

Ramp Guide



ADA Ramp Details
Based on the 2012
International Residential Code



The information contained in this guide can be useful in building ramps for residents in the District of Columbia by aligning the Americans with Disabilities Act (ADA) and the 2012 International Residential Code (IRC), Section R311.8 and 2013 District of Columbia Building Code.

The District of Columbia building permit process must be followed prior to building a ramp. Residential owners should know that ADA and the Fair Housing Act transcends any restrictions that may be contained in legal housing documents, such as homeowner association by-laws, condominium covenants and agreements. Homeowners, condominium associations and landlords must allow reasonable accommodations for residents with disabilities to enjoy their home, even if the cost of these modifications fall on the resident in most cases.

A ramp allows a person with mobility impairments, particularly those who use wheelchairs, to go up or down safely. ADA standards for Accessible Design based on the ADA Accessibility Guidelines (ADAAG)—lay out the requirements for ramps that allow safe access to the residence. Finally, national and local building codes contain the accessibility requirements for places of public accommodation and other public buildings.

The ADA standards provide ramp requirements that allow safe access to people with disabilities in private and public places. State and local building codes contain the accessibility requirements for places of public accommodation and other public buildings. There are no accessibility requirements for private single family homes, but the information contained here can be useful in building a ramp.

Section 1 - General Notes

Common Ramp Guidelines	4
Plan Preparation	4
Plan Submission	4
Application and Approval	4
Zoning Considerations	4
Dept. of Transportation	5
Building Permit Issuance	5
Inspections	5
Footing Inspections	5
Final Inspections	5
Design Considerations	5
Material Specifications	6

Section 2 - International Code

Planning the Ramp	7
Building a Wheelchair Ramp	7
Home Entry	7
Space Limitations that Impact Ramp Design	8
Ramp Slope and Size	8
Ramp Rise	8
Ramp Width	9
Handrails and Spindles	9
Ramp Materials	10

Section 3 - Build your Ramp

Building the Ramp	11
Guard Construction	13
Plastic Composites	13
Guard Systems	13
Openings	13
Guard Post Connection	14
Beam-to-Post Connection	17
Lag Screws	17
Wood Screws	17

Section 4 - Complete My Ramp 19

Appendices 22



General Notes

COMMON RAMP GUIDELINES

All ramp construction requires permits and inspections in the District of Columbia. This guide provides an overview of code compliance requirements for ramp construction and explains the specific steps involved in the process. These typical ramp details are provided to ensure design and construction of ramps in the District of Columbia are consistent and code compliant. These guidelines apply to all new, single level ramps and replacements, and previously approved ramps.

Ramps excluded from these guidelines include: multi-story access ramps on multi-family buildings, ramps that are proposed to be roofed or enclosed, commercial buildings, ramp foundations adjacent to property lines and finished ramp heights more than six-feet above grade. Land disturbance that affects adjacent properties may require DCRA neighbor notification. This is a general guideline for ramp construction. Additional code requirements may apply to any specific project. The permitting sequence typically involves:

- Plan Preparation
- Plat Submission
- Permit Application
- Plan Review (Structural, Electrical, Zoning, DC Department of Transportation - DDOT)
- Inspections

Prior to designing your ramp, read this publication thoroughly and pay close attention to each applicable detail. Once you have selected the size and layout of your ramp, use the joist and beam span tables to determine their size, spacing, span lengths and overhang dimensions. Use the remaining details to guide you in determining the other design elements of your ramp. Ensure the ramp design is recorded on the "[Complete My Ramp](#)" [Section](#) on page 19.

If you have questions, please contact DCRA at 202-442-4400, TTY 202-123-4567 or via email at dcra@dc.gov.

PLAN PREPARATION

Provide four copies of the "[Complete My Ramp](#)" plan on page 19 that illustrate your desired ramp layout. The layout should include dimensions of the ramp and any steps or railings. A side view of the ramp should also be provided on page 20. Use the remaining details to guide you in determining the other design elements of your ramp.

PLAT SUBMISSION

Provide four copies of a D.C. Surveyor's plat with the proposed dimensions of the ramp depicted on the plat.

APPLICATION AND APPROVAL PROCESS

1. Submit your Building Permit Application [online](#) with plans, plats and supporting documents. You may also apply in person in the Permit Center on the second floor of DCRA (1100 4th Street SW, Washington, D.C. 20024).
2. Your application will be entered into the permitting database and routed to the front counter and required disciplines (e.g. Zoning, Electrical, Structural and DDOT) for review and approval.
3. After all disciplines have reviewed and approved the plans, plats and supporting documents, the building permit will be issued.
4. Pay the issuance fee and the building permit is issued. See Permit Fee Chart in the [Appendix D](#).
5. Inspections are required during and upon completion of the construction process.

ZONING CONSIDERATIONS

A ramp located entirely on private property that services the main entrance floor of the building is exempt from the lot occupancy and yard

setback requirements that would otherwise be required. If the ramp serves any other level, it is required to comply with the minimum setback requirements and is included in the lot occupancy calculation for the subject property. See [Appendix A](#) for zoning setback and lot occupancy details. If the ramp is located in public space, it is not subject to the zoning regulations. It is reviewed by the DDOT Public Space Management Administration for compliance with the public space regulations.

DEPARTMENT OF TRANSPORTATION (DDOT)

DDOT review will focus on verifying that the proposed ramp complies with the projection requirements detailed in the building code and Fair Housing Act. Any additional length of the ramp projecting greater than 10 feet into public space, will require an additional review by DDOT.

BUILDING PERMIT ISSUANCE

After the required reviews have been completed and plans have been approved, the customer goes to the issuance desk, documents are given a final review, remaining fees are paid, and the building permit is issued. Fees can be paid by cash, check, and credit card. See Permit Fee Chart in [Appendix D](#).

INSPECTIONS

Following construction, DCRA must conduct required inspections of the ramp construction to ensure it is in compliance with the approved plans. D.C. construction inspections are scheduled through DCRA's phone-in inspection scheduling system (IVR). Further information can be found at: <http://dcra.dc.gov/service/schedule-construction-inspection>.

FOOTING INSPECTIONS

Ramps require a footing inspection after all excavation has been completed and before the footings, whether concrete or block, are installed. The inspection code for a footing inspection is 160 in the IVR phone



system.

FINAL INSPECTION

A final inspection is required when the ramp is complete, with all handrails and guard rails installed, and before use. The inspection code for a final inspection is 170 in the IVR phone system.

DESIGN CONSIDERATIONS

1. These details are based on the prescriptive requirements of the 2012 International Residential Code, industry best-practices and applicable referenced standards such as the American Wood Council (AWC).
2. Framing members in these details are designed for a 40 PSF live load, 10 PSF dead load, normal loading duration, wet service conditions and deflections of $l/360$ for main spans and $l/180$ for overhangs with a 220-pound point load.
3. The use of these details to design and construct multi-level ramps is prohibited.
4. Deviation from these details require approval by DCRA prior to construction.
5. Ramps must be designed to ensure rain and melting ice and snow flow away from the existing house.

MATERIAL SPECIFICATIONS

1. Lumber shall be preservative-treated, southern pine, grade #2 or better. Lumber not native to North America, such as Ipe, may be used as ing only; its use in guards is prohibited.
2. Lumber in contact with the ground shall be rated as "ground-contact." Not all treated lumber is rated for ground contact.
3. Concrete in footings shall have a minimum compressive strength of 3,000 PSI.
4. Nails shall be threaded, ring-shanked or annular grooved. A half inch pilot hole shall be used at toe-nailing locations.
5. Carriage-bolts may be substituted where through-bolts are specified, provided carriage-bolt washers (with square holes) are installed at the bolt head.
6. Fasteners shall be hot-dipped, galvanized, stainless steel or approved for use with preservative-treated lumber.
7. Hardware and mechanical connectors, e.g. joist hangers or post anchors, shall be stainless steel or galvanized with 1.85 ounces of zinc per square foot (G-185 coating). Look for product lines such as "Zmax," "Triple Zinc" or "Gold Coat."
8. Flashing at ledger board connections shall be copper (with copper nails only), stainless steel, UV resistant plastic, or galvanized steel with a G-185 coating.
9. Plastic composites are materials composed of bound wood and plastic fibers. Permissible as noted in this document, plastic composites must bear a label indicating its compliance with ASTM D 7032. Plastic composite's label and installation instructions must be available to the inspector.
10. When using plastic composites, exercise cautions as some members do not have the same capacity as their wood equivalents.
11. PVC ing and guards are permitted, provided they have a valid evaluation report from an accredited listing agency, such as the International Code Council - Evaluation Service. Installation shall be in conformance with the report and the manufacturer's instructions which must be avail-

able to the inspector.

The use of other materials and products, other than those permitted herein, must be approved by DCRA prior to installation.



"LUMBER IN CONTACT WITH THE GROUND SHALL BE RATED AS "GROUND-CONTACT." NOT ALL TREATED LUMBER IS RATED FOR GROUND CONTACT."

International Code

PLANNING THE RAMP

There are critical elements that must be considered prior to hammering the first nail, such as the specific point of entry to your home; the available area for ramp creation; the slope of the ramp based on the height of the level that the wheelchair must get to; and local building codes.

BUILDING A WHEELCHAIR RAMP

Consider the following before you begin the design and construction of a wheelchair ramp.

