

Specifications

**Housing Authority of Newnan:
2 Westgate Parkway
Newnan, Georgia**

March 29, 2024

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Project No. 2018-005.17

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. Type of the Contract.
 - 3. Work phases.
 - 4. Work under other contracts.
 - 5. Products ordered in advance.
 - 6. Owner-furnished products.
 - 7. Use of premises.
 - 8. Owner's occupancy requirements.
 - 9. Work restrictions.
 - 10. Specification formats and conventions.
 - 11. Project completion date.
- B. Building Permit: Contractor is required to apply for and obtain a City Building Permit for this project.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: 2 Westgate Parkway
 - 1. Project Location: Newnan, Georgia
 - 2. The work consists of that indicated on contract documents and as noted, but not limited to as follows:
- B. Owner: Housing Authority of Newnan 48 Ball St, Newnan, GA 30263

1. Owner's Representative: Ms. Sandra Strozier - Housing Authority of Newnan –
48 Ball St, Newnan, GA 30263

C. Architect: Hecht Burdeshaw Architects, Inc.; 8-11th St., Ste 300, Columbus, GA, 31901

1.4 TYPE OF CONTRACT

A. Project will be constructed under a single prime contract.

1.5 WORK PHASES AND COMPLETION DATE

A. The Work shall be conducted in a single phase.

1.6 USE OF PREMISES

A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Limits: Confine constructions operations to limits of construction. Coordinate parking, material storage, etc. with Owner.

C. Owner Occupancy: Allow for Owner occupancy of Project site and use by the public.

D. Driveways and Entrances: Keep driveways, parking areas, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

1. Site storage shall be only in areas coordinated with The Housing Authority of Newnan.

2. Schedule deliveries to minimize use of driveways and entrances.

3. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.7 WORK RESTRICTIONS

A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Architect and Owner not less than three (3) days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Architect's and Owner's written permission.
3. Coordinate with The Housing Authority of Newnan

1.8 COOPERATION IN EXECUTING THE WORK

- A. The Contractor, and his representatives, shall cooperate with the Architect, and his representatives, in any way possible to ensure the proper execution of all phases of the work, the quality of the Work, and the fast and easy flow of ideas, suggestions, instructions, and other forms of communication.
- B. The Contractor shall promptly notify the Architect of any problems arising from the Work for which the Architect's decision or instructions are required.
- C. The Contractor does not have the right to alter in any way the requirements of the Contract Documents; however, he is encouraged to make timely suggestions concerning the execution of the Work and is required to question and bring to the Architect any items of the Work which he feels are improper.
- D. The Contractor is responsible for ensuring that his subcontractors properly coordinate their work and cooperate with each other to the fullest. If the Contractor and subcontractors or two or more subcontractors have work to be installed in the same location, they shall cooperate with one another to ensure that each has made provisions for the other's work.
- E. If the Contractor or the Architect feels it to be advisable, either may initiate a preconstruction conference to discuss job conditions and progress. The Architect, Contractor and all major subcontractors shall be represented at this conference should it be called.

1.9 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.

1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

1.11 DISCREPANCIES IN DRAWINGS AND SPECIFICATIONS

- A. All errors or discrepancies that may be discovered in the Drawings and Specifications shall be promptly reported to the Architect for correction.
- B. In case of discrepancies between Drawings and Specifications, the Architect's directions shall govern.
- C. Figures given on the Drawings shall govern scaled measurements.

1.12 TIMELY ORDERING OF MATERIALS

- A. It shall be the sole responsibility of the Contractor to order any and all materials in such a timely manner as to receive shipment of materials on the job or to his warehouse at or before the appropriate time for incorporation into the work. Should the Contractor fail to make such timely order and force substitution of another material not, in the Architect's opinion, exactly equal to that specified, the following steps shall be taken:
1. A change order will be executed allowing substitution of the alternate material. No verbal authorization will be binding.
 2. The change order will issue a credit to the contract in an amount equal to the sum of the cost of the available material plus Contractor's overhead and profit.
 3. An add will be included in the change order for the cost of the substituted material, plus Contractor's overhead and profit, for providing substituted material. This add, however, may not exceed the credit issued in 2. above,
- B. There will be no exceptions to, or reversals of, the above stated procedure except as follows:
1. Architect is notified in writing during bid period that specified material is not available within the time span allotted by progress of the work, or
 2. Proof is presented to the Architect that material in question was ordered by Contractor or material supplier within 30 calendar days of issuance of "Notice to Proceed."

