

**GENERAL NOTES**

1. THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS.
2. DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA BUILDING CODE.
3. DESIGN LOADS:
  - Importance Factor: Wind (Iw) 1.0  
Snow (Is) 1.0  
Seismic (Ie) 1.0
  - Live Loads: Roof N/A  
Mezzanine N/A  
First Floor N/A
  - Ground Snow Load: N/A
  - Wind Load: Basic Wind Speed N/A mph (ASCE-7-10)  
Exposure Category N/A  
Wind Base Shears (for MFERS)Vx = N/A Vy = N/A

SEISMIC DESIGN CATEGORY **B**  
 Provide the following Seismic Design Parameters:  
 Occupancy Category (Table 1604.5) **II**  
 Spectral Response Acceleration **Ss** N/A **S1** N/A  
 Site Classification **D** (Field Test)  
 Basic structural system (check one)  
 \_\_\_ Bearing Wall \_\_\_ Dual w/ Special Moment Frame  
 \_\_\_ Building Frame \_\_\_ Dual w/ Intermediate R/C or Special Steel  
 \_\_\_ Moment Frame \_\_\_ Inverted Pendulum  
 Seismic base shear Vx = N/A Vy = N/A  
 Analysis Procedure \_\_\_ Simplified \_\_\_ X Equivalent Lateral Force \_\_\_ Modal  
 Architectural, Mechanical, Components anchored? **No**

LATERAL DESIGN CONTROL: Earthquake \_\_\_ Wind \_\_\_

SOIL BEARING CAPABILITIES:  
 Field Test (provide copy of test report) \_\_\_ psf  
 Presumptive Bearing Capacity \_\_\_ 2000 \_\_\_ psf  
 File size, type and capacity \_\_\_

4. ALL SAFETY REGULATIONS, METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING, BRACING AND FORMWORK, ETC. AS REQUIRED.
5. THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, THE SIZE AND LOCATION OF ALL SLEEVES, PADS, DEPRESSIONS, OPENINGS, ETC.
6. DIMENSIONS ARE NOT TO BE DERIVED BY SCALING THESE DRAWINGS. IF THERE IS ANY QUESTION ABOUT DETAILS OR DIMENSIONS, CONTACT THE ARCHITECT AND ENGINEER FOR CLARIFICATION.
7. IF ANY BIDDER IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DOCUMENTS, THEY SHALL REQUEST AN INTERPRETATION FROM THE ARCHITECT IN WRITING.

**FOUNDATIONS**

1. ALLOWABLE SOIL BEARING IS STATED ON THE FOUNDATION PLANS.
2. BACKFILLING SHALL BE PERFORMED IN EQUAL LIFTS AROUND THE BUILDING PERIMETER TO BALANCE LATERAL EARTH PRESSURE ON THE BUILDING. WALK BEHIND COMPACTION EQUIPMENT IS REQUIRED WITHIN A DISTANCE OF TWO TIMES THE WALL HEIGHT.
3. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL IN WRITING. THE CONTRACTOR SHALL LOCATE ANY EXISTING UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION.

**CONCRETE**

1. ALL CONCRETE WORK TO BE DONE IN ACCORDANCE WITH THE CODE REFERENCED EDITION OF ACI 318: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"

2. CONCRETE MIX DESIGN REQUIREMENTS AND COMPRESSIVE STRENGTH AT 28 DAYS:

DESCRIPTION	28 DAY STRENGTH (PSI)	WEIGHT PER CUBIC FOOT (PCF)	SUMP AT POINT OF PLACEMENT	AGGREGATE	% AIR
FOOTING AND FOUNDATION WALLS	3000	145	4" ± 1"	ASTM C33	3
SLAB ON GRADE	3000	145	4" ± 1"	ASTM C33	3
COMPOSITE FLOOR TOPPING (LIGHT WEIGHT)	3500	110	5" ± 1"	ASTM C930	3

FLY ASH SHALL BE LIMITED TO 20% OF THE TOTAL CEMENTITIOUS MATERIAL WEIGHT, WATER REDUCING ADMIXTURES MAY BE USED TO ACHIEVE SLUMP REQUIREMENTS.

