# NUDURA FIELD GUIDE
# CHECKLIST & PROJECT LOG

PROJECT: _____

SITE ADDRESS: _____

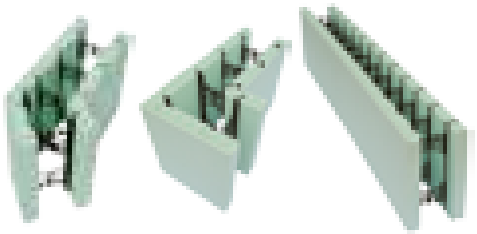
_____

NUDURA INSTALLER: _____

_____

DATE: _____

**For more detailed information reference the most current NUDURA installation manual.**



NUDURA®
INTEGRATED BUILDING TECHNOLOGY
*Building Value*

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## PROJECT CONTACT LIST

Owner: .....

Architect: .....

Engineer: .....

Building Department: .....

Emergency – Police / Fire: .....

Concrete Supplier: .....

Building Materials Supply: .....

Equipment Rent-All: .....

Other: .....

.....

## NUDURA DISTRIBUTOR

Distributor Name: .....

Contact Name: .....

Address: .....

Phone Number: .....

## NUDURA PROJECT INFORMATION

- ☐ Grade beam required
- ☐ Walk-out frost wall
- ☐ Step footings
- ☐ Garage frost wall
- ☐ Taper top form required at garage
- ☐ Taper top required on foundation wall
- ☐ Brick Ledge form required
- ☐ Height adjusters required – no. of rows .....
- ☐ Floor connection system .....
- ☐ T Forms required
- ☐ Form size transitions – vertically
- ☐ Form size transitions – horizontally
- ☐ Vertical joint seams .....
- ☐ Wall reinforcement schedule on plans
- ☐ Lintel reinforcement schedule on plans
- ☐ Roof connection system .....
- ☐ Bracing height required .....
- ☐ Gables
- ☐ Radius walls
- ☐ Hurricane / seismic design requirements

## WALL REQUIREMENTS*

| FORM THICKNESS | BASEMENT/FOUNDATION LIMITS | SINGLE STOREY LIMITATION | MULTI STOREY LIMITATION | COMMON BUILDING TYPES |
|---|---|---|---|---|
| 4″<br>102 mm | Basement not permitted<br>Frost/Stem wall only.<br>subject to<br>engineering consultation | Safe to 10′ >10′<br>Consult Engineering | 2 stories<br>10′ floor + gable end<br>12/12 pitch | Exterior walls of:<br>houses – single, semi &<br>townhouse, small offices<br>single or 2 storey |
| 6″<br>152 mm | 8′ – clay<br>9′ – gravel<br>10′ – Consult Engineering | Safe to 14′ – 16′<br>>16′ – Consult<br>Engineering | 3 stories<br>4 with Eng. Design<br>10′-14′ ht/floor | Almost any building type –<br>maximum 16′ single storey<br>height without pilasters |
| 8″<br>203 mm | 9′ – clay<br>10′ – gravel<br>11′ – Consult Engineering | Safe to 16′ – 25′<br>>25′ – Consult<br>Engineering | Lower 2-4 floors<br>of 5-8 stories<br>(use 6″ on upper 2-3<br>stories) | Warehouses, theatres,<br>church tall walls<br>lower floors of hotels,<br>condos, apartments |
| 10″<br>254 mm | 10′ – clay<br>11′ – gravel<br>12′ – Consult Engineering | Safe to 25′ – 35′<br>>35′ – Consult<br>Engineering | Lower 2-4 floors<br>of 9-12 stories | Under ground garages,<br>theatre walls, fly lofts<br>lower floors of hotels,<br>condos, apartments |
| 12″<br>305 mm | 11′ – clay<br>12′ – gravel<br>≥13 Consult Engineering | Safe to 35′ – 40′<br>>40′ – Consult<br>Engineering | Consult Engineering | Heavy tall industrial<br>applications<br>deep foundation walls |

