOR THE EXECUTION OF THIS SECTION.
- C. COLD WATER SYSTEM: FROM WELL AND PUMP, RUN COPPER, TYPE L, MAIN TO THE HOUSE. ALL LINES SHALL BE RUN PARALLEL TO THE EXTERIOR WALLS OF THE HOUSE. $\frac{1}{2}$ " TAKE-OFFS SHALL NOT SUPPLY MORE THAN ONE FIXTURE OR HOSE BIB. ALL PIPING SHALL BE SLOPED SO THAT THE ENTIRE SYSTEM MAY BE DRAINED AT A LOW POINT. SLOPE LINES A MINIMUM OF $\frac{1}{8}$ " PER FOOT. EXTEND SUPPLY RISERS ONE FOOT ABOVE FIXTURE TO FORM AIR TRAPS OR INSTALL ANTI-KNOCK DEVICES.
- D. HOT WATER SYSTEM: FROM HOT WATER HEATER RUN TAKE-OFFS TO BATHTUBS AND SHOWERS, AND THEN TO OTHER FIXTURES. NOT MORE THAN ONE FIXTURE PER $\frac{1}{2}$ " TAKE-OFF. ALL HOT WATER LINES SHALL BE PITCHED UPWARD TO FIXTURE AND RISER FOR PROPER AIR RELIEF. PROVIDE DRAIN COCK FOR DRAINING SYSTEM AT THE LOW POINT. PROVIDE DRAIN AND CONDENSATE FROM HOT WATER HEATER TO HOUSE SEWER.
- E. BRANCHES: MAY BE TAKEN OFF TOP, BOTTOM OR SIDES OF MAIN, USING FITTINGS AS REQUIRED. CHANGES IN PIPE SIZES SHALL BE MADE ONLY WITH REDUCING FITTINGS. SEPARATE HOT AND COLD LINES AT LEAST 6". SUPPORT ALL PIPING AT LEAST 8'-0" O.C. AND AT ALL CORNERS.
- F. CLEANOUTS: PROVIDE CLEANOUTS AT END OF EACH RUN. LOCATE SO THAT ALL LINES MAY BE CLEANED.
- G. AFTER PIPING HAS BEEN CLEANED AND SATISFACTORY TESTS HAVE BEEN MADE AND COMPLETED, INSTALL INSULATION ON ALL HOT WATER LINES BELOW THE FIRST FLOOR. INSULATION TO BE $\frac{3}{4}$ " ASBESTOS AIR CELL INSULATION, HELD ON WITH METAL BANDS, PLATED AND LACQUERED. COVER FITTINGS AND VALVES WITH PLASTIC ASBESTOS.
- H. DRAINAGE SYSTEM: ALL PIPES SHALL BE PITCHED $\frac{1}{4}$ " PER FOOT. PIPES IN TRENCHES SHALL NOT BE INSTALLED OVER FILL. PROVIDE BRICK SUPPORT WHERE TRENCHES ARE TOO DEEP OR NOT TO PROPER PITCH. EXCAVATE FOR ALL HUBS OF C.I. PIPE SO THAT PIPE ITSELF LIES FLAT. HUNG LINES SHALL BE SUPPORTED ON STRAP HANGERS, WELL ANCHORED TO FRAMING. ALL DRAINAGE PIPES SHALL BE CONCEALED. PROVIDE CLEANOUTS AT OR NEAR THE FOOT OF EVERY STACK, AND AT EVERY CHANGE IN DIRECTION OF WASTE AND SOIL LINES. CONNECTIONS TO WATER CLOSETS SHALL BE MADE WITH LEAD BENDS. CONNECTIONS SHALL BE GAS AND WATERTIGHT.
- I. PROVIDE CAST BRASS FLANGE FOR CONNECTIONS. VENTS SHALL BE PROVIDED ACCORDING TO THE REQUIREMENTS OF THE APPLICABLE CODE. EACH VENT PIPE THROUGH ROOF SHALL BE FLASHED WITH 4 LBS. LEAD. SEE ROOFING AND SHEET METAL SECTION. CONNECT VENTS TOGETHER AS FAR AS PRACTICABLE IN ORDER TO KEEP THE NUMBER OF PIPES THROUGH THE ROOF TO A MINIMUM. VENT PIPES SHALL PROJECT ABOVE THE ROOF THE MINIMUM DISTANCE ALLOWED BY THE PLUMBING CODE. ALL VENTS SHALL BE TO THE REAR OF THE RIDGE LINE. VENT FOR WASHING MACHINE AND DRYER AND KITCHEN SINK. VENT DRYER THROUGH EXTERIOR WALL WHERE SHOWN. PROVIDE WEATHERPROOF WALL CAP WITH BACKDRAFT DAMPER.

