



COMMUNITY DEVELOPMENT PROGRAM

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GENERAL BID SPECIFICATIONS FOR GENESEE COUNTY COMMUNITY DEVELOPMENT HOME IMPROVEMENT PROGRAM

These specifications and references are intended to provide compliance with the Department of Housing and Urban Developments, Housing Quality Standards. (H.Q.S.)

Bid specifications are intended to outline all known H.Q.S. failed items. The replacement and repairs specified must follow the International Residential Code (IRC 2006) or adopted local municipal code. Building permits as required shall be obtained from the local building official.

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(GD-1) Grading /Landscaping

When specified yards shall be graded to divert water away from building(s), prevent standing water and soil saturation detrimental to structures and lot use, provide for disposal of water from lot, and provide grade for safe and convenient access to and around buildings and lots for their use and maintenance. Use acceptable fill when grading. Minimum 2" quality topsoil seed and straw or hydro seed when establishing turf. Minimum grade/slope 6" in 10', see (IRC), {R403}.

(WW-1) Concrete and Paving

Sub grade shall be well drained, uniformly graded and compacted to prevent differential settlement prior to any paving.

Concrete

Concrete is to comply with {R506}. (IRC) Minimum thickness: 4" actual in field, 6" to 8" minimum thickness at approach or public drive connection. Provide an expansion joint at public walk, curb, garage, carport slab, and any structure. Provide saw cut joints at approximate 10 feet intervals across driveway. Finish providing a smooth surface or (broom finish) true to cross section and grade. Concrete shall be kept moist for three days to insure proper curing. Concrete shall not be placed when temperature is below 40 degrees unless proper precaution is taken. Minimum cross slope shall be 1 percent (1/8" per foot), maximum cross slope 5 percent (5/8" per foot). Provide 6" welded wire fabric or appropriate steel rebar interlocking reinforcement shall be installed in mid portion of concrete. Inform county of time and date of concrete pour.

Bituminous Paving

Base shall be crushed stone or gravel properly compacted to a minimum of 4". Wearing surface shall be bituminous concrete asphalt minimum compact thickness 2". Minimum cross slope shall be 1 percent (1/8" per foot), maximum cross slope 5 percent (5/8" per foot).

All work to be top sealed to insure a smooth surface and prohibit water penetration.

Concrete or bituminous slabs for garages and carports are to comply with the above specifications.

Basement floor slabs shall be 4" in thickness with 6 mil. vapor barrier below slab. Concrete placement is to comply with {R506}, (IRC). Specifications for waterproofing of basement shall apply.

(CH-1) Chimneys and Chimney Repairs

Chimneys shall be repaired when specified in such manner to be structurally safe, durable, smoke tight, and capable of withstanding action of flue gases. Material for brick and concrete brick chimneys shall comply with {R1001}, (IRC).

Factory built chimneys and gas vents shall have been tested and listed by a nationally recognized testing agency and shall be accepted as complying with the requirements of {R1001}, (IRC).

(FR-1) Framing

Soft wood framing lumber shall comply with the American Lumber Standards, S.P.A. – 16, and with specific grading requirements of the association recognized in the trade as covering the species used and under those grading rules it is produced.

All species of soft wood framing lumber may be used for floor, ceiling, wall and roof framing, subject to the allowable spans and strength for the particular species. See span tables (IRC 06)

Sheathing, roof deck, and sub floor, board lumber to comply with American Lumber Standards. Plywood shall comply with the following standards (IRC 06). Each sheet of plywood shall be suitable labeled.

Framing is to comply with codes and proven standards and methods of area.

All exterior grade lumber shall be pressure treated to industry standards. Sub grade lumber shall be pressure treated to CCA rating of 0.40 min. with a use category of 4A. Above ground pressure treated CCA rating shall be a min of 0.25 with a use category of 1, 2, 3A or 3B.