* Refer to section 2.1.3 of the Installation Manual for more information

# COURSING TABLES (IMPERIAL)

| NO. OF COURSES | STANDARD FORM HEIGHT OF WALL (FT/IN) | PLUS ONE 3" HIGH HEIGHT ADJUSTER (FT/IN) | PLUS ONE 6" HIGH HALF OPTIMIZER (OR CUT STANDARD) (FT/IN) | PLUS ONE 9" HIGH HALF STANDARD (FT/IN) | PLUS ONE 12" HIGH OPTIMIZER FORM (FT/IN) | PLUS ONE 15" HIGH SEGMENT (FT/IN) |
|---|---|---|---|---|---|---|
| 1 | 1' 6" | 1' 9" | 2' | 2' 3" | 2'6" | 2' 9" |
| 2 | 3' | 3' 3" | 3' 6" | 3' 9" | 4' | 4' 3" |
| 3 | 4' 6" | 4' 9" | 5' | 5' 3" | 5' 6" | 5' 9" |
| 4 | 6' | 6' 3" | 6' 6" | 6' 9" | 7' | 7' 3" |
| 5 | 7' 6" | 7' 9" | 8' | 8' 3" | 8' 6" | 8' 9" |
| 6 | 9' | 9' 3" | 9' 6" | 9' 9" | 10' | 10' 3" |
| 7 | 10' 6 | 10' 9" | 11' | 11' 3" | 11' 6" | 11' 9" |
| 8 | 12' | 12' 3" | 12' 6" | 12' 9 | 13' | 13' 3" |
| 9 | 13' 6" | 13' 9" | 14' | 14' 3" | 14' 6" | 14' 9" |
| 10 | 15' | 15' 3" | 15' 6" | 15' 9" | 16' | 16' 3" |
| 11 | 16' 6 | 16' 9" | 17' | 17' 3" | 17' 6" | 17' 9" |
| 12 | 18' | 18' 3" | 18' 6" | 18' 9" | 19' | 19' 3" |
| 13 | 19' 6" | 19' 9" | 20' | 20' 3" | 20' 6" | 20' 9" |
| 14 | 21' | 21' 3" | 21' 6" | 21' 9" | 22' | 22' 3" |
| 15 | 22' 6" | 22' 9" | 23' | 23' 3" | 23' 6" | 23' 9" |
| 16 | 24' | 24' 3" | 24' 6" | 24' 9" | 25' | 25' 3" |
| 17 | 25' 6" | 25' 9" | 26' | 26' 3" | 26' 6" | 26' 9" |
| 18 | 27' | 27' 3" | 27' 6" | 27' 9" | 28' | 28' 3 |
| 19 | 28' 6 | 28' 9 | 29' | 29' 3" | 29' 6" | 29' 9" |
| 20 | 30' | 30' 3" | 30' 6" | 30' 9" | 31' | 31' 3" |
| 21 | 31' 6" | 31' 9" | 32' | 32' 3" | 32' 6" | 32' 9" |
| 22 | 33' | 33' 3" | 33' 6" | 33' 9" | 34' | 34' 3" |
| 23 | 34' 6" | 34' 9" | 35' | 35' 3" | 35' 6" | 35' 9" |
| 24 | 36' | 36' 3" | 36' 6" | 36' 9" | 37' | 37' 3" |

Note: The 15" segment can be achieved by cutting a Standard Form or using one Optimizer Form and one Height Adjuster.