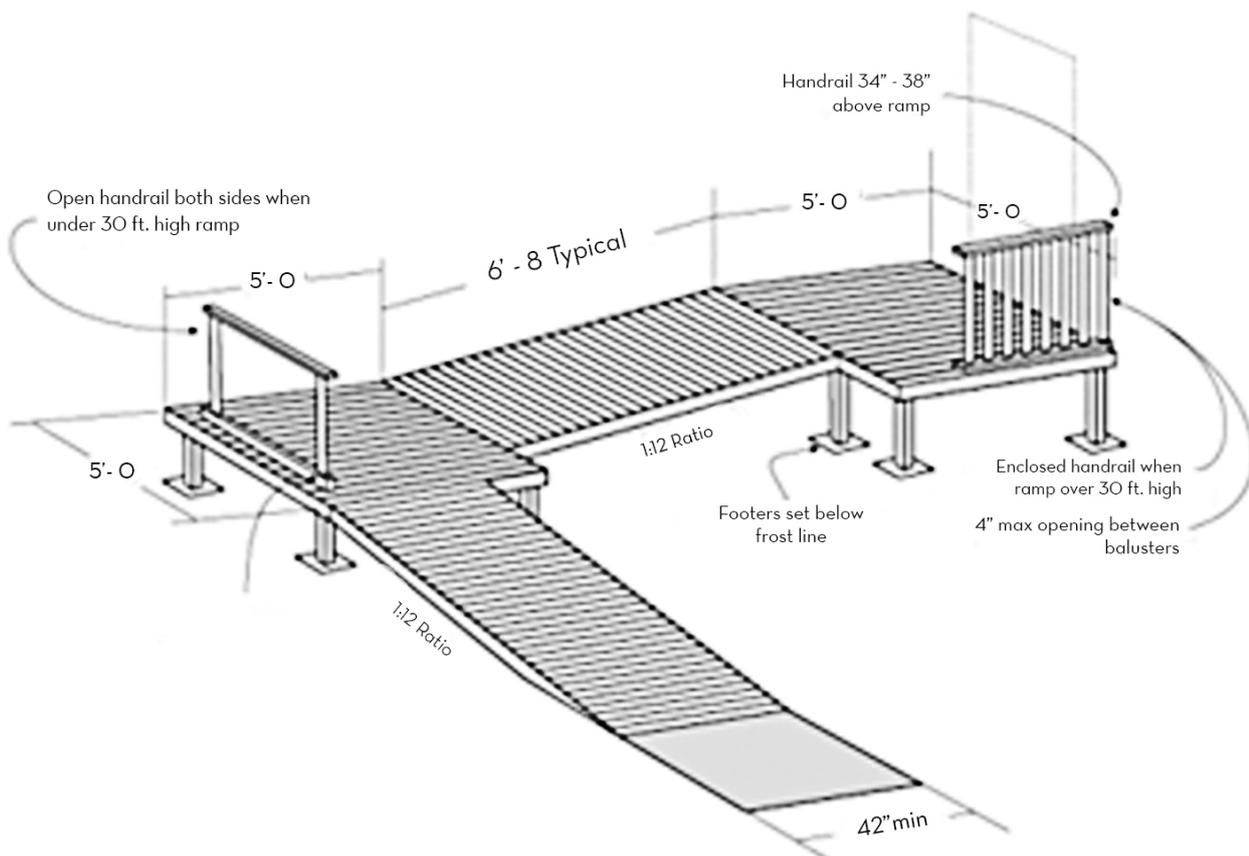
Questions to consider:

- Who's the primary user?
- What type of assistive device does the person use (cane, crutches, walker, manual or electric wheelchair)?
- Will the person's abilities change?
- What are the local zoning requirements?

These are just a few of the questions that must be addressed before you begin your project. The following information should guide you in this process.

HOME ENTRY

The choice of the door to place the ramp on will be influenced by several issues including: ease of access from the points within the house to the doorway, the width of the doorways and if a ramp can easily be accommodated to any existing features of the doorway, such as stairs, platforms or porches. Also, consider the use of public space when building. If the building restriction line and/or property line does not provide adequate space then relocation or alternative locations must be considered. The front yard might not be the best location to consider. A rear entry may be a viable alternative.



SPACE LIMITATIONS THAT IMPACT RAMP DESIGN

Many aspects of the design of a ramp are limited by the space available and obstacles (such as trees, buildings and walkways) and the availability of public space may affect where it can be located. By constructing a U-shaped ramp, more ramp distance can be accommodated in a smaller space.

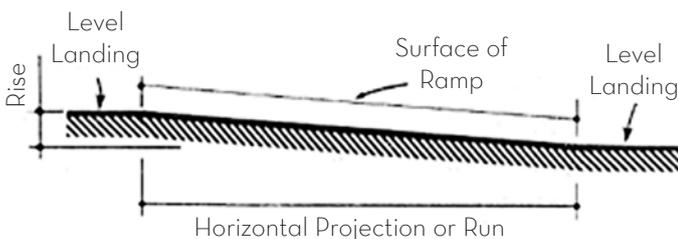
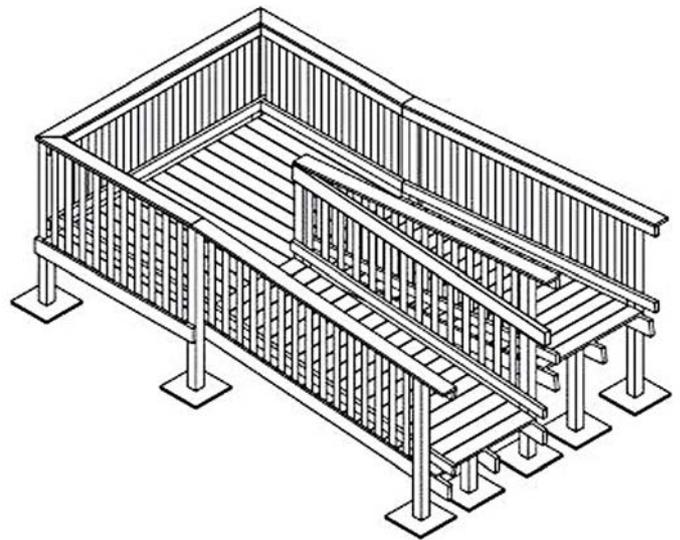
RAMP SLOPE AND SIZE

The angle of the ramp surfaces and the length or run of the ramp is a critical project consideration. The ramp slope will impact the layout requirements, the expense involved and the ramp's ultimate usefulness. Slope is the angle relationship of vertical height (rise) to the horizontal length or projection (run). It is usually expressed as a ratio of these two measurements with the rise figure frequently set at a unit of one. For example, a slope of 1:12 means that as each dimensional unit (usually inches) of height changes, the other side projects (or runs out in length) 12 units (inches).

Although other slope ratios may be used for constructing your ramp, the ADA-recommended and the most commonly used slope is 1:12. This means that if your porch height is 24 inches off the ground, you will need a 24-foot ramp to safely accommodate wheelchair access. If you plan on deviating from this standard, please notify DCRA and verify a minimum ramp slope of 1:8 which equates to 12.5% is permitted as the maximum slope allowed.

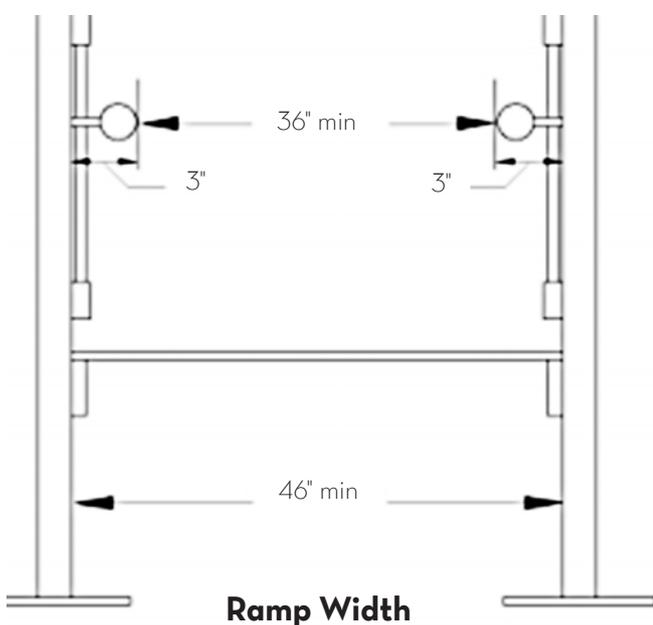
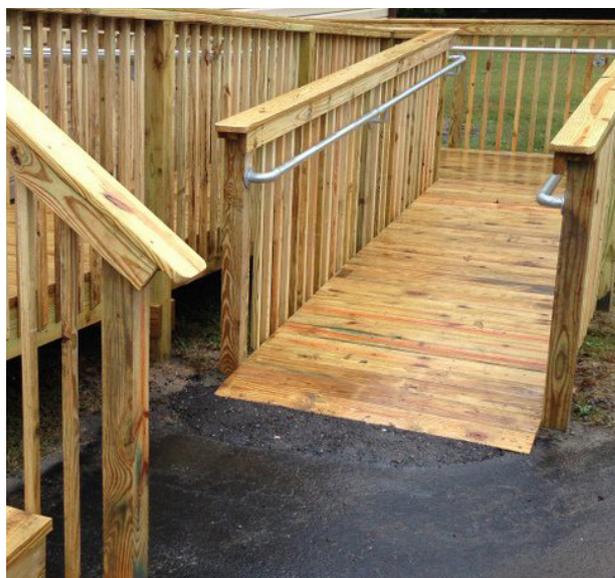
RAMP RISE

The maximum rise for any given ramp segment should not exceed 30 inches. After rising 30 inches in elevation, a flat rest platform should be provided before the ramp continues. A flat landing must be at the top and bottom of all ramps, and landings should always be at least as wide as the ramp itself and a minimum of 60 inches in length. Ramps that are used for direction changes should be a minimum of 60 inches by 60 inches.

