



CITY OF WEST LAKE HILLS, TEXAS
NOTICE OF BOARD OF ADJUSTMENT (BOA) REGULAR MEETING
Wednesday, May 10, 2023 at 7:00 PM

Notice is hereby given that the Board of Adjustment (BOA) of the City of West Lake Hills, Texas, will hold a Regular Meeting on the 10th day of May 2023 at 7:00 p.m., in the Council Chamber, Municipal Building, 911 Westlake Drive, West Lake Hills, Texas, at which time the following items will be discussed, to-wit:

REMOTE ACCESS:

Due to the COVID-19 status in Travis County, any citizens or applicants that wish to speak at the meeting are encouraged to attend virtually, as the number of people in the chambers will be limited due to physical distancing. Facial Coverings are not required, but highly recommended, and will be available for any that need one.

Join Zoom Meeting:

<https://us02web.zoom.us/j/3499549035>

Meeting ID: 349 954 9035

If you wish to listen to the meeting via telephone: Dial (346) 248-7799, Meeting ID 349 954 9035.

If you wish to speak during the meeting or provide written comments, please email your name, phone number, comments, and the item number you wish to speak on to citysec@westlakehills.gov by 1:00 P.M. on May 10, 2023.

1. Call to Order
2. Citizen Communications The Board of Adjustments welcomes public comments at this point on any issue. If the issue is listed on the agenda, the speaker may choose to comment during the Public Comment period or when the specific agenda item is taken up by the BOA later in the meeting. The BOA cannot respond to or discuss matters not listed on the agenda. The BOA may provide factual information, refer the item to a staff member, or request the item be added to a future meeting agenda. Speakers shall limit their comments to five (5) minutes each.
3. Consent Agenda All Consent Agenda items listed are considered to be routine by the BOA and will be enacted by one (1) motion. No separate discussion or action on any of the items

is necessary unless requested by a BOA Member.

- a. Approval of the March 8, 2023 Regular Meeting Minutes.
4. **Ordinance 4 Martelli Lane:** Discuss and consider action to adopt an ordinance for a Special Use Permit request to allow for guest quarters located on a property Zoned R-1 Residential 1 (West Lake Hills Code, Section 38.03.032(c)(1)). Applicant Foursquare Builders, LLC.
 - a. Public Hearing: All persons wishing to speak for or against shall be heard.
5. Adjournment

Approved by: Linda Anthony, Chair

Certificate

I certify that the above Notice of the May 10, 2023 Board of Adjustment Regular Meeting was posted on the bulletin board at the Municipal Building, 911 Westlake Drive, West Lake Hills, Texas on Friday, May 5, 2023 by 5:00 pm. and will remain posted continuously until said meeting is convened.

Signed by: Terry Blanchard, City Secretary

The City of West Lake Hills is committed to compliance with the Americans with Disabilities Act. Reasonable accommodation and equal access to communications will be provided upon request.

All items on the agenda are for discussion and/or action. The Board of Adjustment reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by Texas Government Code Sections 551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices), and 551.086 (Economic Development).

CITY OF WEST LAKE HILLS, TEXAS
MINUTES OF A BOARD OF ADJUSTMENT (BOA) REGULAR MEETING
Wednesday, March 8, 2023 at 7:00 PM

1. Call to Order

With a quorum present, Chair Anthony called the meeting to order at 7:00 p.m.

BOARD MEMBERS PRESENT:

Chair Linda Anthony
Gordon Bowman
Brian Plunkett
Beth South
Darin Walker

CITY STAFF PRESENT:

City Administrator Trey Fletcher
City Secretary Terry Blanchard
Director of BDS Ashby Grundman
Chief of Police Scott Gerdes
City Attorney Patty Akers

2. Citizen Communications The City Council welcomes public comments at this point on any issue. If the issue is listed on the agenda, the speaker may choose to comment during the Public Comment period or when the specific agenda item is taken up by the Council later in the meeting. The Council cannot respond to or discuss matters not listed on the agenda. The Council may provide factual information, refer the item to a staff member, or request the item be added to a future meeting agenda. Speakers shall limit their comments to five (5) minutes each.

Chair Anthony opened the meeting for public comments. Hearing none, the public comment section was closed.

3. Consent Agenda All Consent Agenda items listed are considered to be routine by the Board of Adjustment and will be enacted by one (1) motion. No separate discussion or action on any of the items is necessary unless requested by a Board Member.

- a. Approval of the February 8, 2023 Regular Meeting Minutes.

MOTION: Upon a motion made by Board Member Walker and a second by Board Member South, the Board voted four (4) for and none (0) opposed with one (1) abstention to approve the consent agenda as presented. Board Member Plunkett abstained. Motion carried.

4. Land Use 5002 Jeffery Place: Discuss and consider action on a variance request to exceed the maximum allowed impervious cover for a pool and deck remodel (Section 22.03.281 of the West Lake Hills Code). Applicant Neelam Julian.

MOTION: Upon a motion made by Board Member Walker and a second by Board Member South, the Board voted five (5) for and none (0) opposed to approve the

variance request as presented. Motion carried.

5. Land Use 800 Ox Eye Trail: Discuss and consider action on a variance to exceed the maximum allowed cut in a building setback for a driveway (Section 22.03.170 of the West Lake Hills Code). Applicants David Magstadt and Biljana Bosanac.

MOTION: Upon a motion made by Board Member Walker and a second by Board Member Plunkett, the Board voted four (4) for and one (1) opposed to deny variance request and ask applicants to scale back size of home to better fit the site. Voting for the motion were Board Members Bowman, Plunkett, Walker, and Anthony. Voting against was Board Member South. Motion carried.

6. Land Use 4015 Bee Cave Road: Discuss and consider action on a variance request for a building setback encroachment for a wooden pedestrian bridge (Section 22.03.281 of the West Lake Hills Code). Applicant Chris Seebach with Trinity Episcopal School.

MOTION: Upon a motion made by Board Member Plunkett and a second by Board Member South, the Board voted five (5) for and none (0) opposed to approve the variance request as presented. Motion carried.

7. Land Use 3901 Bee Cave Road: Discuss and consider action on a variance to maintain an elevated walkway between two school properties (Section 22.03.281 of the West Lake Hills Code). Applicant Trinity Episcopal School.

MOTION: Upon a motion made by Board Member Plunkett and a second by Board Member South, the Board voted five (5) for and none (0) opposed to approve the variance request as presented. Motion carried.

8. Adjournment

MOTION: Upon a motion made by Board Member Walker and a second by Board Member Plunkett, the Board voted five (5) for and none (0) opposed to adjourn the meeting at 7:45 p.m. Motion carried.

Respectfully submitted,

LINDA ANTHONY, MAYOR

ATTEST:

Terry Blanchard, TRMC
City Secretary

These minutes were approved on May 10, 2023.



City of West Lake Hills Board of Zoning Appeals

AGENDA REPORT

Meeting Date:	May 10, 2023	Item Number:	
Department:	Building and Development Services		
Prepared By:	Jennifer Bills	Cost / Budget:	None
Exhibits:	See Attached	Source of Funds:	N/A

Subject

4 Martelli Lane – Discussion/Recommendation on a variance to construct a guest quarters on the property. The guest quarters will be 647 sf (Section 38.03.032 of the West Lake Hills Code). Applicants John and Robbi Constantine.

Recommendation

Staff recommend approval of the variances as proposed.

Discussion

Property Information, Zoning & Site Characteristics:

Owner: John and Robbi Constantine
Legal Description: Wild Cat Hollow Subd. Lot 2
Lot Size: 1.077 acres (46,913 square feet)
Zoning: R1 – One Family Residential

The site is surrounded by a single-family residential property on all sides.

Background & Analysis:

The property owners are requesting a Special Use Permit to construct a 647-sf accessory structure that will serve as guest quarters.

SUP Criteria & Analysis:

(1) The appearance, size, density and operating characteristics of the proposed special use are compatible with the surrounding neighborhood and uses;

This unit is architecturally designed in unison with the residence as both are new structures. The appearance is congruent with the residence. The size and appearance fits with the home and will be unrecognizable as a detached unit. The architecture meets the requirements of the Wildcat Club architectural control requirements.

(2) The proposed use will not have an adverse effect on the value of surrounding properties or impede their proper development.

The unit will have no adverse effect on the value of the surrounding properties as it blends with the new residence at 4 Martelli Ln and will actually increase its value.

(3) The proposed use will not create a nuisance factor or otherwise interfere with a neighbor's enjoyment of the neighbor's property or operation of the neighbor's business.

The unit is situated in the front auto court of the new residence and will not interfere with the neighbor's enjoyment of their property.

(4) The traffic that the proposed use can reasonably be expected to generate on existing streets will not create or add significantly to congestion, a safety hazard, or a parking problem in the area, nor will it disturb the peace and quiet of the neighborhood; and

As this is a private guest house which has its own carport there will not be any additional congestion or safety hazards or parking problems within the Wildcat Club neighborhood. The access utilizes the driveway of the residence.

(5) The proposed use shall comply with all other applicable ordinances and regulations.

Yes. This guest house meets the maximum square footage requirements and set back requirements.

Outdoor Lighting

Any outdoor lighting will need to comply with the City's Code.

Compliance with Adopted Uniform Building Code

The property and future construction will have to comply with all applicable City codes.

Subdivision

Wild Cat Hollow Subdivision Lot 2.

Comprehensive Planning Analysis

The existing and future land use is in conformance with the City of West Lake Hills Master Plan.

Links to Relevant Code:

<https://ecode360.com/40401696?highlight=&searchId=43102702040301320#4040169>

WILDCAT CLUB SUBDIVISION

IN THE CITY OF WEST LAKE HILLS, HENNES COUNTY, TEXAS

LINE TABLE			LINE TABLE			LINE TABLE		
LINE	DIRECTION	DISTANCE	LINE	DIRECTION	DISTANCE	LINE	DIRECTION	DISTANCE
L1	S32°02'02"E	148.62	L23	N52°55'58"W	136.30	L45	S02°02'02"E	80.50
L2	S89°30'00"E	88.49	L24	S71°13'00"W	148.80	L46	N07°33'38"E	43.97
L3	N63°37'37"E	138.94	L25	S38°16'10"W	125.52	L47	N07°38'38"E	124.88
L4	N64°50'08"E	73.69	L26	N01°22'00"W	117.70	L48	N01°34'38"E	126.49
L5	N23°08'04"E	85.17	L27	S30°16'10"W	61.79	L49	N08°34'38"E	80.02
L6	N72°37'38"E	138.82	L28	S30°13'00"W	46.39	L50	S27°29'37"W	128.98
L7	N50°22'08"E	57.42	L29	N02°40'44"E	60.84	L51	S34°59'19"W	37.97
L8	N47°12'27"E	46.47	L30	N01°22'00"W	71.38	L52	S34°59'19"W	83.95
L9	N12°06'58"E	88.89	L31	N01°22'00"W	196.89	L53	S27°30'07"W	43.97
L10	S44°27'49"W	52.27	L32	N45°30'47"W	90.39	L54	S44°12'30"W	14.99
L11	N07°34'37"E	121.21	L33	S30°13'00"W	180.82	L55	S32°02'02"E	18.02
L12	S11°58'45"E	83.99	L34	N01°22'00"W	196.89	L56	S34°17'23"W	37.12
L13	S30°45'08"E	99.69	L35	S30°02'44"W	119.28	L57	S30°14'40"W	44.27
L14	S44°11'58"E	87.47	L36	N45°16'08"W	21.23	L58	S30°16'10"E	14.71
L15	N08°42'28"W	28.49	L37	S44°30'00"W	60.89	L59	S34°38'48"W	18.00
L16	N40°18'15"W	138.90	L38	S08°18'57"E	300.83	L60	N05°10'11"W	14.72
L17	N20°28'30"W	34.78	L39	N40°12'28"W	88.18	L61	S30°14'40"W	18.00
L18	S20°08'08"W	38.52	L40	N30°08'08"W	82.18	L62	S20°08'08"W	128.12
L19	N17°09'07"E	95.32	L41	N03°12'52"E	45.83	L63	N48°12'51"W	15.00
L20	S30°38'18"E	104.42	L42	N01°22'00"W	30.77	L64	N29°57'08"E	128.69
L21	N41°28'37"W	280.42	L43	S07°22'17"E	20.89	L65	N30°17'08"E	73.27
L22	N19°46'28"E	187.80	L44	N05°41'18"W	20.89	L66	N54°42'28"E	80.52

NOTES:
1.) ALL BEARINGS SHOWN HEREON ARE BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, CENTRAL ZONE.



LOT SUMMARY TABLE		
LOT NO.	ACRES	SQUARE FEET
1	1.077	46,913
2	1.002	43,663
3	2.778	121,027
4	1.698	73,978
5	1.406	61,233
6	1.093	47,617
7	1.179	51,360
8	2.072	90,239
TOTAL	12.306	538,029

Aerial:



Approved By

Signature

Date

Department Head

Jennifer C. Bills

May 5, 2023

Signature

Date _____

City Administrator

SPECIAL USE PERMIT 157-2023-A

A PERMIT SETTING FORTH THE CONDITIONS UNDER WHICH A SPECIAL USE PERMIT SHALL BE PERMITTED AND AUTHORIZING THE CITY ADMINISTRATOR TO NOTE THE CHANGE ON THE OFFICIAL ZONING MAP OF THE CITY.

WHEREAS, Foursquare Builders, LLC, owners of the herein described parcel of land at **4 Martelli Lane**, has requested a Special Use Permit for a guest quarters; and

WHEREAS, the notice as required by Section 38.04.032 of the West Lake Hills Code of Ordinances has been given to adjacent property owners; and

WHEREAS, Public Hearings have been held by the Board of Adjustment as required by law; and

WHEREAS, there has not been a valid objection in the Public Hearings or a written protest submitted against the proposed Special Use Permit; and

WHEREAS, the Board of Adjustment find that the application for Special Use Permit meets the requirements of Sections 38.03.032 and 38.04.031 of the West Lake Hills Code; and

WHEREAS, the Board of Adjustment at its Public Hearing finds that the Special Use Permit on the herein described parcel is not against the public interest;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ADJUSTMENT OF THE CITY OF WEST LAKE HILLS, TEXAS:

Article 1. The legal description of said parcel of land is as follows:

THE WILD CAT HOLLOW SUBD, LOT 2

Article 2. The permit is granted under the following general terms and conditions:

1. The use shall not require change in the character or exterior appearance of the principal residential unit;
2. The Special Use shall not create a nuisances or otherwise interfere with any neighbor's reasonable enjoyment of the neighbor's property;
3. The Special Use shall not have an adverse effect on the value of surrounding properties nor impede their proper development;
4. No signs are permitted on the parcel except as permitted under the provisions of Chapter 32 of the West Lake Hills Code; and
5. All representations, whether oral or written, made by the owner, or his agent, in support of a Special Use Permit are conditions upon which this permit is granted.

Article 3. The duration of this Special Use Permit shall be for two (2) years from the effective date hereon.

Article 4. This Special Use Permit may be renewed for two (2) year periods at the discretion of the City Administrator provided no written complaints have been received during the use period. When complaints have been registered, the applicant can seek renewal approval from the Board of Adjustment.

Article 5. This Special Use Permit for a guest quarters is granted to Foursquare Builders, LLC, property owners, allowing a guest quarters at 4 Martelli Lane.

Article 6. This Special Use Permit is not transferable to another person or another parcel of land.

Article 7. The Board of Adjustment after notice and Public Hearing, may revoke this Special Use Permit for one or more of the following reasons:

1. A violation of any of the representations, plans, terms, general or special conditions, and limitations applicable to this Special Use Permit;
2. A violation of any applicable ordinance or regulation;
3. A change in the nature of the use without prior approval of the City; or
4. Operation or maintenance of the Special Use Permit in a manner that is detrimental to the public health or safety, or so as to constitute a nuisance.

Article 8. The application form entitled "Special Use Permit Form" along with any supporting correspondence and documents, and marked as Exhibit "A" attached hereto are incorporated herein by reference for all pertinent purposes.

Article 9. The City Administrator is hereby authorized and shall promptly note the change on the Official Zoning Map of the City of West Lake Hills, Texas. The Zoning Map shall indicate that there is a Special Use Permit for 4 Martelli Lane..

Article 10. This Special Use Permit shall become effective on the 10th day of May, 2023.

PASSED AND APPROVED this 10th day of May, 2023.

LINDA ANTHONY, CHAIRWOMAN
BOARD OF ADJUSTMENT
CITY OF WEST LAKE HILLS, TEXAS

ATTEST:

Terry Blanchard, City Secretary

I/We acknowledge receipt of this SUP and agree to abide by its terms and conditions.

Foursquare Builders, LLC

NOTICE TO NEIGHBORS OF VARIANCE REQUESTS

DATE OF NOTICE: April 11, 2023

Greetings. You are hereby notified that **Foursquare Builders, LLC**, the recorded owner of a property located at **4 Martelli Lane** in the City of West Lake Hills, Texas have filed an Application with the City of West Lake Hills, Texas requesting variances according to the following Sections of the City's Code of Ordinances:

- **Section 38.03.032(c)(1) – R1 One-Family Residential Special Use – guest quarters**

The request is so that the property owners may: **Construct a guest quarters.**

This application is scheduled to be considered at a public hearing held by the City BOA on **May 10, 2023 at 7:00 p.m.** at West Lake Hills City Hall, located at 911 Westlake Drive, West Lake Hills, Texas. Please review the agenda packet, which will be posted online at <https://www.westlakehills.org/281/Agendas-Minutes> the Friday before the meetings by 5:00 p.m., to view the application and instructions on how to participate in the meetings. There shall include an opportunity for all interested persons to be heard. Please call City Hall at 512-327-3628 or email pzsec@westlakehills.gov if you have any questions. Thank you!



Mark Littrell, Zoning & Planning Secretary

41 41 Matthew Jones

Property Address	First Name	Last Name	Mailing Address 1	City	State	ZIP
Lot 7, Juniper Ridge	Juniper Ridge Home	Owners Assn.	1501 Wild Cat Hollow	West Lake Hills	Texas	78746
410 Skyline	Christopher	Gunter	410 Skyline Drive	West Lake Hills	Texas	78746
406 Skyline	Steven & Janice	Margolin	406 Skyline Drive	West Lake Hills	Texas	78746
20 Nob Hill	Steven & Susan	Zinn	20 Nob Hill Circle	West Lake Hills	Texas	78746
1521 Wildcat	Scott & Laura	Carpenter	3405 Mt. Bonnell Road	Austin	Texas	78731
1519 Wildcat	Case & Lindsay	Fell	1519 Wild Cat Hollow	West Lake Hills	Texas	78746
1517 Wildcat	Andrew	Thiede	1517 Wild Cat Hollow	West Lake Hills	Texas	78746
1624 Westlake	Gretchen	Shartle	1624 Westlake Drive	West Lake Hills	Texas	78746
401 Terrace Mtn.	David	Altounian	401 Terrace Mountain Drive	West Lake Hills	Texas	78746
1801 Wildcat	Florian	Aigrain	700 Waterfront Drive	Pittsburgh	PA	15222

10



CONSTANTINE
Guest House

4 Martelli Lane, West Lake Hills, TX 78746

Client: JOHN & ROBBI CONSTANTINE

Issue Status: BUILDING PERMIT

Date 02.24.2023
:

Architect:
System D Architecture
3908 Avenue B - Room 208, Austin, TX 78751
p.210.912.4516

General Contractor:
Foursquare Builders
507 Walsh Street, Austin, TX 78703
p.512.922.7533

Structural Engineer:
DCI Engineers
515 S Congress Ave #600, Austin, TX 78704
p.512.472.9797

Mechanical Engineer:
Fresh Air HVAC Sizing
3306 Dalton St, Austin, TX, 78745
p.512.814.7638

Interior Designer:
FERN SANTINI
4414 Burnet Rd, Austin, TX 78756
p.512.300.2303

Civil Engineer:
TCMB Engineering
https://www.tcmb.engineering/
p.440.708.4121

Landscape:
Big Red Sun
1312 East Cesar Chavez Street Suite B
Austin, Texas 78702
p.512.480.0688

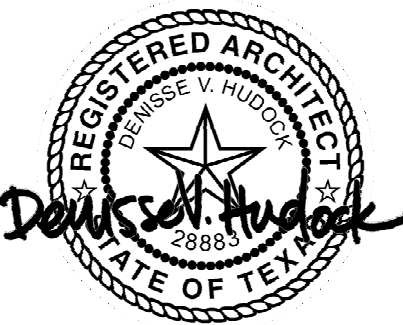
PROJECT DESCRIPTION:

PROJECT DESCRIPTION	CONSTRUCTION OF A GUEST HOUSE IN THE CITY OF WEST LAKE HILLS.
ADDRESS	4 MARTELLI LANE, CITY OF WEST LAKE HILLS, TX 78746
LEGAL DESCRIPTION	LOT 3, STONEHEDGE ESTATES-BLOCK N, A SUBDIVISION IN TRAVIS COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT OF RECORD IN VOLUME 8, PAGE 185, PLAT RECORDS OF TRAVIS COUNTY, TEXAS.
LOT SIZE	1.002 ACRES
CONSTRUCTION TYPE	V
USE CLASSIFICATION	R-1
ZONING	RESIDENTIAL
DEVELOPMENT TYPE	CITY OF WEST LAKE HILLS TYPE III
APPLICABLE CODES	2015 INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS(IRC) 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2015 INTERNATIONAL FIRE CODE (IFC) 2017 NATIONAL ELECTRICAL CODE (NEC) 2012 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE
CONDITIONED AREA BY LEVEL:	
GUEST SF:	647 SF
TOTAL:	647 SF

IMPERVIOUS COVER	
GUEST HOUSE:	654 SF
TOTAL IMPERVIOUS COVER:	654 SF
SITE AREA:	1.002 ACRES = 43,663 SF
% IMPERVIOUS PROPOSED:	24.83% - 10,845 SF
% IMPERVIOUS ALLOWED:	25% - 10,916 SF

NOTES:
1. Drainage will not adversely impact adjoining lots and any drainage that exits the lot onto an adjoining property will be directed to a common property pin
2. Surveyor shall locate all buildings & orientations of buildings based on Architects digital file.

FIRE PROTECTION CALCULATIONS:	
REFER TO FIRE PROTECTION NOTES FOR ADDITIONAL INFORMATION	
AVAILABLE HYDRANT FIRE FLOW:	2029 GPM. REFER TO FIRE FLOW TEST LETTER
MINIMUM REQUIRED FIRE FLOW:	2,500 GPM FOR HOMES 7,701-9,400 SQFT
EXISTING FIRE FLOW DEFICIENCY:	471 GPM
FIRE FLOW ADDITIONAL REDUCTIONS PER CITY OF WEST LAKE HILLS CODE 8.04.003	
-50% WITH PER 8.04.003(a) = 1,250 GPM	
TOTAL REDUCTION 50% FROM 2,500 GPM = 1,250 GPM < 2,029 GPM [OK]	





Project #

CONSTANTINE
RESIDENCE

4 Martelli Lane, West Lake
Hills, TX 78746

Client #

JOHN & ROBBIE
CONSTANTINE

Consultants #

General Contractor:
Fourquare Builders
501 Weber Street, Austin, TX 78703
p.512.922.7533

Mechanical Consultant:
Fossil Air HVAC, Inc.
3500 Oakton St., Austin, TX 78745
p.512.514.7000

Landscaper:
Big Red Sun
1312 East Cesar Chavez Street Suite B
Austin, Texas 78702
p.512.480.0909

Key Plan #

Project Name #

BUILDING PERMIT

Date #

02/24/2023

Revision History #

Any reproductions, alteration, modifications,
usage or incorporation into other documents
may not occur without the prior written
permission of System D, LLC.

© 2023 System D Architecture

Sheet Name #

SITE PLAN - TREE

TABLE

Sheet Number #

A101

TREE MITIGATION:

22.03.303(0) TREE VEGETATION REMOVAL AND REPLACEMENT

- (1) Trees of any species with a trunk diameter of less than six (6) inches do not require replacement.
(2) Conifer and Juniper trees (commonly referred to as "cedars") with a trunk diameter of less than
twelve (12) inches that are removed to establish a fire safety buffer zone in accordance with section
22.03.303(0)(2) do not require replacement.
(3) Non-native invasive species trees (s) or plants: Non-native invasive species trees, plants and
shrubs do not require replacement as long as the city administrator identifies them as
such and stipulates that no adverse effect of erosion will occur from their removal. In the case
of non-native invasive shrubs or understory that serve as secondary vegetative screening at
external perimeter of property, the city inspector may require replacement native vegetative
screening to be installed along the perimeter of the property when, at the city inspector's
discretion, the screening is necessary and reasonable to mitigate the community impact of
the loss of the removal and to maintain the visual feel of the neighborhood.
(4)(A) All trees with trunk diameters equal to or greater than six inches and less than fourteen (14) inches
must be replaced on a 75% basis. In such cases, the replacement trees planted must have trunk
diameters of at least two (2) inches. For example, if a twelve (12) inch tree is removed, then a total
of five (5) replacement inches must be planted using trees with a minimum trunk diameter of two (2) inches.

TREE TAG NO.	TREE TYPE	TREE TAG NO.	TREE TYPE
1106	11" CEDAR	1179	8" TWIN CEDAR
1109	12" CEDAR	1181	12" TRIPLE CEDAR
1112	12" TRIPLE CEDAR	1183	8" CEDAR
1116	8" CEDAR	1188	9" MULTI-CEDAR
1118	8" CEDAR	1208	9" TRIPLE CEDAR
1119	8" CEDAR	1209	10" TRIPLE CEDAR
1143	8" TWIN CEDAR	1211	11" MULTI-CEDAR
1144	9" TWIN CEDAR	1619	9" CEDAR
1145	13" TRIPLE CEDAR	1630	12" TWIN CEDAR
1148	8" TWIN LIVE OAK	1631	8" OAK
1152	12" TRIPLE CEDAR	1641	11" TWIN CEDAR
1153	8" TRIPLE CEDAR	2121	6" CEDAR
1154	11" TWIN CEDAR	2125	11" TWIN CEDAR
1156	11" MULTI-CEDAR	2283	10" TWIN CEDAR
1157	10" TRIPLE CEDAR	2284	8" CEDAR
1158	9" TWIN CEDAR	2290	10" CEDAR
1177	12" TWIN LIVE OAK	2308	9" TWIN CEDAR
1178	9" CEDAR	2309	11" TWIN CEDAR

TABLE REPRESENTS ALL TREES TO BE REMOVED. ANYTHING HIGHLIGHTED IN GRAY IS CALCULATED FOR REPLACEMENT

6" - 14" NON-INVASIVE TREES OR 12"+ INVASIVE @ 114 INCHES TO BE REMOVED
= 85 INCHES TO BE REPLACED
32 replaced 3" Trees - LABELED RT1XX

TREE TAG NO.	TREE TYPE	TREE TAG NO.	TREE TYPE
1045	13" TRIPLE CEDAR (4-6-8)	1128	1" TWIN CEDAR (2-4)
1046	4" CEDAR	1129	6" TRIPLE CEDAR (2-3-3)
1047	6" CEDAR	1130	4" CEDAR
1048	4" CEDAR	1131	5" TWIN CEDAR (3-3)
1050	10" TWIN CEDAR (5-7)	1132	6" TWIN CEDAR (3-3)
1051	13" TRIPLE CEDAR (4-4-8)	1133	6" TRIPLE CEDAR (3-4-5)
1052	6" TWIN CEDAR (5-6)	1135	6" TWIN CEDAR (4-4)
1053	6" TWIN CEDAR (3-3)	1136	3" CEDAR
1055	10" TWIN CEDAR (5-7)	1137	3" CEDAR
1056	4" CEDAR	1138	3" CEDAR
1057	9" CEDAR	1139	7" TRIPLE CEDAR (2-4-4)
1058	5" CEDAR	1141	4" CEDAR
1059	6" CEDAR	1142	7" TWIN CEDAR (4-6)
1060	6" TWIN CEDAR (4-4)	1143	6" TWIN CEDAR (5-5)
1062	24" MULTI-STEM CEDAR (5-6-7-10)	1144	6" TWIN CEDAR (3-4-5)
1064	6" TWIN CEDAR (3-4)	1145	13" TRIPLE CEDAR (4-5-8)
1087	17" TRIPLE CEDAR (4-5-10)	1146	8" CEDAR
1088	5" CEDAR	1147	7" CEDAR
1089	5" CEDAR	1148	8" TWIN LIVE OAK (2-7)
1090	4" CEDAR	1149	6" CEDAR
1091	6" CEDAR	1150	4" CEDAR
1092	6" CEDAR	1151	7" CEDAR
1093	4" CEDAR	1152	12" TRIPLE CEDAR (4-6-7)
1094	1" CEDAR	1154	11" TWIN CEDAR (4-4-4)
1095	5" ASH	1155	4" CEDAR
1097	4" CEDAR	1156	11" MULTI-STEM CEDAR (2-4-4-6)
1098	5" TWIN OAK (2-4)	1157	10" TRIPLE CEDAR (4-5-5)
1100	11" CEDAR	1158	9" TWIN CEDAR (5-6)
1101	6" OAK	1159	4" CEDAR
1102	7" TWIN CEDAR (4-5)	1160	3" CEDAR
1103	4" CEDAR	1161	5" CEDAR
1104	6" TWIN CEDAR (3-4)	1162	12" MULTI-STEM CEDAR (4-4-5-5)
1105	7" CEDAR	1163	6" TWIN CEDAR (2-4)
1106	11" CEDAR	1164	6" TRIPLE CEDAR (3-3-5)
1108	6" CEDAR	1165	4" CEDAR
1109	12" CEDAR	1166	7" TRIPLE CEDAR (2-3-4)
1110	7" CEDAR	1169	7" CEDAR
1111	4" CEDAR	1170	5" CEDAR
1112	12" TRIPLE CEDAR (4-5-7)	1171	4" CEDAR
1113	6" CEDAR	1173	4" CEDAR
1114	5" TWIN CEDAR (3-3)	1174	4" TWIN CEDAR (2-3)
1115	7" LIVE OAK	1175	3" CEDAR
1116	6" CEDAR	1176	4" CEDAR
1117	7" TWIN CEDAR (3-5)	1177	12" TWIN LIVE OAK (5-9)
1118	6" CEDAR	1178	9" CEDAR
1120	5" CEDAR	1179	8" TWIN CEDAR (4-6)
1121	6" TWIN CEDAR (3-4)	1181	12" TRIPLE CEDAR (4-6-7)
1122	6" CEDAR	1186	6" TWIN CEDAR (2-3-3)
1123	6" CEDAR	1187	8" CEDAR
1124	3" CEDAR	1188	9" MULTI-STEM CEDAR (3-3-4-4)
1125	3" CEDAR		
1127	4" CEDAR		

TREE TABLE	
TREE TAG NO.	TREE TYPE
1189	6" TRIPLE CEDAR (2-3-3)
1190	6" CEDAR
1191	8" TWIN CEDAR (4-6)
1192	6" TWIN CEDAR (4-6)
1193	6" TRIPLE CEDAR (1-2-4)
1194	6" CEDAR
1195	4" TRIPLE CEDAR (1-1-3)
1196	7" TWIN CEDAR (3-5)
1197	5" CEDAR
1198	5" CEDAR
1199	7" TWIN CEDAR (4-5)
1200	6" TWIN CEDAR (4-4)
1201	4" TWIN CEDAR (2-3)
1202	9" TWIN CEDAR (3-7)
1205	3" CEDAR
1206	3" CEDAR
1207	3" CEDAR
1208	9" TRIPLE CEDAR (4-4-5)
1209	10" TRIPLE CEDAR (5-5-5)
1210	4" CEDAR
1211	11" MULTI-STEM CEDAR (3-3-5-5)
1212	16" MULTI-STEM CEDAR (5-5-6-8)
1213	7" CEDAR
1214	5" CEDAR
1215	6" TWIN CEDAR (5-5)
1216	5" TWIN CEDAR (2-4)
1217	7" TWIN CEDAR (4-5)
1218	14" TWIN CEDAR (6-11)
1219	10" TWIN CEDAR (5-7)
1220	6" CEDAR
1221	4" CEDAR
1222	5" CEDAR
1223	6" CEDAR
1224	7" TWIN CEDAR (3-5)
1225	6" CEDAR
1226	5" CEDAR
1227	6" CEDAR
1228	8" TWIN CEDAR (5-8)
1229	6" CEDAR
1230	5" CEDAR
1231	6" CEDAR
1232	4" CEDAR
1233	6" CEDAR
1234	6" CEDAR
1235	6" CEDAR
1236	6" CEDAR
1237	6" CEDAR
1238	12" TWIN CEDAR (6-1-1)
1239	6" CEDAR
1240	11" TWIN CEDAR (5-8)
1241	6" CEDAR
1242	6" CEDAR
1243	6" CEDAR
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1498	6" CEDAR
1499	6" CEDAR
1500	6" CEDAR



Project #

CONSTANTINE
RESIDENCE

4 Martelli Lane, West Lake
Hills, TX 78746

Client #

JOHN & ROBB
CONSTANTINE

Consultants #

General Contractor: Fourquare Builders
301 Webb Street, Austin, TX 78703
p.512.922.7533

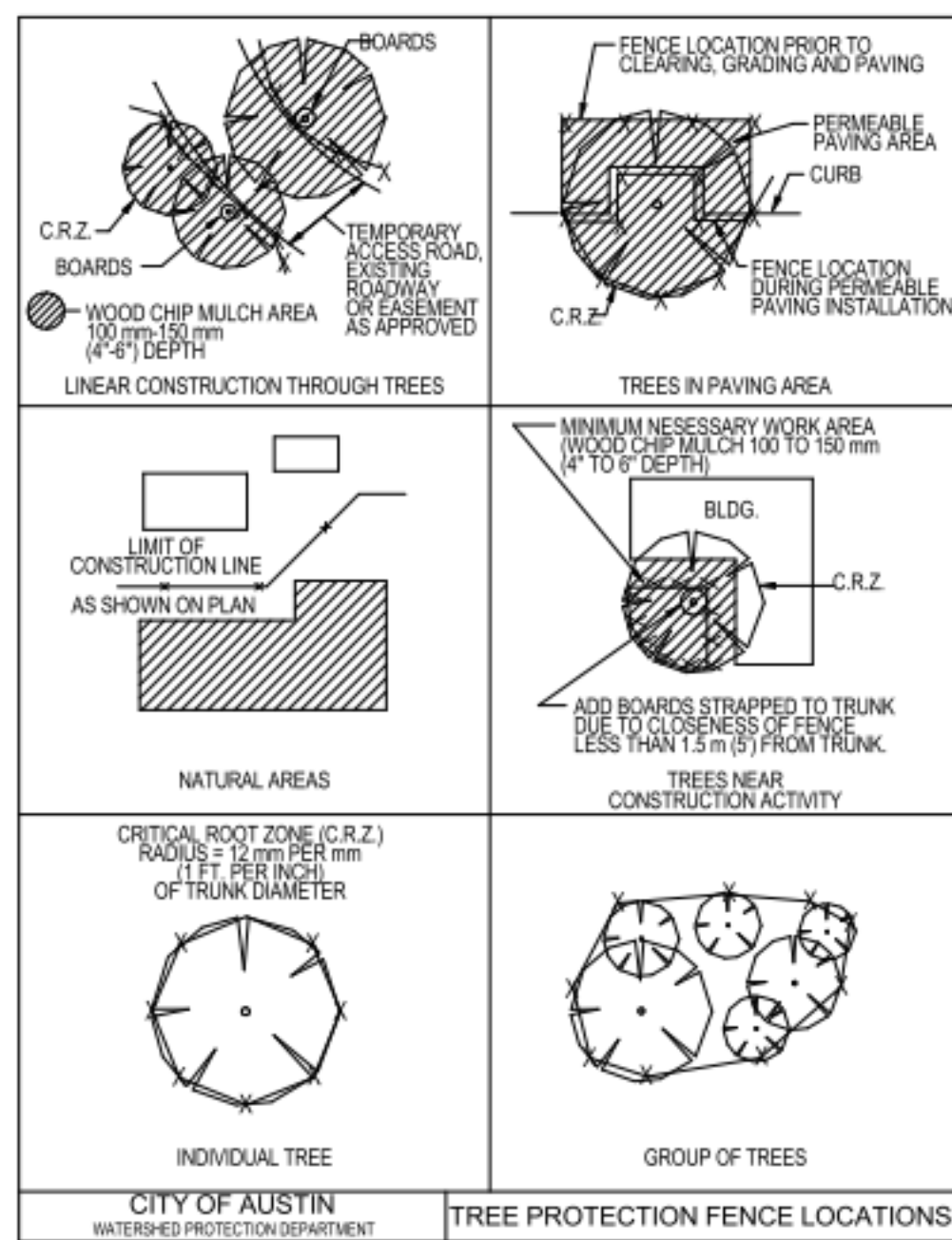
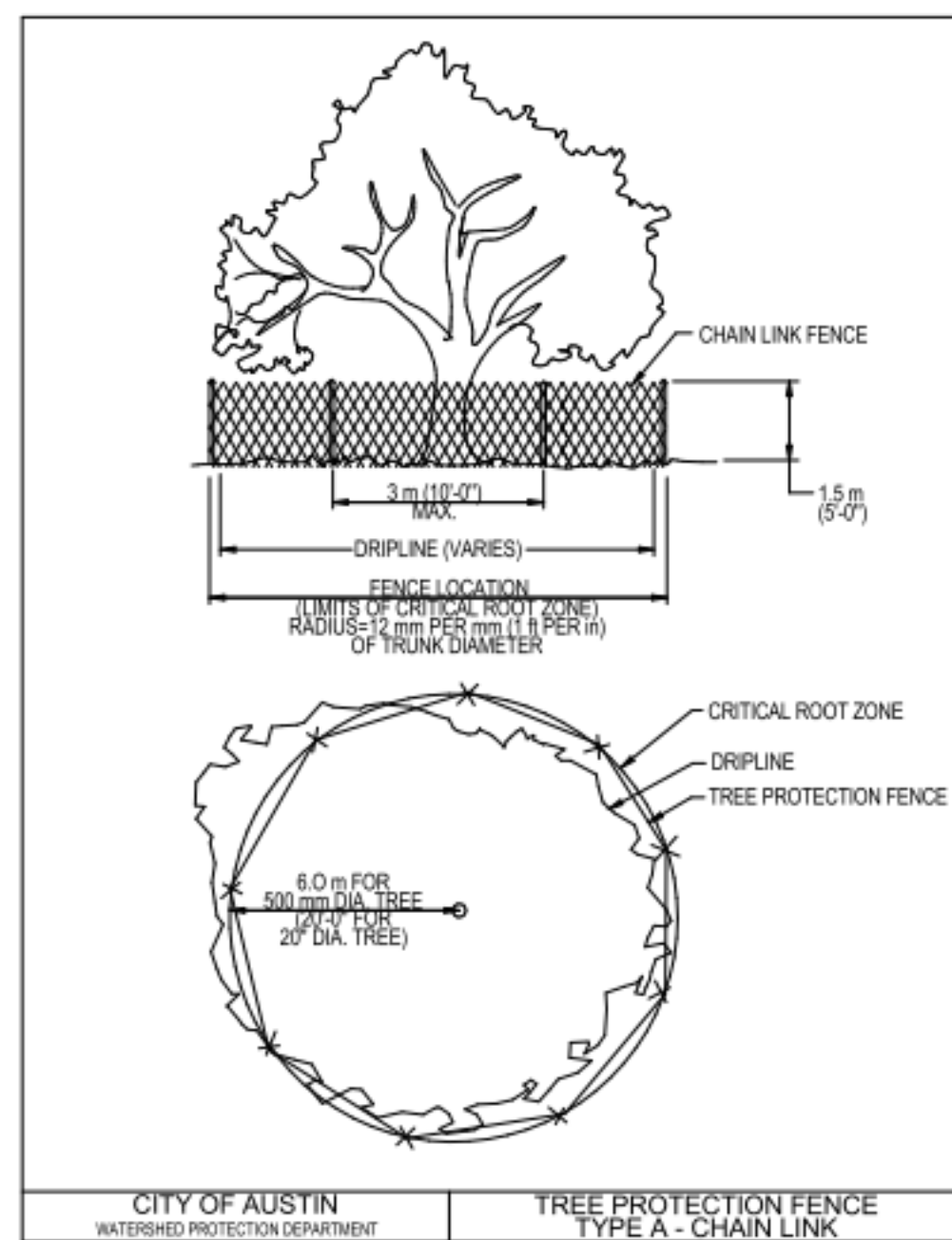
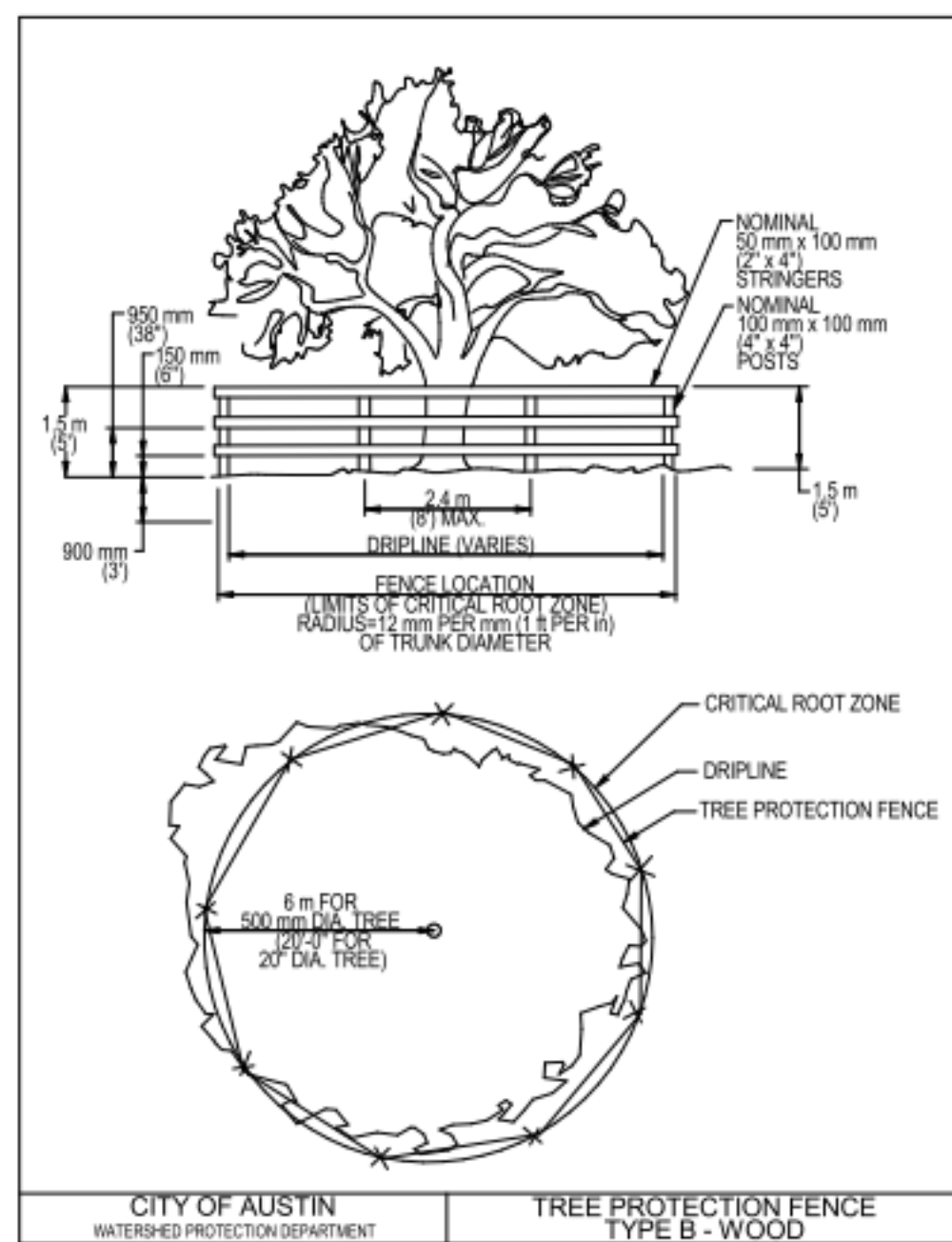
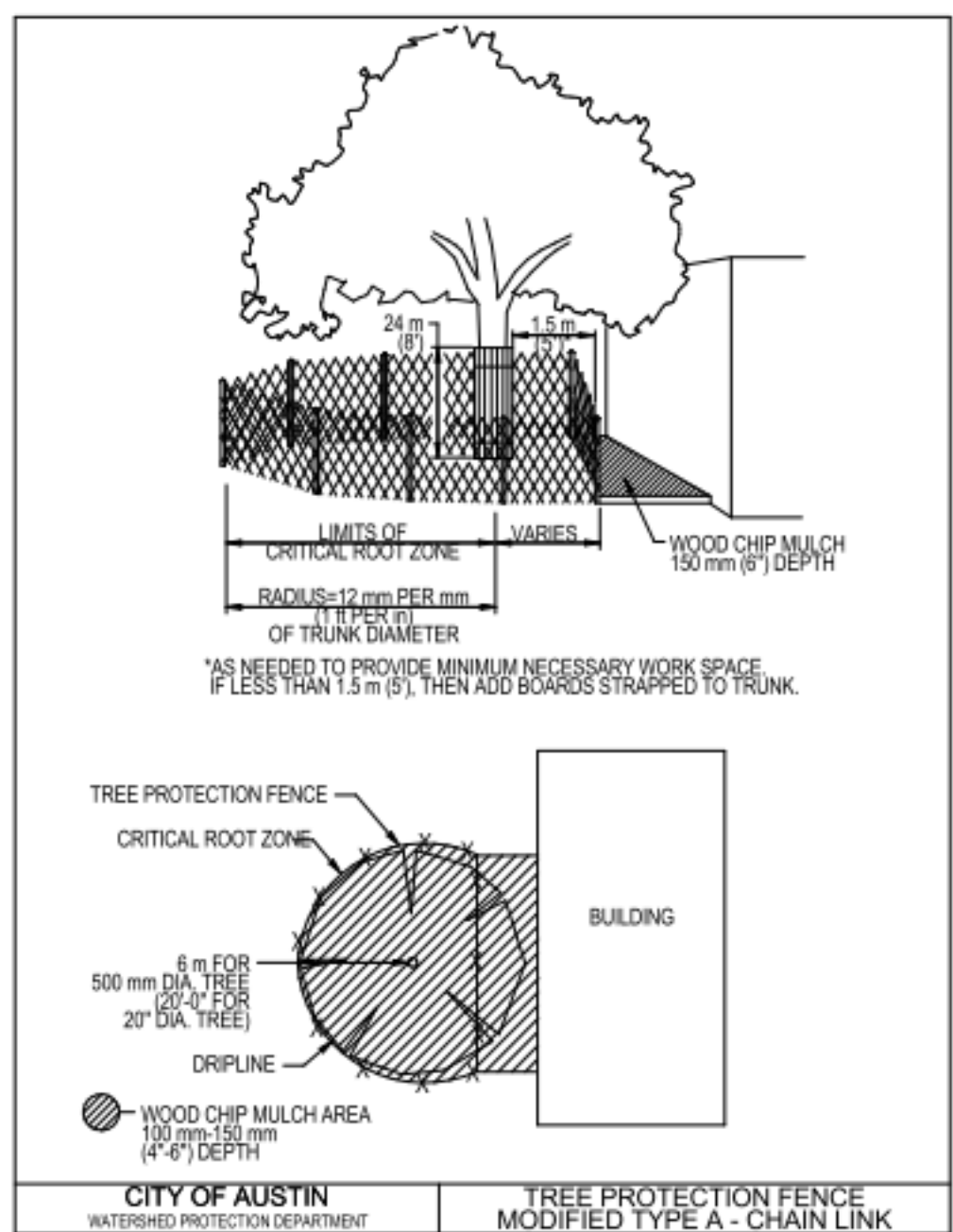
Structural Engineer: DCJ Engineers
515 S Congress Ave #600, Austin,
TX 78704
p.512.472.9191

Mechanical Consultant: Fresh Air HVAC Svc
3300 Dabon St, Austin, TX 78745
p.512.514.7000

Interior Designer: FEHN SMITH
4414 Burnet Rd, Austin, TX 78756
p.512.300.2202

Landscaper:
Big Red Sun
1312 East Cesar Chavez Street Suite B
Austin, Texas 78702
p.512.480.0908

Key Plan #



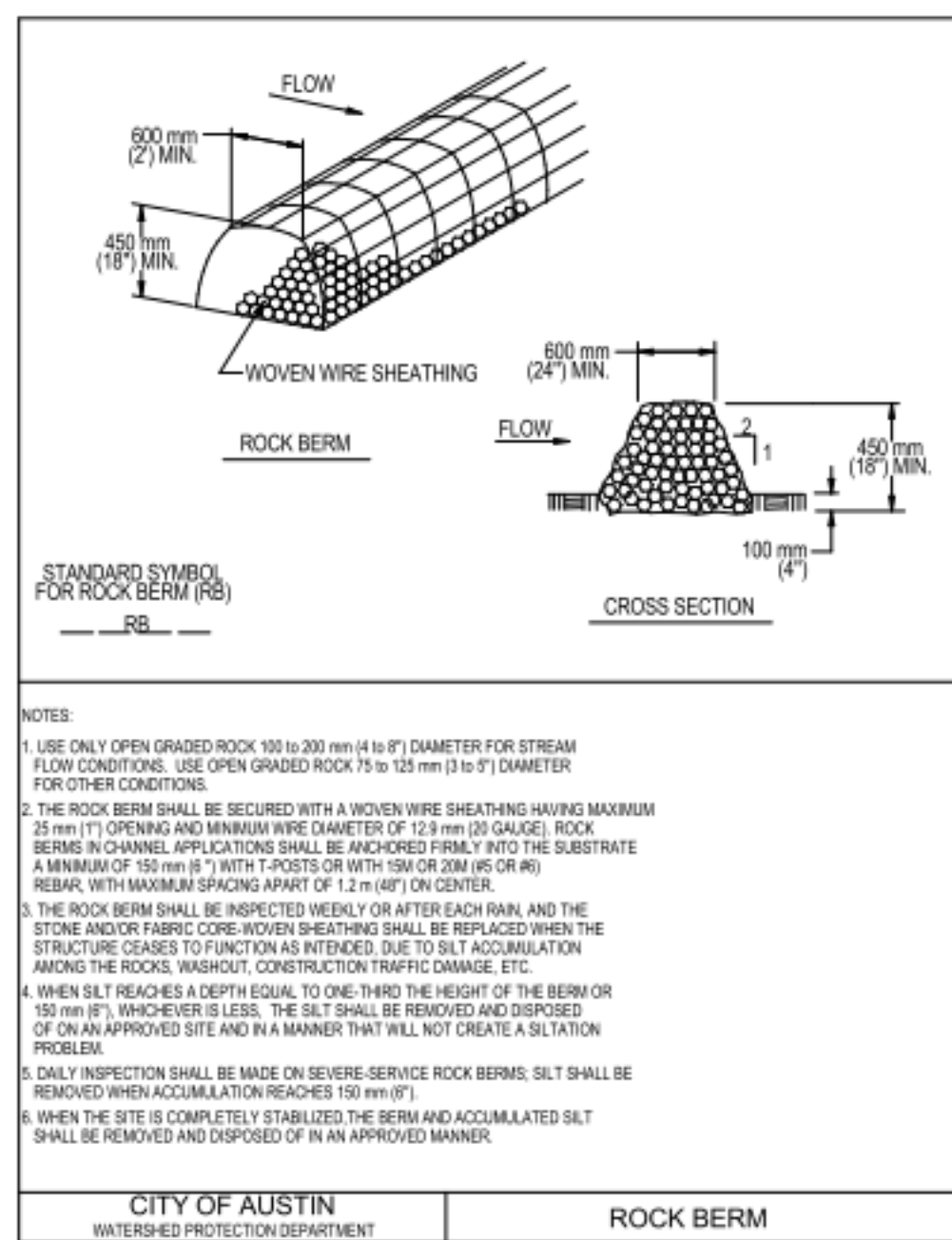
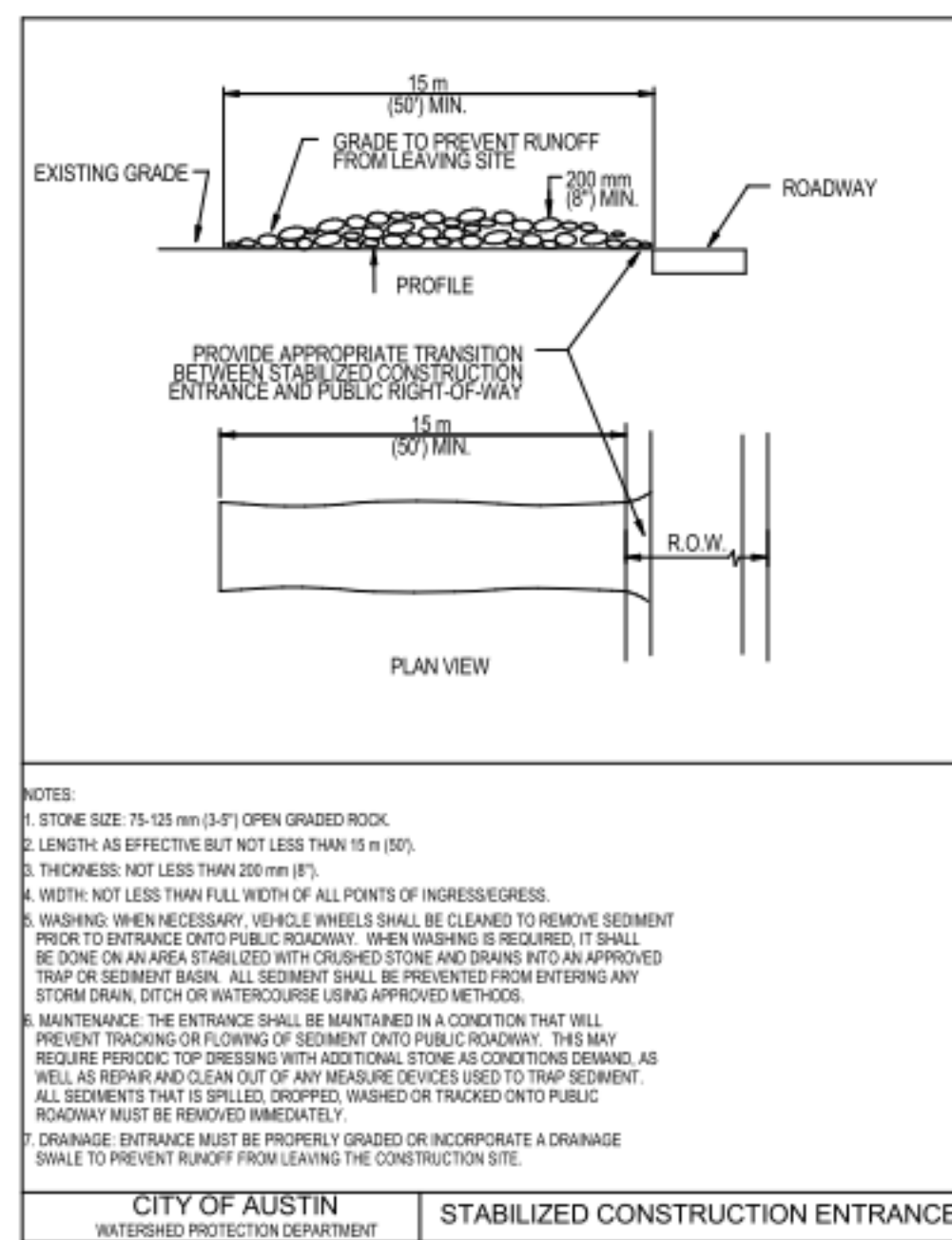
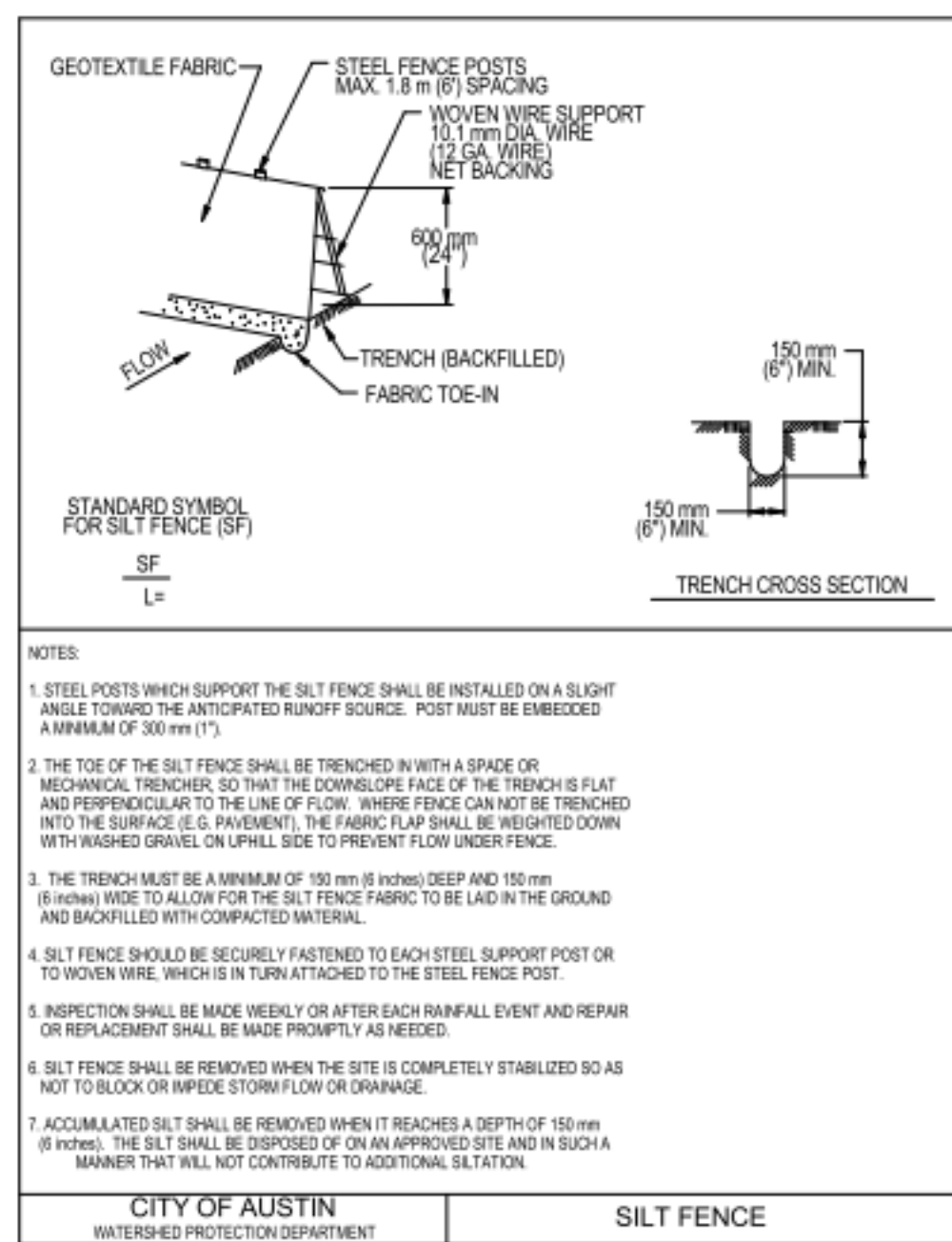
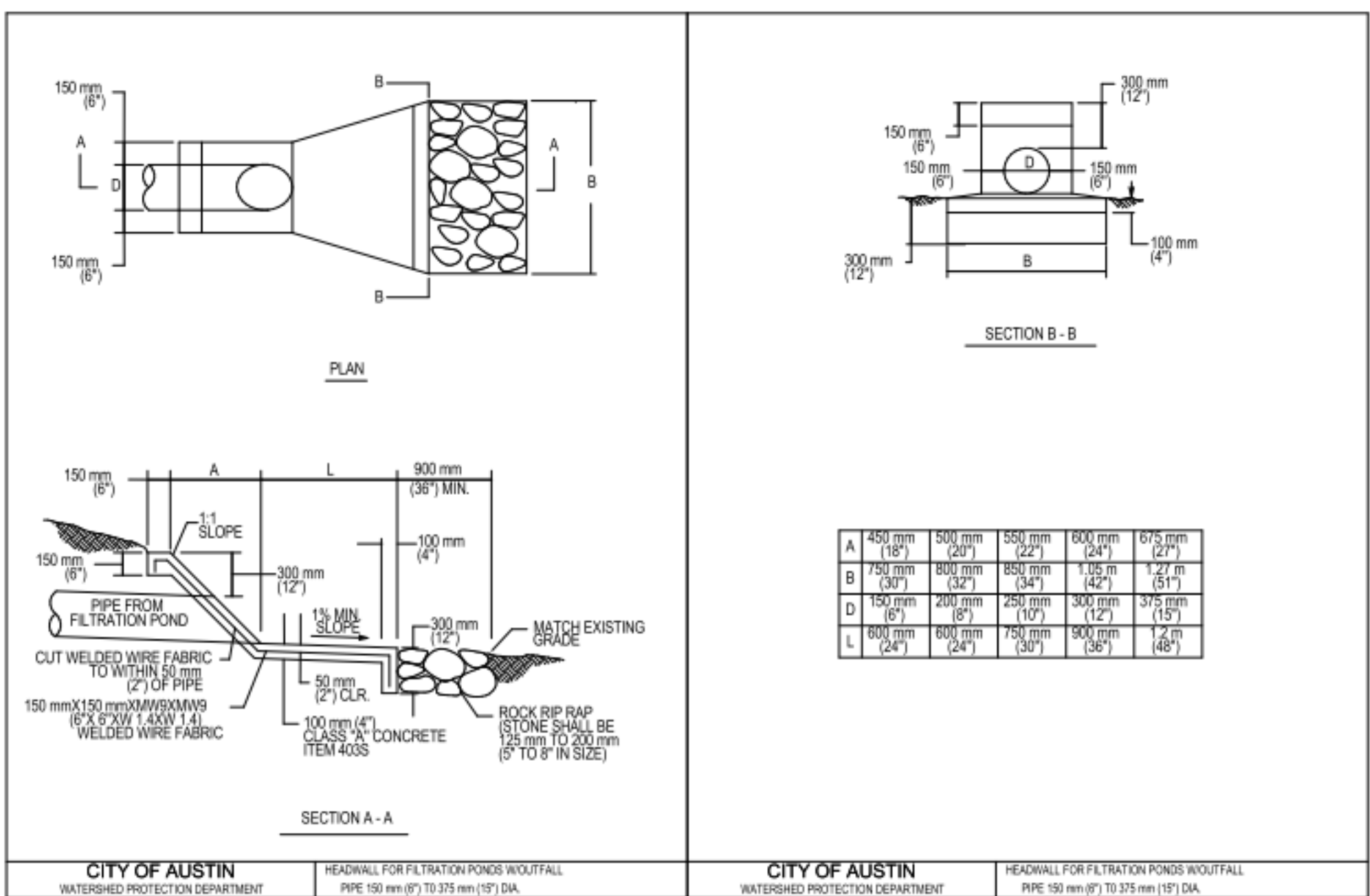
Project Issue #

BUILDING PERMIT

Date #

02/24/2023

Revision History #



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Sheet Name #

TREE PROTECTION &
SOIL STABILIZATION

Sheet Number #

G004



Project #

CONSTANTINE
RESIDENCE

4 Martelli Lane, West Lake
Hills, TX 78746

Client #

JOHN & ROBBIE
CONSTANTINE

Consultants #

General Contractor:
Fourquare Builders
501 Webb Street, Austin, TX 78703
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DC Engineers
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TX 78704
p.512.472.9191

Mechanical Consultant:
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p.512.314.7000

Interior Designer:
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p.512.300.2303

Landscape:
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1312 East Cesar Chavez Street Suite B
Austin, Texas 78702
p.512.480.0898

Key Plan #

Project Issue #

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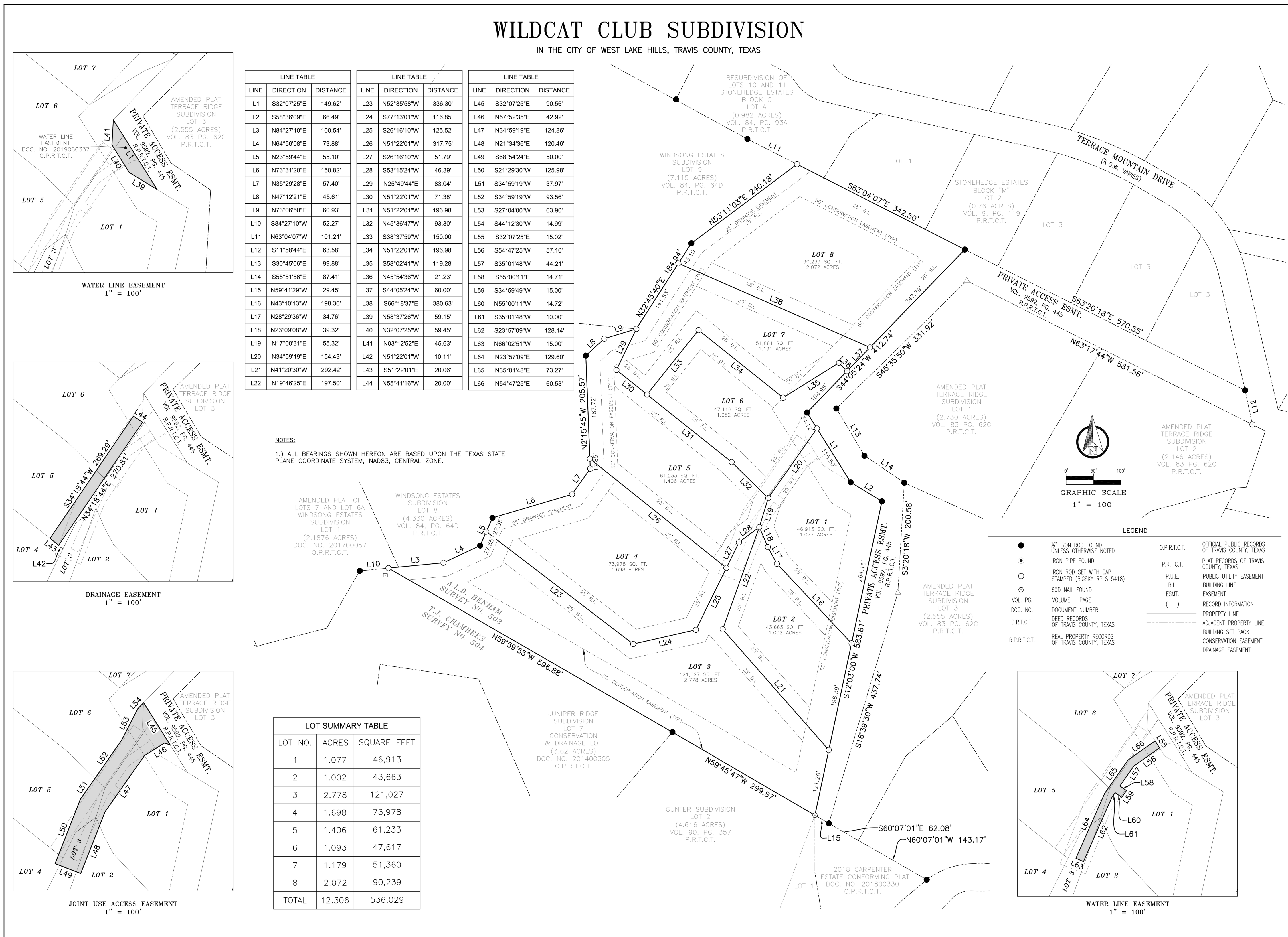
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Sheet Name #

RECORDED PLAT

Sheet Number #

G005



D:\Dropbox\00-2020 PROJECTS\2020107 MMC WILDCAT HOLLOW\DWG\2020107 WES WILDCAT CLUB SUBDIVISION 2021-09-29.dwg

EXTERIOR LIGHTING SCHEDULE								
Type Mark	General Location	Specification	Manufacturer	Elevation from Level	Efficacy	Lumens	Count	Total Lumens
FX3	COURTYARD	WS-W36610	WAC LIGHTING	5' - 0"	72 lm/W	735	1	735 lm
FX3:1							1	735 lm
Grand total: 39							39	21569 lm

FIRE PROTECTION NOTES

FIRE PROTECTION NOTES ARE PROVIDED HERE AS REFERENCE UNDER THE GUIDANCE OF TRAVIS COUNTY EMERGENCY SERVICES DISTRICT NO. 9, DISTRICT CHIEF MICHAEL LACEY, FIRE MARSHAL.

THE CITY OF WEST LAKE HILLS CODE § 8.04.003 OFFERS ADDITIONAL FIRE FLOW REDUCTIONS UP TO 66%. THE REQUIRED ITEMS ARE AS FOLLOWS:

1. DEMONSTRATING AND MAINTAINING COMPLIANCE WITH THE FUEL MITIGATION MEASURES PROVIDED IN DIVISION 9 TREES AND VEGETATION OF THE CITY CODE.

SEC. 22.03.300 (b) (4):
REQUIRE THE REMOVAL OF ALL CONFIRMED DEAD BRUSH, VEGETATION, AND TREES FROM ALL PROPERTIES IN ORDER TO REDUCE THE RISK OF WILDFIRE. IN THE CASE OF DEAD TREES AND DEAD UNDERSTORY, THE CITY INSPECTOR MUST CONFIRM THAT THE VEGETATION IS INDEED DEAD PRIOR TO ITS REMOVAL IN ORDER FOR THE OWNER TO AVOID REPLACEMENT REQUIREMENTS AS DESCRIBED IN SECTION 22.03.304(D).

SEC. 22.03.302 (d):
IT IS UNLAWFUL FOR ANY PROPERTY OWNER OR TENANT TO HARBOR DEAD TREES, DEAD VEGETATION, DEAD BRUSH PILES, AND OTHER FLAMMABLE DEAD ORGANIC MATERIAL ON THEIR PROPERTY. EXCEPTIONS WOULD BE ALLOWED FOR CONTAINED COMPOST PILES AND STACKED AND STORED FIREWOOD. IN ORDER TO REDUCE THE RISK OF FIRE ON ALL PROPERTIES, ALL DEAD TREES AND BRUSH PILES, AND OTHER FLAMMABLE DEAD ORGANIC MATERIAL SHALL BE CLEARED AND REMOVED IN ACCORDANCE WITH SECTION 22.03.303 BELOW. IN THE CASE OF DEAD TREES AND UNDERSTORY, THE CITY INSPECTOR MUST CONFIRM THAT THE VEGETATION IS DEAD PRIOR TO ITS REMOVAL IN ORDER FOR THE OWNER TO AVOID REPLACEMENT REQUIREMENTS AS DESCRIBED IN SECTION 22.03.304(D) BELOW.

2. INSTALLING AN APPROVED NFPA 13D "ROBUST" SPRINKLER SYSTEM, WITHOUT EXEMPTIONS, THROUGHOUT THE ENTIRE STRUCTURE (INCLUDING ACCESSORY STRUCTURES AND COVERED OUTDOOR AREAS ATTACHED TO THE MAIN STRUCTURE). SPRINKLER INSTALLER SHALL OBTAIN CLARIFICATIONS REGARDING COVERAGE WITH ESD NO. 9 DISTRICT CHIEF, FIRE MARSHAL.

THE PROPOSED PROJECT SHALL INCLUDE THE AFOREMENTIONED 1 ITEMS TO OBTAIN THE 50% FIRE FLOW REDUCTIONS, RESULTING IN THE AVAILABLE 2029 GPM TO BE CONSIDERED ADEQUATE FIRE FLOW BASED ON CITY CODE.

EXTERIOR LIGHTING NOTES

EXTERIOR LIGHTING IS SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO THE LIGHTING SCHEDULE FOR ADDITIONAL INFORMATION.

EXTERIOR LIGHTING SHALL COMPLY WITH CITY OF WEST LAKE HILLS CODE SECTIONS, INCLUDING, BUT NOT LIMITED TO, THE CODE SECTION EXCERPTS PROVIDED BELOW BY THE CITY OF WEST LAKE HILLS LIGHTING REVIEWER.