(RO-1) Roofing

Unless otherwise specified, 30 year or limited lifetime dimensional type asphalt shingles shall be installed on all County H.I.P. projects. **The homeowner will approve color choice.**

Shingles cannot be installed on roofs sheathed with boards wider than 6" nominal.

All deteriorated roof boards shall be replaced with new. **County staff is to be notified as to when the roof will be stripped.** At this time the replacement will be on a change order basis.

When new sheathing is required, load rated plywood or O.S.B. is to be installed with min. 1/8" spacing on all sides, and properly secured.

Self adhering eave protection to be installed per {R905.2.7} (IRC)

For all roofs, new aluminum drip edge along eaves and rakes. **(Minimum cut length 3')**

For chimney and vents install metal flashings to provide water tight seal. For pipes projecting through roof, flash with one piece sheet metal/neoprene or equal flashing.

Metal step flashing is to be installed at all roof intersections with siding (dormers, gables, adjacent structures).

Valley flashing to have one layer of 90# @ 18" and a layer 36" or metal flashing and 36" of 90 # mineral to match shingle. Or self adhering roofing membrane with shingle overlay.

Shingles are to be installed to manufactures instructions on the shingle wrapping.

All attic areas of roof must be vented to code by means of either soffit and ridge venting or gable and roof venting. Venting methods are not interchangeable. For example you cannot vent by means of gable vents and ridge vents or soffit vents and roof vents.

(EV-1) Eaves trough/Gutters & Downspouts

All gutters to be not less than 5" wide, aluminum and colored to match existing trim, siding etc., and continuous (one piece construction/seamless)

Downspouts shall be sized on a basis of approximately 100 square feet of roof surface to one square inch of leader.

Include 3' extension from structure and insure proper drainage.

Splash blocks by homeowner request.

(SI-1) Exterior Siding

Shall provide exterior wall finish which will prevent entrance of moisture and weather and which will provide satisfactory durability, economy of maintenance and an attractive appearance.

Wood siding shall comply with the specific grading requirements of the association recognized in the trade as covering the particular species. All wood siding and trim is to be installed and fastened with rust resistant fasteners.

Plywood shall be exterior type. Grade and thickness shall be suitable for its intended use and shall comply with requirements of the association recognized in the trade as covering the particular species.

Vinyl siding is to be installed, per manufacturers specification. Design, style and the color will be approved by the homeowner. Vinyl is to be of good quality, all trim to be included in a complete job, **"j" channel over windows is not considered flashing.** Flash above all openings, doors, windows properly to provide a means for water to flow away from opening. All

windows and at eaves should include under sill trim to hold siding tight. Siding is to be a minimum of 0.042" and nailed to allow siding to contract and expand. All windows and doors shall have aluminum or vinyl drip cap flashing over head trim.

Aluminum siding shall be installed in accordance with manufacturers recommendations. Nail with aluminum nails. Nails shall penetrate support one inch (1"). Minimum thickness shall be .02" and shall comply with {F.S. QQ-AOO 225}.

All siding shall have underlayment of either fan fold or house wrap. All seams shall be taped per manufacturers specification.

(SI-2) Soffit/Fascia

Soffit and fascia is to be aluminum unless otherwise specified. Install soffit and fascia, per manufacturer's instruction, code and common industry methods and practices. Limit face nailing and visible end bends, hems and tool marks. When covering wood un-vented soffits provide venting prior to wrapping with aluminum.

Vented soffits, when required, shall vent attic spaces with appropriate baffles to allow air flow. Vented soffits will not be installed within 4' of a exhaust pipe such as a bath fan installed in a soffit area.

(CB-1) Cabinets and Counter Tops

When specified, cabinets are to be same or equal to Aristokraft, Oakland or Westbury design. Cabinets must be factory/shop built, not site built. Include all trim, and provide a professional fit and finish to surrounding walls, ceilings and appliances. Properly fasten to walls and insure plumbing cut outs and any field adjustments are completed in a high quality, professional manner.

