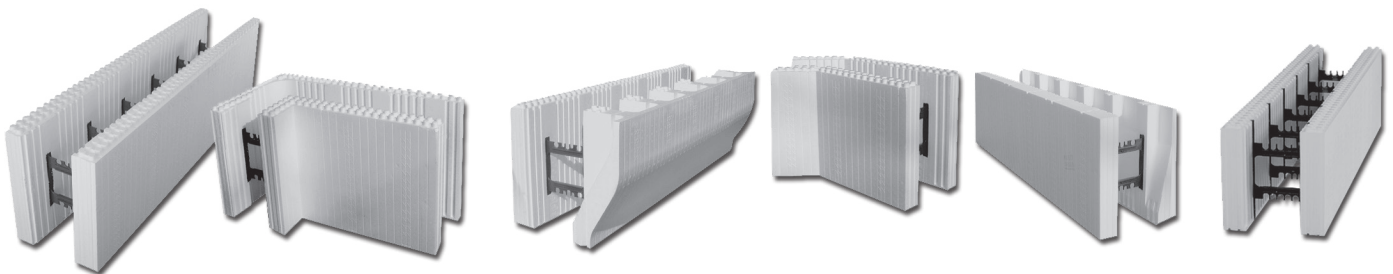
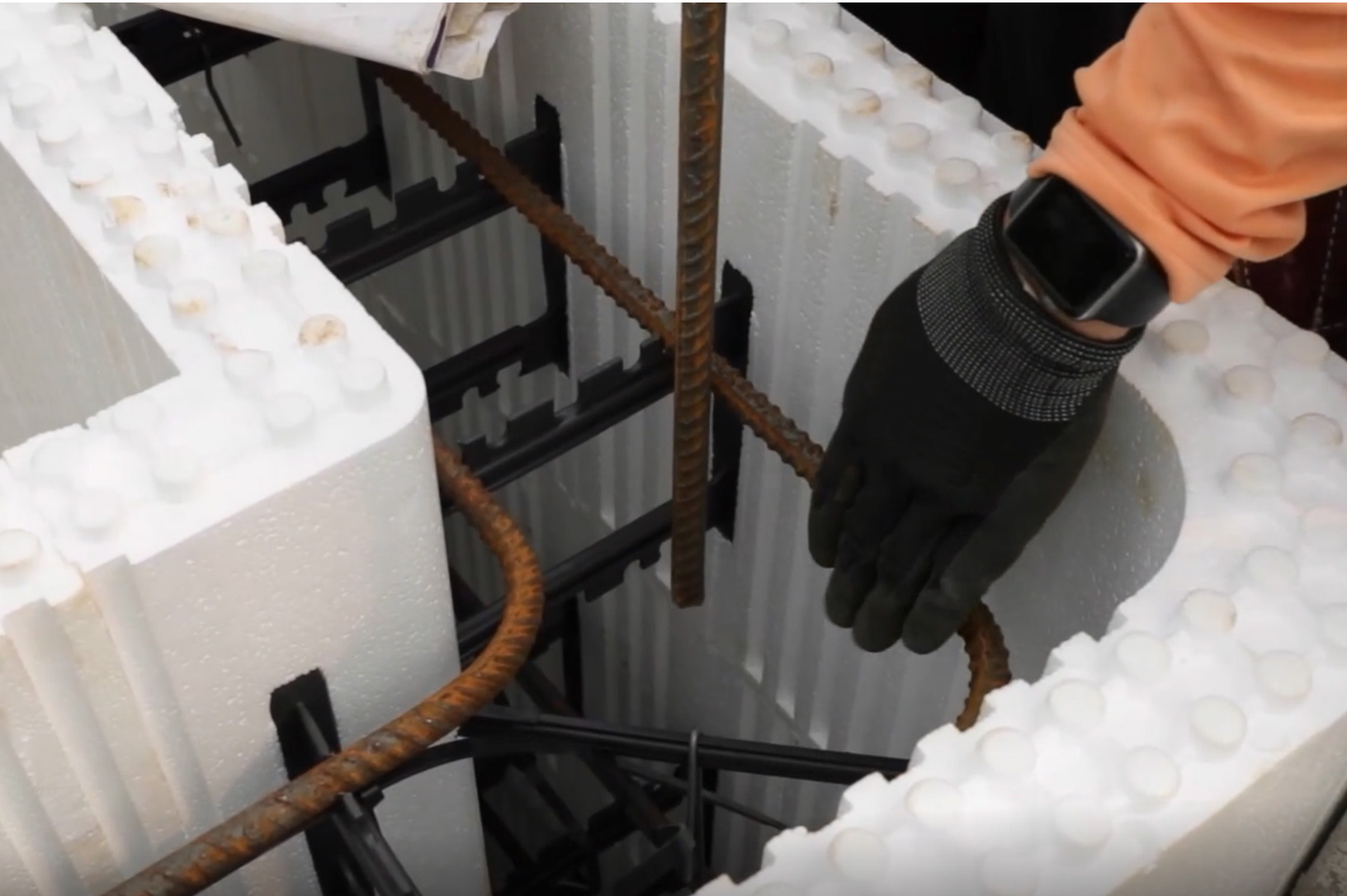




**PRESCRIPTIVE ENGINEERING
HELIX REINFORCEMENT
(USA)**

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U S A P R E S C R I P T I V E E N G I N E E R I N G (H E L I X W I T H R E I N F)

DISCLAIMER

By using the Logix Design Manual, in part or in whole, the user accepts the following terms and conditions.

The Logix Design Manual shall be used for the sole purpose of estimating, design or construction of Logix Insulated Concrete Forms used in residential, commercial or industrial structures.

The information represented herein is to be used as a reference guide only. The user shall check to ensure the information provided in this manual, including updates and amendments, meets local building codes and construction practices by consulting local building officials, construction and design professionals, including any additional requirements.

Logix reserves the right to make changes to the information provided herein without notice and assumes no liability in connection with the use of this manual including modification, copying or distribution.

The user shall check to ensure that any construction projects utilizing the Logix Design Manual includes the latest updates/amendments (related to the version of the Logix Design Manual being used at the time of the construction project). Updates/amendments to the Logix Design Manual are available for download in the "Technical Library" under "Addenda" at www.logixicf.com.

U S A P R E S C R I P T I V E E N G I N E E R I N G (H E L I X W I T H R E I N F)

INTRODUCTION

LOGIX walls are intended to be used both above and below grade, and can carry large vertical as well as lateral loads. They are particularly effective for residential, commercial and industrial buildings; providing excellent insulation as well as thermal mass and structural strength. They can be easily adapted to accommodate concrete floors and other “non-standard” building systems.

Construction must be in conformance with the LOGIX Design Manual, including assembly of formwork, bracing, accurate rebar positioning, concrete mix design & placement, and details for interconnection with the other building components.

STRUCTURAL DESIGN AND PERFORMANCE

The LOGIX Building System can be used for an infinite variety of building situations with proper engineering. This report, with its load tables and diagrams, is intended to assist with the structural design of buildings using the LOGIX system for the basement only, or continuing to two stories above-grade and/or roof. Where unusual conditions are encountered, it is recommended that the user consult a designer who can evaluate the loadings to the various components and who can appreciate the limitations of “prescriptive” design under unusual conditions. Connection details have generally been excluded from this report because of the great variety of floor and roof systems that can be used with the Logix wall system. The designer should refer to the Logix Design Manual and the literature for the various proprietary products that are available for connections, which are an important part of the total design.

REINFORCEMENT TABLES

Above- and below-grade walls and lintel reinforcement tables are provided in this report. The tables were developed using the applicable sections of Chapter 16 of the International Building Code 2012, Sections 404 and 611 of the International Residential Code 2012, and ACI 318 Building Code Requirements for Structural Concrete.

Table 1 makes use of plain concrete foundation walls adapted from the IRC 2018, Table 404.1.2(8), for LOGIX used below-grade. For walls that fall outside the scope of Table 1, Tables 2A, 2B, 2C and 2D are provided, which cover wall reinforcement for larger walls and larger loading conditions.

Tables 3A-H and 3B-H provides reinforcement tables for LOGIX walls used above-grade.