PROVIDE HOT AND COLD WATER FAUCETS AS NECESSARY. ALL FITTINGS ARE TO BE LOCATED IN RECESSED SPACE PROVIDED IN LAUNDRY ROOM. JOINTS SHALL BE AS FOLLOWS:

- SOIL PIPES - CAULK WITH OAKUM AND LEAD
- LEAD PIPES - WIPED, WITH NO PAINT OR PUTTY
- THREADED PIPE - CAREFULLY REAMED AND JOINTED WITH RED LEAD ON MALE THREAD ONLY.
- SWEATED JOINTS - SWEAT WITH FLUX AND SOLDER AS RECOMMENDED
- LEAD PIPE TO IRON - BRASS FERRULES WIPED ON LEAD SIDE AND CAULKED INTO SOIL PIPE.

4. INSTALLATION AND WORKMANSHIP:

J. THIS CONTRACTOR SHALL FURNISH PLUMBING FIXTURES IN KITCHEN AS SCHEDULED, AND SHALL MAKE ALL CONNECTIONS AND FURNISH TRAPS, ETC. FOR ALL KITCHEN EQUIPMENT REQUIRING PLUMBING. THIS CONTRACTOR SHALL MAKE CONNECTIONS FOR WASHER AND DRYER. FURNISH AND INSTALL GUY GREY MODEL BBED-200TS WASHING MACHINE SUPPLY AND DRAIN UNIT.

5. PLUMBING FIXTURE SCHEDULE:

FIXTURES THROUGHOUT ARE TO BE WHITE ACID-RESISTING UNLESS OTHERWISE NOTED. ALL FIXTURES ARE TO BE PROVIDED WITH ANGLE STOPS AND P OR S TRAPS AS REQUIRED. ALL EXPOSED PIPING, FITTINGS, AND METAL IN FINISHED ROOMS TO BE CHROME PLATED, AND SHALL BE FITTED WITH CUT-OFF VALVES ON SUPPLY RISERS TO EACH FIXTURE.

W.C. AMERICAN STANDARD 2052.041, ELONGATED, WITH SEAT

LAV. (BATH 3 & 4) AMERICAN STANDARD 0361.022, 20" x 18", WITH HERITAGE 2103.448 CENTERSET FAUCET AND DRAIN

LAV (BATH 1 & 2) AMERICAN STANDARD 3003.605, WITH HERITAGE 2103.448 CENTERSET FAUCET AND DRAIN

KITCHEN SINK: ELKAY MODEL NO. LTR-6322-10 WITH LK-232-S AND LK-230 FAUCETS, LK-35 STRAINERS.

KITCHEN HAND SINK: ELKAY MODEL NO. LLVR-1916-G COMPLETE WITH LK-211 FAUCET AND POP-UP DRAIN.