3. SEE ARCHITECTURAL DOCUMENTS FOR JOINT SIZES AND FILLER MATERIALS.
4. LOCATION OF ALL CONSTRUCTION JOINTS, EXCLUDING SLABS ON GRADE, SHALL BE COORDINATED WITH STRUCTURAL ENGINEER.
5. ALL EXPOSED CONCRETE CORNERS SHALL HAVE A 3/8" CHAMFER, UNLESS NOTED OTHERWISE BY THE ARCHITECT.
6. SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER SHOWING PROPOSED LOCATIONS OF ANY MATERIAL SUCH AS BUT NOT LIMITED TO CONDUITS, EMBEDMENTS, OR FIXTURES TO BE PLACED INSIDE ANY STRUCTURAL CONCRETE MEMBER SUCH AS BEAMS, WALLS, SLABS, COLUMNS OR FOOTINGS.
7. UNLESS SPECIFIED OTHERWISE IN THE SPECIFICATION, TESTING OF CONCRETE SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF ACI 318 SECTION 5.6 "EVALUATION AND ACCEPTANCE OF CONCRETE."

PROCEDURE	REFERENCE SECTION
PREPARATION	ACI 304 - "GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE"
CONVEYING	ACI 318 SECTION 5.9 - "CONVEYING"
DEPOSITING	ACI 318 SECTION 5.10 - "DEPOSITING"
CONSOLIDATION	ACI 309 - "GUIDE FOR CONSOLIDATION OF CONCRETE"
CURING	ACI 308 - "STANDARD PRACTICE FOR CURING CONCRETE"
HOT WEATHER CONCRETING	ACI 305 - "HOT WEATHER CONCRETING"
COLD WEATHER CONCRETING	ACI 306 - "COLD WEATHER CONCRETING"

**REINFORCING STEEL**

1. REINFORCING STEEL SHALL BE NEW BILLET STEEL, DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
2. WELDED WIRE FABRIC SHALL BE SHEETS OF NEW BILLET STEEL COLD DRAWN, CONFORMING TO ASTM SPECIFICATION A92, GRADE 60.
3. BAR SUPPORTS, DESIGN, DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 318 AND "THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315.
4. SPLICES FOR CONTINUOUS BARS SHALL BE CLASS B, UNLESS NOTED OTHERWISE, WELDED WIRE FABRIC SHALL BE LAPPED 12" MINIMUM.
5. MINIMUM CONCRETE COVERAGE SHALL BE AS FOLLOWS. IF STIRRUPS, TIES OR SPIRALS ARE USED, COVERAGE SHALL BE THE OUTERMOST FACE OF THE ELEMENTS.
  - A. FOOTINGS, CAISSONS, AND OTHER MEMBERS WHERE CONCRETE IS DEPOSITED AGAINST SOIL (EXCEPT SLABS ON GRADE.) 3"
  - B. CONCRETE EXPOSED TO WEATHER OR SOIL
    - #6 BAR AND LARGER: 2"
    - #5 BAR AND SMALLER: 1 1/2"
  - C. CONCRETE NOT EXPOSED TO WEATHER OR SOIL (SLABS, WALLS, JOISTS)
    - #14 BAR AND LARGER: 1 1/2"
    - #11 BAR AND SMALLER: 1"
6. WALL FOOTING REINFORCEMENT SHALL BE CONTINUOUS THROUGH COLUMN FOOTING.
7. PROVIDE DOWELS IN WALL FOOTING TO MATCH WALL VERTICALS UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE CLASS B SPLICE. USE STANDARD ACI 90° HOOK WITH 3" CLEAR TO BOTTOM OF FOOTING UNLESS NOTED OTHERWISE.

**NOTICE TO CONTRACTOR**  
 All construction must comply with current NC Building Codes and is subject to field inspection and verification.