# COURSING TABLES (METRIC)

| NO. OF COURSES | STANDARD FORM HEIGHT OF WALL (METERS) | PLUS ONE 7.2 mm HIGH HEIGHT ADJUSTER (METERS) | PLUS ONE 152 mm HIGH HALF OPTIMIZER (OR CUT STANDARD) (METERS) | PLUS ONE 229 mm HIGH HALF STANDARD (METERS) | PLUS ONE 305 mm HIGH OPTIMIZER FORM (METERS) | PLUS ONE 381 mm HIGH SEGMENT (METERS) |
|---|---|---|---|---|---|---|
| 1 | 0.457 | 0.533 | 0.610 | 0.686 | 0.762 | 0.838 |
| 2 | 0.914 | 0.991 | 1.067 | 1.143 | 1.219 | 1.295 |
| 3 | 1.372 | 1.448 | 1.524 | 1.600 | 1.676 | 1.753 |
| 4 | 1.829 | 1.905 | 1.981 | 2.057 | 2.133 | 2.210 |
| 5 | 2.286 | 2.363 | 2.438 | 2.514 | 2.590 | 2.668 |
| 6 | 2.743 | 2.820 | 2.895 | 2.971 | 3.047 | 3.125 |
| 7 | 3.201 | 3.277 | 3.352 | 3.428 | 3.504 | 3.582 |
| 8 | 3.658 | 3.734 | 3.809 | 3.885 | 3.961 | 4.040 |
| 9 | 4.116 | 4.192 | 4.266 | 4.342 | 4.418 | 4.497 |
| 10 | 4.573 | 4.649 | 4.723 | 4.799 | 4.875 | 4.955 |
| 11 | 5.030 | 5.106 | 5.180 | 5.256 | 5.332 | 5.412 |
| 12 | 5.488 | 5.564 | 5.637 | 5.713 | 5.789 | 5.869 |
| 13 | 5.945 | 6.021 | 6.094 | 6.170 | 6.246 | 6.327 |
| 14 | 6.403 | 6.478 | 6.551 | 6.627 | 6.703 | 6.784 |
| 15 | 6.861 | 6.936 | 7.008 | 7.084 | 7.160 | 7.242 |
| 16 | 7.317 | 7.393 | 7.465 | 7.541 | 7.617 | 7.699 |
| 17 | 7.775 | 7.850 | 7.922 | 7.998 | 8.074 | 8.156 |
| 18 | 8.232 | 8.307 | 8.379 | 8.455 | 8.531 | 8.614 |
| 19 | 8.690 | 8.765 | 8.836 | 8.912 | 8.988 | 9.071 |
| 20 | 9.147 | 9.222 | 9.293 | 9.369 | 9.445 | 9.529 |
| 21 | 9.604 | 9.679 | 9.750 | 9.826 | 9.902 | 9.986 |
| 22 | 10.062 | 10.137 | 10.207 | 10.283 | 10.359 | 10.443 |
| 23 | 10.519 | 10.594 | 10.664 | 10.740 | 10.816 | 10.901 |
| 24 | 10.977 | 11.051 | 11.121 | 11.197 | 11.273 | 11.358 |

Note: The 381mm segment can be achieved by cutting a Standard Form or using one Optimizer Form and one Height Adjuster.

# ESTIMATING FORMULAS (IMPERIAL)

**STANDARD FORM UNITS:**

Gross Wall Area ($ft^2$) = Total Linear footage of wall (ft) x Total Height (ft)

Net Wall Area ($ft^2$) = Gross Wall Area ($ft^2$) – Total area of openings ($ft^2$)

Total Standards/course = (Total Lineal footage of wall – (# 90° Corners x 4) – (# 45° Corners x 3)) ÷ 8

Total Standards before deductions = Total Standards/course x # of courses

Standards (BL) = Lineal Footage of Brick Ledge ÷ 8

Standards (TT) = Lineal Footage of Taper Top ÷ 8

Standards (OP) = ((<FOP x # COP ÷ 4) ÷ 3

Standards (TF) = (# of T Forms x # of courses) ÷ 2

TOTAL STANDARDS = Total Stds before deductions - Stds (BL) – Stds (TT) - Stds (OP) - Stds (TF)

**90° FORM UNIT:** 90° FORM = #90 x #C

**45° FORM UNIT:** 45° FORM = #45 x #C

**T FORM UNIT:** T FORM = #Ts x #C

**BRICK LEDGE FORM 4' UNIT:** BLF4 = LFBLF ÷ 4

**BRICK LEDGE FORM 8' UNIT:** BLF8 = LFBLF ÷ 8

**OPTIMIZER FORM UNIT:** OP=(<FOP x 2 # COP) ÷ 4

OP Ties = (OP ÷ 2) x 6

**BRICK LEDGE EXTENSION:** BLE = LFBLE x 0.375

# of Screws = BLE x 6

**HEIGHT ADJUSTER:** HA = (LFHA x 2 x #CHA) ÷ 2.67

HA Ties = (HA ÷ 2) x 4

**WATERPROOFING:** WP = LFWP x HWP ÷ 210

**PARGING COAT:** PC = LFPAR x HPAR ÷ 75

**FIBER MESH:** FM = LFPAR x HPAR ÷ 475

**WALL ALIGNMENT SYSTEMS:** WAS = (LFPER + 1 per corner or tees) ÷ 5.33

**REBAR:** REBAR = LFPER x HW x 1.5

**CONCRETE (IMPERIAL):** $Yds^3$ = LFPER x HW x Concrete Multiplier (Table 2.2.1.2)

**VERTICAL JOINT CLIPS:** VJC = (LFPER ÷ 8' x 4 per standard x # of courses) +

(# of Corners x 4 x # of courses)

# ESTIMATING FORMULAS (IMPERIAL)

### TO CALCULATE THE STANDARD FORM UNITS:

- Gross Wall Area ($ft^2$) = Total Linear footage of wall (ft) x Total Height (ft)
- Net Wall Area ($ft^2$) = Gross Wall Area ($ft^2$) – Total area of openings ($ft^2$)
- Total Standards/course = (Total Lineal footage of wall – (# 90° Corners x 4) – (# 45° Corners x 3)) ÷ 8
- Total Standards before deductions = Total Standards/course x # of courses

If brick ledge, taper top, or T forms are needed for the building they need to be subtracted off the total standards calculated above.