1.13 USE OF HAZARDOUS PRODUCTS

- A. Asbestos:
1. No products or materials containing asbestos in any form shall be used in the work of this contract.
 2. If any product used in this work is found to contain asbestos after it has been installed, it shall be promptly and completely removed in strict conformance with EPA guidelines and regulations and at no cost to the Owner or Architect or the agencies of either.
 3. This Paragraph supersedes any other provision of these Documents which may inadvertently call for or allow a material or product containing asbestos.

- B. Tobacco Products: No tobacco products shall be used on Housing Authority of Newnan property.

1.14 DRESS CODE

- A. It must be specified that no shirts or hats displaying tobacco, alcoholic beverage, firearms, or improper language will be allowed on the jobsite.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
- C. Related Sections include the following:
 - 1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders for allowances.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

1.4 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. One (1): Include, as part of the base bid, the lump sum of \$20,000.00 (Twenty thousand dollars) for general contingency.

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A. Unit price is an amount proposed by bidders, stated on the Bid Proposal Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

A. Unit Price A: Undercut and backfill using suitable earth material:

1. Description: The removal of low load bearing capacity soils due to excess moisture, organic material or contaminated soil determined by an approved professional soils engineer in accordance with testing. Replacement with approved earth materials.
2. Unit of Measurement: Cubic yards (c.y.).

B. Unit Price B: Concrete Walkway

1. Description: All work associated with purchase, preparation, subgrade and installation of concrete walkway 5'-0" in width
2. Unit of Measurement: Square feet. (s.f.).

END OF SECTION 012200

GENERAL BUILDING SPECIFICATIONS

The following general building specifications are based on the 2021 International Residential Code (IRC) and are to be used in conjunction with the accompanying plans.

1. DIMENSIONS

Drawing dimensions govern over scale. Verify all rough opening dimensions for selected doors, windows, and mechanical requirements before construction begins.

2. DESIGN LOAD CRITERIA

Unless otherwise noted, the drawings are based on the following load criteria. Wind Load: 90 M.P.H. Nominal.

ROOFS

	Wood or Asphalt Shingles	Mission Tile	Built Up
Dead Load (psf)	10	20	20
Live Load (psf)	30	30	30
Total Load (psf)	40	50	50

FLOORS

	Wood, Carpet or Vinyl	Ceramic, Tile, Slate or Stone
Dead Load (psf)	10	20
Live Load (psf)	40	40
Total Load (psf)	50	60

BALCONIES (Spaced Deck)

Dead Load (psf)	7
Live Load (psf)	60
Total Load (psf)	67

Allowable soil bearing pressure is assumed to be 2,000 p.s.f. or greater. Actual soil bearing capacity shall be determined by local building official or testing by a registered design professional.

NOTE: Verify design loads with local codes and site conditions. Check with local building department officials for wind, seismic, snow or other special loading conditions. If unusual site conditions exist, or local building requirements exceed the above design criteria, consult with a local architect, engineer or qualified designer to adjust the foundation design and other structural elements if necessary.

3. CONCRETE

- Unless otherwise noted, all concrete foundation walls and slabs on grade shall be 3,000 p.s.i. (28-day compression strength) concrete. Place concrete slabs on 4" of compacted gravel fill with 6" x 6" - W 1.4 x W 1.4 wire mesh reinforcement. All slabs under interior finished and heated living spaces shall be placed on 6 mil polyethylene vapor barrier with a minimum of 6" lapped joints. Garage and porch slabs shall be 3500 psi.
- Provide 1/2" expansion joint material between all concrete slabs and abutting concrete or masonry walls occurring in exterior or unheated spaces or areas.
- Concrete for all basement walls, foundation walls, porches, walks, patios, steps, garage and carport floor slabs and driveways shall be air-entrained.