HELIX TSMR TABLES - ALTERNATIVE TO REBAR REINFORCEMENT TABLES

Where applicable, Helix TSMR (Twisted Steel Micro Rebar) Tables 2A-H to 2D-H, and Tables 3.1A-H to 3.6A-H, and 3.1B-H to 3.6B-H, may be used in lieu of the reinforcement requirements in Tables 2A to 2D, and Tables 3A and 3B of the Logix Prescriptive Design Manuals. Helix is steel fibre reinforcement that can significantly reduce the amount of horizontal and vertical reinforcement in above- and below-grade concrete walls, with exception of lintel and shear wall reinforcement.

LIMITATIONS

The following limitations apply to Helix reinforcement Tables 2A-H to 2D-H, 3.1A-H to 3.6A-H, and 3.1B-H to 3.6B-H.

Building limitations used to develop above- and below-grade tables include:

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Building perimeter = 80 ft max x 40 ft max
Roof clear span = 40 ft max
Floor clear span = 32 ft max
Number of stories above grade = 2 max
Number of stories below grade = 1

More specific design assumptions and limitations are located with the corresponding reinforcement tables.

U S A P R E S C R I P T I V E E N G I N E E R I N G (H E L I X W I T H R E I N F)

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BELOW-GRADE WALL REINFORCEMENT

NOTES FOR TABLE 1 - BELOW-GRADE TABLE ADAPTED FROM IRC 2018

Table 1 was developed adapting Table 404.1.2(8), Minimum Vertical Reinforcement For 6-, 8-, 10-Inch And 12-Inch Nominal Flat Basement Walls, of IRC 2018. Table 1 allows the use of foundation walls without reinforcement (in lieu of Tables 2A-H to 2D-H) provided the walls meet the following criteria:

1. Minimum 28 day compressive strength of concrete = 2500 psi
2. Concrete foundation walls with corbels (i.e., brick ledge), brackets or other projections built into the wall for support of masonry veneer or other purposes are not within the scope of the tables in this section
3. Where vertical rebar is not required (NR), provide minimum horizontal rebar as follows (Table 404.1.2(1)):
4. Maximum unsupported height of basement wall is LESS than or equal to 8 ft - One No. 4 bar within 12 inches of the top of the wall story and one No. 4 bar near mid-height of the wall story
5. Maximum unsupported height of basement wall is GREATER than 8 ft - One No. 4 bar within 12 inches of the top of the wall story and one No. 4 bar near third points in the wall story
6. Walls are not subject to hydrostatic pressure from ground water
7. Walls must be laterally supported at top and bottom of wall before backfilling
8. Interpolation is not permitted
9. Maximum 60 feet in plan dimensions, floors not more than 32 feet or roofs not more than 40 feet in clear span. Buildings shall not exceed 2 stories above-grade with each story not more than 10 feet high. Maximum ground snow load of 70 psf, and located in Seismic Design Categories A, B or C. For Seismic Design Categories D0, D1, or D2 see Items 7 to 9.
10. In Seismic Design Category D0, D1, and D2, concrete foundation walls supporting above grade concrete or Logix walls shall comply with above and below-grade tables in this manual, ACI 318, ACI 332 or PCA 100
11. In Seismic Design Category D0, D1, and D2, where Table 1 permits plain concrete, and supporting light-frame walls shall comply with the following:
12. Wall height shall not exceed 8 feet
13. Unbalanced backfill height shall not exceed 4 feet
14. Minimum thickness for plain concrete foundation walls shall be 7.5 inches except that 6 inches is permitted where the maximum wall height is 4 feet, 6 inches
15. Minimum reinforcement shall consist of one #4 horizontal bar within the top 12 inches of the wall
16. Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above, or has been sufficiently braced to prevent damage by the back fill.
17. For walls that fall outside the scope Table 1 see "Notes for Tables 2A-H to 2D-H, Logix Below-grade Tables with Helix Reinforcement."

USA PRESCRIPTIVE ENGINEERING - BELOW-GRADE WALL REINFORCEMENT (HELIX WITH REINF)

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TABLE 1 - LOGIX BELOW-GRADE WALLS MINIMUM VERTICAL REINF - IRC2018

USA PRESCRIPTIVE ENGINEERING - BELOW-GRADE WALL REINFORCEMENT (HELIX WITH REINF)

TABLE 1 - LOGIX BELOW-GRADE WALLS MINIMUM VERTICAL REINFORCEMENT - IRC2018

NOTE: LOGIX recommends builders, owners and/or designers using these tables confirm that on-site building conditions are w/in the scope of the tables being used.

Height of Basement Wall, ft	Max. Unbalanced Backfill Height, ft	6.25" LOGIX			8" LOGIX			10" LOGIX			12" LOGIX		
		Design Lateral Soil Load (psf per foot of depth)			Design Lateral Soil Load (psf per foot of depth)			Design Lateral Soil Load (psf per foot of depth)			Design Lateral Soil Load (psf per foot of depth)		
		30	45	60	30	45	60	30	45	60	30	45	60
5	5	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	4	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	6	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	4	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	6	RR	RR	RR	NR	NR	RR	NR	NR	NR	NR	NR	NR
	7	RR	RR	RR	NR	RR	RR	NR	NR	NR	NR	NR	NR
8	4	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	6	RR	RR	RR	NR	NR	RR	NR	NR	NR	NR	NR	NR
	7	RR	RR	RR	NR	RR	RR	NR	NR	RR	NR	NR	NR
	8	RR	RR	RR	RR	RR	RR	NR	RR	RR	NR	NR	NR
9	4	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	6	RR	RR	RR	NR	NR	RR	NR	NR	NR	NR	NR	NR
	7	RR	RR	RR	NR	RR	RR	NR	NR	RR	NR	NR	NR
	8	RR	RR	RR	RR	RR	RR	NR	RR	RR	NR	NR	RR
	9	RR	RR	RR	RR	RR	RR	NR	RR	RR	NR	NR	RR
10	4	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5	RR	RR	RR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	6	RR	RR	RR	NR	NR	RR	NR	NR	NR	NR	NR	NR
	7	RR	RR	RR	NR	RR	RR	NR	NR	RR	NR	NR	NR
	8	RR	RR	RR	RR	RR	RR	NR	RR	RR	NR	NR	RR
	9	RR	RR	RR	RR	RR	RR	RR	RR	RR	NR	RR	RR
	10	RR	RR	RR	RR	RR	RR	RR	RR	RR	NR	RR	RR

- NOTES:
- “NR” denotes plain concrete or no reinforcement required, except 6.25” LOGIX will requires #4@32” on center for Grade 40 Steel Bars and #4@48” on center for Grade 60 Steel Bars.
 - “RR” denotes reinforcement required. Refer to Tables 2A to 2D for LOGIX Below-grade tables for required reinforcement.
 - Table 1 values are based on concrete with a minimum specified compressive strength of 2,500 psi
 - Bar Spacing Shall not exceed 48 inches on center and shall not be less than one-half the nominal wall thickness.
 - Table 1 shall be read in conjunction with “ Notes for Table R404.1.2(1) to Table R404.1.2(9) - Below-grade Table Adapted from IRC 2018”.

NOTES FOR TABLES 2A-H TO 2D-H - LOGIX BELOW-GRADE TABLES WITH HELIX REINFORCEMENT

Tables 2A-H to 2D-H are recommended for use when larger walls and/or loading conditions fall outside the scope of Table 1.

Tables 2A-H to 2D-H shall be used in conjunction with corresponding Figures 2A to 2D, the notes listed below, and the building limitations noted in the "Reinforcement Tables" section, which form the basis of these tables.