- Standards (BL) = Lineal Footage of Brick Ledge ÷ 8
- Standards (TT) = Lineal Footage of Taper Top ÷ 8
- Standards (OP) = ((<FOP x # COP ÷ 4) ÷ 3
- Standards (TF) = (# of T Forms x # of courses) ÷ 2
- Total Standards = Total Standards before deductions - Standards (BL) - Standards (TT) - Standards (OP) - Standards (TF)

### TO CALCULATE THE NUMBER OF 90° CORNER FORMS:

90° form = #90 x #C

This formula multiplies the number of 90° turn by the number of courses.

### TO CALCULATE THE NUMBER OF 45° CORNER FORMS:

45° form = #45 x #C

This formula multiplies the number of 45° turn by the number of courses.

### TO CALCULATE THE NUMBER OF T FORMS:

T form = #Ts x #C

This formula multiplies the T connection by the number of courses.

### TO CALCULATE THE NUMBER OF BRICK LEDGE FORMS:

BLF4 = LFBLF ÷ 4 or BLF8 = LFBLF ÷ 8

This formula divides the linear footage of brick ledge form units by 4 or 8. Brick Ledge forms are available in 2 lengths. 8' lengths are available from NUDURA's Canadian plant and the 4' length is available from the US plant. Note: Additional brick ledge form units may be required for corners.

# ESTIMATING FORMULAS (IMPERIAL)

### TO CALCULATE THE NUMBER OF BRICK LEDGE EXTENSIONS:

BLE = LFBLE x .375

# of Screws = BLE x 3

# of V Strips = BLE ÷ 3

This formula multiplies the linear footage of brick ledge extension by .375. The formulas also calculate the number of screws needed for attaching the BLE and also the V Strips needed also. Note: Additional brick ledge extension may be required for corners.

### TO CALCULATE THE NUMBER OF OPTIMIZER FORMS:

OP = (<FOP x 2 x #COP) ÷4

OP Ties = (OP ÷2) x 6

This formula corrects the linear footage of perimeter of Optimizer required, divides by 4, multiples by 2 and multiplies by the number of courses required.

### TO CALCULATE THE NUMBER OF HEIGHT ADJUSTERS:

HA = (LFHA x 2 x #CHA) ÷ 2.67

HA Ties = (HA ÷ 2) x 4

This formula corrects the linear footage of perimeter of Height Adjuster required, divides by 2.67', multiplies by 2 and multiplies by the number of courses required.

### TO CALCULATE THE NUMBER OF ROLLS OF WATERPROOFING:

WP = LFWP x HWP ÷ 210

A roll of waterproofing is 225 sq. ft. but the effective coverage is 210 sq. ft allowing for overlapping the edge of the membrane.

### TO CALCULATE THE NUMBER OF BAGS OF PREPCOAT PARGING MIX:

PC = LFPAR x HPAR ÷ 75

The surface area to be parged is divided by 75 which is the average coverage obtained per bag for two coat application.

### TO CALCULATE THE NUMBER FIBER MESH ROLLS:

FM = LFPAR x HPAR ÷ 475

A roll of fiber mesh is 475 sq. ft. an allowance for overlap may be required depending on the application techniques.

### TO CALCULATE THE QUANTITY OF WALL ALIGNMENT SYSTEM:

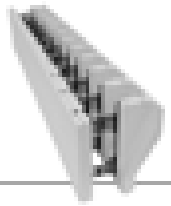
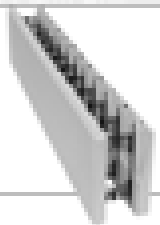
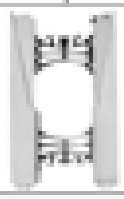
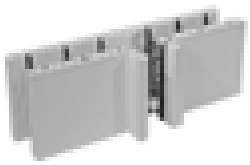
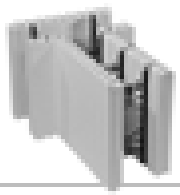
WAS = LFPER + 1 per corners or tees ÷ 5.333

The formula allows for one unit every 5' 4" plus an additional unit for every corner and tee wall connection. Should a site have numerous openings with center of opening less than 5' 4" apart the quantity of WAS may need to be increased.