4. STRUCTURAL

- The truss manufacturer (if trusses are specified on plans) shall submit shop drawings and/or stress and load calculations (diagrams) for contractor's approval prior to construction. Diagrams shall bear seal of registered engineer in the state the structure is built.
- Install rafter or truss tie-downs, Simpson #H7Z or equivalent at each truss or rafter bearing point.
- Solid wood beams shall have an allowable bending stress of 1,500 p.s.i. and a modulus of elasticity of 1,760,000 p.s.i. Composite wood beams (constructed of 3 or more members) and repetitive members (e.g., joists, rafters) shall have an allowable bending stress of $F_b \times 1.15$ p.s.i. and a modulus of elasticity of 1,500,000 p.s.i. Changes in the member size or structural characteristics will alter the integrity of the floor and roof system design.

- All structural panels (plywood, waferboard, composite, particleboard, oriented strand board) shall bear the BASIC GRADE TRADEMARKS of the American Plywood Association.
- All structural steel beams and columns shall conform with the American Institute of Steel Construction Specifications A36.
- All masonry over wall openings shall be supported with one steel angle (or an equivalent load-bearing member) for each 4" thickness of masonry supported as follows with longer leg of angle positioned vertically:

Opening Size	Angle Size
Up to 4' - 0"	4 x 3 x 1/4"
Up to 5' - 0"	4 x 3 1/2 x 1/4"
Up to 6' - 0"	5 x 3 1/2 x 5/16"
Up to 7' - 0"	6 x 3 1/2 x 5/16"
Up to 8' - 0"	6 x 4 x 3/8"

- Masonry veneer shall be attached to supporting wall with corrosion-resistant metal ties. Ties shall be spaced not more than 16" O.C. horizontally and not more than 16" O.C. vertically.

5. FOUNDATIONS

- Check the depth of frost line(s) for footing depths and verify footing requirements with local code officials. Consult with local architect or engineer when encountering unusual or unstable soil conditions.
- Unless otherwise noted, masonry foundation walls shall be constructed with:
 - Grade "N," Type 1, hollow load-bearing concrete masonry units.
 - Type "M" mortar.
 - Horizontal joint reinforcing, (ladder or truss type) continuous, every other block course.
 - Reinforce walls of excavated areas which exceed 4'-0" in height with #7 vertical rebars full height at 4'-0" O.C. and at each corner and both sides of openings. Fill all cells containing vertical bars with cement grout.
 - Fill entire top course with stiff grout.
- Unless otherwise noted, cast-in-place concrete foundation walls shall not exceed 8'-0" in height and shall have a minimum wall thickness of 8". Reinforce with two #5 horizontal bars in upper and lower 12" sections of wall and with #3 bars placed vertically every 18" O.C. and around all window and door openings. Bars shall extend a minimum of 24" beyond the corners of the openings.
- Place 1/2" diameter x 12" long anchor bolts at 4'-0" O.C. set a minimum of 8" into concrete and within 12" of end of each sill plate member to secure sill plate to foundation.
- Basement walls shall be treated as follows:
 - Apply two coats (minimum) of troweled or sprayed-on waterproofing compound to exterior wall surface of excavated areas.
 - For foundation wall drainage, install 4" minimum diameter drainage tile or perforated pipe at the perimeter of excavated areas and below finished basement floor slab elevation (when applicable). Cover top of pipe with 15-pound felt and a minimum 18" of coarse rock or gravel. Slope pipe to drain or sump pump as required.
- All grades to slope away from foundation a minimum of 6" drop within the first 10 feet or to a swale. Use concrete splash block or drain pipe at each downspout to direct roof run-off away from foundation.
- Provide termite protection as required and remove all wood construction materials from the excavation near the structure.
- All walk-out and non-walk-out basements shall have means of egress in accordance with local and national codes.

