RESIDENTIAL STAIRS (STRAIGHT), HANDRAILS, AND GUARDRAILS

1. STAIRWAY WIDTH SHALL NOT BE LESS THAN 36" CLEAR. HANDRAILS SHALL NOT PROJECT MORE THAN 4.5" INTO STAIR. THE MIN. CLEAR WIDTH OF STAIRS BETWEEN HANDRAILS SHALL NOT BE LESS THAN 31.5" WITH ONE HANDRAIL, AND 27" WITH HANDRAILS BOTH SIDES.
2. MINIMUM STAIR HEADROOM SHALL NOT BE LESS THAN 80" MEASURED VERTICALLY FROM THE TREAD NOSING, THE SAME APPLIES TO LANDINGS.
3. TREAD DEPTH MIN. IS 10" ~~EXCEPT SPIRAL~~ STAIR. STAIR RISER MAX. HEIGHT IS 7.75".
4. STAIRS SHALL BE DESIGNED TO SUPPORT A UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF, AND/OR THE TREADS SHALL BE ABLE TO SUPPORT A CONCENTRATED LOAD OF 300 POUNDS APPLIED OVER A 4 SQ.INCH AREA, WHICHEVER PRODUCES THE GREATER STRESS.
5. LANDINGS: AT THE TOP AND BOTTOM OF STAIRS SHALL BE A LANDING OF EQUAL WIDTH TO THE STAIR SERVED, AND MIN. DEPTH OF 36" MEASURED IN THE DIRECTION OF TRAVEL. A LANDING IS NOT REQUIRED AT THE TOP OF INTERIOR STAIRS, PROVIDED NO DOOR SWINGS OVER THE STAIR.
6. HEIGHT OF VERTICAL TRAVEL: NO STAIR SHALL RISE MORE THAN 144" VERTICAL WITHOUT AN INTERMEDIATE LANDING.
7. HANDRAILS HAVING MINIMUM AND MAXIMUM HEIGHTS OF 34 INCHES AND 38 INCHES RESPECTIVELY, MEASURED VERTICALLY FROM THE NOSING OF THE TREADS, SHALL BE PROVIDED ON AT LEAST ONE SIDE OF STAIRWAYS OF FOUR (4) OR MORE RISERS.
8. REQUIRED HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS FROM A POINT DIRECTLY ABOVE THE TOP AND BOTTOM RISER. ENDS SHALL BE RETURNED TO THE WALL OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1.5" BETWEEN THE WALL AND THE HANDRAIL.
9. HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH A DIAMETER OF 1.25 TO 2 INCHES, OR A NONCIRCULAR CROSS SECTION WITH A PERIMETER DIMENSION OF AT LEAST 4 INCHES BUT NOT MORE THAN 6.25 INCHES AND A LARGEST CROSS-SECTION DIMENSION NOT EXCEEDING 2.25 INCHES, OR THE SHAPE SHALL PROVIDE EQUIVALENT GRASP ABILITY. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8 INCH. SEE CODE FOR ADDITIONAL REQUIREMENTS.
10. GUARDRAILS: PORCHES, STAIR LANDINGS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 36 INCHES IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 34 INCHES IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS.
11. GUARDRAILS SHALL HAVE INTERMEDIATE RAILS (BALUSTRADE) OR ORNAMENTAL CLOSURES WHICH DO NOT ALLOW PASSAGE BETWEEN OF AN OBJECT OF 4-INCH DIAMETER OR MORE.
12. EXCEPTION: THE TRIANGULAR OPENING FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARDRAIL AT THE OPEN SIDE OF A STAIRWAY SHALL BE PERMITTED TO BE OF A SIZE THAT A SPHERE 6-INCHES IN DIAMETER CANNOT PASS THROUGH.
13. HANDRAIL AND GUARDRAIL DESIGN SHALL BE OF SUFFICIENT STRENGTH TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS APPLIED IN ANY DIRECTION ALONG THE TOP. INFILL BALUSTRADES SHALL BE DESIGNED TO RESIST A HORIZONTALLY APPLIED LOAD OF 50 POUNDS APPLIED ON AN AREA OF 1 SQ.FT.