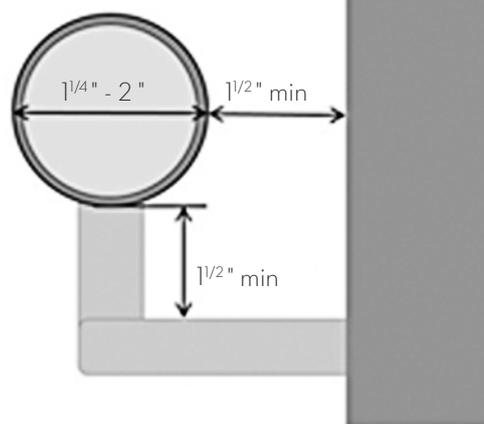


RAMP WIDTH

The minimum, inside clear width of the opening between the opposing handrails must be at least 36 inches to accommodate a wheelchair. This means the ramp must be built at least 42 inches wide to allow for the one-inch spacing between the handrail and any surface, and the actual 1½ inch handrail.



Specifications for handrails also address the diameter of circular cross sections and required knuckle clearance.



HANDRAILS AND SPINDLES

If a ramp run has a rise greater than 6-inches or is longer than 72 inches, then it is recommended to have handrails on both sides of the ramp. For safety, handrails should be placed along both sides of the ramp segment. The inside handrail should be continuous on switchback or dogleg ramps. The top of the handrail should be mounted between 34 and 38 inches above ramp surfaces. The space between the handrail and the wall or any solid surface should be at least 1-inch. Spindles should be used for ramps over 30 inches from the ground level. A curb or crutch stop should be placed along both sides of the ramp to prevent wheels from leaving the ramp.

"THE TOP OF THE HANDRAIL SHOULD BE MOUNTED BETWEEN 34 AND 38 INCHES ABOVE RAMP SURFACES."

RAMP MATERIALS

The actual material used for the ramp surface can be selected based on personal preference but should be stable, firm and slip-resistant in all-weather circumstances. Composite materials, such as ADA-compliant alternatives are an excellent choice. These products meet the ADA's guidelines for slip resistance, even in wet weather and are low-maintenance. Those who depend on a wheelchair ramp to preserve an independent lifestyle often do not have the mobility or strength to strip and refinish the ramp on a regular basis.

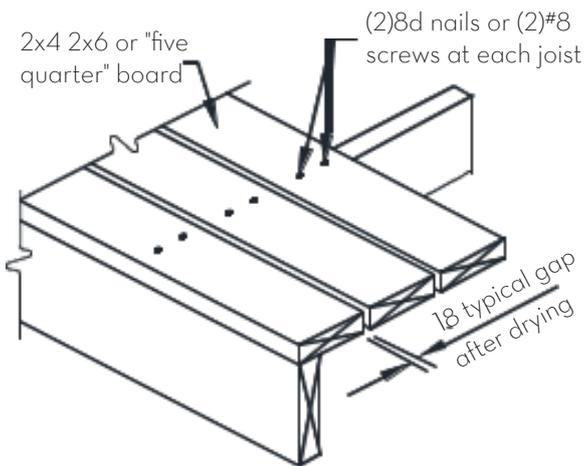
Easy-maintenance handrail materials should also be considered to provide years of comfortable use. Ramp surfaces shall be preservative-treated, or a species with naturally preservative properties for all wood, lumber and supporting wood columns. ing shall be constructed per [Table 1](#) and placed perpendicularly or at an angle up to 45 degrees to the joists. Wood ramping shall be attached per [Figure 1](#). If installed wet, place the ing with no gap, so that after drying a 1/8 inch gap is created. The use of hidden fasteners and similar attachment devices is prohibited. Each ing member shall bear on a minimum of three joists or blocking between joists. Placement and attachment of plastic composites shall be per the manufacturer's instructions.

Table 1: ing Requirements and Maximum Joist Spacing

Material Type and Nominal Size	Maximum Joist Spacing (inches)	
	Angular	Perpendicular
Wood "five-quarter" board	12	16
Wood 2x4 or 2x6	16	24
Plastic composites, PVC	Per manufacturer	Per manufacturer

Build Your Ramp

Figure 1: Typical joist



BUILDING THE RAMP

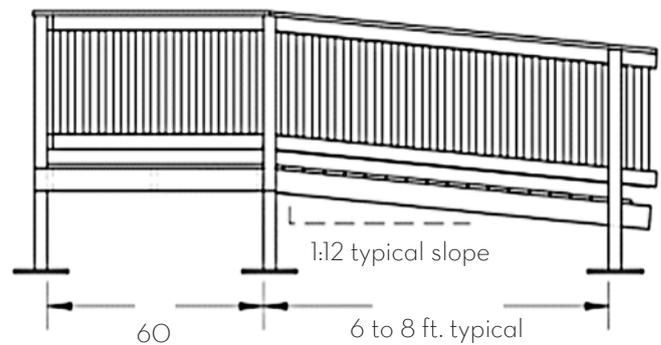
The ramp configuration and the materials you use will impact how you build the ramp. The steps outlined below will guide you through the general process for building a wooden ramp for a private home. This information is of a general nature and should not be assumed to be accurate for your specific project needs. Contact an architect or licensed contractor prior to beginning this process.

STEP 1: Based on the planning process described on page 7, select the ideal location for the ramp, either the front or rear yard. A surveyor's plat can be used to determine the location, get an overhead view of the property and to precisely position the ramp plan around obstacles, building restriction lines and property lines.

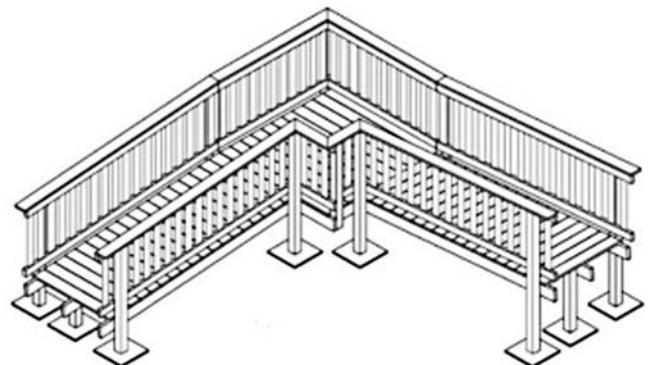
"THE MATERIALS YOU USE WILL IMPACT HOW YOU BUILD THE RAMP."

STEP 2: Measure the height from the upper landing location (this can be a porch, front or rear door a ramp, etc.) to the ground level. This distance, and assuming a 1:12 slope minimum, (if space will not permit the maximum slope allowed is 1:8) will provide you with the information needed to determine the total ramp length needed to safely construct the ramp and provide safe access to the home.

Ramp Side View



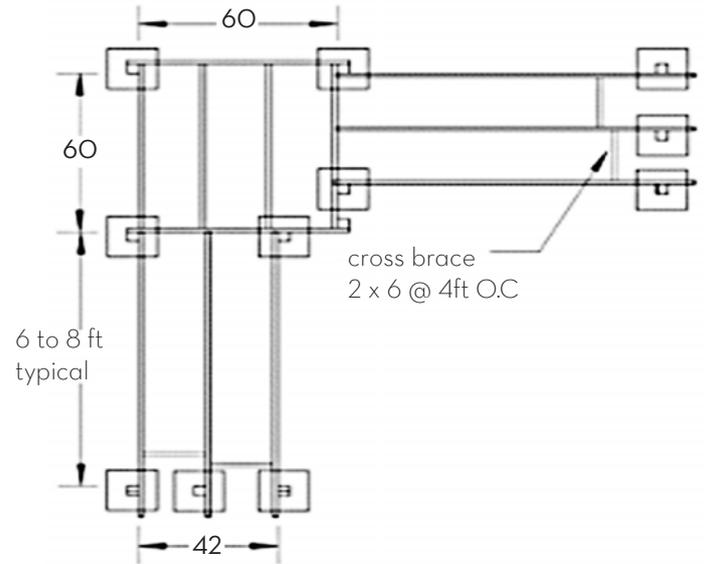
STEP 3: Now that you know the total run distance or ramp length needed, select a ramp configuration that will work for your home. If the finished height of your porch is 24 inches from ground level, you will need 24 feet of ramp. This can be best accommodated by an L-shaped ramp with a landing or a U-shaped ramp with a landing. The specific configuration and ramp lengths are a function of what will best accommodate your home.