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6. CARPENTRY

Unless otherwise noted on drawings, provide:

1. Double header joists and trimmers at all floor openings where joists terminate.
2. An extra joist under all parallel partitions.
3. Double 2x10 headers with 1/2" rated plywood between, at all door and window openings.
4. Minimum of one row of joist bridging per joist span.
5. Floor construction: Floors to be constructed of 3/4" tongue-and-groove plywood glued and nailed to floor joists.
6. Roof construction: Minimum 210# asphalt shingles (adhesive type) or equivalent on 15# felt on 1/2" C-D exterior plywood sheathing on roof framing; sheet metal flashing where roof abuts any vertical surface. All underlayments to be a minimum of type 1 per ASTM-D226-95.
7. Corner bracing: Approved diagonal corner braces in both directions at all corners. (Optional 7/16" OSB or 1/2" x 48" wide C-D exterior plywood at all corners.) Installed per sec. R602 IRC. See drawing WF.1 for narrow wall bracing.
8. All interior walls and ceilings are to be covered with minimum 1/2" gypsum board with exterior corners metal reinforced. Surfaces to be taped, floated (3 coats) and sanded. Water resistant gypsum backer board required around bathtubs and showers.
9. Interior walls and ceiling of garage to be covered with minimum 5/8" firecode gypsum board. Door(s) leading from garage to living space shall be 3/4 hour fire rated. Firestop all duct chases, bulkheads, laundry chutes, metal flues, and all shafts at each floor.
10. All corners of exterior walls to be installed in accordance with section R602.10 and all applicable variations therein, of the latest International Residential Code.
11. Cutting, notching and/or boring holes on wood beams, joists, rafters or studs shall not exceed the limitations noted in sections R502.8 and R602.6, of 2021 IRC. Reinforcement of studs shall be done in accordance with section R602.6.
12. Nailing and fastening of floor, ceiling, wall and roof sheathing, and gypsum construction shall be in accordance with tables R602.3 (1) and 602.3 (2) of the 2021 IRC.
13. Interior finish materials shall not have a flame spread rating exceeding 200.
14. Top and bottom of all conventional double stud, and staggered stud frame walls to be fireblocked. Fireblocking required at all soffits and dropped ceilings. Fireblocking required between stairway stringers at the top and bottom of the run.
15. Stair treads and risers are to be compliant with latest local and national codes.

7. INSULATION

Unless noted on drawings, provide:

1. Minimum R-13 batt insulation in all exterior walls, minimum R-30 insulation in all attics and cathedral ceilings, minimum R-19 batt insulation in all floors adjacent to the exterior or to unheated spaces and minimum R-10 at unheated floor slabs.
2. When using unfaced insulation, install minimum 6 mil polyethylene vapor barriers against warm side of all insulation.
3. All exterior windows are to be insulating double glazed and a U-Value of 0.40.
4. Caulk and seal at all windows, exterior doors, vents, pipe penetrations, bottom plates and around all electrical boxes mounted in exterior walls.
5. Install sill sealer between foundation wall and wood sill plates.

8. VENTILATION & LIGHT

1. Roof vents and/or gable vents shall be used in conjunction with soffit vents to provide adequate removal of summer heat as well as winter moisture.
2. Attics and spaces between roof and top floor ceilings shall have a minimum of one square inch of free vent area for each square foot of ventilated space. This required vent area may be reduced by one-half when at least 50 percent of the required vent area is provided by vents located in the upper portion of the space to be ventilated, with the remainder of the required ventilation provided by eave or cornice vents.

3. The space between the bottom of the floor joists and the earth (except such space as is occupied by a basement) shall have a minimum clear height of 18" and a minimum net area of ventilation openings through the foundation of not less than one square foot for each 150 square feet of crawl space area. If an approved vapor barrier is installed over the ground surface, only 10% of the above vent area is required.
4. Attic and enclosed rafter space ventilation (net free) area is to be at least 1/150 of the area served. Two remote vents required for each (minimum). Where ridge or gable vents are used, 1/2 of the area to be provided by ridge or gable vents and 1/2 by eave or cornice vents.
5. One-inch clearance between the top of the insulation and the bottom of the roof is required.
6. Baths with no operating windows shall exhaust 50cfm minimum to the exterior. It is not permissible to discharge exhaust to the attic.
7. Kitchen Range Hoods: A 100 cfm fan (intermittent use) or a fan continuously exhausting 25 cfm shall be installed. Kitchen ranges without hoods: natural ventilation shall be supplied through openable windows with a minimum vent area of 4 percent of the floor area being served.
8. All bedrooms must have one window for emergency escape meeting the following minimums:
 - Max. height to bottom clear opening - 44"
 - Minimum clear opening width - 20"
 - Minimum net clear opening height - 24"
 - Minimum net clear opening area - 5.7 sq. ft.

