



CITY OF WEST LAKE HILLS, TEXAS
NOTICE OF ZONING & PLANNING COMMISSION (ZAPCO) REGULAR MEETING
Wednesday, April 20, 2022 at 6:30 PM

Notice is hereby given that the Zoning and Planning Commission (ZAPCO) of the City of West Lake Hills, Texas, will hold a Regular Meeting on the 20th day of April 2022 at 6:30 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:

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 distances. Facial Coverings are not required, but highly recommended, and will be available for any that need one.

Join Zoom Meeting: Copy and Paste the link below:
<https://us02web.zoom.us/j/3499549035?pwd=Qmc2dDVXWWZHSVFyK0xoSTJwMyswUT09>

Meeting ID:349 954 9035
Passcode:387042

If you wish to listen to the meeting via telephone: Dial (346) 248-7799, Meeting ID 349 954 9035 , Password: 387042.

If you wish to speak during the meeting, please provide your name, phone number and the item number you wish to speak on to pzsec@westlakehills.gov by 1:00 P.M. on April 20, 2022.

Members of the public who wish to submit their written comments in lieu of speaking shall submit their comments by emailing pzsec@westlakehills.gov. Comments must be received by 1:00 P.M. on April 20,2022.

1. Call to Order. Chairman Robert Meisel.
2. Consent Agenda The following items are considered to be self-explanatory by the Commission and will be enacted with one motion. There will be no separate discussion of these item/s unless a Commission Member or citizen so requests.
 - a. Approval of the March 16, 2022 Minutes.

b. Board of Adjustment and City Council results.

3. Land Use Land Use: **PUBLIC HEARING ONLY 3421 Bee Cave Road** for variances to encroach a driveway setback, a side building setback, and the removal of two trees, to construct a new commercial office building. (Sections 22.03.249, 22.03.281 and 33.03.304 of the West Lake Hills Code.) Applicant Ramon Aguirre.
4. Land Use Land Use: **3312 Bee Cave Road:** Discussion/recommendation on an application for a variance request to exceed the maximum allowed fence height for a new fence (West Lake Hills Code Section 22.03.173). Applicant Martin and Missy Taylor.
5. Land Use Land Use: **104 Westhaven Drive:** Discussion/recommendation on an application for a variance request to exceed the maximum allowed impervious cover (West Lake Hills Code Section 22.03.281). Applicant John Brown.
6. Land Use Land Use: **5902 Bee Cave Road:** Discussion/recommendation on an application for a variance request to encroach in a front setback, exceed the maximum allowable impervious cover and remove one tree with a trunk diameter of fourteen inches or greater (West Lake Hills Code Section 22.03.281 and 22.03.304). Applicant Hat Creek Burgers WLRE LLC (Scott Brown).
7. Adjournment. Chairman Robert Meisel.

Robert Meisel, Chairman
By Mark Littrell, Zoning & Planning
Secretary

Certificate

I certify that the above Notice of the April 20, 2022 Zoning & Planning Commission Meeting was posted on the bulletin board at the Municipal Building, 911 Westlake Drive, West Lake Hills, Texas on 14th day of April, 2022 by 5:00 pm. and will remain posted continuously until said meeting is convened.

By Mark Littrell, Zoning & Planning Secretary

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

All items on the agenda are for discussion and/or action. ZAPCO 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
NOTICE OF ZONING & PLANNING COMMISSION (ZAPCO) REGULAR MEETING
Wednesday, March 16, 2022 at 6:30 PM

1. Call to Order. Chairman Robert Meisel.

Chairman Meisel calls the meeting to Order at 6:30 p.m.

2. Consent Agenda The following items are considered to be self-explanatory by the Commission and will be enacted with one motion. There will be no separate discussion of these item/s unless a Commission Member or citizen so requests.

- a. Approval of the February 16, 2021 Regular Meeting Minutes.

Commissioner Bartoletti moves to approve the minutes. Commissioner Vaughan seconds. Unanimous (4-0) approval.

3. Land Use: 300 Westlake Drive: Discuss/decision on an application for a variance to remove one tree with a trunk diameter of fourteen inches or greater (West Lake Hills Code Section 22.03.304). Applicant Nicolas Bustamonte.

Staff Briefing

Director Grundman: Staff Briefing is given. Staff Recommendation: Approved with appropriate mitigation.

Presentation by Applicant

Kyle McCollum is with Sitespecifics and will be speaking for the applicant. The tree requested to be removed is a 17.5" Live Oak (multi-trunk) that has a common root ball. Redesigning the house would require more trees to be removed.

Public Hearing

All Persons Wishing to Speak for or Against Shall be Heard. Being none, the Public Hearing is closed.

Deliberation and Action

Commissioner Maccini: The problem I have with this application is it's a big lot with a large home. It doesn't fit the hardship. This is design driven. The design is not a hardship.

Commissioner Vaughan: Is this a single story home? I'm having a hard time disagreeing with Commissioner Maccini. It is design driven.

COMMISSIONER MACCINI MOVES TO RECOMMEND DENIAL DUE TO LACK OF HARDSHIP. COMMISSIONER VAUGHAN SECONDS. (3-1) DENIAL. COMMISSIONER BARTOLETTI ABSTAINS.

4. Land Use: **200 Redbud Trail**: Discuss and consider action on an application to allow cut and fill for a driveway slope. (West Lake Hills Code 22.03.170(f)). Applicant Mezz Management Company, LLC.

Staff Briefing

Director Grundman gives the Staff Briefing. Staff Recommendation: Approval due to the topography and needing a safe access to the site.

Commissioner Maccini: There are no other variances being asked for?

Director Grundman: No, just the driveway.

Presentation by Applicant

Jonathan Kaplan is with Urban Building and is representing the application. The current drive is beyond the slope allowed. We want to match the length without cutting too far down the lot. We are doing the same design as the adjoining property. The current driveway is hazardous. No trees will be affected. We have no issue with doing engineered drainage.

Public Hearing

All Persons Wishing to Speak for or Against Shall be Heard. Being none, the Public Hearing is closed.

Deliberation and Action

Vice-Chairman Pledger: On Page 45, the house is at 39.2' from the property line?

Director Grundman: That is the existing house.

Chairman Meisel: That is a tire track driveway? My concern is for emergency access.

Jonathan: The width is 14'.

COMMISSIONER VAUGHAN MOVES TO RECOMMEND APPROVAL. COMMISSIONER BARTOLETTI SECONDS. UNANIMOUS (4-0) APPROVAL.

5. Land Use: **309 Laurel Valley Road**: Discussion/recommendation on an application for a variance request to exceed the maximum allowed cut and fill and retaining wall in the front setback, construct on slopes greater than the maximum allowed and a front driveway setback encroachment (West Lake Hills Code Section 22.03.175, 22.03.170 and Drainage Criteria Manual Section 7.4.1). Applicant Graham Schmergel.

Staff Briefing

Director Grundman gives the Staff Briefing. The lot slope is 739' to 706' at the house. Staff Recommendation: Approval based on topography.

Vice-Chairman Pledger: Is there an option for the drive be on Yaupon Valley? It looks less steep.

Commissioner Bartoletti: There is retention and septic down there on the Laurel Valley side.

Presentation by Applicant

Graham Schmergel is the property owner. We've been at this for a very long time. We looked at Laurel Valley but it would affect septic and the setbacks. Running the driveway from the top was better. This lot is a steep slope and we hope for your support.

Public Hearing

All Persons Wishing to Speak for or Against Shall be Heard. Being none, the Public Hearing is closed.

Deliberation and Action

Vice-Chairman Pledger: There are many steep driveways on Laurel Valley.

Commissioner Maccini: I appreciate the work done on this application.

VICE-CHAIRMAN PLEDGER MOVES TO RECOMMEND APPROVAL. COMMISSIONER BARTOLETTI SECONDS. UNANIMOUS (4-0) APPROVAL.

6. Adjournment

Chairman Meisel adjourns the meeting at 6:54 p.m.



**BUILDING & DEVELOPMENT SERVICES DEPARTMENT
BOARD OF ADJUSTMENT AND CITY COUNCIL
ACTION REPORT**

APRIL 20, 2022

Agenda Item: Consent Agenda: Board of Adjustment and City Council Results

Requested Action: No action required.

Background & Purpose:

At the September 15, 2021, Zoning and Planning Commission a request was made for staff to provide the results of items from the Board of Adjustment and City Council on items that were discussed and reviewed by the Zoning and Planning Commission.

Items on February ZAPCO Agendas	ZAPCO Recommendation	City Council/BOA Action
107 Reveille Road	Approval	Approved
112 Bluff Park Circle	Denial	Denied
499 Rocky River Road	Denial	Approved

Items on March ZAPCO Agendas	ZAPCO Recommendation	City Council/BOA Action
200 Redbud Trail	Approval	Approved
309 Laurel Valley Road	Approval	Approved
300 Westlake Drive	Denial	Approved

Should any ZAPCO Commissioner have any questions or feedback on the report, please contact the Interim City Administrator.



**FENCE VARIANCE
STAFF REPORT**

APRIL 20, 2022

Project Address: 3312 Bee Cave Road

Project Number: 2022-1033

Agenda Item: Land Use: **3312 Bee Cave Road**: Discussion/recommendation on an application for a variance request to exceed the maximum allowed fence height for a new fence (West Lake Hills Code Section 22.03.173). Applicant Martin and Missy Taylor.

Applicant Information: Martin and Missy Taylor

Hearing Dates:

April 20, 2022,	ZAPCO
April 27, 2022,	City Council

Location: The subject property is located along the north side of Bee Cave Road, just west of the Westbank Market Shopping Center.

Property Information, Zoning & Site Characteristics:

Owner: Bulian Search Trust
Legal Description: Abstract 14 Survey 21
Lot Size: 5.95 acres (259,182 square feet)
Zoning: R1 – One Family Residential

The site is surrounded by residential properties. To the west is West Lake Hills' ETJ, to the east is the Las Lomas Subdivision.

Background & Analysis:

The lot currently has a single-family residence along with a couple of accessory structures (guest house, pool house, art studio).

The applicant is requesting a variance for an 8-foot-tall privacy fence along the sides of the driveway. The applicant is proposing a vegetation plan as well.

Variance Criteria Review:

When applying for a variance, the applicant has established by competent evidence that:

1. The strict or literal enforcement of the terms of this chapter, because of special conditions, will result in unnecessary hardship to the applicant.
The application states – *“Privacy is necessary. The drive is approximately 1.600 linear feet long and requires the appropriate privacy from both sides of the property. The resident is concerned about security as the driveway does not have ample illumination because of code restrictions.”*
2. There will not be unreasonable disruption of the natural terrain or unreasonable destruction of existing flora.
The application states – *“It will not be disturbed as we have a tree survey. We are taking ample precautions as to not damage the landscape.”*
3. There is no reasonable alternative to the requisite variance that will alleviate the difficulty or hardship complained of.
The application states – *“We have looked at a 6' fence but it does not provide the privacy. On the residential side, the bamboo will be removed as it is invasive but the driveway is at a lower level and the 6' fence does not provide for privacy. On the commercial side, the fence is screening a maintenance driveway where trash trucks and maintenance vehicles access every day. The current 6' fence does not provide for good privacy or screening.”*
4. The variance will not be greater than the minimum required to alleviate the difficulty or hardship complained of.
The application states – *“This permit will allow for the resident to feel safe when accessing his driveway. The neighbors are also in favor of a taller fence to replace the invasive bamboo currently sharing the property line. The residence shares a commercial development and it is necessary to give the resident ample privacy and screening from everyday working schedules from the tenants at Westbank Market.”*
5. The variance does not violate the intent of the Zoning Ordinance or goals of the Comprehensive Plan.
The application states – *“It is a residential fence to be located within the property. it is not going to be located at any location where it would create a nuisance to the City. It will increase the value of all mentioned properties.”*
6. The variance will not adversely affect neighboring properties or interfere with the enjoyment of these properties by their owners.
The application states – *“The neighbors are in favor of the 8' fence requested as they are also in agreement that by removing the invasive bamboo, their privacy will also be compromised.”*

Outdoor Lighting

Outdoor lighting is not proposed with this variance request. 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

This request will not change the subdivision.