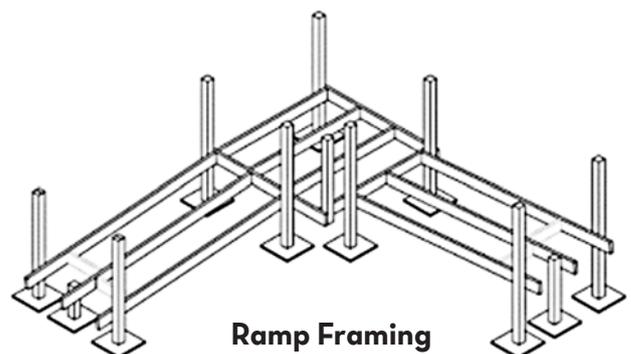
STEP 4: Dig the footings so they fall below the frost line, as they are required to be in service for more than three years. Caution! Before beginning excavation, call and check for underground utilities. Call Miss Utility at 1-800-257-7777 for a national directory of utility companies. Once the concrete footings have hardened, secure the metal post hanger to the J-bolt with a nut and washer.



STEP 5: Using joist hangers and 16d nails, attach the rim and interior joists like the illustration below. Use cross braces every 4 feet for added stability. If the run of any single ramp exceeds 8 feet, additional support posts or larger dimensional wood may be needed.

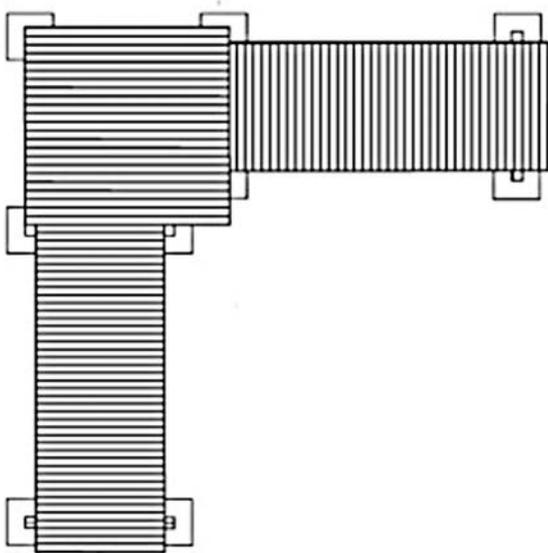


STEP 6: Once the framing is completed, the ramping may be installed. The ramping material should be screwed down to the joists to prevent the boards from lifting over time. By using a composite material, you will minimize maintenance and lower the probability of having to replace the boards. Follow the manufacturer's installation guidelines for proper gapping between the boards for drainage, as well as selecting a board that will accommodate the joist spacing.



"ONCE THE CONCRETE FOOTINGS HAVE HARDENED, SECURE THE METAL POST HANGER TO THE J-BOLT WITH A NUT AND WASHER."

STEP 7: To install the railing, the corner posts will be used as structural support for the ramp surface, as well as the railing post. The ADA requirements for railings detail the overall railing height, hand-hold specifications, spindle placement and other safety issues associated with railing construction. Although not required for residential construction, it is recommended that these guidelines be followed. To be certain, refer to the building codes. Railing sections should not exceed 8 feet. If the ramp section exceeds 8 feet, it is best to center the middle posts along the edges. An intermediary post should be attached to outer joists using 1-inch by 6-inches carriage-bolts to ensure stability.



GUARD CONSTRUCTION

A guard is required when a ramp is greater than 30 inches above grade at a point 36 inches from the edge of the ramp, as shown in [Figure 2](#). Guards shall be constructed in accordance with the requirements herein; deviations are prohibited. Guards which are not required, but are provided, must also comply with these requirements.

PLASTIC COMPOSITES

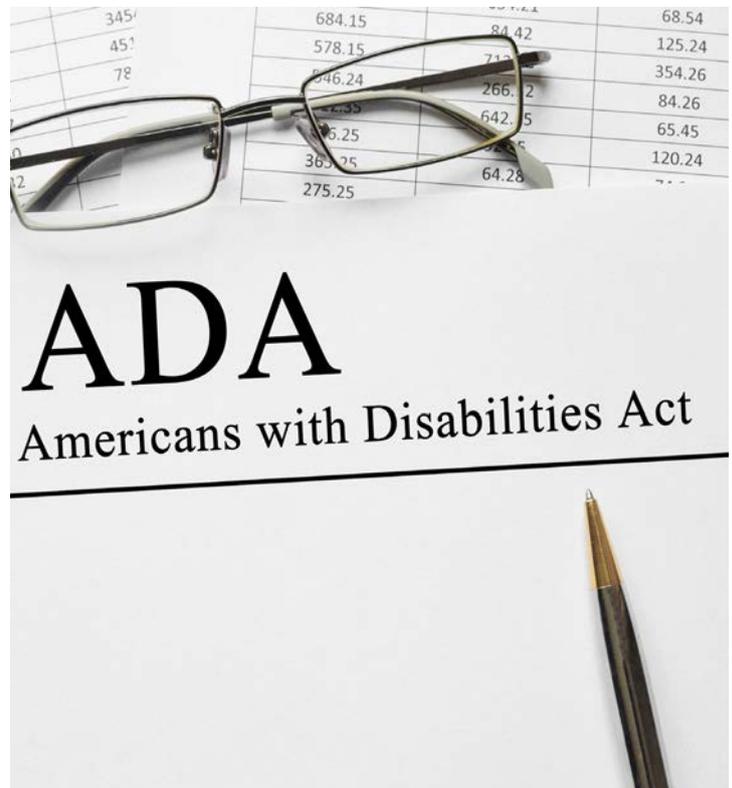
Plastic composites of equal dimension and complying with the building ramp criteria noted on page 11 may be substituted for the guard cap and infill elements shown in [Figure 5](#) provided that the manufacturer's performance criteria specifically permit such use.

GUARD SYSTEMS

Guard systems accompanied by a valid evaluation report from an accredited listing agency are permitted as referenced on page 11. Pre-fabricated systems without an evaluation report will require a plan review during the permit application process.

OPENINGS

Guards shall be constructed to restrict the passage of a 4-inch diameter sphere through any opening. Wet lumber shall be spaced such that when shrinkage occurs, a compliant opening is maintained.



GUARD POST CONNECTION

Guard posts shall be attached to the ramp structure in accordance with the requirements below in order to ensure resistance to imposed loads.

- Notching guard posts, as shown in **Figure 3**, is prohibited.
- Hold-down anchors, as shown in **Figures 4** and **6**, shall be used to attach the guard post to the end joist and rim joist, respectively.
- Hold-down anchors shall have a minimum capacity of 1,800 pounds.
- Guards may be attached to either side of the rim joist or end joist.

Figure 2: When A Guard is Required

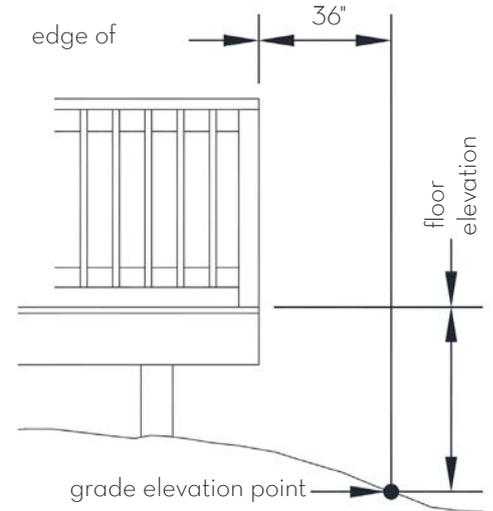
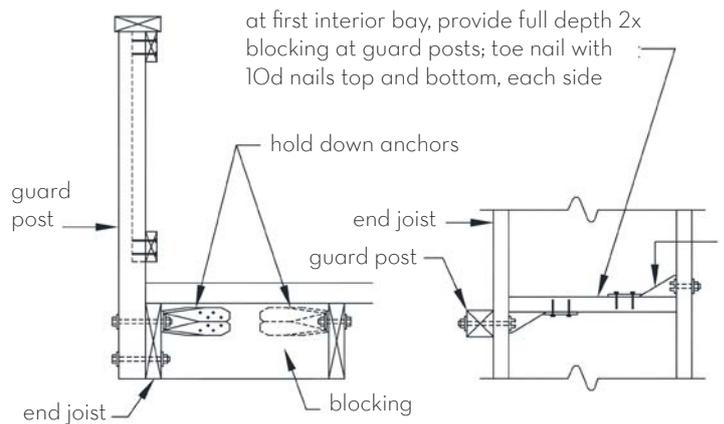