Reviewed for Code Compliance

01/13/2022

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Corp. License Number C-2550

NORTH CAROLINA  
 PROFESSIONAL  
 SEAL  
 029455  
 THOMAS B. HARRIS  
 ENGINEER  
 SEAL DATE: 11-15-2021

Martinez Commercial Properties, LLC  
 308 Jarco Dr.  
 Fuquay-Varina, NC

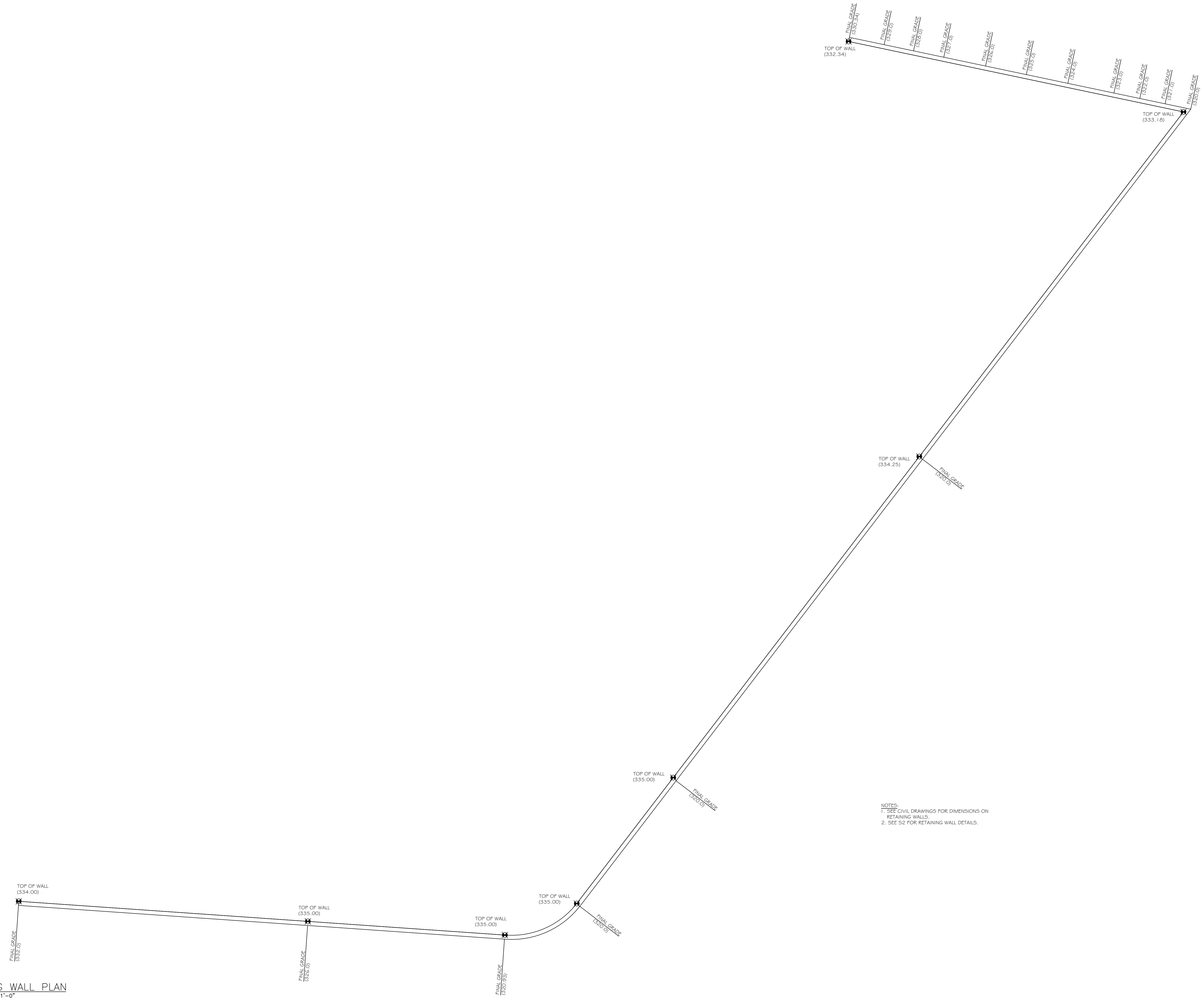
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GENERAL NOTES

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NOTES:  
1. SEE CIVIL DRAWINGS FOR DIMENSIONS ON RETAINING WALLS.  
2. SEE S2 FOR RETAINING WALL DETAILS.