SEISMIC AND WIND DESIGN COMPONENTS: RESIDENTIAL

1. INTERNATIONAL RESIDENTIAL CODE CLASSIFIES THE DELAWARE VALLEY AS SEISMIC DESIGN CATEGORY "C." NOTE: DETACHED ONE AND TWO FAMILY DWELLINGS ARE EXEMPT FROM THE SEISMIC REQUIREMENTS OF THIS CODE.
2. INTERNATIONAL RESIDENTIAL CODE CLASSIFIES BUCKS AND MONTGOMERY COUNTIES AS HAVING WIND SPEEDS OF 90 MPH. THE LOWER (MOST EASTERLY) PART OF BUCKS COUNTY IS RATED WITH WIND SPEEDS OF 100 MPH.
3. WIND AND SEISMIC (EARTHQUAKE) LOADS: IRC 2006, THE CONSTRUCTION OF BUILDINGS SHALL RESULT IN A SYSTEM THAT PROVIDES A "COMPLETE LOAD PATH" CAPABLE OF TRANSFERRING ALL LOADS FROM THEIR POINT OF ORIGIN THROUGH THE LOAD RESISTING ELEMENTS TO THE FOUNDATION. SEE NOTES IN VARIOUS SECTIONS.

DESIGN LOADS THE PROJECT HAS BEEN DESIGNED WITH THESE LOADS

DESIGN LOADS	ROOFS	FLOORS	FLOORS	ATTIC FLOOR	BALCONIES /DECKS
	WOOD OR ASPHALT SHINGLES	WOOD, CARPET OR VCT	CERAMIC, SLATE OR STONE	UNFINISHED SHEATHING	SPACED DECK
DEAD LOAD (PSF)	15	15	25	15	10
LIVE LOAD (PSF)	30	40	40	20	60 / 40
TOTAL (PSF)	45	55	65	35	70 / 50

CONCRETE WORK

1. CODES AND STANDARDS: ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI-301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI-347, "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK; ACI-304, "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE"; READY MIX CONCRETE SHALL BE IN ACCORDANCE WITH ASTM C-94.
2. COMPRESSIVE STRENGTH OF CONCRETE 3,000 PSI AT 28 DAYS. MAX. SLUMP OF ALL CONC. SHALL BE 4". IN LIEU OF TESTING, CONTRACTOR SHALL PROVIDE CERTIFIED MIX RECEIPTS, DELIVERED TO OWNER.
3. USE AIR-ENTRAINING ADMIXTURE IN ALL CONCRETE THAT IS EXPOSED TO FREEZING AND THAWING, PROVIDING NOT LESS THAN 4% NOR MORE THAN 6% ENTRAINED AIR.
4. NO CONCRETE SLABS OR FOOTINGS SHALL BE PLACED UNTIL SUBGRADE PREPARATION IS INSPECTED AND APPROVED BY THE MUNICIPALITY.
5. FINISHES: EXPOSED TO VIEW VERTICAL SURFACES SHALL HAVE A RUBBED FINISH IN ACCORDANCE WITH ACI-301. FLOOR SLABS SHALL HAVE A STEEL TROWEL FINISH. EXTERIOR WALKWAYS TO HAVE BROOM FINISH.

FOOTING PLACEMENT FOR FOUNDATION WALLS

1. BOTTOMS OF ALL FOOTINGS (OR EARTH SUPPORTED WALLS) SHALL BEAR ON UNDISTURBED SOILS CAPABLE OF SUPPORTING THE ASSUMED DESIGN LOAD OF 3,000 PSF. THE CONTRACTOR SHALL EXAMINE AND VERIFY THE SOIL CONDITIONS BEFORE ALLOWING CONCRETE FOOTINGS AND FOUNDATIONS TO BE INSTALLED. IF SOILS EXHIBIT A LESSER VALUE, NOTIFY THE ARCHITECT IMMEDIATELY, AS THE FOUNDATION DESIGN MUST BE RE-EVALUATED AND POSSIBLY REDESIGNED.
2. THE SOIL IN THE TRENCHES FOR ALL FOOTINGS SHALL BE INSPECTED BY A MUNICIPAL OFFICIAL BEFORE ANY FOOTINGS ARE PLACED. PROVIDE INSPECTION CERTIFICATE.
3. THE BOTTOM ELEVATION SHOWN FOR ALL FOOTINGS IS THE MINIMUM, AND SHALL BE NO LESS THAN 36 INCHES BELOW FINAL EXTERIOR GRADE. SOIL CONDITIONS MAY REQUIRE ADDITIONAL DEPTH.
4. ALL FOOTING EXCAVATIONS FOR FOUNDATION WALLS ENCLOSING CRAWLSPACES OR OTHER OCCUPIED SPACE SHALL BE MADE WIDE ENOUGH TO ALLOW FOR THE PLACEMENT OF FOUNDATION DRAINAGE PIPING AND DRAINAGE STONE BELOW THE TOP OF THE FOOTING AND THUS MUST BE "FORMED" AS A MINIMUM ON THE EXTERIOR SIDE. IF ALLOWED BY THE MUNICIPALITY, FOOTING FOR "SLABS ON GRADE" MAY BE PLACED IN TRENCH FORMED FOOTINGS.
5. FOOTINGS AND SLABS SHALL NOT BE PLACED ON FROZEN SOILS.
6. FOOTING CONCRETE SHALL BE MINIMUM 3,000 PSI DESIGN MIX @ 28 DAYS. IN LIEU OF TESTING, CONCRETE SUPPLIER SHALL PROVIDE MIX CERTIFICATE TO CONTRACTOR FOR DELIVERY TO OWNER.
7. WHERE PIPES PASS THROUGH A FOOTING, THE FOOTING SHALL BE MINIMUM OF 12 INCHES THICK SOLID BELOW, STEP AS REQUIRED, INSTALL PVC SLEEVE MINIMUM OF PIPE DIAMETER PLUS 2 INCHES.
8. FOOTING TO FOUNDATION WALL ANCHORAGE: INSTALL HOOKS FORMED FROM #4 DEFORMED REINFORCING BARS. VERTICAL LEG SHALL BE 20 INCHES LONG, AND HOOK SHALL BE 3-INCHES. BOTTOM OR HOOK SHALL BE 3 INCHES FROM BOTTOM OF FOOTING. INSTALL NOT MORE THAN 12 INCHES FROM ANY CORNER (BOTH SIDES) AND THEN NOT MORE THAN 48 INCHES ON CENTER FOR ENTIRE LENGTH OF WALLS. ALIGN HOOKS TO BE CENTERED IN FOUNDATION THICKNESS AND IN BLOCK CORES IF CMU WALLS.