Figure 3: Post Notches Prohibited



Figure 4: Guard Post-to-End Joist¹



¹Guards can be attached to either side of the end joist

Figure 5: Guard Construction

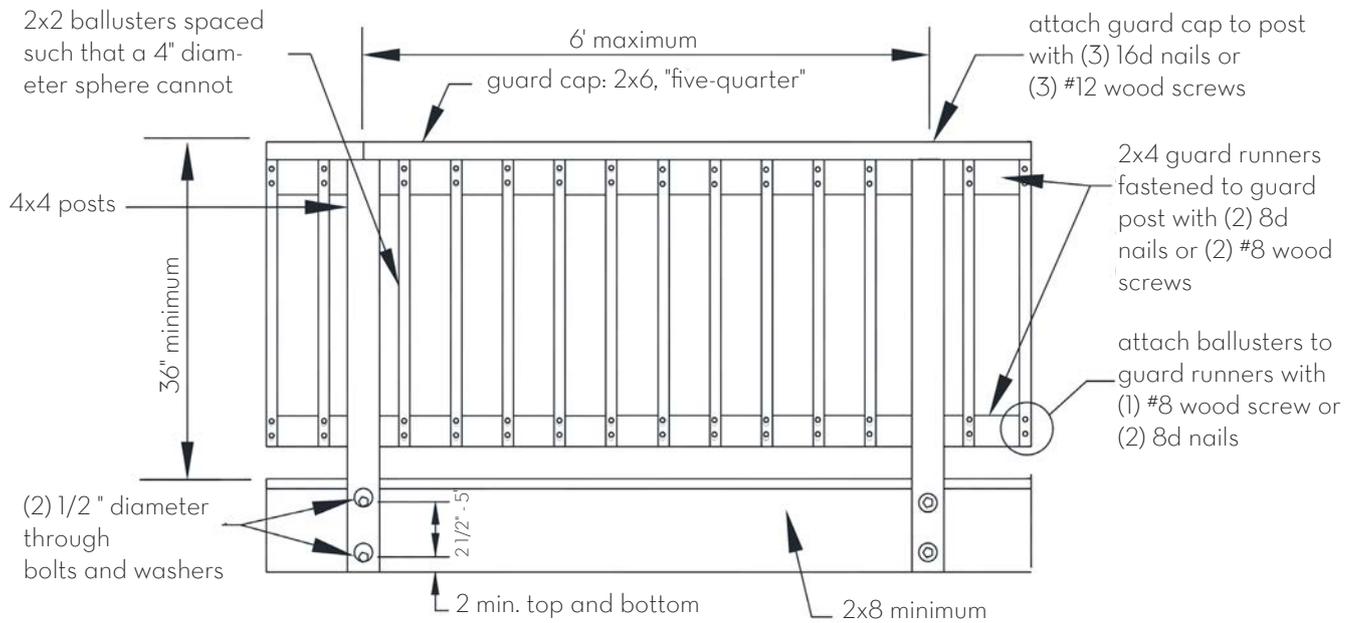
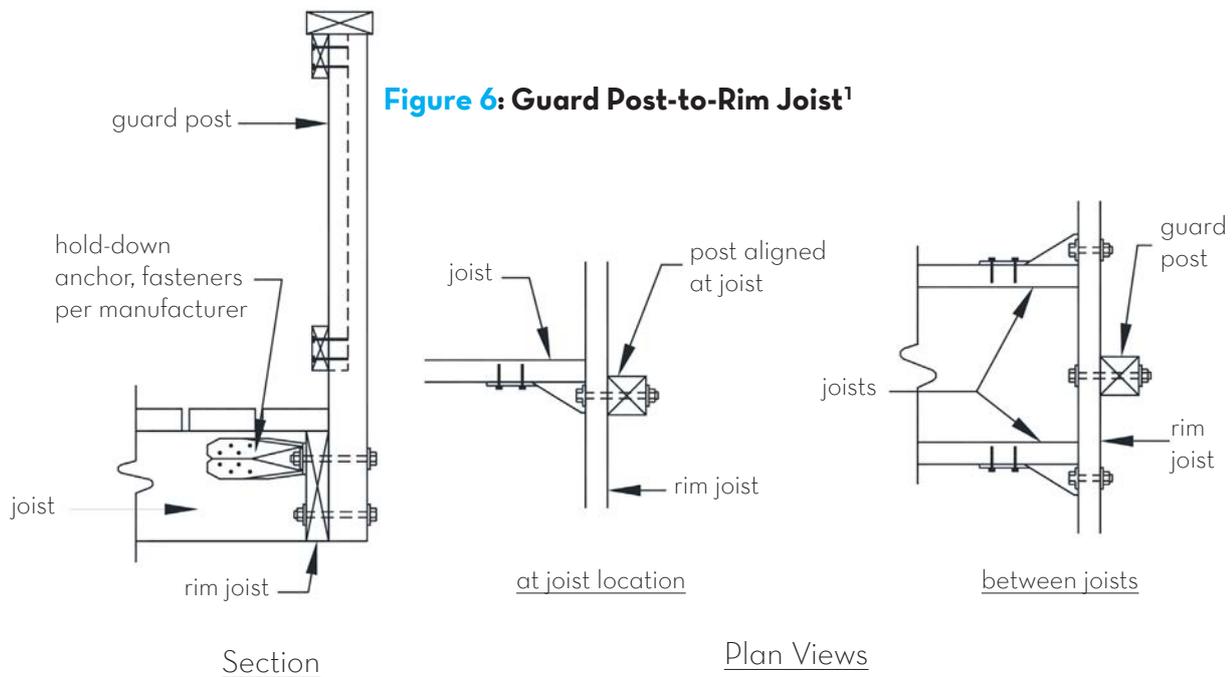
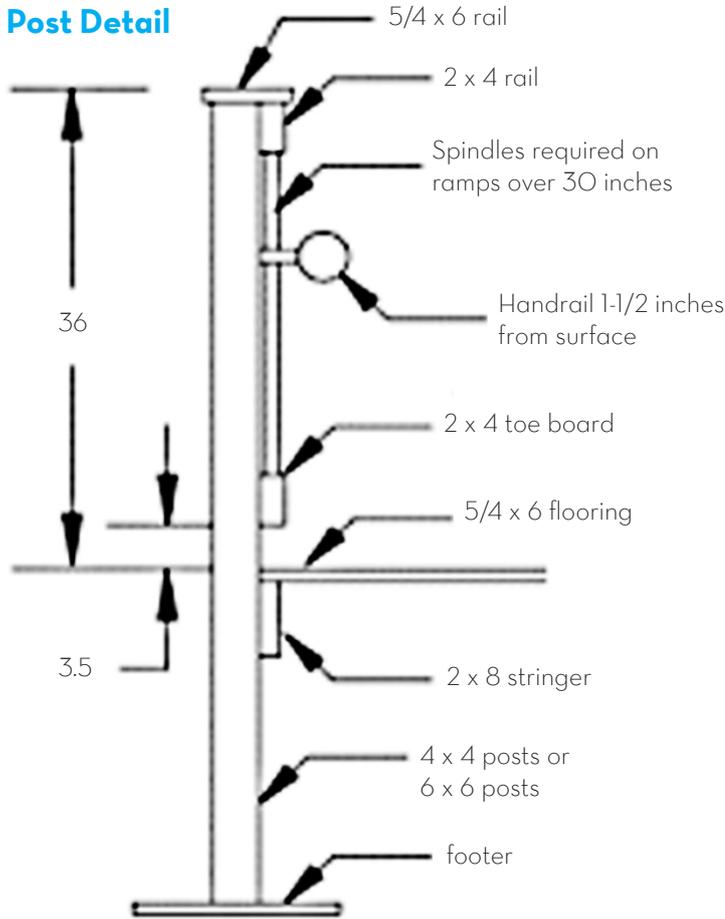


Figure 6: Guard Post-to-Rim Joist¹



¹ Guards can be attached to either side of the rim joist.

GUARD POST CONNECTION CONTINUED



prevent passage of a 4-inch diameter sphere. Vertical pickets used for edge protection must prevent passage of a 4-inch diameter sphere (see [Figure 8](#)). Run and landing surfaces that extend at least 12 inches beyond the inside face of handrails will provide adequate edge protection by preventing wheelchair casters and crutch tips from slipping off edge.

Figure 7

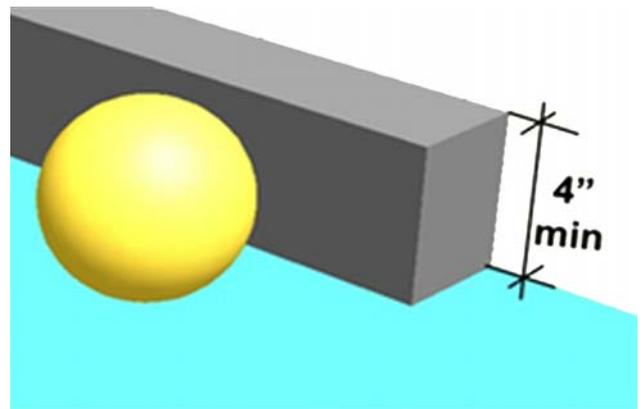
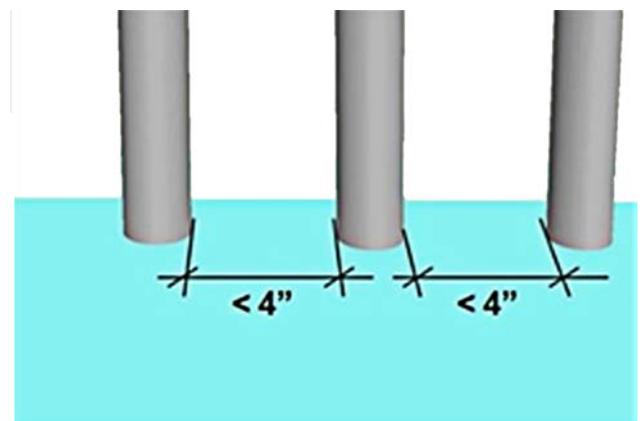


Figure 8



At the end of the ramp, a landing should be constructed of either the same materials as the ramp or substitute with concrete. The landing platform size should be at least as wide as the ramp, and a minimum of 60 inches long.

A well-constructed ramp will make the home more wheelchair-accessible and greatly enhance the quality of life for those who need it. Edge protection along ramp runs and landings keep wheelchair casters and crutch tips on the surface and can be provided by curbs, barriers or extended surfaces, as shown in [Figure 7](#).