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308 Jarco Dr.  
Fuquay-Varina, NC

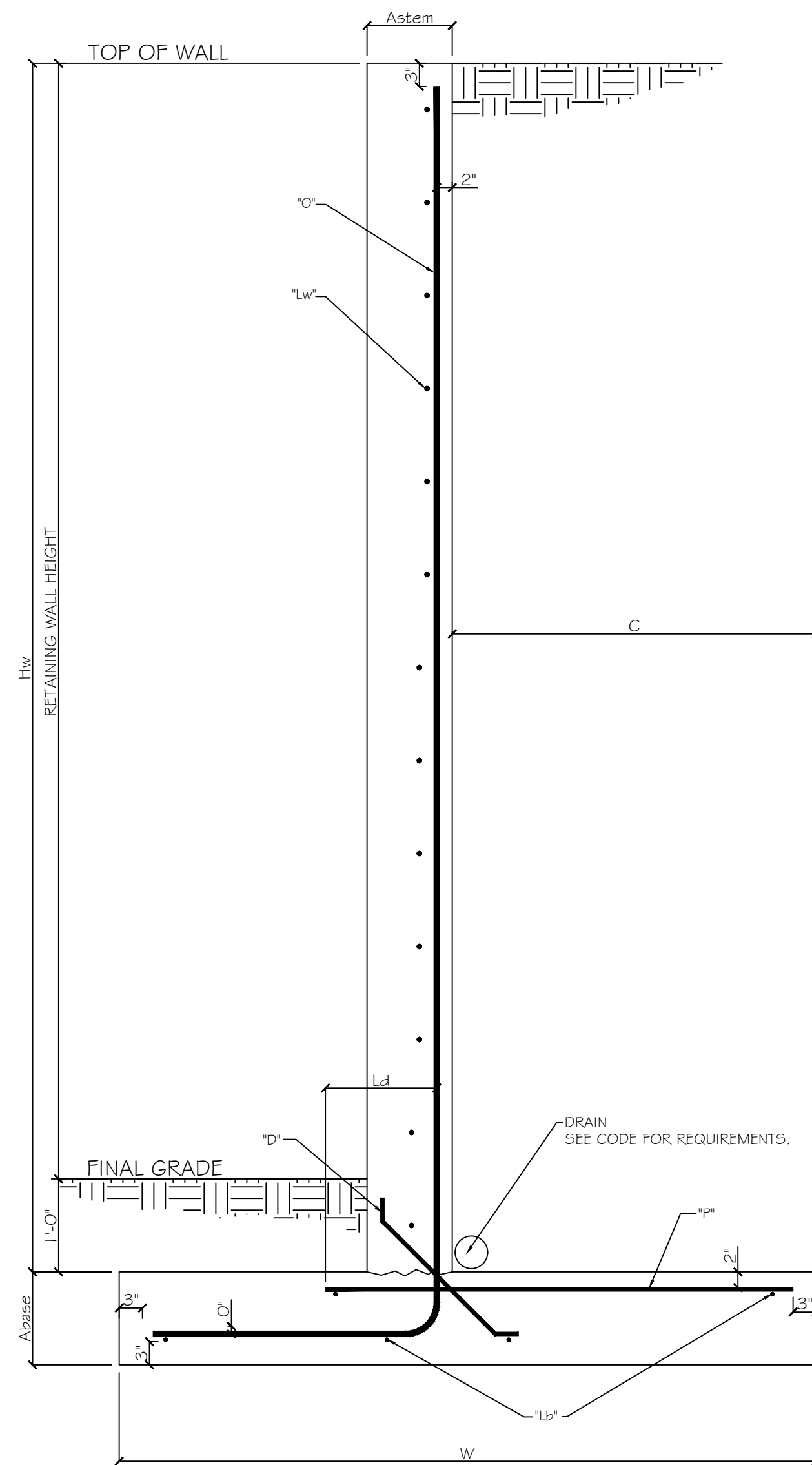