# CONCRETE VOLUMES

| | | Core Thickness | Imperial Measurement | Metric Measurement |
|---|---|---|---|---|
| Standard Form Unit | Wall Coverage | n/a | 12 ft² | 1.11 m² |
|  | Nom. Weight | n/a | 16.10 lb | 7.30 kg |
| | Concrete Volume | 4" (100 mm) | 0.157 yd³ | 0.120 m³ |
| | | 6" (150 mm) | 0.231 yd³ | 0.177 m³ |
| | | 8" (200 mm) | 0.306 yd³ | 0.234 m³ |
| | | 10" (250 mm) | 0.380 yd³ | 0.290 m³ |
| | | 12" (300 mm) | 0.454 yd³ | 0.347 m³ |
| | | | | |
| 90° Form Unit | Wall Coverage | n/a | 6.0ft² | 0.560 m² |
|  | Nom. Weight | n/a | 6.00 lb | 2.72 kg |
| | Concrete Volume | 4" (100 mm) | 0.063 yd³ | 0.048 m³ |
| | | 6" (150 mm) | 0.088 yd³ | 0.067 m³ |
| | | 8" (200 mm) | 0.122 yd³ | 0.093 m³ |
| | | 10" (250 mm) | 0.159 yd³ | 0.122 m³ |
| | | 12" (300 mm) | 0.200 yd³ | 0.153 m³ |
| | | | | |
| 45° Form Unit | Wall Coverage | n/a | 4.6 ft² | 0.43 m² |
|  | Nom. Weight | n/a | 5.70 lb | 2.59 kg |
| | Concrete Volume | 4" (100 mm) | 0.056 yd³ | 0.043 m³ |
| | | 6" (150 mm) | 0.079 yd³ | 0.060 m³ |
| | | 8" (200 mm) | 0.102 yd³ | 0.078 m³ |
| | | 10" (250 mm) | 0.135 yd³ | 0.103 m³ |
| | | 12" (300 mm) | 0.180 yd³ | 0.138 m³ |
| | | | | |
| Optimizer Form Unit | Wall Coverage | n/a | 4 ft² | 0.37 m² |
|  | Nom. Weight | n/a | 5.36 lb | 2.43 kg |
| | Concrete Volume | 6" (150 mm) | 0.077 yd³ | 0.059 m³ |
| | | 8" (200 mm) | 0.102 yd³ | 0.078 m³ |
| | | 10" (250 mm) | 0.126 yd³ | 0.096 m³ |
| | | 12" (300 mm) | 0.151 yd³ | 0.115 m³ |
| | | | | |
| Height Adjuster | Wall Coverage | n/a | 0.667 ft² | 0.062 m² |
|  | Nom. Weight | n/a | 0.83 lb | 0.38 kg |
| | Concrete Volume | 4" (100 mm) | 0.009 yd³ | 0.007 m³ |
| | | 6" (150 mm) | 0.013 yd³ | 0.010 m³ |
| | | 8" (200 mm) | 0.017 yd³ | 0.013 m³ |
| | | 10" (250 mm) | 0.021 yd³ | 0.016 m³ |
| | | 12" (300 mm) | 0.025 yd³ | 0.019 m³ |