1. Vertical rebar spacing shown in the tables provide simple placement between ICF ties.
2. Steel yield strength = 40 ksi, 28 day concrete compressive strength = 3 ksi
3. Rebar spacing is based on 40 ksi reinforcing steel. For spacing based on 60 ksi reinforcing steel multiply spacings by 1.5.
4. Deflection criteria = $L/240$
5. Snow load = 70 psf
6. Assumed eccentricity = 3" (to account for loads on Logix Brick Ledge).
7. The basement walls must be supported at the top and bottom of the wall.
8. For light vehicles parked or travelling near the wall use reinforcement corresponding to 1 feet higher backfill.
9. Where spaces have been left blank, the corresponding bar size is presumed to be less economical and/or practical than that shown. Consult a local licensed engineer to determine proper design.
10. For walls with over 50% of height exposed to wind, also check rebar requirements for above-grade walls.
11. Except as noted for seismic design, horizontal rebar shall be #4 at 32 inches on center. At least one rebar shall be placed at the bottom course and top course.
12. In Seismic Design Categories D0, D1, and D2, the reinforcing steel shall meet the requirements of ASTM A 706 for low-alloy steel with a minimum yield strength of 60 ksi.
13. For townhouses in Seismic Category C, the minimum vertical reinforcement shall be one #5 at 24 inches on center or one #4 bar at 16 inches on center, and the minimum horizontal reinforcement shall be one #4 bar at 16 inches on center.
14. For all buildings in Seismic Design Categories D0, D1 and D2, the minimum vertical reinforcement shall be one #5 at 18 inches on center or one #4 bar at 12 inches on center, and the minimum horizontal reinforcement shall be one #5 bar at 16 inches on center.
15. Horizontal reinforcement shall be continuous around building corners using corner bars or by bending the bars. The minimum lap splice shall be 24 inches. For townhouses in Seismic Design Categories D0, D1, and D2, each end of all horizontal reinforcement shall terminate with a standard hook or lap splice.
16. Carefully consider floor/wall connection details for lateral loads, especially with higher backfills, walkout basements, and active seismic areas.
17. Soil density is often referred to as "equivalent fluid density" or design fluid pressure

NOTES FOR TABLES 2A to 2D - LOGIX BELOW-GRADE TABLES Cont'd

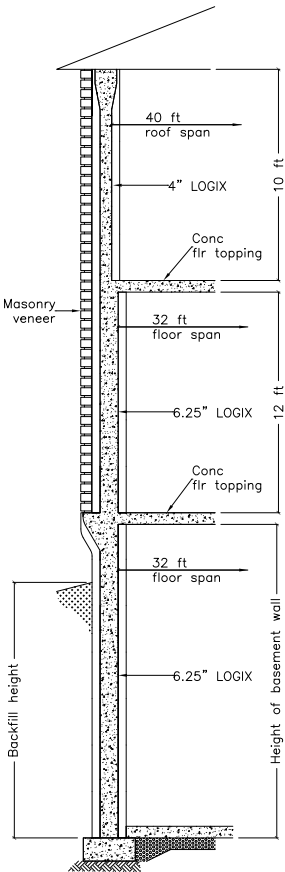


Fig 2A
Assumed typical flooring, wall & roof for Table 2A. Height & thickness of above-grade walls, floor & roof spans, including materials (i.e., wood frame, concrete, and cladding) can vary provided the total factored load on basement wall does not exceed 6.7 kips/ft.

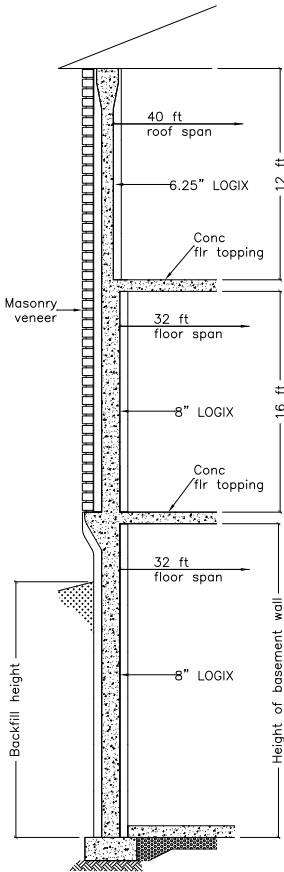


Fig 2B
Assumed typical flooring, wall & roof for Table 2B. Height & thickness of above-grade walls, floor & roof spans, including materials (i.e., wood frame, concrete, and cladding) can vary provided the total factored load on basement wall does not exceed 8 kips/ft.

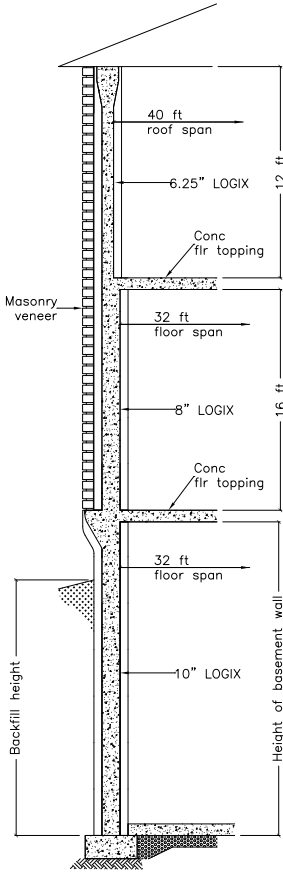


Fig 2C
Assumed typical flooring, wall & roof for Table 2C. Height & thickness of above-grade walls, floor & roof spans, including materials (i.e., wood frame, concrete, and cladding) can vary provided the total factored load on basement wall does not exceed 8 kips/ft.

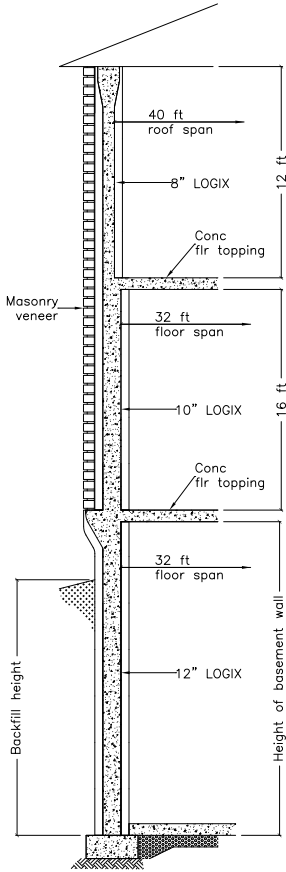


Fig 2D
Assumed typical flooring, wall & roof for Table 2D. Height & thickness of above-grade walls, floor & roof spans, including materials (i.e., wood frame, concrete, and cladding) can vary provided the total factored load on basement wall does not exceed 9 kips/ft.

TABLE 2A-H - LOGIX 6.25" BELOW-GRADE WALL WITH HELIX 5-25 REINF.

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
8	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³	20 lb/yd ³
	7	9 lb/yd ³	17 lb/yd ³	22 lb/yd ³	23 lb/yd ³
	8	9 lb/yd ³	22 lb/yd ³	23 lb/yd ³	27 lb/yd ³
9	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³	22 lb/yd ³
	7	9 lb/yd ³	19 lb/yd ³	23 lb/yd ³	23 lb/yd ³
	8	17 lb/yd ³	23 lb/yd ³	24 lb/yd ³	30 lb/yd ³
10	9	21 lb/yd ³	23 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 18"
	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	19 lb/yd ³	23 lb/yd ³
	7	9 lb/yd ³	20 lb/yd ³	23 lb/yd ³	25 lb/yd ³
	8	18 lb/yd ³	23 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"
	9	23 lb/yd ³	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"
11	10	23 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #5 @ 12"
	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	20 lb/yd ³	23 lb/yd ³
	7	9 lb/yd ³	21 lb/yd ³	23 lb/yd ³	26 lb/yd ³
	8	19 lb/yd ³	23 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 30"
	9	23 lb/yd ³	28 lb/yd ³	30 lb/yd ³ + #4 @ 24"	30 lb/yd ³ + #5 @ 12"
12	10	23 lb/yd ³	30 lb/yd ³ + #4 @ 42"	30 lb/yd ³ + #5 @ 12"	30 lb/yd ³ + #6 @ 12"
	11	28 lb/yd ³	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"	-
	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³
	6	9 lb/yd ³	16 lb/yd ³	20 lb/yd ³	23 lb/yd ³
	7	15 lb/yd ³	22 lb/yd ³	23 lb/yd ³	28 lb/yd ³
	8	21 lb/yd ³	23 lb/yd ³	30 lb/yd ³	30 lb/yd ³ + #4 @ 24"
	9	23 lb/yd ³	30 lb/yd ³	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #5 @ 12"
12	10	25 lb/yd ³	30 lb/yd ³ + #4 @ 24"	30 lb/yd ³ + #5 @ 12"	-
	11	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	30 lb/yd ³ + #6 @ 12"	-
	12	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #6 @ 12"	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279. Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Conventional reinforcement, as required, to be placed on interior face of concrete wall. Effective depth of vertical rebar (exterior face of concrete to center of vertical rebar) = 4.375"
- Table shall be read in conjunction with Fig 2A, and section "Notes for Tables 2A-H to 2D-H- LOGIX Below-Grade Tables with Helix Reinforcement."
- Conventional rebar yield strength = 40 ksi, 28 day concrete compressive strength = 3 ksi.
- For rebar spacing based on 60 ksi yield strength, multiply above Helix 5-25 Alternative Design rebar spacing by 1.5. Final spacing shall not exceed 48".
- Modulus of rupture of Helix reinforced concrete with 9 lb/yd³ Helix 5-25 = 7.5 V(3000 psi) = 410 psi.
- Walls must be laterally supported at top and bottom of wall before backfilling.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 27 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- For more information contact your local Logix rep.