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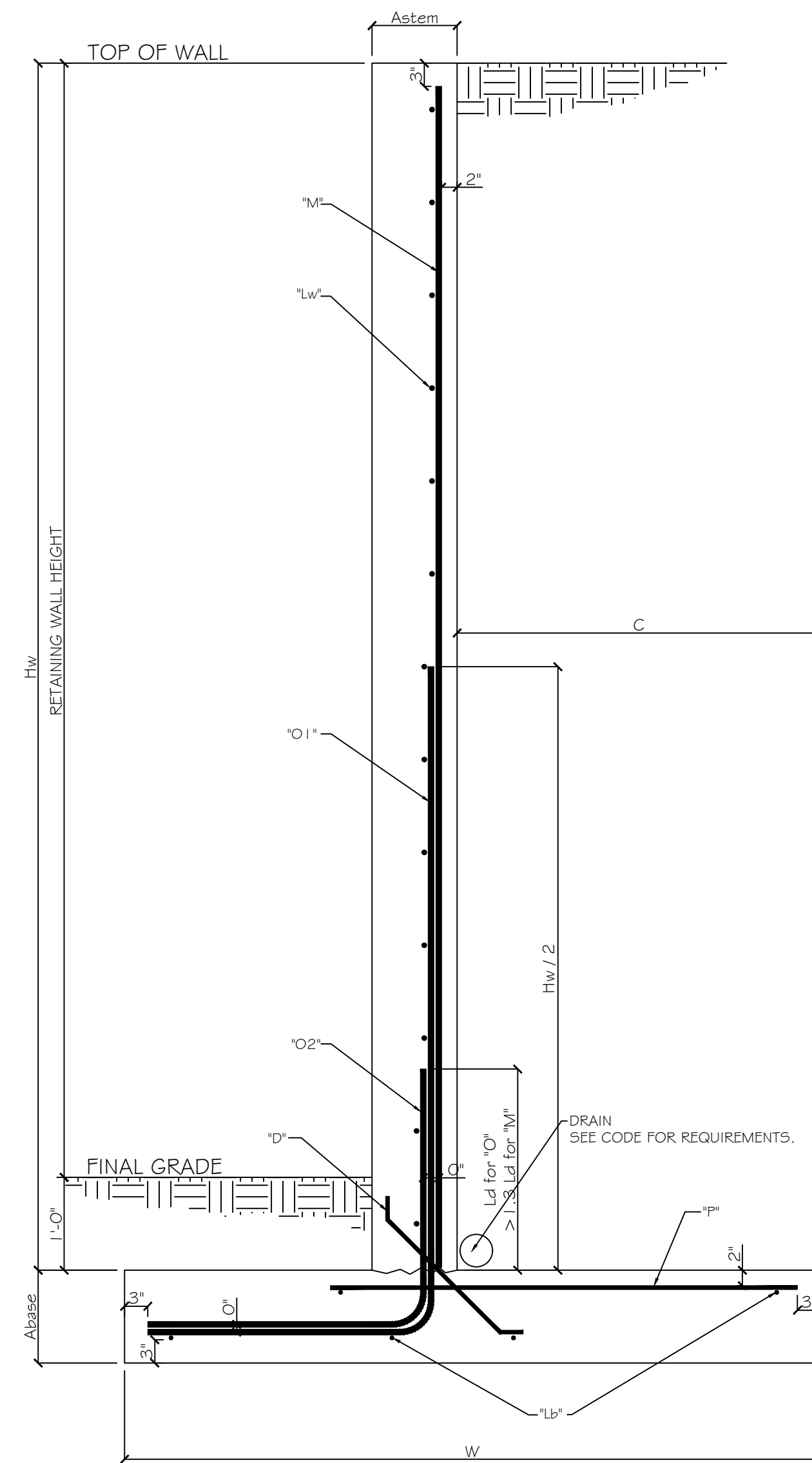
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RETAINING WALL PLAN