Countertops

Counter tops are laminated with homeowner's choice of colored phenolic laminate. Minimum of 3/4" high density particle board with 1.5" build up along edges. All edges of finished laminate are to be flush and free of adhesives and tool marks. Securely fasten to cabinetry base. Include 4" laminated back splash where counter meets walls. Permanent adhesives, such as Liquid Nails, should not be used to attach the countertop to the cabinets. Instead fasten with a silicon based bonding agent or screw fastened angle brackets.

(PL-1) Plumbing

Direct-fire water heater shall be U L or ACA tested and labeled and installed in accordance with the listing unless otherwise indicated and have a first hour rating of at **least 61 gph**. Electric water heaters shall conform to NEMA standards.

Approved manual shut-off valve shall be placed on gas supply line upstream from disconnect on each appliance and to the cold water supply.

Plumbing equipment and materials shall comply with and be installed in accordance with the National Plumbing Code {ASA A 40.8} and with local and state plumbing codes. A permit is required.

All plumbing fixtures and appliances are to be of like kind, and approved equal.

Bathtubs -	Mansfield/American Standard
Bathtub Systems -	Sterling/Kohler
Tub faucets (diverters) -	Delta/American Standard
Sinks (bath) -	Mansfield/American Standard
Bath Faucets -	Delta/American Standard
Kitchen Faucets -	Delta/American Standard
Toilets -	Mansfield/American Standard/Glacier Bay

All water supply piping is to be copper or pex, properly sized and installed.

All drain, waste, vent piping to be properly sized and installed.

(WD-1) Windows

All vinyl replacement windows are to be single hung or single slider unless specified otherwise, with welded P.V.C. frame and $\frac{3}{4}$ "glass.

Vinyl replacement windows shall be of good quality and installed to the manufacturer's specifications. All windows after installation shall open and close as intended, and lock securely. New interior trim, is to be installed on all projects, unless existing is in good order. Include new stop and (sills if needed) caulking applied neatly and free from tool marks. Exterior trim if aluminum coil stock bent and applied as trim, is to be free of face nails whenever possible. Flashing and caulk applied to prevent water from entering the structure.

Bath window will be obscured glass and tempered glass installed where specified per code. {R308.4}

Vinyl windows will meet the latest code requirements in regards to energy and building code. All R-values, U-factors, solar heat gains, low-e and glazing requirements apply.

(TW-1) Interior Trim

All finish trim shall be dressed free of tool marks and other objectionable defects. Grade shall be suitable for its intended use and commensurate with the class of dwelling under construction. Proper style and design used as intended i.e. base, casing, shoe (1/4 rd) cove and crown.

All interior trim will be finish painted or stained, primer coat is not considered a finish product such as door jambs and brick moulding. All finishes will match existing/like materials close as possible. This includes necessary polyurethane finishes to match existing. All trim material shall be paint or stain grade, #2 pine boards are not considered paint grade.

(DO-1) Doors

Exterior

Entry doors when replaced are to be, pre-hung insulated steel, six panels with brick moulding. All entry doors to include new lockset and deadbolt keyed alike. Locksets are to be KwikSet, Schlage or equal. Include interior casing installed and ready for finish. Doors are to be properly flashed and threshold sealed. Exterior brick mold must be painted or wrapped with aluminum trim. Fan light and 9-lite doors will occasionally be specified, per homeowner.

All doors will be finish painted per manufacturer's specifications. Prime coat is not a finished product. Install doors per manufacturer's specifications. Anchor screws should be set behind weather stripping and doors shimmed and anchored (3) places per side.

Storm doors

Good quality 4 or 5 hinged or piano hinged 1 ¼" (1" vinyl clad Larson) doors will be allowed. Insure weather tight installation and all required hardware.

Interior doors

Good quality with standard hardware and new trim (casing). Insure proper swing and match style/design of existing (luan birch, colonist 6 - panel). Doors are to be finished to match existing, unless specified otherwise. Final paint/stain finish will include all (6) sides of the door, per manufacturer's specification.