SECTION 24.03.005 STANDARDS FOR R-1, R-2, AND R-3 RESIDENTIAL DISTRICTS
(C) PERIMETER LIGHTING: LUMINAIRES AT THE PERIMETER OF A PROPERTY ARE LIMITED TO TWO FIXTURES AT THE DRIVEWAY ENTRANCE(S), A MAILBOX FIXTURE, AND ONE ADDITIONAL LUMINAIRE FOR A FOOTPATH ENTRY. THESE FIXTURES SHOULD BE LIMITED TO 385 LUMENS EACH. NO OTHER PERIMETER LIGHTING IS PERMITTED.
(D) PRIVATE WALKWAY LIGHTING: PRIVATE WALKWAY LIGHTS ARE NOT TO EXCEED 385 LUMENS EACH.
(E) SETBACK LIGHTING: NO LUMINAIRES SHALL BE INSTALLED IN ANY SETBACKS EXCEPT FOR LIGHTING INSTALLED IN ACCORDANCE WITH SUBSECTION (C) OR (D).

SECTION 24.03.005 STANDARDS FOR R-1, R-2, AND R-3 RESIDENTIAL DISTRICTS
(H) LANDSCAPE/YARD LIGHTING: LUMINAIRES USED FOR ILLUMINATING LANDSCAPE FEATURES SHALL NOT BE USED AFTER 11:00 P.M. INDIVIDUAL FIXTURES SHALL NOT EXCEED 800 LUMENS.

SECTION 24.03.008 PROHIBITIONS
(B) UP-LIGHTING: WITH CERTAIN EXCEPTIONS, IT IS AN OFFENSE TO INSTALL OR OPERATE UP-LIGHTING. THE FOLLOWING EXCEPTIONS ARE ALLOWED PROVIDED THE LIGHTING FIXTURES ARE FULLY SHIELDED LUMINAIRES:

(1) GROUND-LEVEL OR LOW-LEVEL LANDSCAPE LIGHTING WHERE EACH FIXTURE DOES NOT EXCEED 385 LUMENS, PROVIDED THAT THE LUMINAIRE LUMENS OF ALL THE EXISTING AND PROPOSED FIXTURES IS LIMITED TO THE LUMENS PER SQUARE FOOT CAP DEFINED FOR THAT PARTICULAR DISTRICT.

LUMEN ALLOWANCE PER SECTION 24.03.005(a) STANDARDS FOR R-1, R-2, AND R-3 RESIDENTIAL DISTRICTS:
A. BASE ALLOWANCE: SITE >1 ACRE = 12,000 LUMENS
B. DOORS: 18 DOORS = 14,400 LUMENS
C. PERIMETER: 10 LUMENS PER LINEAR FOOT =
LEVEL 1: 434' 6" = 4,345 LUMENS
LEVEL 2: 545' 6" = 5,435 LUMENS
LEVEL 3: 111' 6" = 1,115 LUMENS
SUB-TOTAL: 10,895 LUMENS
TOTAL: 37,545 LUMENS ALLOWABLE

LIGHTING SHOWN IN THESE DRAWINGS APPROXIMATE THE EXACT LOCATION, COORDINATE EXACT LOCATION, QUANTITY, AND LIGHT FIXTURE TYPE WITH ARCHITECT AND BUILDER PRIOR TO CONSTRUCTION.

SUBSTITUTIONS OR ALTERATIONS TO EXTERIOR LIGHTING SELECTIONS SHOWN IN THE PLANS OR THE SCHEDULES SHALL COMPLY WITH THE CITY OF WEST LAKE HILLS CODE SECTIONS.



Project #

CONSTANTINE RESIDENCE

4 Martelli Lane, West Lake
Hills, TX 78746

Client #

JOHN & ROBBIE
CONSTANTINE

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Landscaper:
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Key Plan #

Project Issue #

BUILDING PERMIT

Date #

02/24/2023

Revision History #

A FFE Changes 01.06.2023

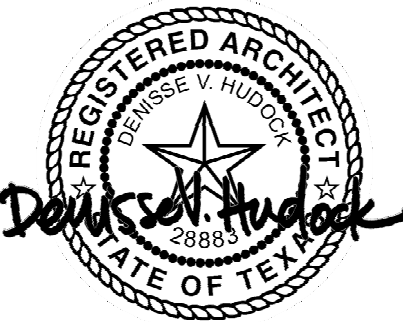
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Sheet Name #

SITE PLAN

Sheet Number #



Project #

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TX 78704
p.512.472.9797

Interior Designer:
FEBR SANTI
4414 Burnet Rd., Austin, TX 78756
p.512.300.2203

Landscaper:
Big Red Sun
1312 East Cesar Chavez Street Suite B
Austin, Texas 78702
p.512.480.0898

Key Plan #

Project Issue #

BUILDING PERMIT

Date #

02/24/2023

Revision History #

A FFE Changes 01.06.2023

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Sheet Name #

FLOOR PLAN - LEVEL
1 GUEST

Sheet Number #

FOUNDATION / SLAB PLAN NOTES

1. ARCHITECTURAL FOUNDATION PLAN DRAWINGS ARE FOR COORDINATION ONLY. REFER TO STRUCTURAL SHEETS FOR FOUNDATION DETAILS AND ADDITIONAL INFORMATION.
2. ALL DIMENSIONS ARE TO FACE OF FRAME OR CENTERLINE OF STRUCTURE UNLESS NOTED OTHERWISE.
3. SEE INDICATED CALLOUT, ELEVATION OR DETAILS FOR ADDITIONAL DIMENSIONAL INFORMATION.
4. REFER TO ARCHITECTURAL FLOOR PLANS AND DETAILS FOR ADDITIONAL INFORMATION.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
240V	240VAC DEDICATED OUTLET
EV	240VAC DED. ELEC. VEHICLE CHARGING OUTLET @ 42" AFF. (50 AMP BREAKER)
	DUPLEX OUTLET
	DUPLEX OUTLET (TOP OUTLET SWITCHED)
	QUADPLEX OUTLET
GFI	OUTLET W/ GROUND FAULT INTERRUPT
GFI/WP	WATERPROOF OUTLET W/ GFI
USB	OUTLET W/ (2) 5V USB PORTS
APPL	120VAC OUTLET FOR APPLIANCE. SEE SPEC.
	FLOOR DUPLEX OUTLET
	FLOOR QUADPLEX OUTLET
	DIMMER WITH ON/OFF SWITCH
	3-WAY SWITCH
	GARAGE DOOR OPENER SWITCH
	GARAGE DOOR LOW VOLTAGE SENSOR
FR	CRADLE FOR FAN REMOTE
	COMBO VOICE/DATA JACK
	VOICE JACK
WAP	CEILING WAP DATA. ALIGN W/ ADJ. LIGHTING
SD	TELEVISION/CABLE JACK
CO	SMOKE DETECTOR
SC	CARBON MONOXIDE (CO) DETECTOR
MS	COMBO SMOKE/CO DETECTOR
T	MOTION SENSOR
CHIMES	THERMOSTAT
	CHIMES
	EXHAUST FAN
SM	RECESSED STRUCTURED MEDIA ENCLOSURE FOR HOME SECURITY & LOW-VOLTAGE
WH	WATER HEATER CONTROL

REFLECTED CEILING PLAN NOTES

1. ALL CEILING HEIGHTS ARE MEASURED ABOVE FINISHED FLOOR.
2. ALL DIFFUSERS AND AIR GRILLES SHALL BE PAINTED TO MATCH THE WALL OR CEILING THEY ARE INSTALLED IN U.N.O.
3. REFER TO A700 SERIES INTERIOR ELEVATIONS FOR ADDITIONAL LIGHTING INFORMATION FOR LIGHTS LOCATED ON WALLS, AT SHELVES, ALONG FLOOR BASE, OR OTHER LOCATIONS NOT SHOWN ON REFLECTED CEILING PLANS.
4. REFER TO A200 SERIES FOR FLOOR PLAN INFORMATION.
5. REFER TO A800 FOR SERIES FINISH SCHEDULE INFORMATION.
6. PROVIDE BLOCKING AND REINFORCEMENT IN CEILING AND ADJACENT WALLS AS REQUIRED AT ALL DRAPERY POCKET LOCATIONS.
7. WHERE FIRE PROTECTION SPRINKLER HEADS EXIST, PROVIDE CONCEALED ESOUTCHRON PLATES WITH CUSTOM RAL PAINT COLOR TO MATCH ADJACENT SURFACE FINISH MATERIALS. CONFIRM ALL SELECTIONS WITH ARCHITECT PRIOR TO ORDERING AND INSTALLATION.

CEILING PLAN LEGEND

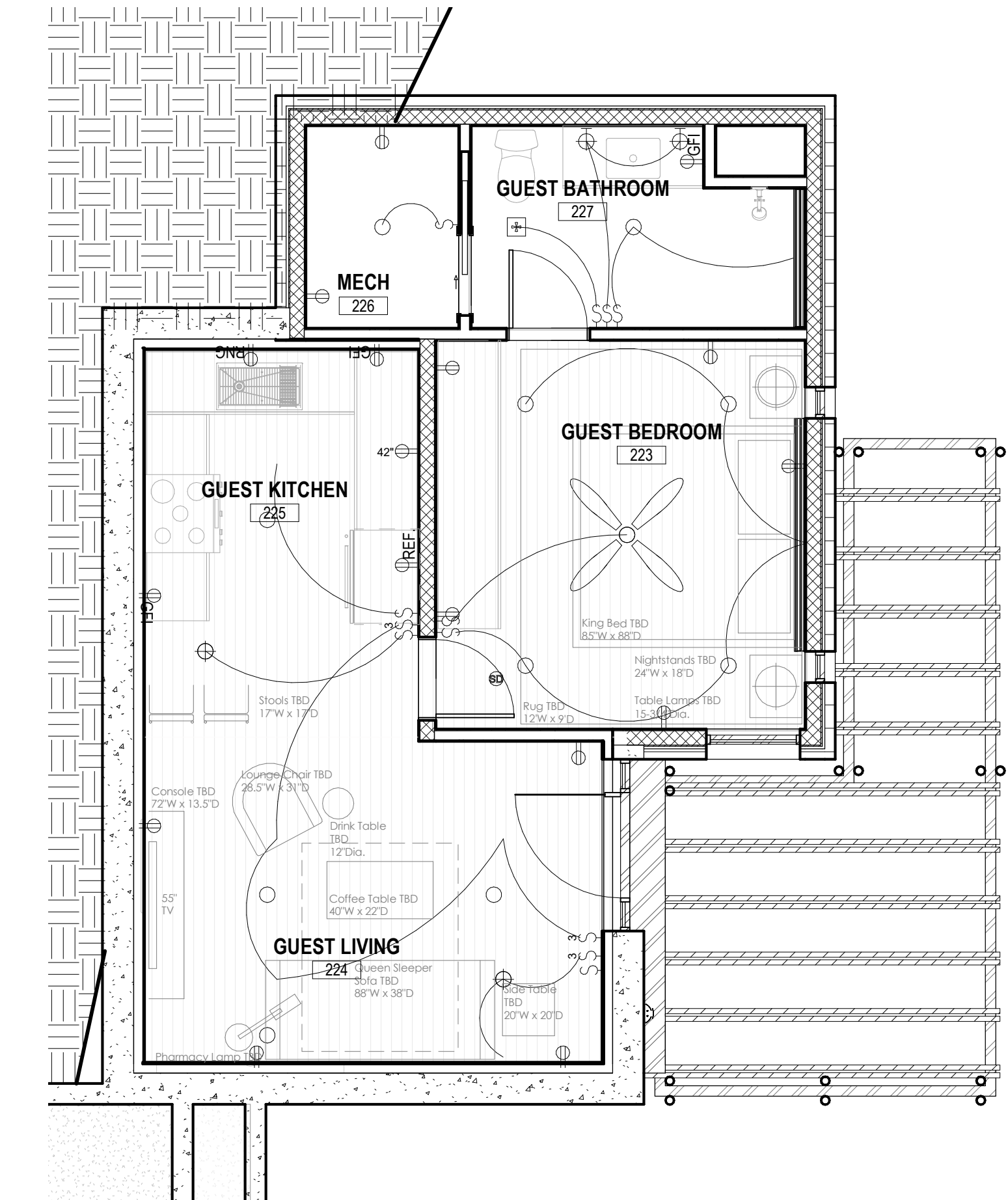
SYMBOL	DESCRIPTION
	SPRINKLER HEAD - FOR REFERENCE ONLY
	ACCESS PANEL
	EXHAUST
	SLOT DIFFUSER
	SLOT DIFFUSER - SIDE WALL
	PENDANT LIGHT
	DOWNLIGHT
	WALL SCONCE
	CEILING FAN
	STRIP LIGHT
	COVE LIGHT
	UNDERCABINET LIGHT
	GYPSUM CEILING
	WOOD CEILING
PL-1	FINISH TAG. REFERENCE INTERIOR FINISH SCHEDULE

FLOOR PLAN NOTES

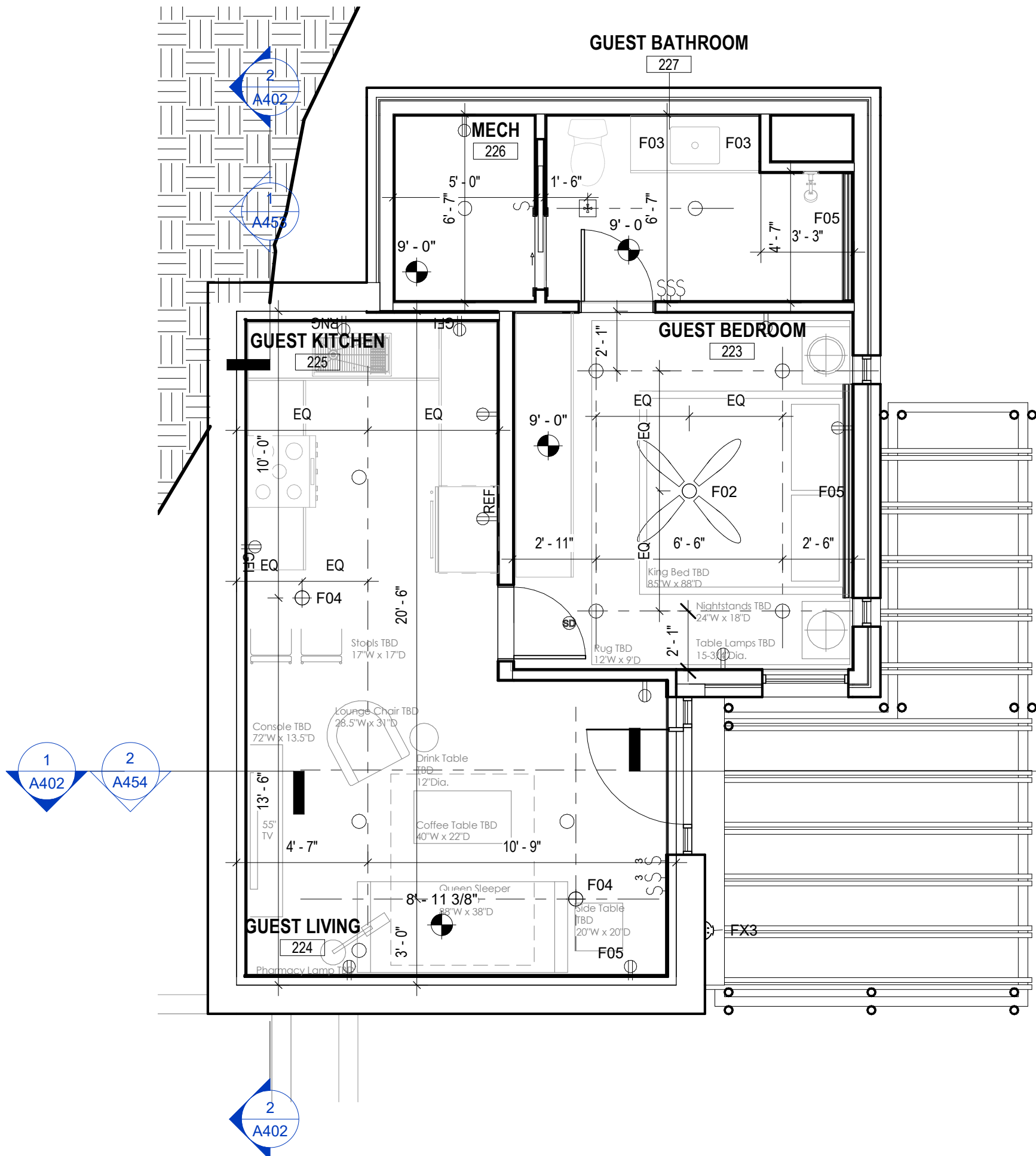
1. ALL DIMENSIONS ARE TO FACE OF FRAME OR CENTERLINE OF STRUCTURE UNLESS NOTED OTHERWISE.
2. SEE INDICATED CALLOUT, ELEVATION OR DETAILS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. ALL DIMENSIONED WINDOW OPENINGS TO BE CONFIRMED WITH FINAL WINDOW SPEC PRIOR TO FRAMING.
4. ALL DIMENSIONED DOOR OPENINGS TO BE CONFIRMED WITH FINAL DOOR SPEC PRIOR TO FRAMING.
5. EGRESS WINDOWS: REFER TO EXTERIOR ELEVATIONS AND WINDOW SCHEDULE.
6. TEMPERED WINDOWS: REFER TO EXTERIOR ELEVATIONS AND WINDOW SCHEDULE.
7. ALL EGRESS WINDOWS SHALL BE VERIFIED WITH THE MANUFACTURERS. - REFER TO EXTERIOR ELEVATIONS AND WINDOW SCHEDULE.
8. REFER TO ENLARGED PLANS & INTERIOR ELEVATIONS ON A700 SERIES.
9. REFER TO A300 SERIES FOR EXTERIOR ELEVATIONS; A400 SERIES FOR BUILDING AND WALL SECTIONS.
10. REFER TO A800 SERIES FOR DOOR AND WINDOW SCHEDULE.
11. REFER TO A900 SERIES FOR EXTERIOR MATERIALS, INTERIOR MATERIALS AND FINISH SCHEDULES. SEE INTERIOR DESIGN SHEETS FOR ADDITIONAL INFORMATION.
12. REFER TO LANDSCAPE SHEETS FOR PLANTING SELECTIONS, IRRIGATION REQUIREMENTS, LANDSCAPE DETAILS, AND FLATWORK/HARDSCAPE. - LANDSCAPE SHOWN HERE IS FOR GENERAL INTENT ONLY.
13. GENERAL DIMENSIONS PROVIDED ON FLOOR PLANS AND AREA PLANS DO NOT REFLECT THE ROUGH OPENING DIMENSIONS REQUIRED FOR COORDINATION WITH MASONRY JOINT COURSING. CONTRACTOR IS TO PROVIDE ROUGH OPENING FRAMING DIMENSIONS CONSISTENT WITH ENLARGED ARCHITECTURAL PLAN/SECTION DETAILS (A500 SERIES) AND WINDOW SCHEDULE (A800 SERIES). - CONTRACTOR TO SUBMIT RF FOR ANY ROUGH OPENING DIMENSIONS NOT GIVEN IN DETAIL FOR CLARIFICATION REQUIRED.

FLOOR PLAN LEGEND

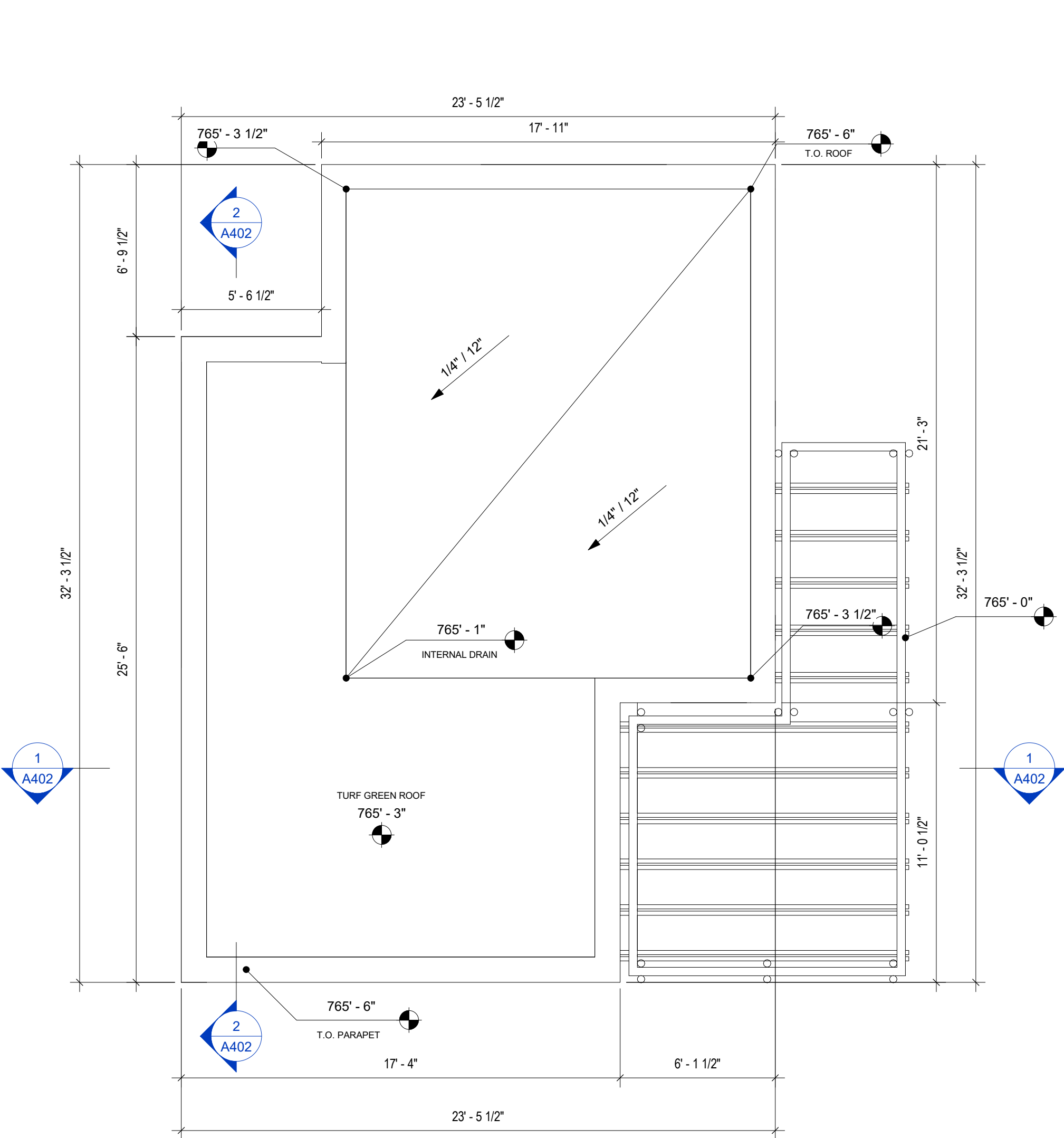
SYMBOL	DESCRIPTION
MATCHLINE	MATCH LINE
REF 01/A101	SHEET REFERENCE
04.21.13.13.A01	KEYED NOTE KEYED NOTES ONLY APPLY TO THIS SHEET
A1X	PARTITION TAG REFER TO PARTITION SCHEDULE
1 A-301	BUILDING SECTION TAG WALL SECTION TAG
1 A-201	EXTERIOR ELEVATION TAG
1 A-211	INTERIOR ELEVATION TAG
1 A-431	PLAN CALLOUT REFERENCE TAG
ROOM NAME 101	ROOM NAME ROOM NUMBER
NEW DOOR WITH DOOR TAG REF DOOR SCHEDULE	NEW WINDOW WITH WINDOW MARK RE WINDOW SCHEDULE
	COLUMN GRID DESIGNATIONS



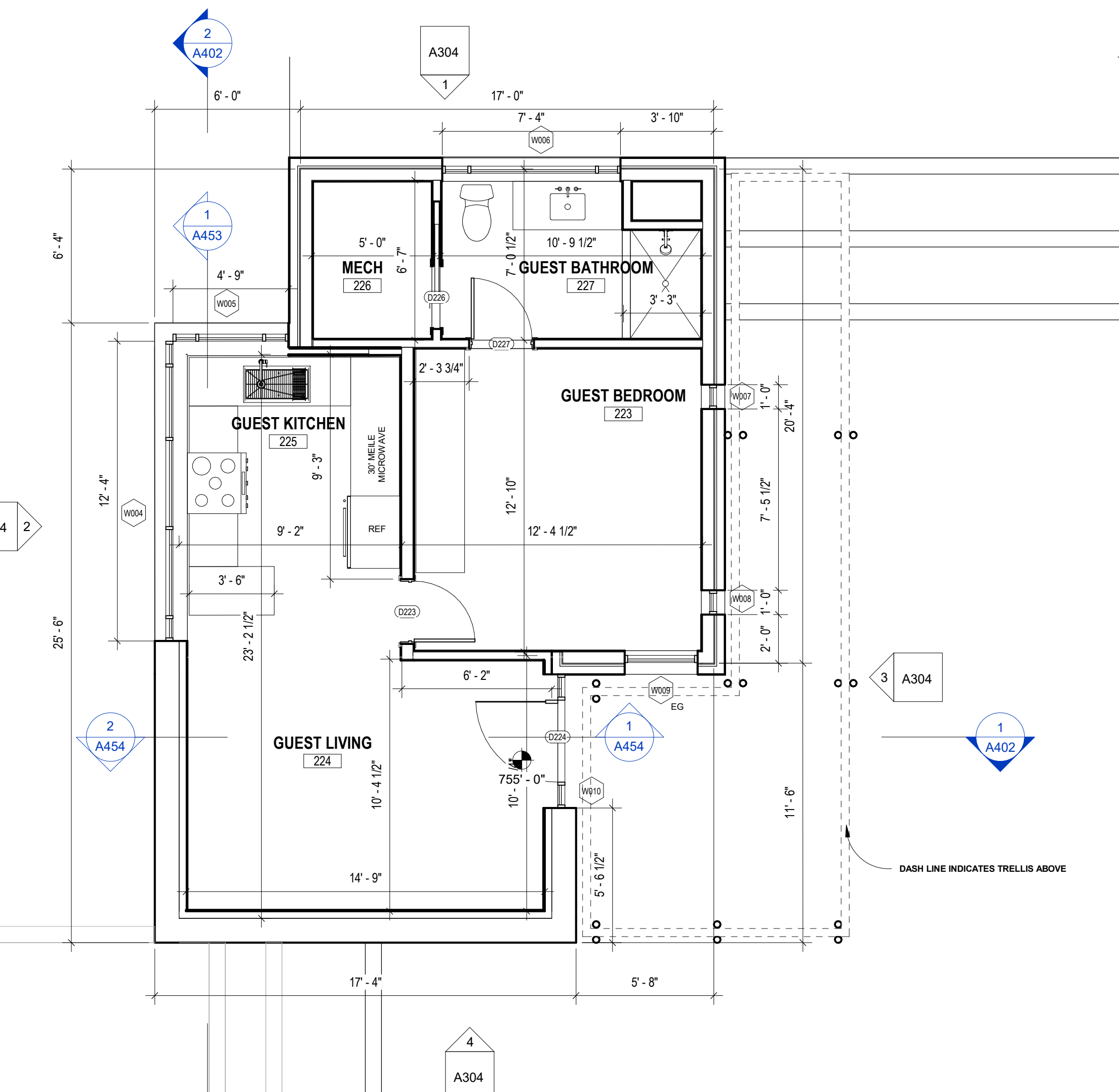
5 MECH/ELEC - GUEST
1/4" = 1'-0"



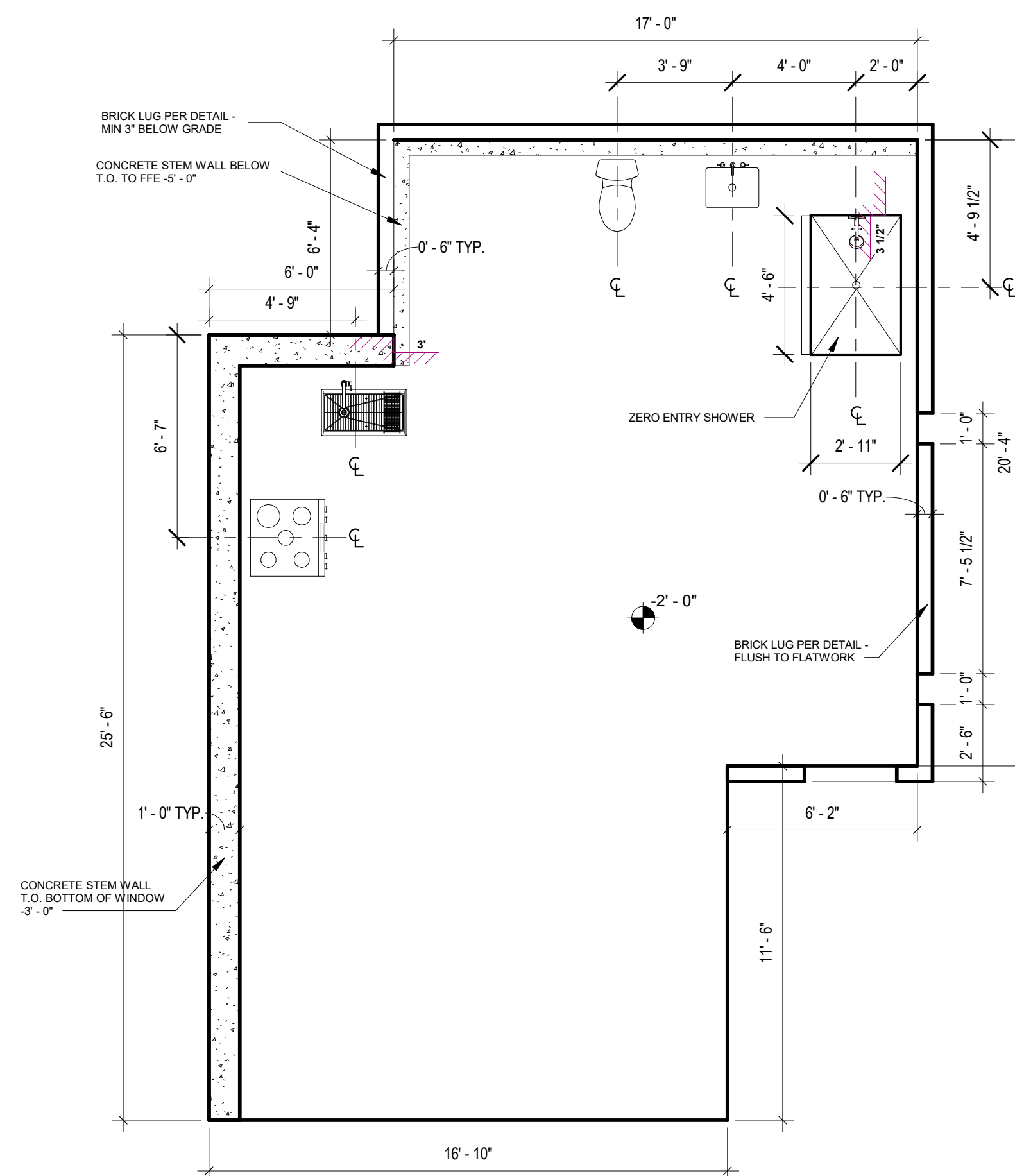
4 RCP - GUEST
1/4" = 1'-0"



3 ROOF PLAN - GUEST
1/4" = 1'-0"



2 FLOOR PLAN - LEVEL 1 GUEST
1/4" = 1'-0"



1 FOUNDATION PLAN - GUEST
1/4" = 1'-0"



Project #

CONSTANTINE
RESIDENCE

4 Martelli Lane, West Lake
Hills, TX 78746

Client #

JOHN & ROBBIE
CONSTANTINE

Consultants #

General Contractor:
Foursquare Builders
501 Wharton Street, Austin, TX 78703
p.512.922.7533

Mechanical Consultant:
Frost Air HVAC, Inc.
3500 Capital St., Austin, TX 78745
p.512.314.7000

Structural Engineer:
DCI Engineers
215 S Congress Ave #600, Austin,
TX 78704
p.512.472.9199

Interior Designer:
FEEN SAATHY
4414 Burnet Rd., Austin, TX 78756
p.512.300.2203

Landscape:
Big Red Sun
1312 East Cesar Chavez Street Suite B
Austin, Texas 78702
p.512.480.0808

Key Plan #

Project Issue #

BUILDING PERMIT

Date #

02/24/2023

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Sheet Name #

EXTERIOR
ELEVATIONS - GUEST

Sheet Number #

A304

EXTERIOR ELEVATION NOTES

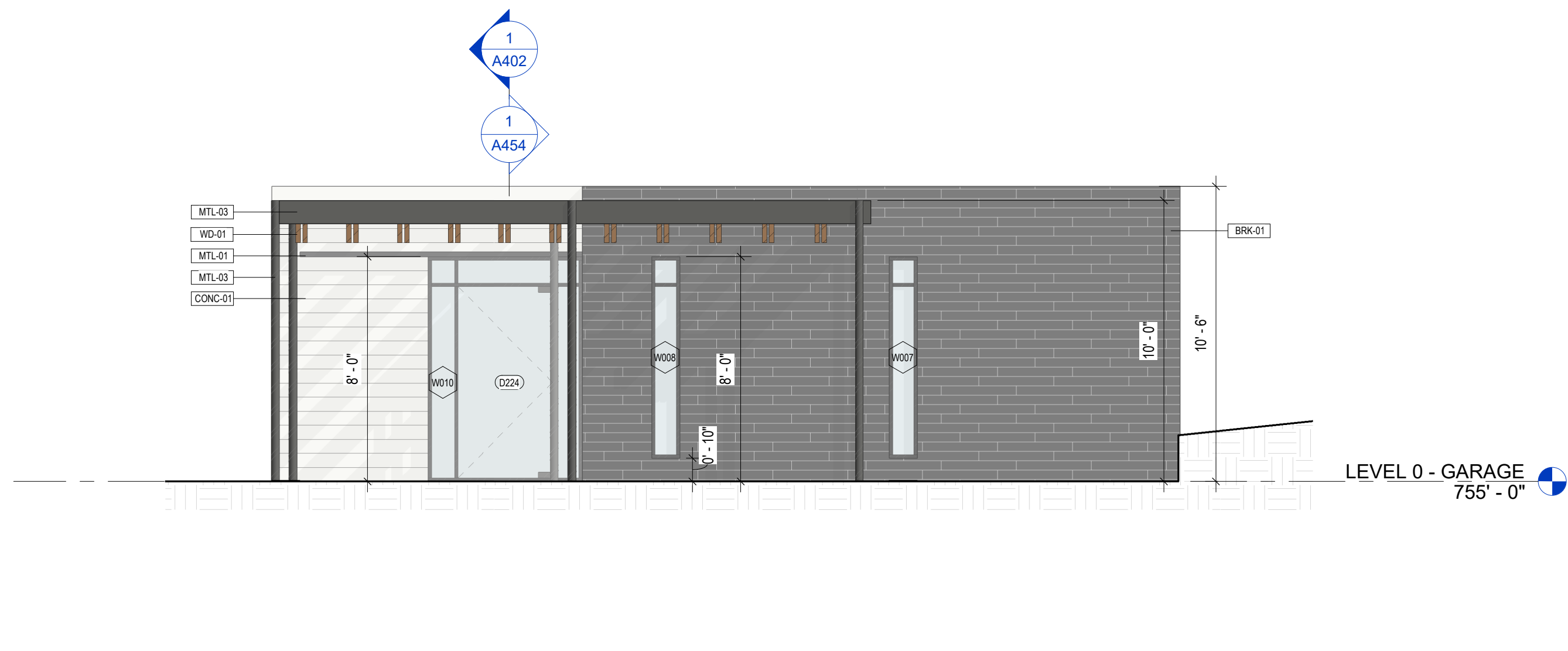
1. THE DIMENSIONS ON THIS SHEET ARE TO FACE OF FINISH MATERIAL OR EDGE OF MASONRY, UNLESS NOTED OTHERWISE.
2. IF A SPECIFIC DIMENSION IS NOT PROVIDED, CONTACT THE ARCHITECT FOR CLARIFICATION.
3. FIELD-VERIFY ALL EXISTING DIMENSIONS PRIOR TO CONSTRUCTION AND/OR INSTALLATION OF ANY EQUIPMENT, ACCESSORIES, ETC. IF A DISCREPANCY IS IDENTIFIED, NOTIFY THE ARCHITECT IMMEDIATELY.
4. BUILDING ELEVATIONS ARE PROVIDED FOR REFERENCE ONLY. FOR ADDITIONAL INFORMATION, REFER TO FLOOR PLANS, BUILDING SECTIONS, WALL SECTIONS, AND DEMOLITION PLANS, DEMOLITION EXTERIOR ELEVATIONS, EXTERIOR MATERIALS FINISH SCHEDULE, AND DOOR & WINDOW ELEVATIONS.
5. REFER TO EXTERIOR ELEVATION LEGEND FOR MATERIAL TYPES SHOWN HERE.
6. REFER TO A500 SERIES FOR WALL SECTIONS AND A800 SERIES FOR EXTERIOR DETAILS.
7. REFER TO A800 SERIES FOR GLAZING ELEVATIONS FOR DIMENSIONS/TYPES AND GRAPHIC GLAZING SCHEDULE.

EXTERIOR ELEVATION LEGEND

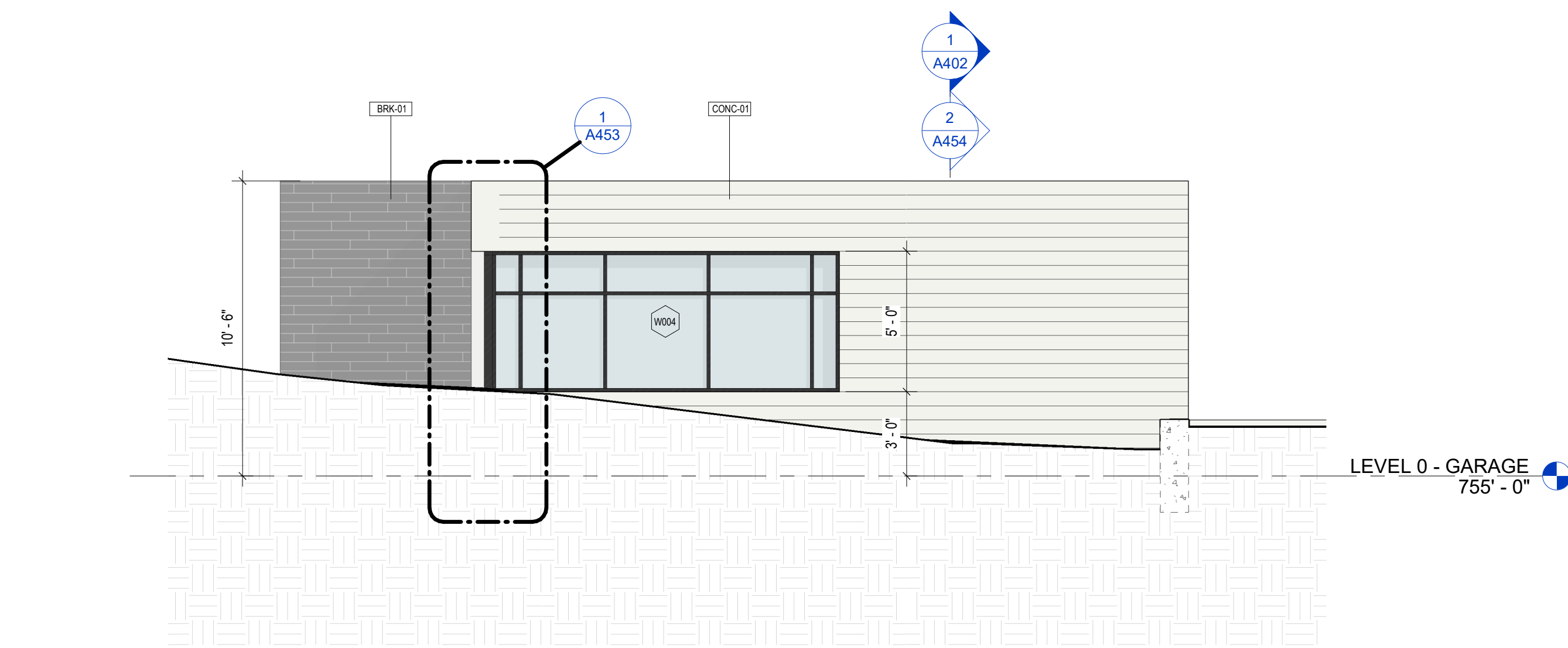
SYMBOL	DESCRIPTION
	(BRK-01) BLACK INTERSTATE EMPEROR BRICK
	(CONC-01) BOARD-FORMED CONCRETE
	(STC-01) GRAY FINO ALTO STUCCO
	(STC-02) BLACK FINO ALTO STUCCO
	(MTL-01) ARCHITECTURAL STEEL
	(MTL-02) METAL FASCIA TRIM
	(MTL-03) METAL TRELLIS
	(WOOD-1) WOOD



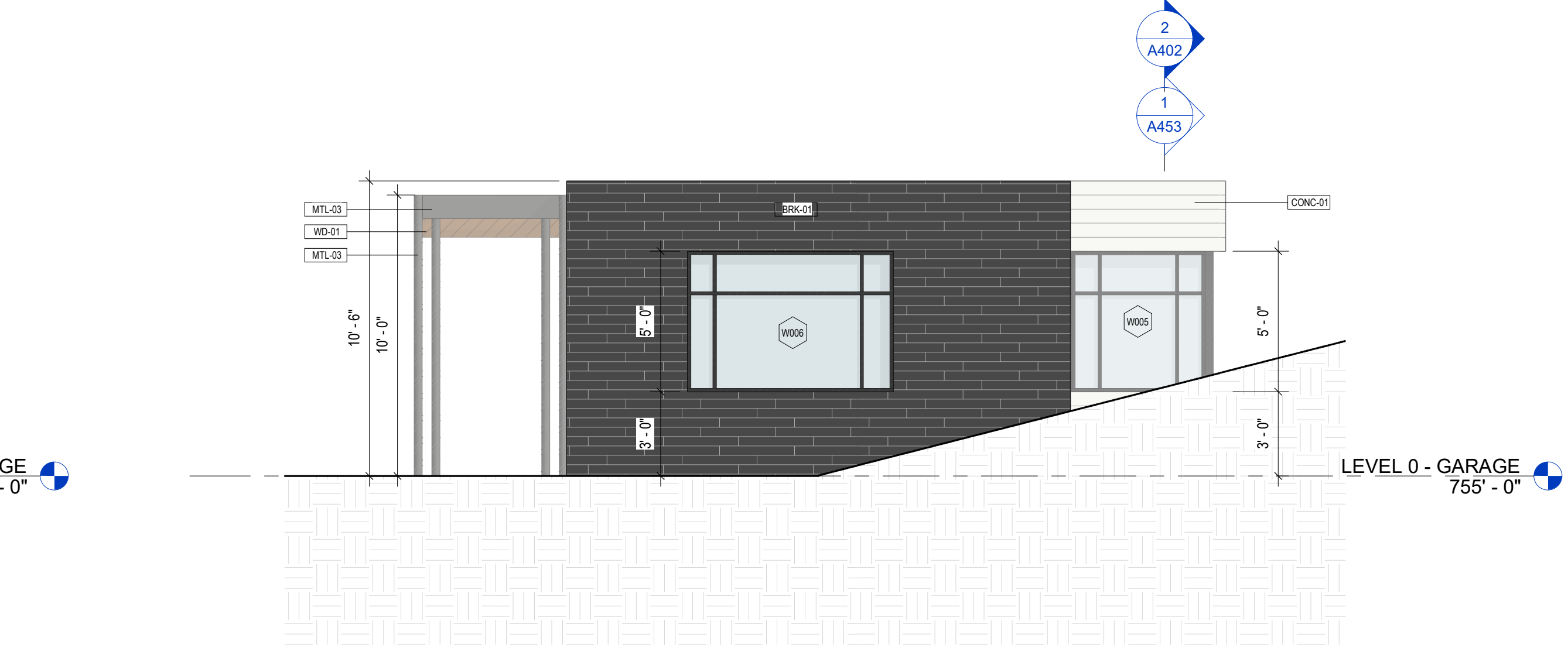
4 EAST ELEVATION - GUEST
1/4" = 1'-0"



3 NORTH ELEVATION - GUEST
1/4" = 1'-0"



2 SOUTH ELEVATION - GUEST
1/4" = 1'-0"

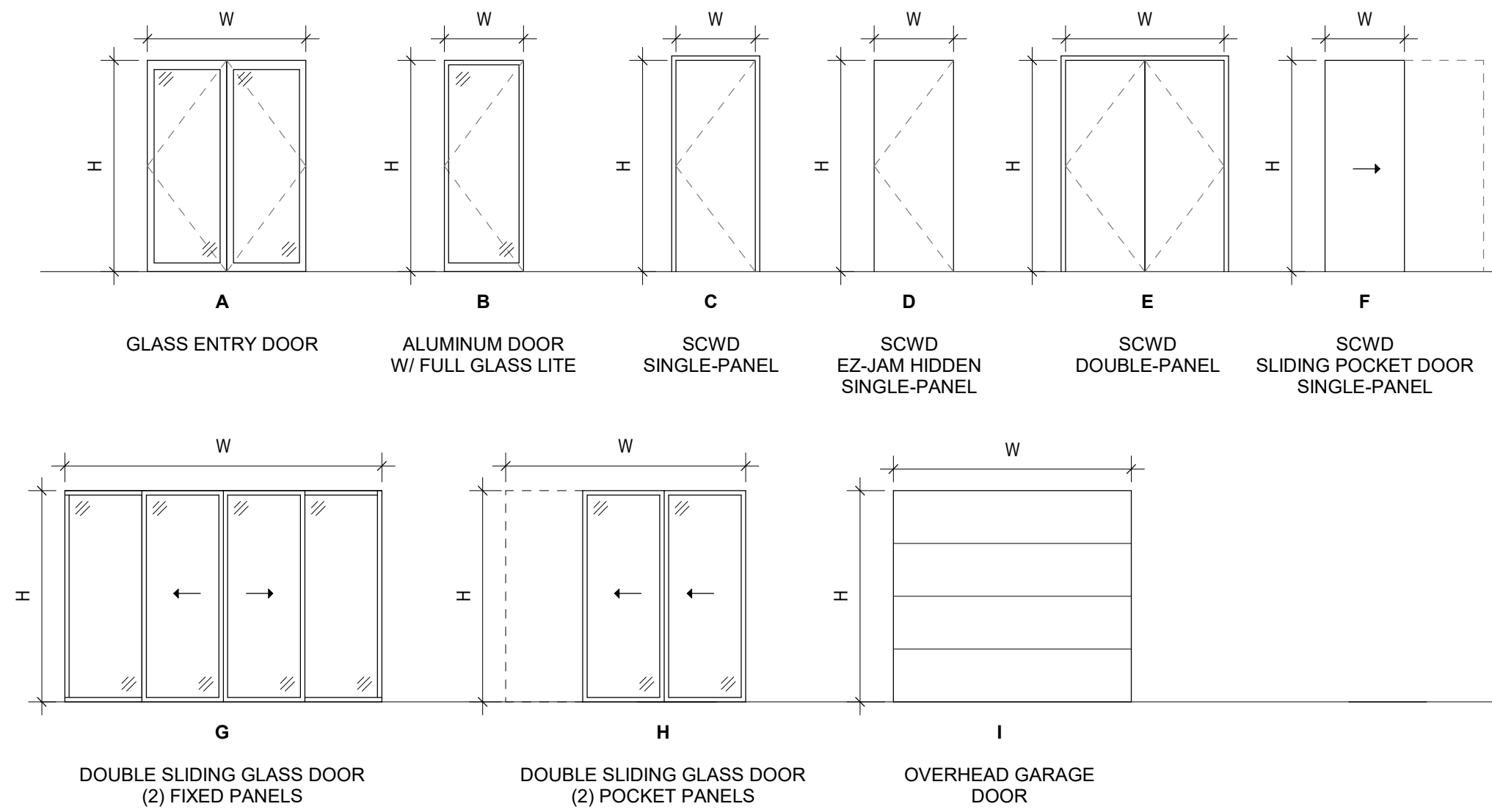


1 WEST ELEVATION - GUEST
1/4" = 1'-0"

WINDOW / DOOR SCHEDULE NOTES

1. DOOR AND WINDOW SYSTEMS UTILIZE FLEETWOOD 3-SERIES PRODUCTS.
2. ROUGH OPENING HEAD HEIGHT IS MEASURED FROM THE TOP OF STRUCTURAL SLAB OR TOP OF SUBFLOOR UNLESS NOTED OTHERWISE.
3. REFERENCE REFLECTED CEILING PLAN DRAWINGS FOR LOCATIONS OF DRAPERY TRACKS AND ROLLER SHADES AND THEIR POCKETS.
4. REFERENCE FIRE PROTECTION NOTES FOR ADDITIONAL INFORMATION:
2012 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE:
504.8 EXTERIOR GLAZING
EXTERIOR WINDOWS, WINDOW WALLS AND GLAZED DOORS, WINDOWS WITHIN EXTERIOR DOORS, AND SKYLIGHTS SHALL BE TEMPERED GLASS, MULTILAYERED GLAZED PANELS, GLASS BLOCK OR HAVE A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES.
504.9 EXTERIOR DOORS
EXTERIOR DOORS SHALL BE APPROVED NONCOMBUSTIBLE CONSTRUCTION, SOLID CORE WOOD NOT LESS THAN 1 3/4 INCHES THICK (44 MM), OR HAVE A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES. WINDOWS WITHIN DOORS AND GLAZED DOORS SHALL BE IN ACCORDANCE WITH SECTION 504.8 EXCEPT: VEHICLE ACCESS DOORS.

DOOR TYPES



DOOR SCHEDULE							
Door #	Location	Width	Height	Lockset	EGRESS	Safety Glazing	Type
D223	GUEST BEDROOM	2' - 6"	8' - 0"	PRIVACY	NO	N	C - SOLID CORE
D224	GUEST LIVING	3' - 4 1/2"	6' - 9 3/4"	ENTRY W/ DEADBOLT	YES	Y	B - ALUM GLASS DOOR
D226	MECHANICAL ROOM	2' - 6"	8' - 0"	PASSAGE	NO	N	F -POCKET DOOR
D227	GUEST BATHROOM	2' - 6"	8' - 0"	PRIVACY	NO	N	C - SOLID CORE

3908 Avenue B - Room 208 // Austin, TX 78751
Systemdarchitecture.com // 210.912.4516



Project #

CONSTANTINE RESIDENCE

4 Martelli Lane, West Lake Hills, TX 78746

Client #

JOHN & ROBBI CONSTANTINE

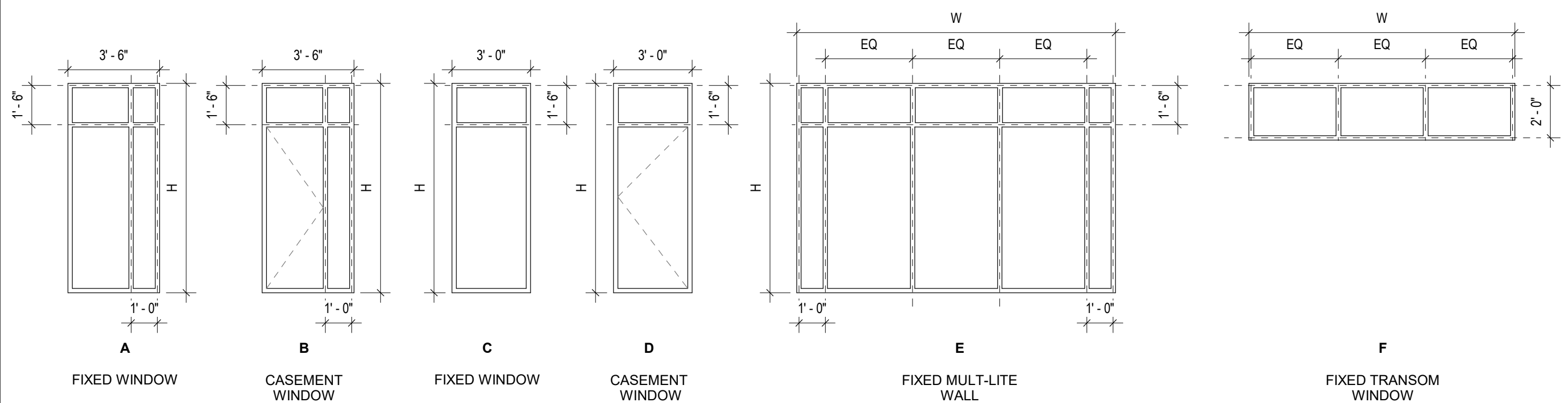
Consultants //

General Contractor: Foursquare Builders, 801 Weber Street, Austin, TX 78703, p.512.922.7533
Structural Engineer: DCJ Engineers, 2175 S Congress Ave #600, Austin, TX 78749, p.512.472.9197
Mechanical Consultant: Fresh Air HVAC, 3300 Capital Dr, Austin, TX 78745, p.512.514.7008
Interior Designer: FEENB SAATCHI, 4414 Burnet Rd, Austin, TX 78756, p.512.300.2202

Landscape: Big Red Sun, 13112 East Cesar Chavez Street Suite B, Austin, Texas 78702, p.512.480.0888

Key Plan //

WINDOW TYPES



Window Schedule					
Mark	Height	Width	Type	Tempered	Level
W001	2' - 0"	21' - 6 17/32"	F - Fixed Transom	Tempered	Guest
W002	2' - 0"	34' - 11 1/4"	F - Fixed Transom	Tempered	Guest
W003	2' - 0"	5' - 0"	F - Fixed Transom	Tempered	Guest
W004	5' - 0"	12' - 4"	E - Fixed Multi-Lite	Tempered	Guest
W005	5' - 0"	5' - 0"	E - Fixed Multi-Lite	Tempered	Guest
W006	5' - 0"	7' - 4"	E - Fixed Multi-Lite	Tempered	Guest
W007	7' - 2"	1' - 0"	C - Fixed	Tempered	Guest
W008	7' - 2"	1' - 0"	C - Fixed	Tempered	Guest
W009	7' - 2 1/32"	3' - 0"	D - Casement	Egress + Tempered	Guest
W010	8' - 0"	5' - 6"	E - Fixed Multi-Lite	Tempered	Guest

Project Issue #

BUILDING PERMIT

Date //

02/24/2023

Revision History //

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Sheet Name //

DOOR & WINDOW SCHEDULES

Sheet Number //

STRUCTURAL - GENERAL NOTES

GENERAL REQUIREMENTS

GOVERNING CODE: The design and construction of this project is governed by the "International Building Code (IBC)", 2015 Edition, hereafter referred to as the IBC, as adopted and modified by the City of Westlake Hills, TX understood to be the Authority Having Jurisdiction (AHJ).

REFERENCE STANDARDS: Refer to Chapter 35 of 2015 IBC. Where other Standards are noted in the drawings, use the latest edition of the standard unless a specific date is indicated. Reference to a specific section in a code does not relieve the contractor from compliance with the entire standard.

DEFINITIONS: The following definitions cover the meanings of certain terms used in these notes:

"Architect/Engineer" – The Architect of Record and the Structural Engineer of Record.

- "Structural Engineer of Record" (SER)** – The structural engineer who is licensed to stamp & sign the structural documents for the project. The SER is responsible for the design of the Primary Structural System.
- "Submit for review"** - Submit to the Architect/Engineer for review prior to fabrication or construction.
- "Per Plan"** – Indicates references to the structural plans, elevations and structural general notes.
- "Specialty Structural Engineer" (SSE)** – A professional engineer (PE or SE), licensed in the State where the project is located, (typically not the SER), who performs specialty structural engineering services for selected specialty-engineered elements identified in the Contract Documents, and who has experience and training in the specialty. Documents stamped and signed by the SSE shall be completed by or under the direct supervision of the SSE.
- "Bidder-designed"** – Components of the structure that require the general contractor, subcontractor, or supplier who is responsible for the design, fabrication and installation of specialty-engineered elements identified in the Contract Documents to retain the services of an SSE. Submittals of "Bidder-designed" elements shall be stamped and signed by the SSE.

SPECIFICATIONS: Refer to the project specifications issued as part of the contract documents for information supplemental to these drawings.

OTHER DRAWINGS: Refer to the architectural, mechanical, electrical, civil and plumbing drawings for additional information including but not limited to: dimensions, elevations, slopes, door and window openings, non-bearing walls, stairs, finishes, drains, waterproofing, railings, curtain walls, floors, curbs, depressions, mechanical unit locations, and other nonstructural items.

STRUCTURAL DETAILS: The structural drawings are intended to show the general character and extent of the project and are not intended to show all details of the work. Use entire detail sheets and specific details referenced in the plans as "typical" wherever they apply. Similarly, use details on entire sheets with "typical" in the name wherever they apply.

STRUCTURAL RESPONSIBILITIES: The structural Engineer (SER) is responsible for the strength and stability of the primary structure in its completed form.

COORDINATION: The Contractor is responsible for coordinating details and accuracy of the work; for confirming and correlating all quantities and dimensions; for selecting fabrication processes; for techniques of assembly; and for performing work in a safe and secure manner.

MEANS, METHODS AND SAFETY REQUIREMENTS: The contractor is responsible for the means and methods of construction and all job related safety standards such as OSHA and DOSH (Department of Occupational Safety and Health). The contractor is responsible for means and methods of construction related to the intermediate structural conditions (i.e. movement of the structure due to moisture and thermal effects; construction sequence; temporary bracing, etc).

BRACING/SHORING DESIGN ENGINEER: The contractor shall at their discretion employ an SSE, a registered professional engineer for the design of any temporary bracing and shoring.

TEMPORARY SHORING, BRACING: The contractor is responsible for the strength and stability of the structure during construction and shall provide temporary shoring, bracing and other elements required to maintain stability until the structure is complete. It is the contractor's responsibility to be familiar with the work required in the construction documents and the requirements for executing it properly.

CONSTRUCTION LOADS: Loads on the structure during construction shall not exceed the design loads as noted in DESIGN CRITERIA & LOADS below or the capacity of partially completed construction as determined by the Contractor's SSE for Bracing/Shoring.

CHANGES IN LOADING: The contractor has the responsibility to notify the SER of any architectural, mechanical, electrical, or plumbing load imposed onto the structure that differs from, or that is not documented on the original Contract Documents (architectural / structural / mechanical / electrical or plumbing drawings). Provide documentation of location, load, size and anchorage of all undocumented loads in excess of 400 pounds. Provide marked-up structural plan indicating locations of any new equipment or loads. Submit plans to the Architect/Engineer for review prior to installation.

NOTE PRIORITIES: Plan and detail notes and specific loading data provided on individual plans and detail drawings supplements information in the Structural General Notes.

DISCREPANCIES: In case of discrepancies between the General Notes, Specifications, Plans/Details or Reference Standards, the Architect/Engineer shall determine which shall govern. Discrepancies shall be brought to the attention of the Architect/Engineer before proceeding with the work. Should any discrepancy be found in the Contract Documents, the Contractor will be deemed to have included in the price the most expensive way of completing the work, unless prior to the submission of the price, the Contractor asks for a decision from the Architect/Engineer. Accordingly, any conflict in or between the Contract Documents shall not be a basis for adjustment in the Contract Price.

SITE VERIFICATION: The contractor shall verify all dimensions and conditions at the site. Conflicts between the drawings and actual site conditions shall be brought to the attention of the Architect/Engineer before proceeding with the work.

ADJACENT UTILITIES: The contractor shall determine the location of all adjacent underground utilities prior to earth-work, foundations, shoring, and excavation of piers. Any utility information shown on the drawings and details is approximate and not necessarily complete.

ALTERNATES: Alternate products of similar strength, nature and form for specified items may be submitted with adequate technical documentation (product literature for review, Alternate materials that are submitted without adequate technical documentation or that significantly deviate from the design intent of materials specified may be returned without review. Alternates that require substantial effort to review will not be reviewed unless authorized by the Owner.

DESIGN CRITERIA AND LOADS

OCCUPANCY:	Risk Category of Building per 2015 IBC Table 1604.5 =	II
-------------------	---	----

WIND DESIGN:	MAIN WIND FORCE RESISTING SYSTEM	
Ultimate Design Wind Speed, V_{ult} (MPH)	107	
Exposure Category	C	
Internal Pressure Coefficient	$C_{pi} = +/- 0.18$	
Topographic Factor	$K_{zt} = 1.02$	
Wind Analysis procedure used:	Directional	

WIND DESIGN: COMPONENTS & CLADDING PRESSURES FOR DESIGN (PSF, ULTIMATE)

EFFECTIVE WIND AREA (SQ. FT)					
a = 9'-1"	10	20	50	100	500
ZONE 1	+13.5 / -55.7	+12.6 / -51.9	+11.5 / -50.8	+10.7 / -50	+10.7 / -35.9
ZONE 2	+13.5 / -52.7	+12.6 / -51.9	+11.5 / -50.8	+10.7 / -50	+10.7 / -35.9
ZONE 3	+13.5 / -83.6	+12.6 / -66.7	+11.5 / -44.4	+10.7 / -27.5	+10.7 / -27.5
ZONE 4	+26.2 / -28.4	+25.1 / -27.3	+23.5 / 25.7	+22.4 / -24.6	+20 / -21.9
ZONE 5	+26.2 / -35	+25.1 / -32.6	+23.5 / -29.6	+22.4 / -27.3	+20 / -21.9

- Components and Cladding Wind Pressures are based on ASCE 7-10 Chapter 30 Part 3: Buildings with $h > 60$ ft.
- Components and Cladding zone locations are based on ASCE 7-10 Table 30.2-2 for Flat Roofs $0 < 10$ deg.
- For parapets around the perimeter of the roof equal to or higher than 3 ft, Zone 3 shall be treated as Zone 2.
- All Parapet Components and Cladding Wind Pressures shall be determined through ASCE 7-10 Figure 30.7-1.

SEISMIC DESIGN:	Seismic Design Category:	SDC = A
	Basic Structural System	Bearing Wall
	Seismic Force Resisting System	Plywood Sheathed Shear Walls
	Response Modification Factor:	$R = 6$
	System Over Strength Factor	$\Omega_{\text{mega}} = 2.5$
	Deflection Amplification Factor	$C_d = 5$
	Site Classification per IBC 1613.3.2 & ASCE 7-10, Ch. 20	D
	Site Class =	D
	Seismic Importance Factor per ASCE 7-10 Table 1.5-2	$I_e = 1.0$
	Seismic response coefficient(s)	$C_s = 0.01$
	Base shear governed by:	Wind
	Seismic Analysis procedure used:	Equivalent Lateral Force (ELF)

SNOW LOAD: ⁽¹⁾	Flat Roof Snow Load, (PSF)	$p_s = 5$ ⁽²⁾
	Snow Drift Loading required by Authority Having Jurisdiction?	No
	Snow Load Importance Factor	$I_s = 1.0$ ⁽³⁾
	Ground Snow Load, (PSF)	$p_g = 5$
	Snow Exposure Factor	$C_e = B$
	Thermal Factor	$C_t = 1.0$

- Snow Load is unreducible and includes 5 psf rain-on-snow surcharge where ground snow load is greater than zero and 20 psf or less per ASCE 7-10 Section 7.10.
- Snow Load based on ASCE Fig 7-1.
- Snow Load Importance Factor per ASCE 7-10 Table 1.5-2.

DESIGN LIVE LOADS	AREA	LIVE LOADS (PSF) UNIFORM	REMARKS & FOOTNOTES (2)
	Residential	40	
	Balconies & Decks	---	1.5 times the live load for area served. Not req'd to exceed 100 psf.
	Stairs & Exits – one + two family dwellings only	40 PSF or 300 LB	Stair treads per note (1).
	Roofs	20 PSF or 300 LB	Area load is reducible. Point load per note (1). See above for Snow Load.

- Place 300 lb concentrated load over 2"x2" area at any point to produce maximum stress. Area load and concentrated load are to be considered separately with worst case used for design.
- Unless otherwise noted, point loads to be distributed over a 2.5ft x 2.5ft area and located to produce maximum load effects on structural members.

DESIGN DEAD LOADS	BIDDER DESIGN	DEAD LOADS (PSF) UNIFORM	REMARKS & FOOTNOTES
	Roof Dead Load, Total	10 PSF	For Pre-Fabricated Wood Truss design
	Top Chord	5 PSF	
	Bottom Chord	5 PSF	
	Wood Tie-Down System		As Noted on Shear Wall Key Plans

SUBMITTALS

SUBMIT FOR REVIEW: SUBMITTALS of shop drawings and product data are required for items noted in the individual materials sections and for bidder designed elements.

SUBMITTAL REVIEW PERIOD: Submittals shall be made in time to provide a minimum of TWO WEEKS or 10 WORKING DAYS for review by the Architect/Engineer prior to the onset of fabrication.

GENERAL CONTRACTOR'S PRIOR REVIEW: Prior to submission to the Architect/Engineer, the Contractor shall review the submittal for completeness. Dimensions and quantities are not reviewed by the SER, and therefore, must be verified by the General Contractor. Contractor shall provide any necessary dimensional details requested by the Detailer and provide the Contractor's review stamp and signature before forwarding to the Architect/Engineer.

SHOP DRAWING REVIEW: Once the contractor has completed their review, the SER will review the submittal for general conformance with the design concept and the contract documents of the building and will stamp the submittal accordingly. Markings or comments shall not be construed as relieving the contractor from compliance with the project plans and specifications, nor departures there from. The SER will return submittals in the form they are submitted in (either hard copy or electronic). For hard copy submittals, the contractor is responsible for submitting the required number of copies to the SER for review.

SHOP DRAWING DEVIATIONS: When shop drawings (component design drawings) differ from or add to the requirements of the structural drawings they shall be designed and stamped by the responsible SSE.

DEFERRED SUBMITTALS

BIDDER-DESIGNED ELEMENTS

Submit "Bidder-Designed" deferred submittals to the Architect and SER for review. The deferred submittals shall also be submitted to the city for approval, if required by the city.

Design of prefabricated, "bidder designed", manufactured, pre-engineered, or other fabricated products shall comply with the following requirements:

- Design considers tributary dead, live, wind and earthquake loads in combinations required by IBC.
- Design within the Deflection Limits noted herein and as specified or referenced in the IBC.
- Design shall conform to the specifications and reference standards of the governing code.
- Submittal shall include:
 - Calculations prepared, stamped and signed by the SSE demonstrating code conformance.
 - Engineered component design drawings are prepared, stamped and signed by the SSE.
 - Product data, technical information and manufacturer's written requirements and Agency approvals as applicable.
 - SSE may submit to the Architect/Engineer, a request to utilize relevant alternate design criteria of similar nature and generally equivalency which is recognized by the Code and acceptable to the Authority Having Jurisdiction. Submit adequate documentation of design.

DEFLECTION LIMITS FOR SSE / BIDDER DESIGNED ELEMENTS:	VERTICAL	LIMIT
	Roof Members, Dead + Live or Snow or Wind, Total Load (TL) Deflection	L / 240, where (L is span length, inches)
	Roof, Live or Snow or Wind Load (RL)	L / 360
	Floor Members, Total Load (TL) uno	L / 240
	Floor Live Load (LL) uno	L / 360
	Wood Floor Joist Total Load (TL)	L / 480
	Wood Floor Joists Live Load (LL)	L / 600
	Members Supporting Masonry	L / 1200 or 1/4" max masonry DL only
	HORIZONTAL	LIMIT and FOOTNOTE
	Members Supporting Brittle Finishes	L / 240 (1)
	Members Supporting Flexible Finishes	L / 180 (1)
	Members Supporting Masonry	L / 800 @ 0.7E or 0.7 x Cladding Wind (1)

- Wind Load is reducible to 0.42 times the Component and Cladding Loads per Table 1604.3 footnote f.

GENERAL CONTRACTOR'S PRIOR REVIEW: Once the contractor has completed their review of the SSE component drawings, the SER will review the submittal for general conformance with the design of the building and will stamp the submittal accordingly. Review of the Specialty Structural Engineer's (SSE) shop drawings (component design drawings) is for compliance with design criteria and compatibility with the design of the primary structure and does not relieve the SSE of responsibility for that design. All necessary bracing, ties, anchorage, proprietary products shall be furnished and installed per manufacturer's instructions or the SSE's design drawings and calculations. These elements include but are not limited to:

- Handrails, Guardrails and Balcony Rail Anchorages
- Mechanical, Electrical, Plumbing & Sprinkler Hanger Plans
- Temporary Shoring Systems
- Prefabricated Wood Roof/Floor Trusses
- Engineered Wood Products (LSL, LVL)
- Wood Hold-down Systems

INSPECTIONS, QUALITY ASSURANCE VERIFICATIONS AND TEST REQUIREMENTS

INSPECTIONS: Foundations, footings, under slab systems and framing are subject to inspection by the Building Official in accordance with IBC 110.3. Contractor shall coordinate all required inspections with the Building Official.

SPECIAL INSPECTIONS, VERIFICATIONS AND TESTS: Special Inspections, Verifications and Testing shall be done in accordance with IBC Chapter 17, the STATEMENT AND SCHEDULES OF SPECIAL INSPECTIONS listed in these drawings, and the AHJ STATEMENT OF SPECIAL INSPECTION.

STRUCTURAL OBSERVATION: per IBC Section 1704.6

Structural Observation is the visual observation of the structural system by a registered design professional for general conformance to the approved construction documents. It is not always required on a project, does not include or waive the responsibility for the special inspections and tests required by a Special Inspector per IBC Chapter 17, is not continuous, and does not certify conformance with the approved construction documents.

Structural Observation for this project is required per IBC Section 1704.6. Contractor shall notify the SER in a timely manner to allow required Structural Observations to occur. Reports will be distributed to the Architect, the Contractor, Special Inspector and the Authority Having Jurisdiction.

The frequency and extent of observations is at the discretion of the structural observer. Only significant stages of construction identified by the Structural Observer require observation. For repetitive or similar structural elements identified as significant, only the stage element of a stage requires observation unless noted otherwise. The following significant stages of construction require observation: prior to foundation concrete placement, during the first elevated floor framing, and after roof diaphragm is complete prior to roofing.

CONTRACTOR RESPONSIBILITY: Prior to issuance of the building permit, the Contractor is required to provide the Authority Having Jurisdiction a signed, written acknowledgment of the Contractor's responsibilities associated with the above Statement of Special Inspections addressing the requirements listed in IBC Section 1704.4. Contractor is referred to IBC Sections 1705.12.5 and 1705.12.6 for architectural and MEP building systems that may be subject to additional inspections (based on the building's designated Seismic Design Category listed in the CRITERIA), including anchorage of HVAC ductwork containing hazardous materials, piping systems and mechanical units containing flammable, combustible or highly toxic materials, electrical equipment used for emergency or standby power, exterior wall panels and suspended ceiling systems.

SOILS AND FOUNDATIONS

REFERENCE STANDARDS: Conform to IBC Chapter 18 "Soils and Foundations."

GEOTECHNICAL REPORT: Recommendations contained in "Geotechnical Assessment and Foundation Recommendations Future Residential Structure at 1603 Canyon View" (Report No. 21658) by Simplified Engineering & Contracting Solutions LLC dated December 3, 2021 were used for design.

CONTRACTOR'S RESPONSIBILITIES: Contractor shall be responsible to review the Geotechnical Report and shall follow the recommendations specified therein, but not limited to, subgrade preparations, pile installation procedures, ground water management and steep slope Best Management Practices.

GEOTECHNICAL SUBGRADE INSPECTION: The Geotechnical Engineer shall inspect all sub-grades and prepared soil bearing surfaces, prior to placement of foundation reinforcing steel and concrete. Geotechnical Engineers shall provide a letter to the owner stating that soils are adequate to support the "Allowable Foundation Bearing Pressure(s)" shown below.

DESIGN SOIL VALUES

Safety Factor per Soils Report.....	1.5	
Allowable Foundation Bearing Pressure.....	2250	PSF – Native Soil (1ft depth)
Allowable Foundation Bearing Pressure.....	3150	PSF – Native Soil (2 ft depth)
Active Lateral Pressure (unrestrained).....	45'	PSF/ft
Coefficient of Sliding Friction.....	0.4	

* Per ASCE 7-10 Table 3.2-1

FOUNDATIONS AND FOOTINGS: Foundations shall bear on either on competent native soil or compacted structural fill as per the geotechnical report. Exterior perimeter footings shall bear not less than 12 inches below finish grade, unless otherwise specified by the geotechnical engineer and/or the building official.

FOOTING DEPTH: Tops of footings shall be as shown on plans with vertical changes indicated with steps in the footings; locations of steps shown as approximate and shall be coordinated with the civil grading plans.

SLABS-ON-GRADE: All slabs-on-grade shall bear on compacted structural fill or competent native soil per the geotechnical report. All moisture sensitive slabs-on-grade or those subject to receive moisture sensitive coatings/coverings shall be provided with an appropriate capillary break and vapor barrier/retardant over the subgrade prepared and installed as noted in the geotechnical report, barrier manufacturer's written recommendations and coordinated with the finishes specified by the Architect.