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TABLE 2B-H - LOGIX 8" BELOW-GRADE WALL WITH HELIX 5-25 REINF.

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
8	4-5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³	22 lb/yd ³
9	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³
	8	9 lb/yd ³	15 lb/yd ³	20 lb/yd ³	25 lb/yd ³
	9	9 lb/yd ³	19 lb/yd ³	25 lb/yd ³	26 lb/yd ³
10	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³	20 lb/yd ³
	8	9 lb/yd ³	17 lb/yd ³	22 lb/yd ³	26 lb/yd ³
	9	9 lb/yd ³	21 lb/yd ³	26 lb/yd ³	26 lb/yd ³
	10	18 lb/yd ³	26 lb/yd ³	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"
11	4-5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³	22 lb/yd ³
	8	9 lb/yd ³	18 lb/yd ³	23 lb/yd ³	26 lb/yd ³
	9	16 lb/yd ³	23 lb/yd ³	26 lb/yd ³	28 lb/yd ³
	10	19 lb/yd ³	26 lb/yd ³	28 lb/yd ³	30 lb/yd ³ + #4 @ 30"
	11	23 lb/yd ³	26 lb/yd ³	30 lb/yd ³ + #4 @ 42"	30 lb/yd ³ + #4 @ 12"
12	4-5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³	23 lb/yd ³
	8	9 lb/yd ³	19 lb/yd ³	25 lb/yd ³	26 lb/yd ³
	9	17 lb/yd ³	24 lb/yd ³	26 lb/yd ³	30 lb/yd ³
	10	21 lb/yd ³	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 18"
	11	25 lb/yd ³	28 lb/yd ³	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #5 @ 12"
	12	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	30 lb/yd ³ + #6 @ 12"
14	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	20 lb/yd ³	24 lb/yd ³
	8	9 lb/yd ³	21 lb/yd ³	26 lb/yd ³	26 lb/yd ³
	9	18 lb/yd ³	26 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 42"
	10	23 lb/yd ³	26 lb/yd ³	30 lb/yd ³ + #4 @ 36"	30 lb/yd ³ + #4 @ 12"
	11	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"
	12	26 lb/yd ³	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #6 @ 12"	-
	13	30 lb/yd ³	30 lb/yd ³ + #5 @ 12"	-	-
	14	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #6 @ 12"	-	-

NOTES:
See next page.

TABLE 2B-H - LOGIX 8" BELOW-GRADE WALL WITH HELIX 5-25 REINF. Cont'd

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
16	4	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	5	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³
	7	9 lb/yd ³	16 lb/yd ³	21 lb/yd ³	26 lb/yd ³
	8	9 lb/yd ³	22 lb/yd ³	26 lb/yd ³	27 lb/yd ³
	9	20 lb/yd ³	26 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 24"
	10	25 lb/yd ³	28 lb/yd ³	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #5 @ 12"
	11	26 lb/yd ³	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #5 @ 12"	-
	12	29 lb/yd ³	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"	-
	13	30 lb/yd ³ + #4 @ 36"	30 lb/yd ³ + #6 @ 12"	-	-
	14	30 lb/yd ³ + #4 @ 12"	-	-	-
	15	30 lb/yd ³ + #5 @ 12"	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279. Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Conventional reinforcement, as required, to be placed on interior face of concrete wall. Effective depth of vertical rebar (exterior face of concrete to center of vertical rebar) = 6"
- Table shall be read in conjunction with Fig 2B, and section "Notes for Tables 2A-H to 2D-H- LOGIX Below-Grade Tables with Helix Reinforcement."
- Conventional rebar yield strength = 40 ksi, 28 day concrete compressive strength = 3 ksi.
- For rebar spacing based on 60 ksi yield strength, multiply above Helix 5-25 Alternative Design rebar spacing by 1.5. Final spacing shall not exceed 48".
- Modulus of rupture of Helix reinforced concrete with 9 lb/yd³ Helix 5-25 = $7.5 \sqrt{3000 \text{ psi}}$ = 410 psi.
- Walls must be laterally supported at top and bottom of wall before backfilling.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 22.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- For more information contact your local Logix rep.

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TABLE 2C-H - LOGIX 10" BELOW-GRADE WALL WITH HELIX 5-25 REINF.

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
8	4-8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	4-7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³	20 lb/yd ³
10	4-7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³	22 lb/yd ³
	10	9 lb/yd ³	17 lb/yd ³	22 lb/yd ³	27 lb/yd ³
11	4-7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	20 lb/yd ³	24 lb/yd ³
	10	9 lb/yd ³	18 lb/yd ³	24 lb/yd ³	29 lb/yd ³
	11	9 lb/yd ³	22 lb/yd ³	29 lb/yd ³	29 lb/yd ³
12	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³	20 lb/yd ³
	9	9 lb/yd ³	16 lb/yd ³	21 lb/yd ³	26 lb/yd ³
	10	9 lb/yd ³	20 lb/yd ³	26 lb/yd ³	29 lb/yd ³
	11	16 lb/yd ³	24 lb/yd ³	29 lb/yd ³	30 lb/yd ³
	12	19 lb/yd ³	28 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 24"
14	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³	22 lb/yd ³
	9	9 lb/yd ³	18 lb/yd ³	23 lb/yd ³	29 lb/yd ³
	10	15 lb/yd ³	22 lb/yd ³	29 lb/yd ³	29 lb/yd ³
	11	19 lb/yd ³	27 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 30"
	12	22 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"
	13	26 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"
	14	29 lb/yd ³	30 lb/yd ³ + #4 @ 36"	30 lb/yd ³ + #5 @ 12"	-
16	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	19 lb/yd ³	23 lb/yd ³
	9	9 lb/yd ³	19 lb/yd ³	25 lb/yd ³	29 lb/yd ³
	10	17 lb/yd ³	24 lb/yd ³	29 lb/yd ³	30 lb/yd ³
	11	20 lb/yd ³	29 lb/yd ³	30 lb/yd ³	30 lb/yd ³ + #4 @ 18"
	12	25 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #5 @ 12"
	13	29 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	-
	14	29 lb/yd ³	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"	-
	15	30 lb/yd ³	30 lb/yd ³ + #5 @ 12"	-	-
	16	30 lb/yd ³ + #4 @ 42"	30 lb/yd ³ + #6 @ 12"	-	-

NOTES:
See next page.