Comprehensive Planning Analysis

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

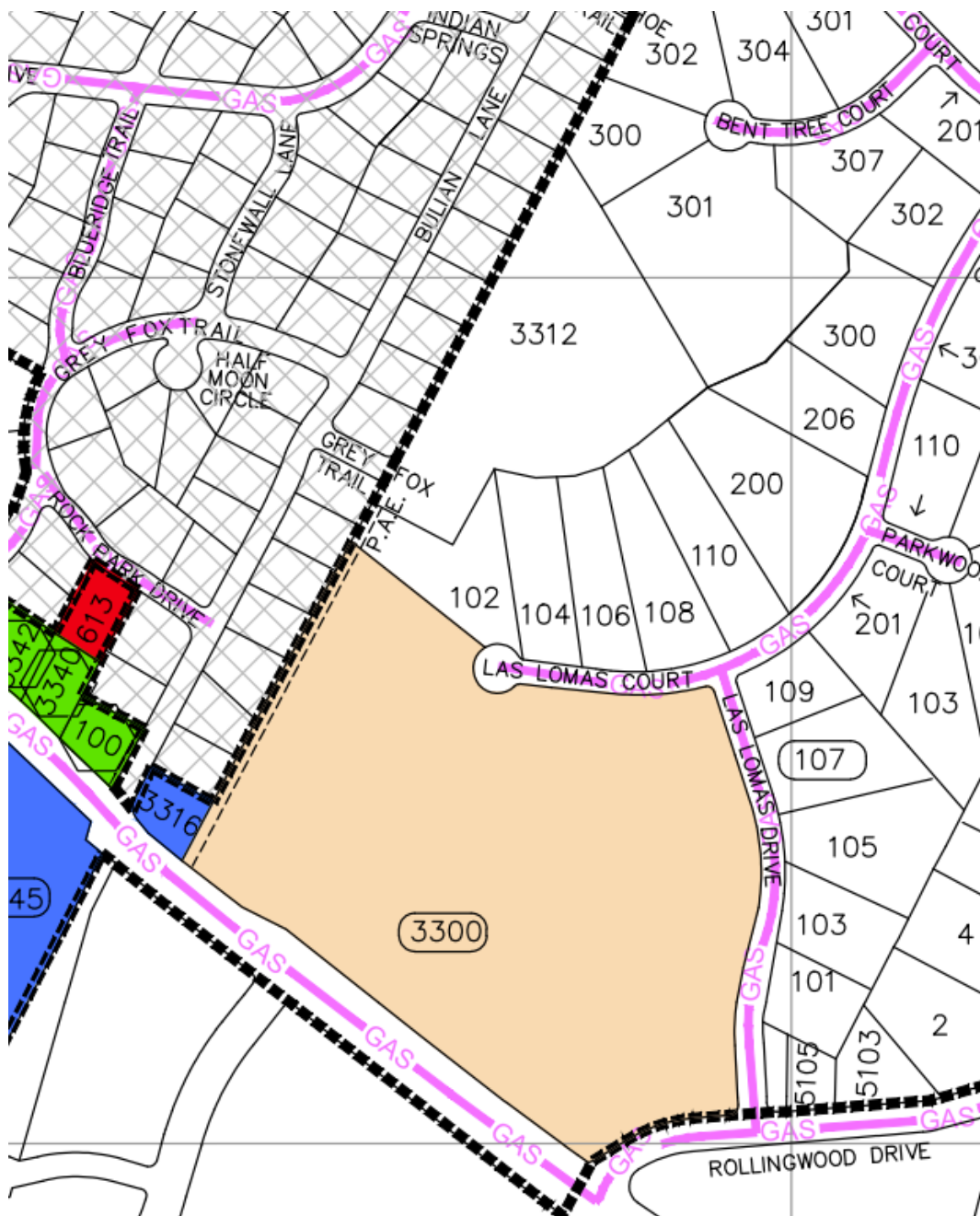
Staff Recommendation

Staff recommends: APPROVAL of the variance request as the proposed fence will provide privacy from the commercial shopping center as well as safety. In addition there are letters of support from the several of the neighbors along Bulian Lane.

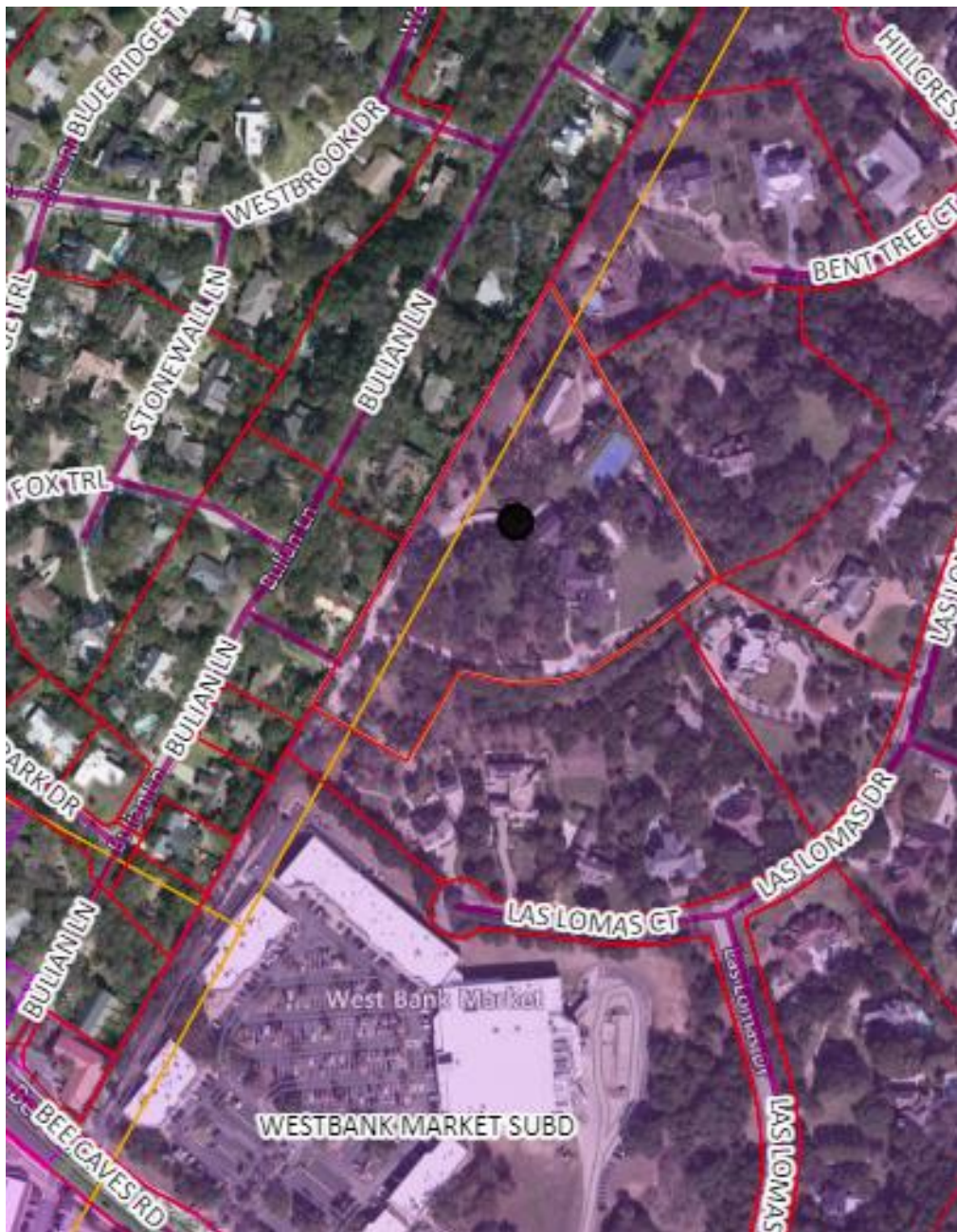
Links to Relevant Code:

- [Sec. 22.03.281](#) [Schedule of Regulations](#)
- [Sec. 22.03.173](#) [Fences](#)

ZONING MAP



AERIAL PHOTO



NOTICE TO NEIGHBORS OF VARIANCE REQUEST

DATE OF NOTICE: March 21, 2022

Greetings. You are hereby notified that Bulian Search Trust, the recorded owner of a property located at 3312 Bee Cave Road 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 22.03.173 - Fencing.

The request is so that the property owners may: Allow 8' privacy cedar fencing.

This application is scheduled to be considered at public hearings held by the Zoning and Planning Commission on April 20, 2022 at 6:30 p.m. and City Council/BOA on April 27, 2022 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 agrundman@westlakehills.gov if you have any questions. Thank you!