Edge projection alternatives curbs, if used, must be at least 4-inches high. Rails or other barriers must

BEAM-TO- POST CONNECTION

- Beams shall be attached to 6x6 posts using one of the methods shown in [Figure 10](#) or [11](#). Beams shall be attached to 4x4 posts using the method shown in [Figure 11](#).
- 4x4 posts are prohibited from supporting three-ply beams.
- Beams shall not be attached to the sides of an un-notched post.
- Pre-manufactured post caps shall be specifically designed for 2 or 3 ply beams and the post size used. Attachment shall be per the manufacturer's instructions.

LAG SCREWS

Lag screws shall be hot-dipped, galvanized or stainless steel with 1-inch minimum diameter. Length and shank requirements shall be in accordance with [Figure 9](#). Lag screws shall be equipped with washers and installed in the sequence below:

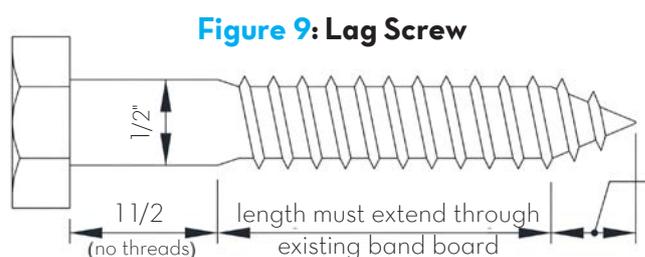
1. Drill a 1/2 inch diameter hole in the ledger board and a 5/16 inch diameter pilot hole into the solid connection material of the existing house.
2. Insert the lag screw through the ledger board and into the pilot hole by turning. Do not drive with a hammer. Use soap or a wood-compatible lubricant as required to facilitate tightening.
3. Tighten each lag screw snugly, but do not over tighten so as to cause wood damage.

WOOD SCREWS

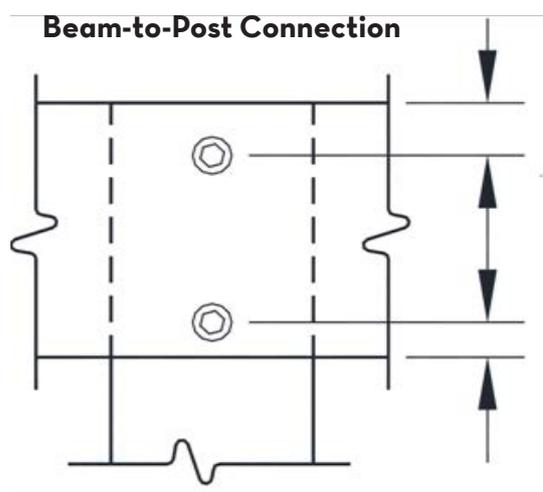
The wood screws listed in [Table 2](#) with a 1/4 inch diameter may be used to attach to wood-framed construction. Wood screws shall have a sufficient length to fully penetrate the existing house band board. Installation shall be per the manufacturer's instructions.

Table 2: Approved Wood Screws

Manufacturer	Product
FastenMaster	LedgerLOK
Simpson Strong-Tie	SDS Strong-Drive Screws
Simpson Strong-Tie	SDWS Strong-Drive Screws



screw must penetrate beyond band board a minimum 1/2



Brace the post and fasten it to the post anchor using the appropriate fasteners.

Figure 10: Notched 6x6 Post-to-Beam Connection

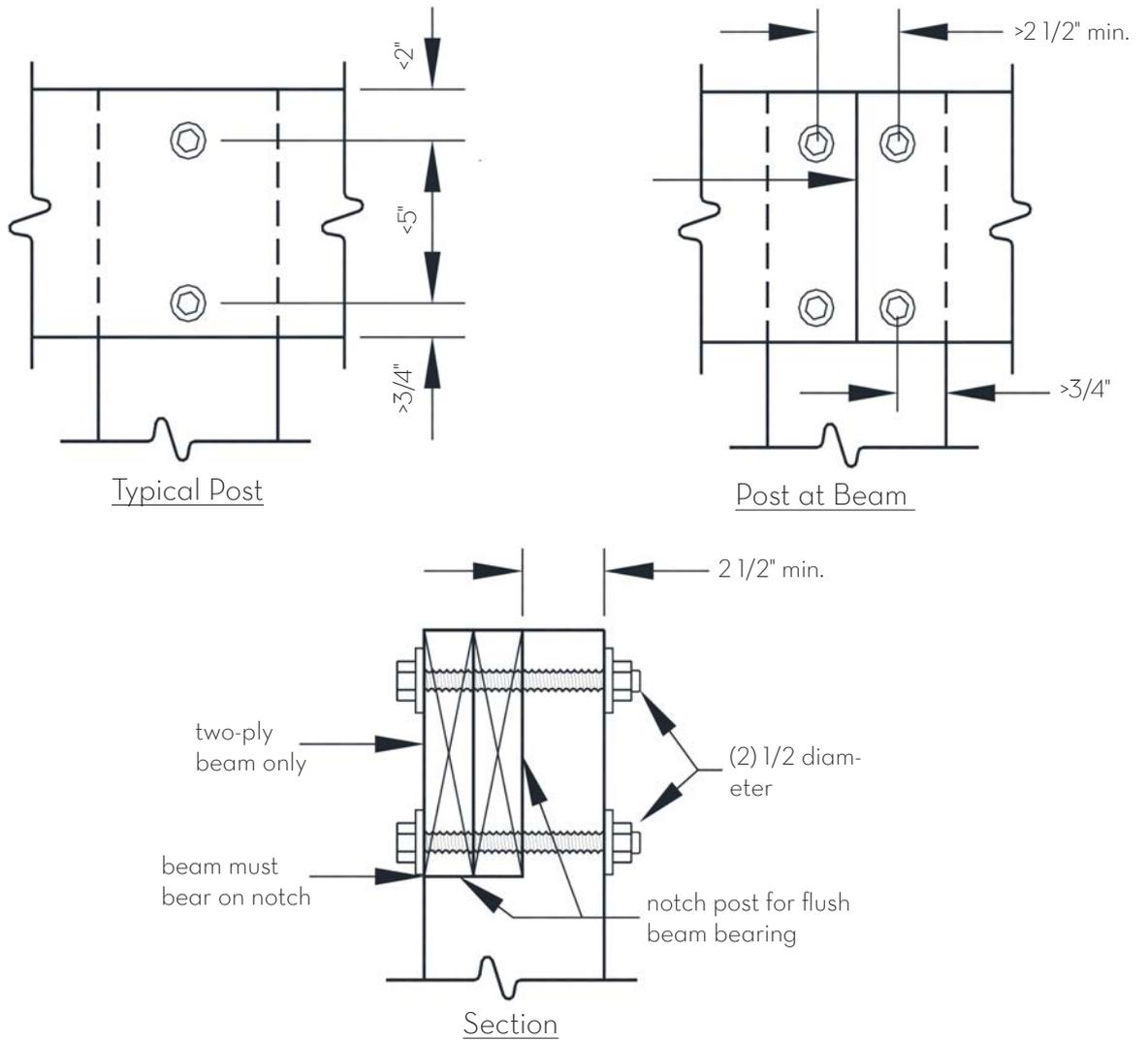


Figure 11: Post Cap Connection

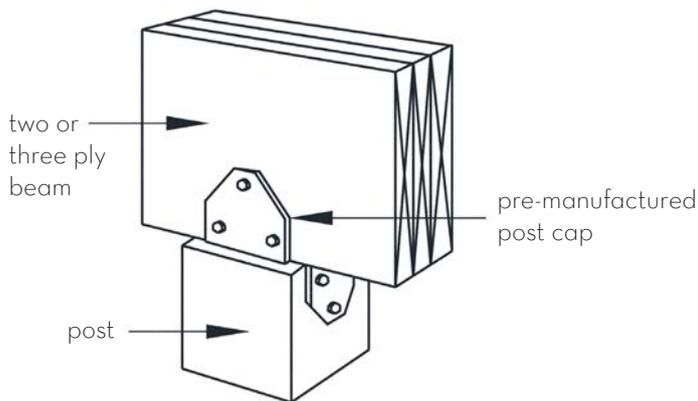
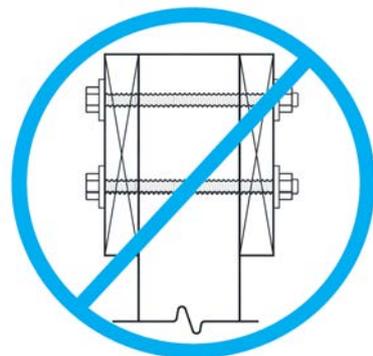