TABLE 2C-H - LOGIX 10" BELOW-GRADE WALL WITH HELIX 5-25 REINF. Cont'd

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
18	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³
	8	9 lb/yd ³	15 lb/yd ³	20 lb/yd ³	24 lb/yd ³
	9	9 lb/yd ³	20 lb/yd ³	26 lb/yd ³	29 lb/yd ³
	10	18 lb/yd ³	26 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 48"
	11	22 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"
	12	27 lb/yd ³	30 lb/yd ³	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"
	13	29 lb/yd ³	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #6 @ 12"	-
	14	29 lb/yd ³	30 lb/yd ³ + #5 @ 12"	-	-
	15	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #6 @ 12"	-	-
	16	30 lb/yd ³ + #4 @ 18"	-	-	-
	17	30 lb/yd ³ + #5 @ 12"	-	-	-
	18	30 lb/yd ³ + #6 @ 12"	-	-	-
20	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³
	8	9 lb/yd ³	16 lb/yd ³	21 lb/yd ³	25 lb/yd ³
	9	9 lb/yd ³	21 lb/yd ³	28 lb/yd ³	29 lb/yd ³
	10	18 lb/yd ³	27 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 36"
	11	23 lb/yd ³	29 lb/yd ³	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #5 @ 12"
	12	28 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	30 lb/yd ³ + #6 @ 12"
	13	29 lb/yd ³	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"	-
	14	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	-	-
	15	30 lb/yd ³ + #4 @ 24"	30 lb/yd ³ + #6 @ 12"	-	-
	16	30 lb/yd ³ + #5 @ 18"	-	-	-
	17	30 lb/yd ³ + #5 @ 12"	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279. Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Conventional reinforcement, as required, to be placed on interior face of concrete wall. Effective depth of vertical rebar (exterior face of concrete to center of vertical rebar) = 8"
- Table shall be read in conjunction with Fig 2C, and section "Notes for Tables 2A-H to 2D-H- LOGIX Below-Grade Tables with Helix Reinforcement."
- Conventional rebar yield strength = 40 ksi, 28 day concrete compressive strength = 3 ksi.
- For rebar spacing based on 60 ksi yield strength, multiply above Helix 5-25 Alternative Design rebar spacing by 1.5. Final spacing shall not exceed 48"
- Modulus of rupture of Helix reinforced concrete with 9 lb/yd³ Helix 5-25 = $7.5 \sqrt{3000 \text{ psi}}$ = 410 psi.
- Walls must be laterally supported at top and bottom of wall before backfilling.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 10 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 20 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- For more information contact your local Logix rep.

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TABLE 2D-H - LOGIX 12" BELOW-GRADE WALL WITH HELIX 5-25 REINF.

USA PRESCRIPTIVE ENGINEERING - BELOW-GRADE WALL REINFORCEMENT (HELIX WITH REINF)

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
14	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	16 lb/yd ³	20 lb/yd ³
	10	9 lb/yd ³	16 lb/yd ³	21 lb/yd ³	26 lb/yd ³
	11	9 lb/yd ³	19 lb/yd ³	25 lb/yd ³	30 lb/yd ³ + #4 @ 48"
	12	16 lb/yd ³	23 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 48"
	13	18 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 30"
16	14	21 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"
	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³	22 lb/yd ³
	10	9 lb/yd ³	17 lb/yd ³	22 lb/yd ³	28 lb/yd ³
	11	9 lb/yd ³	21 lb/yd ³	28 lb/yd ³	30 lb/yd ³ + #4 @ 48"
	12	17 lb/yd ³	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 48"
	13	21 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"
	14	24 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #5 @ 12"
18	15	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	-
	16	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 24"	30 lb/yd ³ + #6 @ 12"	-
	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	17 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	19 lb/yd ³	23 lb/yd ³
	10	9 lb/yd ³	18 lb/yd ³	24 lb/yd ³	30 lb/yd ³
	11	16 lb/yd ³	23 lb/yd ³	30 lb/yd ³	30 lb/yd ³ + #4 @ 48"
	12	19 lb/yd ³	28 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 24"
	13	22 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 36"	30 lb/yd ³ + #5 @ 12"
	14	26 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"
	15	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 24"	30 lb/yd ³ + #6 @ 12"	-
	16	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"	-	-
	17	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	-	-
	18	30 lb/yd ³ + #4 @ 42"	30 lb/yd ³ + #6 @ 12"	-	-

NOTES:
See next page.

TABLE 2D-H - LOGIX 12" BELOW-GRADE WALL WITH HELIX 5-25 REINF. Cont'd

Maximum Height of Basement Wall, ft	Maximum Unbalanced Backfill Height, ft	Helix Dosage and Hybrid Vertical Rebar Requirement			
		Maximum Equivalent Density 30 pcf	Maximum Equivalent Density 45 pcf	Maximum Equivalent Density 60 pcf	Maximum Equivalent Density 75 pcf
20	4-6	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	7	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
	8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	18 lb/yd ³
	9	9 lb/yd ³	9 lb/yd ³	19 lb/yd ³	24 lb/yd ³
	10	9 lb/yd ³	19 lb/yd ³	25 lb/yd ³	30 lb/yd ³ + #4 @ 48"
	11	16 lb/yd ³	24 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 48"
	12	20 lb/yd ³	30 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"
	13	24 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 18"	30 lb/yd ³ + #5 @ 12"
	14	28 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	-
	15	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 12"	30 lb/yd ³ + #6 @ 12"	-
	16	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #5 @ 12"	-	-
	17	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #6 @ 12"	-	-
	18	30 lb/yd ³ + #4 @ 12"	-	-	-
	19	30 lb/yd ³ + #5 @ 12"	-	-	-
	20	30 lb/yd ³ + #6 @ 12"	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279. Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Conventional reinforcement, as required, to be placed on interior face of concrete wall. Effective depth of vertical rebar (exterior face of concrete to center of vertical rebar) = 10"
- Table shall be read in conjunction with Fig 2A, and section "Notes for Tables 2A-H to 2D-H - LOGIX Below-Grade Tables with Helix Reinforcement."
- Conventional rebar yield strength = 40 ksi, 28 day concrete compressive strength = 3 ksi.
- For rebar spacing based on 60 ksi yield strength, multiply above Helix 5-25 Alternative Design rebar spacing by 1.5. Final spacing shall not exceed 48".
- Modulus of rupture of Helix reinforced concrete with 9 lb/yd³ Helix 5-25 = $7.5 \sqrt{3000 \text{ psi}}$ = 410 psi.
- Walls must be laterally supported at top and bottom of wall before backfilling.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 18 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

ABOVE-GRADE WALL REINFORCEMENT

NOTES FOR TABLES 3A-H TO 3B-H - LOGIX ABOVE-GRADE TABLES WITH HELIX REINFORCEMENT

Tables 3.1A-H to 3.6A-H covers reinforcement for LOGIX above-grade walls with wind speeds up to 150 mph. For larger wind speeds see Tables 3.1B-H to 3.6B-H, which covers wind speeds up to 300 mph.

LOGIX above-grade tables cover three different construction types:

- One storey LOGIX supporting wood roof frame (Fig. 3A)
- One storey LOGIX supporting 2nd storey wood frame plus wood roof frame (Fig. 3B)
- Two storey LOGIX supporting wood roof frame (Fig. 3C)

For two story buildings, the height of the second story wall is equal to the height of the first story provided the height of the first storey wall is not more than 12 feet high.

For first story walls greater than 12 feet high, the second story wall height is a maximum of 12 feet.

With the exception of 4" LOGIX, the second story concrete wall thickness is one size less than the concrete core thickness used for the first storey wall.

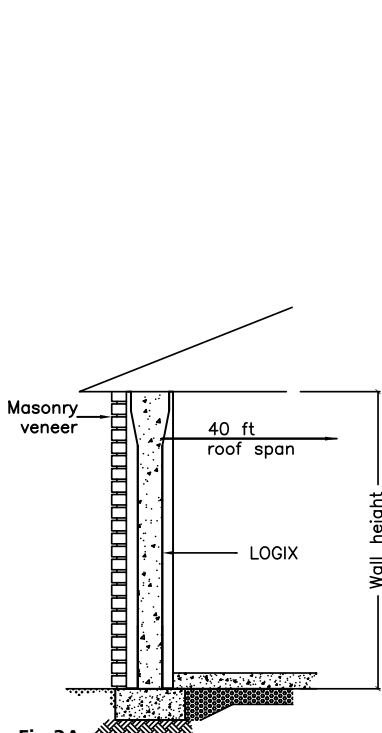


Fig 3A
Assumed typical flooring, wall & roof section for Tables 3A and 3B, Logix Supporting Roof Only.