Mark Littrell, Zoning & Planning Secretary

TREE LIST								
TREE#	CALIPER/CANOPY SIZE	TREE TYPE						
1504	12"	HACKBERRY	2666	MULTI-STEM 7" 6" 6" 5" 4" 3" 3"	CREPE MYRTLE	3502	4"	PARASOL TREE
1505	13"	ELM	2667	MULTI-STEM 6" 4" 3" 3"	CREPE MYRTLE	3503	6"	HACKBERRY
1506	MULTI-STEM 8" 6" 6" 5" 5"	ELM	2668	MULTI-STEM 6" 5" 5" 4" 4" 3" 3"	CREPE MYRTLE	3504	10.5"	HACKBERRY
1507	MULTI-STEM 8" 6"	ELM	2669	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3505	5"	HACKBERRY
1508	8"	ELM	2670	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3506	3"	ELM
1509	MULTI-STEM 9" 8"	ELM	2671	MULTI-STEM 10" DIA. CANOPY	CREPE MYRTLE	3507	4.5"	LIGUSTRUM
1510	9"	ELM	2672	MULTI-STEM 10" DIA. CANOPY	CREPE MYRTLE	3508	5"	PARASOL TREE
1511	11"	ELM	2675	16"	PINE	3509	MULTI-STEM 6" 5" 5" 4.5" 2" 2"	LIGUSTRUM
1513	9"	ELM	2676	15"	PINE	3510	5"	HACKBERRY
1514	9"	ELM	2678	2"	ASH	3511	MULTI-TRUNK 6" 6"	HACKBERRY
1515	9"	ELM	2679	MULTI-STEM 3" 2"	ASH	3512	8"	HACKBERRY
1516	19"	LIVE OAK	2680	MULTI-STEM 3" 2"	ASH	3513	5"	HACKBERRY
1517	MULTI-STEM 9" 4"	ELM	2681	MULTI-STEM 2" 1"	ASH	3514	5"	HACKBERRY
1519	8"	ELM	2682	MULTI-STEM 2" 1"	ASH	3515	4"	HACKBERRY
1520	10"	HACKBERRY	2683	MULTI-STEM 1" 1"	ASH	3516	5"	HACKBERRY
1521	11"	ELM	2684	3"	CREPE MYRTLE	3517	MULTI-STEM 4" 3"	CREPE MYRTLE
1522	MULTI-STEM 14" 14"	ELM	2685	3"	CREPE MYRTLE	3518	MULTI-STEM 6" 6" 5" 3.5" 3"	LIGUSTRUM
1523	MULTI-STEM	WASHINGTONIA	2686	3"	CREPE MYRTLE	3519	MULTI-TRUNK 5.5" 4.5"	LIGUSTRUM
1524	6"	SAGO PALM	2687	4"	CREPE MYRTLE	3520	5.5"	HACKBERRY
1525	MULTI-STEM 6" DIA. CANOPY	WASHINGTONIA	2688	2"	CREPE MYRTLE	3521	5"	HACKBERRY
1526	MULTI-STEM 10" DIA. CANOPY	WASHINGTONIA	2689	3"	CREPE MYRTLE	3522	6.5"	HACKBERRY
1527	6"	SAGO PALM	2690	3"	CREPE MYRTLE	3523	6"	HACKBERRY
1528	MULTI-STEM 5" 4"	CREPE MYRTLE	2691	3"	CREPE MYRTLE	3524	MULTI-STEM 4" 3.5" 2" 2"	LIGUSTRUM
1530	MULTI-STEM 8" DIA. CANOPY	WASHINGTONIA	2692	4"	CREPE MYRTLE	3525	8.5"	CHINABERRY
1531	MULTI-STEM 6" DIA. CANOPY	WASHINGTONIA	2693	4"	CREPE MYRTLE	3526	6.5"	CHINABERRY
1532	6"	SAGO PALM	2694	4"	CREPE MYRTLE	3527	10"	SOAP BEERY
1533	6"	SAGO PALM	2695	3"	CREPE MYRTLE	3528	9.5"	CHINABERRY
1534	6"	SAGO PALM	2696	3"	CREPE MYRTLE	3529	3"	MULBERRY
1535	2"	SAGO PALM	2697	3"	CREPE MYRTLE	3530	5.5"	LIGUSTRUM
1537	4"	SAGO PALM	2698	3"	CREPE MYRTLE	3531	5"	HACKBERRY
1538	4"	SAGO PALM	2699	2"	CREPE MYRTLE	3532	6.5"	HACKBERRY
1539	8"	SAGO PALM	*2701*	22"	GINKO	3533	4"	SOAP BEERY
1540	MULTI-STEM 12" DIA. CANOPY	PYRACANTHA	*2703*	27"	LIVE OAK	3534	MULTI-STEM 6.5" 2.5"	UNKNOWN
1541	10"	ELM	2708	8"	GINKO	3535		UNKNOWN
1542	8"	SAGO PALM	2710	38"	LIVE OAK	3536	MULTI-STEM 3.5" 2.5"	ZADALEA
1545	MULTI-STEM 6" DIA. CANOPY	WASHINGTONIA	*2712*	32.5"	LIVE OAK	3537	4.5"	PARASOL TREE
1548	11"	HACKBERRY	2719	7"	PARASOL TREE	3539	MULTI-STEM 8" 6"	MULBERRY
1557	MULTI-STEM 10" DIA. CANOPY	WASHINGTONIA	*2721*	24"	ELM	3540	9.5"	HACKBERRY
1563	2"	SAGO PALM	*2722*	32"	LIVE OAK	3541	MULTI-STEM 3.5" 3"	LIGUSTRUM
1564	9"	ELM	*2723*	17"	ELM	3542	4.5"	MONTERREY OAK
1565	4"	SAGO PALM	*2724*	25"	LIVE OAK	3543	6.5"	LIVE OAK
1566	MULTI-STEM 8" 7" 6"	LIGUSTRUM	*2729*	22"	ELM	3544	6"	LIVE OAK
1567	2"	PARASOL TREE	*2731*	MULTI-STEM 16.5" 7"	TEXAS PERSIMMON	3545	4.5"	OAK
1568	11"	ELM	*2732*	6.5"	TEXAS PERSIMMON	3547	5"	BURR OAK
1571	MULTI-STEM 10" DIA. CANOPY	WASHINGTONIA	*2734*	MULTI-TRUNK 9' RADIUS	CHASTE TREE	3548	8"	CHINABERRY
1572	4"	SAGO PALM	*2741*	MULTI-TRUNK 6" 4" 4"	PERSIMMON	3549	4"	MULBERRY
1573	11"	ELM	*2750*	MULTI-STEM 15' RADIUS	TEXAS PERSIMMON	3550	MULTI-STEM 4" 4" 4"	CHINABERRY
1575	4"	SAGO PALM	*2751*	30"	ELM	3551	MULTI-STEM 8" 6.5" 2"	CHINABERRY
1576	8"	SAGO PALM	2753	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3552	3.5"	HACKBERRY
1577	9"	ELM	2755	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3553	3.5"	PARASOL TREE
1578	13"	ELM	2756	MULTI-STEM 8" DIA. CANOPY	CREPE MYRTLE	3554	7"	UNKNOWN
1579	12"	ELM	2758	MULTI-STEM 7" 6"	CREPE MYRTLE	3555	12"	CEDAR
1580	4"	SAGO PALM	2762	3"	CREPE MYRTLE	3556	3.5"	BRADFORD PEAR
1581	6"	SAGO PALM	2766	MULTI-STEM 20" DIA. CANOPY	CREPE MYRTLE	3557	MULTI-TRUNK 3" 2.5"	MOUNTAIN LAUREL
1582	6"	SAGO PALM	2767	3"	TEXAS PERSIMMON	3558	MULTI-TRUNK 5.5" 3"	MOUNTAIN LAUREL
1583	4"	SAGO PALM	2768	MULTI-STEM 22" DIA. CANOPY	TEXAS PERSIMMON	*3560*	MULTI-TRUNK 9' RADIUS	CHASTE TREE
1585	MULTI-STEM 10" DIA. CANOPY	WASHINGTONIA	2769	17"	ELM	*3561*	MULTI-TRUNK 9' RADIUS	CHASTE TREE
1586	12"	ELM	2770	MULTI-STEM 7" 6"	TEXAS PERSIMMON	3562	5"	MONTERREY OAK
1587	9"	HACKBERRY	2771	MULTI-STEM 34" DIA. CANOPY	TEXAS PERSIMMON	3563	4"	CYPRESS
1588	3"	PARASOL TREE	2773	MULTI-STEM 6" 4" 3"	TEXAS PERSIMMON	3564	3.5"	CYPRESS
1589	MULTI-STEM 6" DIA. CANOPY	PYRACANTHA	2774	15"	LIVE OAK	3565	6"	MONTERREY OAK
1715	8"	MESQUITE	2776	MULTI-STEM 5" 3"	CREPE MYRTLE	3566	3"	CYPRESS
1716	2"	TEXAS PERSIMMON	2777	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3567	3.5"	CYPRESS
1717	MULTI-STEM 6" 5" 5" 4" 4"	ELM	2778	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3568	5.5"	MONTERREY OAK
1718	MULTI-STEM 6" 5" 5"	MESQUITE	2779	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3569	3"	CYPRESS
1719	MULTI-STEM 6" 6" 5" 4"	CEDAR	2780	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3570	MULTI-STEM 4" 4"	CYPRESS
1721	MULTI-STEM 7" 4"	MESQUITE	2781	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3571	3.5"	CYPRESS
1722	9"	ELM	2782	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3572	5"	CYPRESS
1902	MULTI-STEM 6" 4"	LIGUSTRUM	*2784*	MULTI-STEM 12' RADIUS	CREPE MYRTLE	3573	MULTI-TRUNK 5" 5" 5" 4" 3.5" 2" 2"	CHINABERRY
1904	7"	GRAPE FRUIT	*2785*	MULTI-STEM 10' RADIUS	CREPE MYRTLE	3574	4"	CEDAR
1906	10"	HACKBERRY	*2786*	MULTI-STEM 12' RADIUS	CREPE MYRTLE	3575	6"	MONTERREY OAK
1907	14"	ELM	*2789*	MULTI-STEM 13' RADIUS	CREPE MYRTLE	3576	MULTI-TRUNK 5" 4" 4" 4"	CHINABERRY
1908	10"	HACKBERRY	*2790*	MULTI-STEM 14' RADIUS	CREPE MYRTLE	3577	6"	MONTERREY OAK
1909	16"	HACKBERRY	*2791*	MULTI-STEM 10' RADIUS	CREPE MYRTLE	3578	LIVE OAK	LIVE OAK
1910	9"	HACKBERRY	*2792*	MULTI-STEM 12' RADIUS	CREPE MYRTLE	3579	7.5"	LIVE OAK
1911	8"	HACKBERRY	*2793*	MULTI-STEM 15' RADIUS	CREPE MYRTLE	3580	6.5"	LIVE OAK
1913	MULTI-STEM 11" 4.5" 3"	LIGUSTRUM	*2794*	MULTI-STEM 12' RADIUS	CREPE MYRTLE	3581	7.5"	LIVE OAK
1914	18"	SOAP BEERY	*2795*	MULTI-STEM 14' RADIUS	CREPE MYRTLE	3582	5.5"	HACKBERRY
1915	10"	LIVE OAK	*2796*	MULTI-STEM 16' RADIUS	CREPE MYRTLE	3583	9.5"	HACKBERRY
1916	MULTI-STEM 9" 4"	LIVE OAK	*2812*	25"	LIVE OAK	3584	24"	LIVE OAK
1920	MULTI-STEM 9" 8"	HACKBERRY	*2813*	25"	LIVE OAK	3585	8.5"	HUISACHE
1921	MULTI-STEM 11" 9"	HACKBERRY	*2814*	14"	LIVE OAK	3586	3 MESQUITE	MESQUITE
1922	12"	BOX ELDER	*2815*	22.5"	LIVE OAK	3587	MULTI-TRUNK 9.5" 3"	ELM
1924	7"	PARASOL TREE	*2816*	17"	LIVE OAK	3588	7.5"	HACKBERRY
1925	8"	PARASOL TREE	*2817*	35"	LIVE OAK	3589	9"	PECAN
1926	MULTI-STEM 8" DIA. CANOPY	YAUPOJN	*2818*	24"	LIVE OAK	3590	10.5"	LIGUSTRUM
1927	MULTI-STEM 12" DIA. CANOPY	YAUPOJN	2819	19"	LIVE OAK	3591	3"	ELM
1928	13"	SOAP BEERY	2820	18"	LIVE OAK	3592	3.5"	ELM
1929	13"	WALNUT	*2821*	33"	LIVE OAK	3593	5.5"	HUISACHE
1930	12"	CHINABERRY	*2824*	16.5"	LIVE OAK	3594	MULTI-TRUNK 3" 2" 2" 2" 2"	HUISACHE
1931	13"	CHINABERRY	*2825*	13.5"	LIVE OAK	3595	4"	TEXAS PERSIMMON
1933	8"	ELM	*2826*	13"	LIVE OAK	3596	3"	ELM
1934	17"	HACKBERRY	2827	12"	LIVE OAK	3597	3"	MESQUITE
1935	14"	HACKBERRY	2831	14.5"	LIVE OAK	3598	3"	HACKBERRY
1936	11"	CHINABERRY	2832	16"	LIVE OAK	3599	MULTI-TRUNK 4" 2" 1.5" 1"	HUISACHE
1938	11"	ELM	2833	17"	LIVE OAK	3600	MULTI-TRUNK 4" 1"	HUISACHE
1939	10"	HACKBERRY	2834	9.5"	LIVE OAK	3601	3.5"	HUISACHE
1940	MULTI-STEM 12" DIA. CANOPY	YAUPOJN	2835	11"	LIVE OAK	3602	3"	HUISACHE
1941	MULTI-STEM 8" DIA. CANOPY	YAUPOJN	2837	10"	ELM	3603	MULTI-TRUNK 3" 2.5"	HUISACHE
1942	MULTI-STEM 6" DIA. CANOPY	NANDINA	2838	10"	ELM	3604	3"	HUISACHE
1946	30"	LIVE OAK	2840	16"	ELM	3605	MULTI-TRUNK 4" 1"	HUISACHE
1947	MULTI-STEM 22" 17"	LIVE OAK	*2847*	31"	LIVE OAK	3606	8"	PALM
1948	10"	SOAP BEERY	*2848*	13.5"	LIVE OAK	3607	MULTI-TRUNK 6" 5.5"	ELM
1949	11"	LIVE OAK	*2849*	25"	LIVE OAK	3608	8.5"	ELM
1951	18"	ELM	*2850*	21.5"	LIVE OAK	3609	MULTI-TRUNK 4" 2.5"	TEXAS PERSIMMON
1952	23"	RED OAK	*2851*	23.5"	LIVE OAK	3610	8.5"	ELM
1954	14"	ELM	*2852*	18"	LIVE OAK	3611	9.5"	HACKBERRY
1955	19"	RED OAK	*2853*	20' CANOPY RADIUS	CREPE MYRTLE	3612	7"	HACKBERRY
1956	14"	DEDODAR CEDAR	*2856*	21"	LIVE OAK	3613	3"	CYPRESS
1959	17"	LIVE OAK	2866	17.5"	LIVE OAK	3614	3.5"	HUISACHE
1961	MULTI-STEM 10" DIA. CANOPY	YAUPOJN	2868	21"	LIVE OAK	3615	7"	CEDAR
1962	15"	LIVE OAK	2869	MULTI-STEM 17" DIA. CANOPY	CREPE MYRTLE	3616	6"	CEDAR
1963	MULTI-STEM 12" DIA. CANOPY	YAUPOJN	*2871*	26.5"	LIVE OAK	3617	MULTI-TRUNK 5" 2.5"	CEDAR
1968	15"	HACKBERRY	*2872*	25"	LIVE OAK	3618	6.5"	CEDAR
1969	10"	SOAP BEERY	*2874*	31"	LIVE OAK	3619	6.5"	CEDAR
1970	11"	PARASOL TREE	2877	18"	CEDAR	3620	6.5"	CEDAR
1976	13"	DEDODAR CEDAR	*2878*	29"	LIVE OAK	3621	MULTI-TRUNK 4.5" 3.5"	HACKBERRY
1978	MULTI-STEM 20" DIA. CANOPY	DEDODAR CEDAR	2879	18.5"	ELM	3622	4"	HACKBERRY
1979	MULTI-STEM 16" DIA. CANOPY	CREPE MYRTLE	2880	19"	LIVE OAK	3623	MULTI-STEM 2.5" 2.5"	CREPE MYRTLE
1980	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2885	MULTI-STEM 4" 3" 2"	PARASOL TREE	3624	MULTI-STEM 7.5" 6.5"	LIVE OAK
1981	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2886	MULTI-STEM 11" 10" 10" 6" 5" 5" 4"	CHINABERRY	3625	MULTI-STEM 2.5" 2.5"	CREPE MYRTLE
1982	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2888	MULTI-STEM 12" DIA. CANOPY	FIG	3626	6.5"	CEDAR
1983	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2893	9"	HACKBERRY	3627	5"	CEDAR
1984	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2895	11"	LIGUSTRUM	3628	3.5"	ELM
1985	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2897	MULTI-STEM 8" 6" 4"	LIGUSTRUM	3629	MULTI-STEM 12 10" 8" 5" 5" 3.5"	CEDAR
1986	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2910	15"	HACKBERRY	3630	5.5"	LIVE OAK
1987	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2911	15"	DEDODAR CEDAR	3631	7"	LIVE OAK
1988	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2919	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	3632	6"	LIVE OAK
1989	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2922	8"	ELM	3633	7.5"	LIVE OAK
1990	MULTI-STEM 12" DIA. CANOPY	CREPE MYRTLE	2923	8"	ELM	3634	5.5"	LIVE OAK
1996	6"	CREPE MYRTLE	2925	MULTI-STEM 5"	PALM	3635	7.5"	LIVE OAK
1998	6"	CREPE MYRTLE	2926	9"	ELM	3636	7"	HUISACHE
2000	5"	CREPE MYRTLE	2927	9"	MESQUITE	3638	12"	CEDAR
2631	MULTI-STEM 5" 5" 4" 3"	CREPE MYRTLE	2929	11"	PINE	3639	5"	CEDAR
2635	13"	LIVE OAK	2932	8"	HACKBERRY	3640	7"	CEDAR
2636	MULTI-STEM 17" 12"	LIVE OAK	2933	10"	ELM	3641	10"	ELM
2646	13"	ELM	2934	9"	CHINABERRY	3642	6.5"	CEDAR
2647	13"	ELM	2935	6"	SAGO PALM	3643	4"	CEDAR
2648	MULTI-STEM 10" 9"	ELM	2936	6"	SAGO PALM	3644	5"	MESQUITE
2649	MULTI-STEM 19" 14"	LIVE OAK	2945	6"	SAGO PALM	3645	MULTI-TRUNK 3" 2.5" 2"	TEXAS PERSIMMON
2650	16"	ELM	2947	6"	SAGO PALM	3646	6"	CEDAR
2651	18"	LIVE OAK	2952					