RAISED EXTERIOR WOOD DECK / PORCH CONSTRUCTION

1. TIMBER FOR DECKS SHALL ALL BE PRESSURE TREATED, AND SHALL BE FORMALDEHYDE FREE.
2. FASTENERS: COPPER BASED PRESSURE TREATED LUMBER IS EXTREMELY CORROSIVE TO MOST METALS. ALL NAILS, SCREWS, HANGERS, STRAPS, ETC. SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. THESE PRODUCTS MUST COME WITH A MFG. CERTIFICATION AS COMPATIBLE WITH PRESSURE TREATED LUMBER.
3. SEE NOTES ABOUT HANDRAILS AND GUARDRAILS

CAULKING

1. PERMITTED MATERIALS: ALL CAULKING SHALL BE POLYURETHANE COMPONENT BASED. NO SILICONE CAULKS ARE PERMITTED UNLESS THE APPLICATION IS FOR A "GLASS TO GLASS" ADHESIVE. ALL CAULKS USED IN PREPARATION FOR INTERIOR PAINTING SHALL BE LATEX, WITH NO SILICONES. PROVIDE POLY BACKER RODS WHERE REQUIRED.
2. WHERE TO APPLY: CAULKING SHALL BE PROVIDED:

   BETWEEN ALL EXTERIOR DISSIMILAR MATERIALS WHERE A MECHANICAL CONNECTION DOES NOT MAKE A WATERTIGHT SEAL.