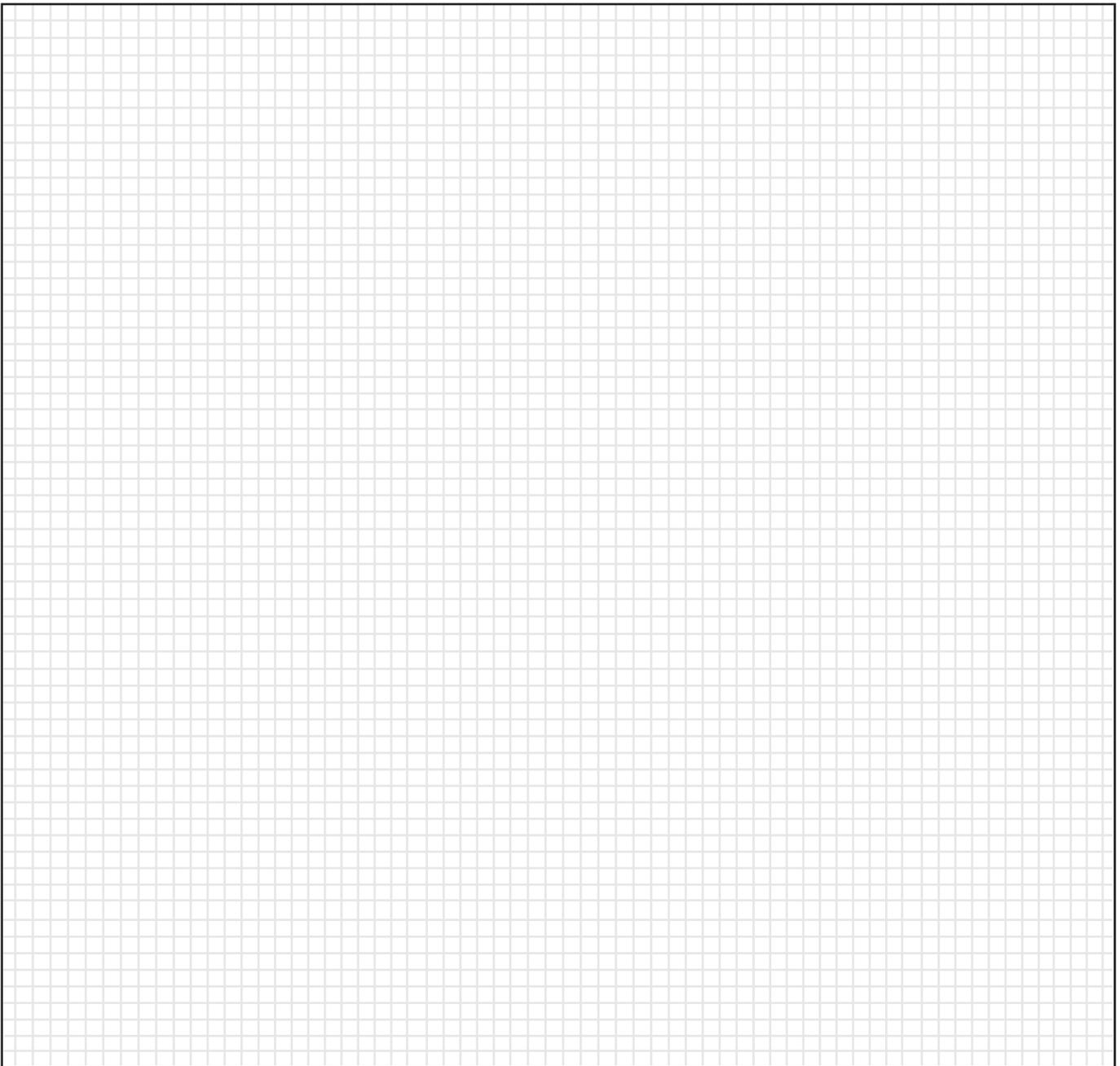
Figure 12: Prohibited Connection



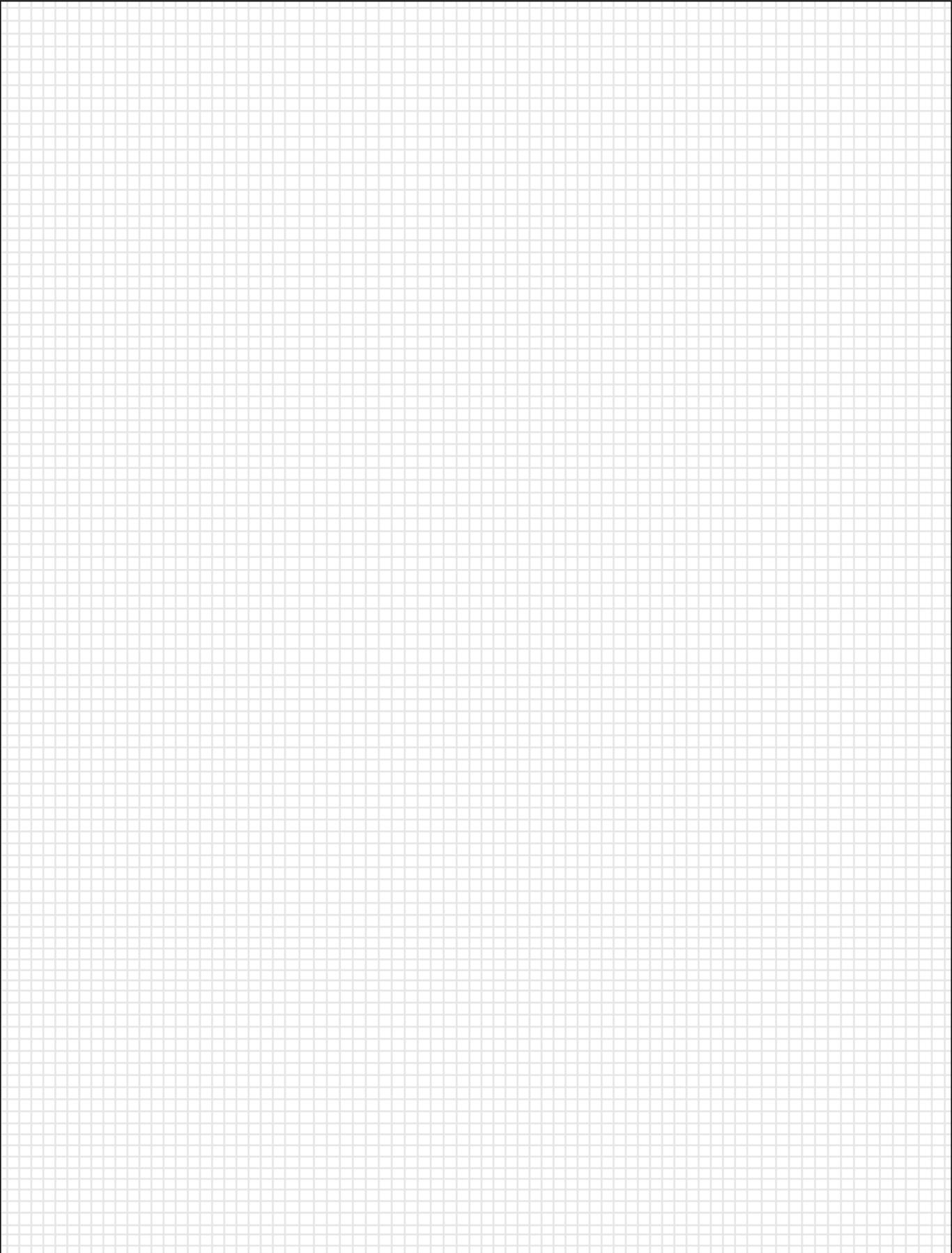
Complete My Ramp

Prior to construction design the specifics of the ramp. This information shall be available to the inspector at each inspection.

Sketch your desired ramp layout in the box below. The layout should include the dimensions of the ramp, as well as any steps or railings. A side view of the ramp must also be provided, and can be complete on page 20.



*3 squares = 1 foot



Complete the design details of your ramp below:

ING: Size: 2x4 2x6 five-quarter board Direction: angled perpendicular
Material: preservative-treated lumber plastic composite non-native lumber
 PVC Metal

JOIST 1: Size: 2x6 2x8 2x10 2x12 Spacing: 12 in. 16 in.
 24 in.

Longest Span: ___ft. - ___in. Overhang: ___ft. - ___in.

Rim Joist: 2x6 2x8 2x10 2x12 not applicable

JOIST 2: Size: 2x6 2x8 2x10 2x12 Spacing: 12 in. 16 in. 24 in.

Longest span: ___ft. - ___in. Overhang: ___ft. - ___in.

rim joist: 2x6 2x8 2x10 2x12 not applicable

BEAM 1: Plies: 2 3 Size: 2x6 2x8 2x10 2x12

Influence width: ___ft. - ___in. Longest span: ___ft. - ___in. Overhang: ___ft. - ___in.

Footing size: ___in. square round Thickness: ___in.

Post size: 4x4 6x6 Post height: ___ft. - ___in.

BEAM 2: Plies: 2 3 Size: 2x6 2x8 2x10 2x12

Influence width: ___ft. - ___in. Longest span: ___ft. - ___in. Overhang: ___ft. - ___in.

Footing size: ___in. square round Thickness: ___in.

Post size: 4x4 6x6 Post height: ___ft. - ___in.