1. Guy Architect prepared the survey for this project. It has been reformatted for use in and for preparation of these documents. Contractor shall obtain officially signed copy from Guy Architect (1919 1/2 19th Street, Santa Monica, CA 90404, 310-393-5148) and become familiar with it, the existing conditions and site context prior to construction. All discrepancies should be brought to the attention of the Landscape Architect for immediate resolution. Landscape Architect is not responsible for errors or omissions associated with preparation or documentation of survey.
2. Contractor is responsible for determining means and methods for construction. These drawings may indicate a limit of proposed improvements, limits of site demolition, etc. for delineation of expected extents of disturbance, however, final impact shall be determined in the field. Should limits of disturbance exceed boundaries defined in drawings, Contractor shall contact Landscape Architect for resolution.
3. Contractor is responsible for repairing all work disturbed by construction outside of limit lines defined on drawings or through his/her means and methods and General Conditions to a condition acceptable to the owner at no additional cost.
4. Contractor is responsible for protecting all existing conditions, improvements, utilities, etc. to remain. Any damages shall be repaired to a condition acceptable to the owner at no additional cost.
5. Contractor is responsible for maintaining a complete up-to-date set of Drawings and Specifications at the construction site and ensuring the documents are readily available for review by the Landscape Architect and governing agency.
6. The Drawings and Specifications are complementary to one another and implied to correspond without another. Any discrepancies should be brought to the attention of the Landscape Architect for immediate resolution.
7. Contact the local underground utility service location for utility locates and identification prior to commencing work and maintain in field throughout construction unless indicated or directed otherwise.
8. Verify plant protection, stormwater pollution protection plan (SWPPP), existing improvement to remain, and Contractor site control measures are in place prior to commencing with construction. Do not proceed with construction if not in compliance and maintained throughout. Coordinate with Owner's Representative and authorities having jurisdiction as required.

1. Contractor shall coordinate with Owner's Representative for location of stockpile areas for stripped topsoil and planting soil products. Contractor shall ensure area is protected and contamination or disturbance of stored products is not allowed.
2. Contractor shall ensure subgrade is scarified prior to installing planting soil and blend with initial lift or placement of proposed planting soil.
3. Coordinate placement of planting soil with other work, especially utilities. Placement should occur after installation of all hardscape improvements, irrigation system, utilities, etc. Before installation of plants.

1. Lighting symbols on plans are diagrammatic. Refer to details and specifications for actual dimensions and product information.
2. Lighting design is intended to produce an overall 0.5 footcandle illumination level on pedestrian surfaces with 1.0 footcandle illumination minimum at pedestrian and vehicular intersections. Final installation shall confirm these illumination standards.
3. Contractor shall ensure luminaires are installed in accordance with Manufacturer's specifications to ensure there is no light illumination greater than 0.10 footcandles at the property line upon installation. Contractor shall notify Landscape Architect if discrepancy.
4. Layout dimensions are for general reference only. Final location to be determined in the field by the Landscape Architect.
5. Lighting pull-boxes, vaults and other in-grade appearances shall be flush with adjacent finish grades or surfaces. Notify Landscape Architect if located on a slope greater than 5% for direction.
6. Coordinate with existing and proposed underground utilities. Notify Landscape Architect of any conflicts for direction on fixture placement.

1. Plants shall remain unless designated for removal and shall be protected as indicated. No disturbance is allowed within the drip-line of the plants unless indicated or approved otherwise. Protect plants within the plant protection zone as indicated.
2. Remove plants as indicated on the plans to their full depth, including stumps and roots, unless noted otherwise. Fill depressions to meet finish grade with suitable fill, compact and provide positive drainage unless indicated otherwise.
3. Plants encountered that are not shown on the drawings shall be brought to the attention of the Landscape Architect.
4. Remove demolished materials and legally dispose of offsite unless indicated otherwise. Disposal by burning and/or burying on-site is prohibited unless approved otherwise.
5. Prune roots and limbs/branches only as directed by Landscape Architect unless indicated otherwise.
6. The location of existing utilities as shown on the plans may vary in relation to actual existing conditions. Additional utilities not shown on the drawings may exist. Verify in the field the data shown and bring any discrepancies to the attention of the Landscape Architect before starting work.

1. Refer to Civil Engineer's utility and site grading and drainage plans as required. If actual site conditions vary from what is shown on the plans, contact the Landscape Architect for direction as to how to proceed.
2. Contractor to contact 811 for existing utility locations prior to begin mobilization, construction and installation.
3. Verify locations of pertinent site improvements installed under other sections. If any part of this plan cannot be followed due to site conditions, contact Landscape Architect for instructions prior to commencing work.
4. Exact locations of plant materials shall be approved by the Landscape Architect in the field prior to installation. Stake or otherwise layout all proposed planting for review. Landscape Architect reserves the right to adjust plants to plant location in field.
5. Verify plant counts and square footages. Quantities are provided as Owner information only. If quantities on plant list differ from graphic indications, then graphics shall prevail. If graphics are inconclusive contact Landscape Architect for clarification.
6. Perform excavation in vicinity of underground utilities and existing tree/plant drip/lines with care and if necessary, by hand. The Contractor bears full responsibility for this work and disruption or damage to utilities and existing trees/plants shall be repaired or replaced immediately at no expense to the Owner.
7. Trees/plants shall bear same relation to finished grade as it bore to existing in place of growth. However, at no point shall it be less than 1 inch above adjacent finish grade.
8. Trees shall be planted a minimum of 10 feet from face of building and a minimum of (4 feet) (Define other) from edge of pavement, except as approved by Landscape Architect.
9. Shrubs shall be planted a minimum of 3 feet from face of building and a minimum of 12 inches from edge of pavement, except as approved by Landscape Architect.
10. All other plants (perennials, grasses, groundcover, apanues) shall be planted a minimum of 12 inches from face of building and a minimum of 6 inches from edge of pavement, except as approved by Landscape Architect.
11. Provide matching forms and sizes for plant materials within each species and size designated on the drawings.
12. Prune newly planted trees only as directed by Landscape Architect.
13. Finish grades of planting areas and lawns shall be flush and meet smoothly and evenly with adjacent paving, providing positive drainage. Shoulder V-cut edges shall be provided at planting area transitions to adjacent pavement as indicated to allow for mulch installation.
14. Provide specified edging as divider between planting beds and lawn areas.
15. Provide 8" to 12" of amended planting soil mix "double thunder" from geogrower. Till in existing soils
16. Hand digging only under existing tree trunks and critical root zones
17. Provide drip irrigation lines at 18" O.C. for all planting
18. Wrap large shrubs with drip