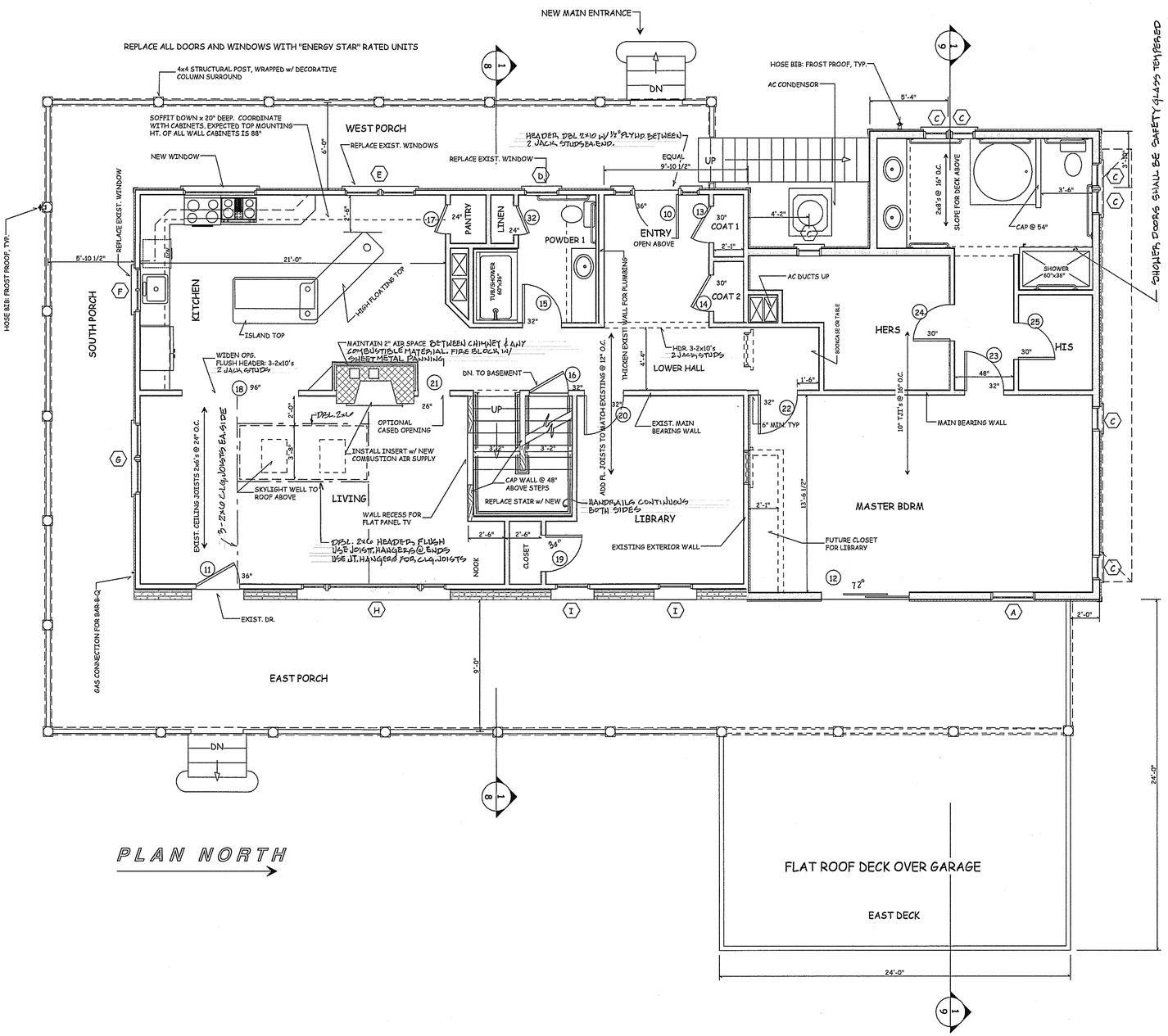
   AROUND THE PERIMETERS OF ALL DOORS AND WINDOWS BETWEEN SURROUNDING FINISH SURFACES.

MEANS OF EGRESS: SPECIAL RESIDENTIAL

1. IN ADDITION TO THE ROOM'S MAIN DOOR, ALL HABITABLE BASEMENTS AND SLEEPING ROOMS SHALL HAVE A MINIMUM OF ONE ALTERNATE OPENABLE EMERGENCY ESCAPE AND RESCUE OPENING, GENERALLY AN "EGRESS WINDOW." EACH OPENING SHALL: A) HAVE A MINIMUM NET CLEAR OPEN AREA OF 5.7 SQUARE FEET; B) THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24 INCHES; C) THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20 INCHES; D) THE SILL HEIGHT OF THE OPENING SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR; E) THE OPERATION OF THE EMERGENCY OPENING SHALL NOT REQUIRE ANY SPECIAL HARDWARE OR KEY. ALSO, WHEN THE EGRESS WINDOW IS LOCATED MORE THAN 72" ABOVE GRADE, THEN THE SILL HT. SHALL BE A MIN. OF 24" ABOVE THE FINISH FLOOR.
2. WHERE A WINDOW PROVIDES THIS EMERGENCY OPENING, PROVIDE THE MANUFACTURER'S CATALOG CUTS VERIFYING THIS REQUIREMENT IS MET.

EXISTING WINDOWS:

1. THE EXISTING BUILDING CODE ALLOWS THE REPLACEMENT OF WINDOWS IF THE EXISTING SIZE OR LOCATION IS NOT CHANGED.
2. IF THE ROUGH OPENING OF AN EXISTING WINDOW IS ALTERED, THEN ALL CURRENT CODE REQUIREMENTS APPLY. BE CAREFUL, ESPECIALLY IN BEDROOMS WHERE EGRESS WINDOWS MAY BE REQUIRED.



1/4 FIRST (GROUND) FLOOR PLAN

REV. #	REVISION DESCRIPTION	DATE
	PROJECT START UP	OCT. 25, 2007
	FOR PERMITS	MAY 01, 2008
	PER. PERMIT REVIEW	5-23-08

VALID FOR PERMITS ONLY IF IMPRESSED WITH ORIGINAL SEAL & ORIGINAL SIGNATURE IN "RED"

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FIRST FLOOR PLAN

505 ROCKSVILLE ROAD
ADDITIONS & RENOVATIONS
for Jack and Joanna Pitula
Northampton Twp, Bucks County, PA

Sheet No. 4

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