REFERENCE STANDARDS: Conform to:

- IBC Section 1810.
- ACI 301 "Standard Specifications for Structural Concrete."

SUBMITTALS: Conform to ACI 301 Section 3.1.1 "Submittals, Data, and Drawings." Submit the following items for review:

- Reinforcing fabrication drawings showing reinforcement size, configuration and grade.
- Grout mix design.
- Grout strength test results.

MATERIALS: Conform to notes for CONCRETE REINFORCEMENT and CAST-IN-PLACE CONCRETE, this sheet.

GROUT STRENGTH: Use minimum 5000 psi mix.

LOAD TEST: Pile lengths and capacity shall be validated by Load Test determined and verified at the site by the geotechnical engineer.

SIZE: Pile shape shall be as noted on the foundation drawings. 36 inch diameter embedded 6 feet in the bearing layer per the geotechnical report. The estimated bottom of pile elevation is for preliminary use only. Actual bottom of piles shall be determined by the geotechnical engineer and shall be adjusted on the basis of the load test or otherwise coordinated with the geotechnical engineer prior to fabrication of pile cage reinforcement.

CAST-IN-PLACE CONCRETE

REFERENCE STANDARDS: Conform to:

- ACI 301-10 "Specifications for Structural Concrete"
- IBC Chapter 19 "Concrete"
- ACI 318-14 "Building Code Requirements for Structural Concrete"
- ACI 117-10 "Specifications for Tolerances for Concrete Construction and Materials"
- ACI 332-14 "Residential Code Requirements For Structural Concrete"

FIELD REFERENCE: The contractor shall keep a copy of ACI Field Reference manual, SP-15, "Standard Specifications for Structural Concrete (ACI 301) with Selected ACI and ASTM References."

CONCRETE MIXTURES: Conform to ACI 301 Section 4 "Concrete Mixtures" and IBC Section 1904.1.

MATERIALS: Conform to ACI 301 Section 4.2.1 "Materials" for requirements for cementitious materials, aggregates, mixing water and admixtures.

SUBMITTALS: Provide all submittals required by ACI 301 Section 4.2.2. Submit mix designs for each mix in the table below. Substantiating strength results from past tests shall not be older than 24 months per ACI Section 26.4.3.1 (b).

TABLE OF MIX DESIGN REQUIREMENTS

Member Type/Location	Strength f'_c (psi)	Test Age (days)	Nominal Maximum Aggregate	Exposure Class	Max W/C Ratio	Air Content, %	Notes (1 to 8 Typical UNO)
Foundations (Residential)	4000	28	1"	-	-	-	-
Site Retaining Walls	4000	28	1"	F1	0.55	4 ½%	-

Table of Mix Design Requirements Notes:

- W/C Ratio: Water-cementitious material ratios shall be based on the total weight of cementitious materials. Maximum ratios are controlled by strength noted in the Table of Mix Design Requirements and durability requirements given in ACI 318 Section 19.3.
- Cementitious Materials:
 - DCI encourages the reduction of cement content and/or the use of blended hydraulic cements. Where requirements of this section prohibit inclusion of any of these mixes, contact DCI for further coordination.
 - The use of fly ash, other pozzolans, silica fume, or slag shall conform to ACI 318 Sections 19.3.2 and 26.4.2.2.
 - For concrete used in elevated floors, minimum cementitious-materials content shall conform to ACI 301 Table 4.2.2.1. Acceptance of lower cement content is contingent on providing supporting data to the SER for review and acceptance.
 - Cementitious materials shall conform to the relevant ASTM standards listed in ACI 318 Section 26.4.1.1.1(a).
- Air Content: Conform to ACI 318 Section 19.3.3.1. Minimum standards for exposure class are noted in the table. If freezing and thawing class is not noted, air content given is that required by the SER. Tolerance is $\pm 1\%$. Air content shall be measured at point of placement.
- Aggregates shall conform to ASTM C33.
- Slump: Conform to ACI 301 Section 4.2.2.2. Slump shall be determined at point of placement.
- Chloride Content: Conform to ACI 318 Table 19.3.2.1.
- Non-chloride accelerator: Non-chloride accelerating admixture may be used in concrete placed at ambient temperatures below 50°F at the contractor's option.
- ACI 318, Section 19.3.1.1 exposure classes shall be assumed to be [F0], [S0], [W0], and [C0] unless different exposure classes are listed in the Table of Mix Design Requirements that modify these base requirements.
- Modulus of Elasticity shall be a minimum of 57,000 x $\sqrt{f'_c}$ for all mix designs.
- Shrinkage Limit: Concrete used in slab-on-grade shall have a shrinkage limit of 0.040% when exposed or used in industrial applications and a shrinkage limit of 0.045% for all other conditions and applications. Submit laboratory test results at 28 days measured in accordance with ASTM C157 to SER for approval prior to construction.

FORMWORK & RESHORING: Conform to ACI 301 Section 2 "Formwork and Form Accessories." Removal of Forms shall conform to Section 2.3.2.2 except strength indicated in Section 2.3.2.5 shall be 0.75 f' c. Reshoring shall conform to Section 2.3.3.

MEASURING, MIXING, AND DELIVERY: Conform to ACI 301 Section 4.3.

HANDLING, PLACING, CONSTRUCTING AND CURING: Conform to ACI 301 Section 5. In addition, hot weather concreting shall conform to ACI 308R-10 and cold weather concreting shall conform to ACI 308R-10.

CONCRETE CURING: Provide curing compounds for concrete as follows:

- Use membrane curing compounds that are compatible with and will not affect surfaces to be covered with finish materials applied directly to concrete.
- Apply curing compounds at a rate equivalent to the rate of application at which curing compound was originally tested for in conformance to the requirements of ASTM C 309-07 and the manufacturer's recommendations.
- Apply specified curing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's directions. Recast areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repeat during curing period.

FOR PERMIT

The Contractor shall not use these drawings for construction until Contractor receives written approval for use in construction by the authority having jurisdiction and DCI Engineers.

- Use curing compound compatible with and applied under direction of system manufacturer of protective sealer.
- Apply two separate coats with first allowed to become tacky before applying second. Direction of second application shall be at right angles to direction of first.

CONSTRUCTION JOINTS: Conform to ACI 301 Sections. 2.2.2.5, 5.2.2.1 and 5.3.2.6. Construction joints shall be located and detailed as on the construction drawings. Submit alternate locations per ACI 301 Section 5.1.2.3a for review and approval by the SER two weeks minimum prior to forming. Use of an acceptable adhesive, surface retardant, portland cement grout or roughening the surface is not required unless specifically noted on the drawings.

EMBEDDED ITEMS: Position and secure in place expansion joint material, anchors and other structural and non-structural embedded items before placing concrete. Contractor shall refer to mechanical, electrical, plumbing and architectural drawings and coordinate other embedded items.

GROUT: Use 7000 psi non-shrink grout under column base plates.

GROUTED REBAR: See Post-installed Anchors to Concrete.

POST-INSTALLED ANCHORS TO CONCRETE: Anchor location, type, diameter and embedment shall be as indicated on drawings. Reference the POST INSTALLED ANCHORS section for applicable Post-Installed Anchor Adhesives. Anchors shall be installed and inspected in accordance with the applicable ICC-Evaluation Service Report (ESR). Special inspection shall be per the TESTS and INSPECTIONS Section.

BONDING AGENT: Use MasterEmaco ADH 328. Apply in accordance with manufacturer's instructions.

JOINT COMPOUND: Provide acid resistant silicone caulk where noted on the drawings. Submit product data for review.

LEAN CONCRETE BACKFILL: Conform to recommendations of ACI 229R-13 "Controlled Low Strength Materials (CLSM)" for mixing and placing lean concrete backfill shown on the drawings. Use 100 psi mix for backfill not under footings. Use 300 psi mix for backfill below footings. Use standard slump test to verify flow ability. Test in accordance with ASTM D 4832-10 "Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders."

SHRINKAGE: Conventional and post-tensioned concrete slabs will continue to shrink after initial placement and stressing of concrete. Contractor and subcontractor shall coordinate jointing and interior material finishes to provide adequate tolerance for expected structural frame shrinkage and shall include, but not be limited to, curtain wall, dryvit, storefront, skylight, floor finish, and ceiling suppliers. Contact Engineer for expected range of shrinkage.

FLOOR FINISHES: The contractor must provide and correctly install an isolation membrane and properly detailed expansion joints to help minimize cracking of finishes with cementitious setting beds or finish properties (tile, stone, terrazzo, concrete topping, etc). The expansion joints shall be sized for an expected shortening movement of 0.01 inches per foot.

MODULUS OF ELASTICITY TESTING AND ACCEPTANCE:

Obtain samples and conduct tests of mix designed specified in accordance with ACI 318 Section 19.2.2, ACI 318 R19.2.2, ACI 301 Section 16.3.2, ASTM C42 and ASTM C469. Tests data shall be performed at the 28 day compressive test age. Provide a minimum of (2) tests for each mix design used in the following elements: **Beams & Slabs.** Provide a minimum of (1) test for all other elements. The average of the tests shall equal or exceed the specified Modulus of Elasticity. If (2) or more tests are performed, no individual test shall fall below the specified Modulus of Elasticity by more than 20 percent. A "test" for acceptance is the average strength of two 6 by 12 in. cylinders or three 4 by 8 in. cylinders tested at the specified test age.

STRUCTURAL STEEL

REFERENCE STANDARDS: Conform to:

- 1) IBC Chapter 22 – “Steel”
- 2) ANSI/AISC 303-10 – “Code of Standard Practice for Steel Buildings & Bridges”
- 3) AISC – “Manual of Steel Construction”, Fourteenth Edition (2010)
- 4) ANSI/AISC 360-10 – “Specification for Structural Steel Buildings”
- 5) AWS D1.1:2010 – “Structural Welding Code – Steel”
- 6) 2009 RCSC – “Specification for Structural Joints using High-Strength Bolts”

SUBMITTALS: Submit the following documents to the SER for review:

- (1) **SHOP DRAWINGS** complying with AISC 360 Sections M1and N3 and AISC 303 Section 4.
- (2) **ERECTION DRAWINGS** complying AISC 360 Sections M1and N3 and AISC 303 Section 4.
- (3) **Weld Procedure Specifications (WPS)s** for shop and field welding.

Make copies of the following documents “Available upon Request” to the SER or Owner’s Inspection Agency in electronic or printed form prior to fabrication per AISC 360 Section N3.2 requirements:

- (1) **Fabricator’s written Quality Control Manual** that includes, as a minimum:
 - a. Material Control Procedures
 - b. Inspection Procedures
 - c. Non-conformance Procedures
- (2) **Steel & Anchor Rod suppliers’ Material Test Reports (MTR’s)** indicating the compliance with specifications.
- (3) **Fastener manufacturer’s Certification** documenting conformance with the specification.
- (4) **Filler metal manufacturer’s product data** for SMAW, FCAW and GMAW indicating:
 - a. Product specification compliance
 - b. Recommended welding parameters
 - c. Recommended storage and exposure requirements including baking
 - d. Limitations of use
- (5) **Welded Headed (Shear) Stud Anchors Manufacturer’s certification** indicating the meet specifications.
- (6) **Weld Procedure Specifications (WPS’s)** for shop and field welding.
- (7) **Manufacturer’s Certificates of Conformance** for electrodes, fluxes and gases (welding consumables).
- (8) **Procedure Qualification Records (PQR’s)** for WPS’s that are not prequalified in accordance with AWS.
- (9) **Welding personnel Performance Qualification Records (WPQRs)** and continuity records conforming to AWS standards.

MATERIALS:

Structural steel materials shall conform to materials and requirements listed in AISC 360 section A3 including, but not limited to:

- | | | |
|--|--|-------------|
| Wide Flange (W), Tee (WT) Shapes..... | ASTM A992 | Fy = 50 ksi |
| Channel (C) & Angle (L) Shapes..... | ASTM A36 | Fy = 36 ksi |
| Structural Plate (PL)..... | ASTM A36 | Fy = 36 ksi |
| Hollow Structural Section – Square/Rect (HSS)..... | ASTM A500, Grade B | Fy = 46 ksi |
| Structural Pipe (PIPE) 12” dia. and less..... | ASTM A500, Grade B | Fy = 35 ksi |
| Hollow Structural Section – Round (HSS)..... | ASTM A500, Grade B | Fy = 42 ksi |
| High Strength, Heavy Hex Structural Bolts..... | ASTM A325/F1852, Type 1 or 3, Plain | |
| Heavy Hex Nuts..... | ASTM A563, Grade and Finish per RCSC Table 2.1 | |
| Washers (Hardened Flat or Beveled)..... | ASTM F436, Grade and Finish per RCSC Table 2.1 | |
| Anchor Rods (Anchor Bolts, typical)..... | ASTM F1554, Gr. 36 | |
| Mild Threaded Rods..... | ASTM A36 | Fy = 36 ksi |

STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS:

- 1) ASTM A325-N bolts – “threads NOT excluded in the shear plane”.
- 2) High-strength bolted joints have been designed as “BEARING” connections.
- 3) Provide ASTM Bolt Grade and Type as specified in the **Materials** section above.
- 4) Provide Washers over outer ply of slotted holes and oversize holes per RCSC Table 6.1.
- 5) Provide Nut and Washer grades, types and finishes conforming to RCSC specification Table 2.1.
- 6) Provide fastener assemblies from a single supplier.
- 7) Joint Types shall be:
 - a. ST - “Snug Tight”, for typical beam end “shear” connections, unless noted otherwise.
 - b. SC - “Slip Critical”, where specifically indicated. Provide with Class A Faying surface.
- 8) Install bolts in joints in accordance with the RCSC Specification Section 8 and Table 4.1.
- 9) Inspection is per RCSC Section 9.

ANCHORAGE to CONCRETE:

- 1) **EMBEDDED STEEL PLATES for Anchorage to Concrete:** Plates (PL) embedded in concrete with studs (WHS) or dowel bar anchors (DBA) shall be of the sizes and lengths as indicated on the plans with minimum 1/2” dia. WHS x 6” long but provide not less than 3/4” interior cover or 1 1/2” exterior cover to the opposite face of concrete, unless noted otherwise.
- 2) **COLUMN ANCHOR RODS and BASE PLATES:** All columns (vertical member assemblies weighing over 300 pounds) shall be provided with a **minimum of four 1/2” diameter anchor rods**. Column base plates shall be at least 3/4” thick, unless noted otherwise. Cast-in-place anchor rods shall be provided unless otherwise approved by the Engineer. Unless noted otherwise, embedment of cast-in-place anchor rods shall be 12 times the anchor diameter (12D).

FABRICATION:

- 1) Conform to AISC 360 Section M2 “Fabrication” and AISC 303 Section 6 “Shop Fabrication”.
- 2) Quality Control (QC) shall conform to:
 - a. AISC 360 Chapter N “Quality Control and Quality Assurance” and
 - b. AISC 303 Section 8 “Quality Control”.
 - c. Fabricator and Erector shall establish and maintain written Quality Control (QC) procedures per AISC 360 section N3.
 - d. Fabricator shall perform self-inspections per AISC 360 section N5 to ensure that their work is performed in accordance with Code of Standard Practice, the AISC Specification, Contract Documents and the Applicable Building Code.
 - e. QC inspections may be coordinated with Quality Assurance inspections per Section N5.3 where fabricators QA procedures provide the necessary basis for material control, inspection, and control of the workmanship expected by the Special Inspector.

WELDING:

- 1) Welding shall conform to AWS D1.1 with Prequalified Welding Processes except as modified by AISC 360 section J2. Welders shall be qualified in accordance with AWS D1.1 requirements.
- 2) Use 70ksi strength, low-hydrogen type electrodes (E7018) or E71T as appropriate for the process selected.
- 3) Welding of high strength anchor rods is prohibited unless approved by Engineer.
- 4) Welding of headed stud anchors shall be in accordance with AWS D1.1 Chapter 7 “Stud Welding”.

ERECTION:

- 1) Conform to AISC 360 Section M4 “Erection” and AISC 303 Section 7 “Erection”.
- 2) Conform to AISC 360 Chapter N “Quality Control and Quality Assurance” and AISC 303 Section 8.
 - a. The Erector shall maintain detailed erection quality control procedures that ensure that the work is performed in accordance with the requirements and the Contract Documents.
- 3) Steel work shall be carried up true and plumb within the limits defined in AISC 303 Section 7.13.
- 4) High strength bolting shall comply with the RCSC requirements including RCSC Section 7.2 “Required Testing”, as applicable and AISC 360 Chapter J, Section M2.5 and Section N5.6.
- 5) Welding of **HEADED STUD ANCHORS** shall be in accordance with AWS D1.1 Chapter 7 “Stud Welding.
- 6) Provide Headed (Shear) Stud Anchors welded through the metal deck to tops of beams denoted in plans.
- 7) The contractor shall provide temporary bracing and safety protection required by AISC 360 Section M4.2 and AISC 303 Section 7.10 and 7.11.

PROTECTIVE COATING REQUIREMENTS:

- 1) **SHOP PAINTING:** Conform to AISC 360 Section M3 and AISC 303 Section 6.5 unless otherwise specified by the project specifications.
- 2) **INTERIOR STEEL:**
 - a. Unless noted otherwise, **do not paint** any of the steel surfaces meeting the following conditions:
 - Concealed by the interior building finishes.
 - Fireproofed.
 - Embedded in concrete.
 - Specially prepared as a “faying surface” for Type-SC “slip-critical” connections including bolted connections that form a part of the Seismic Force Resisting System governed by AISC 341 unless the coating conforms to requirements of the RCSC Bolt Specification and is approved by the Engineer.
 - Welded; if area requires painting, do not paint until after weld inspections and non-destructive testing requirement, if any, are satisfied.
 - b. Interior steel, exposed to view, shall be painted with one coat of shop primer unless otherwise indicated in the project specifications. Field touch-ups to match the finish coat or as otherwise indicated in the project specifications.
- 3) **EXTERIOR STEEL:** Exposed exterior steel shall be protected by either:
 - a. **Paint** with an exterior multi-coat system as per the project specifications. Field touch-up painting shall be per the project specifications.

WOOD FRAMING

REFERENCE STANDARDS: Conform to:

- (1) IBC Chapter 23 – “WOOD”
- (2) NDS - “2015 National Design Specification (NDS) for Wood Construction”
- (3) ANSI/APA – SDPWA-15, Special Design Provisions for Wind and Seismic
- (4) APA D510C-12 Plywood Design Specification
- (5) ANSI/TPI 1-2014 “National Design Standard for Metal-Plate-Connected Wood Truss Construction”
- (6) BCSI “Guide to Good Practice for Handling, Installing & Bracing of Metal Plated Connected Wood Trusses”
- (7) TPI DSB “Recommended Design Specification for Temporary Bracing of Metal Plated Connected Wood Trusses”
- (8) APA Report TT-045B “Minimum Nail Penetration for Wood Structural Panel Connections Subject to Lateral Loads”

SUBMITTALS: Submit shop drawings to the Architect/Engineer for review. Shop drawings shall include member size, spacing, camber, material type, grade, shop and field assembly details and connections, types and location of bolts and other fasteners. Supply shop drawings for the following:

- (1) LVL members
- (2) LSL members
- (3) Panelized wood walls & connection details
- (4) Wood Tie-Down Systems

DEFERRED SUBMITTALS: Submit product data and proof of ICC approval for framing members and fasteners that have been designed by others. Submit calculations prepared by the SBE in the state of Texas for all members and connections designed by others along with shop drawings. All necessary bridging, blocking, blocking panels and web stiffeners shall be detailed and furnished by the supplier. Temporary and permanent bridging shall be installed in conformance with the manufacturer’s specifications. Deflection limits shall be as noted under DEFERRED SUBMITTALS section specific details. Products included are:

- **Metal plate connected trusses (prefabricated trusses)** Conform to IBC Section 2303.4. Truss Supplier to provide design and materials for all permanent truss bracing. Shop drawings shall provide for shapes, bearing points, intersections, hips, and valleys shown on the drawings. The manufacturer shall provide special hip, valley and intersection areas (step down trusses, jack trusses and girder trusses) unless specifically indicated on the plans. Provide all truss-to-truss and truss-to-support connection details and required connection materials. Specify temporary and permanent bracing and connections on the shop drawings. Provide all truss reactions on shop drawings.
- **Wood Tie Down Systems:** Continuous rod hold-down systems, with take-up devices, shall be as specified. Take-up devices are required at each framing level. Additional framing members shall be provided per the system requirements. Refer to details and loading on the structural drawings.

IDENTIFICATION: All sawn lumber and pre-manufactured wood products shall be identified by the grade mark or a certificate of inspection issued by the certifying agency.

MATERIALS:

- **Sawn Lumber:** Conform to grading rules of WWP, WCLB or NLGA and Table below. Finger jointed studs acceptable at interior walls only.

TABLE of SOLID SAWN LUMBER

Member Use	Size	Species	Grade
Wall Stud/ Top & Bottom Plates	2x4, 3x4, 2x6, 3x6	Doug Fir Larch	No. 2
Sill Plate (at concrete)	2x4, 3x4, 2x6, 3x6	PT Doug Fir Larch	No. 2
Post	4x4, 4x6, 4x8	Doug Fir Larch	No. 2
Floor or Roof Joist	2x6 through 2x12	Doug Fir Larch	No. 2

- **Wood Structural Sheathing (Plywood):** Wood APA-rated structural sheathing includes: all veneer plywood, oriented strand board, waferboard, particleboard, T1-11 siding, and composites of veneer and wood based material with T&G joint. Architect may disallow OSB. Conform with Architect. Conform to “Construction and Industrial Plywood” based on Product Standard PS 1-09 by the U.S. Dept. of Commerce, and “Performance Standard for Wood-Based Structural-Use Panels” based on Product Standard PS 2-10 by the U.S. Dept. of Commerce and “Plywood Design Specification” based on APA D510C-12 by the American Plywood Association. Unless noted otherwise, sheathing shall comply with the following table:

TABLE of SHEATHING - Use, Minimum Thickness and Minimum APA Rating

Location	Thickness	Span Rating	Plywood Grade	Exposure
Roof	15/32”	32/16	C-D	1
Walls	15/32”	32/16	C-D	1
Floor	1-1/8” T&G	48 OC	STURD-I-FLOOR	1

Unless noted otherwise on drawings, install roof and floor panels with long dimension across supports and with panel continuous over two or more spans. End joints shall occur over supports.

- **Timber Connectors:** Shall be “Strong Tie” by Simpson Company as specified in their latest catalog. Alternate connectors by other manufacturers may be substituted provided they have current ICC approval for equivalent or greater load capacities and are reviewed and approved by the SER prior to ordering. Connectors shall be installed per the manufacturer’s instructions. Where connector straps connect two members, place one-half of the nails or bolts in each member. Where straps are used as hold-downs, nail straps to wood framing just prior to drywall application, as late as possible in the framing process to allow the wood to shrink and the building to settle. Premature nailing of the strap may lead to strap buckling and potential finish damage.

Where connectors are in exposed exterior applications in contact with preservative treated wood (PT) other than CCA, connectors shall be either batch hot-dipped galvanized (HDG), mechanically galvanized (ASTM B695, Class 55 minimum) stainless steel, or provided with 1.85 oz/sf of zinc galvanizing equal to or better than Simpson ZMAX finish.

Nail straps to wood framing as late as possible in the framing process to allow the wood to shrink and the building to settle. Premature nailing of the strap may lead to strap buckling and potential finish damage.

- **Fasteners (nails, bolts, screws, etc)** attaching timber connectors (joist hangers, post caps and bases, etc) to PT wood shall have similar corrosion resistance properties (matching protective treatments) as the protected connector. Fasteners (nails, bolts, screws, etc) attaching sawn timber members or sheathing (shear walls) to PT wood shall be corrosion resistant; nails and lag bolts shall be either HDG (ASTM A153) or stainless steel. Verify the suitability of the fastener protection/coating with the wood treatment chemical manufacturer/supplier.

Provide **washers** under the heads and nuts of all bolts and lag screws bearing on wood.

- **Lag Bolts/Bolts:** Conform to ASTM A307 and IBC Section 2304.10.

- **Nails and Staples:** Conform to ASTM F1667 and IBC Sections 2303.6 and 2304.10.

- **Engineered Wood Products (Truss/Joint):** The following materials are based on lumber manufactured by TrusJoist and were used for the design as shown on the plans. Alternate products by other manufacturers may be substituted provided they have current ICC approval for equivalent or greater load and stiffness properties and are reviewed and approved by the Structural Engineer prior to ordering.

- a. **Laminated Veneer Lumber (LVL):** Conform to **ICC ES Report No. ESR-1387** or CCMC Report No. 08675-R.
- b. **Laminated Strand Lumber (LSL):** Conform to **ICC ES Report No. ESR-1387** or CCMC Report No. 12627-R.

TABLE of ENGINEERED WOOD Requirements

Type	Use	Widths	E(1 st)			
			PSI	PSI	PSI	PSI
LSL Rimboard	Rimboard or Stair Stringer	1 1/2”	1.3E	1,700	425	1,835
Timberstrand LSL	Rimboard, Header or Beam ≥ 9” depth	1 1/2”, 3 1/2”	1.55E	2,325	310	2,170
Timberstrand LSL	Wall Stud 2x4 & 2x6	1 1/2”	1.5E	1,700	425	1,835
	Wall Stud >2x6	1 1/2”	1.5E	2,525	505	2,105
	Header, Beam	1 3/4”	2.0E	2,600	285	2,510

NAILING REQUIREMENTS: Conform to IBC Section 2304.10 “Connections and fasteners.” Unless noted on plans, nail per Table 2304.10.1. Nailing for roof/ceiling diaphragms/shear walls shall be per drawings. Nails shall be driven flush and shall not fracture the surface of sheathing. Alternate nails may be used but are subject to review and approval by the Structural Engineer. Substitution of staples for the nailing of rated sheathing is subject to review by the structural engineer prior to construction.

STANDARD LIGHT-FRAME CONSTRUCTION: Unless noted on the plans, construction shall conform to IBC Section 2308 “Conventional Light-Frame Construction.”

NAILERS ON STEEL COLUMNS and BEAMS: Wood 3x nailers are generally required on all HSS columns and steel beams abutting or embedded within wood framing. Unless noted otherwise, attach with 6d” diameter bolts or welded studs at 16” on centers. Unless noted otherwise, wood nailers on beams supporting joist hangers shall not overhang the beam flange by more than 1/4”.

WOOD SHRINKAGE AND EXPANSION: Wood materials will expand or contract based on relative changes in moisture. The contractor is responsible for means and methods of construction related to mitigating and managing the effects of changes in moisture.

MOISTURE CONTENT: The contractor shall make provisions during handling and construction to prevent the structural wood members from exceeding the appropriate moisture content limits. The moisture content for solid sawn wood material used for this project shall not exceed 19%. The moisture content for engineered wood products, laminated lumber and sheathing shall not exceed the limits required by the manufacturer or 12%, whichever is less. The moisture content limits may be more stringent for particular product requirements (eg. finishes, cladding, insulation systems, etc.). The contractor shall refer to the Architect’s drawings, project specifications, or installer/product requirements for additional requirements.

SHRINKAGE COMPENSATION FOR MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS: MEP systems, including ductwork, pipes, and other elements that run continuously between levels shall be installed/designed in such a manner to accommodate shrinkage in the wood framing. Wood shrinkage amounts will vary depending on the construction process and materials used. The anticipated shrinkage under typical conditions is expected to range between 1/8” and 1/4” per foot.

CLADDING COMPATIBILITY: The Architect/Owner and contractor shall review the cladding, finishes, insulation systems, other non-structural components and construction procedures proposed for the project with respect to their performance over wood framing. EIFS systems should be avoided on wood-framed projects due to problems with moisture proofing. Note that DCI is not responsible for the attachment of the cladding to the wood studs which needs to be verified and provided by the cladding supplier.

PRESERVATIVE TREATMENT (PT): Wood materials that are required to be “treated wood” in accordance with IBC Section 2304.12 “Protection Against Decay and Termite Protection” shall conform to the appropriate standards of the American Wood-Preservers Association (AWPA) for sawn lumber, glued laminated timber, round poles, wood piles and marine piles. Follow American Lumber Standards Committee (ALSC) quality assurance procedures. Products shall bear the appropriate mark. Fasteners or anchors in treated wood shall be of stainless steel or hot-dipped galvanized or as per IBC 2304.10.5.

Mud sill plates in normally dry interior applications may be treated with Sodium Borate (DOT - Disodium Octaborate Tetrahydrate) as recent studies have noted less connector corrosion potential than other available wood treatments or the original CCA treated sill plates. Wood treated with Sodium Borate shall be protected during shipment, storage and installation to minimize leaching of the water-soluble preservative from the lumber. Sodium borate pressure treated plates do not require hot-dipped galvanized connectors.

If using preservative treatments other than CCA or sodium borate, fasteners must be hot dipped galvanized or stainless steel. Wood treated with Alkaline Copper Quaternary (ACQ) requires steel components in contact with the wood to be stainless (nails, bolts, screws, washers & lag screws). Fasteners (nails, bolts, screws, washers & lag screws) attaching timber connectors (joist hangers, post caps and bases, etc) to PT wood shall have similar corrosion resistance properties (matching protective treatments) as the protected connector. That is, use hot dipped galvanized or stainless steel fasteners. Fasteners (nails, bolts, screws, washers & lag screws) attaching sawn timber members or sheathing (shear walls) to Pressure Treated wood shall be corrosion resistant (hot dipped galvanized or stainless steel).

Always verify the suitability of the fastener protection/coating with the wood treatment chemical manufacturer/supplier.

Fire Retardant Treated (FRT) Wood: Wood material that is required to be Fire Retardant Treated Wood to conform to IBC Section 2303.3 – “Fire Retardant Treated Wood.” Submit ICC report to SEOR for review and approval prior to construction.

FOR PERMIT

The Contractor shall not use these drawings for construction until Contractor receives written approval for use in construction by the authority having jurisdiction and DCI Engineers.

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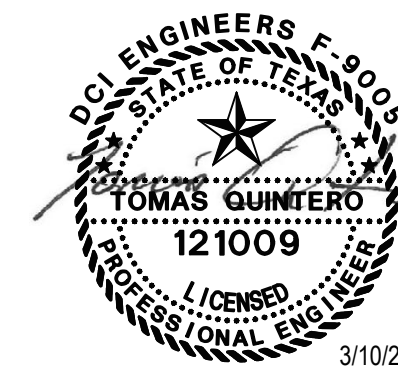
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Landscape Architect:
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Key Plan #



Project Name #

- NOT FOR CONSTRUCTION

Date #

10/28/2022

Revision History #

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Sheet Name #

STRUCTURAL - GENERAL NOTES

Sheet Number #

S102

SPECIAL INSPECTIONS

The following Statement and Schedules of Inspections are those Special Inspections and Tests that shall be performed for this project. Special Inspectors shall reference these plans and IBC Chapter 17 for all special inspection requirements.

The owner shall retain an "approved agency" per IBC 1703 to provide special inspections for this project. Special Inspectors shall be qualified persons per IBC 1704.2.1. Special inspection reports shall be provided on a weekly basis. Submit copies of all inspection reports to the Architect/Engineer and the Authority Having Jurisdiction for review. In addition to special inspection reports and tests, submit reports and certificates noted in IBC 1704.5 to the Authority Having Jurisdiction. Final special inspection reports will be required by each special inspection firm per IBC 1704.2.4.

STATEMENT OF SPECIAL INSPECTIONS:

This statement of Special Inspections has been written with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors
- Monitor the special inspection activity on the project site to assure that Special Inspectors are qualified and performing their duty as state within this statement.
- Review all Special Inspection Reports submitted to them by the Special Inspector
- Perform inspections as required by IBC Section 110.3.

The following Special Inspections are applicable to this project:

- Special Inspections for Standard Buildings (per IBC 1704.1)

REQUIRED

SPECIAL INSPECTION OF SHOP FABRICATED GRAVITY LOAD-BEARING MEMBERS AND ASSEMBLIES:

Special Inspection of shop fabricated Gravity Load Bearing Members & Assemblies shall be verified by the Special Inspector as stated in Section 1704.2.5 which includes the following:

- Prior to the start of fabrication: Special Inspector(s), representing the Owner, shall visit the Fabricator's shop(s) where the work is to be performed, and verifies that the Fabricator maintains detailed Fabrication and Quality Control procedures that provide a basis for inspection, control of workmanship, material control, and fabricator's ability to conform to approved Construction Documents and referenced Standards.
 - Fabricator shall have available for Inspector's review, detailed procedures for material selection that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification, grade and applicable test reports for primary load-carrying members, are capable of being determined.
- STRUCTURAL STEEL** per IBC 1705.2.1
- A qualified Special Inspector of an "approved agency" providing Quality Assurance (QA) Special Inspections for the project shall review and confirm the Fabricator and Erector's Quality Control (QC) procedures for completeness and adequacy relative to AISC 360-10 Chapter N, AISC 360-10 Code of Standard Practice, AWS D1.1-2010 Structural Welding Code, and 2015 IBC code requirements for the fabricator's scope of work.
- o QA Agency providing Special Inspections shall provide personnel meeting the minimum qualification requirements for Inspection and Nondestructive Testing NDT per AISC 360-10 Section N4.
 - o Verify Fabricator and Erector QC Program per AISC 360-10 Section N2.
 - o Inspection of welds and bolts by both QC and QA personnel shall be per the Schedule of Special Inspections below. All provisions of AWS D1.1-2010 Structural Welding Code for statically loaded structures shall apply.
 - o Nondestructive Testing (NDT) of welds:
 - Non-Destructive Testing (NDT) of welded joints per AISC 360-10 N5.5.
 - Risk Category for determination of extent of NDT per AISC 360 N5.5b is noted in the Design Criteria and Loads section of these General Requirements.
 - NDT performed shall be documented and reports shall identify the tested weld by piece mark and location of the piece.
 - For field work, the NDT report shall identify the tested weld by location in the structure, piece mark and location of the piece.
 - o Additional Inspection tasks per AISC 360-10 Section N5.7.
 - o Inspection for Composite Construction shall be done per AISC 360-10 Section N6.

POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY: shall comply with IBC Section 1703. Inspections shall be in accordance with the requirements set forth in the approved ICC Evaluation Report and as indicated by the design requirements specified on the drawings. Refer to the POST INSTALLED ANCHORS section of these notes for anchors that are the basis of the design. Special inspector shall verify anchors are as specified in the POST INSTALLED ANCHORS section of these notes or as otherwise specified on the drawings. Substitutions require approval by the SER and require substantiating calculations and current 2015 IBC recognized ICC Evaluation Services (ES) Report. Special Inspector shall document in their Special Inspection Report compliance with each of the elements required within the applicable ICC Evaluation Services (ES) Report.

PREFABRICATED CONSTRUCTION: All prefabricated construction shall conform to IBC Section 1703.

SCHEDULES OF SPECIAL INSPECTIONS:

TABLE 1705.6 REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity	-	-	X
2. Verify excavations are extended to proper depth and from reach proper material	-	-	X
3. Perform classification and testing of compacted fill materials	-	-	X
4. Verify use of proper materials, densities and test thickness during placement and compaction of compacted fill	X	-	-
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been properly prepared	-	-	X

TABLE 1705.3 REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION				
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE
1. Inspect reinforcement, including pre-stressing tendons, and verify placement	-	X	ACI 318 Ch. 20, 25.2, 25.3, 26.6, 1-26.6.3	1908.4
2. Inspect anchors cast in concrete	-	X	ACI 318: 17.8.2	-
3. Inspect anchors post-installed in hardened concrete members	-	-	-	-
a. Adhesive anchors installed in horizontally or vertically oriented orientations to resist sustained tension loads	X	-	ACI 318: 17.8.2.4	-
b. Mechanical anchors and adhesive anchors not defined in 4.4	-	X	ACI 318: 17.8.2	-
5. Verify use of required design mix	-	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete	X	-	ASTM C112, ASTM C31, ACI 318: 26.12	1908.10
7. Inspect concrete and shotcrete placement for proper application techniques	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques	-	X	ACI 318: 26.5.3 – 26.5.5	1908.9

REQUIRED SPECIAL INSPECTIONS OF WOOD CONSTRUCTION			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
1. High Load Diaphragms			IBC Section 1705.5.1
a. Panel sheathing for grade and thickness	X	-	
b. Nominal size of framing members at adjoining panel edges	X	-	
c. Nail and staple diameters and lengths	X	-	
d. Number of fastener lines, spacing between fasteners in each line and at edge margins	X	-	
2. Metal Plate connected wood trusses spanning 40 feet or greater	X	-	IBC Section 1705.5.2
a. Temporary installation, restraining and permanent individual truss member restraining installation	-	-	[IBC Section 1705.11.1] [IBC Section 1705.12.2]
3. Shear Walls (where fastener spacing of the sheathing is 4 inches or less on center)			
a. Anchor Bolts including proper bottom plate sizes (2x and 3x) and plate washers	-	X	
b. Hold-down (HD) and Continuous Rod Tie-Down Systems (CTDS) including tension blocks and anchors to concrete	-	X	
c. AS3 and LPT shear connectors	-	X	
d. Strap Connectors	-	X	
e. Boundary Edge Nailing	-	X	
f. Plate Nailing and Panel Edge Nailing for size and spacing	-	X	
g. Blocking	-	X	
4. Blocked and Unblocked Diaphragms (where fastener spacing of the sheathing is 4 inches or less on center)			[IBC Section 1705.11.1] [IBC Section 1705.12.2]
a. Blocking and strap connections	-	X	
b. Boundary edge and panel shear nailing size and spacing	-	X	
5. Moisture Content of wood studs, plates, beams, decking, and joists	-	X	As directed by the Contractor to meet moisture content requirements
6. Roof truss hurricane clips	-	X	

MINIMUM REQUIREMENTS FOR INSPECTIONS OF STRUCTURAL STEEL CONSTRUCTION

INSPECTION TASKS	QC	QA	REFERENCED STANDARD
INSPECTION TASKS PRIOR TO WELDING			
1. Welding procedure specifications (WPSs) available	P	P	AISC 360-10 TABLE N5.4-1
2. Manufacturing certifications for welding consumables	P	P	AISC 360-10 TABLE N5.4-1
3. Material identification (type/grade)	O	O	AISC 360-10 TABLE N5.4-1
4. Welder identification system	O	O	AISC 360-10 TABLE N5.4-1
5. Fit-up of groove welds (including joint geometry) • Joint preparation • Dimensional alignment, root opening, root face, bevel • Cleanliness (condition of steel surfaces) • Tacking (back welding quality and location) • Backing type and fit (if applicable)	O	O	AISC 360-10 TABLE N5.4-1
6. Configuration and finish of access holes	O	O	AISC 360-10 TABLE N5.4-1
7. Fit-up fillet welds • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (back weld quality and location)	O	O	AISC 360-10 TABLE N5.4-1
8. Check welding equipment	O	-	AISC 360-10 TABLE N5.4-1
INSPECTION TASKS DURING WELDING			
1. Use of qualified welders	O	O	AISC 360-10 TABLE N5.4-2
2. Control and handling of welding consumables • Packaging • Exposure control	O	O	AISC 360-10 TABLE N5.4-2
3. No welding over cracked tack welds	O	O	AISC 360-10 TABLE N5.4-2
4. Environmental conditions • Wind speed within limits • Precipitation and temperature	O	O	AISC 360-10 TABLE N5.4-2
5. WPS followed • Settings on welding equipment • Shield gas • Selected welding materials • Shielding gas specification • Preheat applied • Interpass temperature maintained (prior to final pass) • Proper position (F, V, H, CH)	O	O	AISC 360-10 TABLE N5.4-2
6. Welding techniques • Interpass and final cleaning • ELEVATION SYMBOL/IT REFERS TO COMPONENT THAT THE ELEVATION REFERENCES) • STUD BUBBLE (INDICATES NUMBER OF STUDS REQUIRED PER SHEET NUMBER SPECIFIED IN PLAN NOTE)	O	O	AISC 360-10 TABLE N5.4-2
INSPECTION TASKS AFTER WELDING			
1. Welds cleaned	O	O	AISC 360-10 TABLE N5.4-3
2. Size, length, and locations of welds	P	P	AISC 360-10 TABLE N5.4-3
3. Welds meet visual acceptance criteria • Crack prohibition • Weld-toe metal fusion • Center cross section • Weld profiles • Weld size • Alignment • Porosity	P	P	AISC 360-10 TABLE N5.4-3
4. Arc strikes	P	P	AISC 360-10 TABLE N5.4-3
5. X-area	P	P	AISC 360-10 TABLE N5.4-3
6. Backing removed and weld tails removed (if required)	P	P	AISC 360-10 TABLE N5.4-3
7. Repair activities	P	P	AISC 360-10 TABLE N5.4-3
8. Document acceptance or rejection of welded joint or member	P	P	AISC 360-10 TABLE N5.4-3
INSPECTION TASKS PRIOR TO BOLTING			
1. Manufacturer's certifications available for fastener materials	O	P	AISC 360-10 TABLE N5.6-1
2. Fasteners marked in accordance with ASTM requirements	O	O	AISC 360-10 TABLE N5.6-1
3. Proper fasteners selected for the joint detail (grade, type, bolt length if bolts are to be welded from their plans)	O	O	AISC 360-10 TABLE N5.6-1
4. Proper bolting procedure selected for joint detail	O	O	AISC 360-10 TABLE N5.6-1
5. Connecting elements, including the appropriate flying surface condition and hole preparations (if specified, meet applicable requirements)	O	O	AISC 360-10 TABLE N5.6-1
6. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used.	P	O	AISC 360-10 TABLE N5.6-1
7. Proper storage provided for bolts, nuts, washers and other fastener components	O	O	AISC 360-10 TABLE N5.6-1
INSPECTION TASKS DURING BOLTING			
1. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required	O	O	AISC 360-10 TABLE N5.6-2
2. Joint brought to the snug-tight condition prior to the pre-tensioning operation	O	O	AISC 360-10 TABLE N5.6-2
3. Fastener component not turned by the wrench prevented from rotating	O	O	AISC 360-10 TABLE N5.6-2
4. Fasteners are pre-tensioned in accordance with the AISC Specification, progressing systematically from the most rigid point toward the free edge	O	O	AISC 360-10 TABLE N5.6-2
INSPECTION TASKS AFTER BOLTING			
1. Document acceptance or rejection of bolted connections	P	P	AISC 360-10 TABLE N5.6-3

O - Observe these items on a random basis. Operations need not be delayed pending these inspections

P - Perform these tasks for each welded joint or member, each bolted connection, or each steel element

FOR PERMIT

The Contractor shall not use these drawings for construction until Contractor receives written approval for use in construction by the authority having jurisdiction and DC Engineers.

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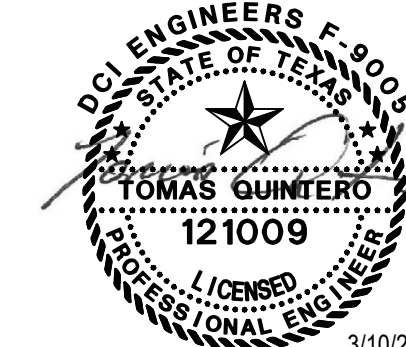
MEP Engineer:
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(MEP Address)
(MEP Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Interior Designer:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)

Key Plan #



3/10/2023

DRAWING LEGEND			
MARK	DESCRIPTION	MARK	DESCRIPTION
F2.0	FOOTING SYMBOL (REFER TO SPREAD FOOTING SCHEDULE)	I	INDICATES WIDE FLANGE COLUMN
⊠	PILE CAP SYMBOL (REFER TO PILE CAP SCHEDULE)	□	INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR TUBE STEEL (ITS COLUMN)
①	TILT-UP/PRECAST CONCRETE WALL CONNECTION SYMBOL (REFER TO CONNECTION DETAIL)	○	INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR STEEL PIPE COLUMN
2W4	SHEAR WALL SYMBOL (REFER TO SHEAR WALL SCHEDULE)	■	INDICATES WOOD POST
△	REVISION TRIANGLE	□	INDICATES BUNDLED STUDS
1	TILT-UP/PRECAST CONCRETE WALL PANEL NUMBER (REFER TO TILT-UP/PRECAST CONCRETE WALL ELEVATIONS)	■	INDICATES CONCRETE COLUMN
◇	CMU WALL REINFORCING SYMBOL (REFER TO CMU WALL REINFORCING SCHEDULE)	■	INDICATES PRECAST CONCRETE COLUMN
8"	CONTINUITY PLATE LENGTH (REFER TO TYPICAL DETAIL)	⌵	INDICATES MOMENT FRAME CONNECTION
DS	INDICATES DOUBLE SHEAR CONNECTION (REFER TO THE DOUBLE SHEAR PLATE CONNECTIONS DETAIL)	⌵	INDICATES CANTILEVER CONNECTION
DOTB	INDICATES REINFORCING TYPE (REFER TO THE REINFORCING SCHEDULE)	⌵	INDICATES DRAG CONNECTION
SRL	INDICATES NUMBER OF STUD RAIL REQUIRED AT COLUMN (REFER TO STUD RAIL DETAIL)	⌵	INDICATES A LEDGER
◇	ROOF/FLOOR DIAPHRAGM NAILING SYMBOL (REFER TO DIAPHRAGM NAILING SCHEDULE)	⌵	INDICATES WOOD OR STEEL STUD BEARING WALL LINE PER KEY ON SHEET
◇	STEEL/CONCRETE COLUMN SYMBOL (REFER TO STEEL COLUMN SCHEDULE)	⌵	INDICATES WOOD OR STEEL STUD SHEAR WALL LINE AND HOLD-DOWNS PER KEY ON SHEET
C1	COLUMN SIZE	⌵	INDICATES MASONRY/CMU WALL
4" T&T = X" X"	ELEVATION SYMBOL/IT REFERS TO COMPONENT THAT THE ELEVATION REFERENCES)	⌵	INDICATES CONCRETE/TILT-UP CONCRETE WALL
3	STUD BUBBLE (INDICATES NUMBER OF STUDS REQUIRED PER SHEET NUMBER SPECIFIED IN PLAN NOTE)	⌵	INDICATES BEARING WALL BELOW
⊙	INDICATES STEP IN FOOTING (REFER TO TYPICAL STEP IN FOOTING DETAIL)	⌵	INDICATES EXISTING WALL
△	DETAILS OR SECTION CUT (DETAIL NUMBER/SHEET NUMBER)	⌵	INDICATES EXISTING WALL
⊙	DETAILS OR SECTION CUT IN PLAN (VIEW DETAIL NUMBER/SHEET NUMBER)	⌵	POST-TENSION DEAD END (PLAN)
XXSXX.XX	INDICATES LOCATION OF CONCRETE WALLS, SHEAR WALLS OR BRACED FRAME ELEVATIONS	⌵	POST-TENSION STRESSING END (PLAN)
⌵	STRUCTURAL EXTENT SYMBOL (SINGLE ARROW - END OF EXTENT DOUBLE ARROW - CONTINUOUS EXTENT ALONG THE ELEMENT LINE UNTIL THE ELEMENT IS INTERRUPTED)	⌵	POST-TENSION PROFILE (PLAN) (IN INCHES)
⌵	INDICATES DIRECTION OF DECK SPAN	⌵	INTERMEDIATE STRESSING (PLAN)

ABBREVIATIONS

L	Angle	FB	Factory-Built	PJP	Partial Joint Penetration
AB	Anchor Bolt	FD	Floor Drain	PREFAB	Prefabricated
ADDL	Additional	FDN	Foundation	PSF	Pounds per Square Foot
ADH	Adhesive	FIN	Finish	PSI	Pounds per Square Inch
ALT	Alternate	FLR	Floor	PSL	Parallel Strand Lumber
ARCH	Architectural	FRP	Fiberglass Reinforced Plastic	P.T	Post-Tensioned
B or BOT	Bottom	FRG	Fire Retardant Treated	PT	Pressure Treated
BT	Bottom Of	FTT	Footing	RD	Radius
BLDG	Building	FY	Face of	RD	Roof Drain
BLKG	Blocking	GA	Gage	REF	Refer/Reference
BMU	Brick Masonry Unit	GALV	Galvanized	REINR	Reinforcing
BP	Baseplate	GEOTECH	Geotechnical	REQD	Required
BRBF	Buckling Restrained	GL	Glue Laminated Timber	RET	Retaining
BRG	Braced Frame	GWIB	Gypsum Wall Board	SB	Site-Built
CB	Header	HDR	Special Concentric	SCBF	Special Concentric
BTWN	Between	HF	Hem-Fir	SCHED	Schedule
C	Camber	HGR	Hanger	SER	Structural Engineer of Record
CB	Castellated Beam	HD	Hold-down	SFRS	Seismic Force-Resisting System
C'BORE	Counterbore	HORIZ	Horizontal	SHTHG	Sheathing
CL or C	Centerline	HP	High Point	SIM	Similar
CLT	Cross-Laminated Timber	HSS = TS	Hollow Structural Section	SLBB	Short Leg Back-to-Back
CLP	Cast in Place	ID	Inside Diameter	SMF	Special Moment Frame
CIP	Construction or Control Joint	IE	Invert Elevation	SOG	Slab on Grade
CJP	Complete Joint Penetration	IF	Inside Face	SP	Southern Pine
CLR	Clear	K	Kips	SPEC	Specification
CLG	Ceiling	KSF	Kips per Square Foot	SQ	Square
CMU	Concrete Masonry Unit	LF	Lineal Foot	SR	Strut
COL	Column	LL	Live Load	SF	Square Foot
CONC	Concrete	LLBB	Long Leg Back-to-Back	SST	Stainless Steel
CONN	Connection	LLH	Long Leg Horizontal	STAGG	Stagger/Staggered
CONST	Construction	LLV	Long Leg Vertical	STD	Standard
CONT	Continuous	LP	Low Point	STIFF	Stiffener
C-SINK	Countersink	LONGIT	Longitudinal	STL	Steel
CTRD	Centered	LSL	Laminated Strand Lumber	STRUCT	Structural
DIA	Diameter	LVL	Laminated Veneer Lumber	SWWJ	Solid Web Wood Joist
DB	Drop Beam	MAS	Masonry	SYM	Symmetrical
DBA	Deformed Bar Anchor	MAX	Maximum	T	Top
DBL	Double	MECH	Mechanical	Tj	Top Of
DEMO	Demolish	MEP	Mechanical, Electrical, Plumbing	T&B	Top & Bottom
DEV	Development	MEZZ	Mezzanine	TC AX LD	Top Chord Axial Load
DF	Douglas Fir	MFR	Manufacturer	TCX	Top Chord Extension
DIAG	Diagonal	MIN	Minimum	TDS	Tie Down System
DIST	Distributed	MISC	Miscellaneous	T&G	Tongue & Groove
DL	Dead Load	NIC	Not In Contract	THKD	Thickened
DN	Down	NLT	Not Laminated Timber	THRU	Through
DO	Ditto	NTS	Not To Scale	TRANSV	Transverse
DP	Depth/Deep	OC	On Center	TYP	Typical
DWG	Drawing	OCBF	Ordinary Concentric Braced Frame	UNO	Unless Noted Otherwise
EI	Existing	OD	Outside Diameter	URM	Unreinforced Masonry
EA	Each	OF	Outside Face	UNIT	Unit
EF	Each Face	OPNG	Opening	VERT	Vertical
EL	Elevation	OPP	Opposite	W	Wide
ELEC	Electrical	OVSJ	Open Web Steel Joist	WV	With
ELEV	Elevator	OWWJ	Open Web Wood Joist	W/O	Without
EMBED	Embedment	PL	Plate	WHS	Welded Headed Stud
EQ	Equal	PC	Precast	WIP	Working Point
EQUIP	Equipment	PERP	Perpendicular	WVF	Welded Wire Fabric
EW	Each Way	PLYWD	Plywood	±	Plus or Minus
EXP	Expansion				
EXP-JT	Expansion Joint				
EXT	Exterior				

Project Issue #

- NOT FOR CONSTRUCTION

Date #

10/28/2022

Revision History #

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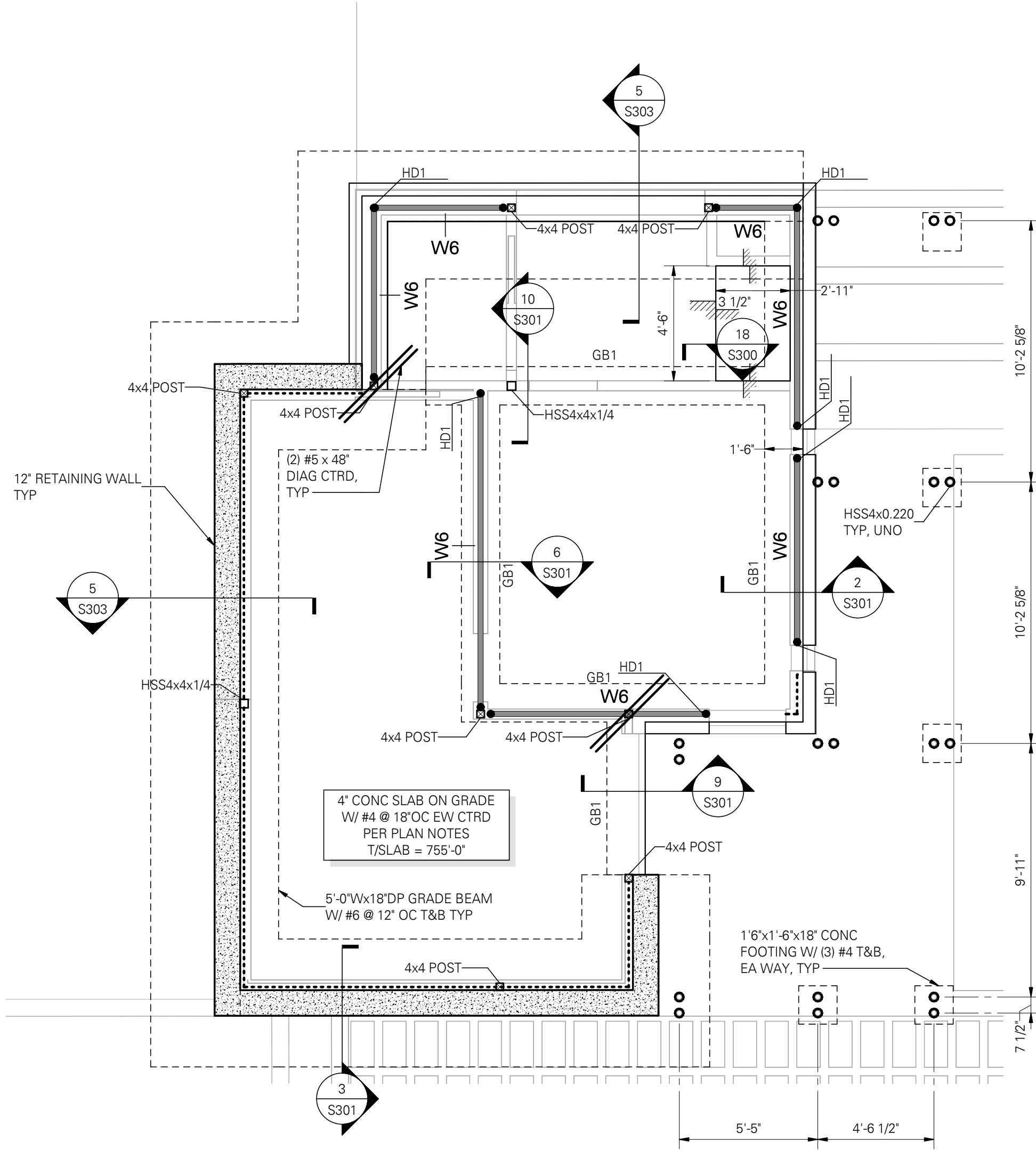
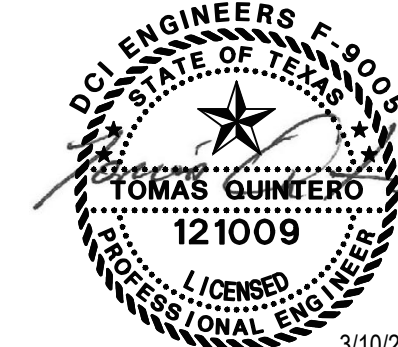
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Sheet Name #

STRUCTURAL - SPECIAL INSPECTIONS, LEGENDS & ABBREVIATIONS

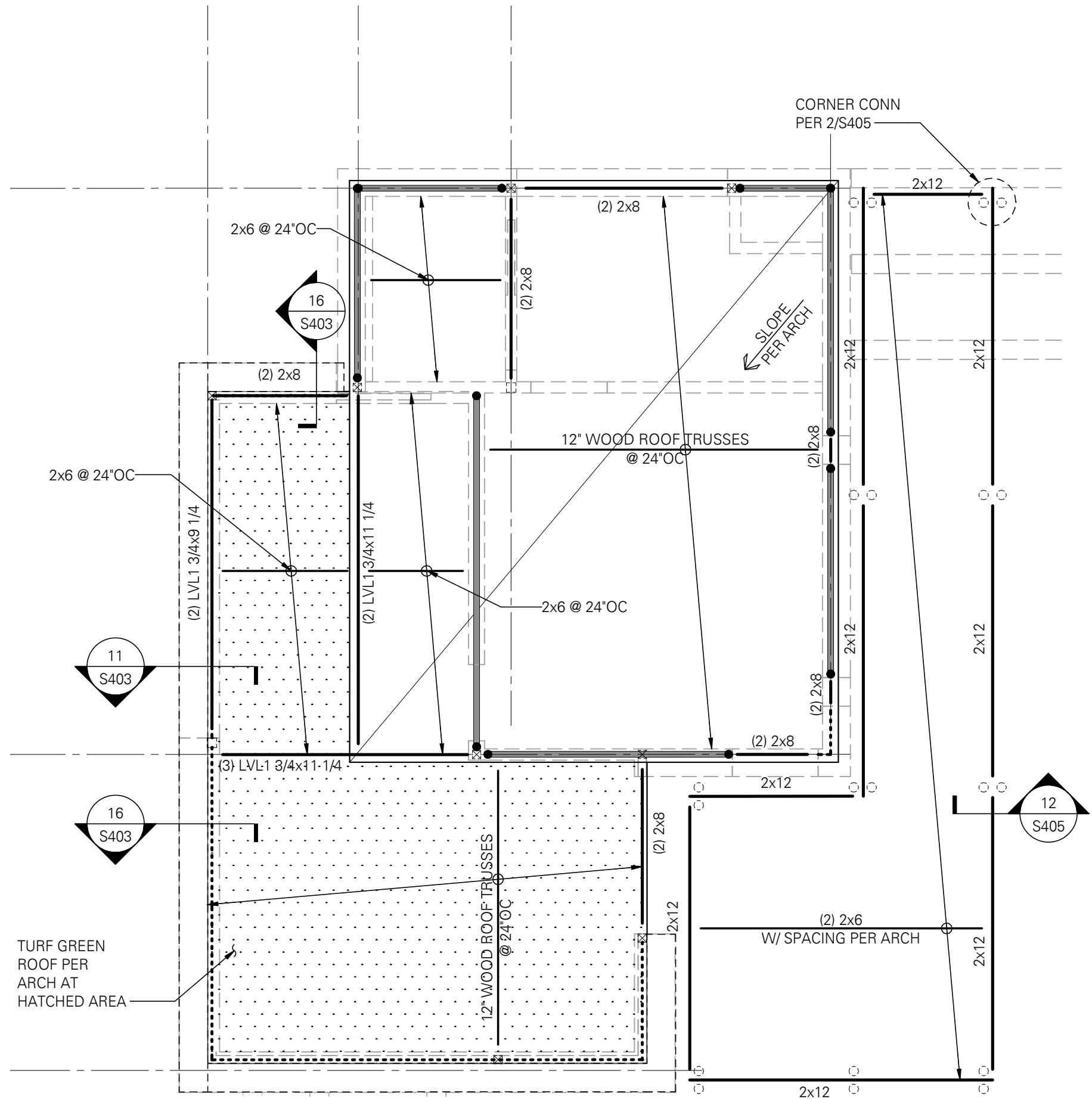
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S103



FOUNDATION AND FIRST FLOOR STUD & SHEAR WALL PLAN

SCALE: 1/4" = 1'-0"



ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S101, S102 AND S103.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL LOCATE AND VERIFY THE FOLLOWING WITH OTHERS PRIOR TO POURING CONCRETE: ALL DOOR OPENINGS IN FOUNDATION WALLS, DRAINS AND SLOPES, BLOCKOUTS FOR PLUMBING, SPRINKLERS AND HVAC, ALL DUCTS, CHASES AND PIPES PER MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS.
- TOP OF SLAB (T/SLAB) ELEVATION ASSUMED 0'-0". FOR ACTUAL T/SLAB ELEVATION REFER TO CIVIL AND ARCHITECTURAL DRAWINGS. PROVIDE 6 MIL VAPOR BARRIER BELOW SLAB AT INTERIOR SPACES. PROVIDE FREE-DRAINING GRANULAR FILL PER GEOTECH REPORT.
- ALL FOOTINGS AND SLABS TO BEAR ON COMPETENT NATIVE SOIL AND/OR STRUCTURAL FILL. SUBGRADE PREPARATION, STRUCTURAL FILL, DRAINAGE SYSTEM, AND OTHER REQUIREMENTS PER GEOTECH REPORT AS NOTED IN THE STRUCTURAL GENERAL NOTES.
- CJ INDICATES CONTROL JOINT PER PLAN.
- MOISTURE PROOF ALL CONCRETE STEM AND BASEMENT WALLS PER ARCHITECT. CONTRACTOR TO VERIFY ADDITIONAL LOCATIONS WHICH REQUIRE WATERPROOFING PER ARCHITECTURAL DRAWINGS.
- TYPICAL DETAILS PER:

S300 TYPICAL CONCRETE DETAILS
04/S401 TYPICAL BASEPLATE CONFIGURATIONS
S401 STEEL DETAILS

STUD AND SHEAR WALL PLAN NOTES:

- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S101, S102 AND S103.
- LUMBER GRADE PER STRUCTURAL GENERAL NOTES.
- BALLOON FRAME ALL WALLS GREATER THAN ONE LEVEL WITH (2) 2x @ 16" OC.
- ALL INTERIOR NON-BEARING, NON-STRUCTURAL WALL STUD REQUIREMENTS PER STRUCTURAL GENERAL NOTES.
- HEADERS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (1) TRIMMER AND (1) KING STUD MINIMUM. UNO. WHERE MORE THAN (1) TRIMMER IS REQUIRED, THE NUMBER OF TRIMMER STUDS SHALL BE NOTED THUS: ■ (2) . TRIMMERS TO BE CONTINUOUS TO THE FOUNDATION. BLOCK SOLID AT FLOOR FRAMING.
- BEAMS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (2) BUNDLED STUDS MINIMUM, UNO. WHERE MORE THAN (2) BUNDLED STUDS ARE REQUIRED, THE NUMBER OF BUNDLED STUDS SHALL BE NOTED THUS: ■ (3) . BUNDLED STUDS TO BE CONTINUOUS TO THE FOUNDATION. BLOCK SOLID AT FLOOR FRAMING.
- SHEAR WALL AND NAILING REQUIREMENTS PER SHEAR WALL SCHEDULE 14/S401.
- ALL EXTERIOR WALLS REQUIRING WOOD SHEATHING PER THE ARCHITECT SHALL BE SHEAR WALL TYPE **W6** UNO.
- AT STAGGERED STUD WALLS, BUNDLED STUDS, TRIMMER STUDS, KING STUDS AND SHEAR WALL COMPRESSION STUDS ARE TO MATCH THE WIDTH OF THE WALL PLATES.
- INDICATES HOLD-DOWN TYPE PER HOLD-DOWN SCHEDULE 07/S502. CIRCLED NUMBER INDICATES NUMBER OF TRIM STUDS REQUIRED AND BOTTOM NUMBER INDICATES NUMBER OF FULL HEIGHT (KING) STUDS REQUIRED IN ADDITION TO BUNDLED OR TRIM STUDS OR POSTS SHOWN ON PLAN.
- TYPICAL HOLD-DOWN ELEVATION PER 17/S401.
- TYPICAL DETAILS PER:

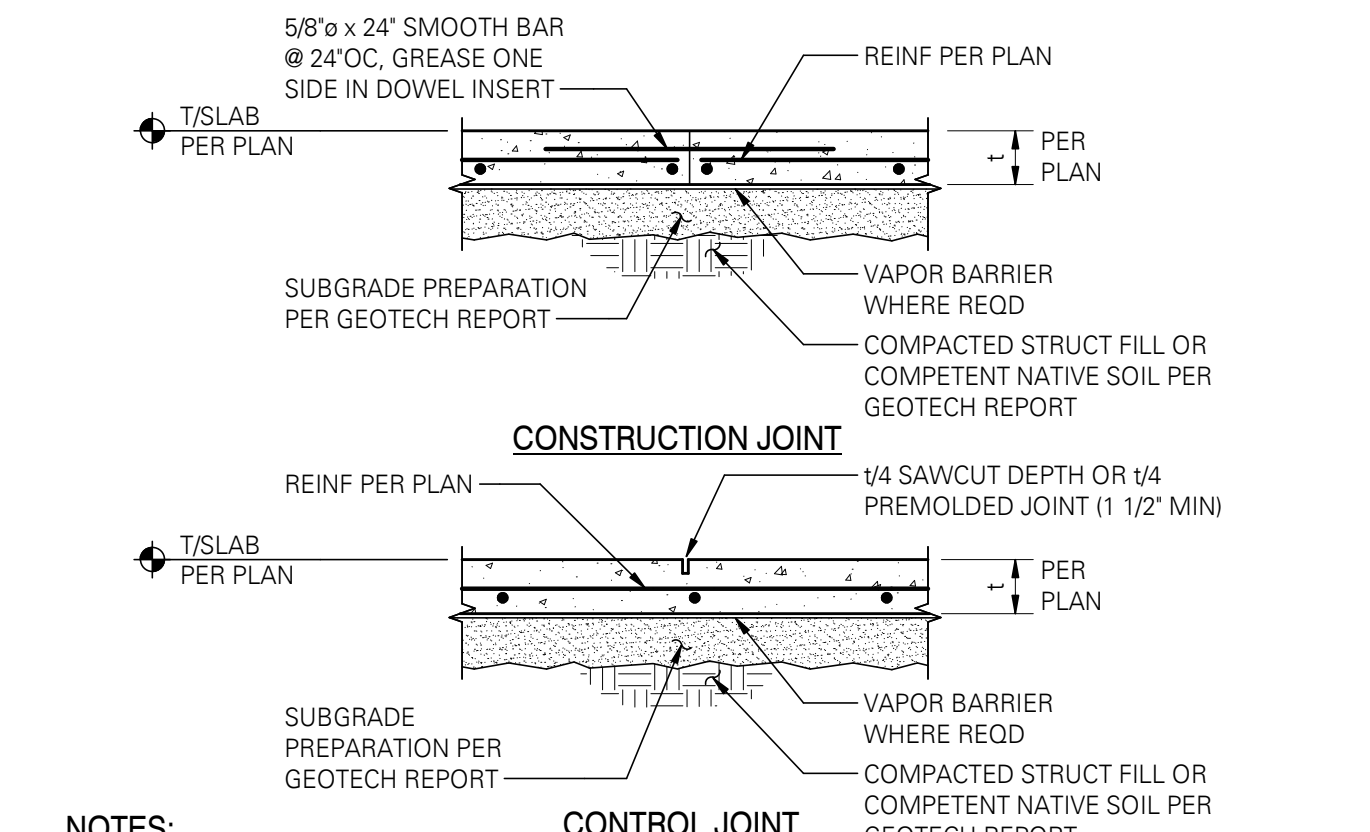
3/56.10 TYPICAL SHEAR WALL ELEVATION
7/56.20 NONSTRUCTURAL PARTITION WALL CONNECTION
9/56.20 TYPICAL HOLES AND NOTCHES IN WOOD STUDS
11/56.20 TYPICAL PLATE SPLICE DETAIL
20/56.20 TYPICAL HEADER

ROOF FRAMING PLAN NOTES:

- STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND PER S101, S102 AND S103.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
- ALL DUCTS, CHASES AND PIPES SHALL BE PER MECHANICAL PLUMBING, ELECTRICAL AND SPRINKLER DRAWINGS. STAIR DETAILS AND GUARDRAILS PER ARCHITECTURAL DRAWINGS.
- ROOF SHEATHING PER PLAN AND STRUCTURAL GENERAL NOTES. SHEATHING TO BE NAILED TO ROOF FRAMING WITH 0.131" DIAx2 1/2" NAILS @ 6" OC AT SUPPORTED PANEL EDGES AND @ 12" OC FIELD. UNO. LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES.
- ALL 2x HANGERS TO BE TOP FLANGE BEARING SIMPSON JB TYPE, UNO. GLULAM, PARALLAM AND MICROLAM HANGERS ARE AS SPECIFIED ON PLAN.
- HEADERS SHOWN BUT NOT SPECIFIED ARE TO BE (2) 2x8 MINIMUM. HEADER SUPPORTS PER STUD AND SHEAR WALL PLAN ON FLOOR BELOW.
- BEAMS ARE FLUSH FRAMED WITH JOISTS UNLESS NOTED OTHERWISE ON DETAILS, OR ON PLANS AS 'DB' INDICATING THAT DROPPED BEAM FRAMING IS REQUIRED. BEAM SUPPORTS PER STUD AND SHEAR WALL PLAN ON LEVEL BELOW. PROVIDE A35 CLIP EACH SIDE OF FLUSH BEAMS THAT BEAR ON DOUBLE TOP PLATES.
- PROVIDE SIMPSON H2.5A TIES AT ALL ROOF JOISTS, TRUSSES, TYPICAL.
- PROVIDE SOLID BLOCKING OVER ALL SHEAR WALLS AND BEARING WALLS. AT SHEAR WALLS PARALLEL TO FRAMING, ALIGN JOIST OR TRUSS OVER SHEAR WALL (ADDITIONAL JOISTS OR TRUSSES MAY BE REQUIRED).
- HORIZONTAL STRAP TIES INDICATED ON THE FRAMING PLAN ARE TO BE PER HORIZONTAL STRAP FASTENER SCHEDULE 01/S502.
- ALL RIM JOISTS AND BLOCKING TO BE 1 1/2" LSL MINIMUM UNO.
- ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:

- TRUSS LAYOUT SHOWN IS APPROXIMATE. TRUSS SUPPLIER IS RESPONSIBLE FOR FINAL TRUSS LAYOUT AND CONFIGURATION. NOTIFY ENGINEER OF REVISIONS TO PLAN.
- STANDARD DEAD AND LIVE LOADS AND SUBMITTAL INFORMATION PER PLAN AND STRUCTURAL GENERAL NOTES.
- 2000LBS INDICATES SHEAR TRANSFER LOAD IN ROOF TRUSS TO BE LOCATED ABOVE SHEAR WALLS. TRUSS MANUFACTURER SHALL DESIGN THESE TRUSSES FOR THE BRACKETED LATERAL LOAD SPECIFIED ON PLAN. IN ADDITION TO THE DESIGN DEAD AND LIVE LOADS.
- ALL GIRDER TRUSSES SHALL BE SUPPORTED BY A MINIMUM OF TWO STUDS. TRUSS MANUFACTURER TO SUBMIT TO ENGINEER GIRDER TRUSSES REACTIONS.
- ALL MULTIPLE STUDS SUPPORTING HIP MASTER AND GIRDER TRUSSES TO CONTINUE TO FOUNDATION.
- ROOF TRUSSES SHALL BE DESIGNED FOR ADDITIONAL LOADS FROM MECHANICAL UNITS, LANDSCAPING AND PIPING. CONTRACTOR TO PROVIDE THE TRUSS SUPPLIER WITH LOCATIONS AND SUPPORT CONDITIONS OF ALL MECHANICAL, ELECTRICAL, PLUMBING, AND SPRINKLER LOADS. SPECIAL TRUSS SHAPES AND OPENING REQUIREMENTS ARE AS DESIGNATED ON PLANS.
- PROVIDE SIMPSON H1 OR H2.5A HURRICANE TIES AT ALL ROOF TRUSSES AND ROOF JOISTS, TYPICAL.
- TRUSS HANGERS SHALL BE SUPPLIED AND DESIGNED BY THE TRUSS SUPPLIER.
- TRUSS MANUFACTURER TO DESIGN BEARING AT TOP PLATES FOR COMPRESSION PERPENDICULAR TO GRAIN $f_c = 405$ PSI.