R - Zone

District of Columbia - Zoning Residential District Development Standards (R & RF Zones)

Per Title 11, DCMR of the 2016 Zoning Regulations (Subtitle D) -- As of Sept 6 2016

ZONE	USE	MINIMUM LOT DIMENSIONS		MAXIMUM BUILDING HEIGHT		MAXIMUM FLOOR AREA RATIO (F.A.R.) Ratio (To the tenth)	MAXIMUM LOT OCCUPANCY %	MINIMUM YARD SETBACKS			MINIMUM PERVIOUS SURFACE %	MINIMUM GREEN AREA RATIO (G.A.R.) Ratio (To the tenth)
		Width (Feet)	Area (Sq. Ft.)					Rear (Feet)	Side (Feet)	Front Code Section		
R-1-A	Residential Uses	75		40	3	N/A	40	25	8	Refer to D-305	50	N/A
R-1-B	Residential Uses	50		40	3	N/A	40	25	8	Refer to D-305	50	N/A
R-2	Detached	40		40	3	N/A	40	20	8	Refer to D-305	30	N/A
	Semi-Detached	30		40	3	N/A	40	20	8	Refer to D-305	30	N/A
	All Other Structures	40		40	3	N/A	40	20	8	Refer to D-305	30	N/A
R-3	Detached	40		40	3	N/A	40	20	8	Refer to D-305	20	N/A
	Semi-Detached	30		40	3	N/A	40	20	8	Refer to D-305	20	N/A
	Attached	20		40	3	N/A	60	20	8	Refer to D-305	20	N/A
	All Other Structures	40		40	3	N/A	40	20	8	Refer to D-305	20	N/A
R-6	Residential Uses	75		40	3	N/A	30	25	8	Refer to D-405	50	N/A
R-7	Residential Uses	50		40	3	N/A	30	25	8	Refer to D-405	50	N/A
RF-1	Semi-Detached	30		35	3	N/A	60	20	5ft if new or 2 for existing per E§307	Refer to E-305	Refer to E-204	N/A
	Row Dwelling or Flat	18		35	3	N/A	60	20	none prescribed	Refer to E-305	Refer to E-204	N/A
	All Other Structures	40		35	3	N/A	40	20	5ft if new or 2 for existing per E§307	Refer to E-305	Refer to E-204	N/A
RF-2	Semi-Detached	30		35	3	N/A	60	20	5ft if new or 2 for existing per E§407	Refer to E-405	Refer to E-204	N/A
	Row Dwelling or Flat	18		35	3	N/A	60	20	none prescribed	Refer to E-405	Refer to E-204	N/A
	All Other Structures	40		35	3	N/A	40	20	5ft if new or 2 for existing per E§407	Refer to E-405	Refer to E-204	N/A
RF-3	Semi-Detached	30		40	3	N/A	60	20	5ft if new or 2 for existing per E§507	Refer to E-505	Refer to E-204	N/A
	Row Dwelling or Flat	18		40	3	N/A	60	20	none prescribed	Refer to E-505	Refer to E-204	N/A
	All Other Structures	40		40	3	N/A	40	20	5ft if new or 2 for existing per E§507	Refer to E-505	Refer to E-204	N/A

RF - Zone

District of Columbia - Zoning Residential District Development Standards (RF-Zones)

Per Title 11, DCMR of the 2016 Zoning Regulations (Subtitle E) -- As of Sept 6 2016

ZONE	USE	MINIMUM LOT DIMENSIONS		MAXIMUM BUILDING HEIGHT	MAXIMUM FLOOR AREA RATIO (F.A.R.)	MAXIMUM LOT OCCUPANCY	MINIMUM YARD SETBACKS			MINIMUM PERVIOUS SURFACE	MINIMUM GREEN AREA RATIO (G.A.R.)	
		Width	Area				Rear	Side	Front			
		(Feet)	(Sq. Ft.)		Ratio (To the tenth)	%	(Feet)	(Feet)	Code Section	%	Ratio (To the tenth)	
RF-1	Row Dwelling/Flat	18	1,800	35	3	N/A	60	20	N/A	Refer to E-305	10	N/A
	IZ Row Dwelling/Flat	15	1,500	35	3	N/A	60	20	N/A	Refer to E-305	0	N/A
	Semi-Detached Dwelling	30		35	3	N/A	60	20	5	Refer to E-305	20	N/A
	All Other Structures	40		35	3	N/A	40	20	N/A	Refer to E-305	50	N/A
RF-2	Row Dwelling/Flat	18	1,800	35	3	N/A	60	20	N/A	Refer to E-405	10	N/A
	IZ Row Dwelling/Flat	15	1,500	35	3	N/A	60	20	N/A	Refer to E-405	0	N/A
	Semi-Detached Dwelling	30		35	3	N/A	60	20	5	Refer to E-405	20	N/A
	All Other Structures	40		35	3	N/A	40	20	N/A	Refer to E-405	50	N/A
RF-3	Row Dwelling/Flat	18	1,800	35	3	N/A	60	20	N/A	Refer to E-505	10	N/A
	IZ Row Dwelling/Flat	15	1,500	35	3	N/A	60	20	N/A	Refer to E-505	0	N/A
	Semi-Detached Dwelling	30		35	3	N/A	60	20	5	Refer to E-505	20	N/A
	All Other Structures	40		35	3	N/A	40	20	N/A	Refer to E-505	50	N/A
RF-4	Row Dwelling/Flat	18	1,800	40	3	1.8	60	20	N/A	Refer to E-605	10	N/A
	IZ Row Dwelling/Flat	15	1,500	40	3	1.8	60	20	N/A	Refer to E-605	0	N/A
	Semi-Detached Dwelling	30		40	3	1.8	60	20	5	Refer to E-605	20	N/A
	All Other Structures	40		40	3	1.8	60	20	N/A	Refer to E-605	50	N/A
RF-5	Row Dwelling/Flat	18	1,800	50	4	1.8	60	20	N/A	Refer to E-605	10	N/A
	IZ Row Dwelling/Flat	15	1,500	50	4	1.8	60	20	N/A	Refer to E-605	0	N/A
	Detached Dwelling	30		40	3	1.8	60	20	5	Refer to E-605	20	N/A
	Semi-Detached Dwelling	30		40	3	1.8	60	20	5	Refer to E-605	20	N/A
	All Other Structures	40		50	4	1.8	60	20	N/A	Refer to E-605	50	N/A

RA - Zone

District of Columbia - Zoning Residential District Development Standards (RA-Zones)											
Per Title 11, DCMR of the 2016 Zoning Regulations (Subtitle F) -- As of Sept 6 2016											
ZONE	USE	MINIMUM LOT DIMENSIONS		MAXIMUM BUILDING HEIGHT	MAXIMUM FLOOR AREA RATIO (F.A.R.)	MAXIMUM LOT OCCUPANCY	MINIMUM YARD SETBACKS		MINIMUM PERVIOUS SURFACE	MINIMUM GREEN AREA RATIO (G.A.R.)	
		Width	Area				Rear	Side			
		(Feet)	(Sq. Ft.)	(Stories)	Ratio (To the tenth)	%	(Feet)	(Feet)	%	Ratio (To the tenth)	
RA-1	Row Dwelling	N/A	1,800	40	3	0.9	40	20	3 in/ ft of ht. or (8 ft.)	N/A	0.4
	All Other Structures	N/A	N/A	40	3	0.9	40	20	8	N/A	0.4
RA-2	Row Dwelling	N/A	N/A	50	N/A	1.8	60	15 ft or 4 in./ft of ht.	None	N/A	0.4
	All Other Structures	N/A	N/A	50	N/A	1.8	60	15 ft or 4 in./ft of ht.	8	N/A	0.4
RA-3	Row Dwelling	N/A	N/A	50	N/A	1.8	60	15 ft or 4 in./ft of ht.	None	N/A	0.4
	All Other Structures	N/A	N/A	50	N/A	1.8	60	15 ft or 4 in./ft of ht.	8	N/A	0.4
RA-4	Row Dwelling	N/A	N/A	90	N/A	3.5	75	15 ft or 4 in./ft of ht.	None	N/A	0.3
	All Other Structures	N/A	N/A	90	N/A	3.5	75	15 ft or 4 in./ft of ht.	8	N/A	0.3
RA-5	All Other Structures	N/A	N/A	90	N/A	5.0	75	12 ft or 3 in./ft of ht.	8	N/A	0.3
	Apartment House	N/A	N/A	90	N/A	6.0	75	12 ft or 3 in./ft of ht.	None	N/A	0.3
	Row Dwelling	N/A	N/A	90	N/A	6.0	75	12 ft or 3 in./ft of ht.	None	N/A	0.3
	IZ Bonus Density	N/A	N/A	90	N/A	6.0	90	12 ft or 3 in./ft of ht.	None	N/A	0.3
RA-6	All Other Structures	N/A	N/A	40	3	0.9	40	20	3 in/ ft of ht. or (8 ft.)	N/A	0.4
	Detached Dwelling	N/A	N/A	40	3	0.9	40	20	8	N/A	0.4
	Semi-Detached Dwelling	N/A	N/A	40	3	0.9	40	20	8	N/A	0.4
RA-7	All Structures	N/A	N/A	40	3	1.8	60	4 in/ft of ht. or 15 ft.	None	N/A	0.4
RA-8	All Structures	N/A	N/A	50	N/A	1.8	60	4 in/ft of ht. or 15 ft.	None	N/A	0.4
RA-9	All Structures	N/A	N/A	90	N/A	3.5	75	4 in/ft of ht. or 15 ft.	None	N/A	0.4
RA-10	All Structures	N/A	N/A	90	N/A	5.0	75	12 ft or 3 in./ft of ht.	None	N/A	0.4

Ramp Permit Fees

Building Permit Fee	Construction valued less than \$500	Construction valued between \$501-\$1,000	Construction valued between \$1001-\$1,000,000
	\$33.00	\$65.00	\$30 + 2% of cost
Green Building Fee	Add 0.13% of construction value		
Enhancement Fee	A 10% Additional fee will be applied to the total cost.		



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