Garage doors

Good quality with standard hardware. Install to manufacturers specification. If existing home has automatic opener include required hardware to accommodate connections. If low headroom door is required, it should be recognized at walk through and bid accordingly.

Patio doors

Good quality (see vinyl window specification) installed to manufacturers instruction. Insure proper flashing at top/head and threshold, make rain tight. Include good quality hardware and lock assembly. Pan flashing or self adhering membrane under door is required per manufacturer's specification

See vinyl window section for glass and trim requirements. Floor/door trim is required at transition area such as shoe moulding. At times, where carpet meets a new door, trim work or carpet stretching should be accounted for at time of bidding.

(HT-1) Heating

Heating systems shall be designed, installed and balanced or adjusted to provide for the distribution of heat to all habitable rooms and other spaces in accordance with the calculated heat loss of the spaces to be heated. The construction and installation of all equipment, accessories and appurtenance shall comply with the published standards and requirements of the National Fire Protection Association, the National Board of Fire Underwriters.

Recessed or wall heaters or space heaters shall be listed by Underwriter's Laboratories Inc. The output in B.T.U.S. shall be determined from certified test data submitted by the manufacturer.

Service on furnaces: Check all safety controls, heat exchanger, flue (exhaust) gas, gas supply piping and shut-offs. Provide written report from qualified mechanical contractor, to county inspector.

All furnaces are to be no less than 82% efficient and are to G.M.M.A. rated and certified, and installed by only qualified technicians. New or substantially repaired furnaces are to be state inspected and permits are required.

(EL-1) Electrical

A permit and certification shall be required (in accordance to Michigan Residential Code) on all electrical work performed, authorized by the County under its Community Development Home Improvement Program.

Electrical service panels are to be installed or repaired, in accordance to the 2006 Michigan Residential Code.

Interior fixtures are to be of good quality medium price, **the homeowner will approve style and design.**

Exterior fixtures are to be designed as such, good quality medium price and **the homeowner will approve style and design.**

Smoke alarms/detectors are to be installed per Michigan Residential Code. {R313.4; R313.5}

Bathroom vents shall be switch operated and exhausted to the exterior of the house with an approved exterior discharge device. Include a condensation loop to all overhead venting. All necessary drywall repair shall be inclusive with the installation of bathroom vents, such as areas to install fixture, switch location, fishing wire in walls, etc.

(FC-1) Floor Covering and Underlayment

Floor covering in kitchens, bath and laundry rooms shall be of a durable waterproof non-absorptive material. The homeowner will approve color/style selection of flooring, within specified allowances.

Underlayment for bathrooms and kitchen flooring shall be rated as such. Install using floor manufactures specifications. Include all needed shoe trim and separation bar, stair nosing etc.

Underlayment for carpeting is to be a min. of 6# padding. Minor damage to sub floor is to be repaired prior to new installation. The homeowner will approve color/style selection of carpet, within specified allowances.

Ceramic Floor Tile: After at least 24 hours drying time, apply latex, Portland grout. Clean floor and apply mildew resistant white silicone caulk to all edge seams and pipe penetrations. Install a 3" marble threshold at door. Ceramic tile floor underlayment must be cement board, denshield

or hardibacker, of approved by tile manufacturer. Floor framing must be adequate to support tile floor application.

Install 1/2" fiberglass reinforced cement composition boards such as Durock® or HardieBacker™ in area specified to accept ceramic tile. Space edges 1/4" from adjoining surfaces and fasten with minimum 1-1/4" long No. 8 x 0.375" HD self-drilling corrosion-resistant ribbed wafer-head screws (i.e. High-Low Rock On screws) designed specifically for backer board. Use product specified by manufacturer for particular application (such as walls or floors). For floors bond backer board to plywood subfloor with thin set mortar and fastener using a 1/4' square notched trowel. On floors backer board must be installed on 3/4' plywood over joists 16" on center or the joist/subfloor assembly must meet the manufacturer's specifications.