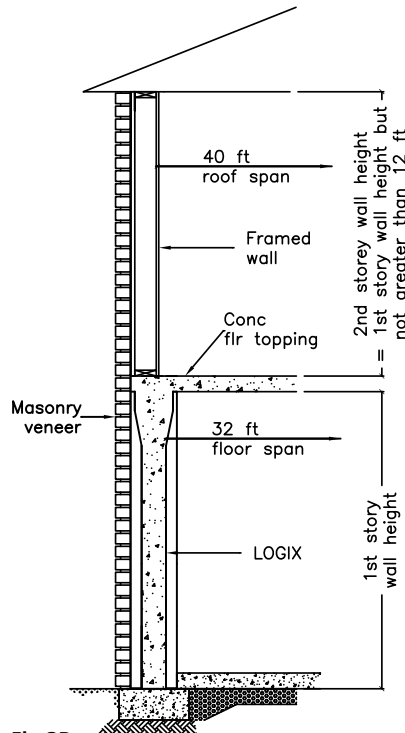


Fig 3B
Assumed typical flooring, wall & roof section for Tables 3A and 3B, Logix Supporting 2nd Story Wood Frame & Roof Structure.

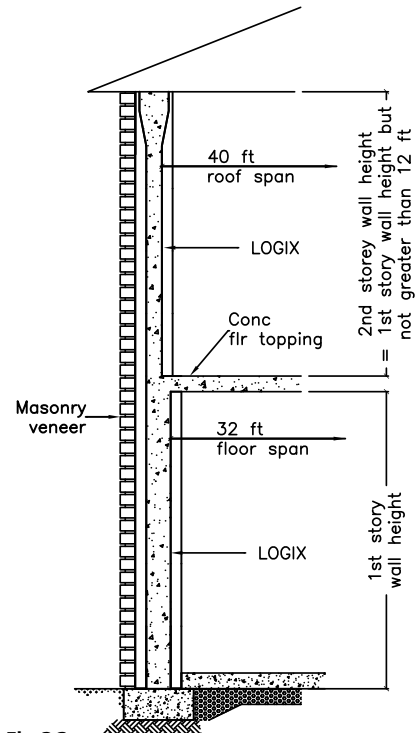


Fig 3C
Assumed typical flooring, wall & roof section for Tables 3A and 3B, Logix Supporting 2nd Story Logix & Roof Structure.

NOTES FOR TABLES 3A-H to 3B-H - LOGIX ABOVE-GRADE TABLES WITH HELIX REINFORCEMENT cont'd

The above-grade tables shall be used in conjunction with the notes listed below, the building limitations noted in the "Reinforcement Tables" section, and Figures 3A-H to 3B-H, which form the basis of this table.

1. Vertical rebar spacing shown in the tables provide simple placement between ICF ties.
2. Steel yield strength = 60 ksi
3. 28 day concrete compressive strength = 3 ksi
4. Deflection criteria = $L/240$
5. Snow load = 70 psf
6. Assumed eccentricity = 1".
7. The walls must be supported at the top and bottom of the wall.
8. Where spaces have been left blank, the corresponding bar size is presumed to be less economical and/or practical than that shown. Consult a local licensed engineer to determine proper design.
9. Except as noted for seismic considerations, vertical rebar shall be placed in middle of wall, and minimum horizontal rebar shall be:
 - 4" & 6.25" LOGIX = #4 @ 32" on center
 - 8" & 10" LOGIX = #4 @ 16" on center

Provide additional mat of rebar for 12" LOGIX

- Horizontal rebar = #4 @ 32" on center (double mat)

- Vertical rebar = to match vertical bar spacing in **Tables 3A-H or 3B-H**, whichever applies.

Provide at least one #4 bar (two for 12" LOGIX) to be placed at the bottom course and top course.

10. In Seismic Design Categories D0, D1, and D2, the reinforcing steel shall meet the requirements of ASTM A 706 for low-alloy steel with a minimum yield strength of 60 ksi.
11. For townhouses in Seismic Category C, the minimum vertical reinforcement shall be one #5 at 24 inches on center or one #4 bar at 16 inches on center, and the minimum horizontal reinforcement shall be one #4 bar at 16 inches on center.
12. For all buildings in Seismic Design Categories D0, D1 and D2, the minimum vertical reinforcement shall be one #5 at 18 inches on center or one #4 bar at 12 inches on center, and the minimum horizontal reinforcement shall be one #5 bar at 16 inches on center.
13. Horizontal reinforcement shall be continuous around building corners using corner bars or by bending the bars. The minimum lap splice shall be 24 inches. For townhouses in Seismic Design Categories D0, D1, and D2, each end of all horizontal reinforcement shall terminate with a standard hook or lap splice.
14. For openings provide one #4 horizontal bar within 12 inches from the bottom of the opening to extend minimum 24 inches beyond opening. In locations with wind speeds greater than or equal to 110 mph or in Seismic Design Categories A and B, provide one #4 bar for the full height of the wall story within 12 inches each side of the opening. In locations with wind speeds greater than 110 mph, townhouses in Seismic Design Categories D0, D1, and D2, provide two #4 bars or one #5 bar for full height of the wall story within 12 inches of each side of the opening.
15. Where design wind pressure exceeds 40 psf or for townhouses in Seismic Design Category C, and all buildings in Seismic Design Categories D0, D1 and D2, the vertical wall reinforcement in the

- top-most ICF story shall terminate with a 90-degree standard hook in accordance with IRC 2018, Section R611.7.1.5. The free end of the hook shall be within 4 inches of the top of the wall and shall be oriented parallel to the horizontal steel in the top of the wall.
16. Carefully consider floor/wall connection details for lateral loads, especially with higher backfills, walkout basements, and active seismic areas.
17. Use Table R611.3(1) to determine wind loads in Tables 3.1A-H to 3.6A-H.
Table R611.3(1) is based on ultimate design wind speeds, V_{ult} . Where documents are based only on nominal design wind speeds, V_{asd} , use Table R301.2.1.3 to convert nominal design wind speeds to ultimate design wind speeds, V_{ult} , before using Table R611.3(1).
18. For larger wind speeds greater than 150 mph see Tables 3.1B-H to 3.6B-H.

TABLE R301.2.1.3
WIND SPEED CONVERSIONS^a

V_{ult}	110	115	120	130	140	150	160	170	180	190	200
V_{asd}	85	89	93	101	108	116	124	132	139	147	155

For SI: 1 mile per hour = 0.447 m/s.
a. Linear interpolation is permitted.

TABLE R611.3(1)
DESIGN WIND PRESSURE FOR USE WITH TABLES R611.3(2), R611.4(1), AND R611.5 FOR ABOVE GRADE WALLS^a

WIND SPEED (mph) ^e	DESIGN WIND PRESSURE (psf)					
	Enclosed ^b			Partially Enclosed ^b		
	Exposure ^c			Exposure ^c		
	B	C	D	B	C	D
85	18	24	29	23	31	37
90	20	27	32	25	35	41
100	24	34	39	31	43	51
110	29	41	48	38	52	61
120	35	48	57	45	62	73
130	41	56	66	53	73	85 ^d
140	47	65	77	61	84 ^d	99 ^d
150	54	75	88 ^d	70	96 ^d	114 ^d

For SI: 1 pound per square foot = 0.0479 kPa; 1 mile per hour = 0.447 m/s; 1 foot = 304.8 mm; 1 square foot = 0.0929 m².

a. This table is based on ASCE 7-98 components and cladding wind pressures using a mean roof height of 35 ft and a tributary area of 10 ft².

b. Buildings in wind-borne debris regions as defined in Section R202 shall be considered as "Partially Enclosed" unless glazed openings are protected in accordance with Section R301.2.1.2, in which case the building shall be considered as "Enclosed." All other buildings shall be classified as "Enclosed."

c. Exposure Categories shall be determined in accordance with Section R301.2.1.4.

d. For wind pressures greater than 80 psf, design is required in accordance with ACI 318 and approved manufacturer guidelines.

e. Interpolation is permitted between wind speeds.