# CONCRETE VOLUMES

| | | Core Thickness | Imperial Measurement | Metric Measurement |
|---|---|---|---|---|
| Brick Ledge Form Unit | Wall Coverage | n/a | 12 ft² | 1.11 m² |
|  | Nom. Weight | n/a | 16.50 lb | 7.48 kg |
| | Concrete Volume | 4" (100 mm) | 0.251 yd³ | 0.192 m³ |
| | | 6" (150 mm) | 0.325 yd³ | 0.248 m³ |
| | | 8" (200 mm) | 0.399 yd³ | 0.305 m³ |
| | | 10" (250 mm) | 0.474 yd³ | 0.362 m³ |
| | | 12" (300 mm) | 0.548 yd³ | 0.419 m³ |
| | | | | |
| Brick Ledge Extension | Wall Coverage | n/a | 2.889 ft² | 0.268 m² |
|  | Nom. Weight | n/a | 1.01 lb | 0.46 kg |
| | Concrete Volume | n/a | 0.014 yd³ | 0.011 m³ |
| | | | | |
| | | | | |
| | | | | |
| Taper Top Form Unit | Wall Coverage | n/a | 12 ft² | 1.11 m² |
|  | Nom. Weight | n/a | 15.37 lb | 6.97 kg |
| | Concrete Volume | 4" (100 mm) | 0.182 yd³ | 0.139 m³ |
| | | 6" (150 mm) | 0.256 yd³ | 0.196 m³ |
| | | 8" (200 mm) | 0.330 yd³ | 0.252 m³ |
| | | 10" (250 mm) | 0.404 yd³ | 0.309 m³ |
| | | 12" (300 mm) | 0.478 yd³ | 0.365 m³ |
| | | | | |
| Double Sided Taper Top | Wall Coverage | n/a | 12 ft² | 1.11 m² |
|  | Nom. Weight | n/a | 14.43 lb | 6.55 kg |
| | Concrete Volume | 4" (100 mm) | 0.206 yd³ | 0.157 m³ |
| | | 6" (150 mm) | 0.280 yd³ | 0.214 m³ |
| | | 8" (200 mm) | 0.354 yd³ | 0.271 m³ |
| | | 10" (250 mm) | 0.428 yd³ | 0.327 m³ |
| | | 12" (300 mm) | 0.502 yd³ | 0.384 m³ |
| | | | | |
| Short T Form Unit | Wall Coverage | n/a | 6.7 ft² | 0.62 m² |
|  | Nom. Weight | n/a | 7.63 lb | 3.46 kg |
| | Concrete Volume | 4" (100 mm) | 0.092 yd³ | 0.070 m³ |
| | | 6" (150 mm) | 0.139 yd³ | 0.106 m³ |
| | | 8" (200 mm) | 0.191 yd³ | 0.146 m³ |
| | | 10" (250 mm) | 0.246 yd³ | 0.188 m³ |
| | | 12" (300 mm) | 0.304 yd³ | 0.232 m³ |
| | | | | |
| Long T Form Unit | Wall Coverage | n/a | 4.8 ft² | 0.45 m² |
|  | Nom. Weight | n/a | 7.63 lb | 3.46 kg |
| | Concrete Volume | 4" (100 mm) | 0.066 yd³ | 0.050 m³ |
| | | 6" (150 mm) | 0.100 yd³ | 0.076 m³ |
| | | 8" (200 mm) | 0.140 yd³ | 0.107 m³ |
| | | 10" (250 mm) | 0.182 yd³ | 0.139 m³ |
| | | 12" (300 mm) | 0.228 yd³ | 0.174 m³ |

## PROJECT LAYOUT (SKETCH FLOOR PLAN)

## PROJECT BASEMENT

Total Linear feet .....

Basement finished ceiling height .....

Form size or sizes .....

Number of courses high .....

Number of Standard forms .....

Number of 90˚ corner forms .....

Number of 45˚ corners forms .....

Frost wall, number of courses .....

Step footing heights .....

Vertical rebar ..... @ .....

Horizontal rebar ..... @ .....

Concrete Volume .....

## PROJECT MAIN FLOOR

Total Linear feet .....

Finished ceiling height .....

Form size or sizes .....

Number of courses high .....

Number of Standard forms .....

Number of 90˚ corner forms .....

Number of 45˚ corners forms .....

Frost wall, number of courses .....

Step footing heights .....

Vertical rebar ..... @ .....

Horizontal rebar ..... @ .....

Concrete Volume .....

## PROJECT SECOND FLOOR

Total Linear feet .....

Finished ceiling height .....

Form size or sizes .....

Number of courses high .....

Number of Standard forms .....

Number of 90˚ corner forms .....

Number of 45˚ corners forms .....

Frost wall, number of courses .....

Step footing heights .....

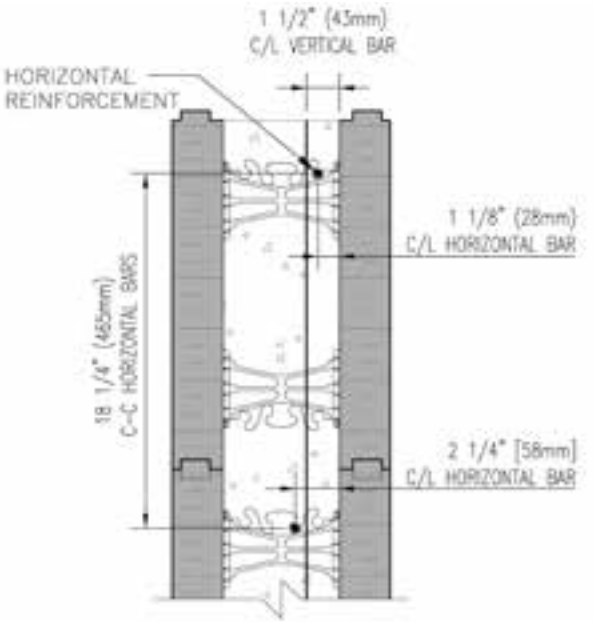
Vertical rebar ..... @ .....