ENTRY DRIVE						
SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	NOTES
LARGE SHRUBS						
CA-5	46	<i>Callicarpa americana</i> L.	American Beautyberry	See Plan	5 GAL.	Full plants
PM	38	<i>Podocarpus macrophyllus</i>	Japanese Yew	4' O.C.	6' HT.	Full specimens, Upright Leader
SHRUBS/PERENNIALS						
AP-1	54	<i>Agapanthus praecox</i>	Agapanthus	18" O.C.	1 GAL.	Full plants
CF-1	302	<i>Cyrtomium falcatum</i>	Holly Fern	18" O.C.	3 GAL.	Full plants
DB-1	38	<i>Dietsa bicolor</i>	Bicolor Iris	24" O.C.	1 GAL.	Full plants
LM-1	38	<i>Liriope muscarea</i> 'Variegata'	Liriope	18" O.C.	1 GAL.	Full plants
SO-1	65	<i>Scutellaria ovata</i> Hill	Heartleaf Skullcap	18" O.C.	1 GAL.	Full plants
TK-3	302	<i>Thelypteris kunthii</i>	Wood Fern	18" O.C.	1 GAL.	Full plants
GROUNDCOVERS						
AR-1	708	<i>Ajuga reptans</i>	Bugleweed	See Plan	1 GAL.	Full plants

1. Protect existing utilities to remain. Contractor is responsible for all damage to utilities encountered during construction and shall repair at no additional cost to owner.
2. Layout and field stake all proposed landscape grading and drainage improvements for review and approval by Landscape Architect prior to construction unless indicated or directed otherwise.
3. Request inspection of field staking by Landscape Architect a minimum of 24 hours in advance of performing any work unless indicated otherwise.
4. Landscape spot elevations shall be as indicated and defined per Abbreviations List. Bring any discrepancies to attention of Landscape Architect for clarification.
5. Provide a minimum of 1% (1:100) slope and a maximum of 5% (1:20) slope on all proposed hardscape and minimum of 2% (1:50) slope and maximum of 33% (1:3) slope on all proposed softscape unless indicated otherwise.
6. All surfaces shall be flush and meet smoothly and evenly unless indicated otherwise.
7. Provide positive drainage and pitch to drain.
8. Refer to Civil Engineer's drawings for all design calculations, details, subsurface piping, overflows/ outfalls, storage basins, erosion control, stormwater pollution protection plans (SWPPP) and connections to site landscape and hardscape drains indicated in drawings unless designated otherwise.
9. Provide erosion control measures for swales exceeding 5% (1:20) slope and grades/hillside exceeding 33% (1:3) slope as indicated. If not indicated refer to the attention of Landscape Architect immediately for direction.
10. Refer to Civil Engineer's drawings for all grading and drainage improvements.
11. Refer to MEP drawings for all design calculations, details, piping and connections to landscape and hardscape drains over structure.

The diagram illustrates the components of the code (3) CSI-5. A line from the code branches into three lines, each pointing to a label:

- (3) PLANT SIZE (i.e. CALIPER OR HEIGHT)
- CSI PLANT ABBREVIATION (2-3 LETTERS, TYPICALLY FIRST LETTER FROM PLANT'S BOTANICAL FIRST AND LAST NAME)
- 5 QUANTITY

NOTE: PLANT ABBREVIATION ON PLANT IDENTIFICATION KEY SHOULD CORRESPOND WITH ABBREVIATION ON PLANT LIST (i.e. CSI-5 SHOULD REFER TO A CORNUS SERICEA 'SANTI', 5 GALLON CONTAINER)

	Existing tree/ shrub
	Proposed tree/ shrub
	Existing tree to remove (under 6" caliper)

Landscape Architecture • Land Planning
Urban Design • Tourism Planning
Asheville • Aspen • Austin • Chicago • Denver • Dubai
Houston • Lake Tahoe • Los Angeles • Shanghai

812 San Antonio Street
Suite 401
Austin, Texas 78701
(512) 499-0222

WWW.DESIGNWORKSHOP.COM

BEE CAVES RESIDENCE
MARTIN AND MISSY TAYLOR
312 Bee Caves Rd. TX 78746

312 Bee Caves Rd. TX 78746

NOT FOR
CONSTRUCTION

ISSUE DATE: 11/05/2021

REVISIONS

[illegible]

DRAWN: _____ REVIEWED _____

Phase

City of Westlake
Permit Sheets

PROJECT NUMBER: 6724

Sheet

GENERAL INFORMATION

SHEET NUMBER

L0-01

© COPYRIGHT DESIGNWORKSHOP, INC.

BEE CAVES RESIDENCE
MARTIN AND MISSY TAYLOR
312 Bee Caves Rd. TX 78746

NOT FOR
CONSTRUCTION

ISSUE DATE: 11/05/2021

REVISIONS

DATE DESCRIPTION

Jan. 18-71 RE CH A 1245 75

CURVE DATA

1-E	1-W	2-E	2-W	3-E	3-W	4-N	4-S	5	6	7	8	9	10
I 5°36'	5°36'	3°14'	17°48'	11°44'	5°28'	6°12'	7°04'	32°22'	101°29'	99°01'	88°00'	89°48'	90°12'
T 52.83'	50.39'	8.96'	57.56'	53.11'	22.15'	44.13'	47.27'	13.64'	21.36'	18.74'	17.92'	25.00'	15.05'
R 1000.24'	1030.24'	317.60'	367.60'	516.86'	466.86'	815.62'	765.62'	15.00'	17.46'	16.00'	18.56'	25.09'	13.00'
L 105.54'	100.66'	17.92'	113.74'	105.66'	44.26'	88.14'	94.36'	21.64'	27.04'	24.34'	25.78'	35.42'	21.26'
A 105.58'	100.69'	17.92'	114.20'	105.85'	44.27'	88.18'	94.45'	24.18'	30.93'	27.65'	28.51'	39.32'	23.61'

BARTON SPRINGS ESTATES PLAT BK. 3-P. 192

STATE OF TEXAS

COUNTY OF TRAVIS: KNOW ALL MEN BY THESE PRESENTS:

That I, Fred W. Bulian, owner of that tract of land out of Lots 46 and 47 of Barton Springs Estates, containing 5.480 acres acquired by deeds recorded in Book 1820, Pages 269 thru 271 and Book 3360, Pages 9 thru 10 of the Deed Records of Travis County, Texas, do hereby adopt this map or plat of said 5.480 acres as my subdivision to be known as WESTWOOD SEC. 6, and I do hereby dedicate to the public all Streets and Easements shown hereon as far as my interest may appear.

In witness where of, I have hereunto set my hand the 18 day of January A.D. 1971.

Fred W. Bulian
Fred W. Bulian.

STATE OF TEXAS

COUNTY OF TRAVIS:

Before me the undersigned authority on this day personally appeared Fred W. Bulian known to me to be the person whose name is subscribed to the foregoing instrument and the said Fred W. Bulian acknowledged to me that he executed the same for the purposes and considerations therein expressed.

WITNESS MY HAND and Seal of Office, this the 18 day of January A.D. 1971.

Mary Gayle Rothmann
Notary Public in and for Travis Co., Texas.

In approving this Plat by the Commissioners' Court of Travis County, Texas, it is understood that the building of all streets, roads and other public thoroughfares, and any bridges or culverts necessary to be placed in such streets, roads or other public thoroughfares, or in connection therewith shall be the responsibility of the owners and/or developer of the tract of land covered by this plat in accordance with plans and specifications prescribed by the Commissioners' Court of Travis County, Texas, and the Commissioners' Court of Travis County, Texas assumes no obligation to build the streets, roads or other public thoroughfares shown on this plat or of constructing any bridges or culverts in connection therewith.

In addition to the easements shown hereon an easement of seven and one-half (7.50) feet along the rear of all lots and the interior side lines of all lots is hereby dedicated for public utilities and drainage.

LEGEND
■ Concrete Mon. Placed.
■ " " Found.
○ Iron Stake Placed.
○ " " Found.
--- Guy Wire Easement.
SCALE: 1"=100 FEET.

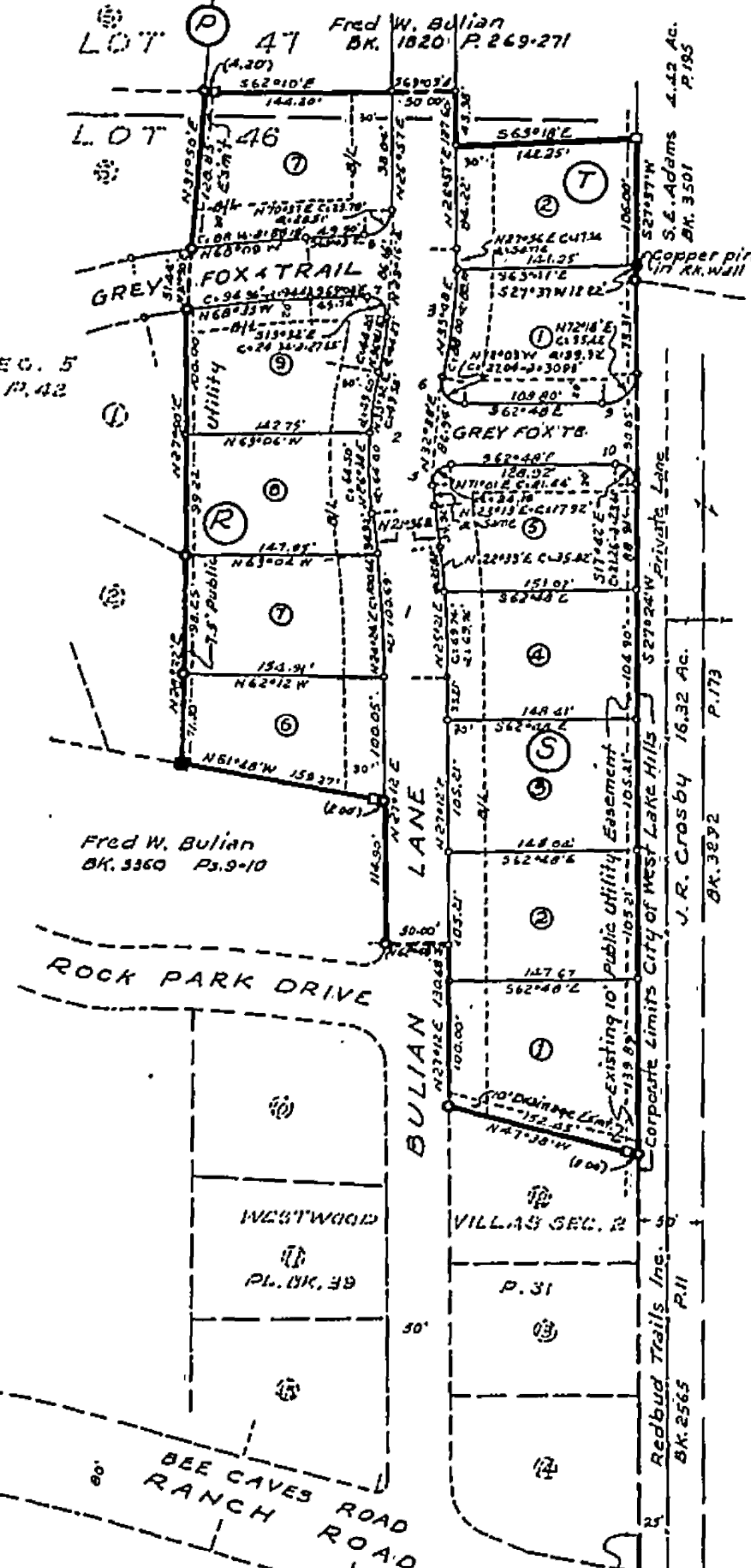
WESTWOOD SEC. 6

This is to certify that Austin City Code, Chapter 29.21 has been Complied with.

Surveyed by: T.A. Jackson dated June 17, 1970
T.A. Jackson - Reg. Public Surveyor # 189



C8-70-72



NOTE:

For Subdivision restrictions See Book 3983 Page 1988 Travis County Deed Records.