TABLE 3.1A-H - 4" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS UP TO 150 MPH)

Ground Floor LOGIX Supporting Roof Only						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³	27 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"
10	9 lb/yd ³	11 lb/yd ³	19 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"	-
12	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-	-	-
14	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-	-	-	-
16	30 lb/yd ³ + #4 @ 16"	-	-	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey Wood Frame & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³	27 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"
10	9 lb/yd ³	11 lb/yd ³	19 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"	-
12	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-	-	-
14	30 lb/yd ³ + #4 @ 16"	-	-	-	-	-
16	-	-	-	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³	27 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³	19 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 48"
10	11 lb/yd ³	11 lb/yd ³	19 lb/yd ³	30 lb/yd ³ + #4 @ 48"	30 lb/yd ³ + #4 @ 48"	-
12	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	-	-	-	-
14	-	-	-	-	-	-
16	-	-	-	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only. Additional tables provide designs for commercial construction.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 15 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 31.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.2A-H - 4" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(COMMERCIAL FOR WIND SPEEDS UP TO THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"
9	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"
10	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-
12	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-	-	-
14	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-	-	-	-
16	30 lb/yd ³ + #4 @ 16"	-	-	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey Wood Frame & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"
9	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"
10	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-
12	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	-	-	-
14	30 lb/yd ³ + #4 @ 16"	-	-	-	-	-
16	-	-	-	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"
9	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"
10	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	15 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 16"	30 lb/yd ³ + #4 @ 16"	-
12	30 lb/yd ³ + #4 @ 30"	30 lb/yd ³ + #4 @ 30"	-	-	-	-
14	-	-	-	-	-	-
16	-	-	-	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for commercial construction only.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 15 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 31.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

TABLE 3.3A-H - 6.25" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS UP TO 150 MPH)

Ground Floor LOGIX Supporting Roof Only						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	13 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	13 lb/yd ³	18 lb/yd ³	24 lb/yd ³
14	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	22.5 lb/yd ³ + #4 @ 16"	22.5 lb/yd ³ + #4 @ 16"	-
16	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	-	-	-
18	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	-	-	-	-
20	22.5 lb/yd ³ + #4 @ 16"	22.5 lb/yd ³ + #4 @ 16"	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey Wood Frame & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	13 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	13 lb/yd ³	18 lb/yd ³	18 lb/yd ³
14	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	22.5 lb/yd ³ + #4 @ 16"	-
16	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	-	-	-
18	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	-	-	-	-
20	-	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	13 lb/yd ³	18 lb/yd ³
14	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	22.5 lb/yd ³ + #4 @ 16"	-
16	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	15 lb/yd ³ + #4 @ 16"	-	-	-
18	-	-	-	-	-	-
20	-	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 22.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.4A-H - 8" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS UP TO THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	15 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	15 lb/yd ³	19 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	15 lb/yd ³	19 lb/yd ³	-
18	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	-	-
20	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	-	-	-

Ground Floor LOGIX Supporting 2nd Storey Wood Frame & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	10 lb/yd ³	15 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	15 lb/yd ³	19 lb/yd ³	-
18	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	-	-
20	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	15 lb/yd ³
16	10 lb/yd ³	10 lb/yd ³	10 lb/yd ³	15 lb/yd ³	15 lb/yd ³	-
18	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	15 lb/yd ³ + #4 @ 15"	-	-
20	-	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only.
- Dowels shall be used in connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 18 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

TABLE 3.5A-H - 10" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS UP TO THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³	16 lb/yd ³
18	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³	16 lb/yd ³	-
20	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³	16 lb/yd ³	-	-

Ground Floor LOGIX Supporting 2nd Storey Wood Frame & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³
18	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³	12 lb/yd ³	-
20	12 lb/yd ³	12 lb/yd ³	12 lb/yd ³	16 lb/yd ³	16 lb/yd ³	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³
18	12 lb/yd ³	12 lb/yd ³	12 lb/yd ³	12 lb/yd ³	12 lb/yd ³	16 lb/yd ³
20	16 lb/yd ³	16 lb/yd ³	16 lb/yd ³	16 lb/yd ³	16 lb/yd ³	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.6A-H - 12" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS UP TO THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
18	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
20	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	10 lb/yd ³	13 lb/yd ³

Ground Floor LOGIX Supporting 2nd Storey Wood Frame & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
18	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
20	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	10 lb/yd ³	13 lb/yd ³

Ground Floor LOGIX Supporting 2nd Storey LOGIX & Roof Structure						
Wall Height, ft	Unfactored Wind Load, psf					
	20	40	60	80	90	114
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
12	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
14	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
16	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³
18	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
20	10 lb/yd ³	10 lb/yd ³	10 lb/yd ³	10 lb/yd ³	10 lb/yd ³	13 lb/yd ³

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.1B-H - 4" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS GREATER THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	21 lb/yd ³	27 lb/yd ³	30 lb/yd ³ + #4 @ 12"	-	-
9	21 lb/yd ³	30 lb/yd ³ + #4 @ 32"	-	-	-
10	30 lb/yd ³ + #4 @ 32"	30 lb/yd ³ + #4 @ 12"	-	-	-
12	22.5 lb/yd ³ + #4 @ 8"	-	-	-	-
14	-	-	-	-	-
16	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX (or 2nd Storey Wood Frame) & Roof Structure					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	21 lb/yd ³	30 lb/yd ³ + #4 @ 12"	-	-	-
9	27 lb/yd ³	30 lb/yd ³ + #4 @ 12"	-	-	-
10	30 lb/yd ³ + #4 @ 12"	-	-	-	-
12	-	-	-	-	-
14	-	-	-	-	-
16	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only. Additional tables provide designs for commercial construction.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 15 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 31.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.2B-H - 4" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(COMMERCIAL FOR WIND SPEEDS GREATER THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	15 lb/yd ³ + #4 @ 24"	30 lb/yd ³ + #4 @ 24"	22.5 lb/yd ³ + #4 @ 8"	-	-
9	15 lb/yd ³ + #4 @ 24"	22.5 lb/yd ³ + #4 @ 12"	-	-	-
10	22.5 lb/yd ³ + #4 @ 12"	22.5 lb/yd ³ + #4 @ 8"	-	-	-
12	22.5 lb/yd ³ + #4 @ 8"	-	-	-	-
14	-	-	-	-	-
16	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX (or 2nd Storey Wood Frame) & Roof Structure					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	15 lb/yd ³ + #4 @ 24"	22.5 lb/yd ³ + #4 @ 8"	-	-	-
9	30 lb/yd ³ + #4 @ 24"	22.5 lb/yd ³ + #4 @ 8"	-	-	-
10	22.5 lb/yd ³ + #4 @ 8"	-	-	-	-
12	-	-	-	-	-
14	-	-	-	-	-
16	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only. Additional tables provide designs for commercial construction.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 15 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 31.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.3B-H - 6.25" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS GREATER THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd ³	10 lb/yd ³	18 lb/yd ³	26 lb/yd ³	26 lb/yd ³
9	10 lb/yd ³	14 lb/yd ³	26 lb/yd ³	26 lb/yd ³	34 lb/yd ³
10	14 lb/yd ³	18 lb/yd ³	34 lb/yd ³	34 lb/yd ³	-
12	18 lb/yd ³	26 lb/yd ³	-	-	-
14	30 lb/yd ³ + #4 @ 16"	-	-	-	-
16	30 lb/yd ³ + #4 @ 12"	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX (or 2nd Storey Wood Frame) & Roof Structure					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd ³	10 lb/yd ³	18 lb/yd ³	26 lb/yd ³	26 lb/yd ³
9	9 lb/yd ³	14 lb/yd ³	26 lb/yd ³	34 lb/yd ³	-
10	10 lb/yd ³	18 lb/yd ³	34 lb/yd ³	-	-
12	18 lb/yd ³	34 lb/yd ³	-	-	-
14	30 lb/yd ³ + #4 @ 16"	-	-	-	-
16	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 22.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

TABLE 3.4B-H - 8" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS GREATER THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd³	9 lb/yd³	12 lb/yd³	15 lb/yd³	15 lb/yd³
9	9 lb/yd³	9 lb/yd³	15 lb/yd³	21 lb/yd³	21 lb/yd³
10	9 lb/yd³	12 lb/yd³	21 lb/yd³	21 lb/yd³	27 lb/yd³
12	12 lb/yd³	21 lb/yd³	27 lb/yd³	-	-
14	15 lb/yd³	27 lb/yd³	-	-	-
16	21 lb/yd³	-	-	-	-
18	30 lb/yd³ + #4 @ 15"	-	-	-	-
20	-	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX (or 2nd Storey Wood Frame) & Roof Structure					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd³	9 lb/yd³	12 lb/yd³	15 lb/yd³	15 lb/yd³
9	9 lb/yd³	9 lb/yd³	15 lb/yd³	21 lb/yd³	21 lb/yd³
10	9 lb/yd³	12 lb/yd³	21 lb/yd³	21 lb/yd³	27 lb/yd³
12	12 lb/yd³	21 lb/yd³	27 lb/yd³	-	-
14	15 lb/yd³	27 lb/yd³	-	-	-
16	21 lb/yd³	-	-	-	-
18	30 lb/yd³ + #4 @ 15"	-	-	-	-
20	-	-	-	-	-

- NOTES:
- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
 - Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
 - Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
 - Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
 - Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
 - Table shall be used for residential construction only.
 - Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
 - Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
 - Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
 - Walls must be laterally supported at top and bottom of wall.
 - Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
 - Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
 - Minimum Helix 5-25 dosage rate of 18 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
 - Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
 - For more information contact your local Logix rep.