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**S1**



CANTILEVERED RETAINING WALL DETAIL

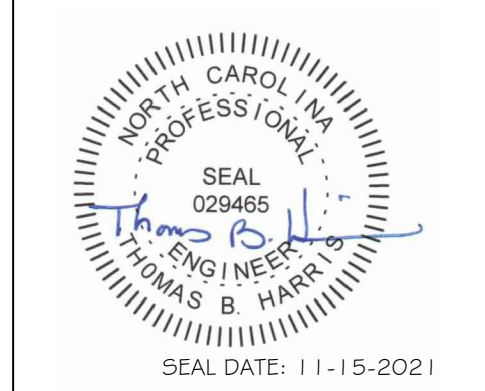
Hw	Astem	C	W	Abase	"O"	DOES NOT GO INTO STEM	"M" BARS	"D" BARS	"Lw" BARS	"T" BARS	"Lb" BARS	"K" BARS
ft.	in.	ft-in.	ft-in.	in.	Size @ in.	ft-in.	Size @ in.	Size @ in.	Size @ in.	Size @ in.	No. Size	Size @ in.
3	8	1'-0"	2'-8"	12	#4 @ 9"	None	None	#4 @ 9"	#4 @ 12"	#4 @ 9"ik	5 #4	None
4	8	1'-0"	2'-8"	12	#4 @ 9"	None	None	#4 @ 9"	#4 @ 12"	#4 @ 9"ik	5 #4	None
5	8	1'-6"	3'-2"	12	#4 @ 9"	None	None	#4 @ 9"	#4 @ 12"	#4 @ 9"	5 #4	None
6	8	1'-8"	3'-7"	12	#4 @ 9"	None	None	#4 @ 9"	#4 @ 12"	#4 @ 9"	5 #4	None
7	8	2'-4"	4'-5"	12	#4 @ 9"	None	None	#4 @ 9"	#4 @ 12"	#4 @ 9"	6 #4	None
8	8	3'-0"	5'-4"	12	#4 @ 9"	None	None	#4 @ 9"	#4 @ 12"	#4 @ 9"	7 #4	None
9	8	3'-8"	6'-2"	12	#7 @ 18"	None	None	#4 @ 18"	#4 @ 12"	#6 @ 18"	8 #4	None
10	8	4'-2"	6'-10"	12	#8 @ 18"	None	None	#4 @ 18"	#4 @ 12"	#6 @ 18"	9 #4	None



CANTILEVERED RETAINING WALL DETAIL

Hw	Astem	C	W	Abase	"O1"	"O2"	DOES NOT GO INTO STEM	"M" BARS	"D" BARS	"Lw" BARS	"T" BARS	"Lb" BARS	"K" BARS
ft.	in.	ft-in.	ft-in.	in.	Size @ in.	Size @ in.	ft-in.	Size @ in.	Size @ in.	Size @ in.	No. Size	Size @ in.	
11	10	4'-8"	7'-9"	12	#6 @ 18"	#6 @ 18"	2'-2"	#6 @ 18"	#4 @ 9"	#5 @ 12"	#4 @ 9"	7 #5	None
12	11	5'-2"	8'-6"	12	#6 @ 18"	#6 @ 18"	2'-2"	#6 @ 18"	#4 @ 9"	#5 @ 12"	#5 @ 9"	5 #6	None
13	12	5'-8"	9'-4"	12	#7 @ 18"	#7 @ 18"	2'-5"	#6 @ 18"	#4 @ 9"	#5 @ 12"	#5 @ 9"	8 #5	None
14	13	6'-2"	10'-1"	14	#7 @ 18"	#7 @ 18"	2'-5"	#6 @ 18"	#4 @ 9"	#6 @ 12"	#6 @ 9"	7 #6	None
15	14	6'-8"	10'-10"	14	#6 @ 12"	#6 @ 12"	1'-10"	#5 @ 12"	#4 @ 6"	#6 @ 12"	#5 @ 6"	11 #5	None
16	15	7'-1"	11'-7"	16	#8 @ 18"	#8 @ 18"	3'-2"	#7 @ 18"	#5 @ 9"	#6 @ 11"	#6 @ 9"	13 #5	None

ELEVATION - WALL BARS



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RETAINING WALL DETAILS