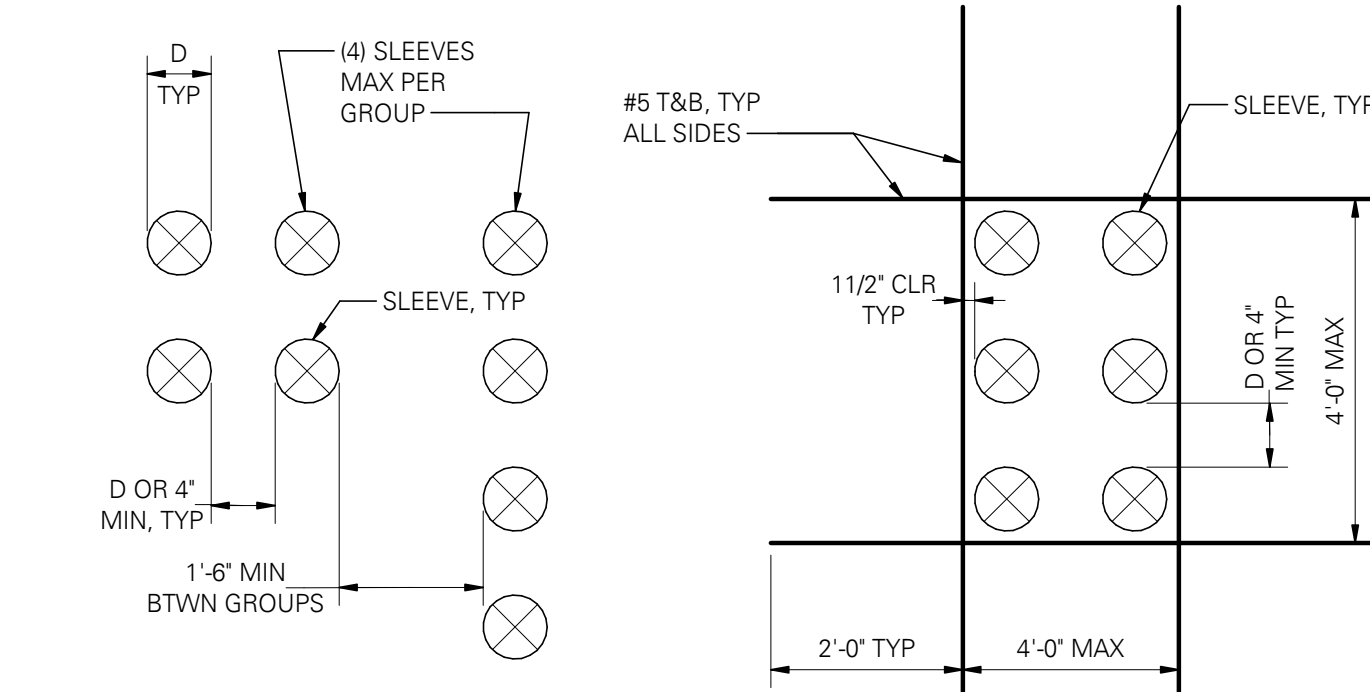
- BEARING STUD, SHEAR WALL, HOLD-DOWN, POST SIZE, AND POST CAP AND BASE REQUIREMENTS BELOW PER STUD AND SHEAR WALL PLAN.
- TYPICAL DETAILS PER:
01/S502 HORIZONTAL STRAP FASTENER SCHEDULE



- NOTES:**
1. CONSTRUCTION JOINT IS A JOINT BETWEEN DIFFERENT POURS. CONTROL JOINT IS A CRACK CONTROL JOINT WITHIN THE SAME POUR.
 2. USE "EARLY ENTRY DRY-CUT SAW" AS SOON AS POSSIBLE WITHOUT CAUSING RAVELING OF CONCRETE EDGES. SAWCUT ALONG SHORT DIRECTION OF POUR FIRST.
 3. ALIGN A CONSTRUCTION OR CONTROL JOINT WITH RE-ENTRANT SLAB CORNERS, EACH WAY, TYPICAL.
 4. CONSTRUCTION/CONTROL JOINT TO ENCLOSE APPROXIMATE SQUARE AREAS 225 SQUARE FEET MAXIMUM, WITH MAXIMUM PANEL ASPECT RATIO OF 1.3 TO 1.0.
 5. CONTRACTOR TO SUBMIT CONSTRUCTION/CONTROL JOINT PLAN TO STRUCTURAL ENGINEER OF RECORD FOR REVIEW/APPROVAL.

1 TYPICAL SLAB ON GRADE JOINT DETAILS WITH REINFORCING

SCALE: 3/4" = 1'-0" (03201)

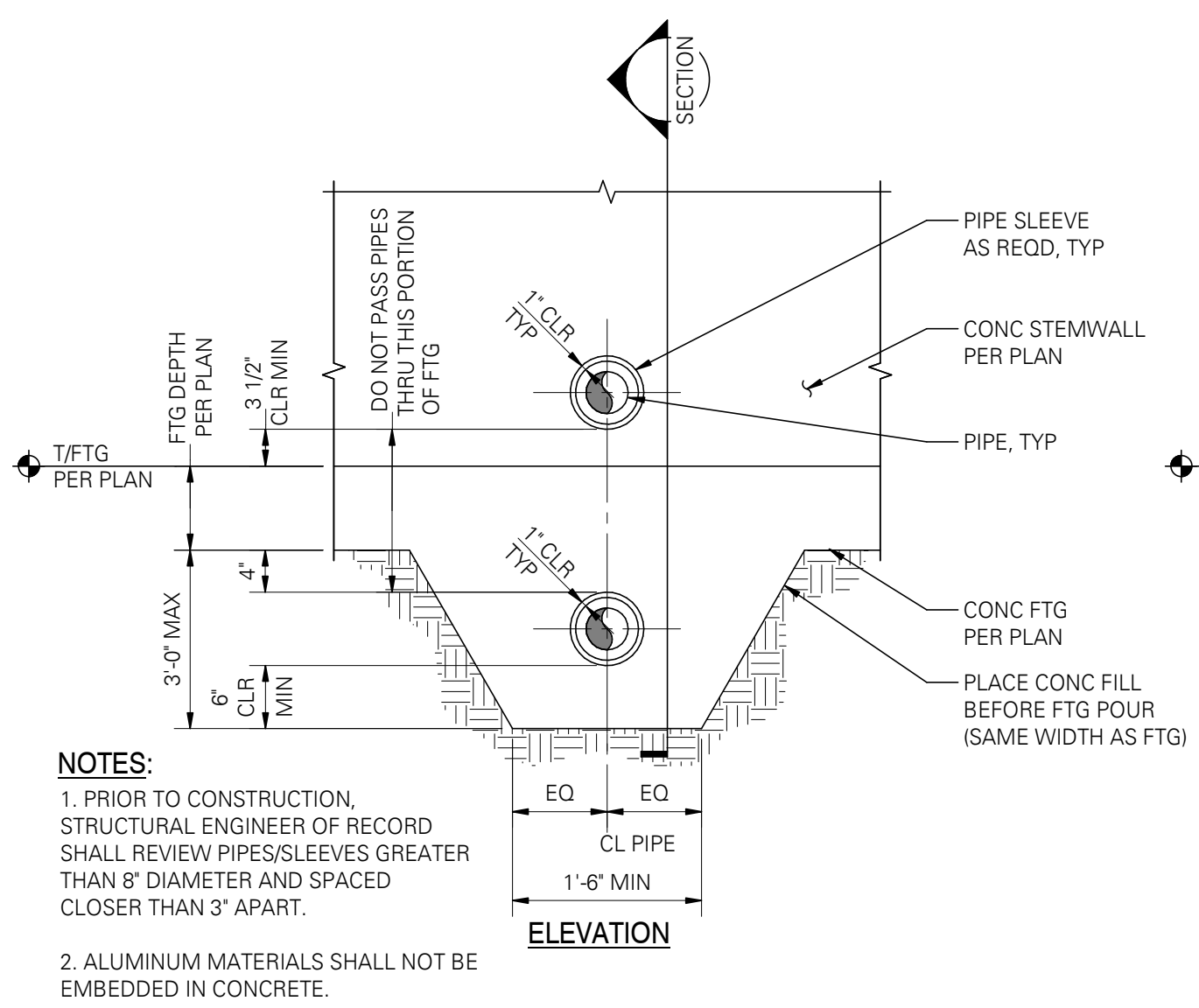


- NOTE:**
- ALUMINUM MATERIALS SHALL NOT BE EMBEDDED IN CONCRETE.

- PLANS - SLEEVES THRU CONCRETE SLAB**
- SCALE: 1/2" = 1'-0" (03261)

6 PLANS - SLEEVES THRU CONCRETE SLAB

SCALE: 1/2" = 1'-0" (03261)



11 TYPICAL PIPE AND TRENCH LOCATIONS AT CONCRETE STEMWALL/FOOTING

SCALE: 3/4" = 1'-0" (03190)

TYPICAL ANCHOR BOLT SCHEDULE						
INSTALLATION TYPE	CAST-IN-PLACE (PRE-AUTHORIZED) (2)				DRILL-IN OPTIONS (SUBMITTAL REQUIRED) (3)	
	BOLT TYPE	STANDARD J-BOLT	HEADED ANCHOR	THREADED ROD ANCHOR	SIMPSON "SST" ANCHOR BOLT	ADHESIVE ANCHOR
EMBEDMENT REQUIREMENTS		7 1/2"	12x DIA	1 1/4" MIN	PER MFR	NOTE (4)
LIMITS	5/8"Ø MAX	5/8"Ø THRU 2 1/2"Ø	5/8"Ø THRU 2 1/2"Ø	FOR WOOD FRAME ONLY	5/8"Ø THRU 1'Ø	

NOTES:

- (1) CONTRACTOR SHALL DETERMINE THE REQUIRED THREAD PROJECTION SUITABLE FOR THE THICKNESS OF MATERIAL, BEING FASTENED PLUS GROUT ALLOWANCE, IF ANY, AND CONSTRUCTION TOLERANCES, UNO.
- (2) CONTRACTOR MAY SELECT APPROPRIATE CAST-IN-PLACE ANCHOR BOLT OPTION WITHOUT SUBMITTAL.
- (3) DRILL-IN OPTIONS ARE NOT APPROPRIATE AT ALL CONDITIONS. IF DRILL-IN METHOD IS PREFERRED, SUBMIT MANUFACTURER'S INFORMATION, ALLOWABLE LOAD VS EMBEDMENT DATA AND LOCATIONS OF WHERE SUBSTITUTIONS ARE REQUESTED. ENGINEER WILL DETERMINE IF SUBSTITUTION IS APPROPRIATE FOR LOCATION AND LOADING.
- (4) EMBEDMENT OF DRILL-IN ANCHORS SHALL BE PER ENGINEER'S SUBMITTAL REVIEW COMMENTS. EMBEDMENT SHALL BE (9) NINE TIMES FOR NOMINAL ANCHOR DIAMETER, UNO.
- (5) AT PRESSURE TREATED SILLS, PROVIDE HOT-DIPPED GALVANIZED OR STAINLESS STEEL ANCHORS.

17 TYPICAL ANCHOR BOLT SCHEDULE

SCALE: 1" = 1'-0" (01901)

18 TYPICAL STEP AT SLAB ON GRADE

SCALE: 3/4" = 1'-0" (03202A)

19 TYPICAL STAIR ON GRADE

SCALE: 3/4" = 1'-0" (03300)

20 TYPICAL SILL PLATE ANCHORAGE TO CONCRETE

SCALE: 1" = 1'-0" (06910)

21 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

22 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

23 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

24 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

25 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

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SCALE: 3/4" = 1'-0" (03132)

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SCALE: 3/4" = 1'-0" (03402)

92 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

93 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

94 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

95 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

96 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

97 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

98 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

99 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

100 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

101 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

102 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

103 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

104 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

105 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

106 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

107 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

108 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

109 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

110 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

111 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

112 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

113 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

114 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

SCALE: 3/4" = 1'-0" (03132)

115 TYPICAL CORNER REINFORCING AT CONCRETE WALLS

SCALE: 3/4" = 1'-0" (03402)

116 TYPICAL STEPPED FOOTING

SCALE: 3/4" = 1'-0" (03140)

117 TYPICAL LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01400)

118 TYPICAL CORNER REINFORCING AT CONCRETE FOOTINGS

CONSTANTINE
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0 WILDCAT HOLLOW,
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78746

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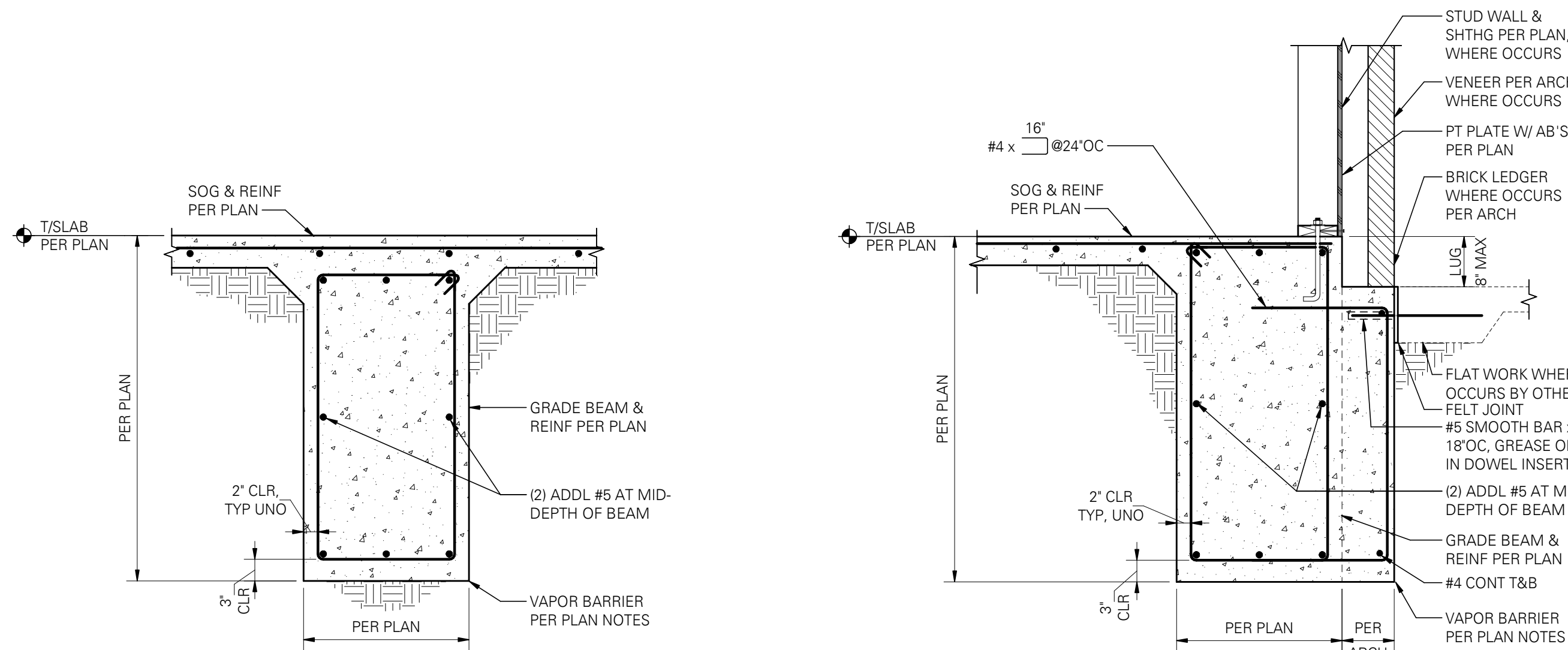
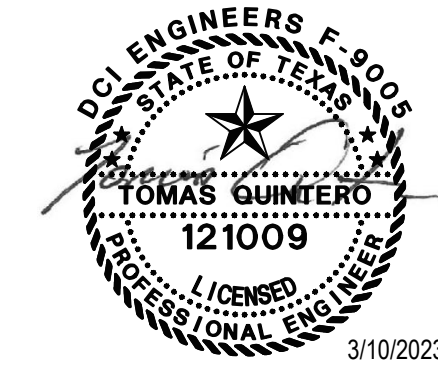
Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

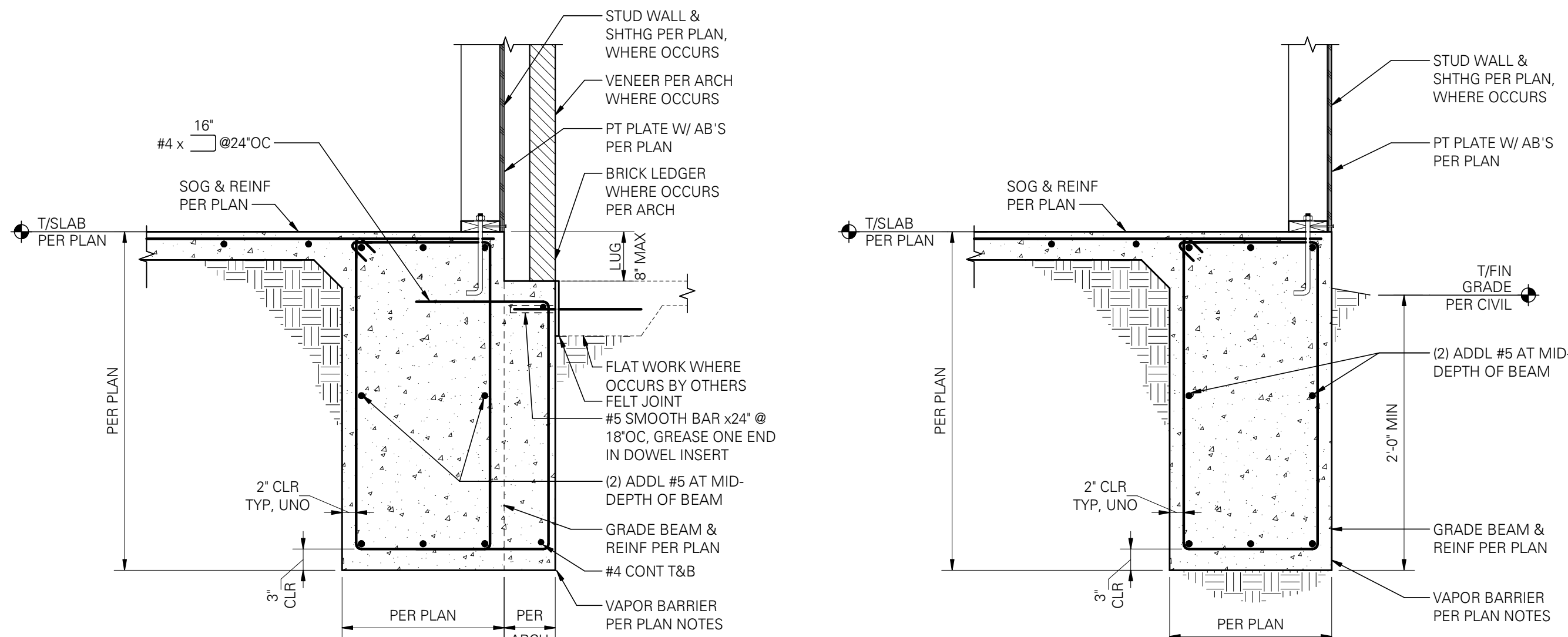
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(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)



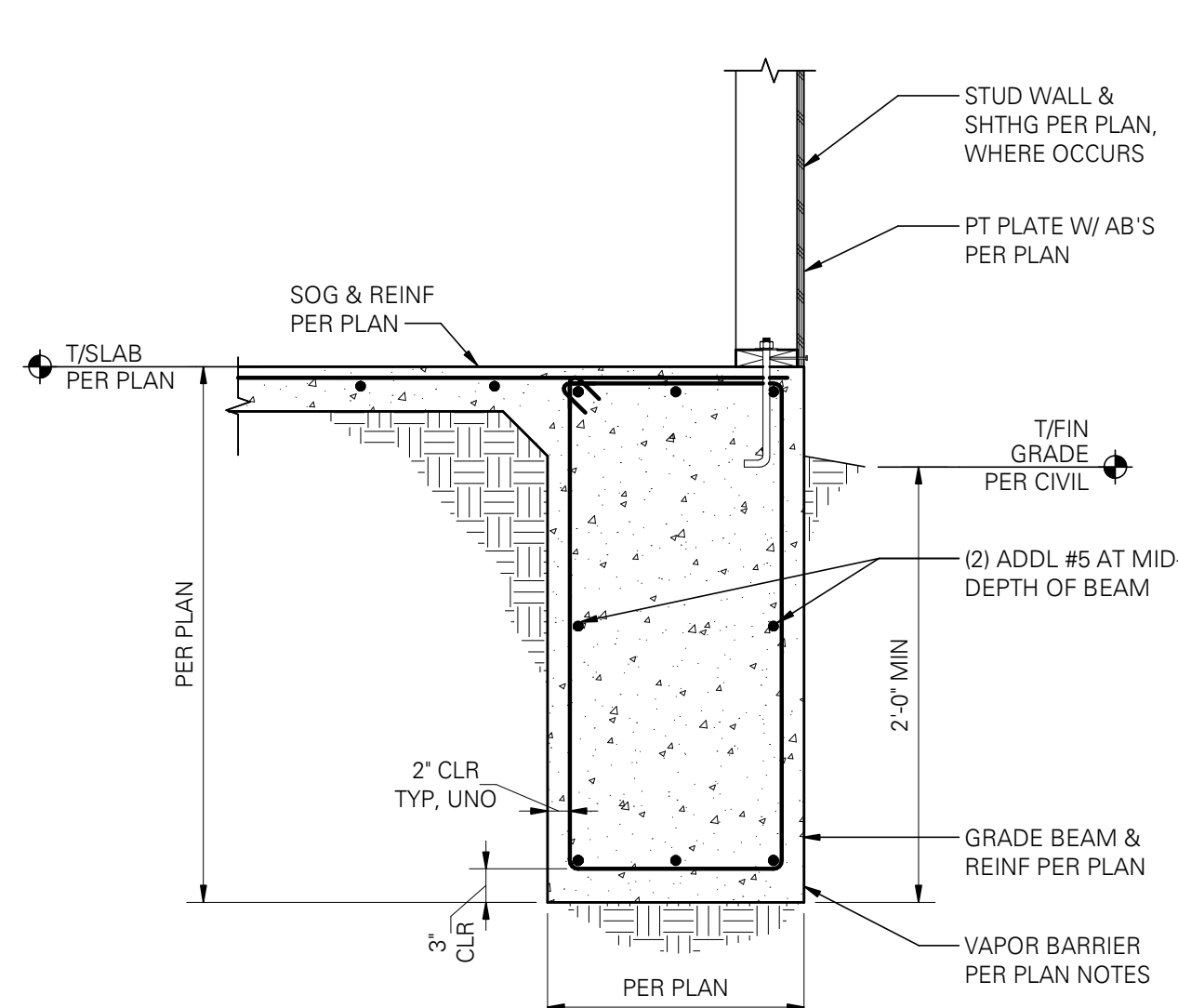
1 TYPICAL INTERIOR GRADE BEAM

SCALE: 3/4" = 1'-0"



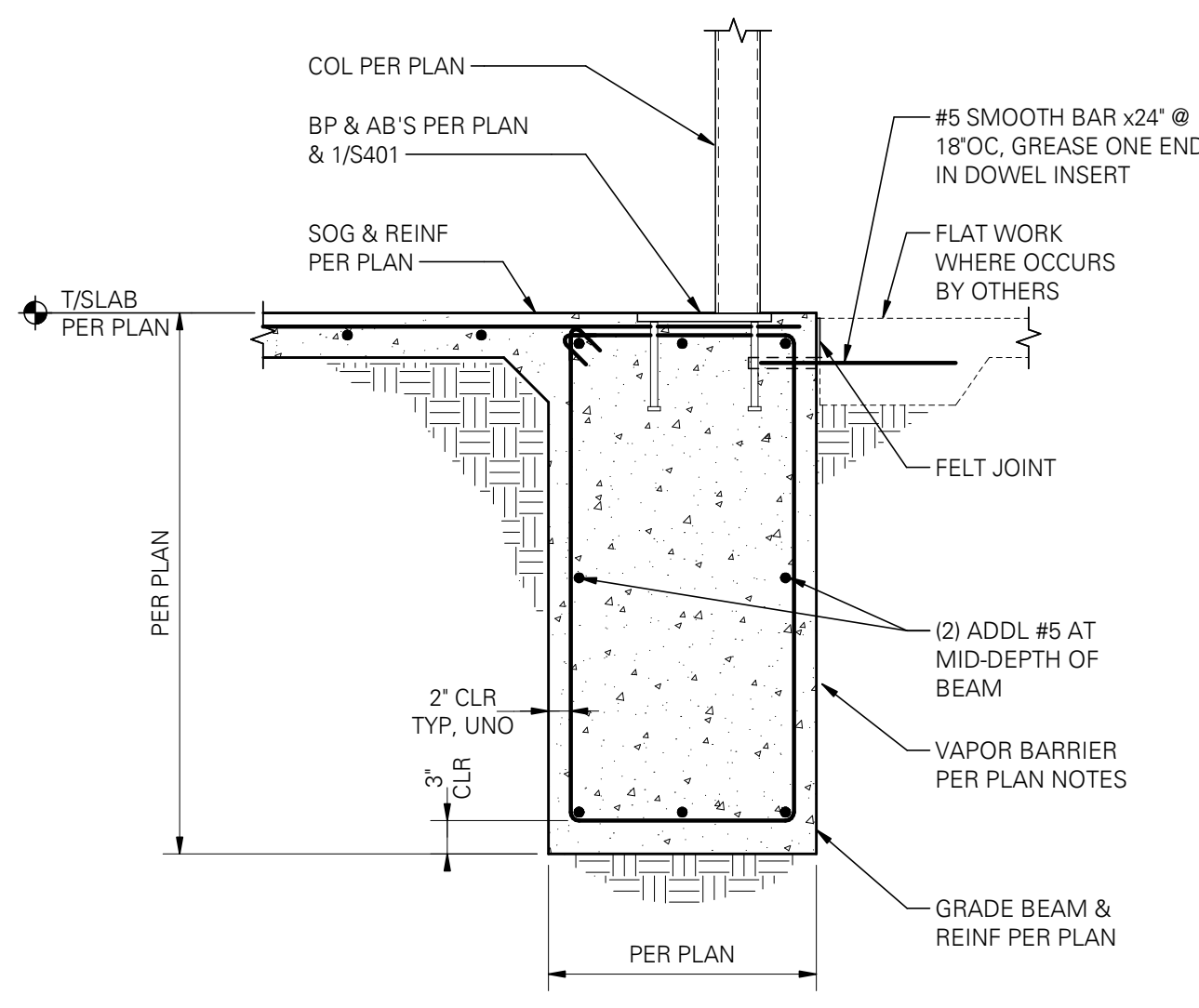
2 TYPICAL EXTERIOR GRADE BEAM & LUG

SCALE: 3/4" = 1'-0"



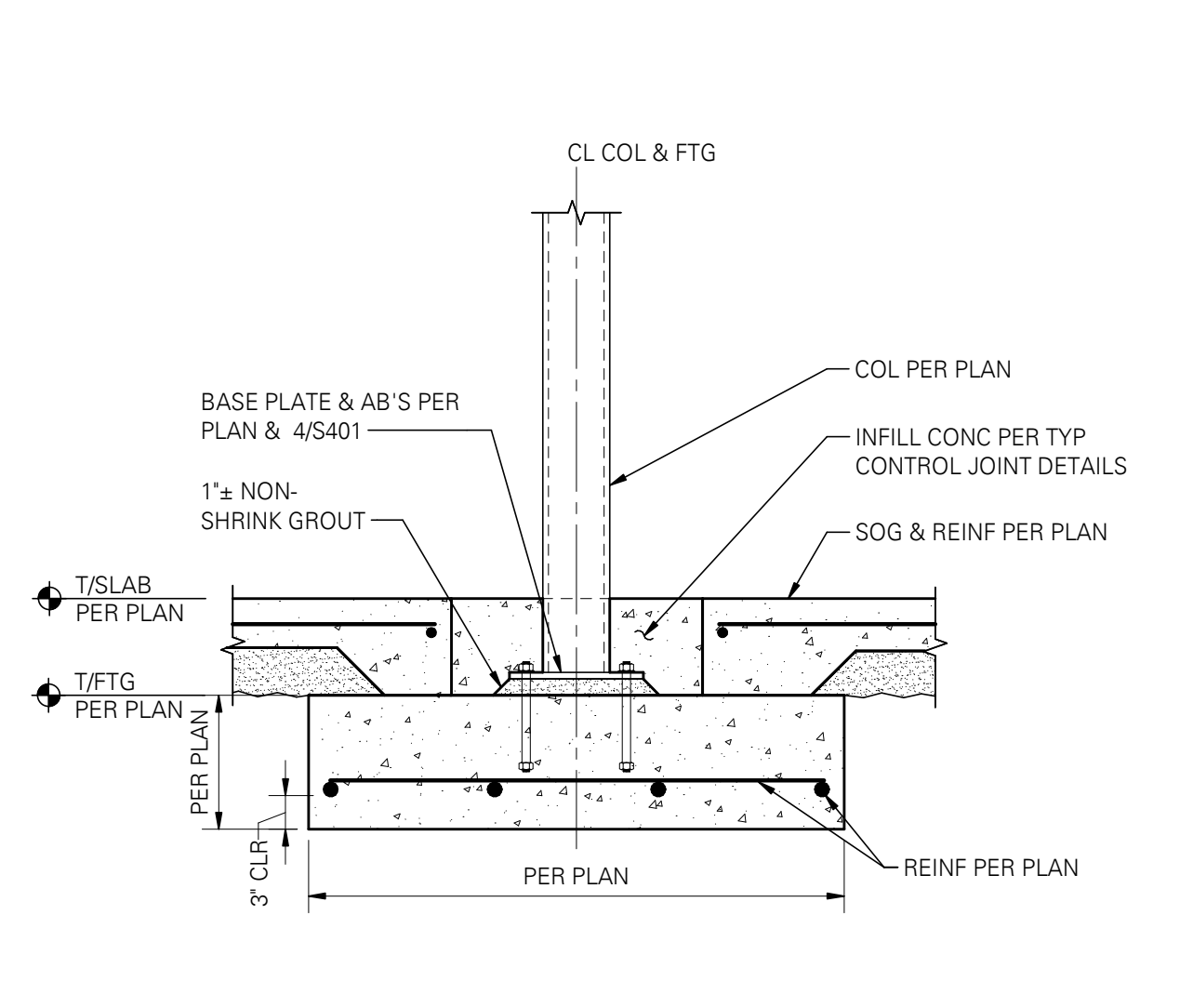
3 TYPICAL EXTERIOR GRADE BEAM

SCALE: 3/4" = 1'-0"



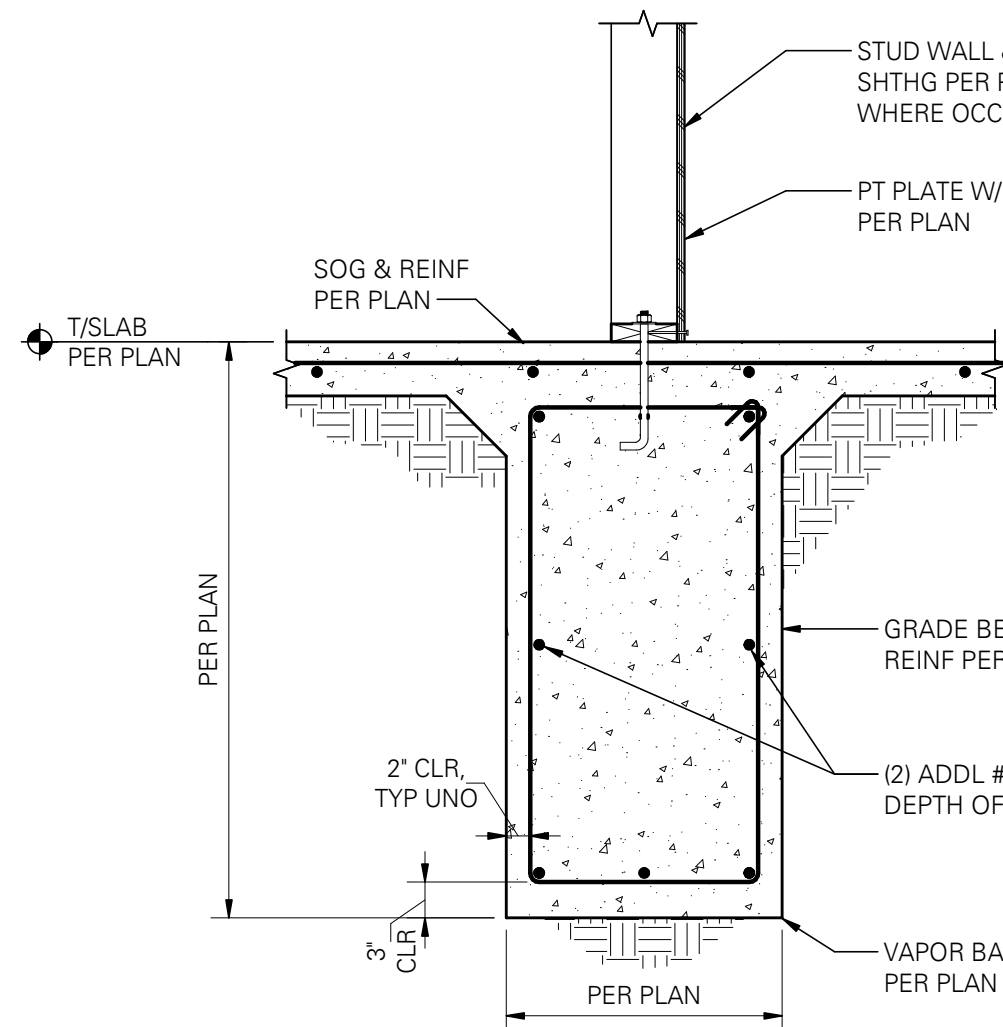
4 TYPICAL HSS COLUMN GRADE BEAM

SCALE: 3/4" = 1'-0"



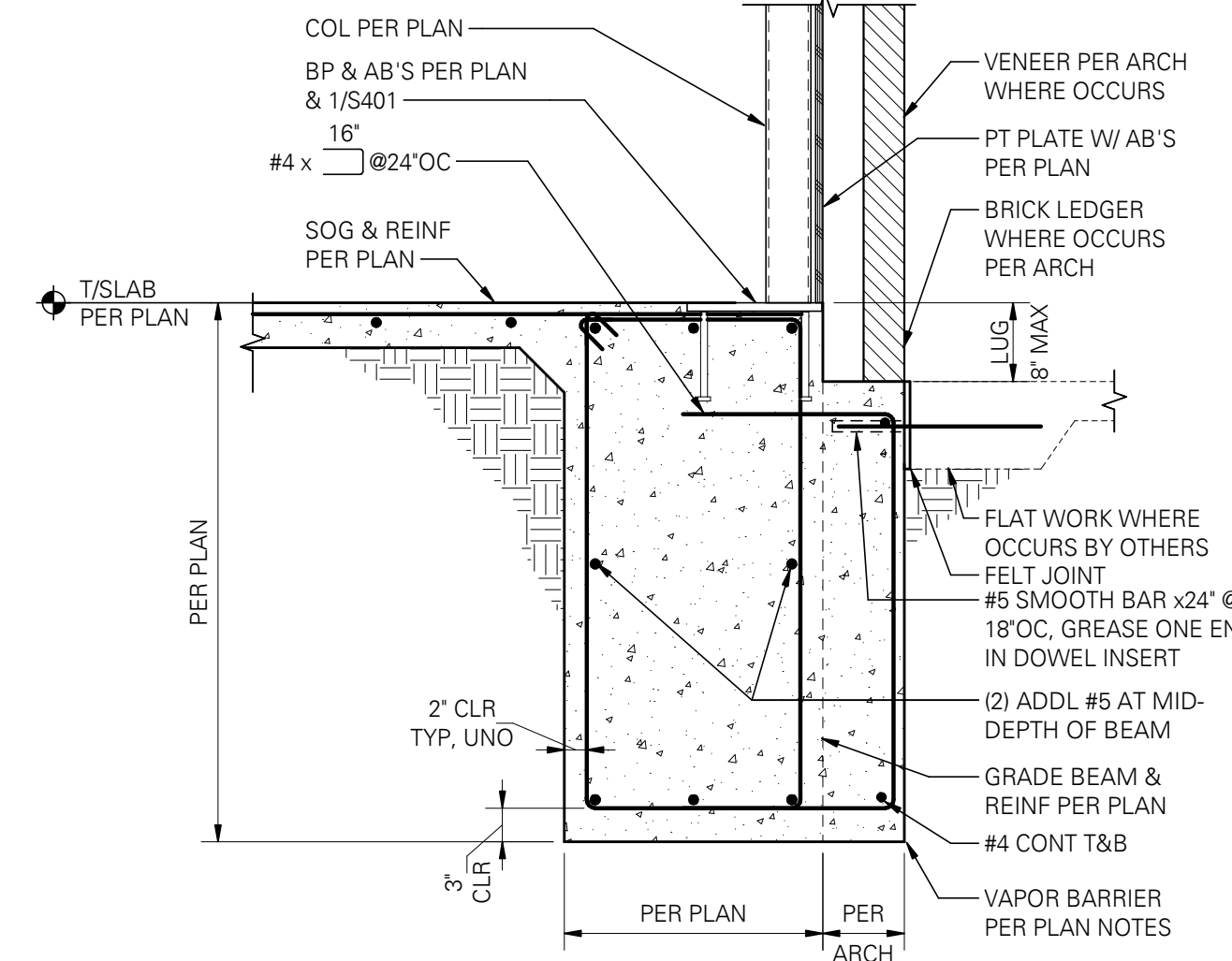
5 INTERIOR SPREAD FOOTING AT STEEL COLUMN

SCALE: 3/4" = 1'-0" (TX)



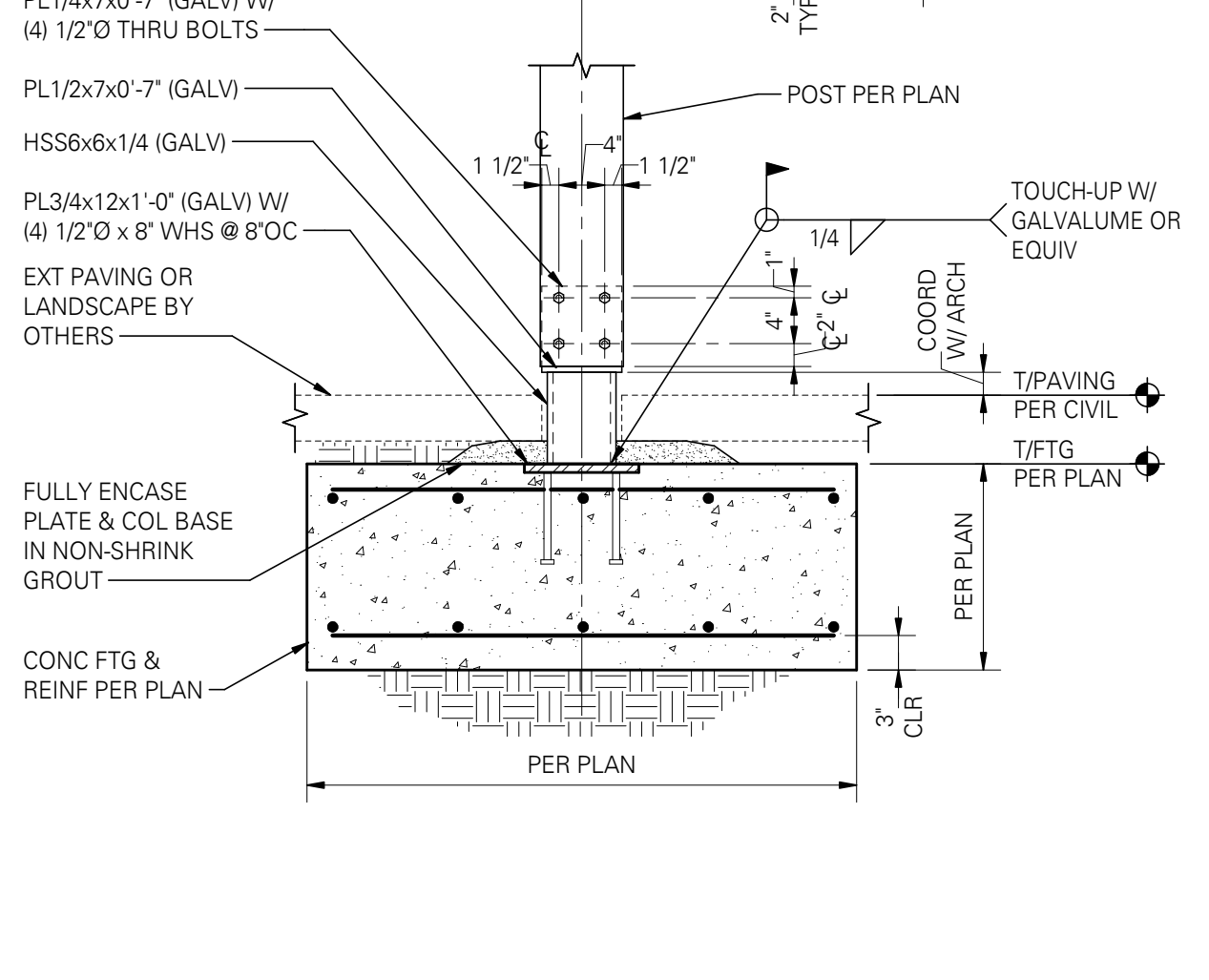
6 TYP INT GRADE BEAM AT STUD WALL

SCALE: 3/4" = 1'-0"



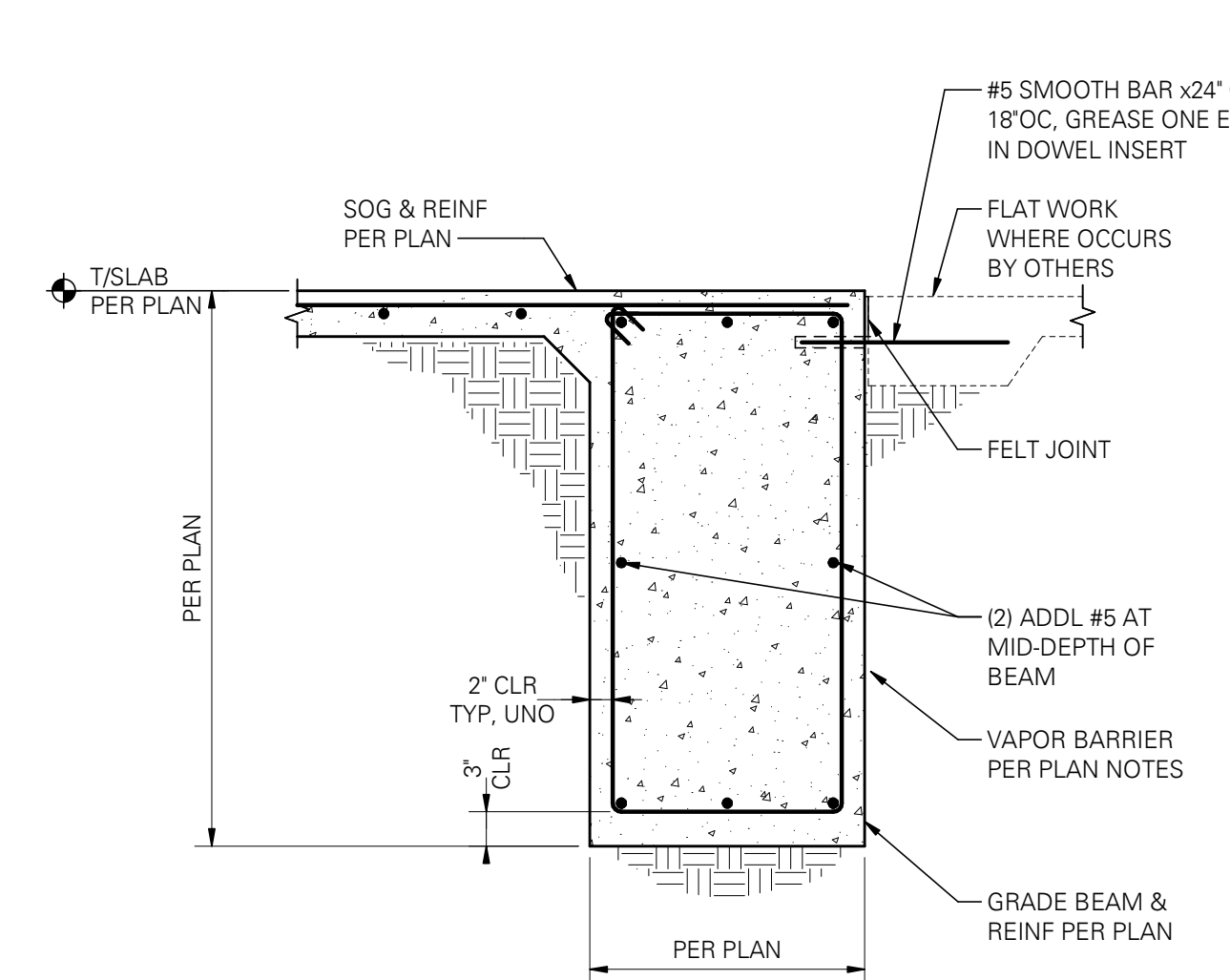
7 TYP EXT GRADE BEAM & LUG AT HSS COL

SCALE: 3/4" = 1'-0"



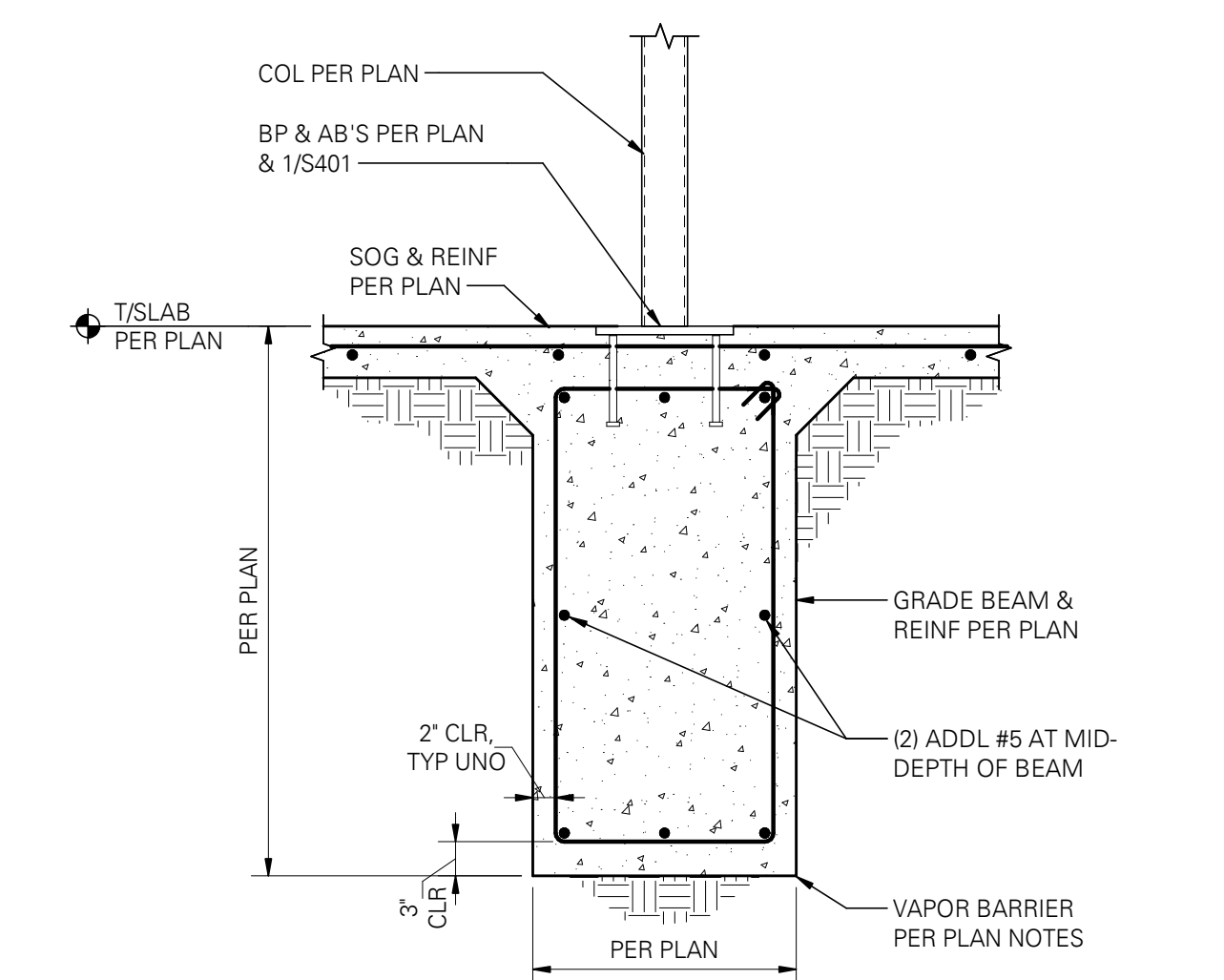
8 TYPICAL FOOTING AT CANOPY

SCALE: 3/4" = 1'-0"



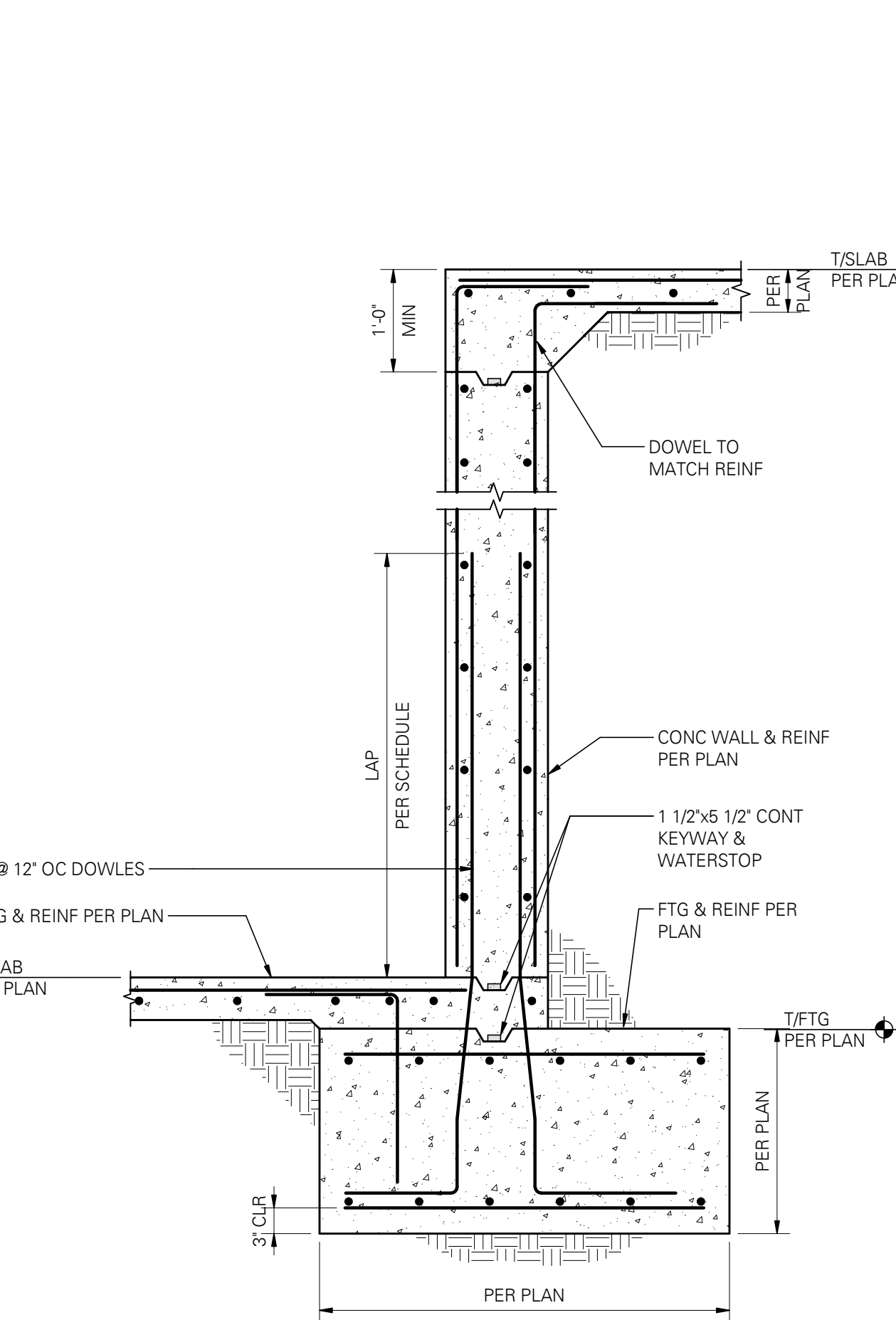
9 TYPICAL EXTERIOR GRADE BEAM

SCALE: 3/4" = 1'-0"



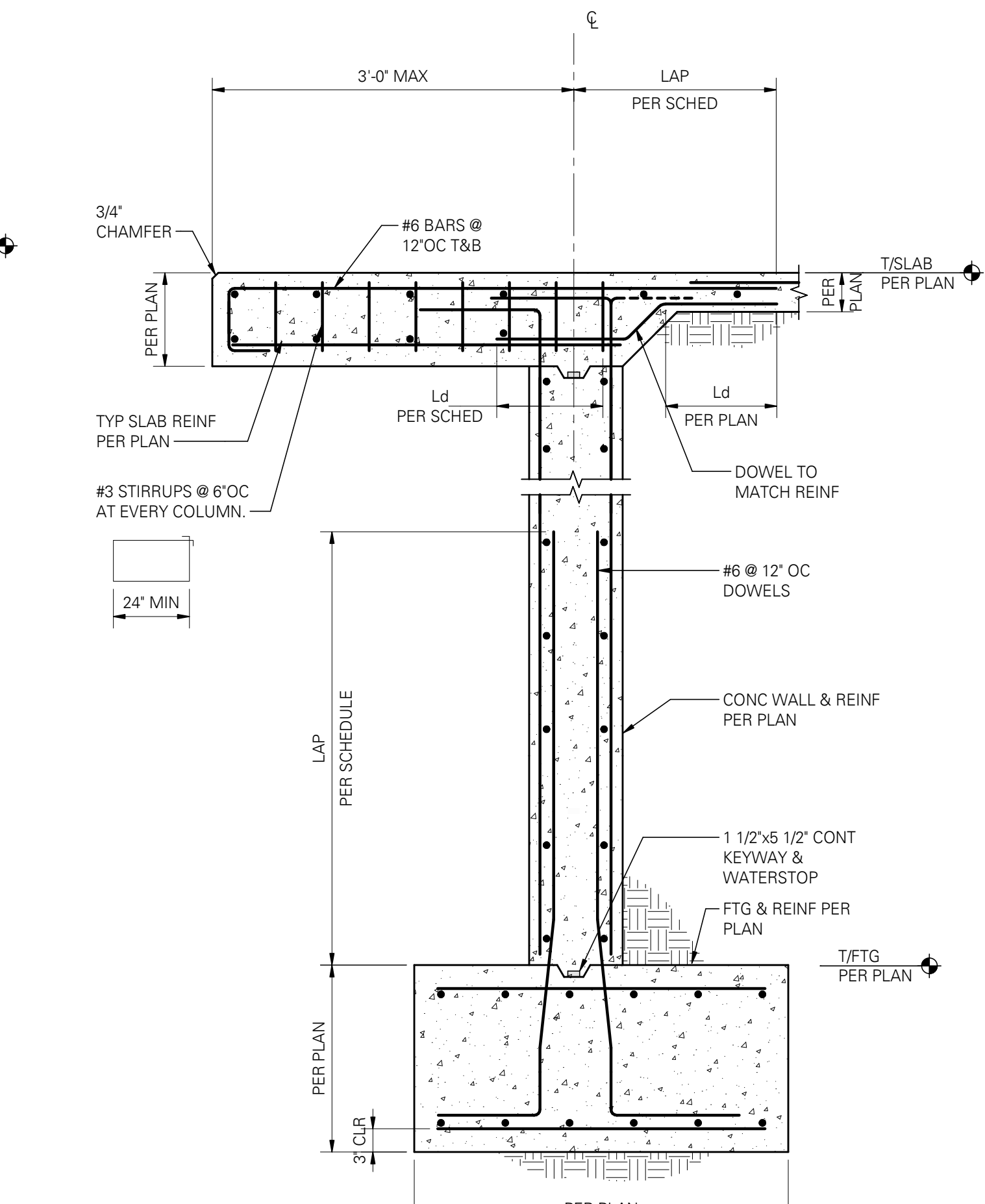
10 TYP HSS COL AT INTERIOR GRADE BEAM

SCALE: 3/4" = 1'-0"



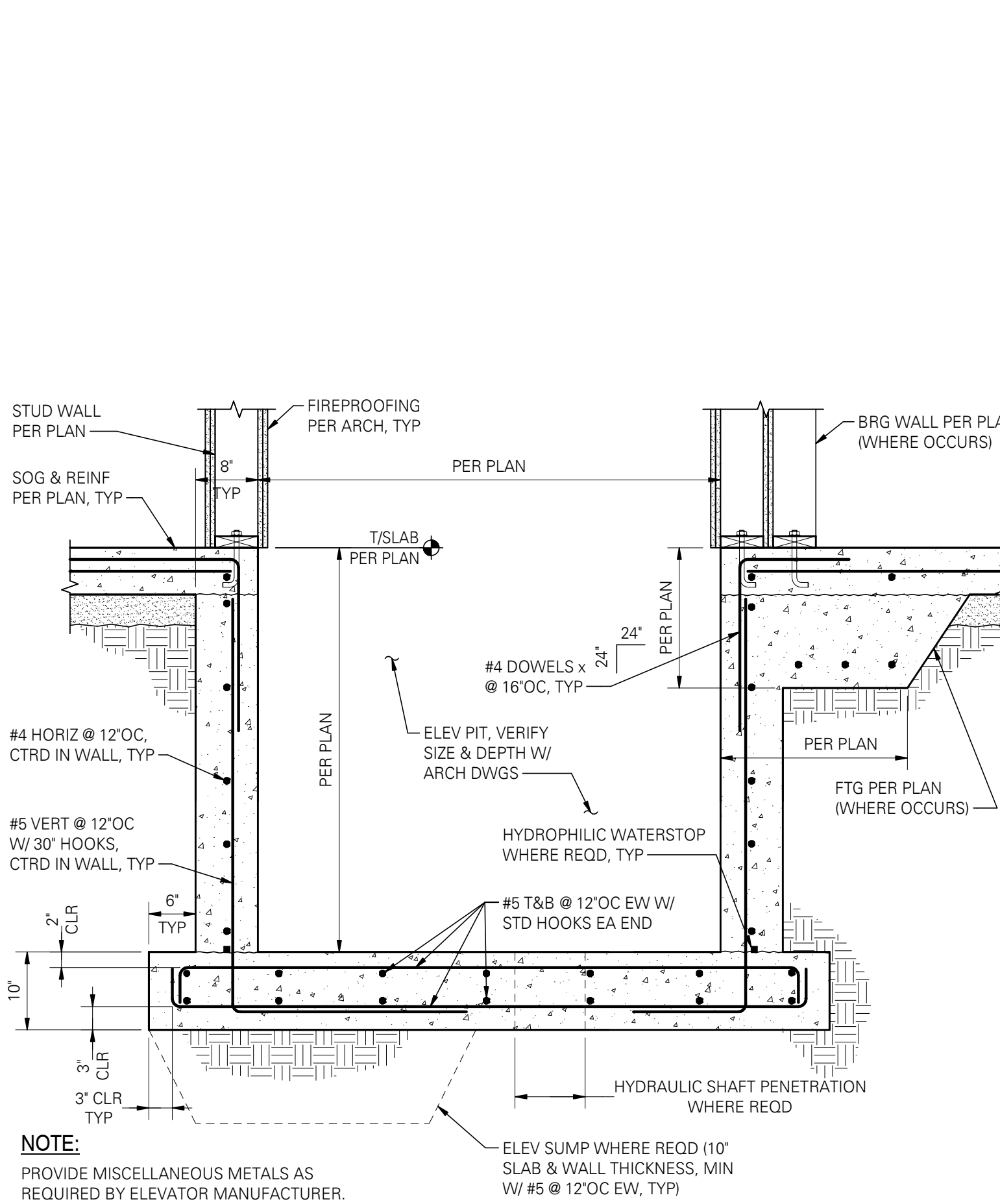
11 SLAB-ON-GRADE AT CONC WALL

SCALE: 3/4" = 1'-0"



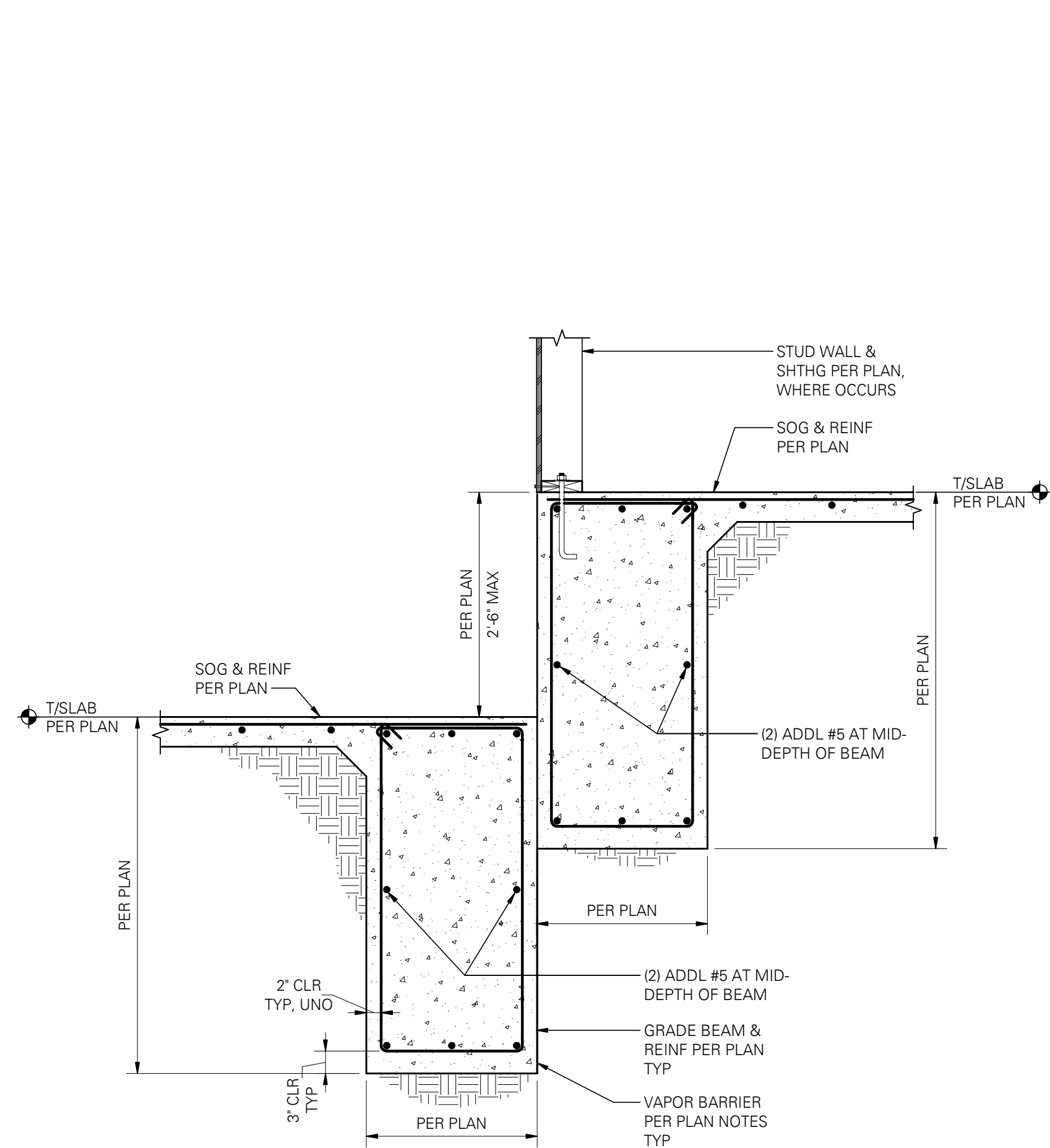
12 CANTILEVERED SLAB DETAIL

SCALE: 3/4" = 1'-0"



13 ELEVATOR PIT SECTION

SCALE: 3/4" = 1'-0" (TX)



14 TYPICAL INTERIOR GRADE BEAM STEP

SCALE: 3/4" = 1'-0"

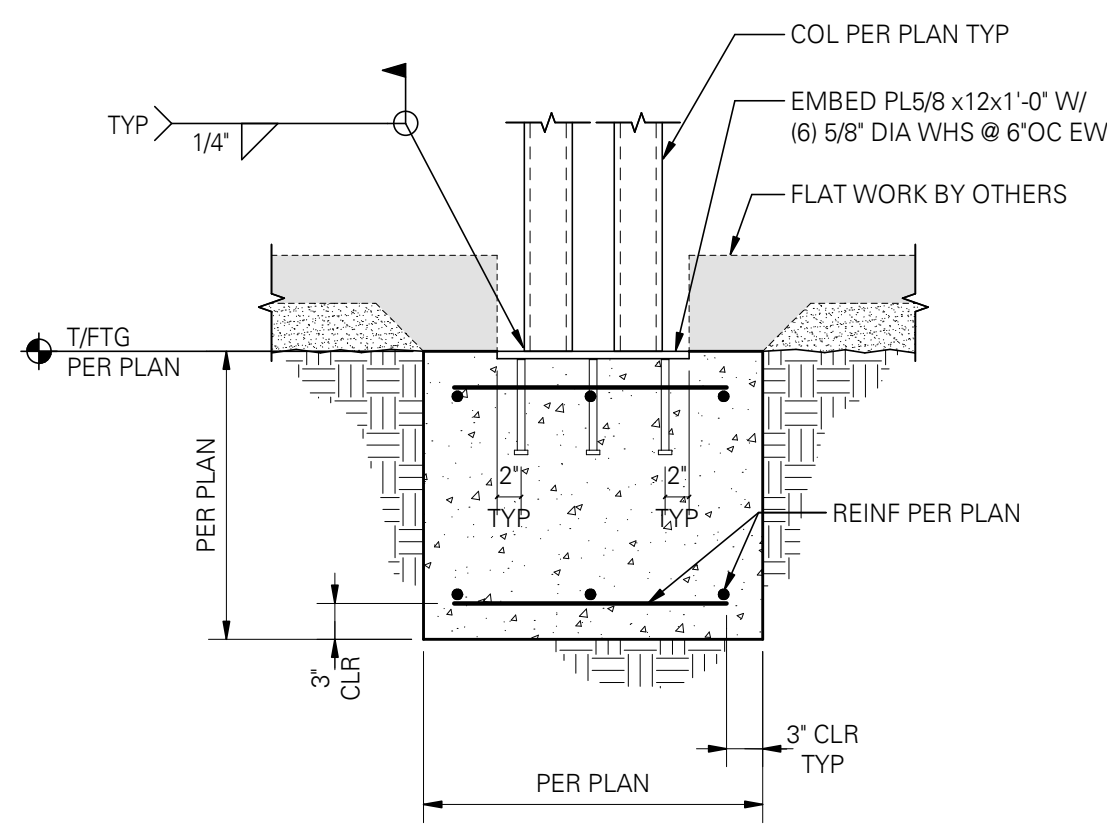
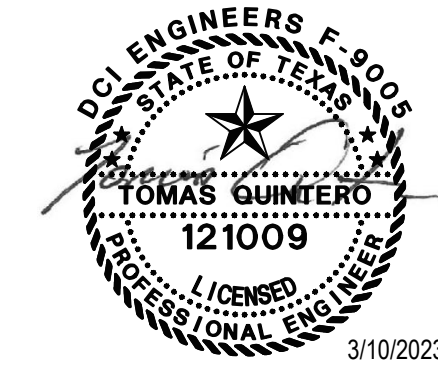
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STRUCTURAL - WOOD FOUNDATION
DETAILS



2 HSS COLUMNS AT GARAGE CANOPY

SCALE: 3/4" = 1'-0"

01401	#5	#6	#7	#8	#9	#10	#11
4000	20	23	33	38	47	57	69
5000	17	21	30	34	42	51	61
6000	16	18	27	31	38	47	56
7000	16	17	25	29	35	43	52
8000	16	17	23	27	33	40	48
9000	16	16	22	25	31	39	46
10000	16	16	21	23	30	36	44

NOTE:

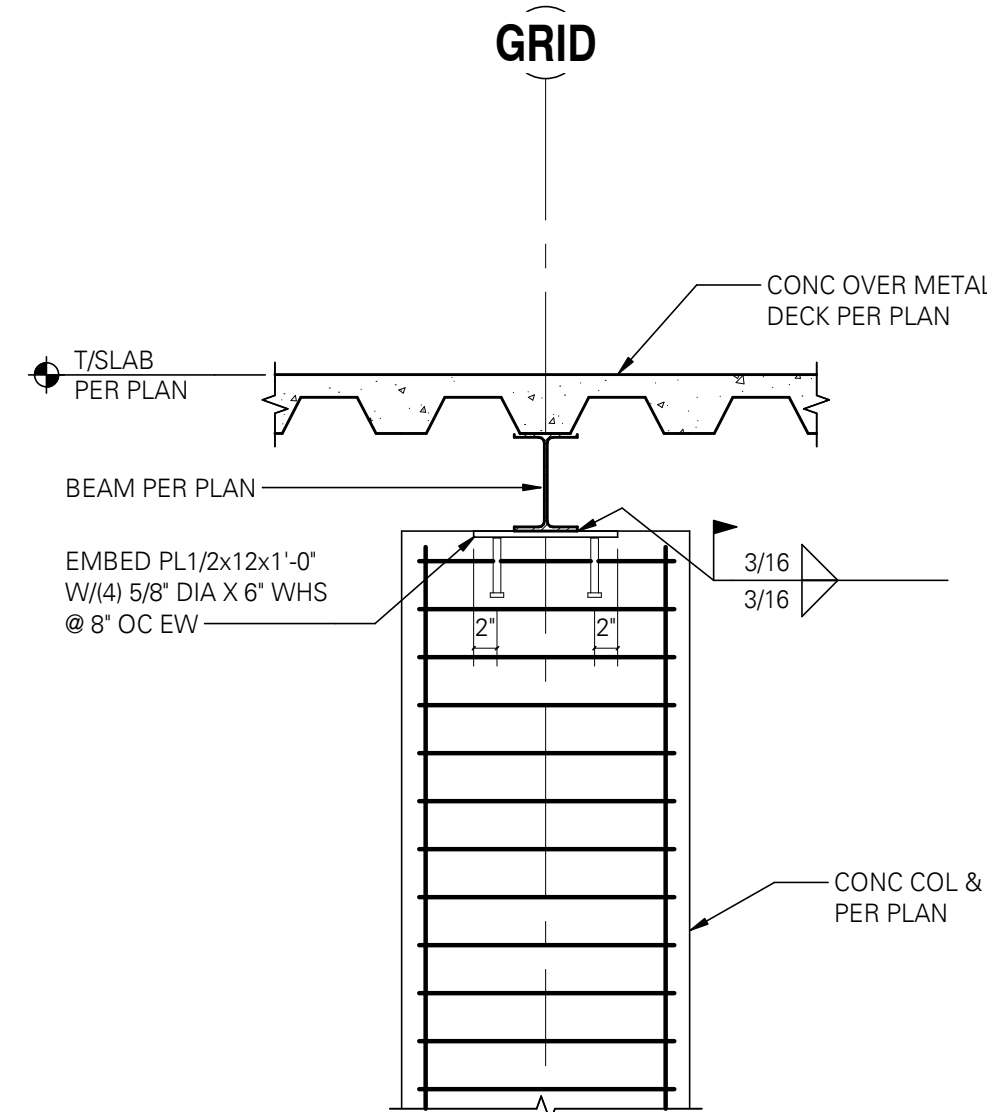
TABULATED VALUES ARE IN INCHES.