Hardwood Flooring: Drum sand and edge floor. Counter sink all nails and fill holes. Vacuum and tack rag room. Apply a sanding sealer and two coats of oil based polyurethane varnish. Once flooring is completed, vacuum room.

(PA-1) Painting

Exterior Painting

Application of paint, primer or other coating shall be in strict accordance with manufacturers' directions. Ready mixed paint shall not be thinned, except as permitted in the application instruction. Exterior painting shall be done in favorable weather. All surfaces shall be free of dew or frost and must be dry to the touch except for masonry paints formulated for application to wet surfaces. **Painting shall not be done when the temperature is below 40 degrees F.**

For repainting existing surfaces, refer to manufacturers' recommendations regarding type of material, compatibility with existing paint film, preparation of surface, etc. Surface shall be properly prepared to include eliminating loose, blistered paint and replacing missing putty.

Knots and resinous wood shall be sealed with a prepared knot sealer or aluminum paint prior to priming. Any nail holes or cracks shall be filled with putty or caulking.

Top and bottom of exterior wood doors shall receive two (2) coats of paint or sealer. Application shall be in a workmanlike manner, providing a smooth surface. Additional coats may be required if the finish surface does not provide acceptable coverage.

All paints or other coatings shall be standard commercial brands with a history of satisfactory use under conditions equal to or similar to the conditions present in the area concerned.

All selection of color and pattern shall be determined by owner

Interior Paint

Interior walls and ceiling shall be finished to provide a durable and washable surface. All new drywall or patched areas require drywall sealer/primer prior to paint finish.

All mill work and trim, including windows, interior doors, window, door and base trim, paneling, kitchen cabinets, closet shelving and trim or as specified shall be appropriately finished by painting or natural finish.

Application shall be in a workmanlike manner providing a smooth surface. Application rate shall be per manufacturers' recommendation. Additional coats may be required if the finish surface does not provide acceptable coverage.

Nail holes and cracks shall be filled and prepared for finish..

All paints or other coatings shall be standard commercial brands with a history of satisfactory use under conditions equal to or similar to the conditions present in the area concerned. All paint shall be of a non-lead base type.

All selection of color and pattern shall be determined by owner within specified allowance.

All newly installed material shall be decorated to match existing.

(PA-2) Interior Wall and Ceiling Finish

Interior wall and ceiling finish shall provide a suitable base for decorative finish, a waterproof finish in spaces subject to moisture and reasonable durability and economy of maintenance.

Gypsum drywall: All joints in wall board surfaces intended to receive paint or wall type paper finished shall be taped and finished in accordance with manufacturers directions. Proper sizing for intended use, such as ceiling (5/8), walls (1/2) overlay (3/8).

See {R702} (International Residential Code

Plywood paneling for interior wall finish shall comply with the standard of the association recognized in the trade as covering the particular species.

Ceramic Wall Tile: Include preformed base, cap, stop, return and trimmer pieces to complete installation. After at least 24 hours drying time, apply latex based Portland cement grout. Clean all excess grout and apply mildew resistant white silicone caulk at all seams, fixture lips and pipe penetrations. Ceramic tile must be installed over an approved substrate. **Green gypsum board is not an approved substrate.** See {R704.4.3} 2006 International Residential Code

Install 1/2" fiberglass reinforced cement composition boards such as Durock® or HardieBacker™ in area specified to accept ceramic tile. Space edges 1/4" from adjoining surfaces and fasten with minimum 1-1/4" long No. 8 x 0.375" HD self-drilling corrosion-resistant ribbed wafer-head screws (i.e. High-Low Rock On screws) designed specifically for backer board. Use product specified by manufacturer for particular application (such as walls or floors). For floors bond backer board to plywood subfloor with thin set mortar and fastener using a 1/4' square notched trowel. On walls all edges of backer boards must be supported by full face 2' framing secured to the structure.