TABLE 3.5B-H - 10" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS GREATER THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	10 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	12 lb/yd ³	12 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	12 lb/yd ³	17 lb/yd ³	17 lb/yd ³
12	9 lb/yd ³	10 lb/yd ³	17 lb/yd ³	22 lb/yd ³	-
14	10 lb/yd ³	17 lb/yd ³	22 lb/yd ³	-	-
16	12 lb/yd ³	22 lb/yd ³	-	-	-
18	17 lb/yd ³	-	-	-	-
20	22 lb/yd ³	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX (or 2nd Storey Wood Frame) & Roof Structure					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³
9	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	10 lb/yd ³	12 lb/yd ³
10	9 lb/yd ³	9 lb/yd ³	10 lb/yd ³	12 lb/yd ³	17 lb/yd ³
12	9 lb/yd ³	10 lb/yd ³	17 lb/yd ³	22 lb/yd ³	-
14	9 lb/yd ³	17 lb/yd ³	-	-	-
16	12 lb/yd ³	22 lb/yd ³	-	-	-
18	17 lb/yd ³	-	-	-	-
20	22 lb/yd ³	-	-	-	-

NOTES:

- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
- Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
- Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
- Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
- Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
- Table shall be used for residential construction only.
- Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
- Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
- Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
- Walls must be laterally supported at top and bottom of wall.
- Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
- Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
- Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
- Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
- For more information contact your local Logix rep.

LOGIX® INSULATED CONCRETE FORMS

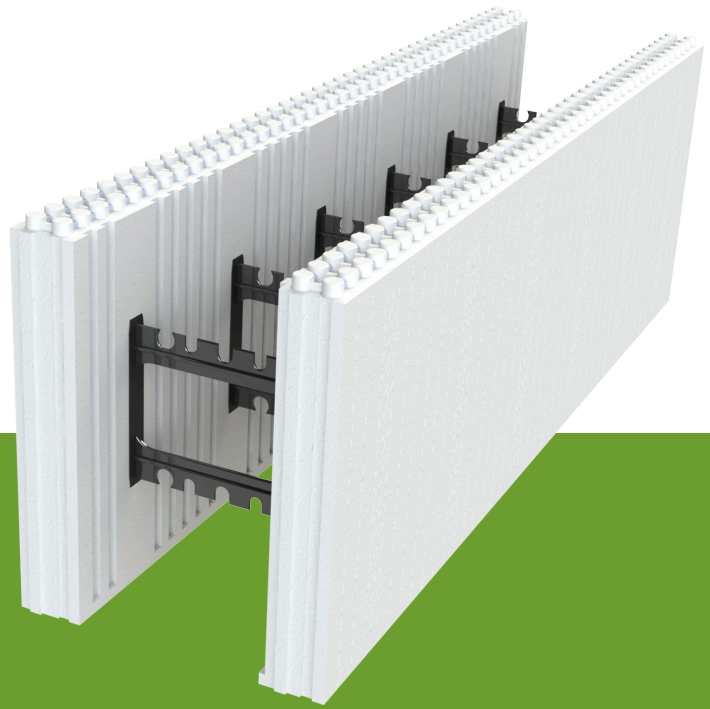
TABLE 3.6B-H - 12" LOGIX ABOVE-GRADE WALL WITH HELIX 5-25 REINF.

(RESIDENTIAL FOR WIND SPEEDS GREATER THAN 150 MPH)

Ground Floor LOGIX Supporting Roof Only					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd³	9 lb/yd³	9 lb/yd³	9 lb/yd³	9 lb/yd³
9	9 lb/yd³	9 lb/yd³	9 lb/yd³	9 lb/yd³	10 lb/yd³
10	9 lb/yd³	9 lb/yd³	9 lb/yd³	10 lb/yd³	10 lb/yd³
12	9 lb/yd³	9 lb/yd³	15 lb/yd³	15 lb/yd³	20 lb/yd³
14	9 lb/yd³	10 lb/yd³	20 lb/yd³	20 lb/yd³	-
16	9 lb/yd³	15 lb/yd³	-	-	-
18	10 lb/yd³	20 lb/yd³	-	-	-
20	15 lb/yd³	-	-	-	-

Ground Floor LOGIX Supporting 2nd Storey LOGIX (or 2nd Storey Wood Frame) & Roof Structure					
Wall Height, ft	Wind Speed, mph				
	160	200	250	275	300
8	9 lb/yd³	9 lb/yd³	9 lb/yd³	9 lb/yd³	9 lb/yd³
9	9 lb/yd³	9 lb/yd³	9 lb/yd³	9 lb/yd³	10 lb/yd³
10	9 lb/yd³	9 lb/yd³	9 lb/yd³	10 lb/yd³	10 lb/yd³
12	9 lb/yd³	9 lb/yd³	15 lb/yd³	15 lb/yd³	20 lb/yd³
14	9 lb/yd³	9 lb/yd³	15 lb/yd³	20 lb/yd³	-
16	9 lb/yd³	15 lb/yd³	-	-	-
18	10 lb/yd³	20 lb/yd³	-	-	-
20	15 lb/yd³	-	-	-	-

- NOTES:
- Design and installation of Helix 5-25 Micro-Rebar reinforced concrete must be in accordance with Uniform Evaluation Service, ER-279.
 - Designs given in above table are Helix Design Class B, and walls must conform to all restrictions of Section 4.3.5 of ER-279.
 - Designs given in the shaded rows of the above table are Helix Design Class C, and walls must conform to all restrictions of Section 4.3.5 or Section 4.3.6 of ER-279 except for the minimum wall thickness requirement. In addition, Helix Design Class C must meet the requirements of Section 5.6 of ER-279.
 - Helix Design Class C is not allowed in Seismic Design Categories C, D, E or F.
 - Table shall be read in conjunction with Fig 3A, Fig 3B, Fig 3C, and section "Notes For Tables 3A-H to 3B-H - Logix Above-Grade Tables With Helix Reinforcement"
 - Table shall be used for residential construction only.
 - Dowels shall be used at connection of wall to footing; the use of a keyway with this table is prohibited.
 - Conventional reinforcement (as required) to be placed at mid-depth of the concrete wall.
 - Conventional rebar yield strength = 60 ksi, 28 day concrete compressive strength = 3000 psi for Helix Design Class B and 4000 psi for Helix Design Class C.
 - Walls must be laterally supported at top and bottom of wall.
 - Except as noted for seismic design, the listed Helix 5-25 dosage rate is adequate to replace the required horizontal #4 bars at 32 inches.
 - Minimum Helix 5-25 dosage rate of 9 lb/yd³ for townhouses in Seismic Design Category C. This dosage replaces the required horizontal #4 bars at 16 inches.
 - Minimum Helix 5-25 dosage rate of 13.5 lb/yd³ for all buildings in Seismic Design Categories D0, D1 and D2. This dosage replaces the required horizontal #5 bars at 16 inches.
 - Where spaces have been left blank, the Helix design is outside the scope of this table. Contact Helix Steel to determine proper design.
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