COLUMN VERTICAL REINFORCING
LAP SPLICE SCHEDULE

3

SCALE: 3/4" = 1'-0"

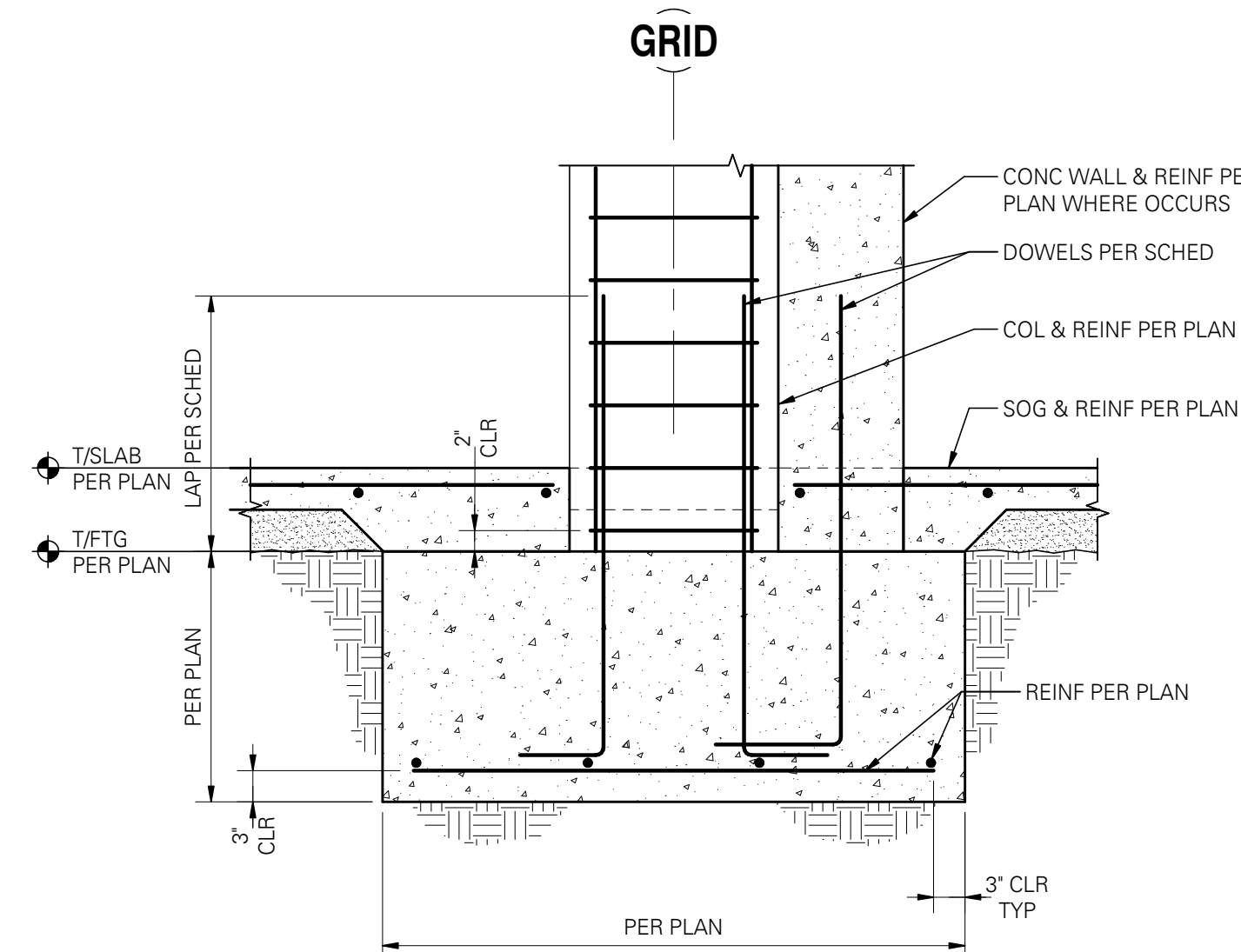
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4 TYPICAL SECTION AT TOP OF CONCRETE COLUMN

SCALE: 3/4" = 1'-0"

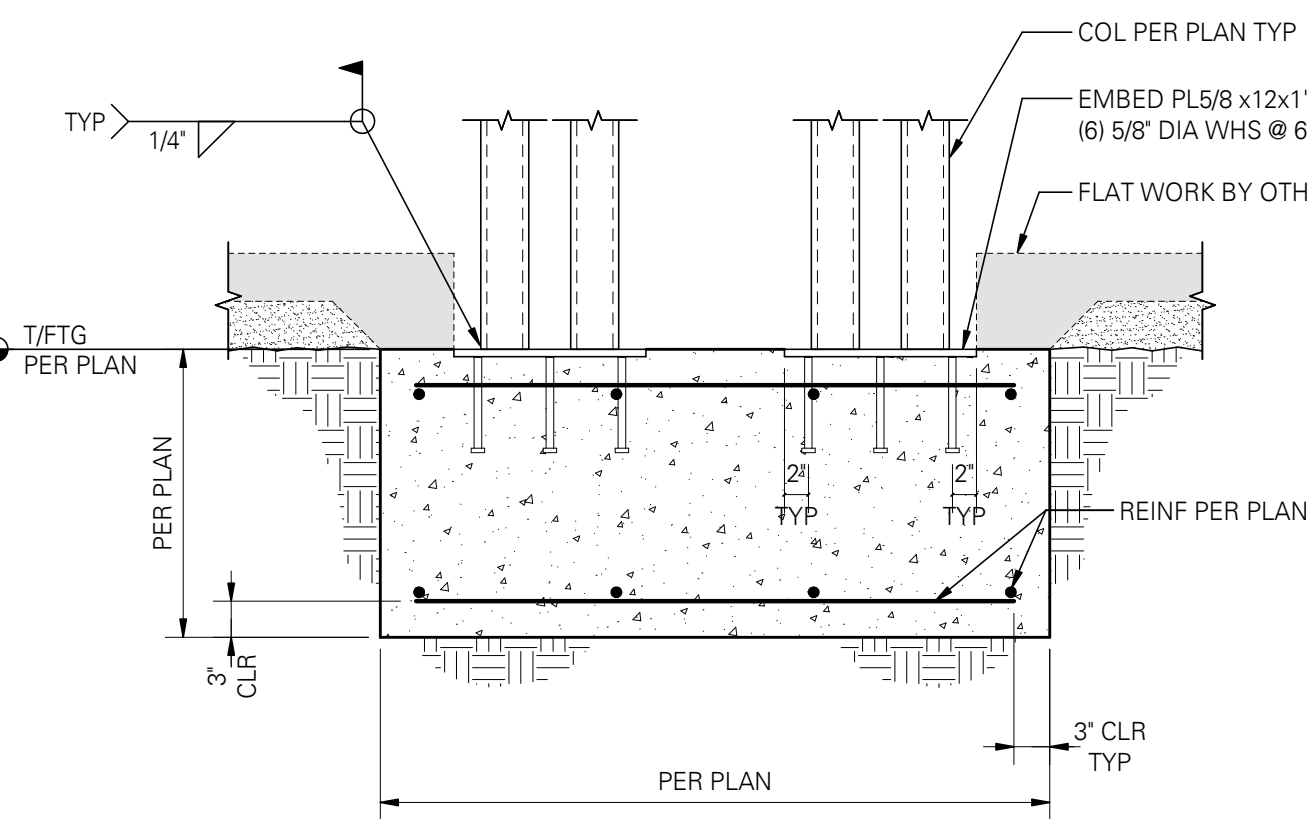
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5 CONCRETE COLUMN TO ISOLATED FOOTING

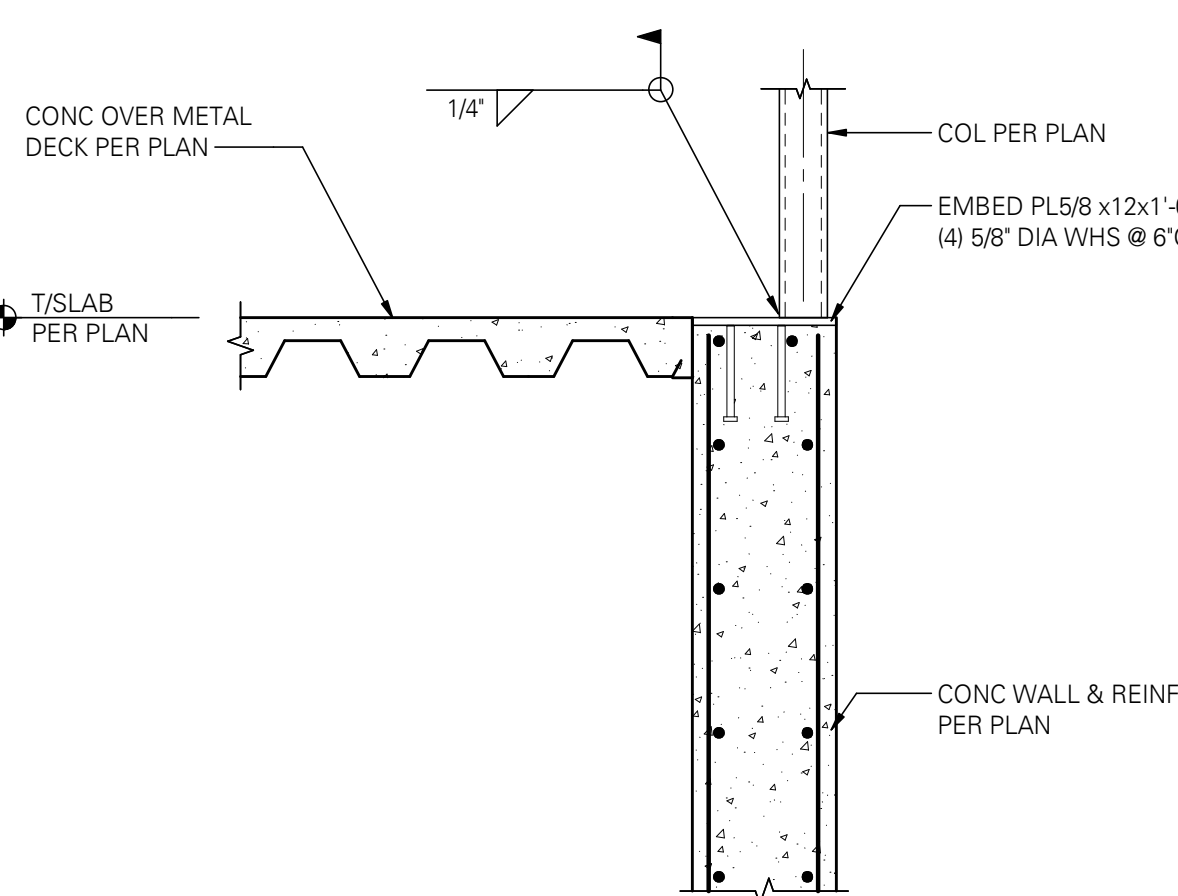
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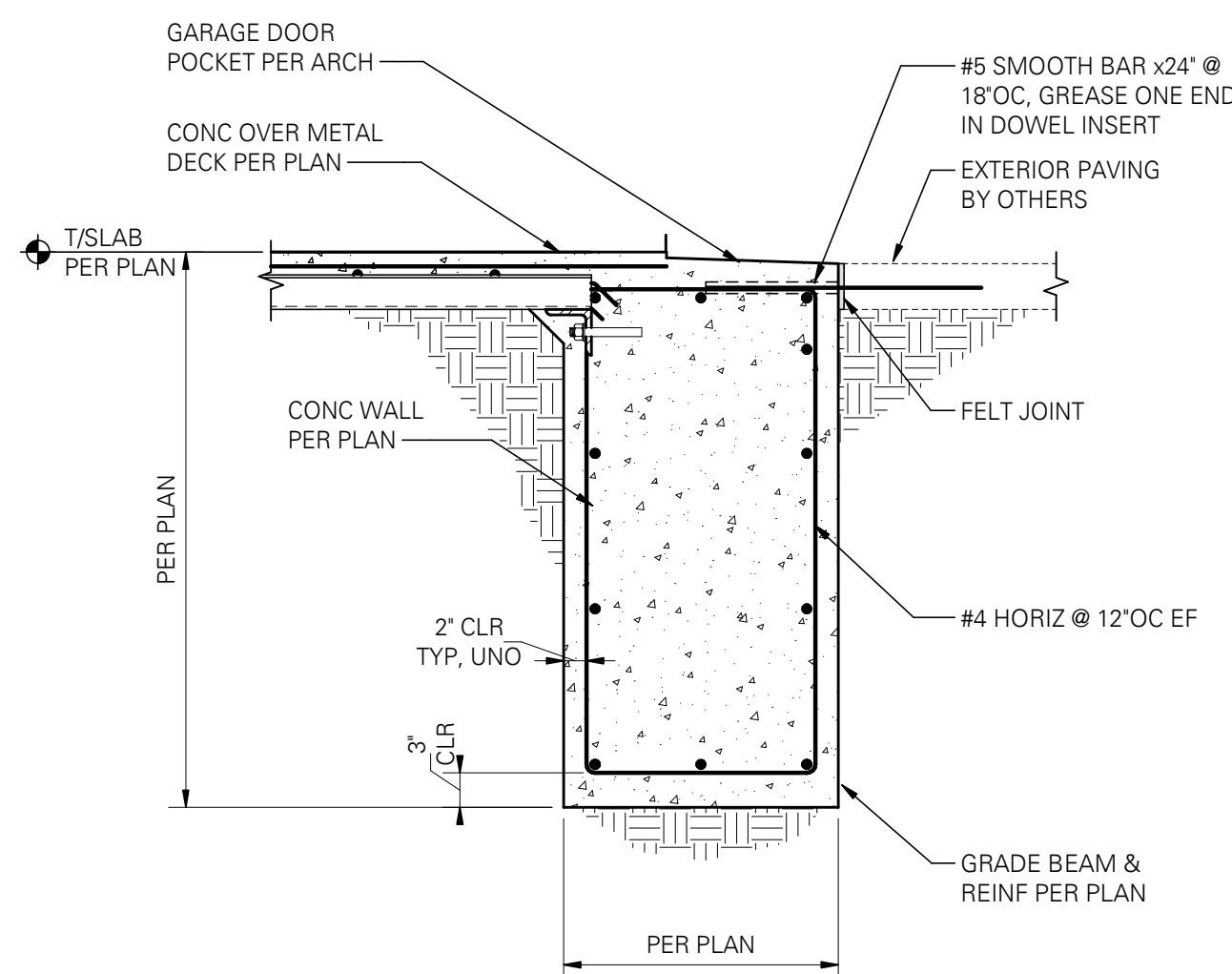
7 HSS COLUMNS AT GARAGE CANOPY

SCALE: 3/4" = 1'-0"



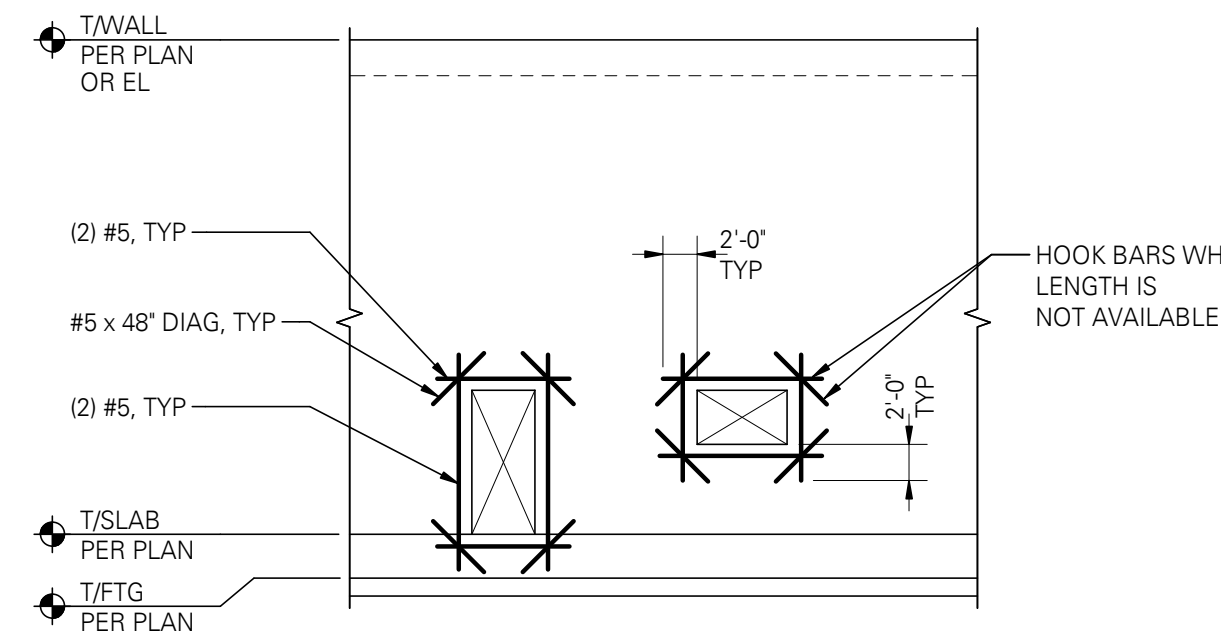
8 HSS COLUMN AT CONC WALL

SCALE: 3/4" = 1'-0"



9 TYPICAL EXTERIOR GRADE BEAM AT OPENING

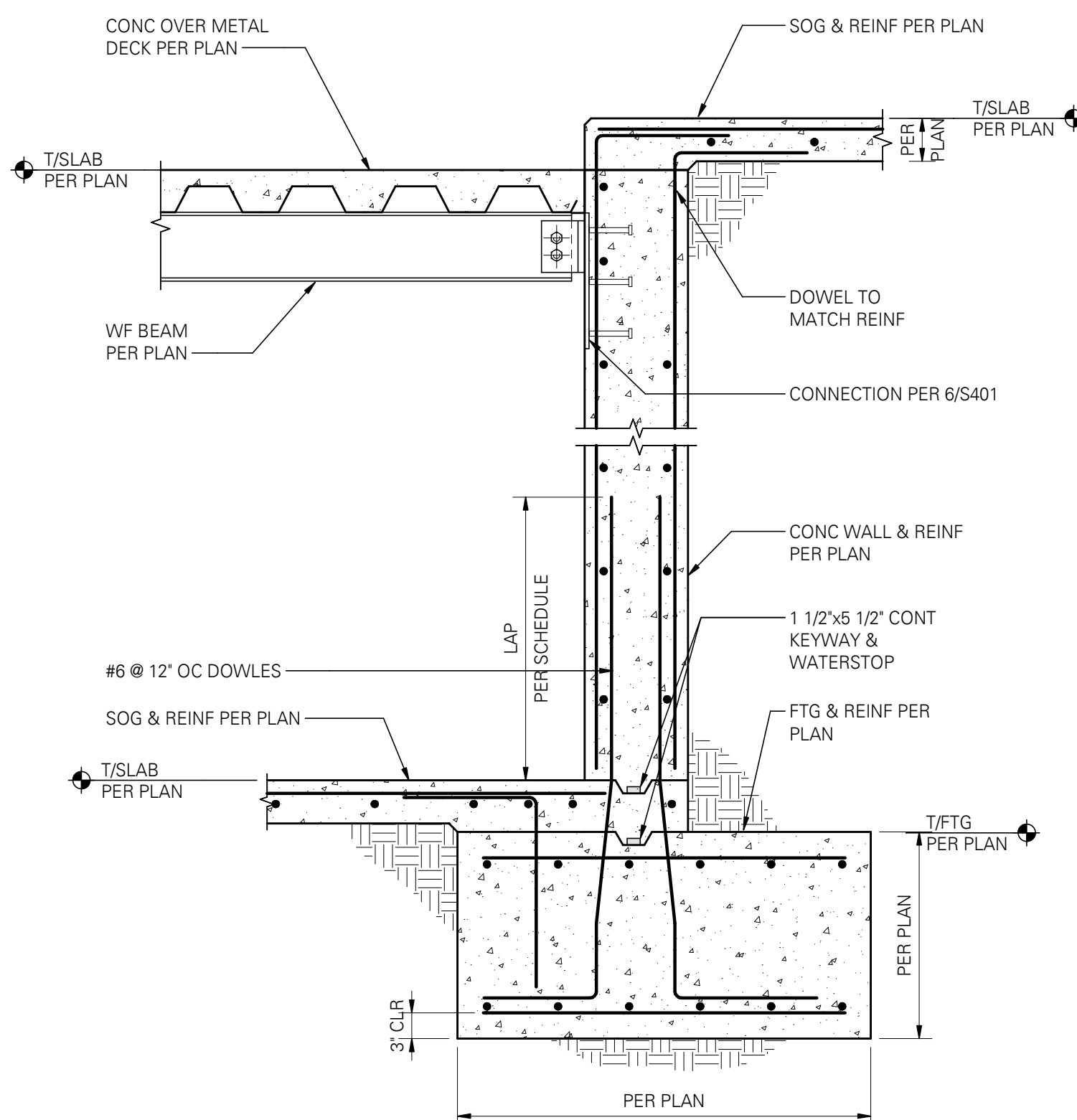
SCALE: 3/4" = 1'-0"



10 ELEVATION - TYPICAL CONCRETE WALL
OPENING REINFORCING

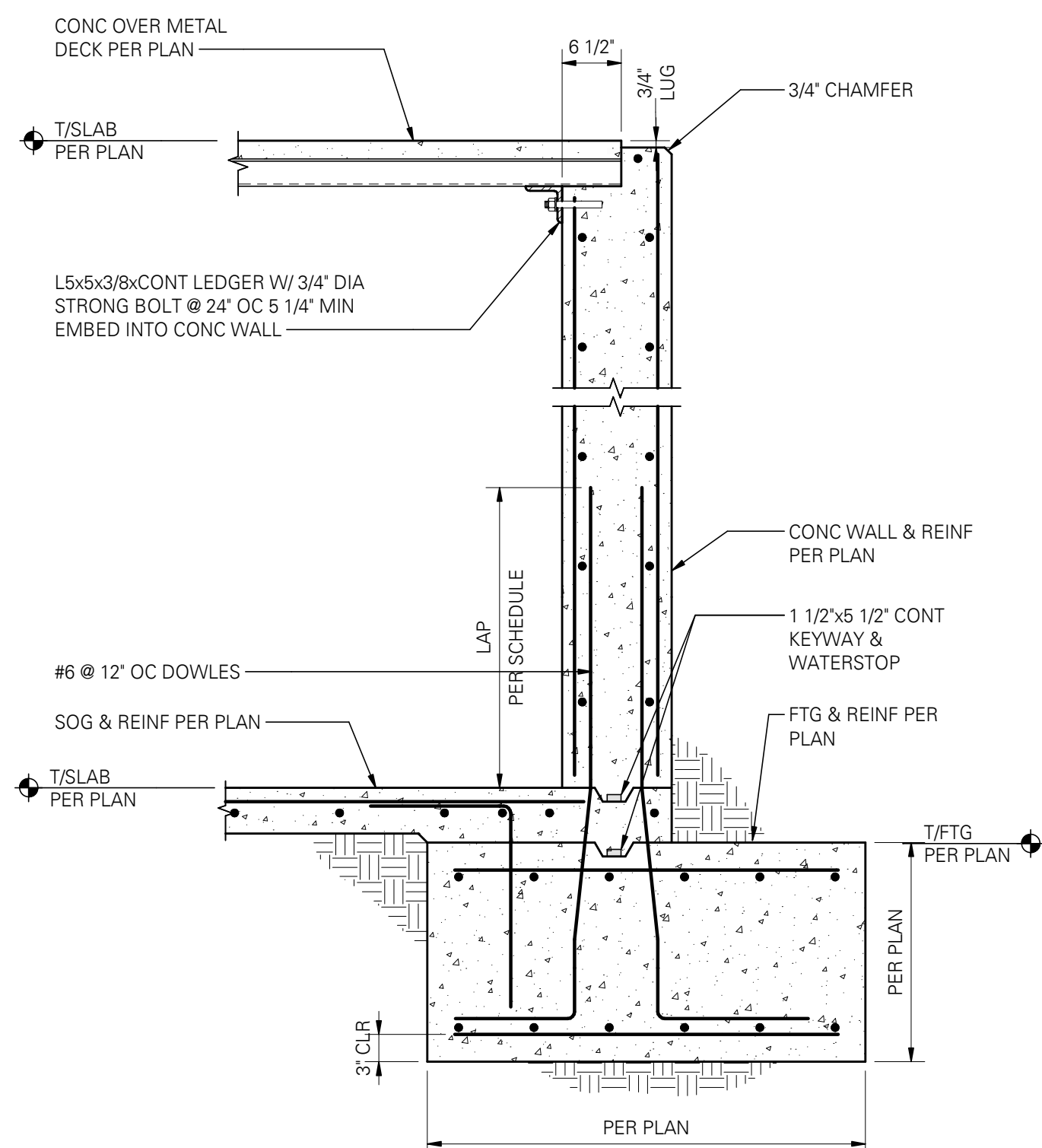
SCALE: 3/4" = 1'-0"

(03401)



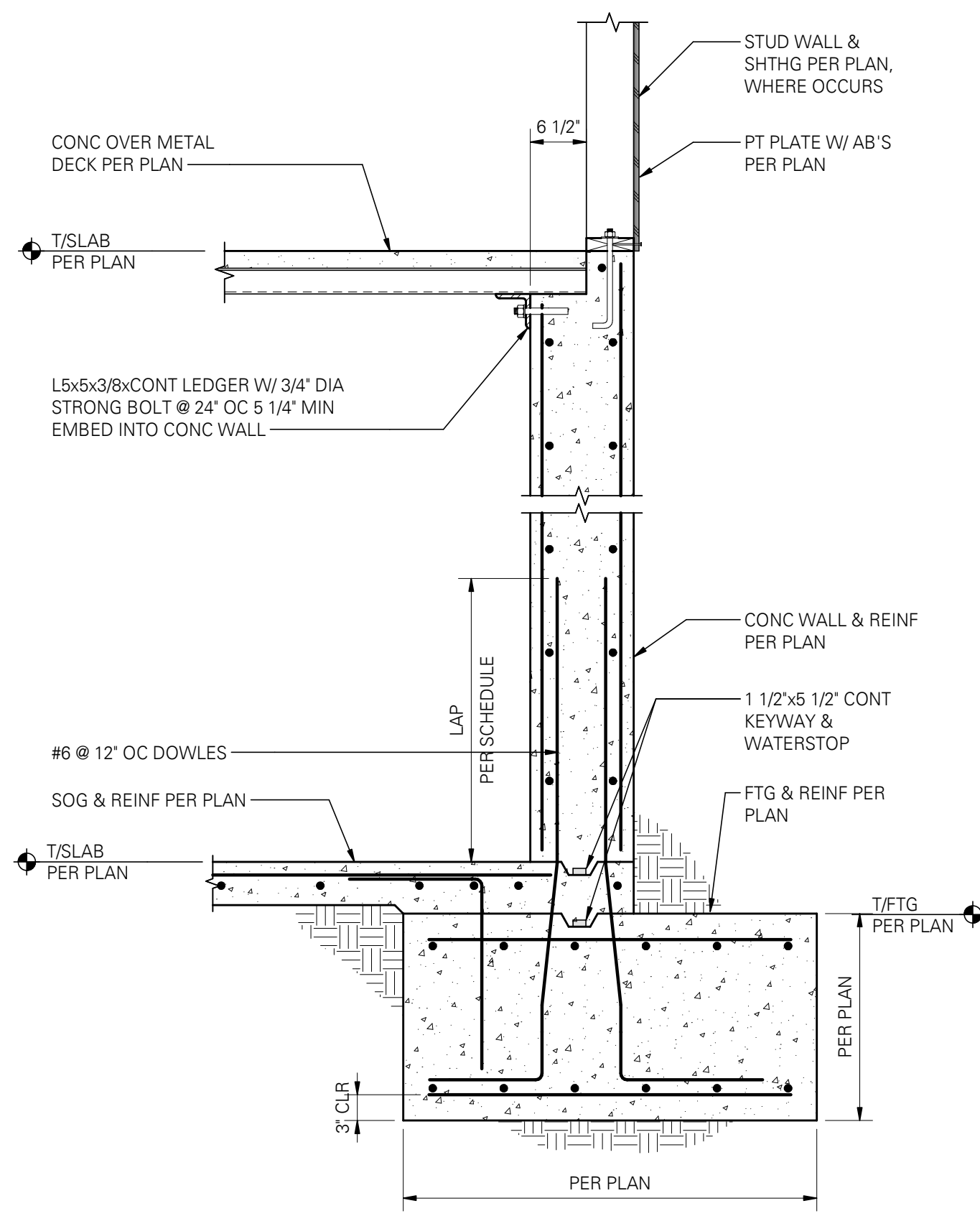
12 GARAGE CONC WALL

SCALE: 3/4" = 1'-0"



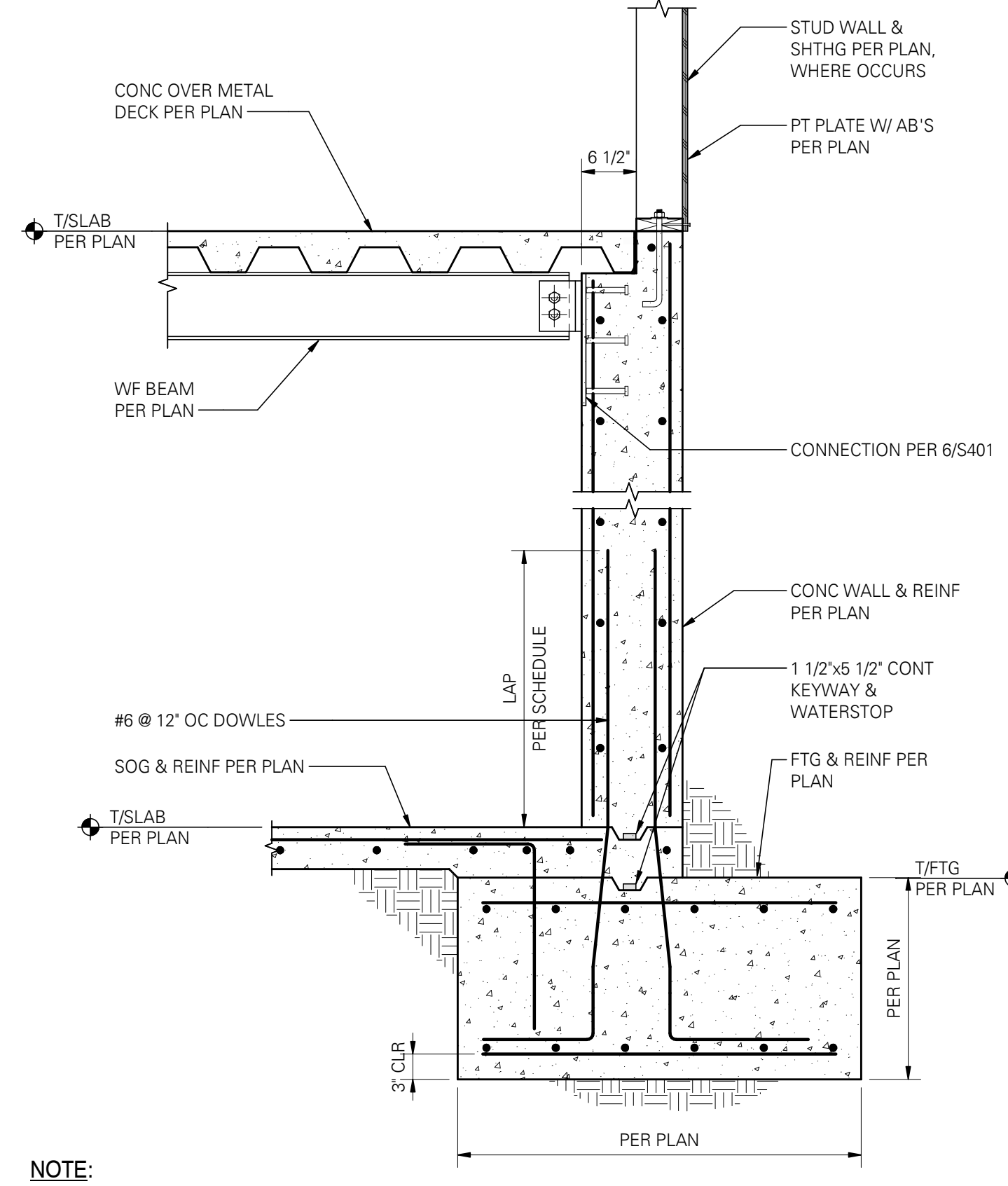
13 CONCRETE OVER METAL DECK AT CONC WALL

SCALE: 3/4" = 1'-0"



14 CONCRETE OVER METAL DECK AT CONC WALL

SCALE: 3/4" = 1'-0"



15 STEEL BEAM AT GARAGE CONC WALL

SCALE: 3/4" = 1'-0"

NOTE:
OPPOSITE DECK ORIENTATION AT SIM

CONSTANTINE
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0 WILDCAT HOLLOW,
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78746

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CONSTANTINE

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Furniture Builders
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p.512.922.7583

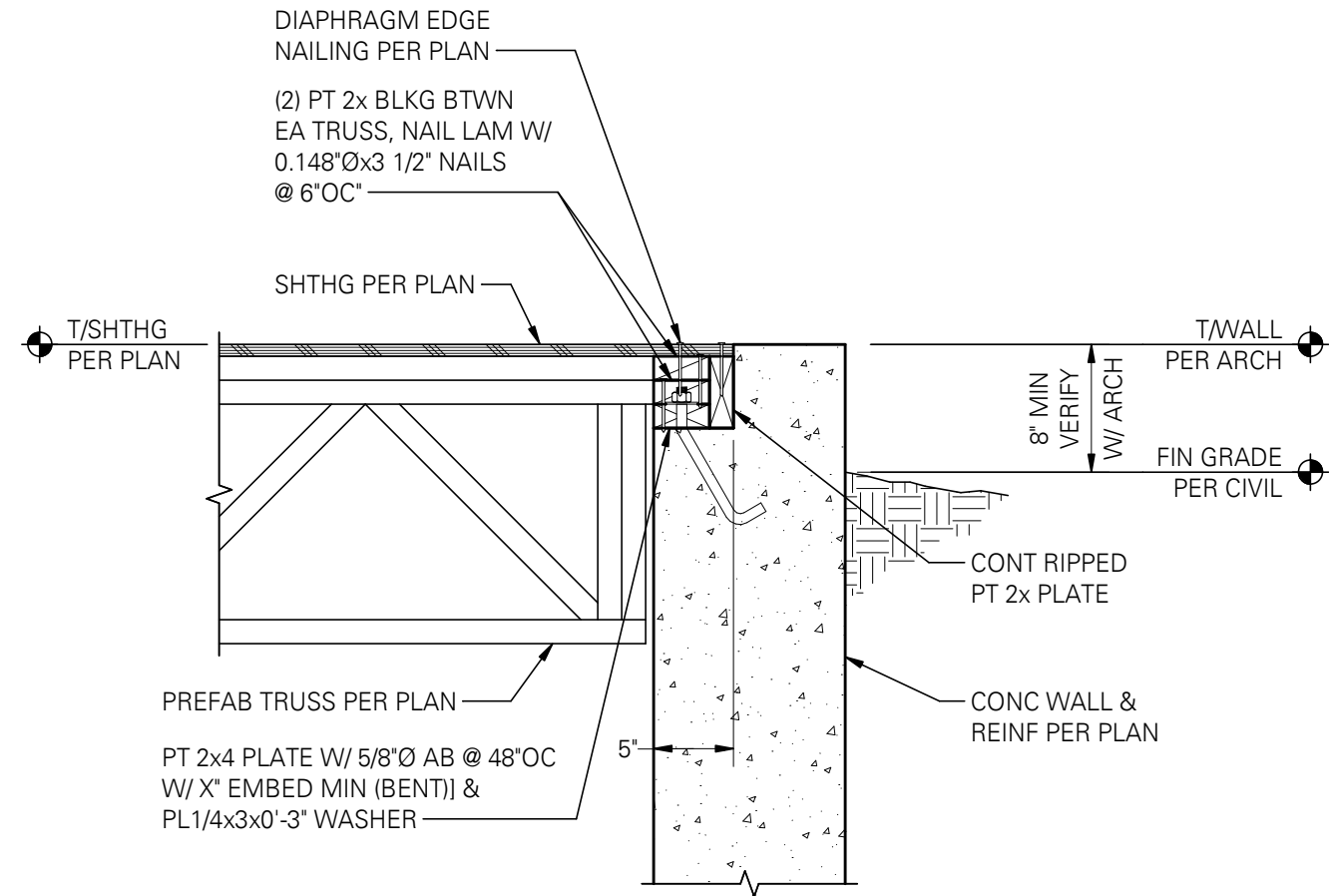
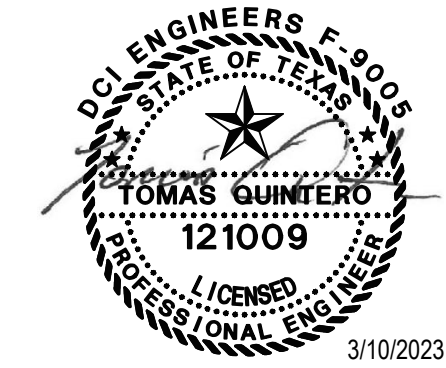
Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

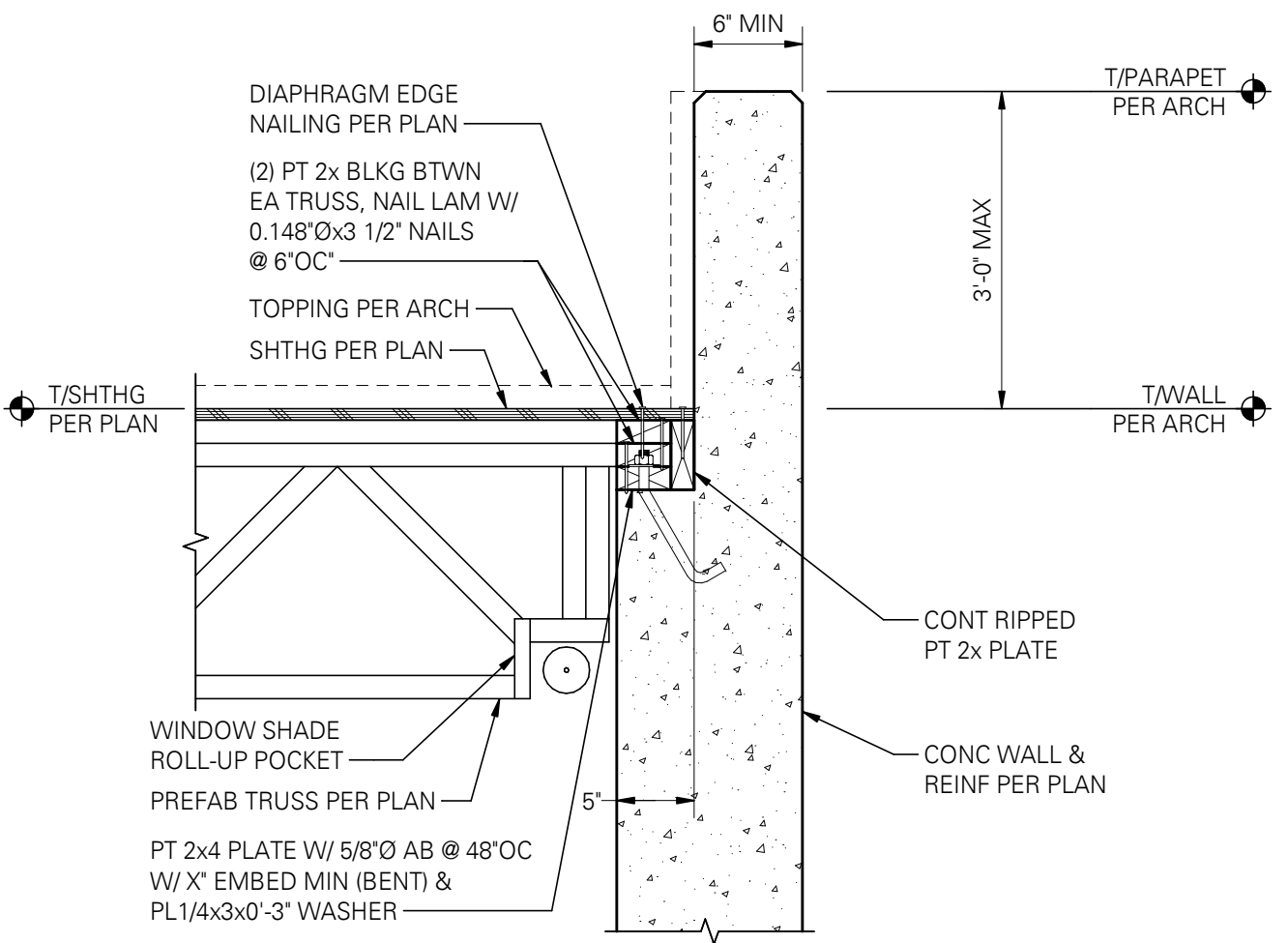
Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Interior Designer:
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(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)

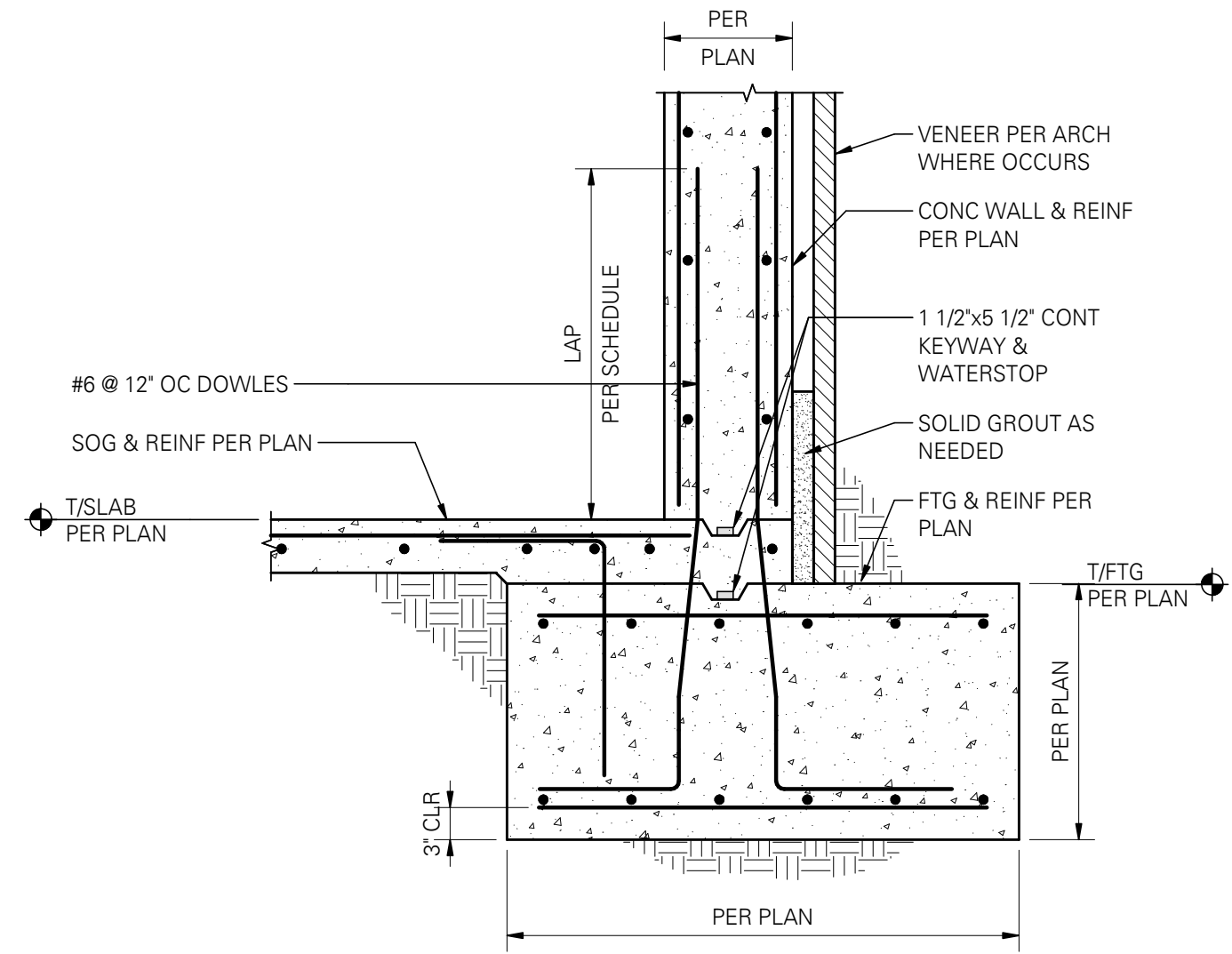


4 PERPENDICULAR TRUSSES AT CONC WALL
SCALE: 1" = 1'-0"

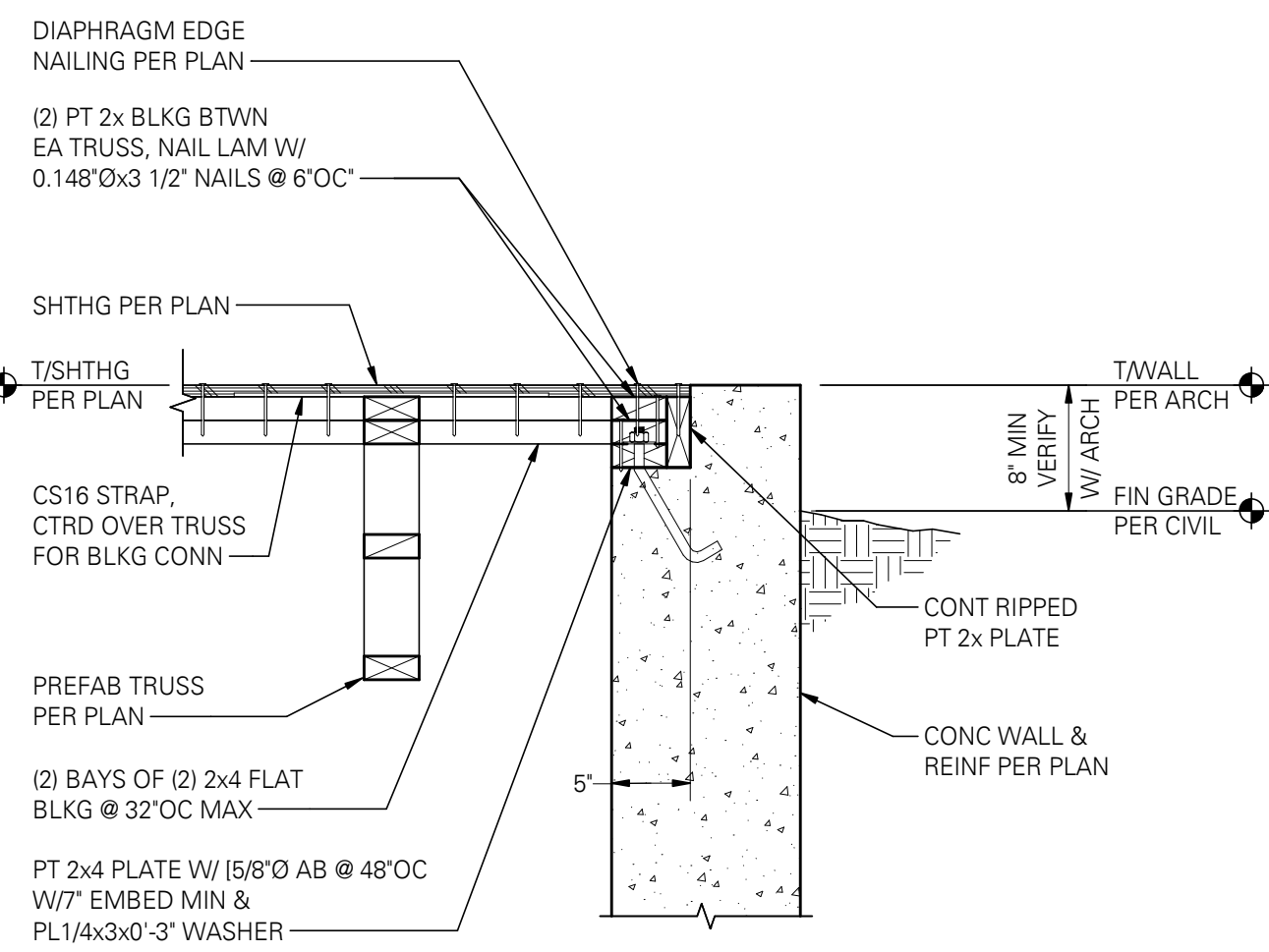


NOTES:
1. LOCATE WINDOW SHADE ROLL-UP POCKETS PER ARCH.

9 PARAPET AT CONCRETE WALL
SCALE: 1" = 1'-0"



5 CONC WALL AT CONC FTG
SCALE: 3/4" = 1'-0"



10 PARALLEL TRUSSES AT CONC WALL
SCALE: 1" = 1'-0"

- NOT FOR CONSTRUCTION

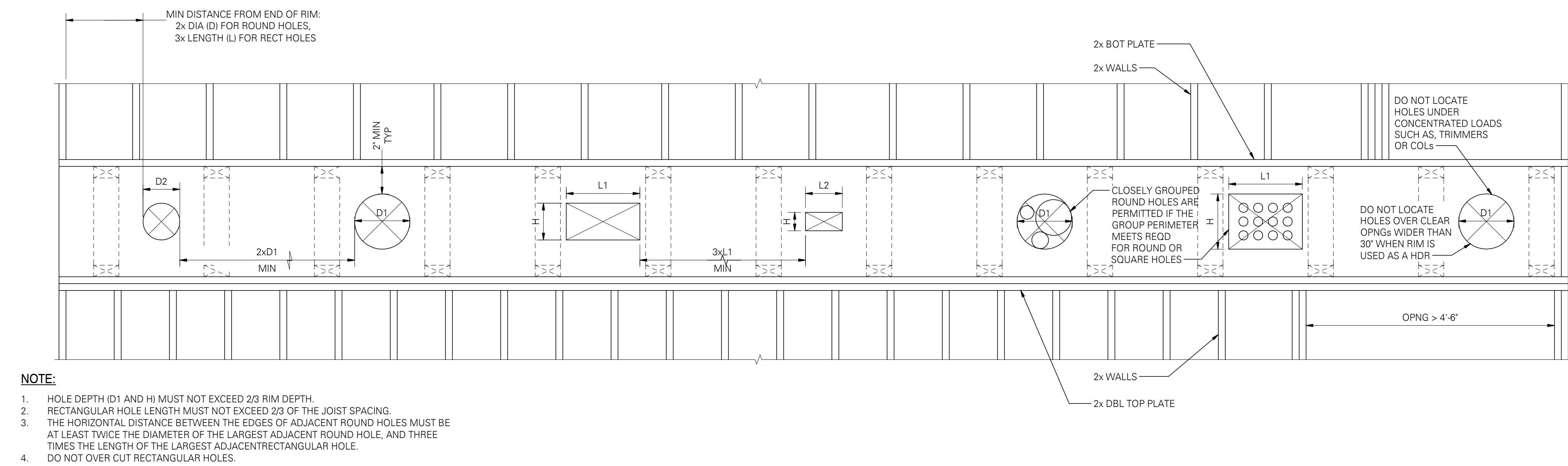
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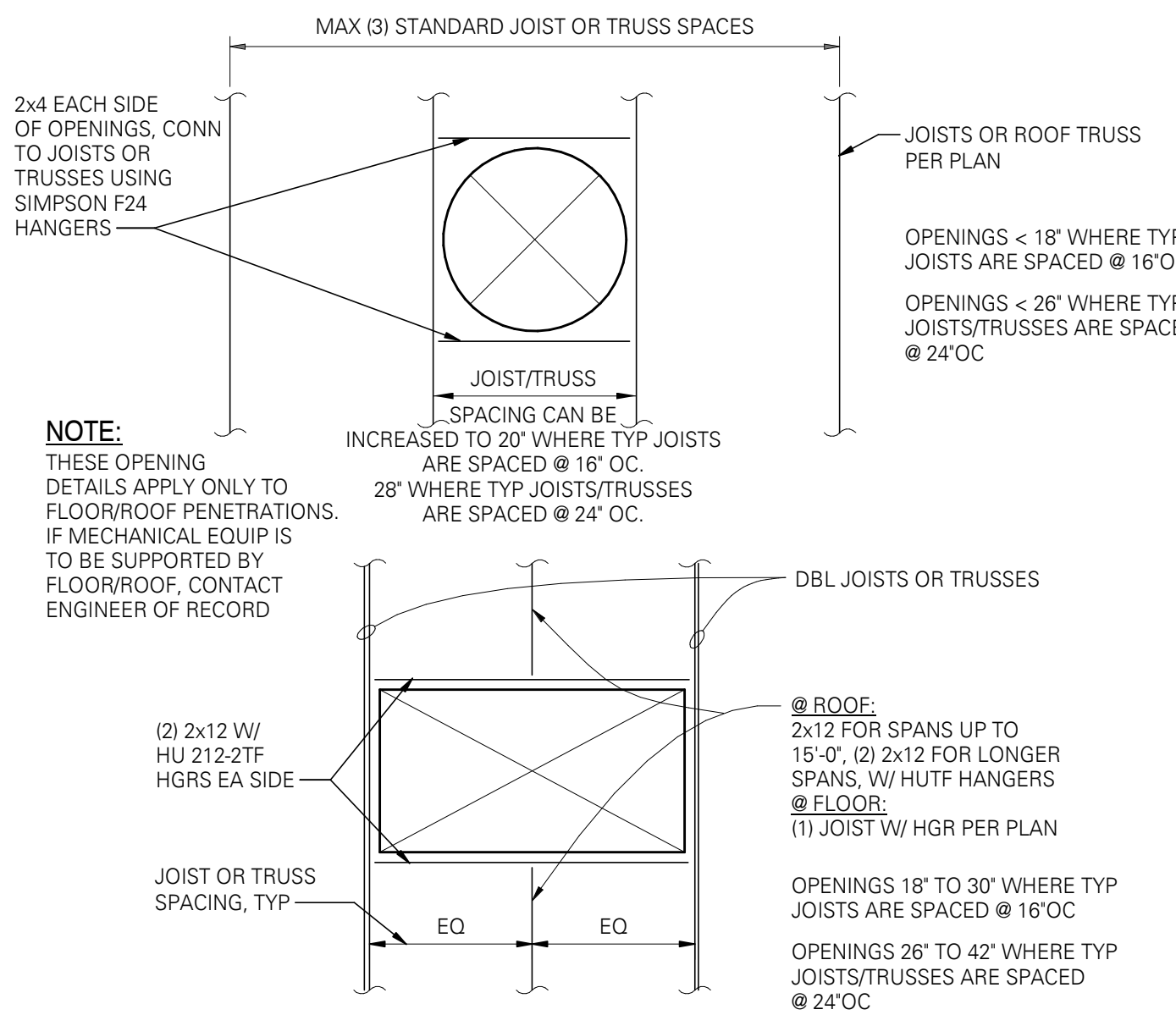
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STRUCTURAL - CONCRETE
FOUNDATION DETAILS

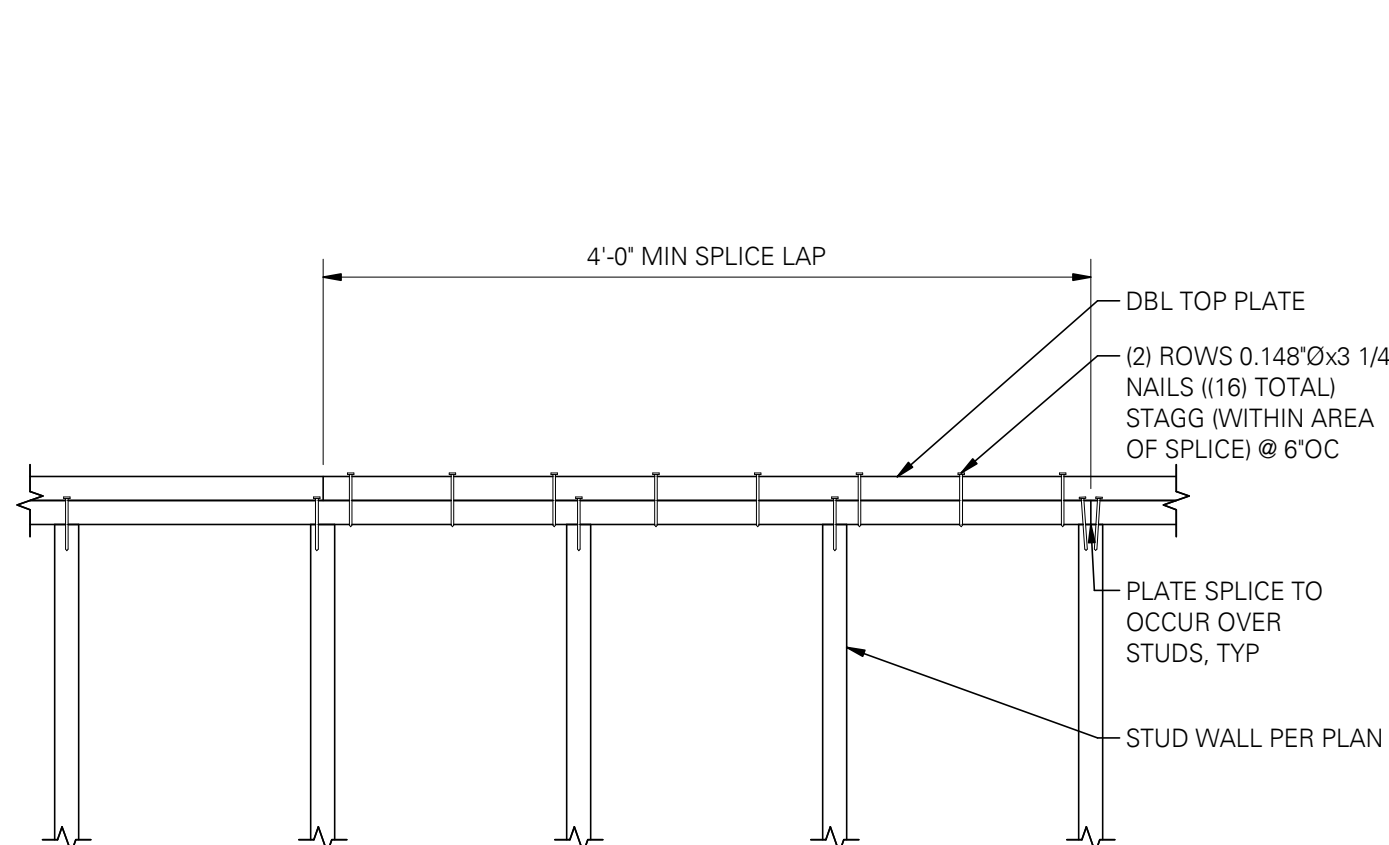
S303



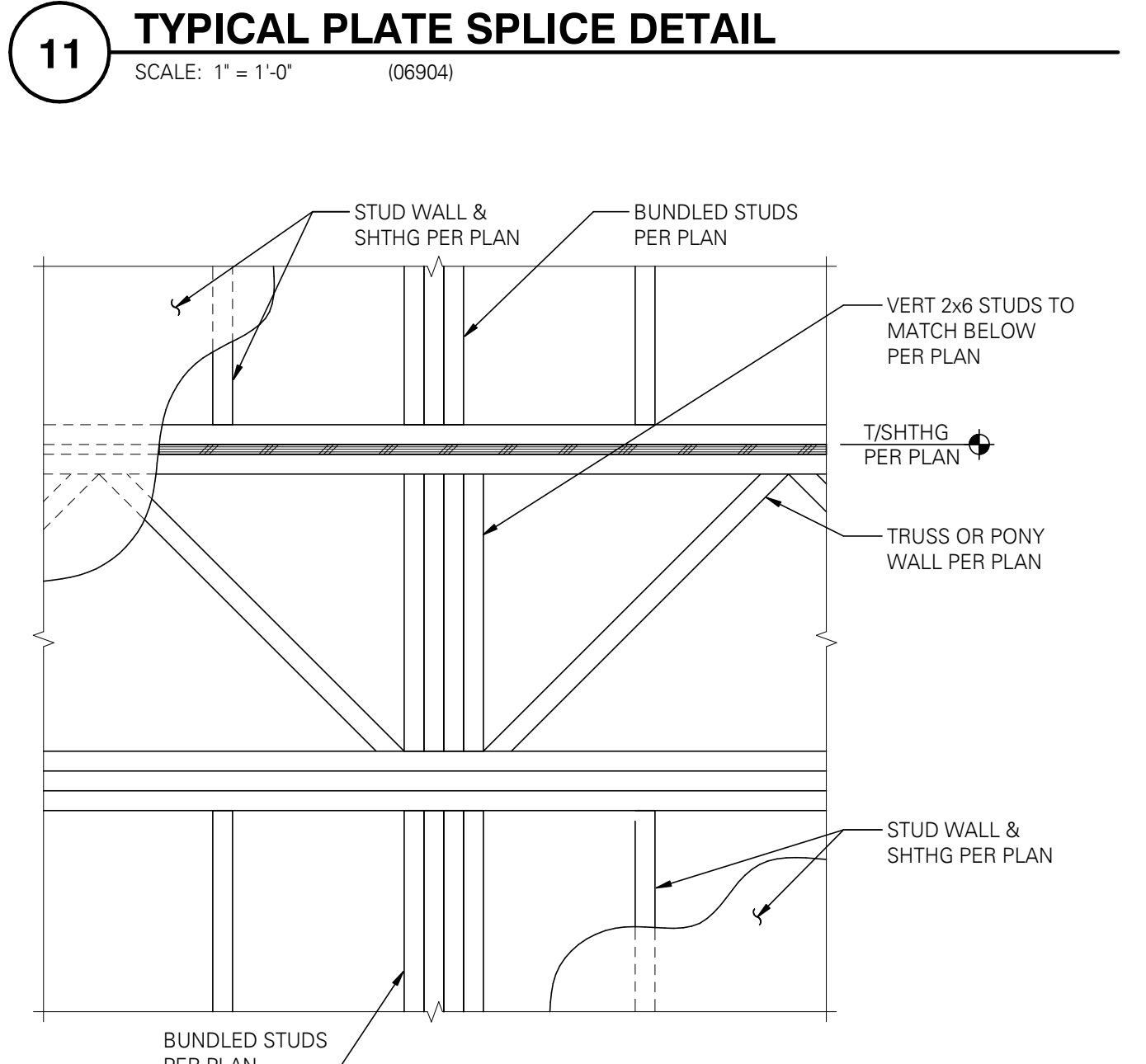
1 ALLOWABLE HORIZONTAL HOLES IN RIM BOARD
SCALE: 3/4" = 1'-0" (TX)



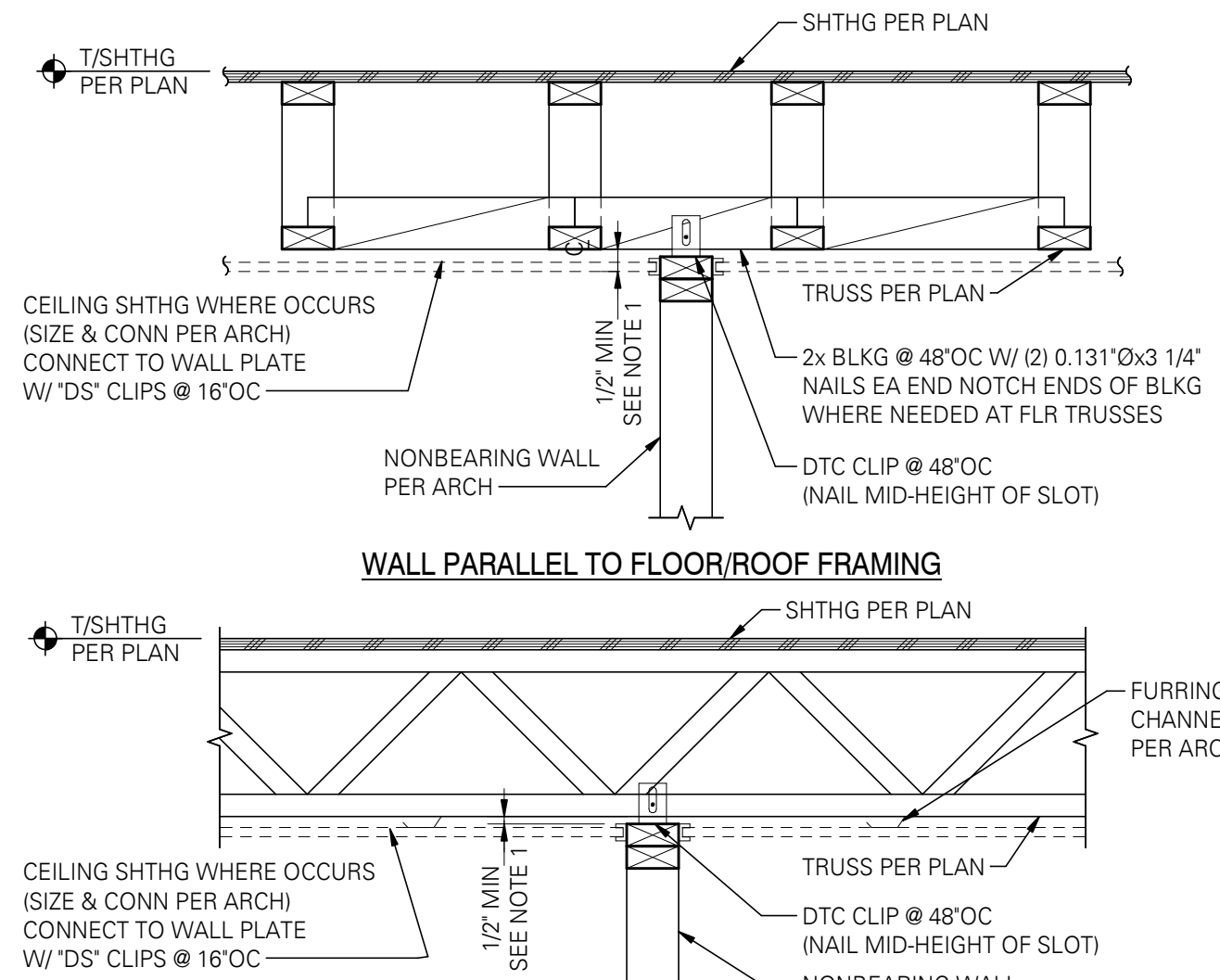
6 TYPICAL FRAMING AT FLOOR/ROOF OPENINGS
SCALE: 3/4" = 1'-0" (TX)



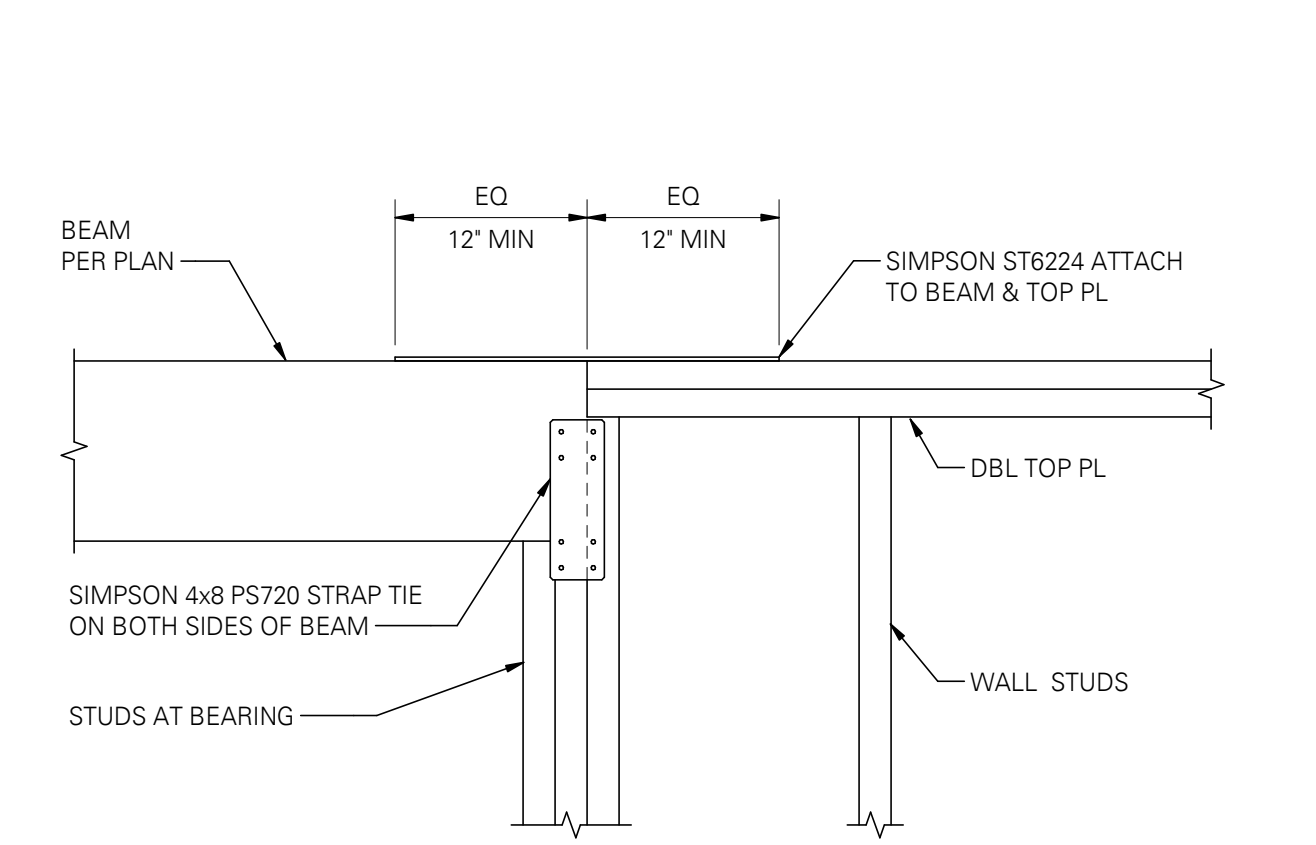
11 TYPICAL PLATE SPLICE DETAIL
SCALE: 1" = 1'-0" (06904)



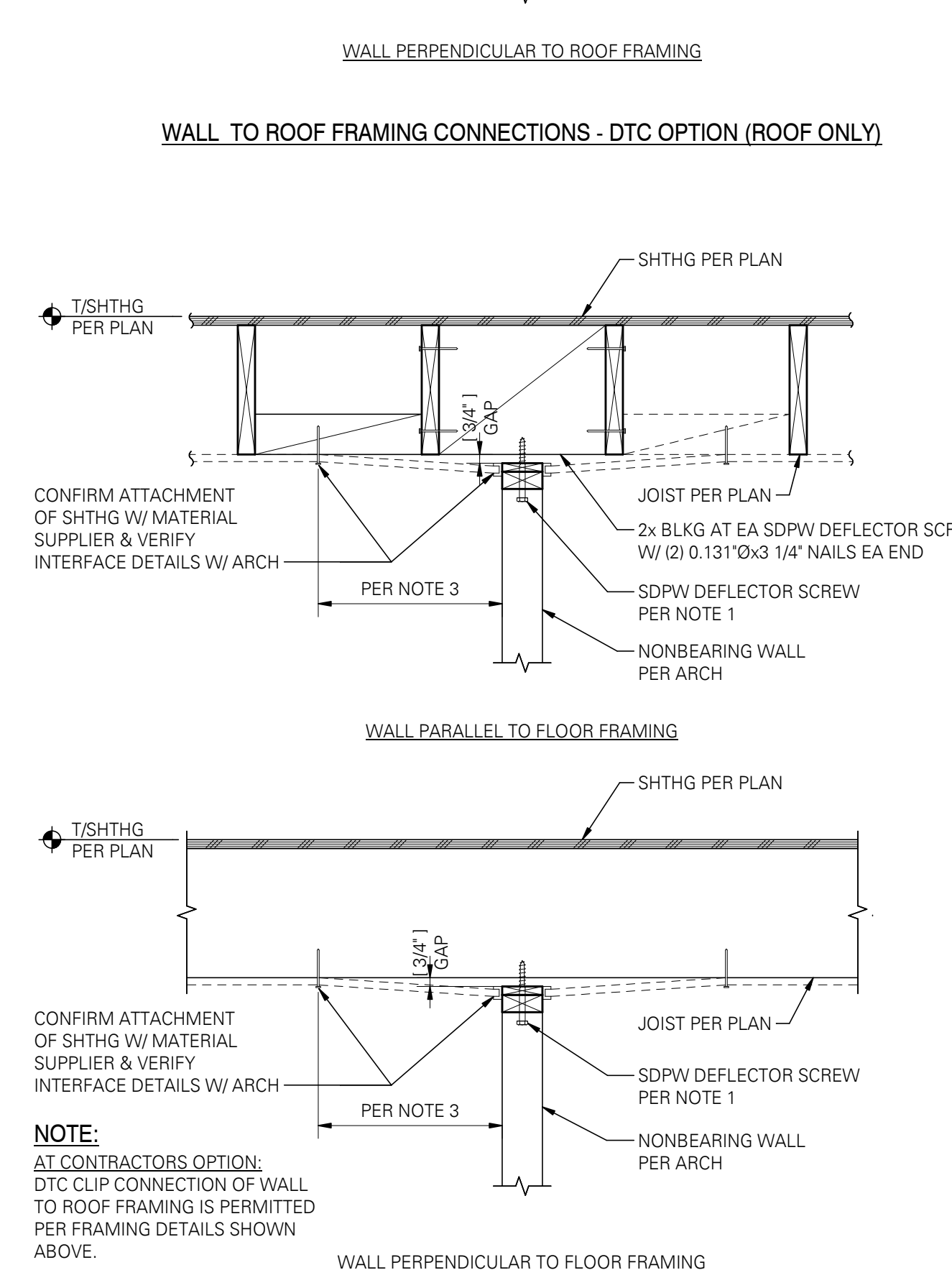
16 BUNDLED STUDS CONTINUOUS TO FOUNDATION
SCALE: 1" = 1'-0" (TX)