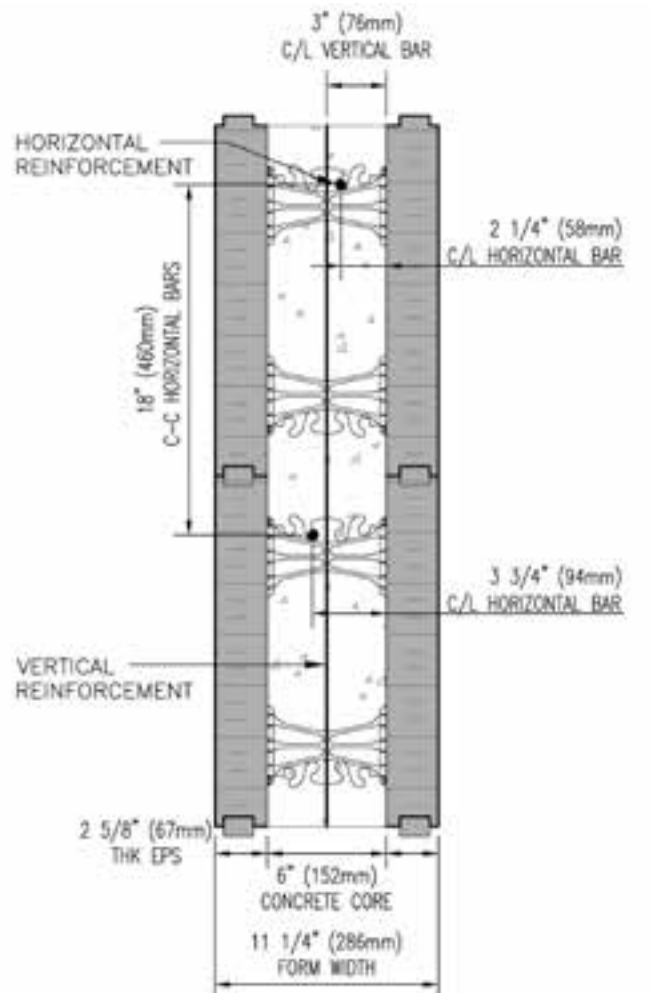
Horizontal rebar ..... @ .....

Concrete Volume .....

## REBAR CHECKLIST

- ☐ Below grade walls rebar on tension side (inside face)
- ☐ Above grade walls rebar in center of wall
- ☐ Lap splices length per applicable code (minimum 40 times bar diameter for 10M (#4))
- ☐ Dowels in cold joints
- ☐ Tie all contact lap splices Reinforcing spec - 6000 psi or 400 Grade
- ☐ Rebar layout per Architect/ Engineer spec. check plans



## SITE CHECKLIST

- ☐ Pre-planning for well organized site
- ☐ Adequate room for delivery of materials
- ☐ Product placement free from damage
- ☐ Level area for pump truck to reach all walls
- ☐ Access for concrete trucks
- ☐ Ensure all work-site hazards are marked
- ☐ NUDURA signage

## ICF TOOL CHECKLIST

- ☐ Safety equipment – boots, gloves, glasses, hard hats
- ☐ Pruning saw / hand saws
- ☐ Rubber mallet / hammer
- ☐ Foam guns
- ☐ Reinforcing cutter / bender
- ☐ Cordless drill and batteries
- ☐ Bolt cutters
- ☐ Rebar tie wire and pliers
- ☐ Hot knife
- ☐ Ladders
- ☐ Screws and fasteners
- ☐ Utility knife