The Lots in this Subdivision are hereby restricted against occupancy until connected to a public Sewer System, a Community disposal System or a Septic tank and system of not less than a 750 gallon tank and a drain field of not less than 150 feet approved by the City-County Health Officer. This restriction is enforceable by the City of Austin-Travis County Health Unit.

BUILDING RESTRICTIONS:

No part of any structure erected in this Subdivision shall be less than shown from the Street line of any lot nor less than 10 feet from the interior side line of any lot.

APPROVED FOR ACCEPTANCE:

Date: Jan 15 1971.
Richard R. Lillie
Richard R. Lillie, Director of Planning.

ACCEPTED AND AUTHORIZED FOR RECORD By the Planning Commission of the City of Austin on the 15 day of Jan A.D. 1971.

Chairman Secretary

STATE OF TEXAS

COUNTY OF TRAVIS

I, Doris Shropshire, County Clerk of Travis County, Texas, do hereby certify that on the 18 day of Jan A.D. 1971, the Commissioners' Court of Travis County, Texas, passed an order authorizing the filing for record of this plat and that said order has been duly entered in the Minutes of said Court in Book 3 at Page 319.

WITNESS MY HAND AND SEAL OF THE COUNTY COURT of said County, the 18 day of Jan A.D. 1971.

Doris Shropshire
Doris Shropshire
Clerk of the County Court
Travis County, Texas
By: M. Graham Deputy

STATE OF TEXAS

COUNTY OF TRAVIS

I, Doris Shropshire, Clerk of the County Court within and for the County and State aforesaid, do hereby certify that the within and foregoing instrument of writing with its Certificates of authentication was filed for record in my office on the 18 day of Jan A.D. 1971 at 11 o'clock A.M. and duly recorded on the 18 day of Jan A.D. 1971 at 11 o'clock A.M. in the Plat Records of said County in Book 3 at Page 77.

WITNESS MY HAND AND SEAL of the Court of said County the date written above.

Doris Shropshire
By: Betha J. Jandt Deputy
Doris Shropshire
Clerk County Court, Travis Co., Texas.

Filed for record on the 18 day of Jan A.D. 1971 at 11 o'clock A.M.

Doris Shropshire
By: Betha J. Jandt Deputy

Doris Shropshire
Clerk County Court, Travis Co., Texas.



has amended R. 10-10-70 see Book 1144 Page 3-1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Phase

City of Westlake
Permit Sheets

PROJECT NUMBER: 6724

Sheet
PROPERTY
PLAT

SHEET NUMBER

L0-02

BEE CAVES RESIDENCE
MARTIN AND MISSY TAYLOR
312 Bee Caves Rd. TX 78746

NOT FOR
CONSTRUCTION

ISSUE DATE: 11/05/2021

REVISIONS		
#	DATE	DESCRIPTION
DRAWN: _____		REVIEWED: _____

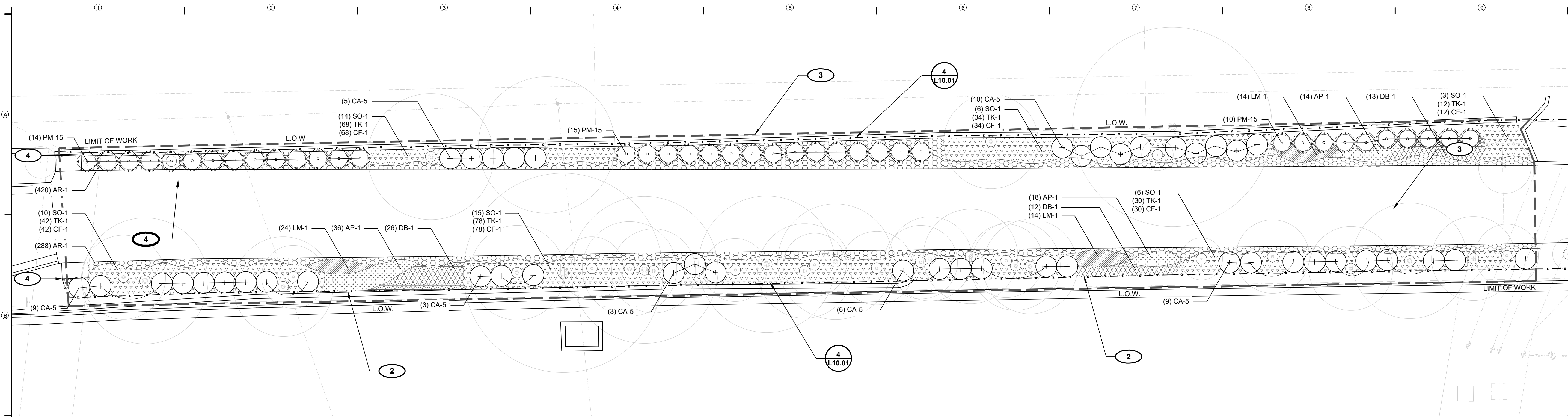
Phase
City of Westlake
Permit Sheets

PROJECT NUMBER: 6724

Sheet
LANDSCAPE
PLANS

SHEET NUMBER

L8-01



PLANT LIST

ENTRY DRIVE

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	NOTES
LARGE SHRUBS						
CA-5	46	<i>Callicarpa americana</i> L.	American Beautyberry	See Plan	5 GAL.	Full plants
PM	38	<i>Podocarpus macrophyllus</i>	Japanese Yew	4' O.C.	6' HT.	Full specimens, Upright Leader
SHRUBS/PERENNIALS						
AP-1	54	<i>Agapanthus praecox</i>	Agapanthus	18" O.C.	1 GAL.	Full plants
CF-1	302	<i>Cyrtomium falcatum</i>	Holly Fern	18" O.C.	3 GAL.	Full plants
DB-1	38	<i>Dietes bicolor</i>	Bicolor Iris	24" O.C.	1 GAL.	Full plants
LM-1	38	<i>Liriope muscare 'Variegata'</i>	Liriope	18" O.C.	1 GAL.	Full plants
SO-1	65	<i>Scutellaria ovata</i> Hill	Heartleaf Skullcap	18" O.C.	1 GAL.	Full plants
TK-3	302	<i>Thelypteris kunthii</i>	Wood Fern	18" O.C.	1 GAL.	Full plants
GROUNDCOVERS						
AR-1	708	<i>Ajuga reptans</i>	Bugleweed	See Plan	1 GAL.	Full plants

SITE MATERIALS REFERENCE NOTES

- PA Planting Area
L.O.W. Limit of work
- Contractor to walk site prior to fabrication and construction of fence.
 - Close coordination to take place when installing footings along the east side of the driveway and the existing retaining wall at the commercial development.
 - Remove existing chain link fence. Contractor to contact neighbors prior to construction.
 - Connect fence with existing column.
 - At areas where posts are in close proximity, contractor to hand dig post footings to avoid damage to existing trees.

WWW.DESIGNWORKSHOP.COM

BEE CAVES RESIDENCE

MARTIN AND MISSY TAYLOR

312 Bee Caves Rd. TX 78746

NOT FOR
CONSTRUCTION

ISSUE DATE: 11/05/2021

[illegible]