7 NON-STRUCTURAL PARTITION WALL CONNECTION
SCALE: 1" = 1'-0" (06905A/MTX)

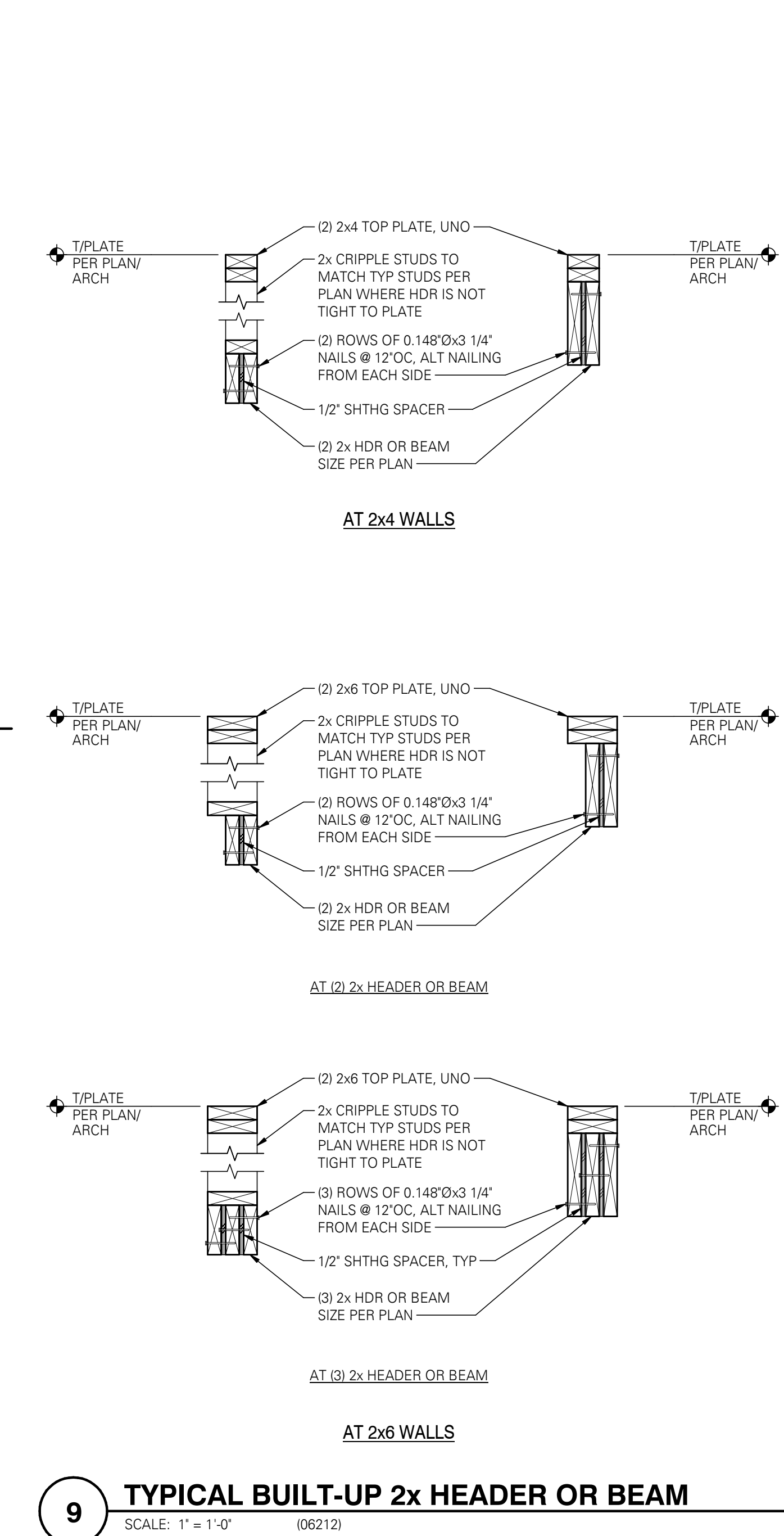


12 TYPICAL BEAM TO TOP PLATE SPLICE
SCALE: 1" = 1'-0" (TX)

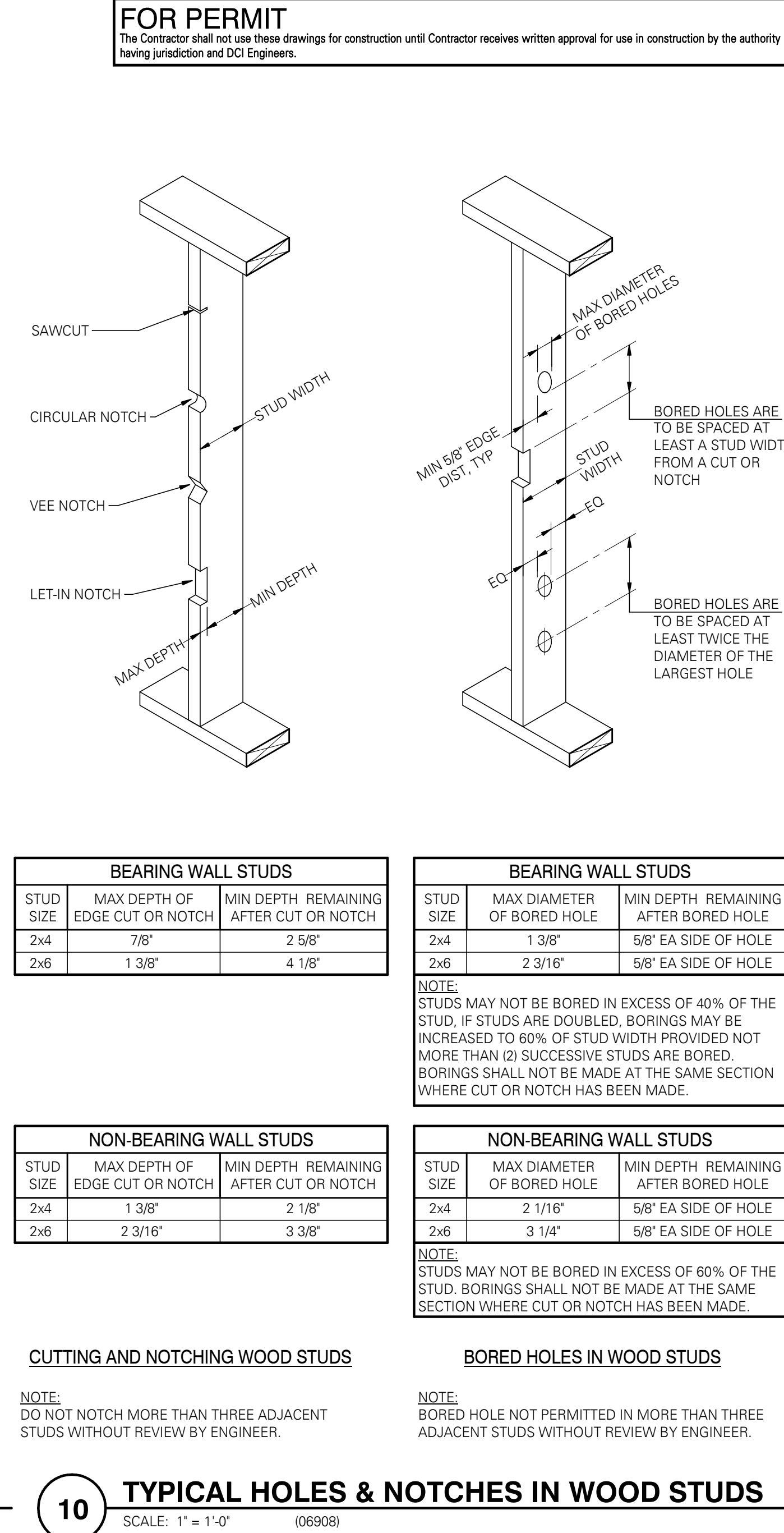


14 TRUSS BLOCKING ELEVATION
SCALE: 1" = 1'-0" (TX)

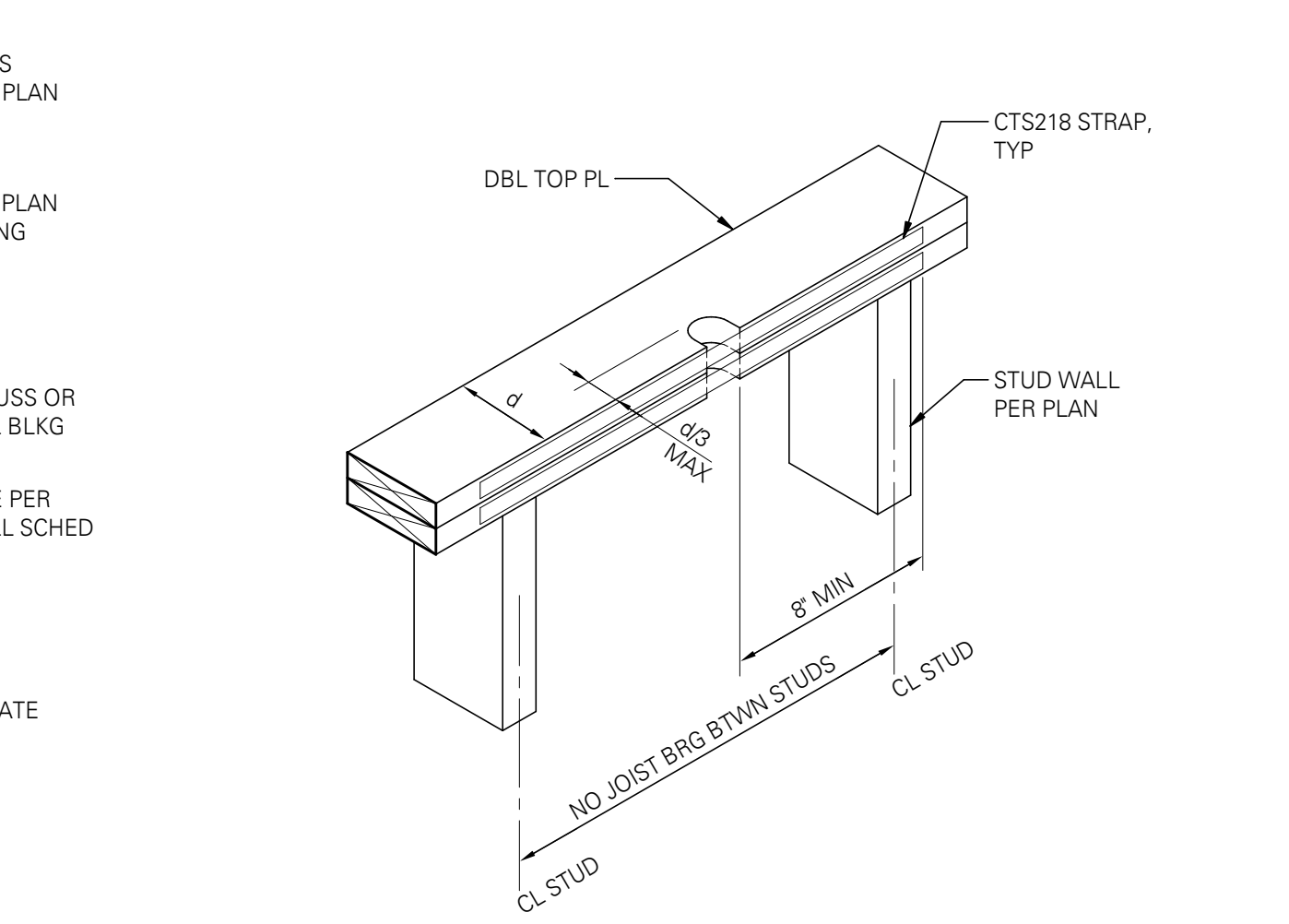
18 NON-STRUCTURAL PARTITION WALL CONNECTION
SCALE: 1" = 1'-0" (06905A)



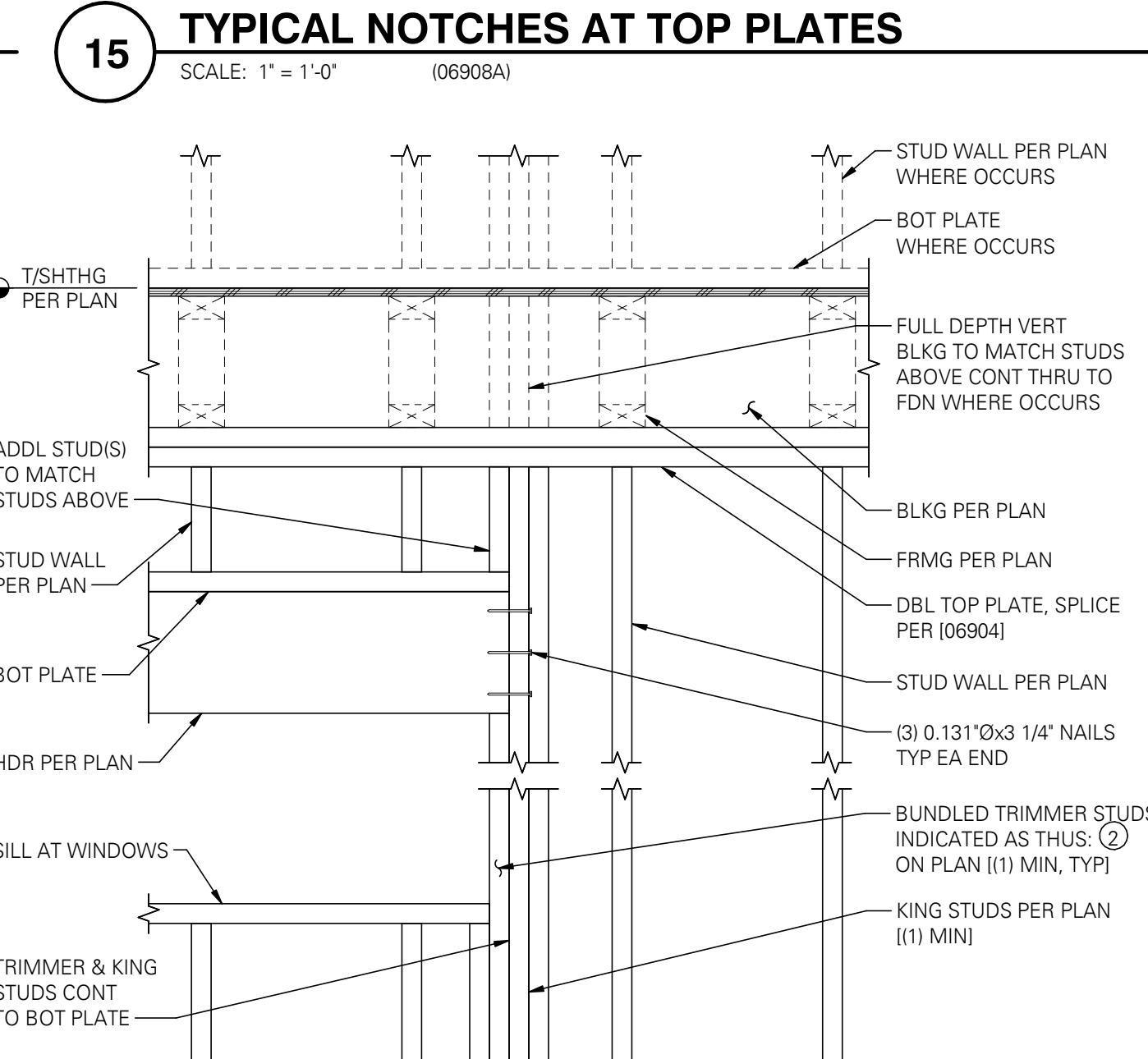
9 TYPICAL BUILT-UP 2x HEADER OR BEAM
SCALE: 1" = 1'-0" (06212)



10 TYPICAL HOLES & NOTCHES IN WOOD STUDS
SCALE: 1" = 1'-0" (06908)



15 TYPICAL NOTCHES AT TOP PLATES
SCALE: 1" = 1'-0" (06908A)



20 TYPICAL HEADER
SCALE: 1" = 1'-0" (06211/MTX)

FOR PERMIT
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ARCHITECTURE

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Project #

CONSTANTINE
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0 WILDCAT HOLLOW,
WEST LAKE HILLS, TX
78746

Client #

JOHN & ROBBIE
CONSTANTINE

Consultants #

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MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

Interior Designer:
(Landscape Architect)
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Key Plan #

Key Plan #

DCI ENGINEERS F-9005
STATE OF TEXAS
TOMAS QUINTERO
121009
PROFESSIONAL ENGINEER
3/10/2023

Project Issue #

- NOT FOR CONSTRUCTION

Date #

07/08/20

Revision History #

Sheet Name #

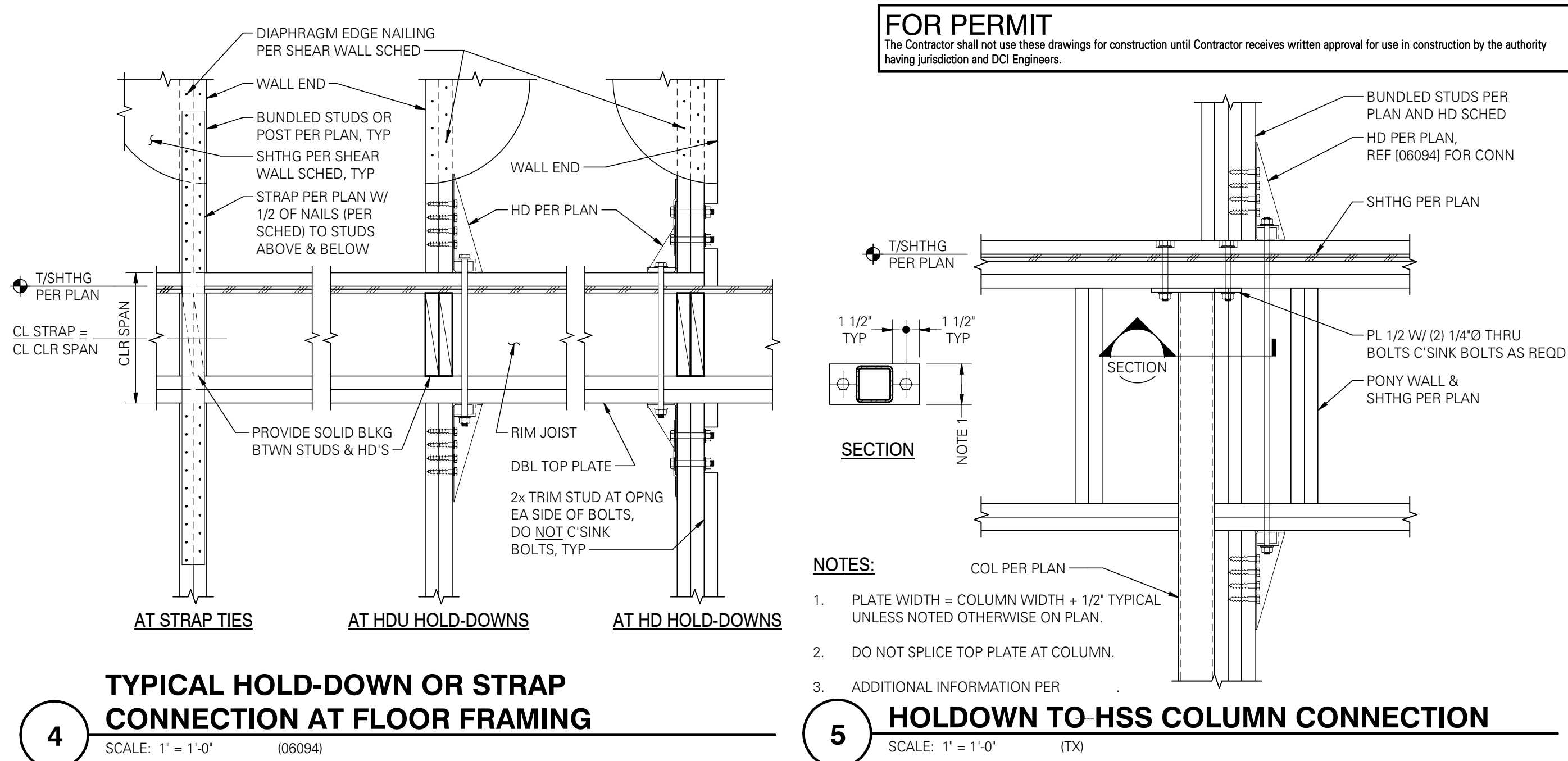
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STRUCTURAL - TYPICAL WOOD
FRAMING DETAILS

Sheet Number #



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WEST LAKE HILLS, TX
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Client #
**JOHN & ROBBIE
CONSTANTINE**

General Contractor:
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p: 512.922.7533

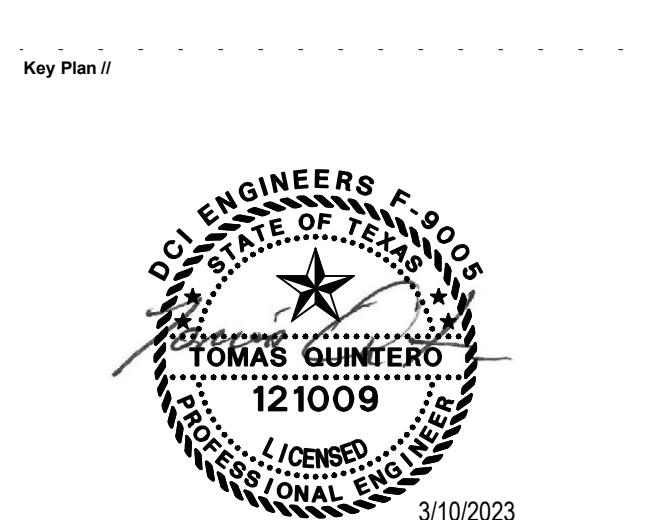
Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Interior Designer:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)



01420 HOLD-DOWN/STRAP SCHEDULE - DOUG-FIR STUDS									
[1, 2, 7, 11] ——— INDICATES FOOTNOTES									
TYPE	NUMBER OF STUDS/POST (3, 12)	NAILS, SCREWS OR BOLTS	DIAMETER (10)	ANCHOR (4)				NOTES	
				CONCRETE EMBEDMENT/CAPACITY					
				STEM/WALL (5)		FOOTING			
				EMBED CIP (6, 14)	CAPACITY	EMBED CIP (6)	CAPACITY		
CONCRETE TO WOOD	LSTDH8(RJ)	(2) 2x	(20) 0.148"Øx3" NAILS	----	----	1.95k 1.61k	----	1.95k 1.61k	(13)
	STHD10(RJ)	(2) 2x	(28) 0.148"Øx3" NAILS	----	----	2.94k 2.18k	----	2.94k 2.18k	(13)
	STHD14(RJ)	(2) 2x	(30) 0.148"Øx3" NAILS	----	----	3.81k 3.5k	----	3.81k 3.5k	(13)
	HDU2	(2) 2x	(6) SDS1/4x2 1/2	5/8"Ø	10"	3.1k	8"	3.1k	----
	HDU4	(2) 2x	(10) SDS1/4x2 1/2	5/8"Ø	10"	4.6k	8"	4.6k	----
	HDU5	(2) 2x	(14) SDS1/4x2 1/2	5/8"Ø	10"	5.2k	8"	5.6k	----
	HDU8	(3) 2x	(20) SDS1/4x2 1/2	7/8"Ø	10"	6.9k	10"	7.9k	----
	HDU11	(1) 4x6 OR (1) 6x	(30) SDS1/4x2 1/2	1"Ø	10"	7.8k	12"	9.5k	----
	HDU14	(1) 6x	(36) SDS1/4x2 1/2	1"Ø	10"	7.8k	15"	13.6k	----
	HD12	(1) 6x6	(4) 1"Ø	1 1/8"Ø	10"	8.6k	15"	15.5k	----
HD19	(1) 6x6	(5) 1"Ø	1 1/4"Ø	10"	9.5k	18"	19k	----	
WOOD TO WOOD	CS16	(1) 2x	(20) 0.148"Øx3" NAILS	----	----	----	----	1.7k	[9]
	CS14	(2) 2x	(26) 0.148"Øx3" NAILS	----	----	----	----	2.5k	[9]
	MST48	(2) 2x	(32) 0.162"Øx3 1/2" NAILS	----	----	----	----	3.9k	[8, 9]
	MST60	(2) 2x	(46) 0.162"Øx3 1/2" NAILS	----	----	----	----	6.2k	[8, 9]
	CMST14	(2) 2x	(66) 0.148"Øx3" NAILS	----	----	----	----	6.5k	[9]
	CMST12	(2) 2x	(86) 0.148"Øx3" NAILS	----	----	----	----	9.22k	[9]

NOTES:

(1) SOME HOLD-DOWN TYPES MAY NOT BE USED ON THIS PROJECT.

(2) TYPICAL HOLD-DOWN DETAILS PER (06091), (06091A), (06092), (06092A), (06093), (06094), (06095), (06095A), ANCHOR REINFORCEMENT REQUIRED AT STEM WALLS.

(3) PROVIDE PANEL EDGE NAILING PER SHEAR WALL SCHEDULE AT HOLD-DOWN STUDS/POSTS.

(4) BASED ON MINIMUM f'c = 3000 PSI CONCRETE.

(5) STEM WALLS SHALL BE 8" WIDE x 18" TALL MINIMUM.

(6) CAST-IN-PLACE (CIP) TYPE THREADED RODS AT HOLD-DOWNS SHALL HAVE TWO HEX HEAD NUTS WITH OVERSIZED WASHERS.

(7) INCLUDES 1.6 LOAD DURATION INCREASE FOR WOOD.

(8) BASED ON 11 7/8" DEEP FLOOR JOIST.

(9) TOTAL NAILS SPECIFIED, USE HALF THE NAILS AT THE STUDS ABOVE AND BELOW LEVEL BEING CONNECTED.

(10) AT PRESSURE TREATED SILLS, USE HOT DIPPED GALVANIZED BOLTS.

(11) POST INSTALLED HOLD-DOWN OPTIONS MAY BE AVAILABLE AT SOME CONDITIONS. CONTACT ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

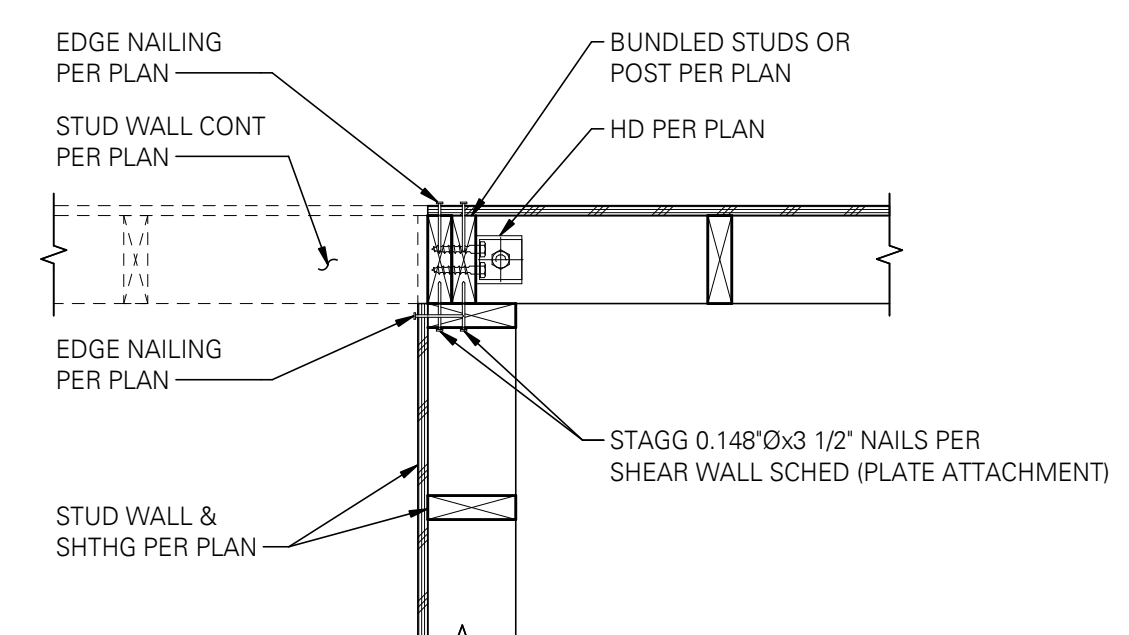
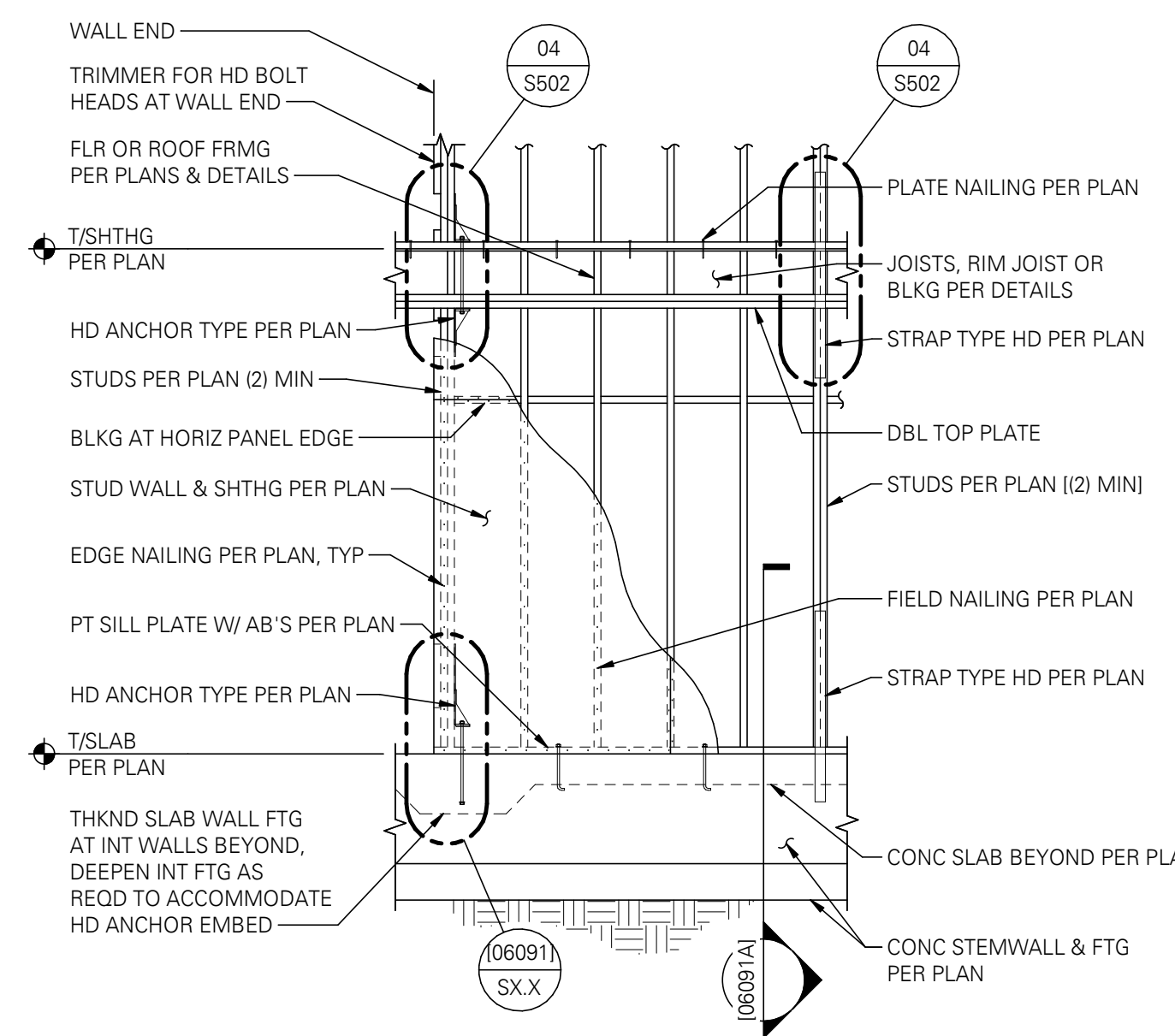
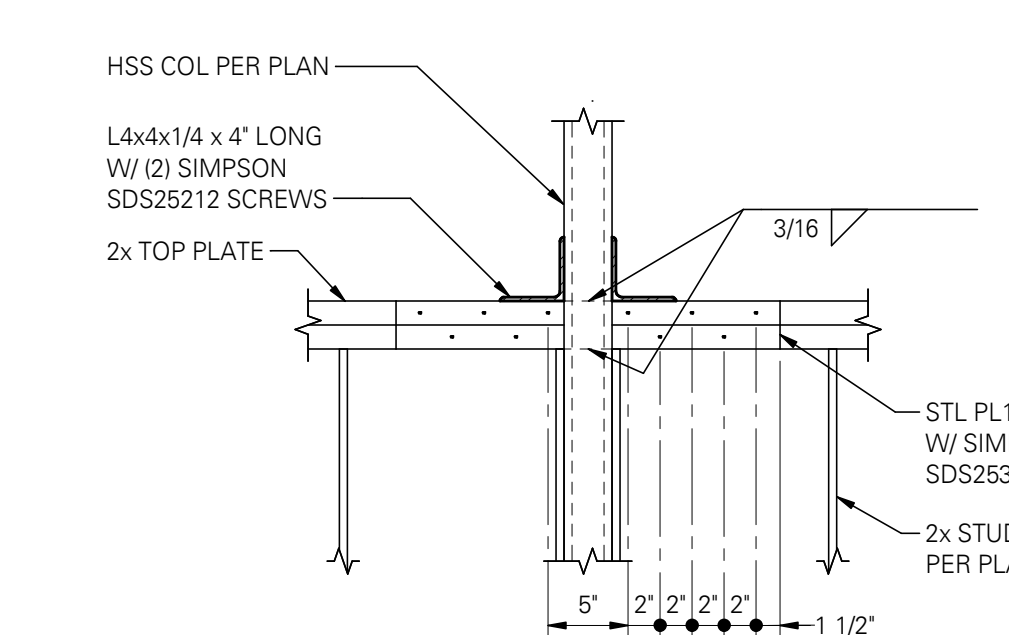
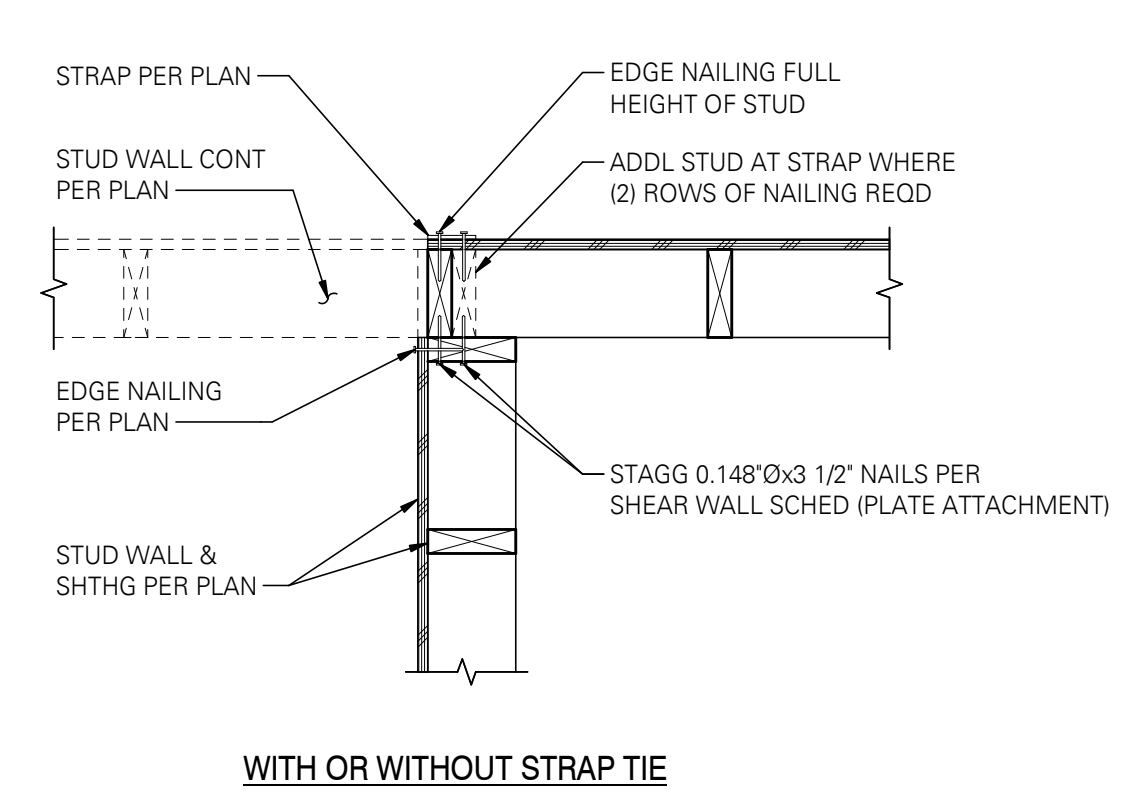
(12) NAIL LAMINATE MULTIPLE 2x STUDS WITH PLATE NAILING PER SHEAR WALL SCHEDULE.

(13) MIDWALL/CORNER WALL END

(14) STUD WALLS SHALL BE 2x6, CENTER HOLD-DOWN IN STUD WALL.

7 HOLD-DOWN/STRAP SCHEDULE - DOUG-FIR STUDS

SCALE: 1" = 1'-0" (01420)

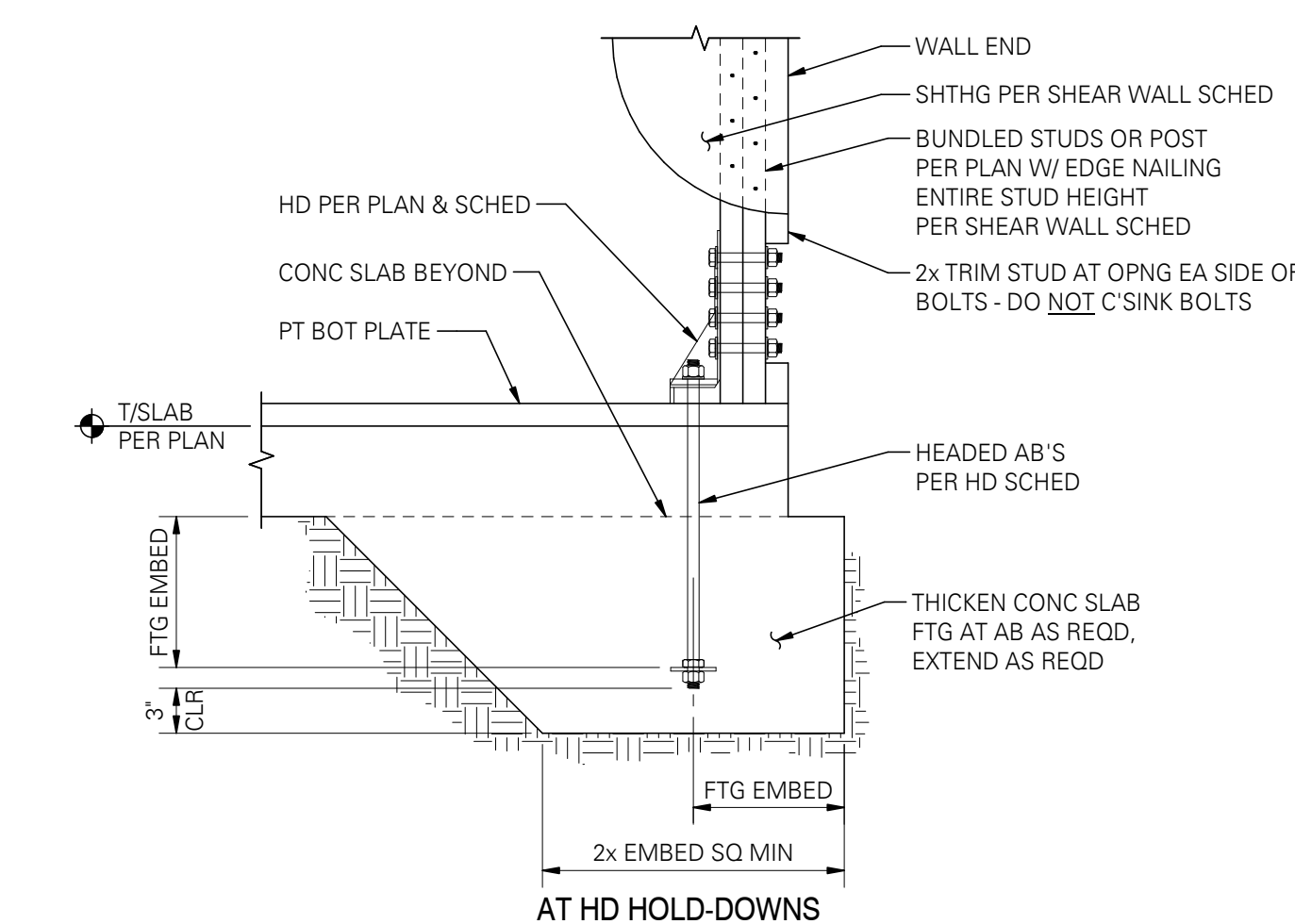
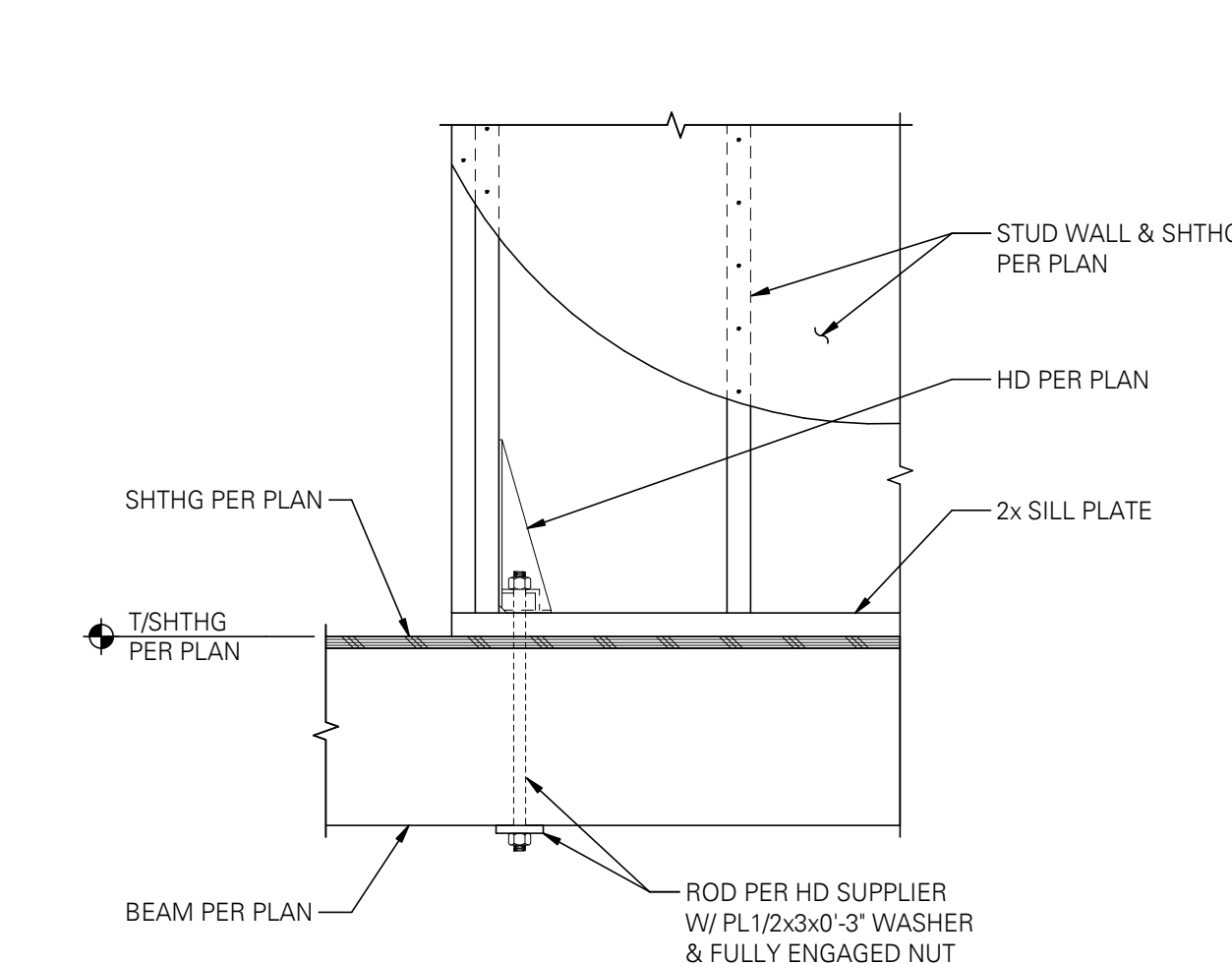
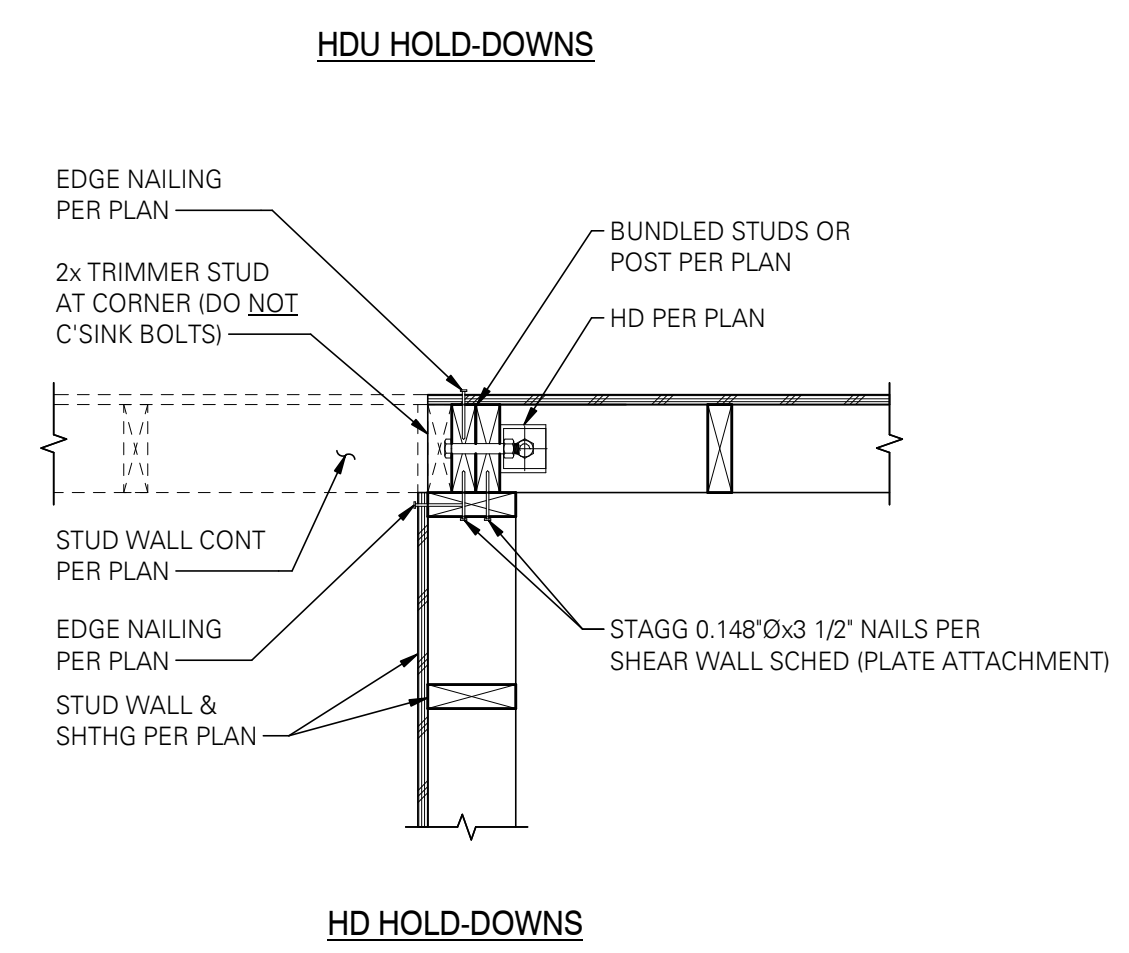


12 HSS COLUMN CONNECTION AT SHEAR WALL

SCALE: 1" = 1'-0" (06093)

13 TYPICAL SHEAR WALL ELEVATION

SCALE: 1" = 1'-0" (06093)



16 PLAN - INTERSECTING SHEAR WALLS

SCALE: 1" = 1'-0" (06110)

17 TYPICAL HOLD-DOWN AT FLOOR BEAM

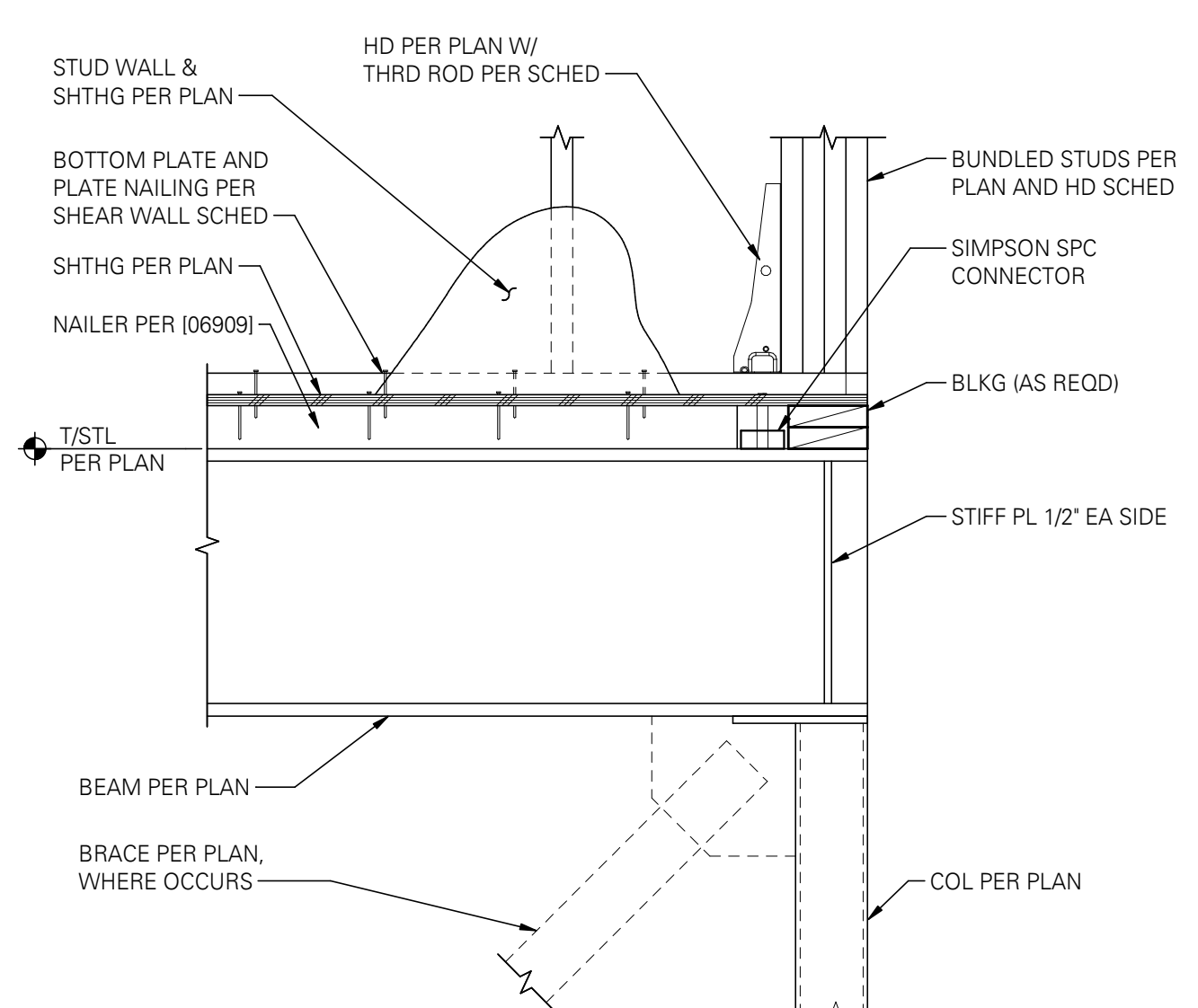
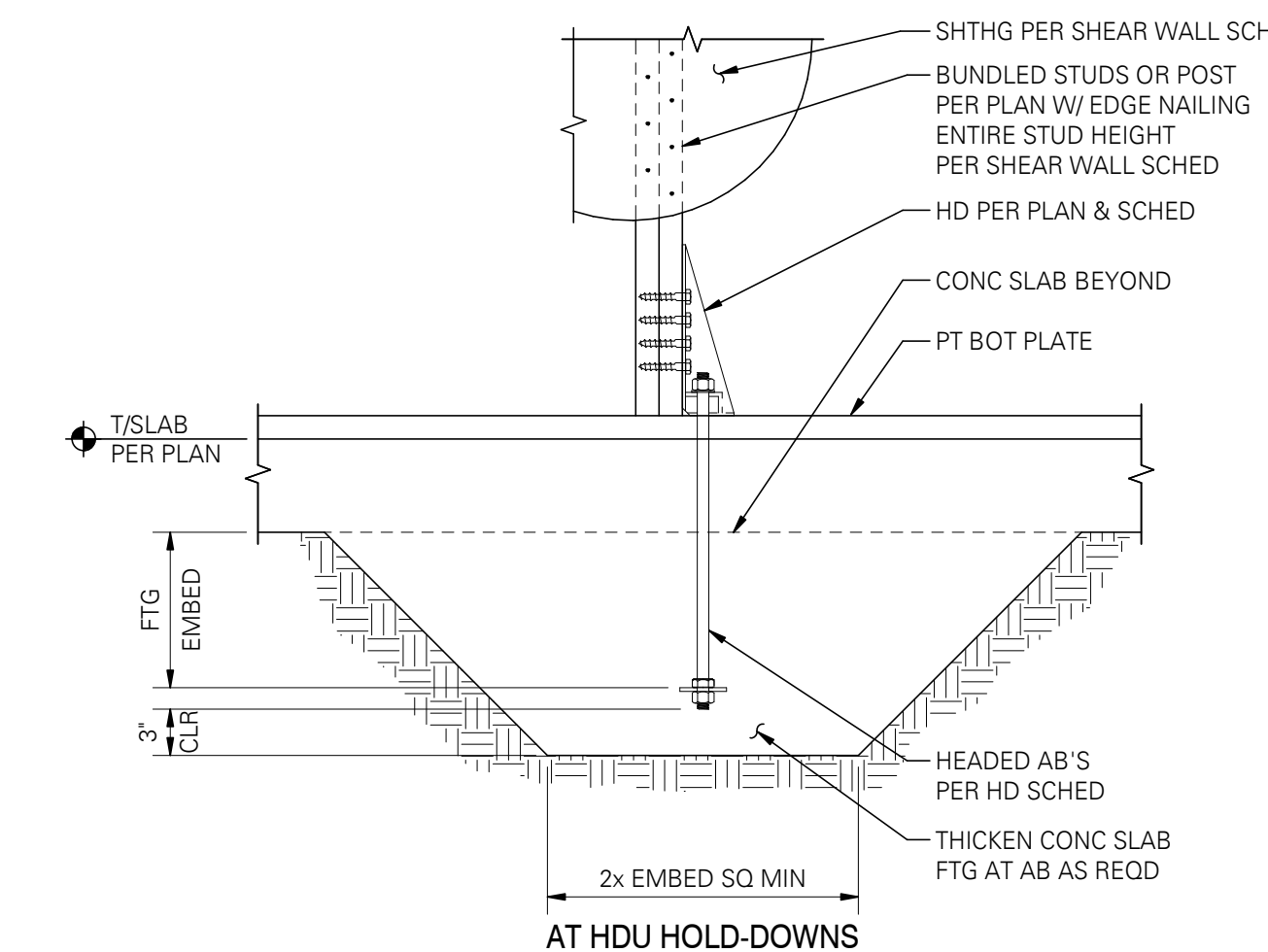
SCALE: 1" = 1'-0" (06093)

18 TYPICAL HOLD-DOWN AT THICKENED SLAB FOOTING

SCALE: 1" = 1'-0" (06093)

14 SHEAR WALL SCHEDULE - DOUG-FIR LARCH

SCALE: 1" = 1'-0" (01430)



(10) ANCHOR BOLTS SHALL BE PROVIDED WITH HOT-DIPPED GALVANIZED STEEL PLATE WASHERS 0.229"x3"x3" MINIMUM. THE HOLE IN THE PLATE WASHER MAY BE DIAGONALLY SLOTTED 13/16"x1 3/4" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. PLATE WASHER TO EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDES WITH SHEATHING. AT 2x6 WALLS WITH SHEATHING ON BOTH SIDES USE PLATE WASHER 0.229"x4 1/2"x4 1/2" MINIMUM. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.

(11) PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED (ELECTRO-PLATING IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANGLES, ETC) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS. ADDITIONAL INFORMATION PER STRUCTURAL GENERAL NOTES.

(12) 7/16" APA-RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" SHEATHING PROVIDED THAT ALL STUDS ARE SPACED AT 16"OC MAXIMUM.

(13) WHERE WOOD SHEATHING (W) IS APPLIED OVER GYPSUM SHEATHING (G), CONTACT THE ENGINEER OF RECORD FOR ALTERNATE NAILING REQUIREMENTS.

(14) AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN PLACE OF SINGLE 3x STUD. DOUBLE 2x STUDS SHALL BE CONNECTED TOGETHER BY NAILING THE STUDS TOGETHER WITH 3" LONG NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING, PER SECTION.

(15) CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR ADHESIVE OR EXPANSION BOLT ALTERNATIVES TO CAST-IN-PLACE ANCHOR BOLTS. SPECIAL INSPECTION MAY BE REQUIRED.

(16) NAIL STUDS TO 3x SILL PLATES WITH EITHER (2) 0.148"Øx4" END NAILS OR (4) 0.131"Øx2 1/2" TOENAILS.

(17) **WX** WHERE "W" INDICATES WOOD SHEATHING AND "X" INDICATES EDGE NAIL SPACING.

(18) EDGE NAILS SHALL BE LOCATED 3/8" FROM PANEL EDGES.

Project #

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Date #

03/24/17

Revision History #

Sheet Name #

STRUCTURAL - WOOD SHEAR WALL DETAILS

Sheet Number #

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S401

CONSTANTINE
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78746

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CONSTANTINE

General Contractor:
Fornique Builders
507 Walsh Street, Austin, TX 78703
p.512.922.7533

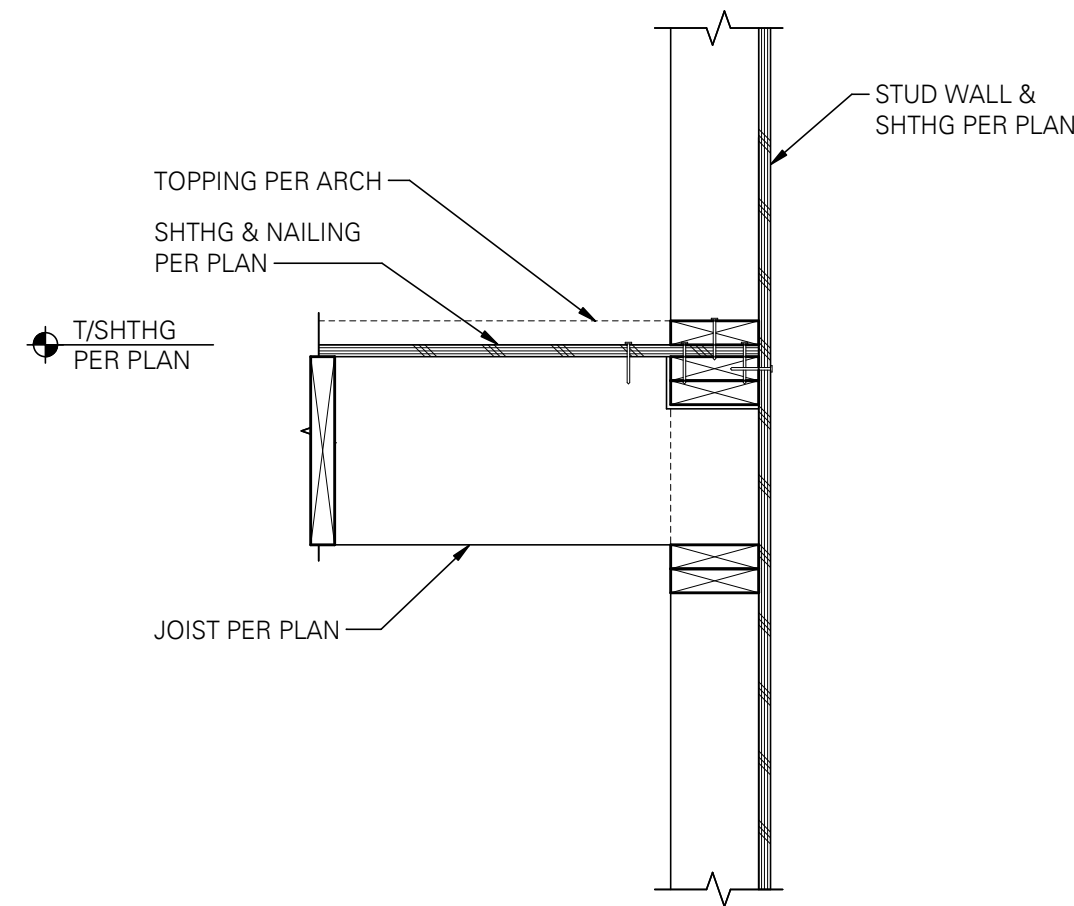
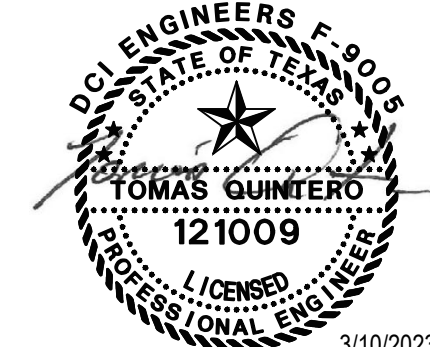
Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

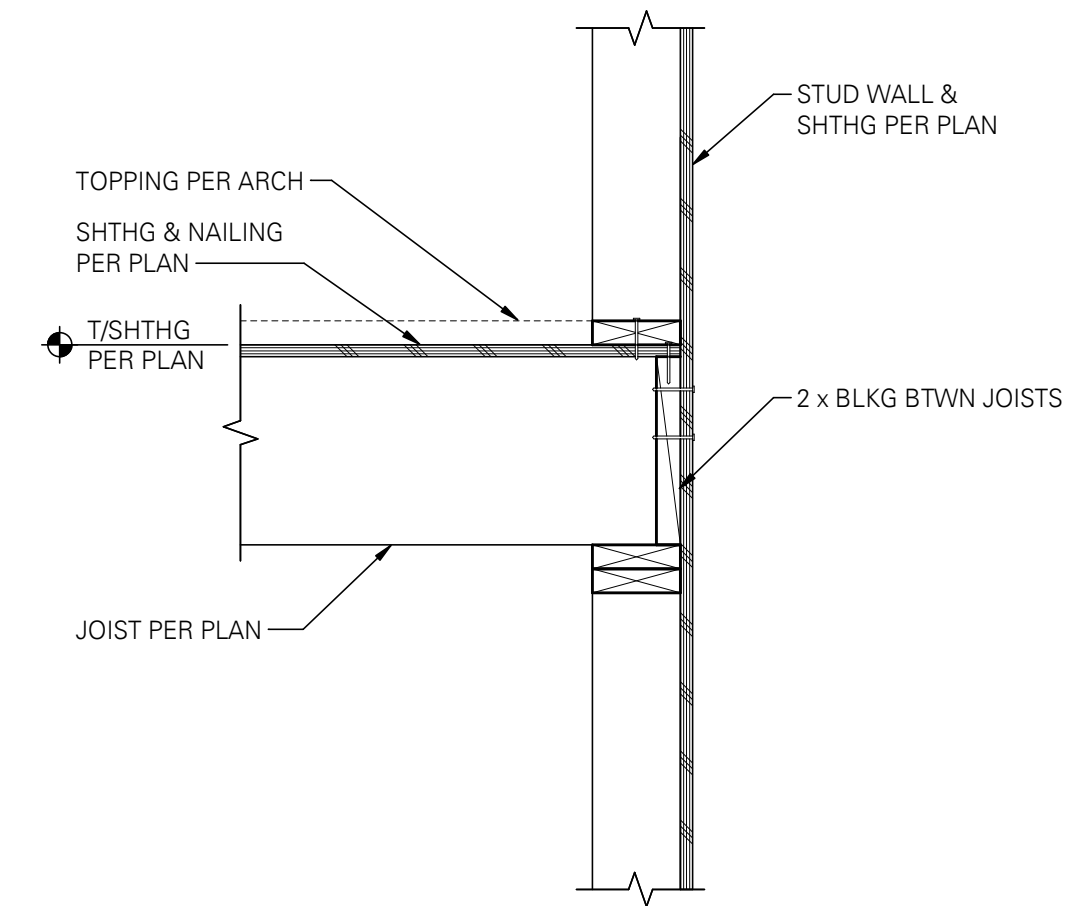
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(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)



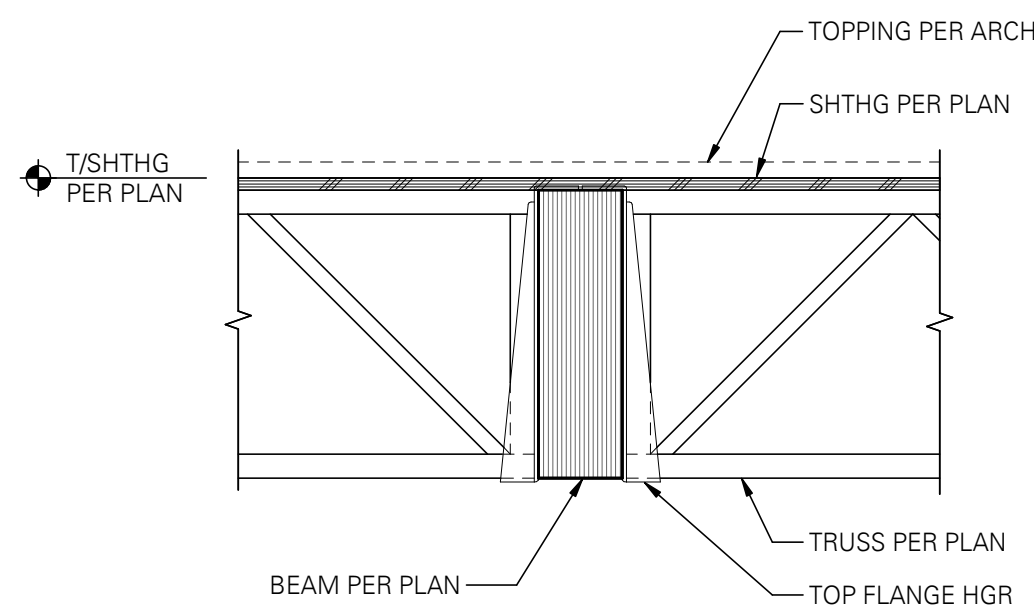
SHALLOW FRAMING
PERPENDICULAR TO EXTERIOR WALL

SCALE: 1" = 1'-0" (TX)

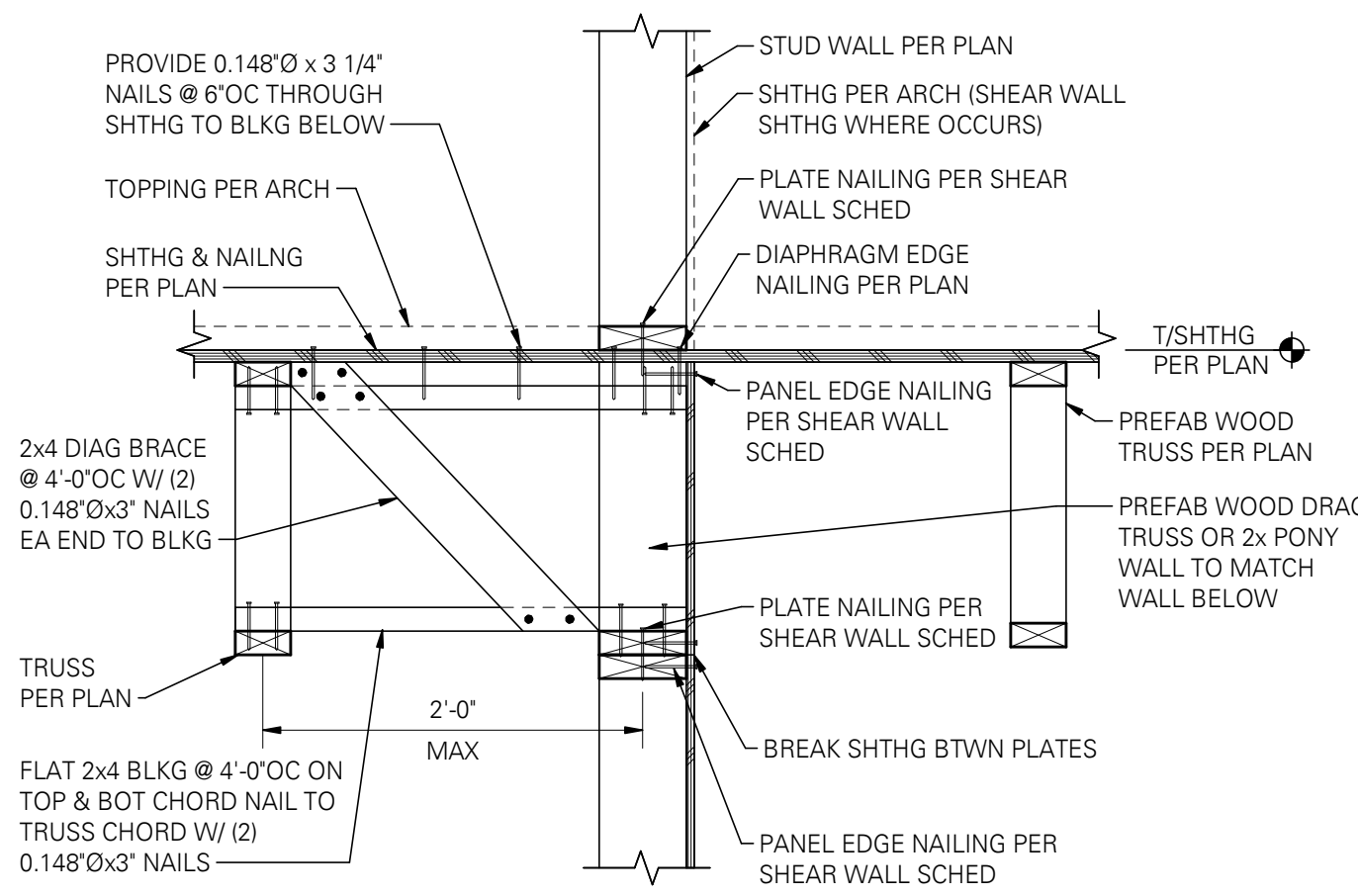


SHALLOW FRAMING
PERPENDICULAR TO EXTERIOR WALL

SCALE: 1" = 1'-0" (TX)



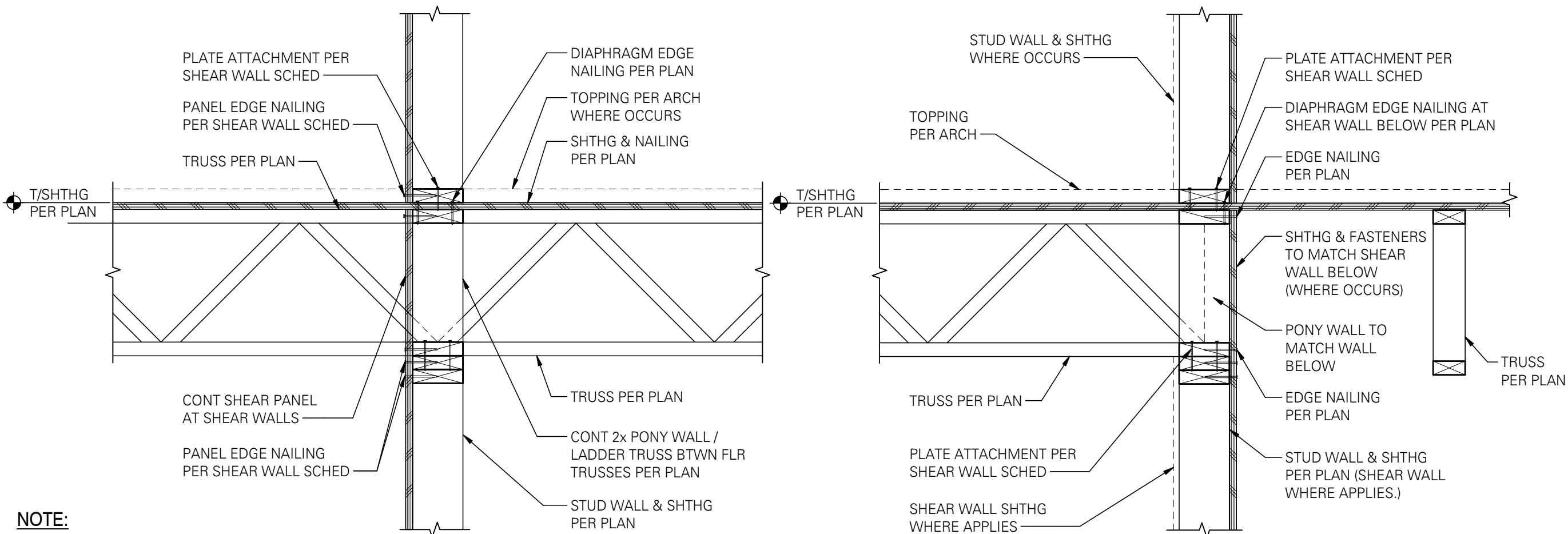
NOTE:
TRUSS AND HANGER ON ONE SIDE AT SIMILAR.