The net clear opening dimension shall be obtained by the normal operation of the window from the inside.

9. ELECTRICAL

1. All electrical work shall comply with all codes in effect in the local community. Where no codes exist, the work shall conform with the regulations of the National Electrical Code and the electric utility company servicing the area.
2. Bath vent minimum 50 cfm.
3. Smoke detectors: U.L. listed smoke detectors shall be located on each floor level in the vicinity of all bedroom entrance doors (bedroom hallway) and within each bedroom. Locate bedroom hallway detector upstream from or near return air grill. Floor levels that do not contain bedrooms shall have the detector at the ceiling near the stairway. In sprinkled dwellings, the detectors may be omitted in bedrooms.
4. When more than one detector is required within the dwelling unit, the detectors shall be interconnected so that an alarm will sound throughout the dwelling unit. The smoke detectors shall be AC powered and have a battery backup should the AC power be interrupted.
5. The final electrical layout to be determined by owner/contractor. Compliance with all applicable electrical codes is the ultimate responsibility of the contractor.
6. Ground fault circuit-interruption protection shall be provided for all 125 volt, single phase, 15 and 20 ampere receptacles installed in the following locations:
 - Bathrooms
 - Garages except ceiling mounted receptacle for garage door opener and grade level portions of unfinished accessory buildings.
 - Unfinished basements and crawl spaces except laundry circuit and single receptacle dedicated to sump pumps.
 - Receptacles intended to serve countertop surfaces and receptacles that are located within 6'-0" of the outside edge of a wet bar sink.
7. Illuminated light switch required at top and bottom of all stairs.
8. All bedroom outlets shall be arc-fault protected.
9. Non-GFCI circuit required at sump, single outlet.
10. Weatherproof covers to be on all exterior GFCI.
11. No parts of hanging electrical fixtures, track lighting and ceiling fans shall be installed within 3'-0" horizontally of a bathtub, measured from the outside edge of the tub and 8'-0" vertically from the top of the tub rim.

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10. PLUMBING

1. The contractor shall furnish and install all soil, vent, and waste piping, the hot and cold water supply system, the plumbing fixtures and fittings, and the connections to the potable water supply and to the sewers as directed.
2. Each gas appliance shall have a gas shut-off valve and ground joint union. A sediment trap is required at each appliance or group of appliances.
3. Gas piping shall be identified at intervals of no more than 5 feet. Black steel pipe does not need to be labeled.
4. The water service pipe and the building sewer are to be a minimum of 10'-0" apart horizontally.
5. The minimum size of the water service line is 1" up to the first branch. Plastic water service piping shall terminate a minimum of 10'-0" outside the foundation wall and metallic piping brought into the building up to the outlet of the house valve or the prv outlet; whichever is further from the point of entrance to the building. Minimum water main pressure must be considered when sizing the water service piping.
6. Showers and bathtub/shower enclosures shall have walls and floors constructed of smooth, noncorrosive, nonabsorbent and waterproof materials to a height of not less than 6'-0" above the room floor level.
7. Downspouts are not to be connected to a sanitary sewer.
8. Basement area drains and foundation drain tiles are not to be connected to a sanitary sewer.
9. Lead-free solder is required on all copper water supply piping.
10. The contractor shall obtain all permits and inspections as required by state and local codes, and all work shall be in accordance therewith.

11. HEATING & AIR CONDITIONING

1. The heating contractor shall furnish an engineered heating layout in conformance with local codes, and shall install a complete heating and cooling system of the type selected by the owner.
2. The heating system and air-conditioning system shall satisfy local weather conditions in accordance with the design practices recommended by ASHRAE and shall conform to the rules and regulations of the National Board of Underwriters and any and all governing local and state codes.
3. A minimum of one programmable thermostat shall be provided and installed.

12. WATERPROOFING & DAMPPROOFING

No Ground Water Present

Provide drain tile, perforated pipe, or other approved drainage systems around perimeter of the outside of the foundation or inside the foundation. Drain discharge shall be by gravity to daylight or can be connected to a basement floor sump.