Bathroom Repairs

All tub alcoves should have a water repellent (fiberglass, plastic, ceramic tile, etc.) surround and a suitable sub-surround being greenboard drywall wolmanized plywood or cement board.

Where tub surround meets tub, a bead of silicone caulk or similar approved material shall be applied to form a water tight seal.

Also where tub surround meets existing wall material or tile, a bead of caulk shall be applied to make a water tight seal and to give a finished look to the job.

All bathrooms shall have a ventilation system of some sort, be it a screened window or mechanical vent, vent to exterior of home (not attic or crawl space if to attic vent should extend to fits vents) or to the roof venting system.

Homes containing 1 working bathroom shall not, when possible, be left without a working toilet overnight. Accommodations such as resetting the toilet with wax ring after a work day should be done.

(FO-1) Foundations/Footings

Foundations or footings when specified or required are to meet the International Residential Code requirements. Deck or porch footings are to be excavated to below frost line (42" below grade). Concrete pre-cast pad or poured and cured concrete placed, prior to post or support system installation. Foundation inspections are required for structures with supporting posts.

(IN-1) Insulation

When specified or required sidewall insulation to match existing type and r- value. When blown-in side wall and attic insulation is specified, qualified and experience installers are expected to be employed. All stud cavities and areas above and below window/door openings are to be filled. Attics require a min. 12". Insure eave ventilation is not blocked. Insulation to band joist to be R19 (6") installed to insure batt is not crushed.

(SC-1) Disposal of Refuse

All projects shall have a means of containing debris throughout the course of repairs. Construction debris shall not be piled or stored exposed to the weather or occupants unless in an acceptable container or bin or removed daily. All trades are expected to clean up after their respective work, but the general contractor is ultimately responsible each work day.

(PO-1) Decks, Porches and Railings

All decks and or porches constructed shall be constructed of exterior rated material wood, cedar, redwood or treated lumber. (If painted refer to painting specs).

All decks/porches constructed over 30" above grade shall have a guardrail with a height of no less than 42". (International Residential Code)

All spans and weight loads shall be adhered to and also practical construction design, per International Residential Code.

Guardrails are to be no less than 42" high and with a baluster spacing of less than 4" minimum clear space. Stairs when required are to comply with the International Residential Code {R311.5}

Graspable handrails are required on all stair cases with (2) or more risers. All handrails will have return ends on them and support loads as specified by code. Graspable handrails will be installed at 36" from top of rail measured at the nosing of the stair tread.

(FN-1) Fences

Fences shall be constructed with the proper materials and also proper spacing of posts.

Fence posts shall be anchored with suitable materials to remain ridged (crushed & compacted stone, concrete etc.) All wood and concrete supported fence post shall be installed on a footing minimum of 42" below grade.

Corner posts are to be installed as to support fences from two directions, securely.

Height, side lot set backs, design and any local codes should supply. Verify with local municipalities on permit requirements for fences.

(AP-1) Appliances

Kitchen stove is to be of good quality and medium price. When ever possible match existing unit make and size, and type (gas/electric).

Refrigerator is to be of good quality and medium price, minimum 18 cubic ft.

Appliances should be energy star rated.

(BP-1) Construction Permits

Building/Construction permits: Required on all projects, unless local official signs permit waiver, provided by Genesee County H.I.P. program at the contract closing. Permit requirements ultimately falls on the trade professional to draw permits when the respective code requires such.

Mechanical: when:

New furnace or boiler is installed.

Major gas supply piping alterations or relocation.

Gas appliance flue relocation or alteration.

When specified by County/local municipality.

Plumbing: when:

Major alterations or relocation of drain, waste or venting.

Relocation of water supply piping.

Relocation of plumbing fixtures.

When specified by County or local municipality.

Electrical: when:

New distribution panel.
New meter base and weatherhead.
New service/entry cable.
Major alterations to existing circuits.
Addition of new circuits.
When specified by County or local municipality