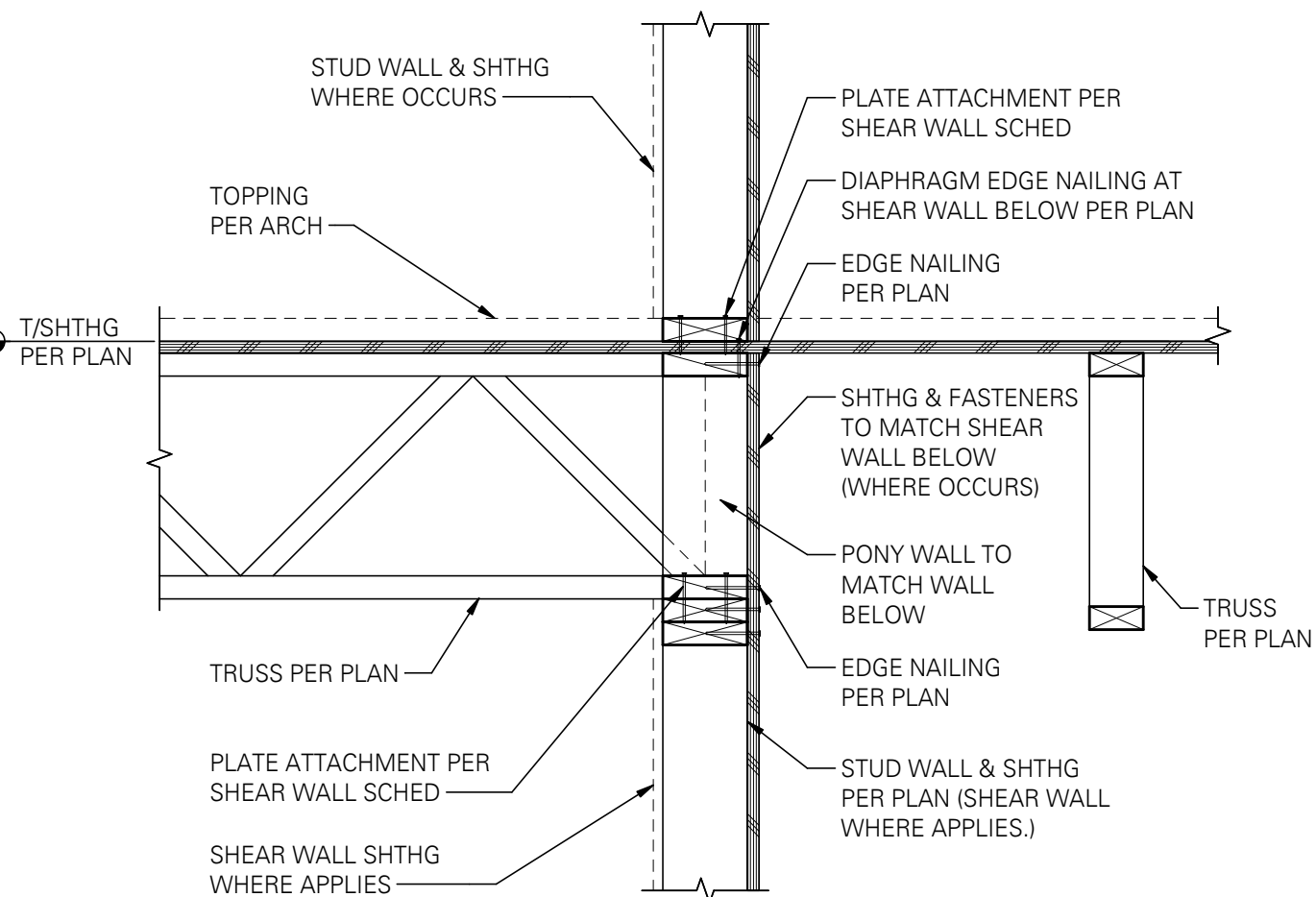
NOTES:
1. SUBSTITUTE PREFAB TRUSS PANEL BLOCKING AT CONTRACTOR OPTION. TRUSS BLOCKING TO BE DESIGNED BY TRUSS ENGINEER.
2. AT SHEAR WALLS, DRAG TRUSS TO BE DESIGNED FOR IN PLANE SHEAR LOAD TO MATCH SHEAR WALL CAPACITY BELOW AND CONNECT PER RIM JOIST CONNECTION IN SHEAR WALL SCHEDULE.

- NOT FOR CONSTRUCTION

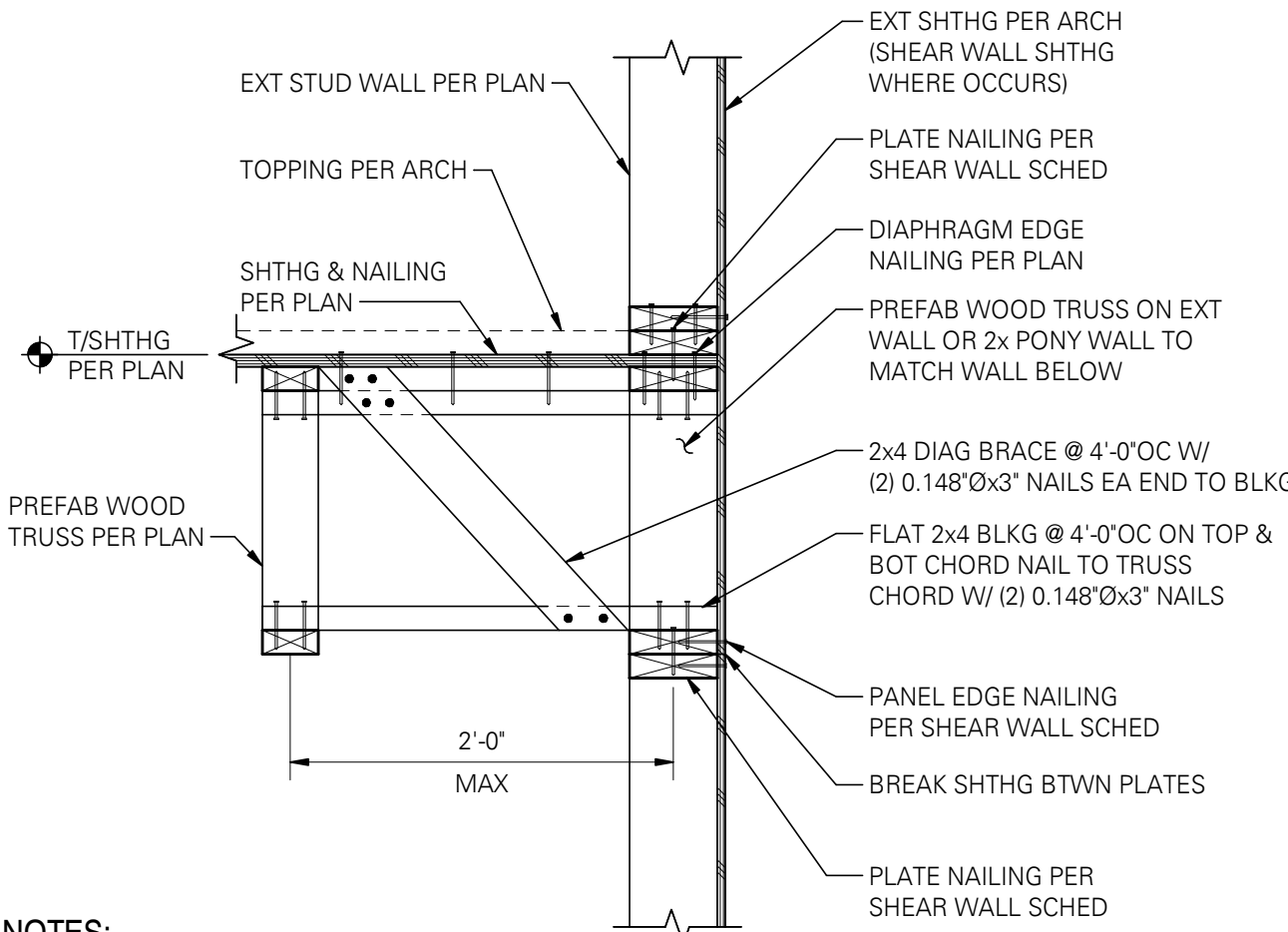
09/16/15



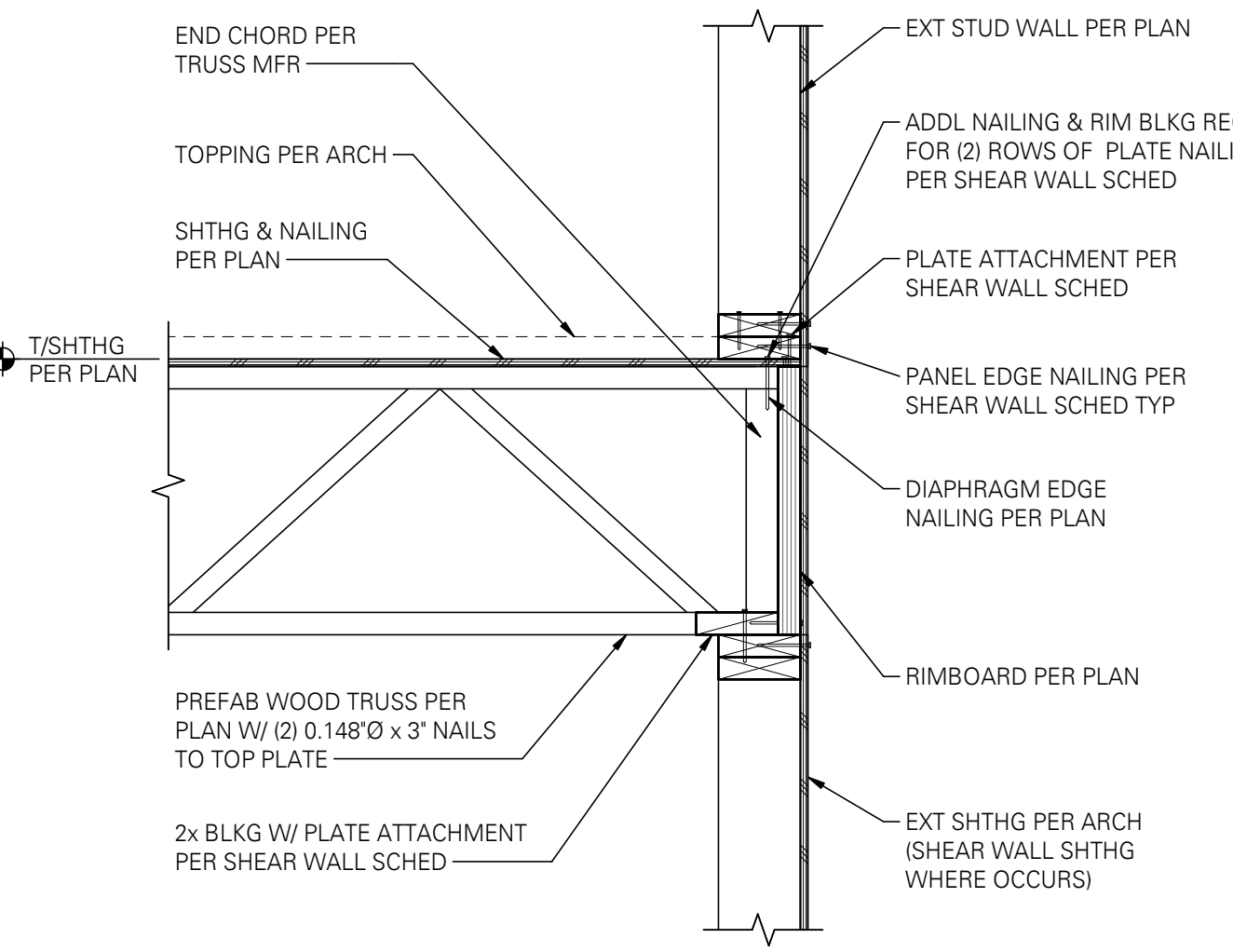
NOTE:
1. OFFSET & LAP TRUSSES AT BEARING WALL TO PROVIDE FULL STUD DEPTH BEARING LENGTH.
2. AT NON-SHEAR WALL LOCATIONS; SHEATING & NAILING PER ARCH.



NOTE:
TRUSS END SHALL BE DESIGNED FOR AXIAL LOAD OF WALL ABOVE.



NOTES:
1. SUBSTITUTE PREFAB TRUSS PANEL BLOCKING AT CONTRACTOR OPTION. TRUSS BLOCKING TO BE DESIGNED BY TRUSS ENGINEER.
2. AT SHEAR WALLS, DRAG TRUSS TO BE DESIGNED FOR IN PLANE SHEAR LOAD NOTED ON PLAN AND CONNECT PER RIM JOIST CONNECTION IN SHEAR WALL SCHEDULE.

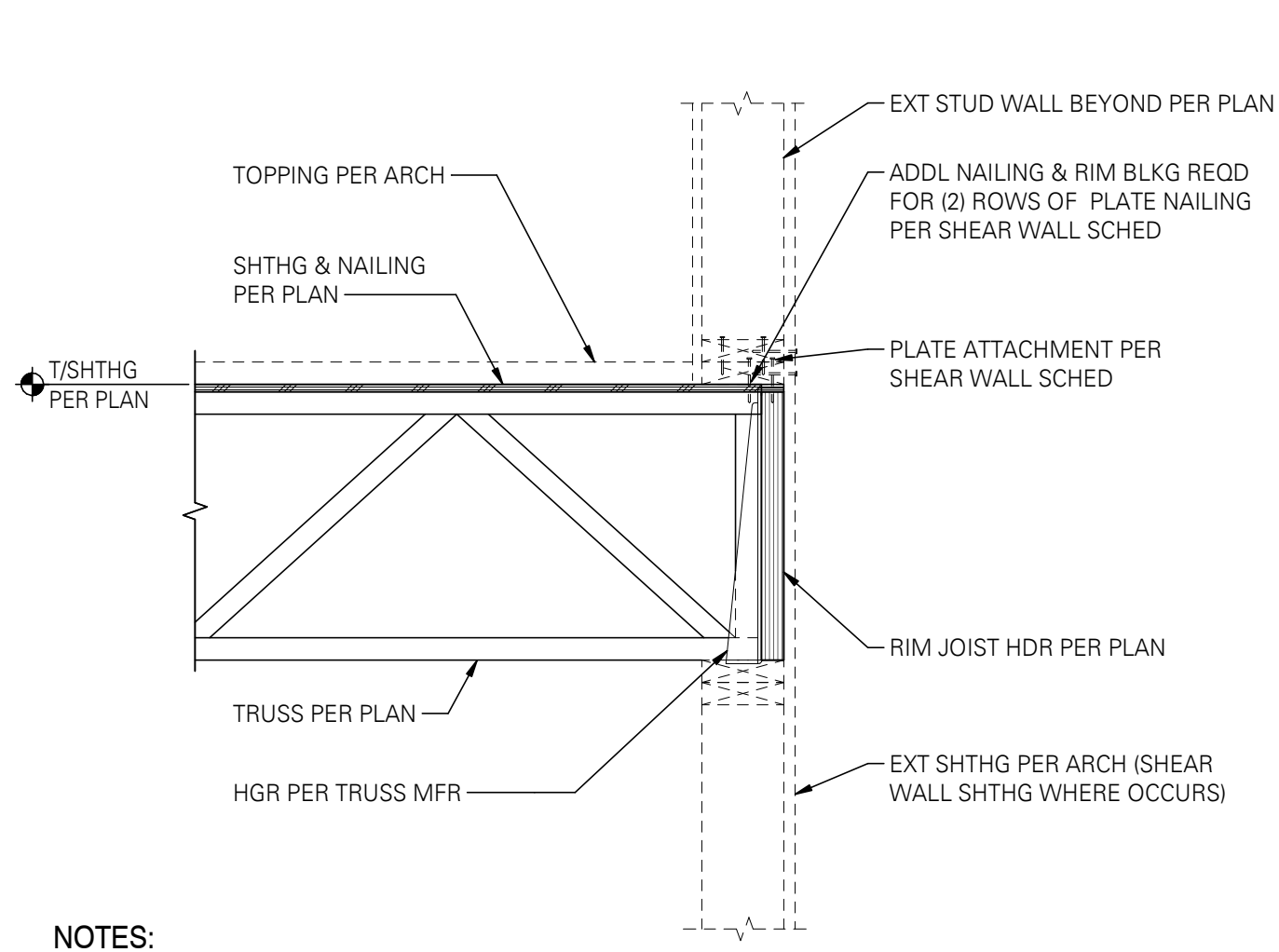


FLOOR TRUSS
PERPENDICULAR TO EXTERIOR WALL

SCALE: 1" = 1'-0" (TX)

INTERIOR WALL PARALLEL TO FLOOR TRUSS

SCALE: 1" = 1'-0" (TX)



NOTES:
1. DO NOT SPLICE RIM JOIST OVER OPENING OR WITHIN 6" OF EA END.
2. REFERENCE 19S402FOR ADDITIONAL INFORMATION.

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STRUCTURAL - WOOD FRAMING
DETAILS

TRUSS AT TRANSITION AT INTERIOR WALL

SCALE: 1" = 1'-0" (TX)

TRUSS AT TRANSITION AT INTERIOR WALL

SCALE: 1" = 1'-0" (TX)

FLOOR TRUSS PARALLEL TO EXTERIOR WALL

SCALE: 1" = 1'-0" (TX)

FLOOR TRUSS
PERPENDICULAR TO EXTERIOR WALL

SCALE: 1" = 1'-0" (TX)

EXTERIOR RIMBOARD HEADER

SCALE: 1" = 1'-0" (TX)

S402

CONSTANTINE
RESIDENCE

0 WILDCAT HOLLOW,
WEST LAKE HILLS, TX
78746

Client #

JOHN & ROBBIE
CONSTANTINE

Consultants #

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507 Walsh Street, Austin, TX 78703
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Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

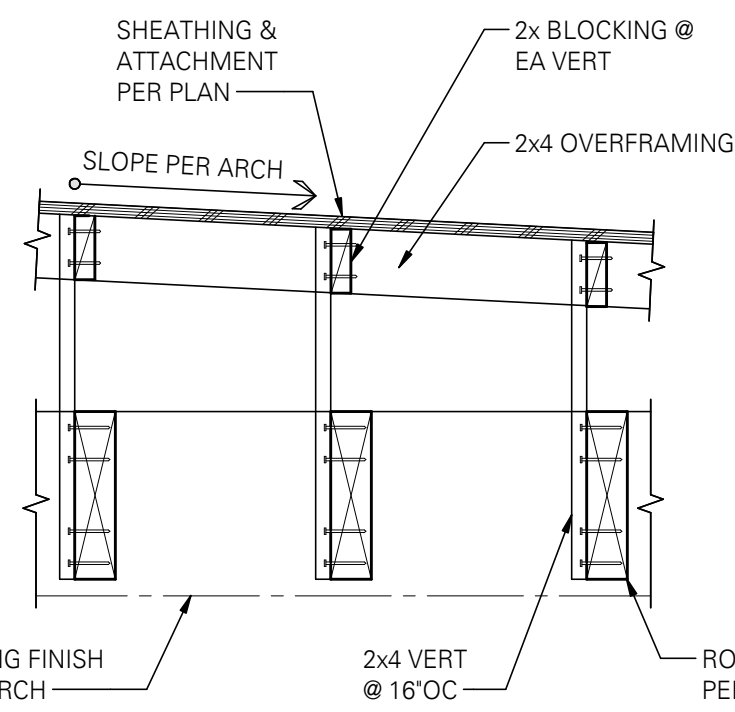
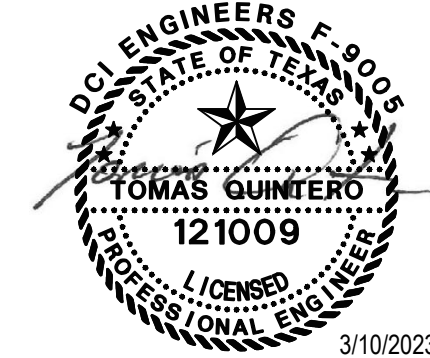
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(MEP Address)
(MEP Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

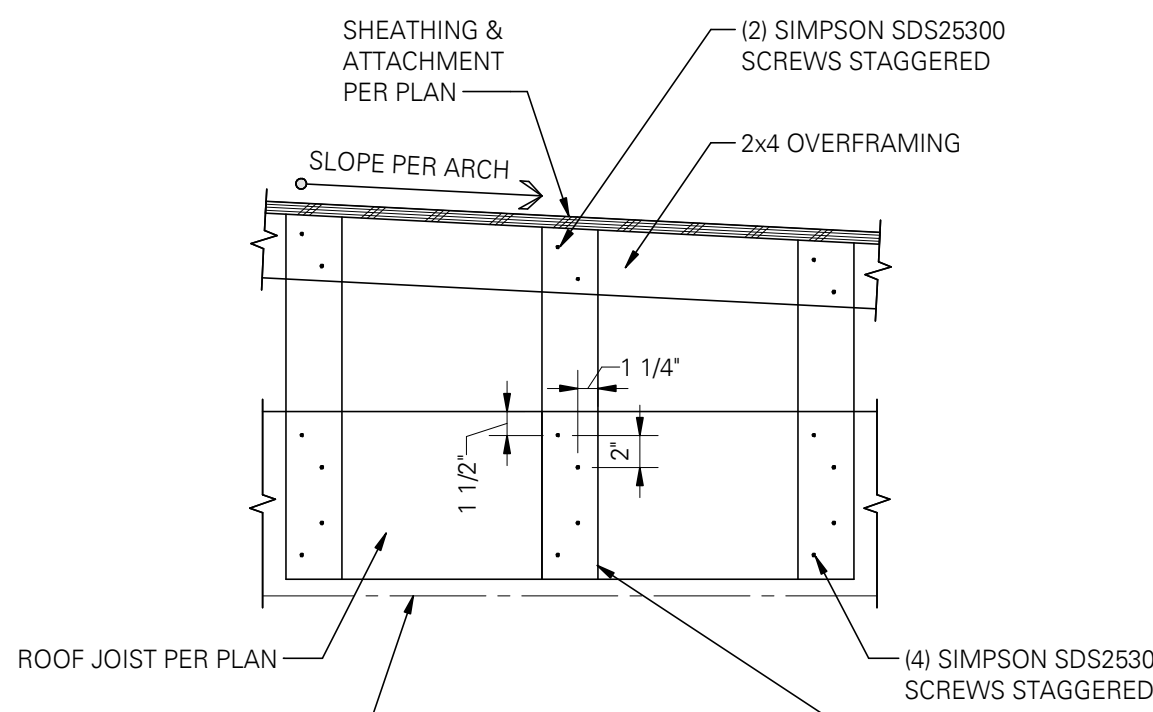
Interior Designer:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)

Key Plan #



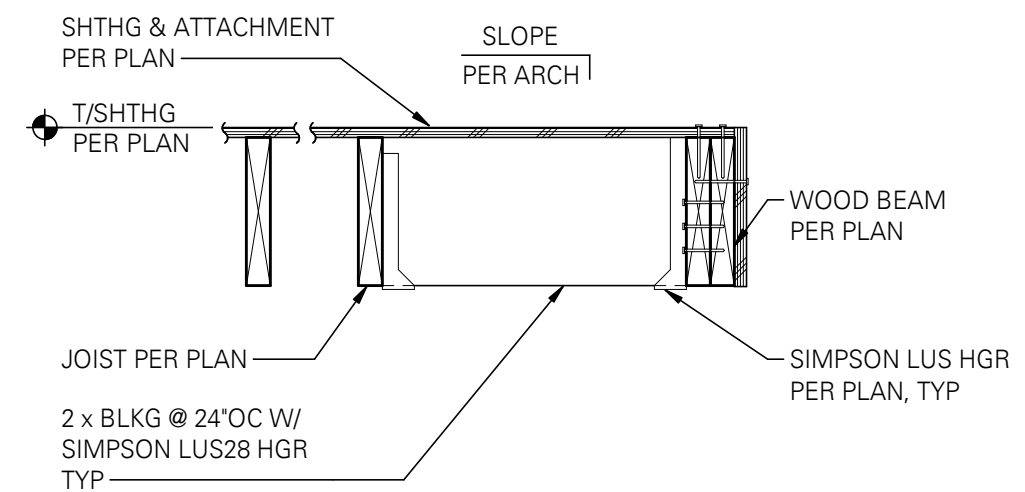
PERPENDICULAR TO ROOF JOISTS



PARALLEL TO ROOF JOISTS

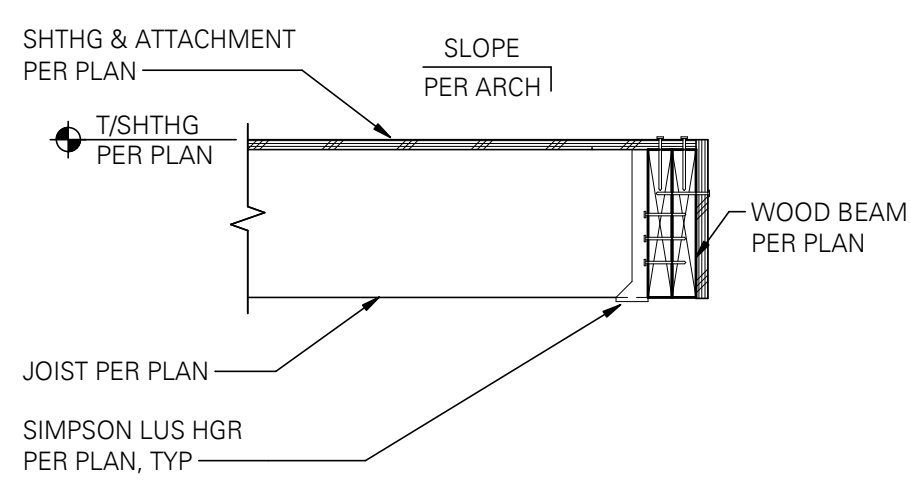
4 TYPICAL ROOF OVERFRAMING

SCALE: 1" = 1'-0"



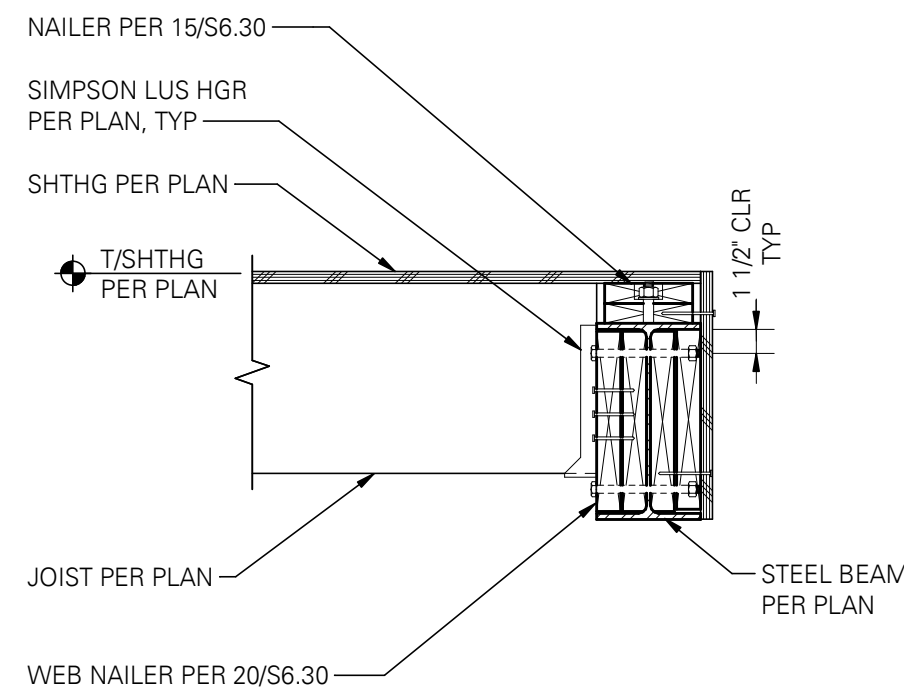
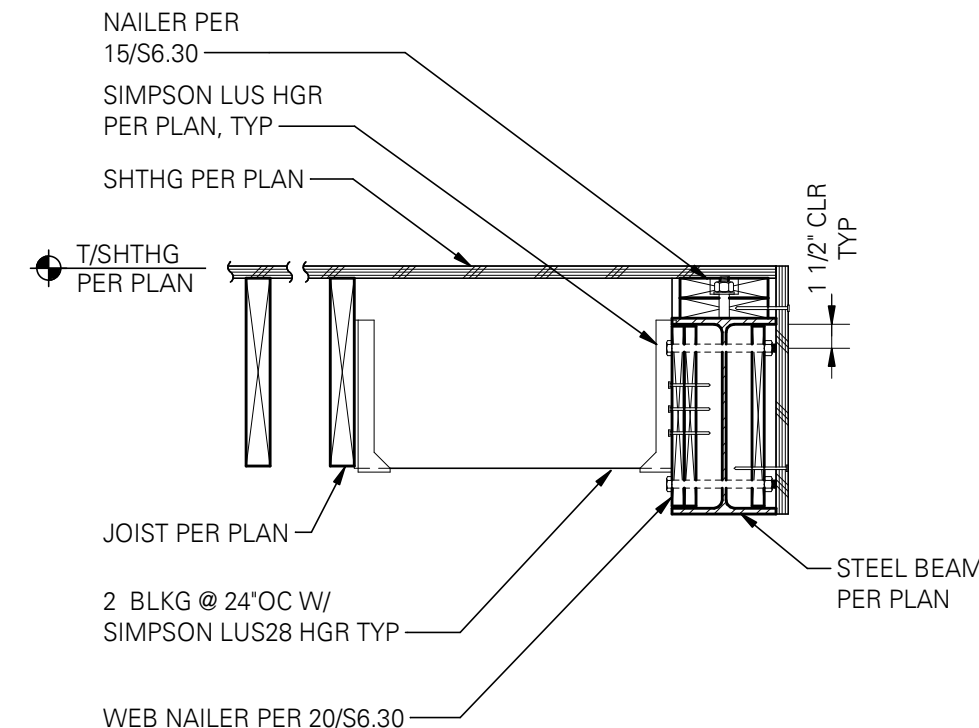
NOTE:

OVERFRAMING SHALL BE CONSTRUCTED PER 9/56.22 AS THE SLOPE INCREASES AWAY FROM EDGE OF ASSEMBLY



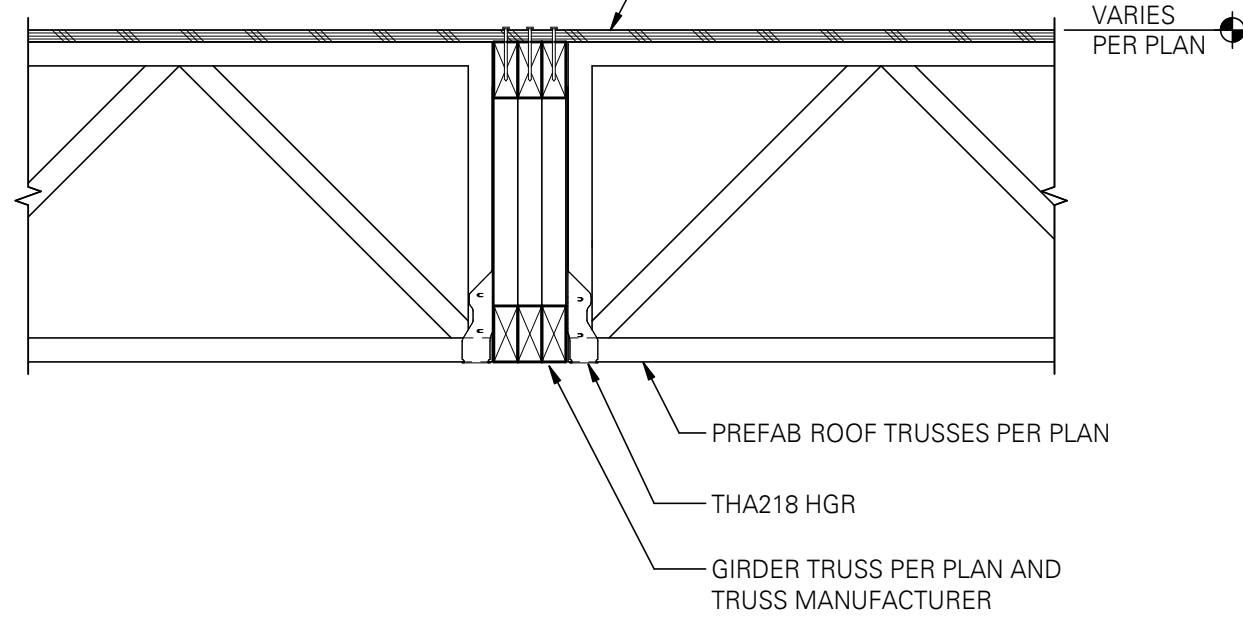
NOTE:

OVERFRAMING SHALL BE CONSTRUCTED PER 9/56.22 AS THE SLOPE INCREASES AWAY FROM EDGE OF ASSEMBLY



NOTE:

OVERFRAMING SHALL BE CONSTRUCTED PER 9/56.22 AS THE SLOPE INCREASES AWAY FROM EDGE OF ASSEMBLY



10 TYPICAL ROOF TRUSS AT GIRDER TRUSS

SCALE: 1" = 1'-0" (06/20/2023)

6 ROOF - JOIST PARALLEL AT WOOD BEAM

SCALE: 1" = 1'-0" (TX)

7 ROOF - JOIST PERPENDICULAR AT WOOD BEAM

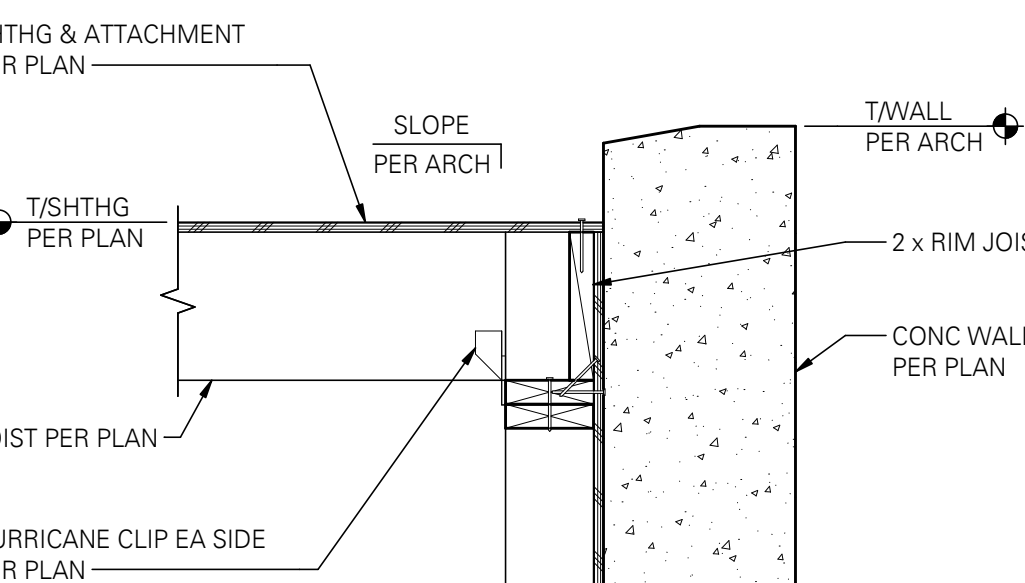
SCALE: 1" = 1'-0" (TX)

8 ROOF - JOISTS PARALLEL AT STEEL BEAM

SCALE: 1" = 1'-0" (TX)

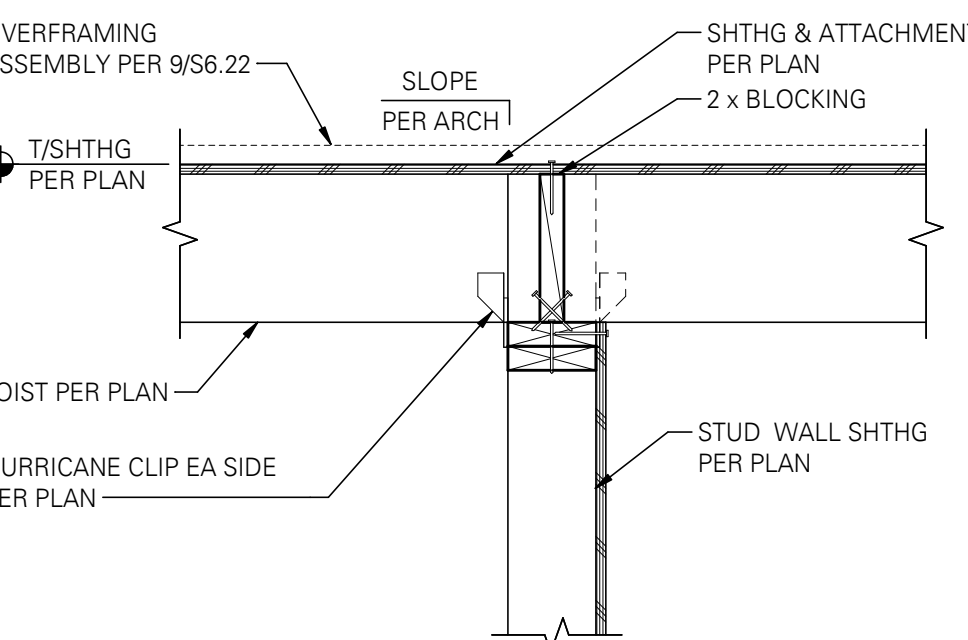
9 ROOF - JOISTS PARALLEL AT STEEL BEAM

SCALE: 1" = 1'-0" (TX)



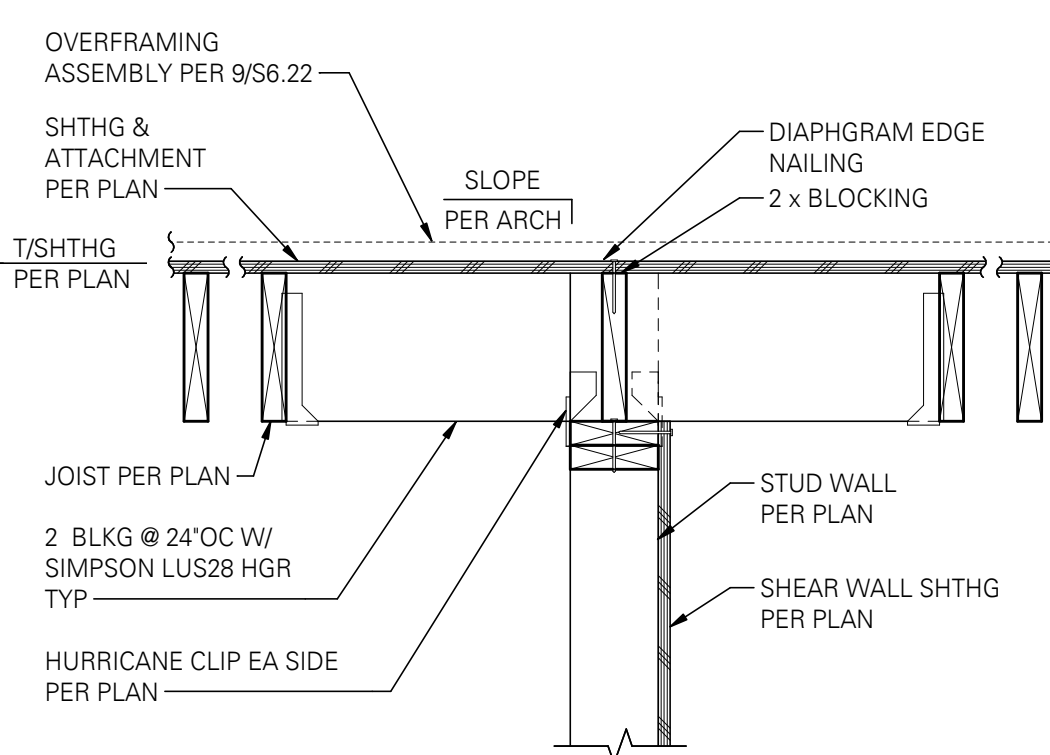
11 ROOF - JOISTS
PERPENDICULAR STUD WALL - GUEST

SCALE: 1" = 1'-0" (TX)



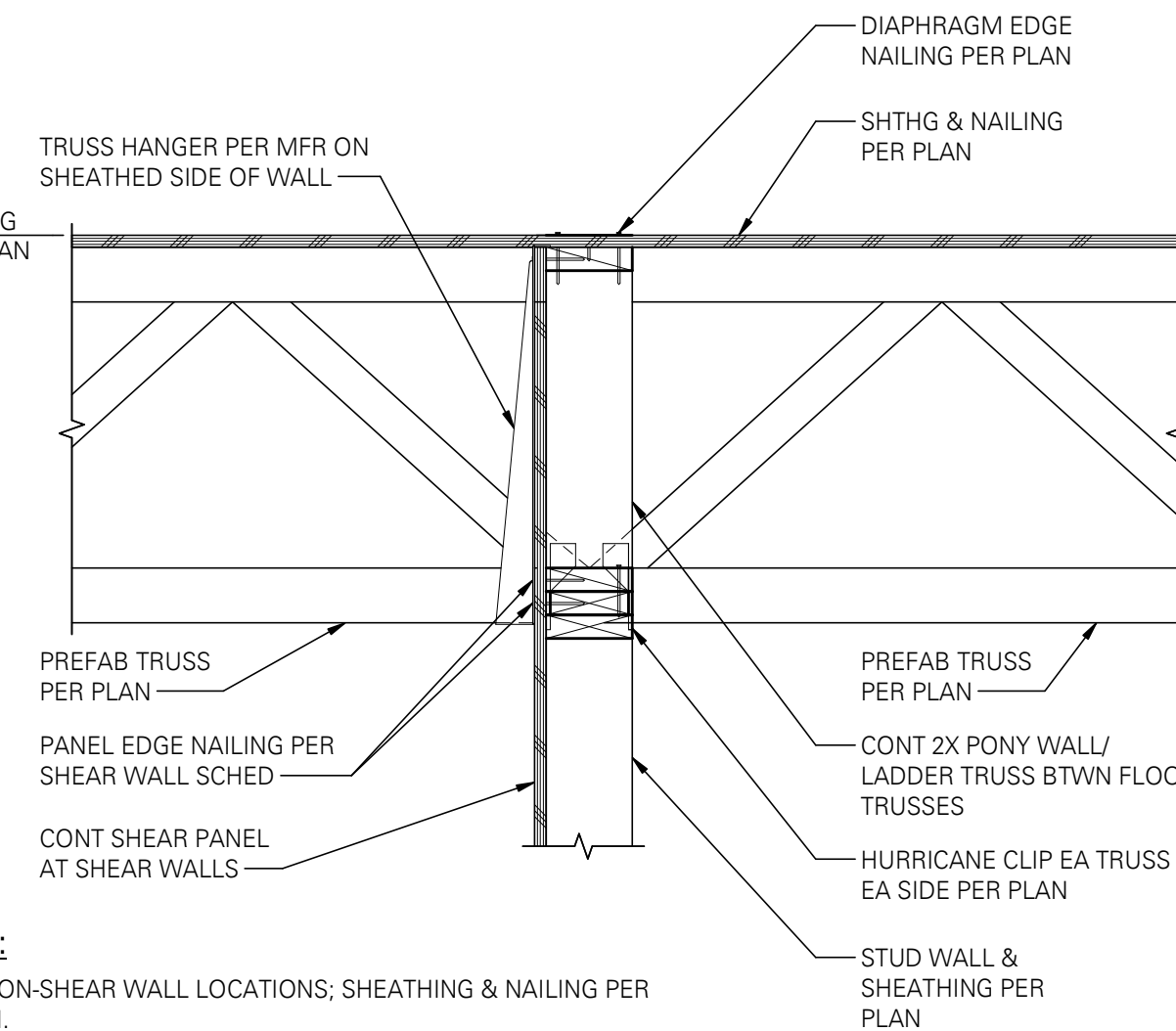
12 TYPICAL ROOF JOIST PERPENDICULAR TO HDR

SCALE: 1" = 1'-0" (TX)



13 ROOF JOIST PARALLEL TO INT WALL

SCALE: 1" = 1'-0" (TX)

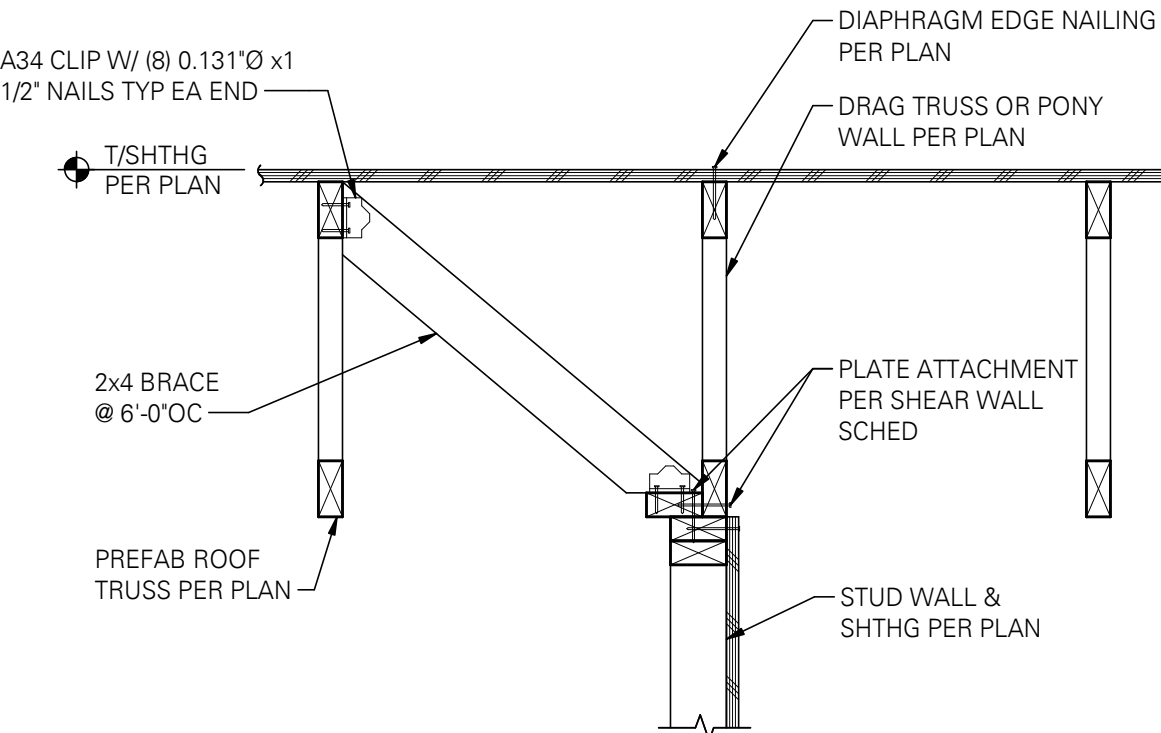


NOTE:

1. AT NON-SHEAR WALL LOCATIONS; SHEATHING & NAILING PER ARCH.

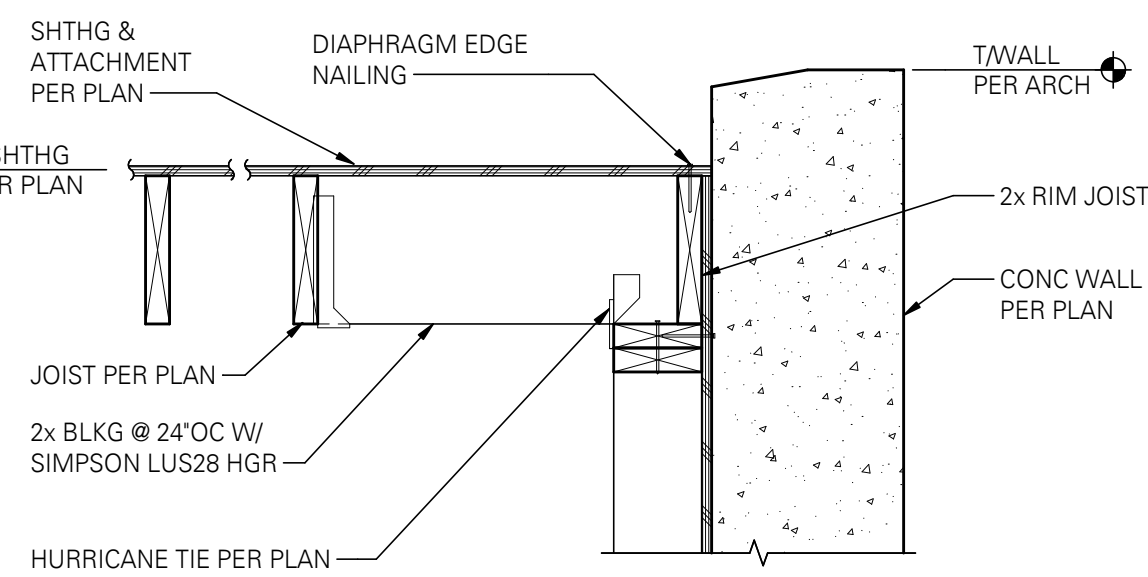
14 TRUSS
PERPENDICULAR TO BEARING WALL

SCALE: 1" = 1'-0"



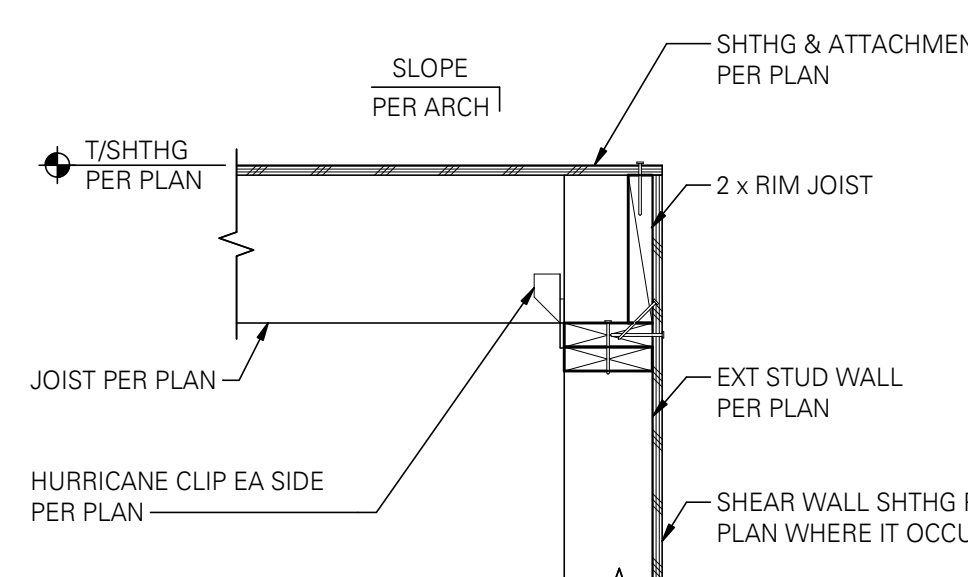
15 INTERIOR SHEAR WALL
PARALLEL TO ROOF TRUSSES

SCALE: 1" = 1'-0" (TX)



16 HIGH ROOF EXTERIOR -
JOISTS PARALLEL - GUEST

SCALE: 1" = 1'-0" (TX)

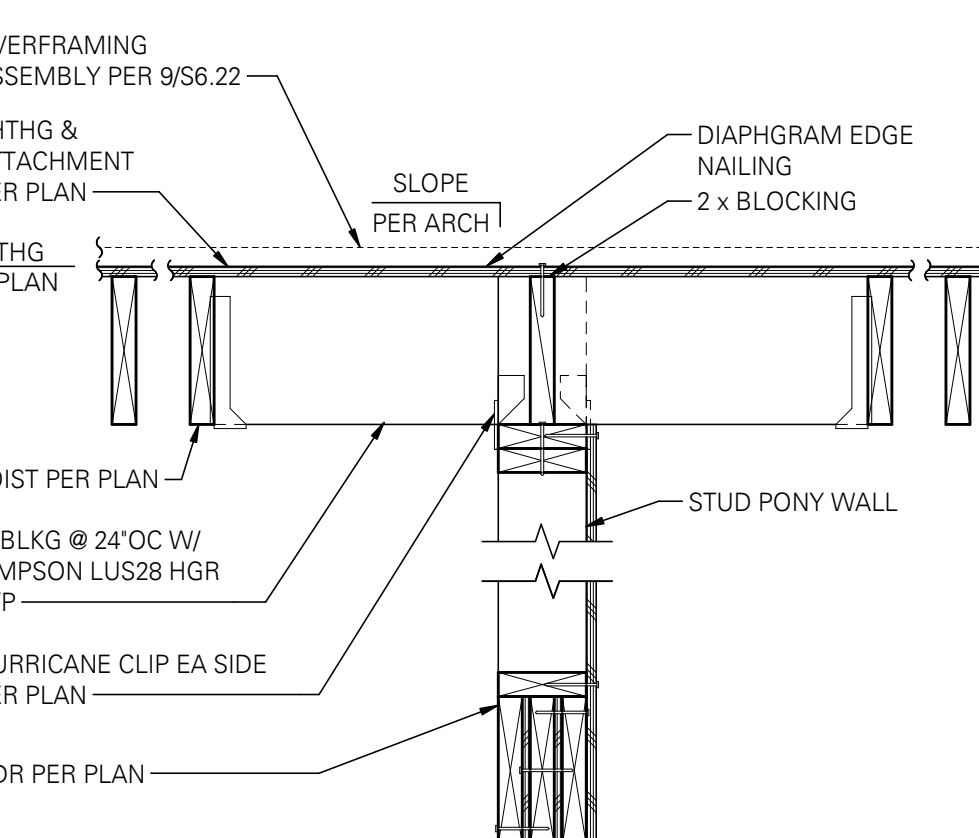


NOTE:

OVERFRAMING SHALL BE CONSTRUCTED PER 9/56.22 AS THE SLOPE INCREASES AWAY FROM EDGE OF ASSEMBLY

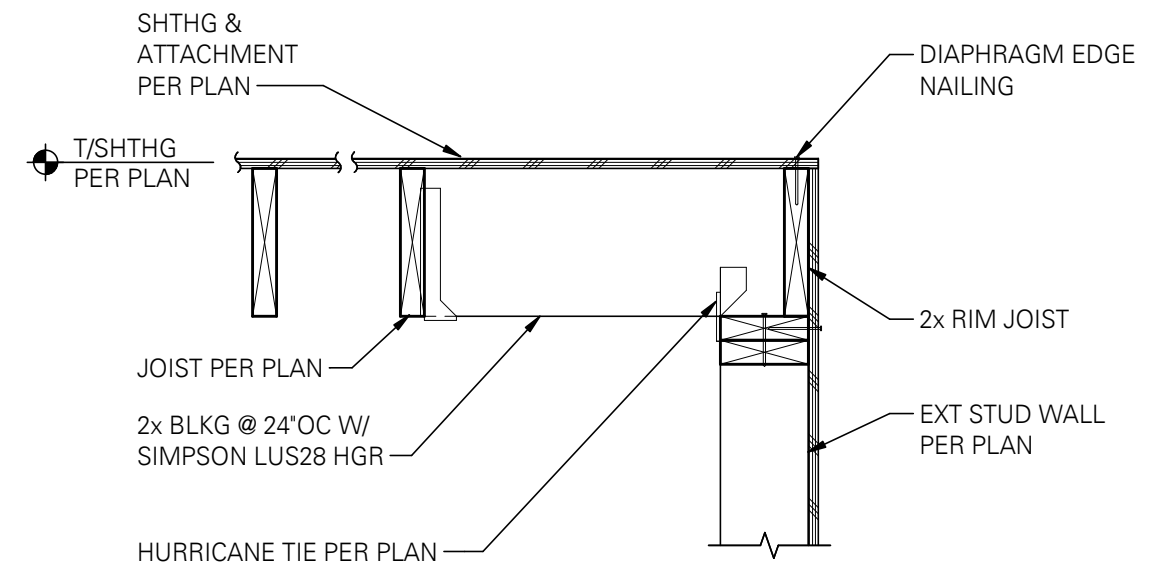
17 ROOF - JOISTS PERPENDICULAR STUD WALL

SCALE: 1" = 1'-0" (TX)



18 TYPICAL
ROOF JOISTS PARALLEL TO WOOD BEAM

SCALE: 1" = 1'-0" (TX)



20 HIGH ROOF EXTERIOR - JOISTS PARALLEL

SCALE: 1" = 1'-0" (TX)

Project Issue #

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Date #

10/21/16

Revision History #

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Sheet Name #

STRUCTURAL - WOOD ROOF FRAMING
DETAILS

Sheet Number #

S403

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(Structural Address)
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MEP Engineer:
(MEP Engineer)
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(MEP Phone)

Landscape Architect:
(Landscape Architect)
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(Landscape Phone)

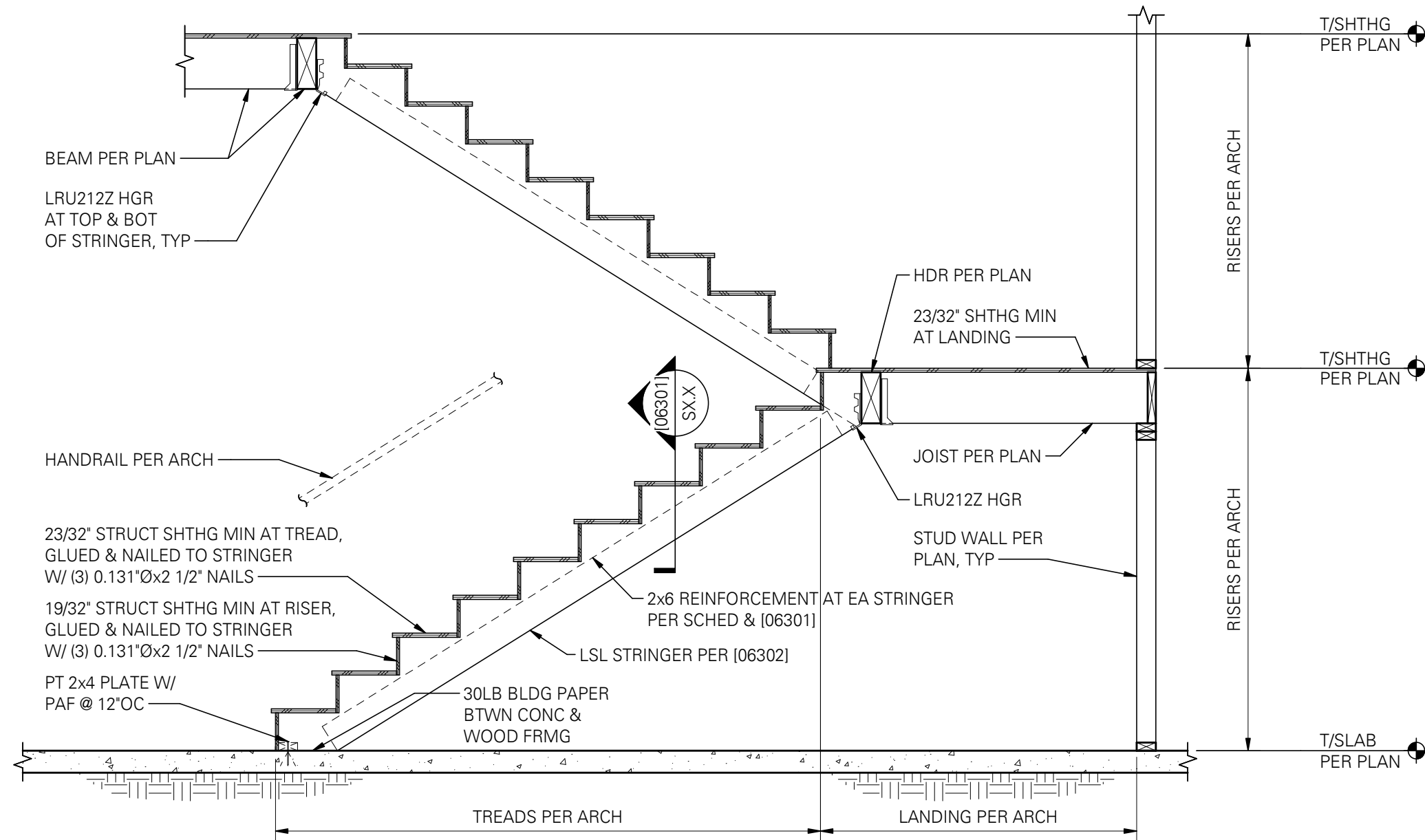
Interior Designer:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
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(Civil Address)
(Civil Phone)

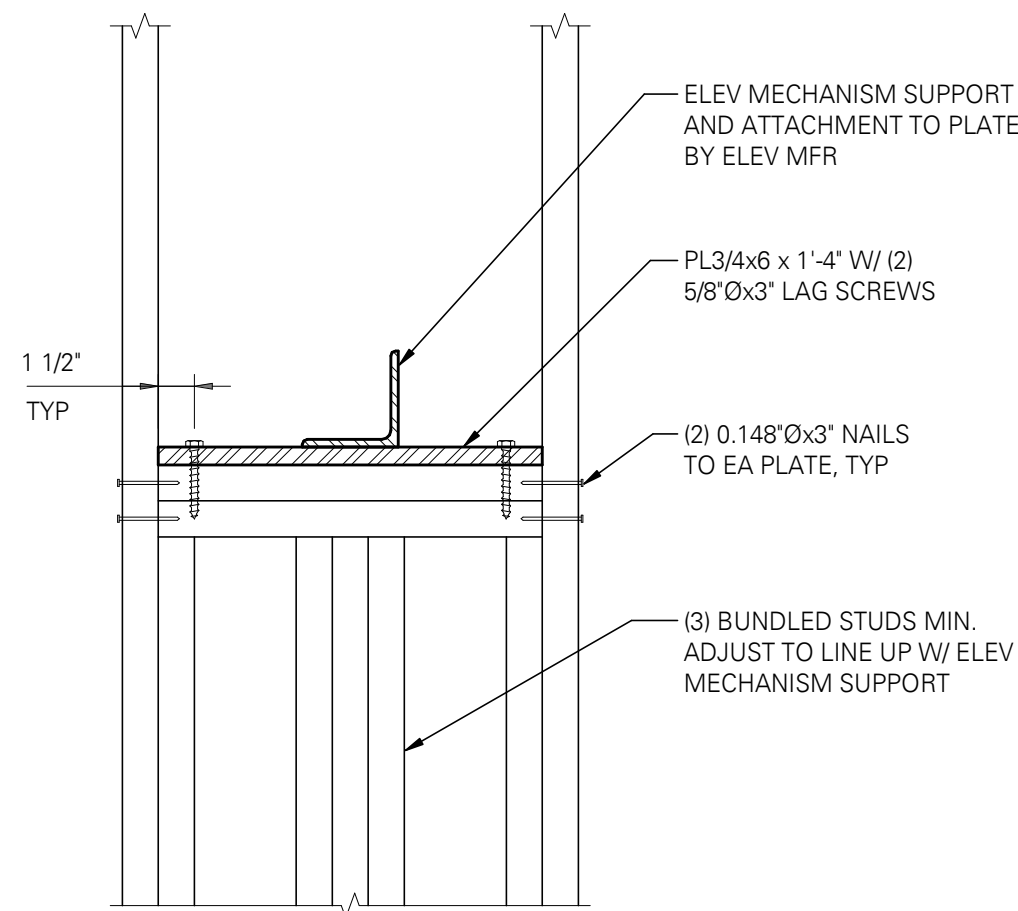


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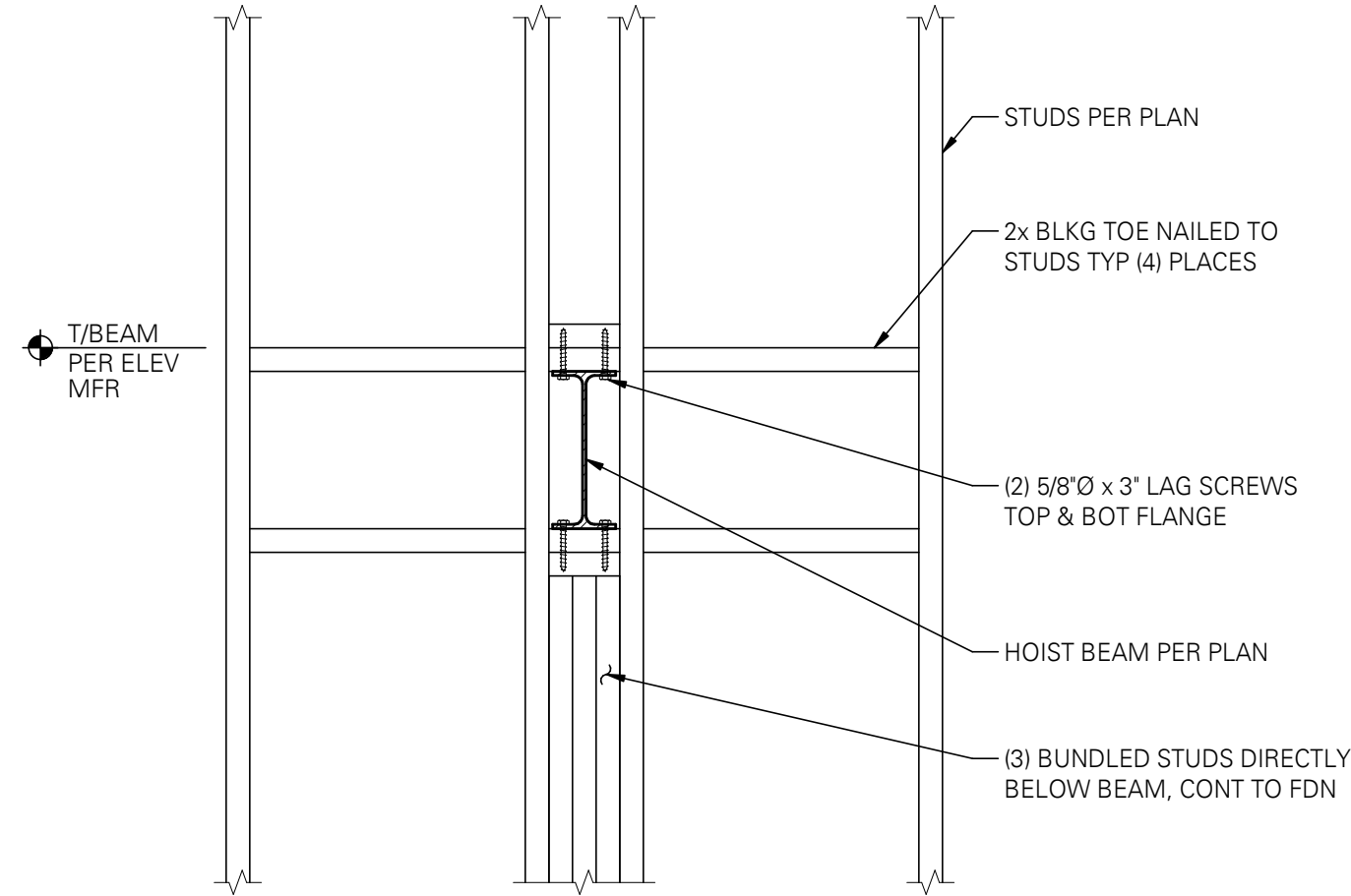
03/24/17



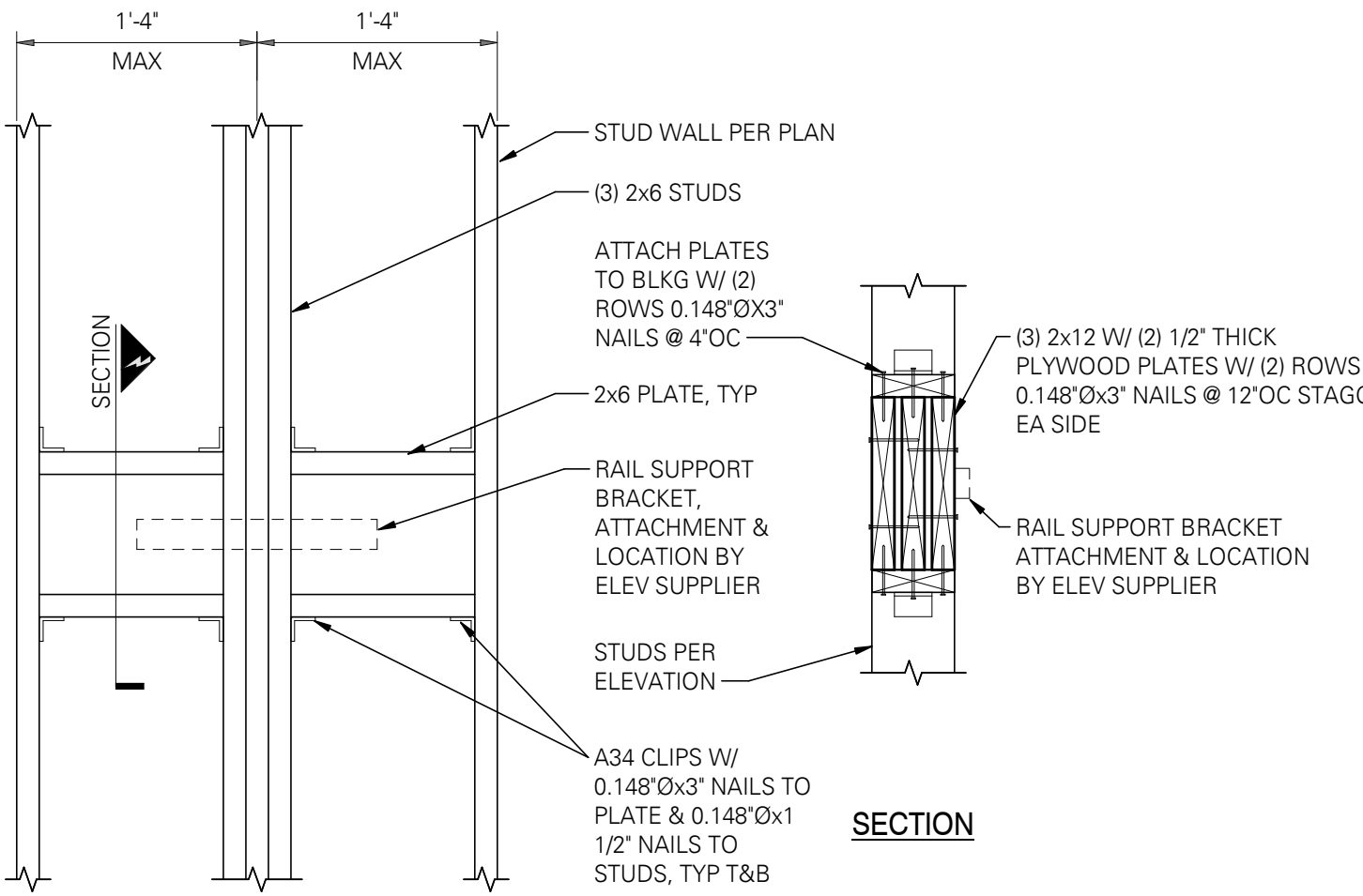
14 TYPICAL INTERIOR STAIRWAY ELEVATION
SCALE: 1" = 1'-0" (06300MTX)