An approved filter membrane shall be placed over the top of the joints/pipe perforations. The tile/pipe shall be placed on 2" minimum gravel or crushed stone and have 6" minimum cover. Provide sump 15" in diameter x 18" deep with a fitted cover connected to the foundation drain pipe unless gravity discharge. A sump pump shall be provided if basement is finished or partially finished with pump discharge by an approved method.

Provide dampproofing of floor slab of 6 mil polyethylene film below slab, with joints in membrane lapped and sealed.

Walls shall be dampproofed with a bituminous material, 3 lb. per square yard of acrylic modified cement, 1/8" coat of surface bonding mortar, or by any of the materials permitted for wall weatherproofing.

Ground Water Present

Provide drain tile, perforated pipe, or other approved drainage system both inside and outside of foundation.

Drainage system shall discharge by gravity to daylight or be connected to an approved sump (15" in diameter x 18" deep with

fitted cover) having a sump pump that discharges into an approved disposal system.

Provide waterproofing membrane under floor slab of rubberized asphalt, butylrubber, neoprene, or minimum 6 mil polyvinyl chloride or polyethylene with joints lapped a minimum of 6 inches and sealed.

Foundation to be waterproofed with two ply hot-mopped felts, 6 mil p.v.c., 40 mil polymer modified asphalt, or 6 mil polyethylene. Joints to be lapped and sealed per manufacturer's installation instruction. Waterproofing to be applied from the bottom of the wall to at least 12" above the water table elevation. The remainder of the wall to be dampproofed.

- All joints in walls to be water tight.
- Downspout discharge shall be directed away from foundation.
- Sump pump discharge and roof drainage shall be piped to a storm drain or to approved water course. Discharging to or within 10 feet of a sidewalk, driveway, street which creates a nuisance to adjoining properties is prohibited.

13. SAFETY GLAZING

1. Glass in storm doors intended for human passage, patio doors, shower and bathtub enclosure walls, panels and doors to be fully tempered, laminated safety, approved wire glass or approved shatter resistant plastic.
2. Glazing in any portion of a building wall enclosing bathtubs, showers, hot tubs, etc., which is located less than 60" above a standing surface shall be safety glazing.
3. Any material adjacent to a door if the nearest vertical edge of the glazing material is within a 24" arc of either vertical edge of an operable door in a closed position and if the bottom edge of the glazing material is less than 60" above the floor, it must be laminated safety glass, fully tempered glass, approved wire glass or approved shatter resistant plastic. Exception: where there is an intervening wall or barrier to prevent a person from striking the glazing while approaching the door.
4. Safety glazing is required for fixed or operable panels that meet all of the following:
 - Individual pane greater than 9 sq. ft.
 - Bottom edge less than 18" above floor
 - Top edge more than 36" above floor
 - Walking surface within 36" horizontally
5. Safety glazing is required for all doors, except for decorative glass, and in all hand or guard rails.
6. Unless protected by handrails or guardrails, glazing adjacent to stairways, landings, and ramps within 36 inches horizontally of the walking surface and less than 60 inches vertically above the plane of the walking surface and glazing adjacent to stairways within 60 inches horizontally of the bottom tread in any direction when the exposed surface of the glass is less than 60 inches above the tread nosing shall be safety glazing.

14. STAIRWAYS & EXITS

1. Locks with thumb turns on the inside are permitted. Inside key operation is permitted provided the key cannot be removed from the lock when locked from the inside.
2. Handrails (and other projections below the handrail) shall not project more than 4 1/2" into the required stairway width.
3. Handrails shall meet either:
 - Circular cross section with minimum diameter of 1 1/4" but not more than 2" or,
 - Other approved shapes having a maximum allowable horizontal width of 2 1/4", maximum graspable perimeter dimension of 6 1/4", and a minimum of 4" graspable perimeter dimension.
4. Guards along open sided stairs shall be a minimum of 36" in height above the leading edge of the tread and minimum of 36" in height at the stair landings. Minimum 36" high guards shall be provided along balconies, areaways, mezzanines and open sided walking surfaces where the difference in floor levels is more than 15 1/2".