D.F. OASIS MODEL NO. OCP 3M

SHOWERS: AMERICAN STANDARD 2152.017 WITH THEMOGUARD 1361.054

TUB-SHOWER: (BATH #3) TUB - AMERICAN STANDARD 2146.223 WITH THE FOLLOWING FITTINGS: 1390.178, 1623.016, 1413.012, 1444.017, 1560.101

JANITORS SINK: FIAT MODEL MSB 2424, 232 BEIGE. FURNISH COMPLETE WITH CADMIUM PLATED CAST BRASS DRAIN BODY, LOCKNUTS, WASHERS, FRICTION WASHER, COMBINATION LINT BASKET/DOME STRAINER, STAINLESS. #830-AA FAUCET.

LAUNDRY SINK: FIAT MODEL NO. L-1 WITH NO. A-1 FAUCET.

HOT WATER HEATER: (2) RUUD 82 GALLON, HIGH-RECOVERY, MODEL RH 82-2

6. CLEANING AND PROTECTION:

CLEAN ALL EXPOSED METAL SURFACES FROM GREASE, DIRT OR OTHER FOREIGN MATERIAL. CHROME PLATED PIPING, FITTINGS AND TRIMMINGS SHALL BE POLISHED UPON COMPLETION. FIXTURES SHALL BE PROPERLY PROTECTED FROM DAMAGE DURING CONSTRUCTION PERIOD AND SHALL BE CLEANED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

7. INSPECTION:

THIS CONTRACTOR SHALL COOPERATE FULLY WITH THE LOCAL PLUMBING INSPECTOR AND OTHER PARTIES HAVING JURISDICTION AND SHALL MAKE HIS WORK CONFORM TO THEIR RULES AND REGULATION.

8. GUARANTEE:

THIS CONTRACTOR SHALL GUARANTEE ALL WORK INCLUDED IN THIS SECTION OF THE SPECIFICATIONS AS TO MATERIAL, WORKMANSHIP AND OPERATION IN EVERY RESPECT. THIS GUARANTEE IS TO BE FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

1. GENERAL:

ALL PROVISIONS OF THE "GENERAL CONDITIONS" AND "SUPPLEMENTAL GENERAL CONDITIONS" FORM A PART OF THIS SECTION.

2. WORK INCLUDED IN THIS SECTION:

PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE JOB AS INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN.

3. MATERIALS:

- A. OUTLET BOXES: BOXES TO BE STANDARD GALVANIZED KNOCKOUT BOXES, GROUNDED.
- B. WIRE: ALL WIRE TO BE ROMEX, NO. 12 WIRE IN MINIMUM SIZE FOR ANY CONDUIT. ALL WIRE TO BE CODE GRADE N.E.C. ALL WIRING IN CONDUIT SHALL BE THW.
- C. LOCAL SWITCHES: ALL SWITCHES SHALL BE FLUSH TUMBLER- SIERRA Q- T TOGGLE SWITCHES AC TYPE; RATED AT 15 AMPS. COLOR TO BE IVORY.
- D. CONDUIT: ALL CONDUIT WHERE REQUIRED TO BE RIGID GALVANIZED STEEL, OR EMT AS REQUIRED BY CODE.
- E. DUPLEX CONVENIENCE OUTLETS: TO BE 15 AMP, 125 VOLT, ONE' PIECE, SIDE AND BACK WIRED, DOUBLE CONVENIENCE OUTLETS, SUCH AS SIERRAPLEX.
- F. SWITCH AND RECEPTACLE PLATES: PLATES ON PLASTERED WALLS SHALL BE SIERRA "DECOR" AS IVORY. PLATES IN BATHS, KITCHEN SHALL BE IN SATIN FINISH, STAINLESS STEEL.
- G. WATERPROOF PLATES: SIERRA TYPE 302, STAINLESS.
- H. LIGHTING FIXTURE SCHEDULE:

<u>MGE.</u>	<u>MODEL</u>	<u>MOUNTING</u>	<u>LAMPS</u>	<u>REMARKS</u>
A. SOLO	9433	SURF	(3) 60W-A-19	
B. SOLO	9434	SURF	(1) 100W-A-19	USE 15W LAMPS IN NL
C. WESTINGHOUSE	AF2SG2414TOPA	RECESSED	(2) 40W T-12	
D. WESTINGHOUSE	AF2SG2414TOPA	RECESSED	(2) 40W T-12	W/EMERGENCY LIGHT. POWER PACK W/INDICATOR LIGHT FOR USE WITH TEST SW. BY ELEC. CONTRACTOR
E. BRYANT	854	SURF	(1) 60W A-19	PORCELEAN KEYLESS
F. MOE	M-834-7	CHAIN	(1) 100W A-19	
G. SOLO	9323	BRKT	(2) 60W A-19	
H. WESTINGHOUSE	CP240A	SURF	(2) F-40 T-12	END PLATES
J. MOE	M-879-7	SURF	(2) 60W A-19	
K. WAKEFIELD	PS-424-SS	SURF	(4) F40 - T-12	
L. WAKEFIELD	DM-214-RS-CA	SURF	(2) F40 - T-12	
X. SOLO	SC-2/SS-2		(2) 20 T 6½ IF	EXIT - W/ 9698 KIT.

- I. CLOTHS DRYER OUTLET: TO BE FURNISHED PLUMBER AND CONNECTED BY ELECTRICAL CONTRACTOR.
- J. T. V. OUTLETS: FURNISH NON- METALLIC CONDUIT AS REQUIRED FOR THE INSTALLATION OF T. V. ANTENNA TO OUTLETS INDICATED. THIS SHALL INCLUDE ALL OUTLET BOXES AND COVER PLATES AND WITH FINISH SAME AS SPECIFIED PREVIOUSLY.

3. MATERIALS

- K. BELLS: NUTONE MODEL B-16 DOOR BELLS WITH MODEL L-14 CHIMES AND 101-N TRANSFORMERS AS REQUIRED. BELL B TO HAVE MULTIPLE CHIME AND BELL A TO HAVE A BUZZER. DOOR BUTTONS TO BE PB-1, SILVER-ANNOIDIZED.
- L. EXHAUST FANS FOR BATH 1, 3 & 4 TO BE NUTONE MODEL 8672, FAN-LIGHT COMBINATION. FURNISH WALL CAP AND ROOF CAP AS REQUIRED. ROOF CAP TO BE BEHIND RIDGE.
- M. EXHAUST FAN FOR BATH 2, NUTONE MODEL 8332, FURNISH WITH WALL CAP.

4. CODES:

ALL WORK DONE UNDER THIS SECTION SHALL CONFORM TO LOCAL AND SOUTH-EASTERN, UNDERWRITERS, AND NATIONAL ELECTRICAL CODE.

5. TELEPHONE OUTLET:

PROVIDE AND INSTALL 1" METAL CONDUIT FROM EXTERIOR WALL WHERE TELEPHONE SERVICE ENTERS TO TELEPHONE JUNCTION BOX. RUN $\frac{1}{2}$ " EMT OR SIZE REQUIRED BY LOCAL TELEPHONE COMPANY FOR TWO-NUMBERED SERVICE TO OUTLETS AS INDICATED ON THE PLANS, WITH PULL BOXES AS REQUIRED. COLUMBIA BOXES AND BRYANT TYPE "G" TELEPHONE COVER PLATES TO MATCH SCHEDULE OF PARAGRAPH 3 ABOVE. IT IS NOT NECESSARY TO INSTALL EMT IN ATTIC BUT MUST BE INSTALLED WHEREVER TELEPHONE WIRE IS TO BE CONCEALED IN FLOORS OR WALLS. IT IS THE INTENT OF THESE SPECIFICATIONS THAT NO TELEPHONE WIRE IS TO BE EXPOSED IN FINISHED AREA.