Phase

City of Westlake
Permit Sheets

PROJECT NUMBER: 6724

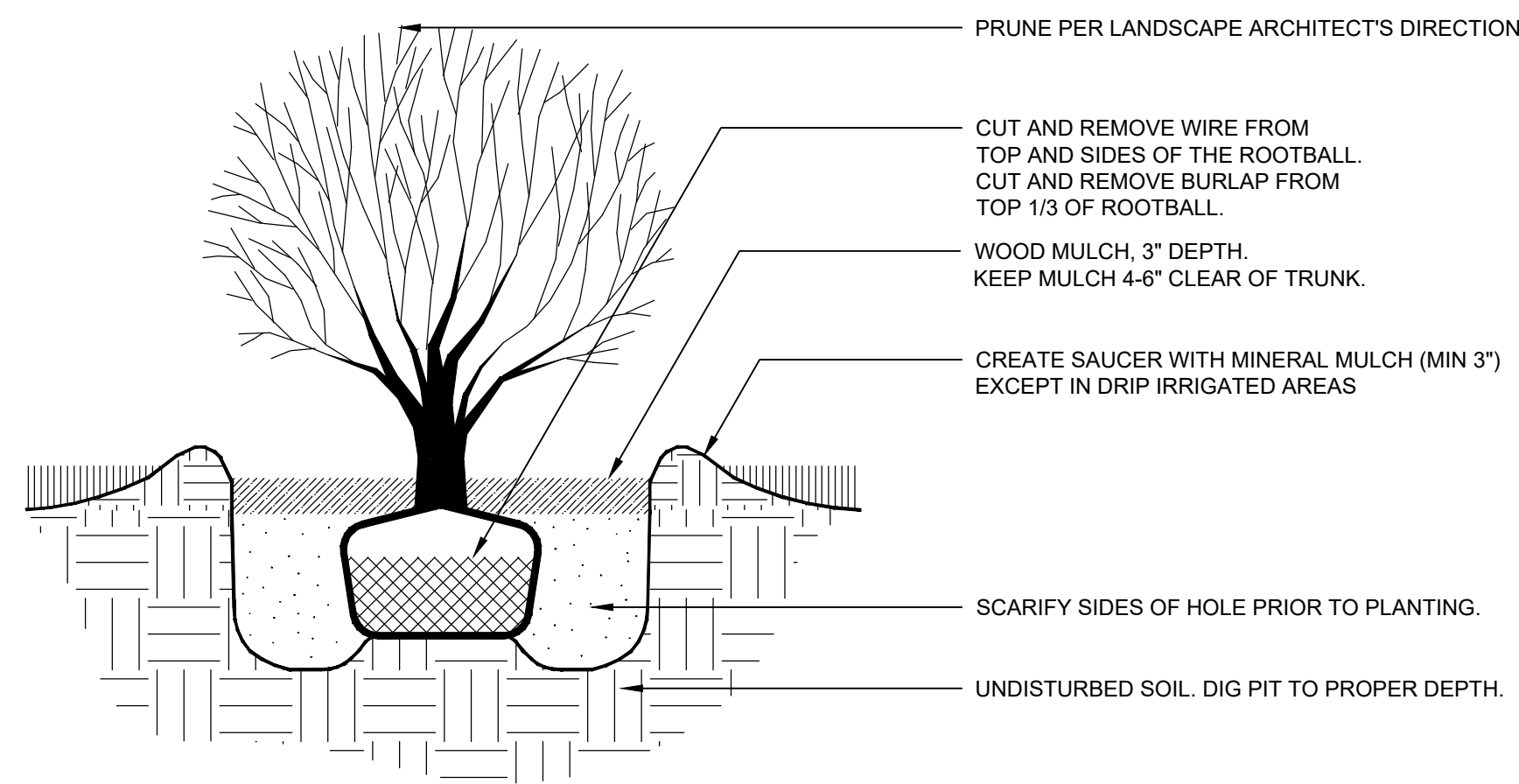
Sheet

PLANTING DETAILS

SHEET NUMBER

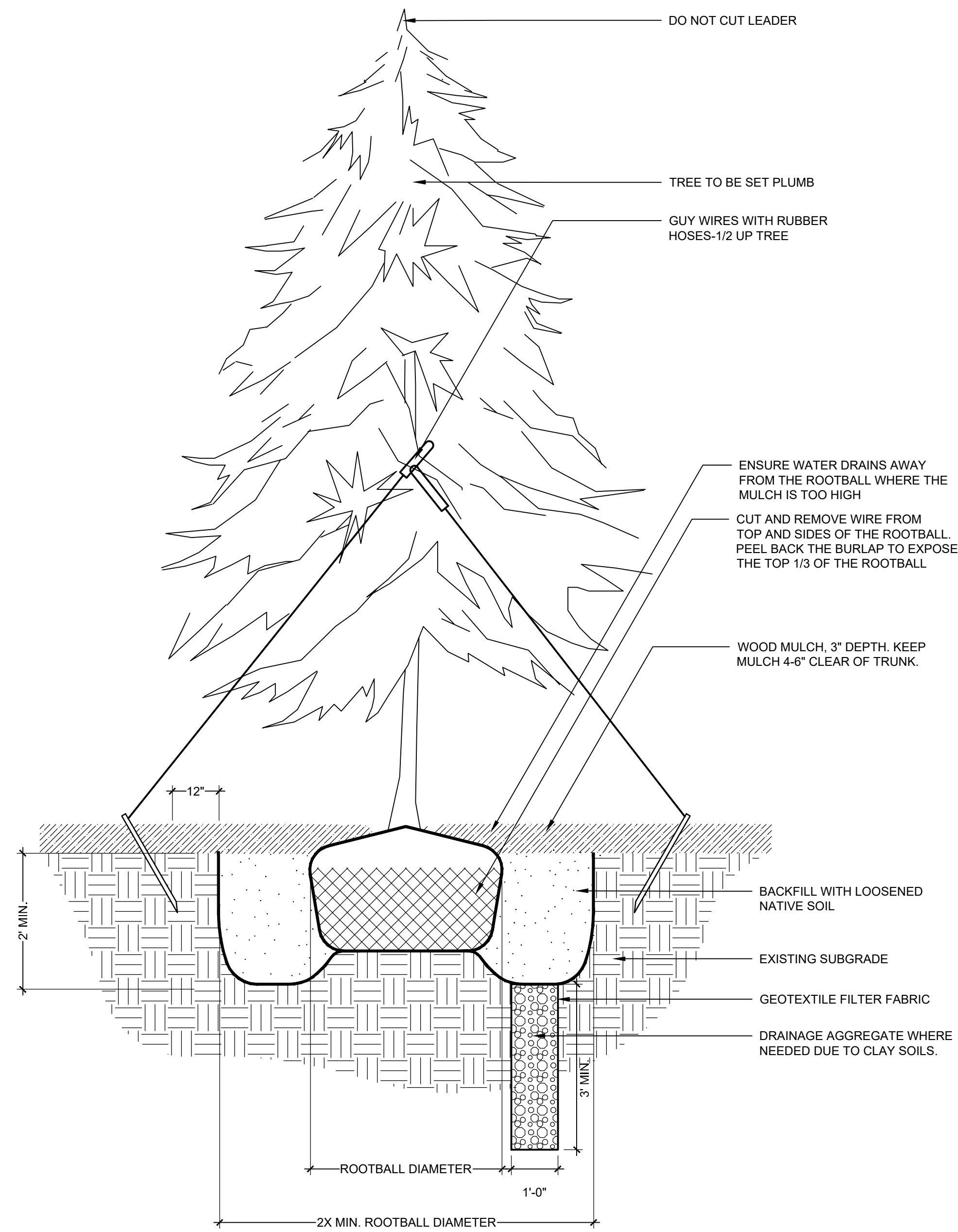
L10-01

© COPYRIGHT DESIGNWORKSHOP, INC.



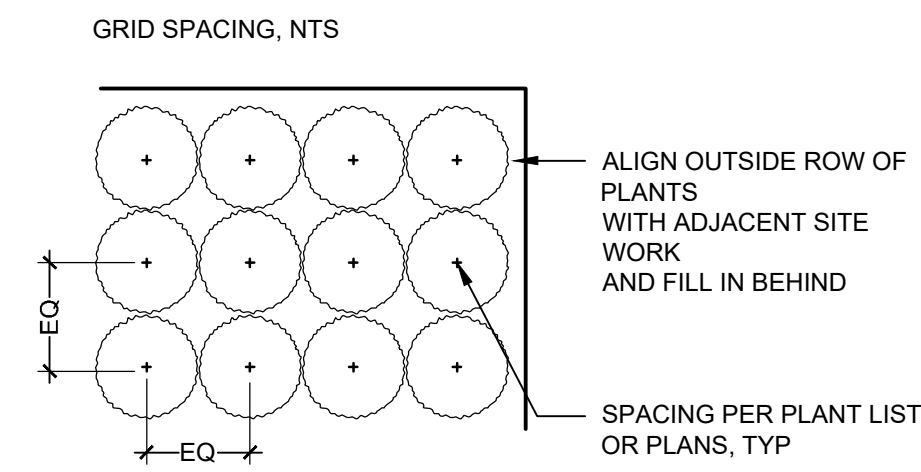
1 SHRUB PLANTING

$3/4" = 1'-00"$

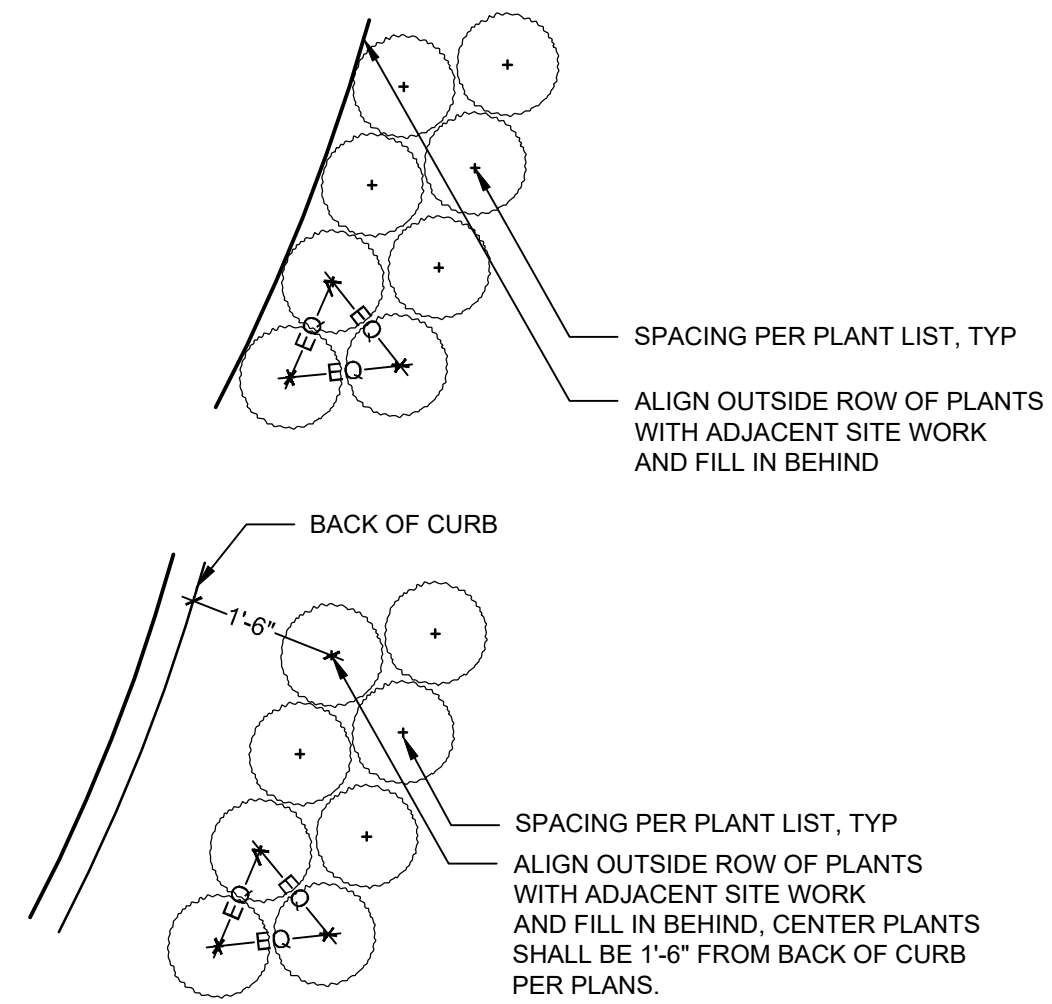


2 EVERGREEN PLANTING

1" = 1'-00"