3/29/2024

15. DRYER VENTING

- The maximum developed length of a clothes dryer exhaust duct shall not exceed 25 feet from the dryer location to the wall or roof termination. The maximum length of the duct shall be reduced 2.5 feet for each 45-degree bend, and 5 feet for each 90-degree bend. The maximum length of the exhaust duct does not include the transition duct.
- Exhaust ducts shall be constructed of minimum 0.016-inch-thick rigid metal ducts, having smooth interior surfaces, with joints running in the direction of air flow. Exhaust ducts shall not be connected with sheet-metal screws or fastening means which extend into the duct.
- The diameter of the exhaust duct shall be as required by the clothes dryer's listing and the manufacturer's installation instructions.
- Exhaust ducts shall terminate on the outside of the building or shall be in accordance with the dryer manufacturer's installation instructions. Exhaust ducts shall terminate not less than 3 feet in any direction from openings into buildings.

16. FIRE RELATED MISCELLANEOUS

- Garages located beneath habitable rooms in occupancies of use group R-3 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assemblies which are constructed with not less than a 1-hour fire resistance rating.
 - Floor/ceiling assemblies shall be UL design #L502
 - Wall assemblies shall be UL Design #ULU305
 - All structural members supporting a floor above the garage shall be protected by not less than 1 hour fire resistance rated construction. UL Design #ULU305
- The space between studs or joists utilized as a plenum for return air shall not be part of a required fire resistance assembly. The garage separation walls are one hour rated construction when living space is above the garage. The return air ducts are not to be in rated walls or shall be hard ducted like supply ducts.
- Openings for steel electrical outlet boxes, in rated garage separation assemblies, that do not exceed 16 square inches in area are permitted provided the area of such opening does not exceed 100 square inches for any 100 square feet of enclosed wall area. Outlet boxes on opposite sides of the assembly shall be separated by a horizontal distance of not less than 24 inches.
- Recessed light fixtures installed in insulated ceiling and/or attics shall be type "I.C." Non-"I.C." type recessed fixtures are not acceptable in insulated ceilings.

17. MISCELLANEOUS

- These specifications have been developed and issued without knowledge or reference to a specific geographic location. Therefore, supplemental to these documents is the owner's and his builder's responsibility for following material and equipment manufacturers' instructions, using recognized standards for each building craft and trade, and complying with all governing code requirements for the geographic area in which this house is to be built.
- Design America, Inc. sells house plans to assist in the construction of new single family and multi-family residences. However, in some markets, building regulations or codes may require that the plans and specifications be prepared under the supervision of an architect licensed in that jurisdiction. Where such regulations or codes apply, compliance is the responsibility of the owner and/or contractor.
- It is the responsibility of the owner and the contractor to verify with local building officials that details on these blueprints and specifications DO COMPLY with ALL applicable codes prior to beginning construction.
- It is the responsibility of the owner and contractor to obtain all necessary permits and inspections as required by state and local codes, and all work shall be in accordance herewith.
- Verify design loads with local codes and site conditions. Check with local building department officials for wind, seismic, snow or other loading conditions. If unusual site conditions exist, or local building requirements exceed the above design criteria, consult

with a local architect or engineer to adjust the foundation design and other structural elements if necessary.

- Construction shall conform to the following codes:
2021 International Residential Code, all sections in () are minimum requirements.
Latest year of the National Electrical Code, N.E.C.
Latest year of the International Mechanical Code, I.M.C.
Latest year of the International Plumbing Code, I.P.C.

BLUEPRINT SYMBOLS - (Shown Below)

- Casement windows A) Hinged left B) Hinged right
- Awning window (elevation view)
- Window (plan view)
- Pair of windows (plan view)
- Vent or louver
- Sliding doors
- Bi-Fold doors
- Pocket door
- Accordion-fold door
- Arched or cased opening
- Exterior door
- Interior door
- Swinging door
- French or twin doors
- Double electrical outlet
- Three-wire range outlet
- Special purpose outlet (shown here for a dishwasher)
- Light fixture
- Light switch
- Three-way switch
- Exhaust fan
- Ground fault interrupt outlet
- Supply air duct outlet
- Return air duct outlet
- Concealed wiring or center line
- Hidden line
- Property line
- Compacted earth fill
- Gravel fill
- Concrete
- Concrete block
- Brick
- Finish wood
- Framing lumber
- Rigid board insulation
- Batt, blanket or loose-fill mineral insulation
- Wood stud framing
- Glass block
- Blocking (lumber, fillers between framing members)