6. VERIFICATION OF OUTLETS:

THE LOCATION OF ALL OUTLETS IS APPROXIMATE ONLY. FINAL LOCATION WILL BE BY THE OWNER AND THE ARCHITECT ON THE JOB. UNLESS OTHERWISE NOTED, ALL WALL SWITCHES ARE TO BE SET 4'-0" ABOVE FINISHED FLOOR. WHERE MORE THAN ONE OUTLET OCCURS AT ONE POINT, GANG BOXES AND PLATES ARE TO BE USED. CONVENIENCE OUTLETS ARE TO BE 12" ABOVE FINISHED FLOOR, EXCEPT OVER COUNTERS, WHICH ARE TO HAVE THE BOTTOM COVER PLATE IS 40" ABOVE THE FINISHED FLOOR.

7. SERVICE ENTRANCE:

THIS CONTRACTOR SHALL FURNISH ELECTRICAL SERVICE AND PANELBOARDS AS SHOWN ON THE DRAWINGS, HEREIN SPECIFIED, AND AS REQUIRED FOR A COMPLETE JOB. FURNISH AND INSTALL ELECTRICAL SERVICES TO AND INSTALL WEATHERPROOF DISCONNECT SWITCH FOR OUTSIDE AIR CONDITIONING UNITS, ALL PANELBOARDS ARE TO BE CLEARLY LABELED WITH TYPEWRITTEN, PROTECTED INSTRUCTIONS.

8. CONNECTIONS OF OTHER CONTRACTORS WORK:

THIS CONTRACTOR IS TO MAKE ELECTRICAL CONNECTIONS FOR OTHER CONTRACTORS WORK REQUIRING ELECTRICAL CONNECTION EXCEPT LOW VOLTAGE CONTROL WIRING AND SHALL MAKE ALL ELECTRICAL CONNECTIONS TO ANY AND ALL OTHER EQUIPMENT FURNISHED BY OTHER CONTRACTORS OR OWNER ON THE JOB, SAME REQUIRING ELECTRICAL CONNECTIONS. WHERE EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS IS FURNISHED BY CONTRACTORS OTHER THAN ELECTRICAL CONTRACTOR, THE CONTRACTOR FURNISHING THE EQUIPMENT SHALL BE RESPONSIBLE FOR DIRECTING THE ELECTRICAL CONTRACTOR IN THE CONNECTIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, CONNECTIONS OF THE FOLLOWING: DISPOSAL, RANGE, OVEN, WASHER, DRYER, DISHWASHER, AND LIGHT FIXTURES AS MAY BE SUPPLIED FROM TIME TO TIME BY THE OWNER.

9. ALL CONTROL WIRING FOR AIR CONDITIONING AND DUCT HEATING UNITS SHALL BE ACCOMPLISHED BY THE HEATING AND AIR CONDITIONING CONTRACTOR.

10. ELECTRIC CONTRACTOR SHALL FURNISH AND INSTALL ALL LINE VOLTAGE WIRING FOR HEATING AND AIR CONDITIONING, INCLUDING DISCONNECTS.

11. MISCELLANEOUS SWITCHES:

SWITCHES CONTROLLING EXTERIOR LIGHTING AND ATTIC LIGHTING SHALL BE EQUAL TO SIERRA-LITES, QUIET TOGGLE SWITCH WITH LIGHTED (RED) PILOT LIGHT TOGGLE.

12. GUARANTY:

THIS CONTRACTOR SHALL GUARANTEE ALL WORK UNDER THIS SECTION FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE OWNER.

13. SMOKE DETECTORS:

AS SHOWN ON THE DRAWINGS, SHALL BE EMHART 911 (MODEL 222B) OR EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

14. KITCHEN RANGE HOODS:

FURNISH AND INSTALL TWO (2) NUTONE MODEL V-30SS 30 HOODS WITH MODEL 3092 DELUXE TWIN BLOWERS, COMPLETE WITH DUCT AND NO. 837-AL WALL CAPS.