## FORM PLACEMENT CHECKLIST

- ☐ Locate forms and rebar around interior of project for efficient installation (6' min. away from wall)
- ☐ Start at corners and work toward center of wall
- ☐ Ensure each form snap-locks together
- ☐ Cut on cut lines to maintain interlock
- ☐ Use vertical joints clips 8 per corner first course, top every connection first course, top of corners only for remaining courses
- ☐ Install FormLock in 2nd and top course
- ☐ Install horizontal rebar in each course as placed
- ☐ Alternate location of horizontal rebar per course
- ☐ Level and straighten the wall after 2nd course is set
- ☐ Spray foam forms to footing
- ☐ Install alignment systems after 3rd course installed
- ☐ Form cuts with over 4" (100mm) of EPS from a web require strapping on both sides of wall
- ☐ Vertical stack joints require additional strapping both sides of wall
- ☐ Install vertical rebar from top of wall, weave between horizontal rebar
- ☐ Install opening bucks, check rough opening sizes
- ☐ Install opening rebar as per plans / specifications
- ☐ Check dimensions and levels at top of wall

## CONCRETE PRE-PLACEMENT CHECKLIST

- ☐ Review all wall dimensions per plan requirements
- ☐ Has additional support/strapping been installed
- ☐ Is rebar installed per plans and in correct locations
- ☐ Are all openings reinforced correctly
- ☐ Is NUDURA alignment installed correctly
- ☐ Are all opening bucks supported
- ☐ Do all bucks have anchorage into the concrete
- ☐ Embedments and floor system connectors installed
- ☐ Check all service penetration sleeves
- ☐ Are T-Forms braced
- ☐ Beam pockets installed
- ☐ String line installed and ready at top of wall
- ☐ Use alignment system to straighten walls and adjust walls by tilting inward by ½”(12mm)
- ☐ Is top form interlock protected with tape
- ☐ Check interior of wall cavity is clear of snow and ice
- ☐ Are dowels cut and ready for wet set installation
- ☐ Are concrete tools ready – towel, vibrator,
- ☐ Does pumptruck have a reducer and 90° elbow
- ☐ Co-ordinate signals with pump truck driver
- ☐ Have materials ready if blow-out occurs

## CONCRETE PLACEMENT CHECKLIST

- ☐ Confirm weather conditions are suitable for concrete placement- too cold, too hot, high winds, rain.
- ☐ Check concrete quantities
- ☐ Estimate placement timing and co-ordinate delivery times per load
- ☐ Confirm concrete slump - 5" to 6"
- ☐ Minimum strength 20MPa (2900psi)
- ☐ Co-ordinate placement plan with pump truck driver
- ☐ Does everyone have safety equipment on
- ☐ Vibrator max size 1" (25mm)
- ☐ Check vibrator is working and can reach all walls
- ☐ Place concrete in lifts of 4' (1.22m) per hour
- ☐ 2 man vibrating team following concrete placement
- ☐ Vibrate each lift, quickly in, pull out at rate of 1' (305mm) per second
- ☐ Consolidate around openings
- ☐ Let concrete flow into corners, do not pour concrete directly into corner form
- ☐ Terminate placement in center of longest wall
- ☐ Watch both sides of wall during placement and consolidation for possible problems

# CONCRETE POST PLACEMENT CHECKLIST

- [ ] Are top of walls trowelled to correct level
- [ ] If top of wall is a cold joint are dowels in place and top of concrete left rough
- [ ] Preliminarily straighten walls to string line
- [ ] Have all the walls and around openings been consolidated
- [ ] Check all opens and bucks are plumb
- [ ] Check all embedments, beam pockets and anchor bolts are installed and have not moved
- [ ] Clean concrete from interlock on top forms
- [ ] In cold weather protect concrete by insulating top of wall
- [ ] In unclement weather cover exposed concrete
- [ ] Clean alignment system of wet concrete
- [ ] Clean all concrete tools
- [ ] Once all cross checks are completed and workers have vacated alignment system, conduct final wall adjustment to straighten and plumb the walls using alignments system, string line, tape measure and laser level.
- [ ] Restrict access to site and alignment system once walls are complete

## PROJECT RESULTS LOG

| NUDURA Forms: | Size | Quantity |
|---|---|---|
| Basement | | |
| Main Floor | | |
| Second floor | | |
| TOTAL FORMS | | |

Total gross wall area .....

Total net wall area .....

Total volume of concrete .....

Crew size: .....

**<u>Man Hour Rate (MHR)</u>**

Estimated MHR: Estimated Total Hrs / Gross wall area

.....

Actual MHR: Actual Project Hrs / Gross wall area

.....

All material in this field guide may be expanded by referencing the NUDURA Installation Manual or the NUDURA website. This piece of literature is strictly to be used as a quick reference and does not take the place of the NUDURA Installation Manual.

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