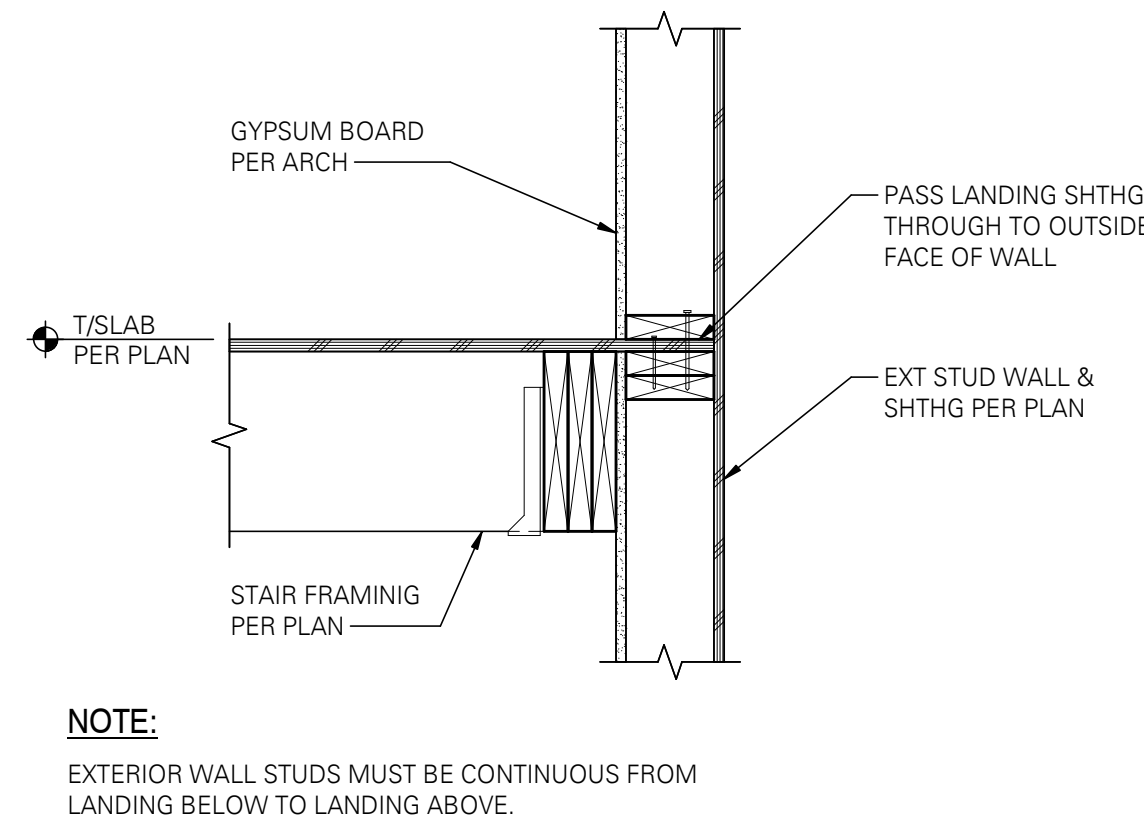
17 ELEVATOR MECHANISM SUPPORT
ATTACHMANT
SCALE: 1 1/2" = 1'-0" (TX)



18 ELEVATOR HOIST AND SUPPORT
BEAM ELEVATION
SCALE: 1" = 1'-0" (TX)



19 INTERMEDIATE ELEVATOR
RAIL BRACKET ATTACHMENT
SCALE: 1" = 1'-0" (TX)



20 EXTERIOR WALL AT STAIR LANDING
SCALE: 1" = 1'-0" (TX)

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STRUCTURAL - WOOD STAIR AND
ELEVATOR FRAMING DETAILS

S404

CONSTANTINE
RESIDENCE

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78746

JOHN & ROBBIE
CONSTANTINE

General Contractor:
Farrington Builders
507 Walsh Street, Austin, TX 78703
p.512.922.7583

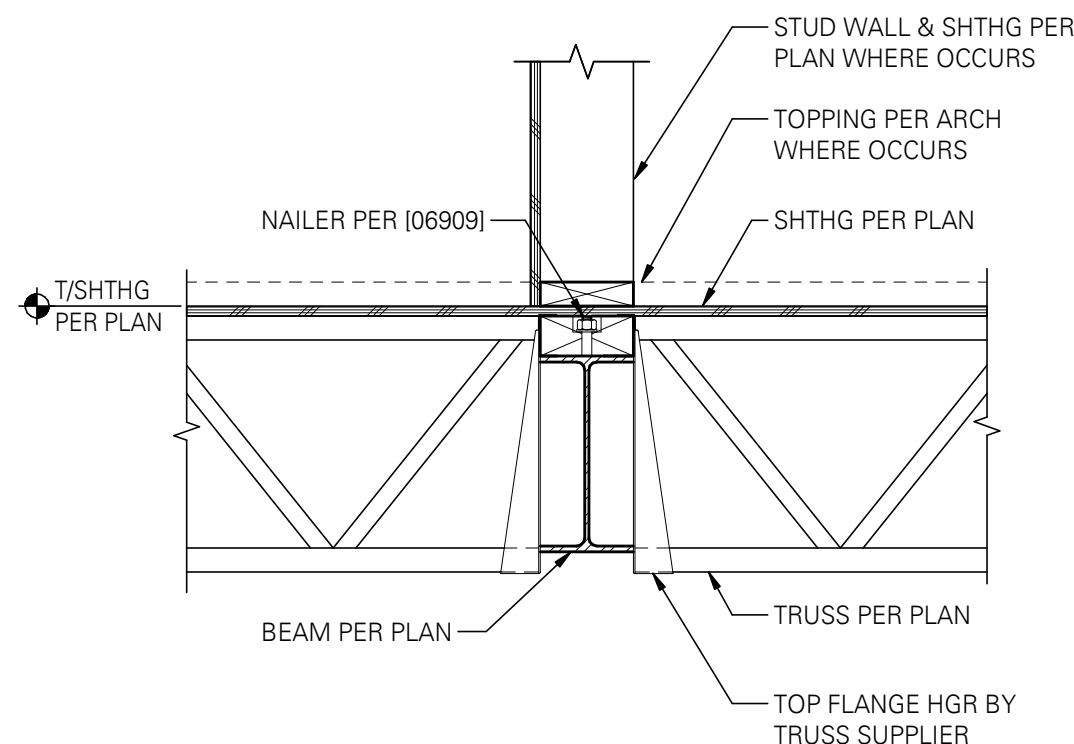
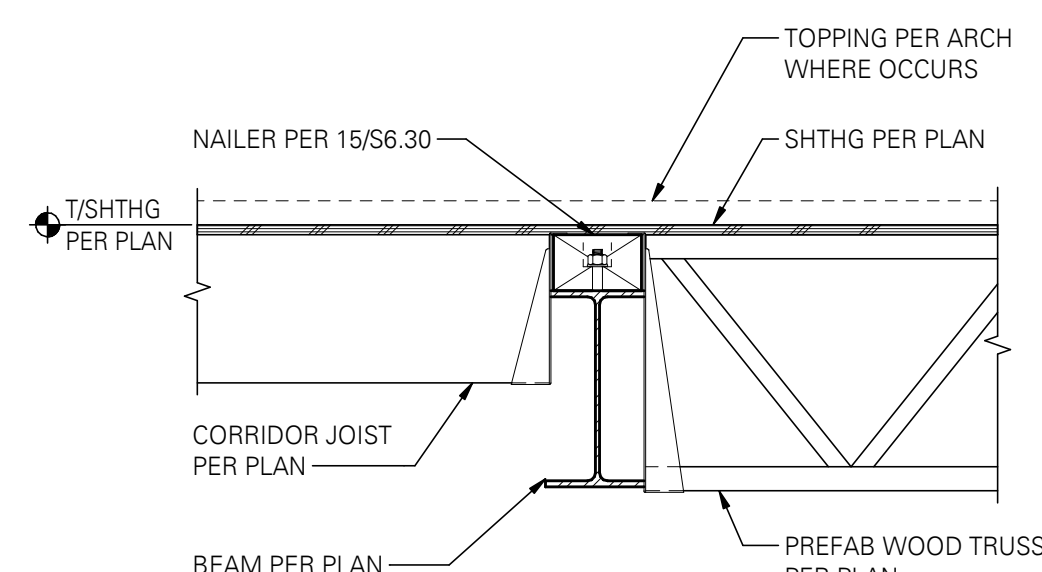
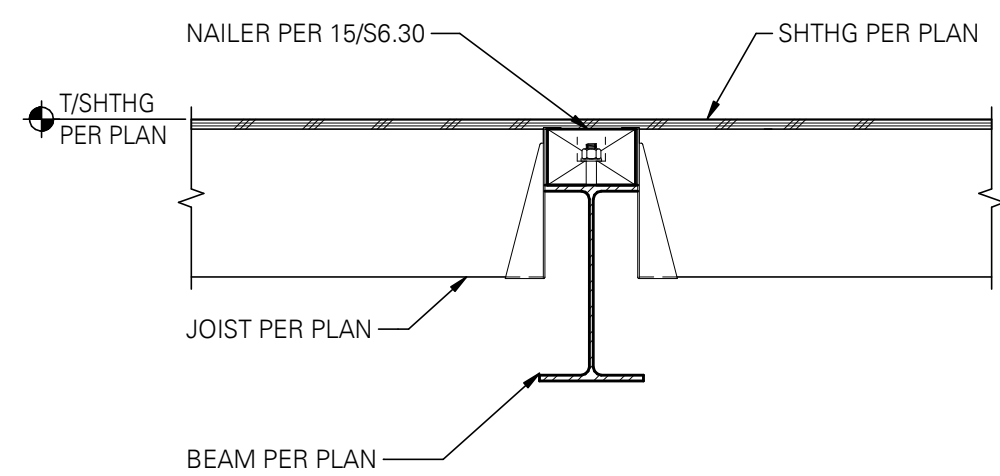
MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

Interior Designer:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)



NOTE:
TRUSS ON ONE SIDE ONLY AT SIMILAR.

8 JOIST TO BEAM CONNECTION

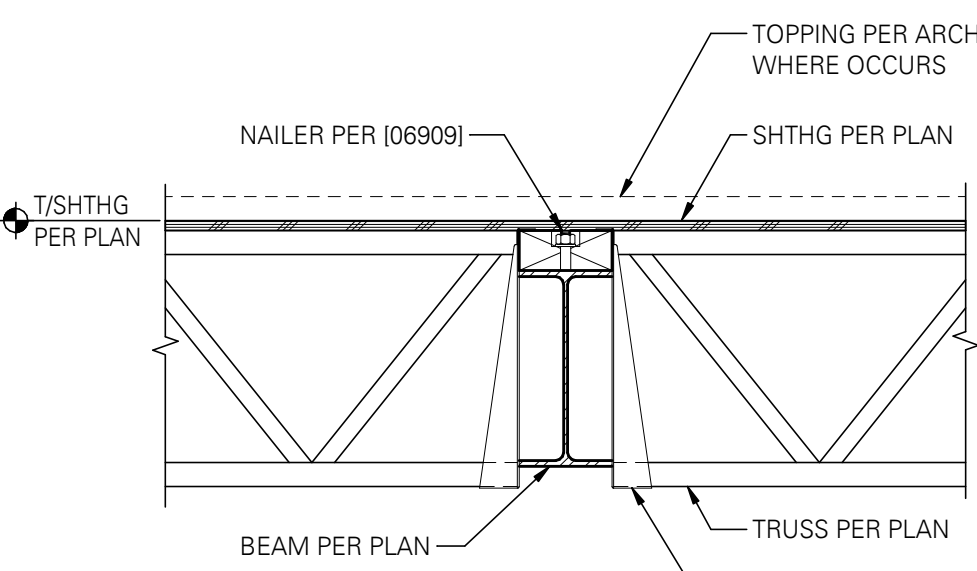
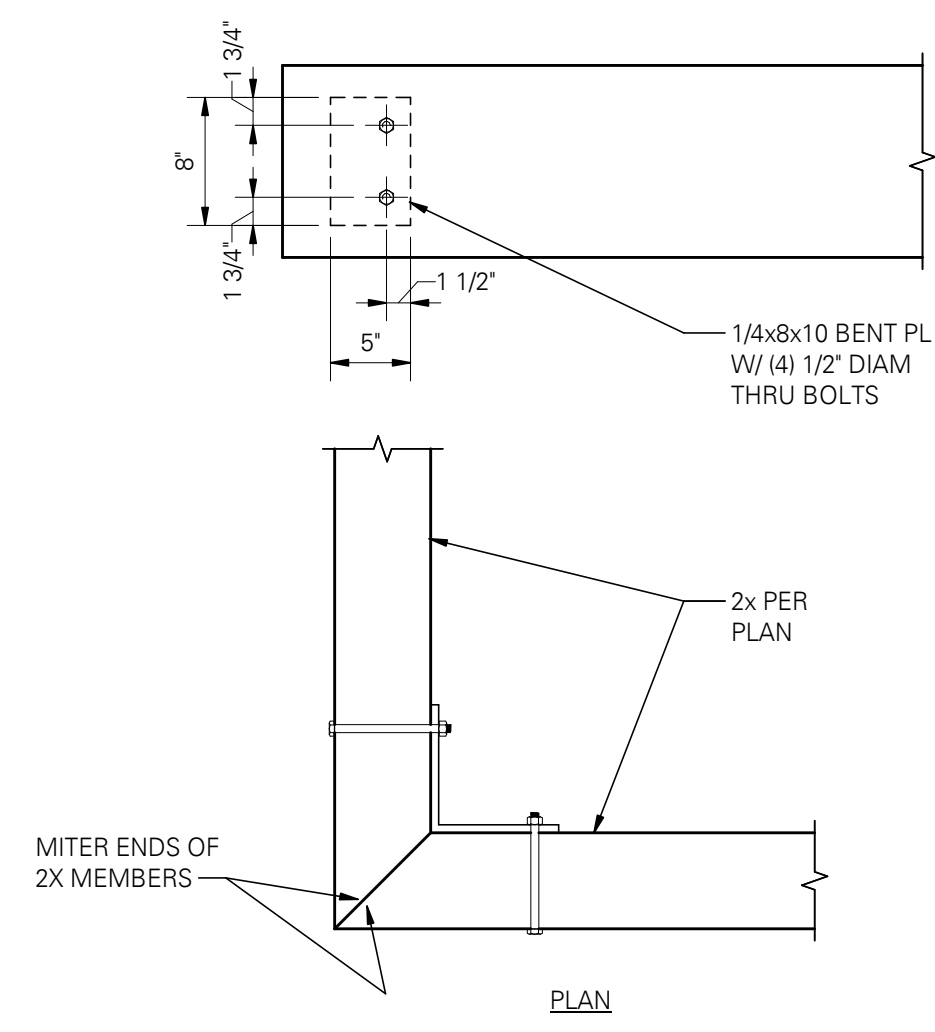
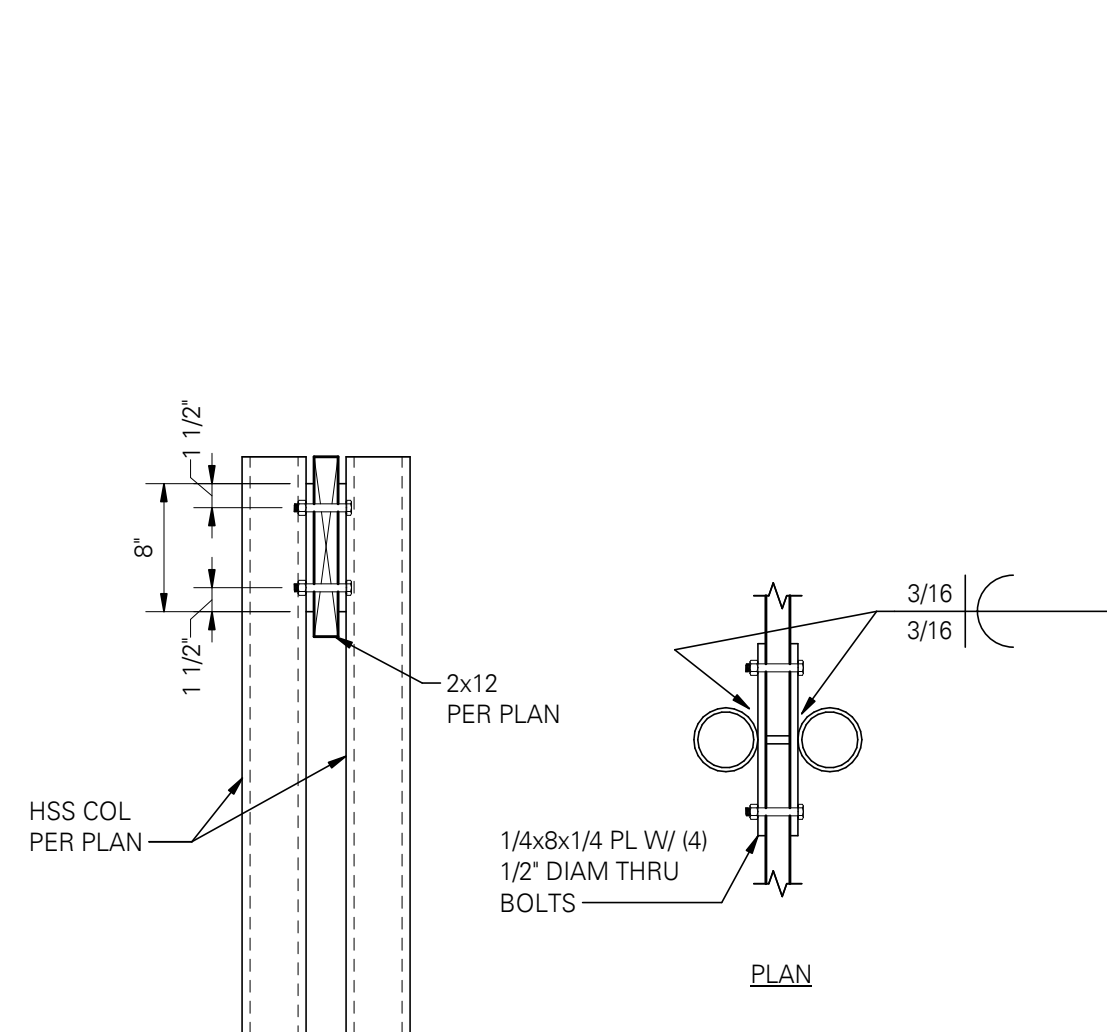
SCALE: 1" = 1'-0"

9 JOIST TO BEAM CONNECTION

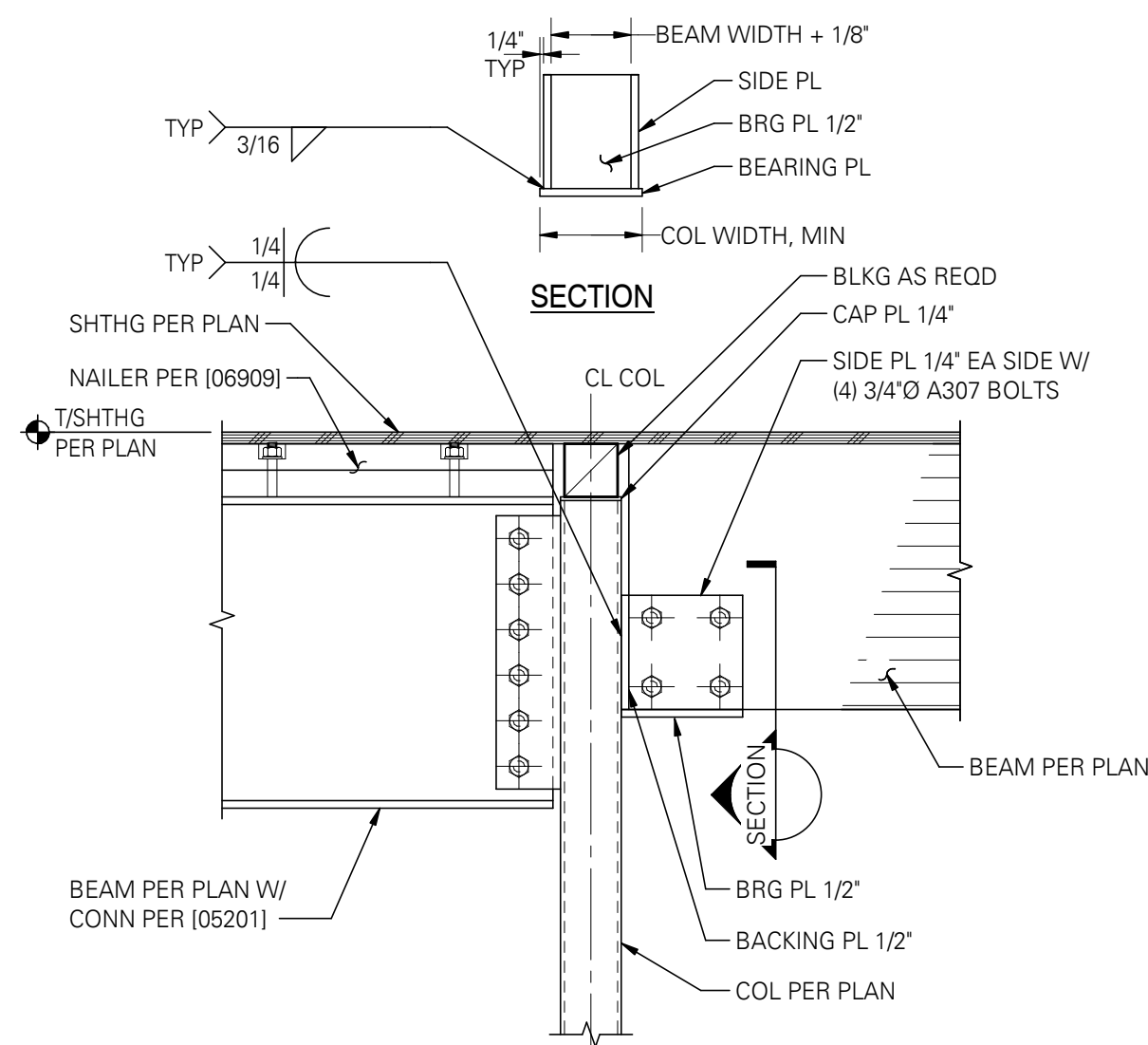
SCALE: 1" = 1'-0"

10 TRUSS TO STEEL BEAM CONNECTION

SCALE: 1" = 1'-0"



NOTE:
TRUSS ON ONE SIDE ONLY AT SIMILAR.



- NOT FOR CONSTRUCTION

07/08/20

12 TRELLIS CONNECTION @ HSS COL

SCALE: 1" = 1'-0"

13 TRELLIS CONNECTION @ BEAM CORNER

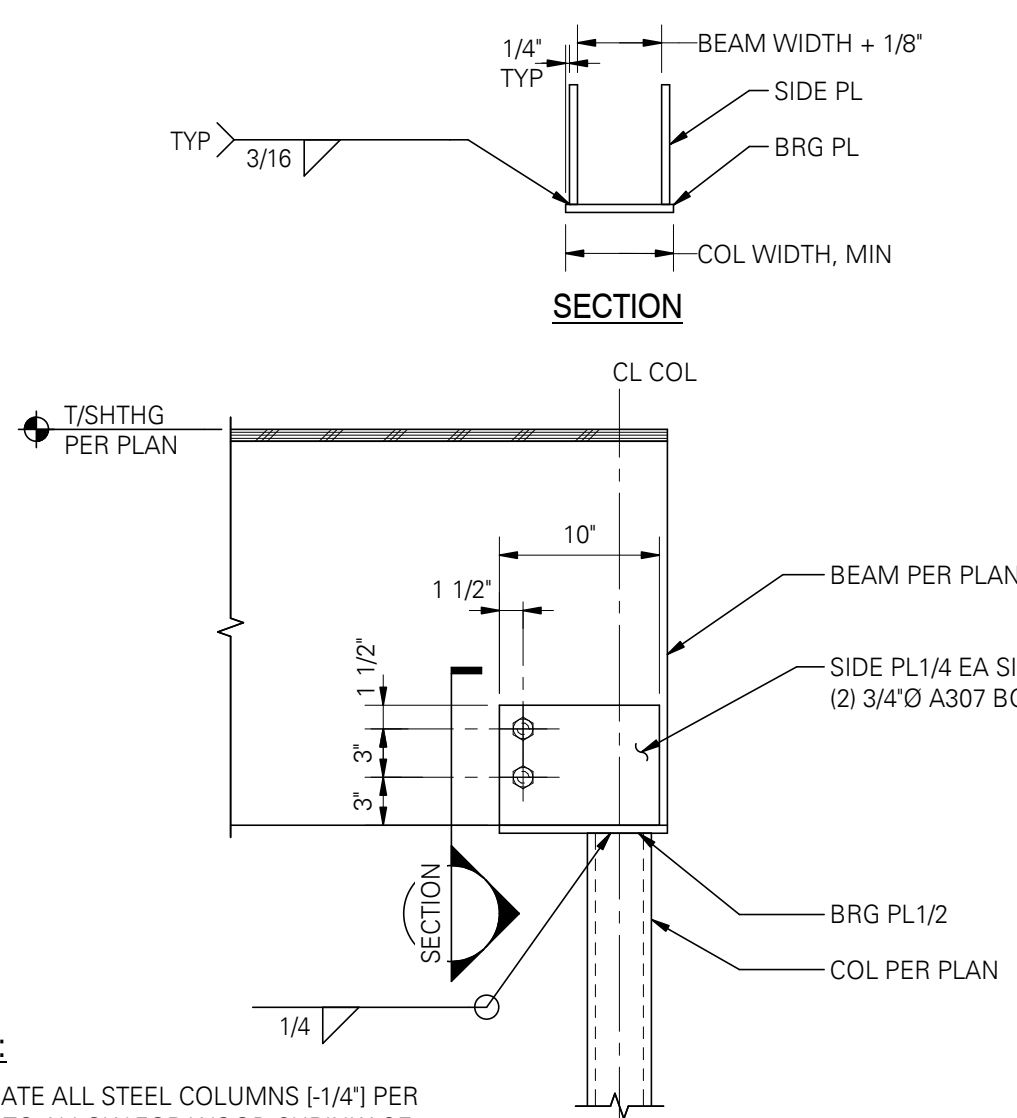
SCALE: 1" = 1'-0"

14 TRUSS TO STEEL BEAM CONNECTION

SCALE: 1" = 1'-0"

15 GLULAM AND STEEL BEAM CONNECTION AT HSS COLUMN

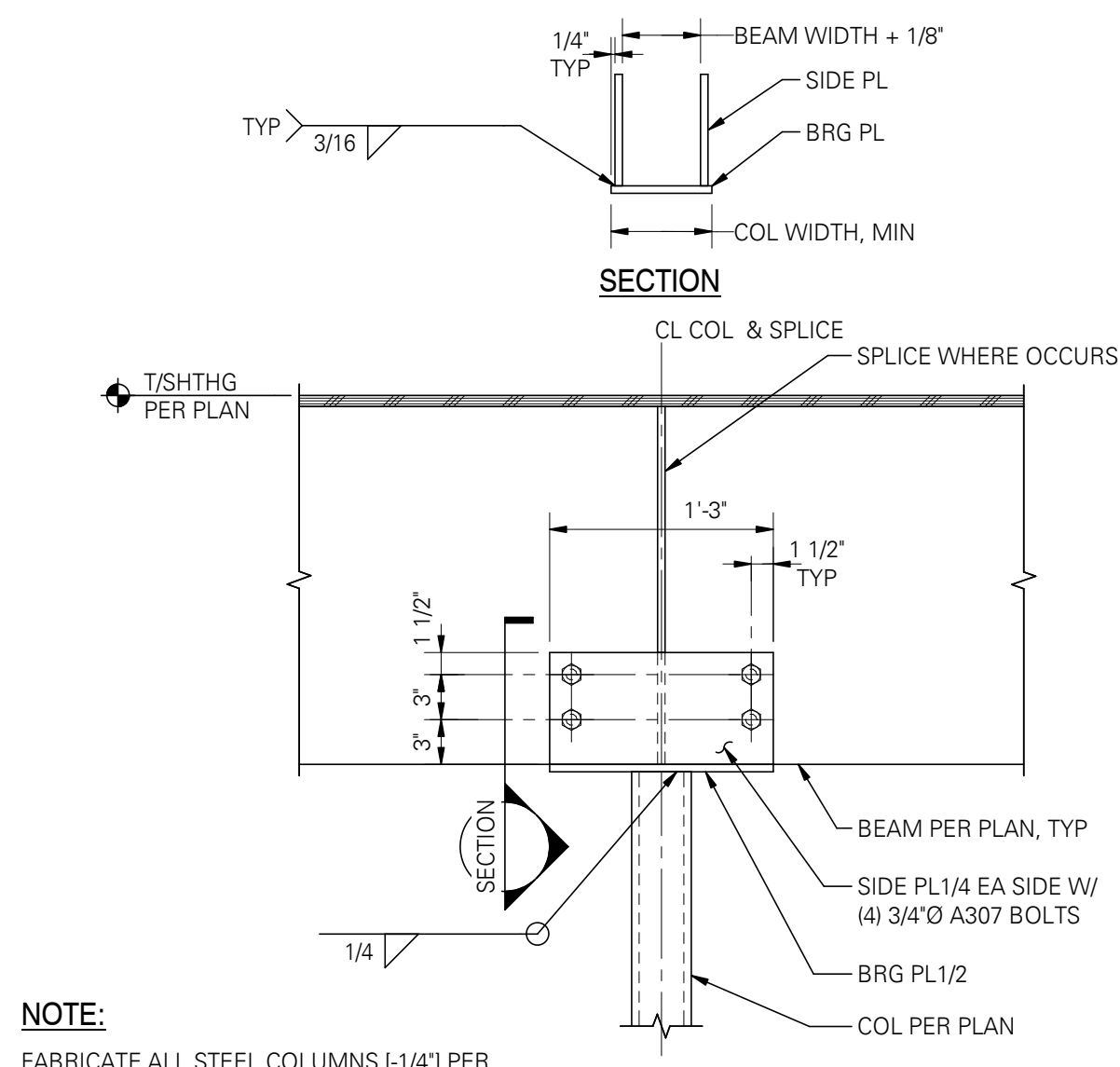
SCALE: 1" = 1'-0"



NOTE:
FABRICATE ALL STEEL COLUMNS (1-1/4") PER FLOOR TO ALLOW FOR WOOD SHRINKAGE.

TYPICAL BEAM SADDLE AT
BEAM END - STEEL COLUMN

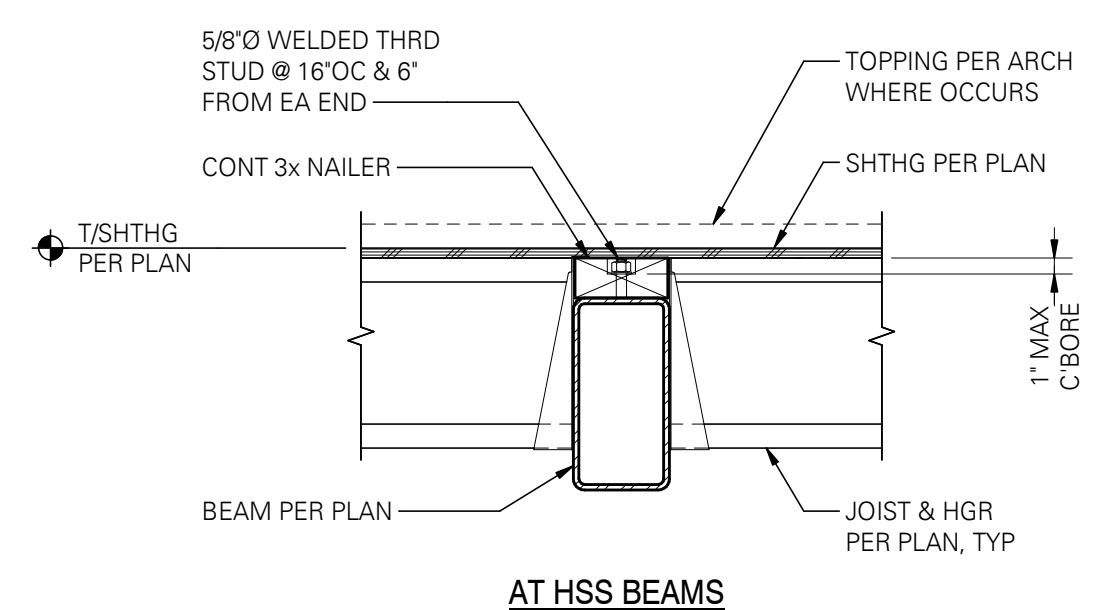
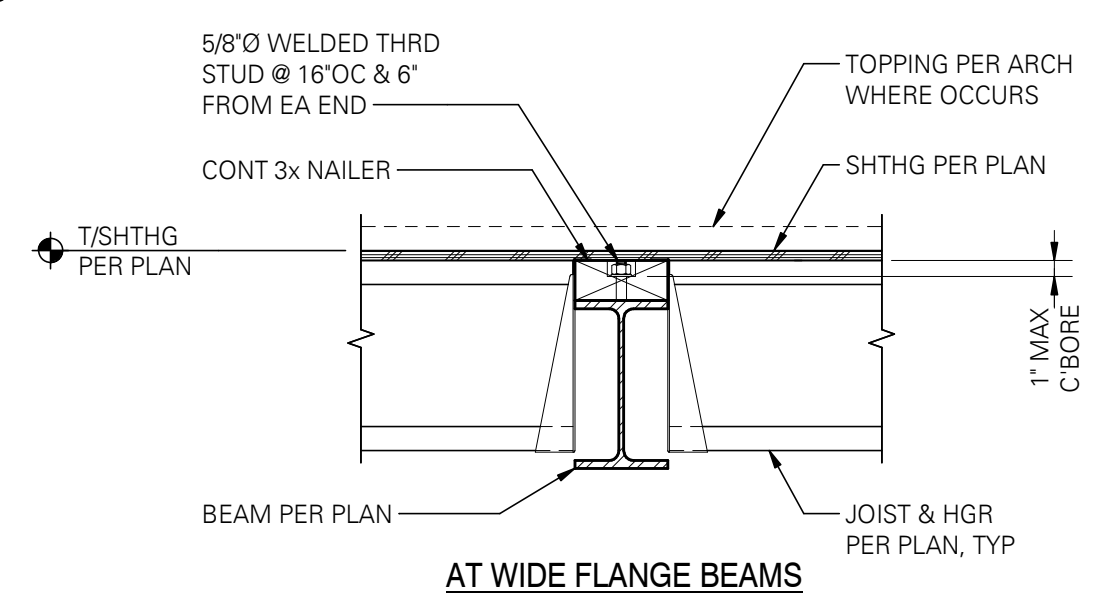
SCALE: 1" = 1'-0" (06201)



NOTE:
FABRICATE ALL STEEL COLUMNS (1-1/4") PER FLOOR TO ALLOW FOR WOOD SHRINKAGE.

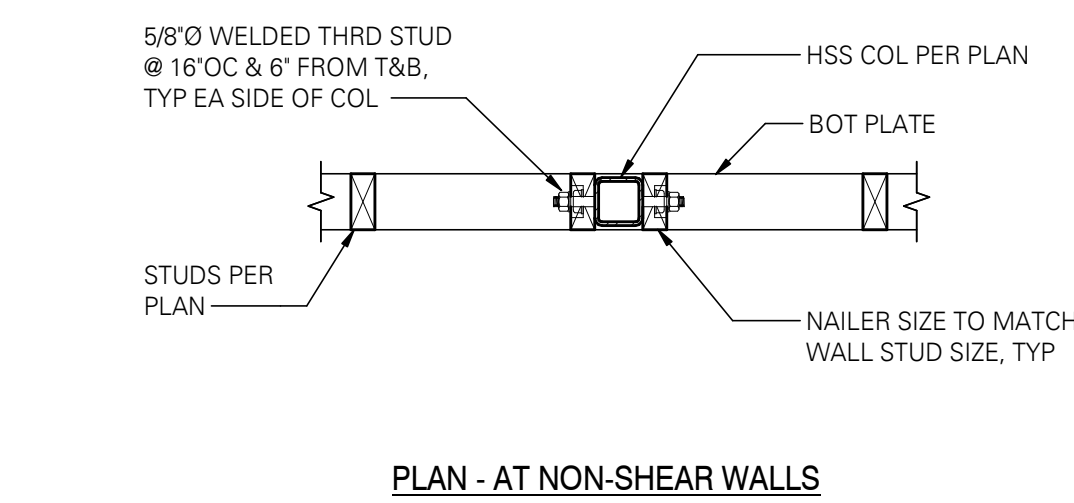
TYPICAL BEAM SADDLE AT STEEL COLUMN

SCALE: 1" = 1'-0" (06200)

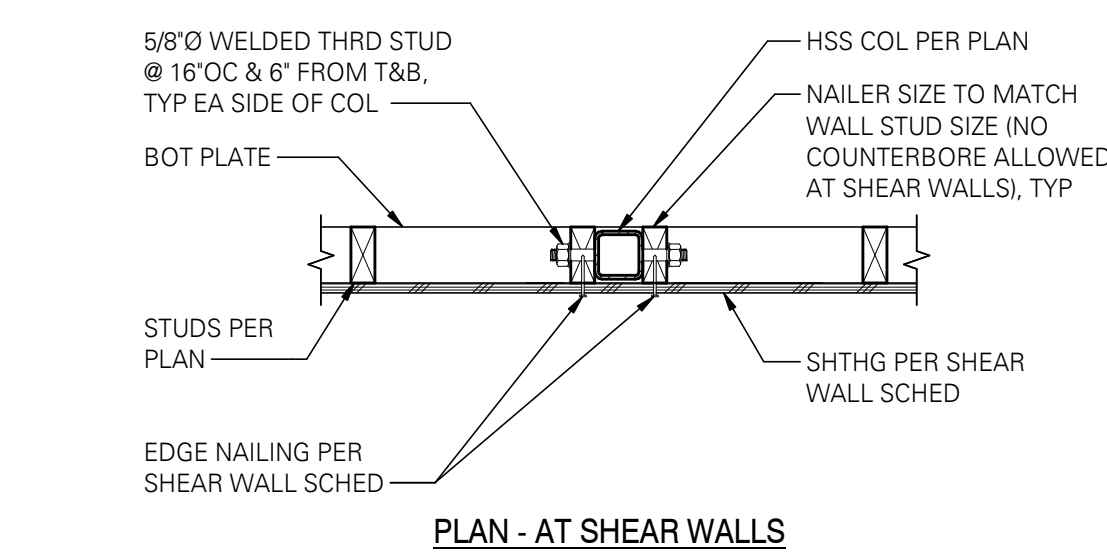


TYPICAL NAILER DETAILS AT STEEL BEAM

SCALE: 1" = 1'-0" (06909M)



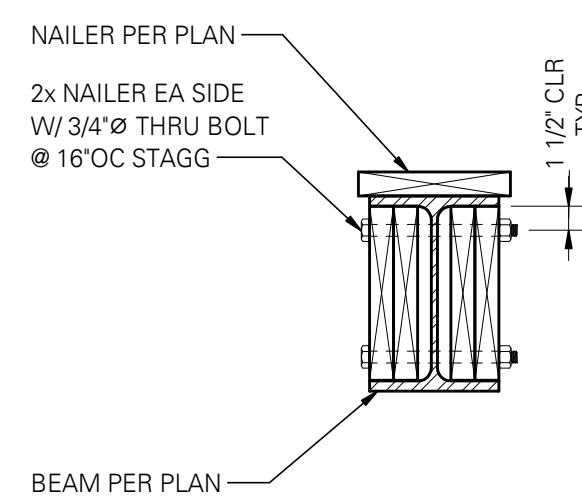
PLAN - AT NON-SHEAR WALLS



NOTE:
ALL WELDED THREAD STUDS SHALL HAVE NUTS AND WASHERS.

TYPICAL NAILER DETAILS AT STEEL COLUMNS

SCALE: 1" = 1'-0" (06909A)



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STRUCTURAL - TYPICAL WOOD TO STEEL DETAILS

S405

CONSTANTINE RESIDENCE

0 WILDCAT HOLLOW,
WEST LAKE HILLS, TX
78746

Client #

JOHN & ROBBIE
CONSTANTINE

Consultants #

General Contractor:
Farrington Builders
507 Walsh Street, Austin, TX 78703
p.512.922.7583

Structural Engineer:
(Structural Engineer)
(Structural Address)
(Structural Phone)

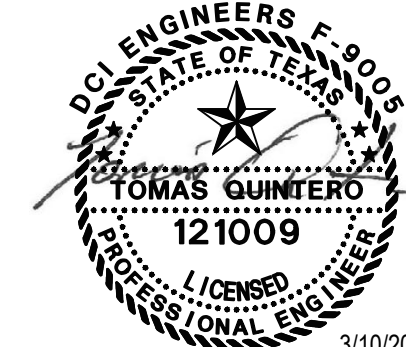
MEP Engineer:
(MEP Engineer)
(MEP Address)
(MEP Phone)

Landscape Architect:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Interior Designer:
(Landscape Architect)
(Landscape Address)
(Landscape Phone)

Civil Engineer:
(Civil Engineer)
(Civil Address)
(Civil Phone)

Key Plan #



3/10/2023

Project Issue #

- NOT FOR CONSTRUCTION

Date #

02/10/17

Revision History #

Sheet Name #

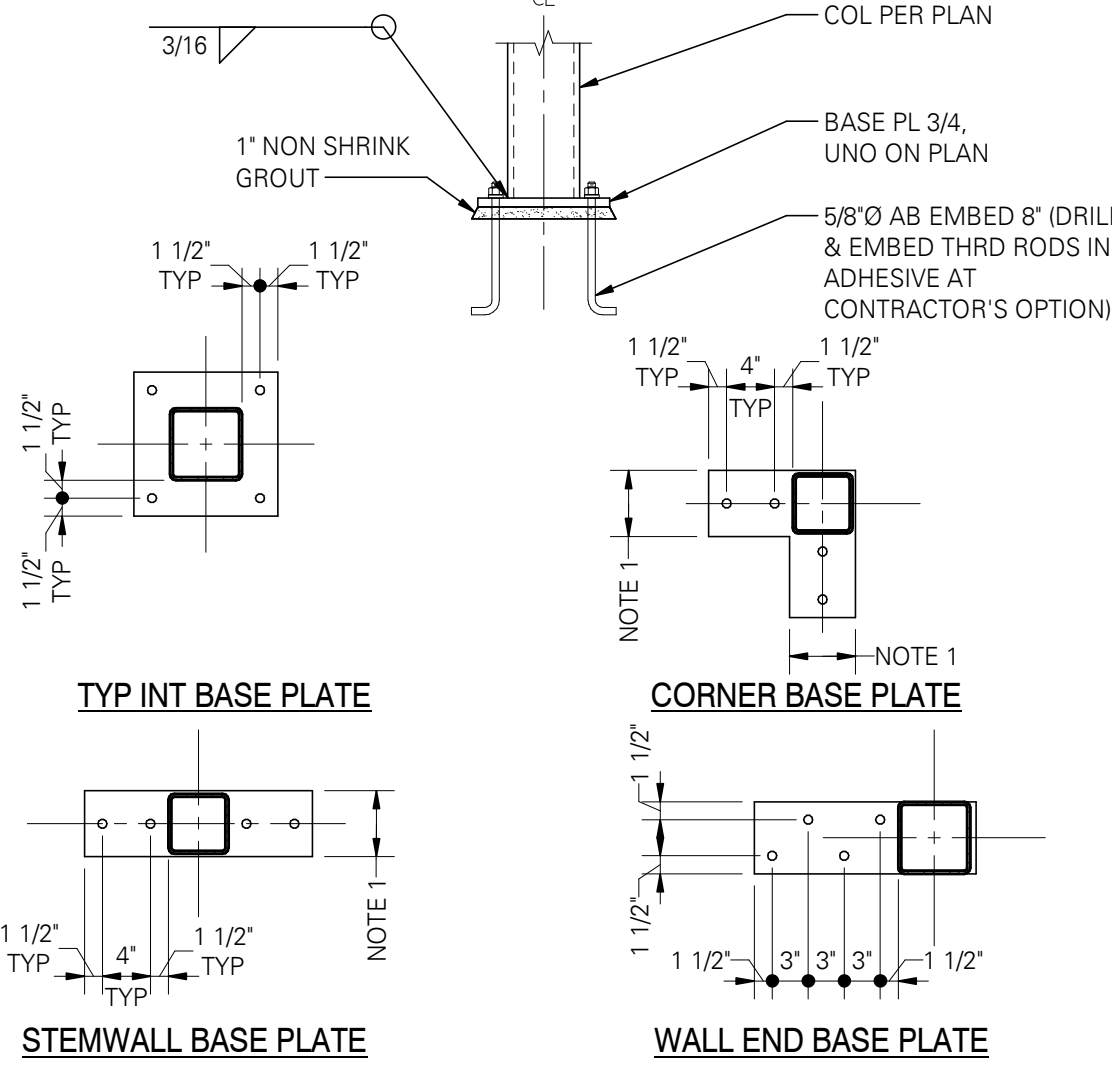
STRUCTURAL - TYPICAL STEEL

DETAILS

Sheet Number #

S500

FOR PERMIT
The Contractor shall not use these drawings for construction until Contractor receives written approval for use in construction by the authority
having jurisdiction and DCI Engineers.



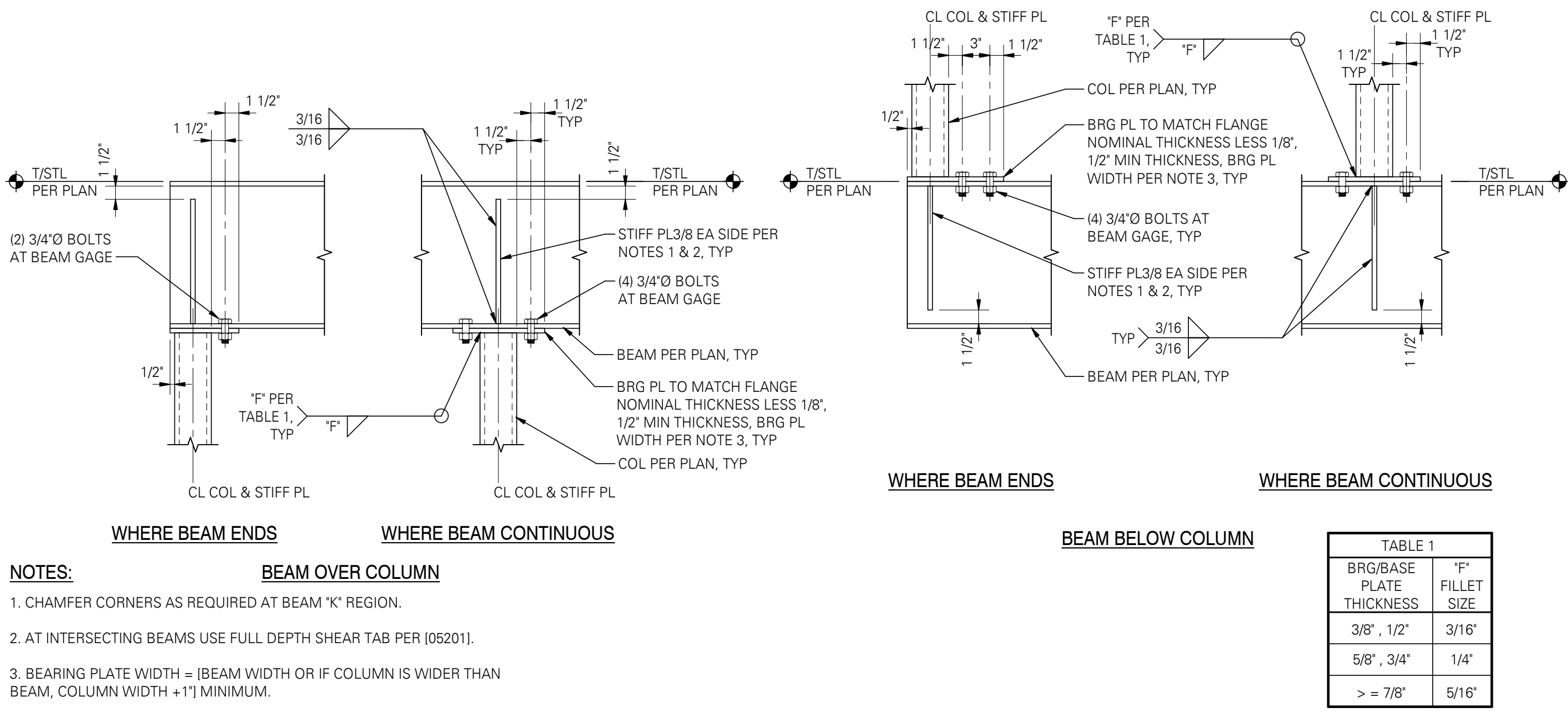
NOTE:
BASEPLATE WIDTH = COLUMN WIDTH + 1/2" TYPICAL UNLESS NOTED OTHERWISE ON PLAN.
VERIFY BASE PLATE WIDTH DOES NOT EXCEED STUD WIDTH.

4 TYPICAL BASE PLATE CONFIGURATIONS

SCALE: 3/4" = 1'-0" (TX)

5 TYPICAL HSS CONNECTIONS

SCALE: 1" = 1'-0"

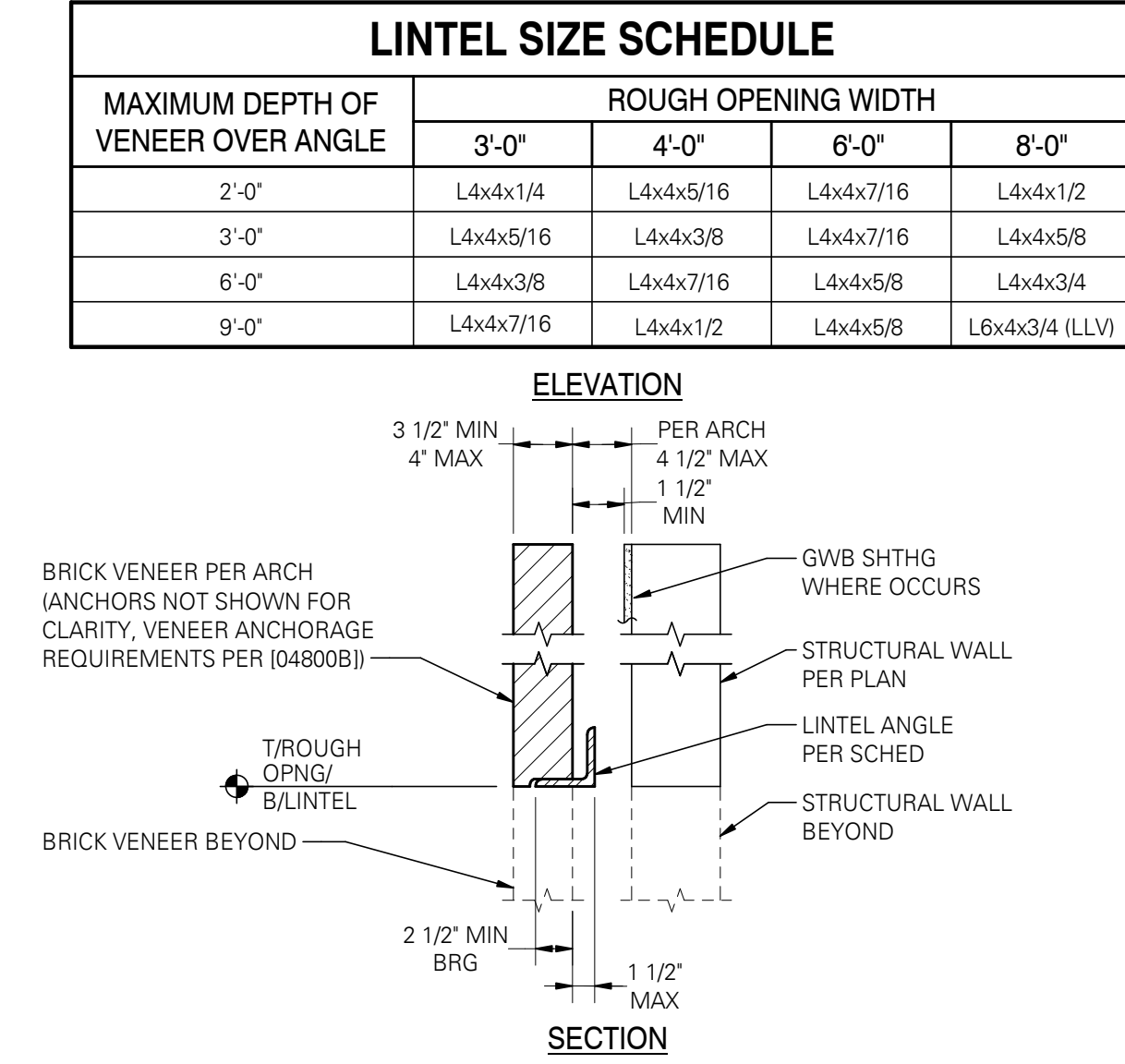


NOTES:

- CHAMFER CORNERS AS REQUIRED AT BEAM "K" REGION.
- AT INTERSECTING BEAMS USE FULL DEPTH SHEAR TAB PER 052011.
- BEARING PLATE WIDTH = [BEAM WIDTH OR IF COLUMN IS WIDER THAN BEAM, COLUMN WIDTH + 1"] MINIMUM.

9 BEAM TO HSS COLUMN CONNECTIONS

SCALE: 1" = 1'-0" (05050)



BRICK VENEER PER ARCH
(ANCHORS NOT SHOWN FOR
CLARITY. VENEER ANCHORAGE
REQUIREMENTS PER 04800B)

BRICK VENEER BEYOND
TROUGH
OPNG/
B/LINTEL

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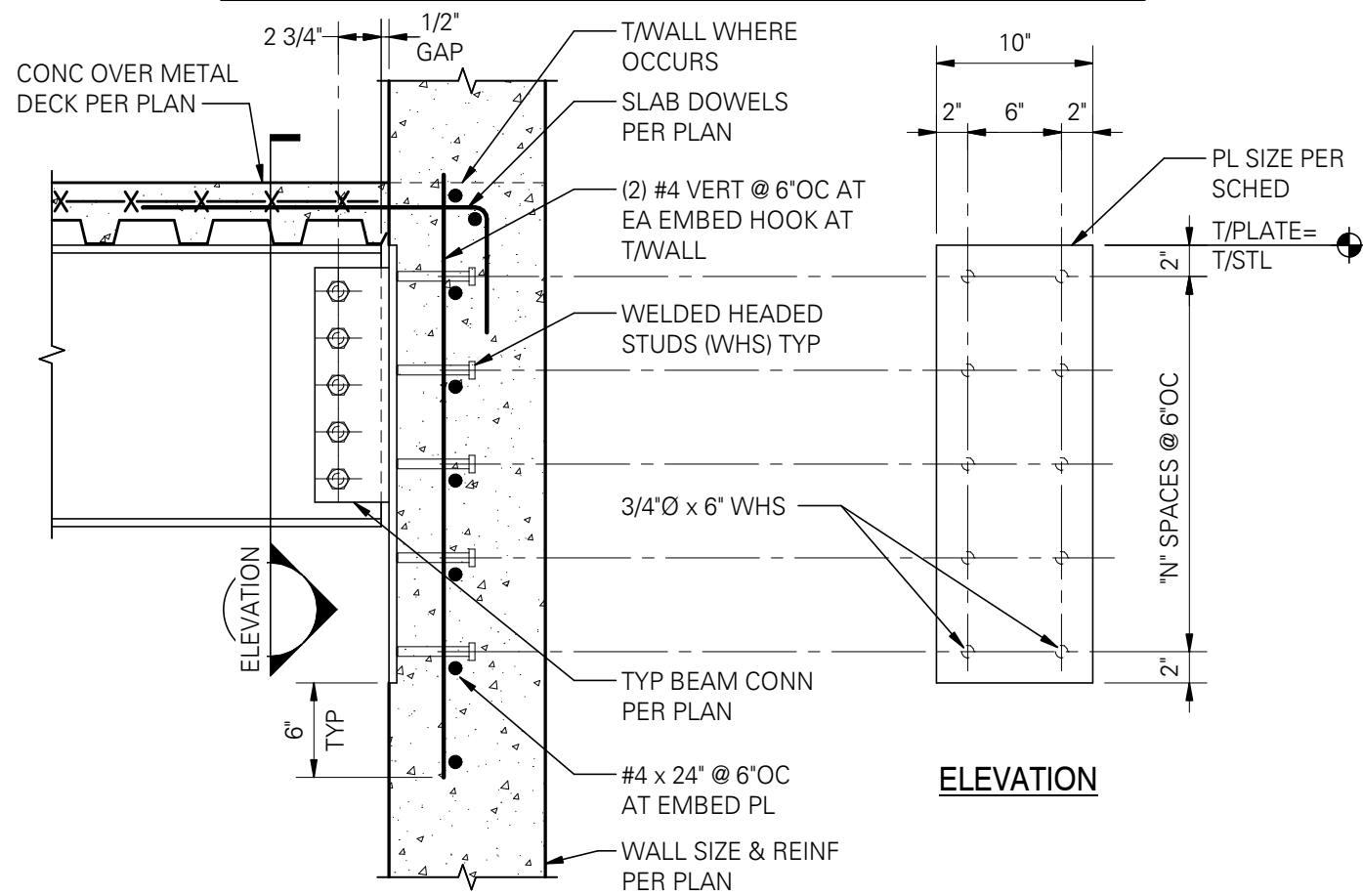
SECTION

SECTION

18 SINGLE SHEAR PLATE (SINGLE ROW) CONNECTIONS

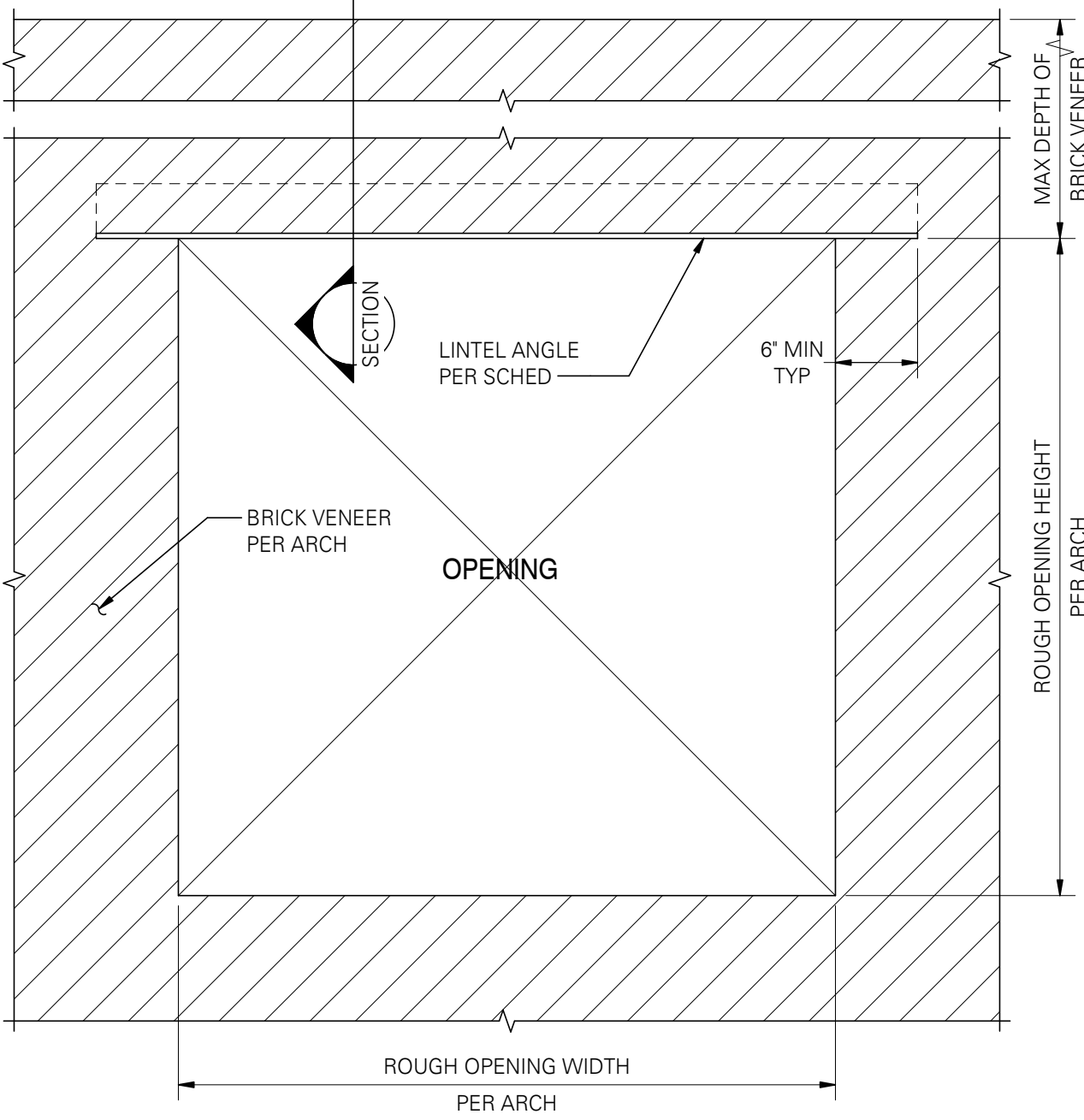
SCALE: 1" = 1'-0" (05201MTX)

EMBED PLATE BOLTED BEAM CONNECTION SCHEDULE			
BEAM SIZE	PLATE SIZE TxWxL (A36)	NUMBER OF SPACES "N"	NUMBER OF WHS ANCHORS REQUIRED
W8, W12	PL1/2x10x1'-4"	2	6
W14, W16	PL1/2x10x1'-10"	3	8
W18, W21	PL1/2x10x2'-4"	4	10
W24	PL1/2x10x2'-10"	5	12



6 TYPICAL EMBED PLATE BOLTED BEAM CONNECTION

SCALE: 1" = 1'-0" (05207)



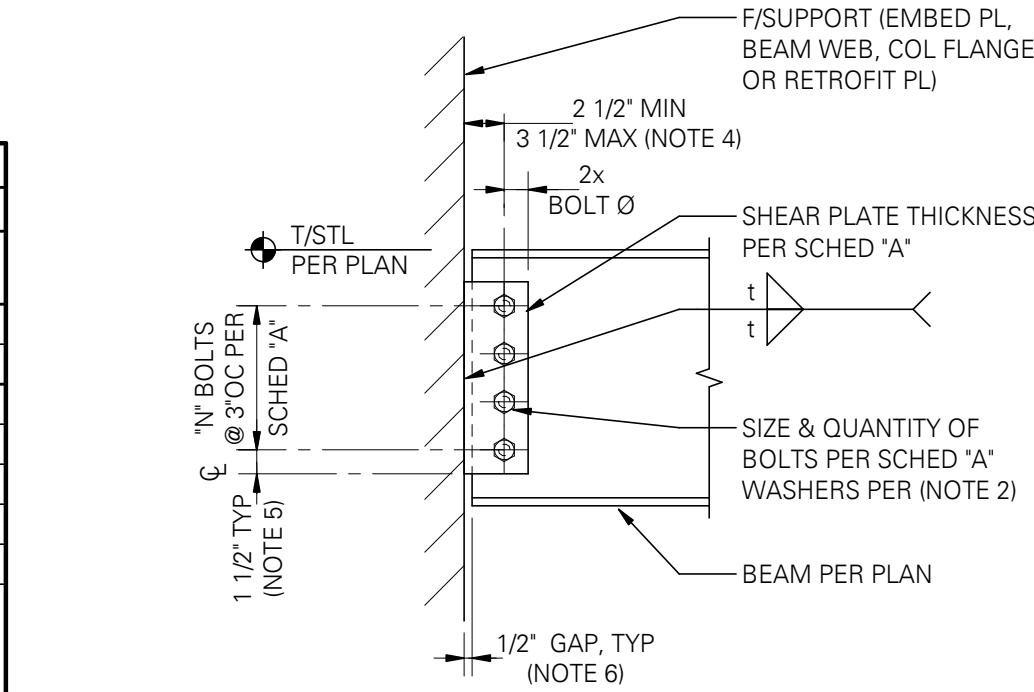
7 TYPICAL LOOSE BRICK VENEER LINTEL

SCALE: 1" = 1'-0" (04801A)

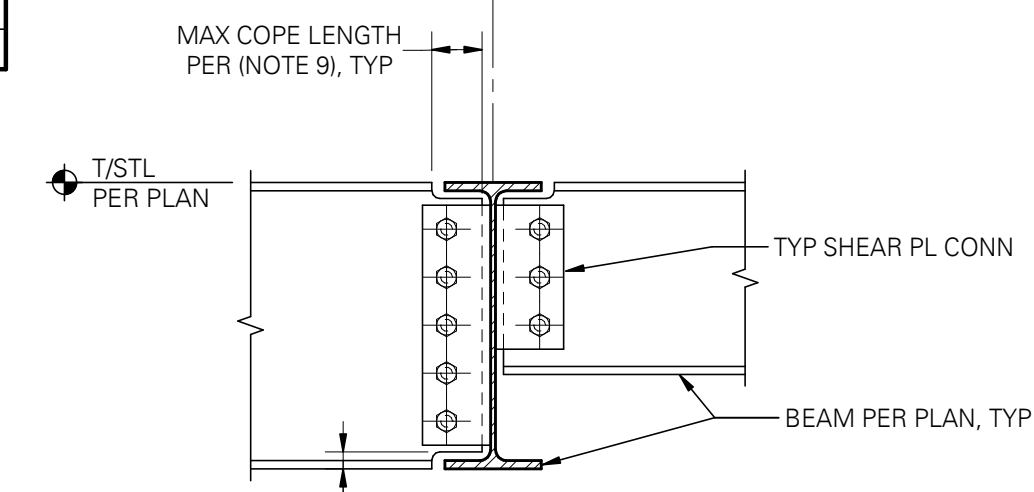
BOLTED SINGLE SHEAR PLATE CONNECTION - SCHEDULE "A"					
3/4" O - A325-N	SINGLE ROW		BEAM Fy=50KSI - CONNECTION PLATE Fy=36KSI		
	BEAM SIZE	"N" BOLTS REQUIRED (1)	SHEAR PLATE THICKNESS (2)	MIN HSS COLUMN WALL THICKNESS (3)	WELD SIZE (4)
C8, C9, C10	W8	2	5/16"	1/4"	1/4"
W10	W10	2	5/16"	1/4"	1/4"
C12, C15	W12	3	5/16"	1/4"	1/4"
W14	W14	3	5/16"	1/4"	1/4"
W16	W16	4	5/16"	1/4"	1/4"
W18	W18	5	5/16"	1/4"	1/4"
W21	W21	6	5/16"	1/4"	1/4"
W24	W24	7	5/16"	1/4"	1/4"
W27	W27	8	5/16"	1/4"	1/4"
W30	W30	8	5/16"	1/4"	1/4"
W33	W33	9	5/16"	1/4"	1/4"
W36	W36	10	5/16"	1/4"	1/4"

BOLTED SINGLE ROW SHEAR PLATE CONNECTION NOTES:

- PROVIDE EITHER STANDARD OR HORIZONTAL SHORT SLOTTED HOLES AS PERMITTED BY AISC J3.2 IN THE BEAM WEB AND/OR THE SHEAR PLATE.
- WHERE SHORT-SLOTTED HOLES ARE USED, PROVIDE HARDENED WASHERS PER AISC J3.2.
- CAPACITIES BASED ON AISC 13TH EDITION WITH ASTM A325-N BOLTS.
- HORIZONTAL DISTANCE FROM SUPPORT FACE TO CENTERLINE OF BOLT GROUP SHALL BE AS SHOWN IN THE DETAILS, BUT SHALL NOT EXCEED 3 1/2" IN THE AS-BUILT CONDITION. SUPPORT FACE FOR TEE IS THE INSIDE FACE OF FLANGE.
- VERTICAL EDGE DISTANCE FROM BOLT CENTERLINE TO EDGE OF STEEL SHALL BE 1 1/2" TYPICALLY, EXCEPT THAT 1 1/4" IS PERMITTED PER AISC TABLE J3.4 FOR 3/4" DIAMETER BOLTS WITHOUT ANY REDUCTION IN THE TABULATED CAPACITIES.
- GAP BETWEEN BEAM END AND SUPPORT FACE SHALL BE 1/2" EXCEPT FOR "TEE" CONNECTORS USED WITH HSS COLUMNS. WHERE "TEES" ARE USED AS SHEAR TAB ELEMENTS, THE GAP BETWEEN FACE OF COLUMN AND END OF BEAM SHALL NOT EXCEED THE LESSER OF 1 1/2" OR THE "X" DISTANCE OF THE "TEE" PLUS 1/4".
- WELD SIZES SHALL BE THE LARGER OF THE SIZE (b), TABULATED IN SCHEDULE "A" OR MINIMUM SHOWN IN TABLE 1.
- FIELD FILLET WELDS SHALL BE SIZED TO BE AT LEAST 1/8" LARGER THAN THE WELD SIZE SHOWN IN SCHEDULE "A", UNLESS PROPER FIT-UP IS VERIFIED BY A SPECIAL INSPECTOR PRIOR TO WELDING.
- COPE DEPTHS (SINGLE AND DOUBLE) SHALL NOT EXCEED THE LESSER OF THOSE SHOWN IN SCHEDULE "A", NOR AS ALLOWED BY BOLT HOLE SPACING AND MINIMUM EDGE DISTANCE REQUIREMENTS. SINGLE COPE LENGTH SHALL NOT EXCEED 6 1/2". DOUBLE COPE LENGTHS SHALL NOT EXCEED THAT REQUIRED TO ACCOMMODATE GIRDER FLANGE + 1/2" MAX GAP BETWEEN FLANGES.
- UNCOPED CAPACITIES OF WT CONNECTIONS ARE VALID WITH MINIMUM NOMINAL HSS COLUMN WALL TABULATED THICKNESS. THE EFFECTIVE THROAT OF FLARE BEVEL GROOVE WELDS IS BASED ON OUTSIDE RADIUS OF HSS, AND IS TAKEN AS 5/8 TIMES THE HSS WALL THICKNESS BASED ON AWS D1.1, TABLE 2.1. WHEN 3/4" A325-N BOLTS ARE USED, A 3/16" HSS COLUMN WALL THICKNESS IS PERMITTED WITH A 20% REDUCTION OF THE WT CONNECTION CAPACITY.
- NR = NOT RECOMMENDED. DOUBLE COPE FOR THESE BEAMS ARE RESTRICTED BY CONNECTION GEOMETRY AND/OR LARGE REDUCTIONS IN SHEAR CAPACITY. DOUBLE COPE IS POSSIBLE, BUT CAPACITIES MUST BE CALCULATED FOR SPECIFIC BEAM AND GIRDER GEOMETRIES AND MUST BE DETAILED SEPARATELY.
- SHEAR PLATE CONNECTION TO HSS WALL ALLOWED ON COLUMNS HAVING A b/tw ≤ 35.1. THRU PLATE CONNECTION SHALL BE USED WHEN POSSIBLE AND FOR THE LARGER BEAM AT INTERSECTING BEAM CONNECTIONS.



TYPICAL SHEAR PLATE CONNECTION



BEAM TO BEAM CONNECTION

SHEAR PLATE INFORMATION PER TYPICAL SHEAR PLATE CONNECTION.

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