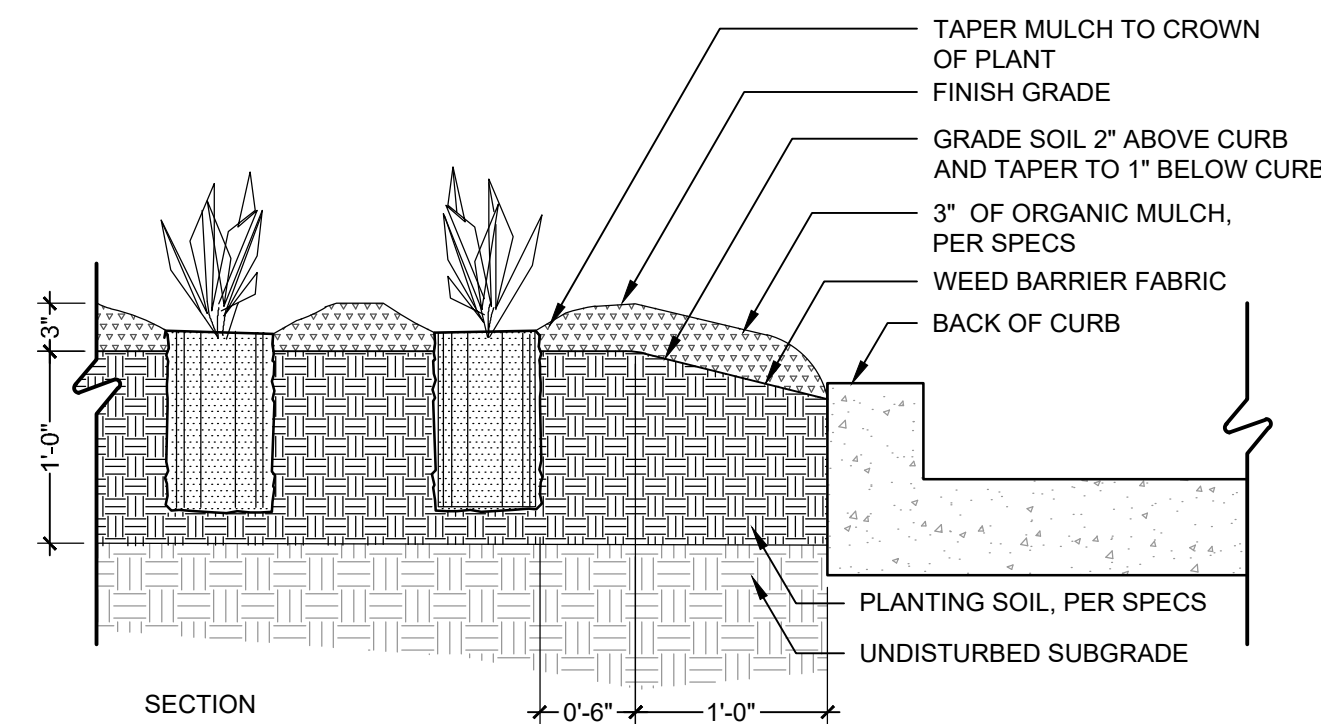


TRIANGULAR SPACING, NTS

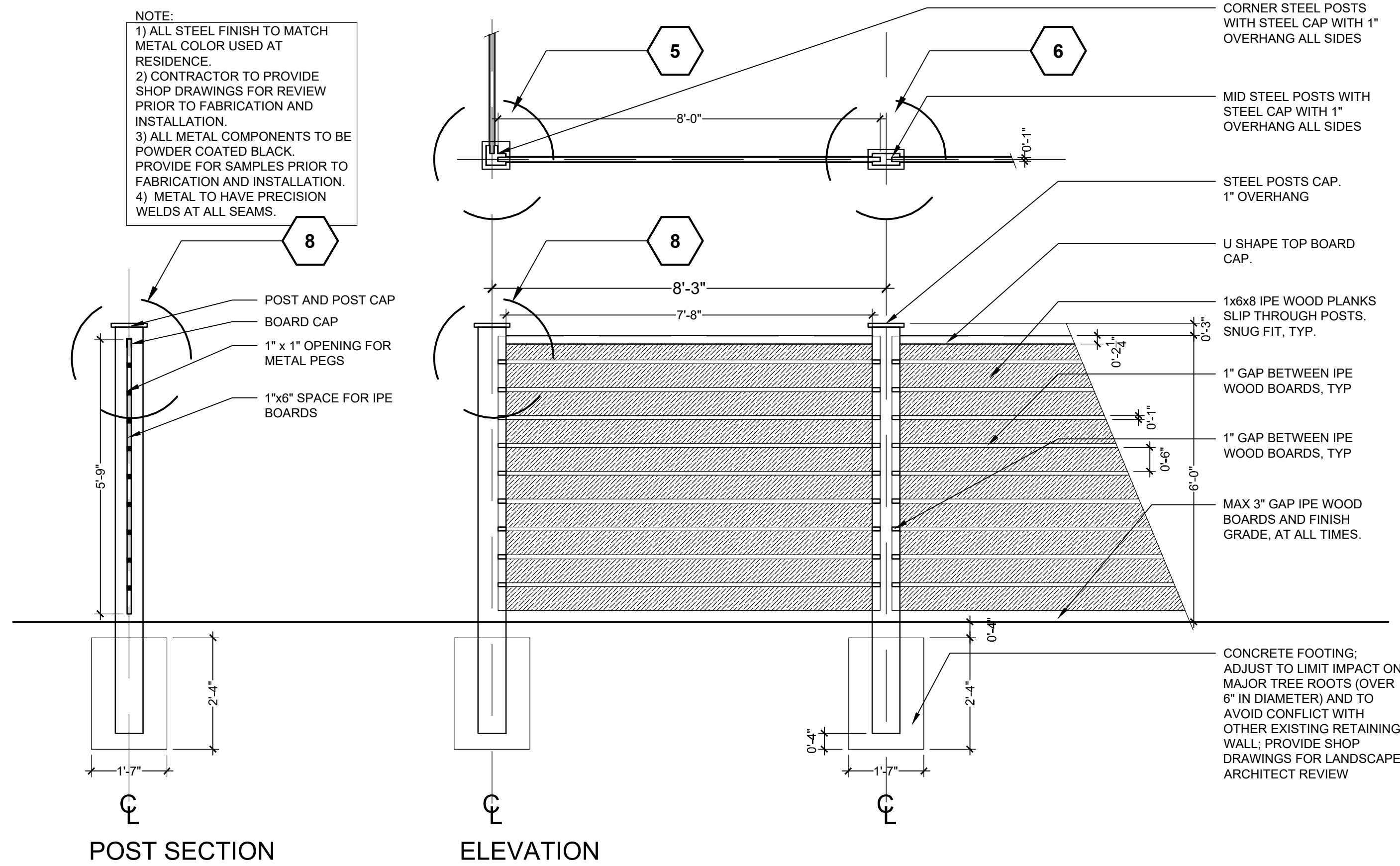


PLAN

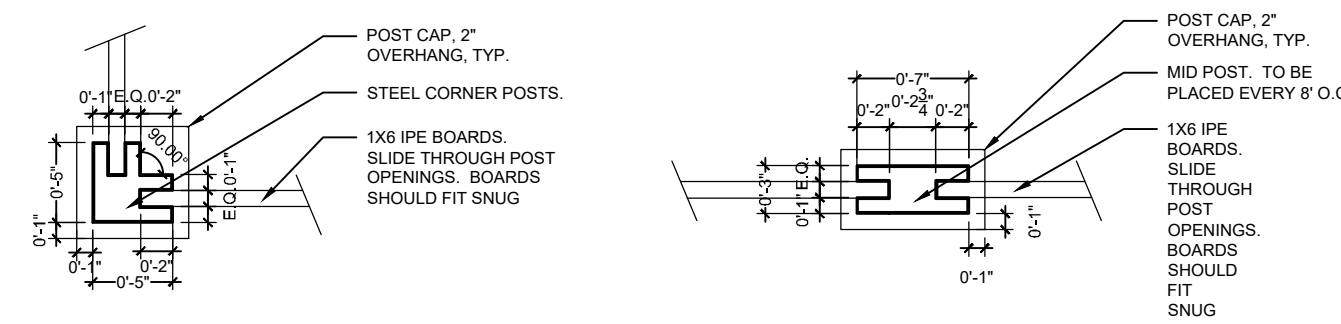
NOTE: ALL PLANT MATERIAL TO BE TRIANGULAR
SPACED UNLESS OTHERWISE SHOWN IN PLANS.



2 SHRUB PLANTING

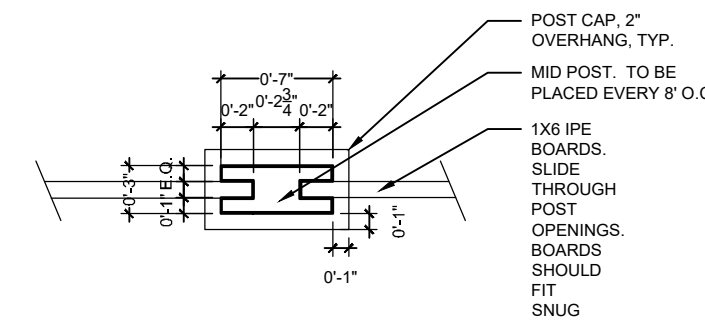
$$1'' = 1'-00''$$


4 FENCE DETAIL

$$1'' = 1'-00''$$


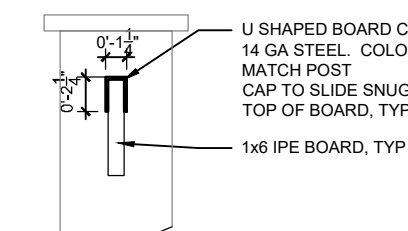
CORNER POST

1" = 1'-00"



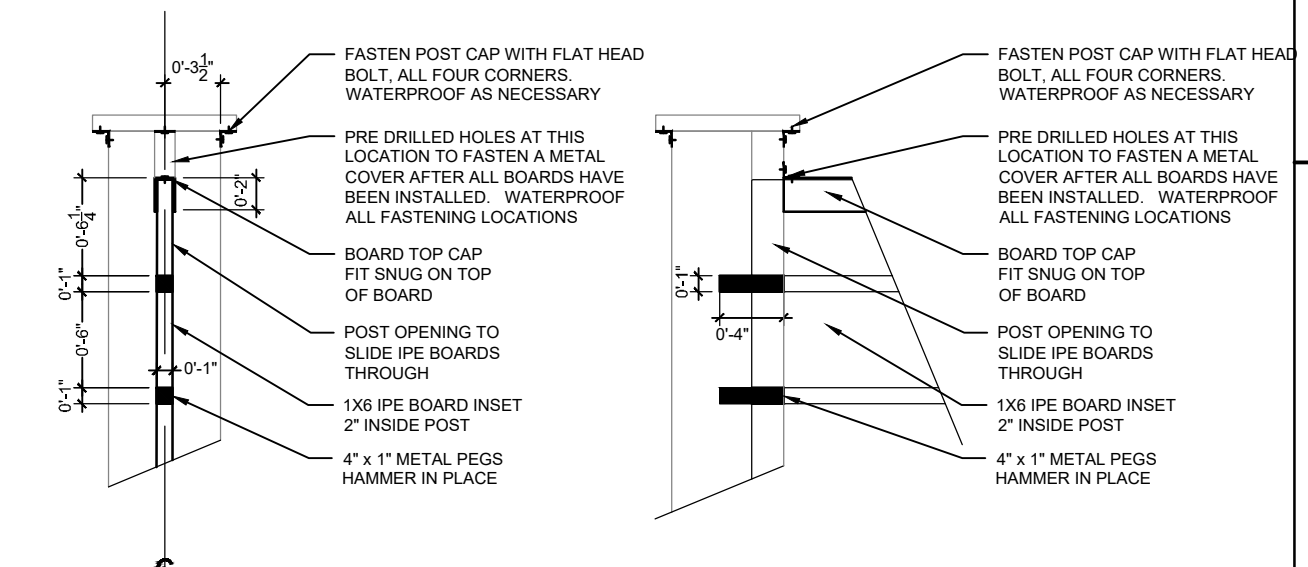
**MID
POST**

1" = 1'-00"



**BOARD
CAP**

1" = 1'-00"



POST SECTION

$$1'' = 1'-00''$$









March 14, 2022

To City Westlake /Austin,

We are neighbors to 3312 Bee Cave Road- Martin Taylor. Our grounds back up to Martin's fence line.

We approve of the 8Ft Fence line that will provide privacy as well as safety with the secure fence to our home and neighbors.

Thank you,

 Bryan Price

512-560-7496

107 Bulian
78746

March 14, 2022

To City Westlake /Austin,

We are neighbors to 3312 Bee Cave Road- Martin Taylor. Our grounds back up to Martin's fence line.

We approve of the 8Ft Fence line that will provide privacy as well as safety with the secure fence to our home and neighbors.

Thank you,

A handwritten signature in blue ink, appearing to read "Emily Kettanell". The signature is stylized with a large, flowing "E" and a cursive "Kettanell".

Emily Kettanell

201 Bulian Ln

March 14, 2022

To City Westlake /Austin,

We are neighbors to 3312 Bee Cave Road- Martin Taylor. Our grounds back up to Martin's fence line.

We approve of the 8Ft Fence line that will provide privacy as well as safety with the secure fence to our home and neighbors.

Thank you,

Jon Selden
207 Bulian Lane
Austin TX 78746
512 709 5165

March 14, 2022

To City Westlake /Austin,

We are neighbors to 3312 Bee Cave Road- Martin Taylor. Our grounds back up to Martin's fence line.

We approve of the 8Ft Fence line that will provide privacy as well as safety with the secure fence to our home and neighbors.

Thank you,



207 Bulian Ln

512-709-~~8800~~ 5165

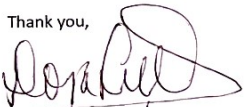
March 14, 2022

To City Westlake /Austin,

We are neighbors to 3312 Bee Cave Road- Martin Taylor. Our grounds back up to Martin's fence line.

We approve of the 8Ft Fence line that will provide privacy as well as safety with the secure fence to our home and neighbors.

Thank you,



03/23/2022



**IMPERVIOUS COVER VARIANCE
STAFF REPORT**

APRIL 20, 2022

Project Address: 104 Westhaven Drive

Project Number: 2022-1036

Agenda Item: Land Use: **104 Westhaven Drive**: Discussion/recommendation on an application for a variance request to exceed the maximum allowed impervious cover (West Lake Hills Code Section 22.03.281). Applicant John Brown.

Applicant Information: John Brown

Hearing Dates:

April 20, 2022, **ZAPCO**
May 11, 2022, Board of Adjustment

Location: The subject property is located along the west side of Westhaven Drive, just north of Bee Cave Road.

Property Information, Zoning & Site Characteristics:

Owner: John and Amy Brown
Legal Description: E 178 ft of Lot 49 Westlake Park Subdivision
Lot Size: 0.362 acres (15,767.02 square feet)
Zoning: R1 – One Family Residential

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

Background & Analysis:

There is currently a single-family residence with a swimming pool on the lot. When the current owners purchased the property in 2020, the lot already exceeded the maximum allowed impervious cover. The request is to allow the property owner to construct an attached addition to the rear of the house for a pool cabana. They are removing impervious cover throughout the lot and have a net decrease of impervious cover going from 5797.5 square feet (36.8%) to 5,731.5 square feet (36.35%)

Variance Criteria Review:

When applying for a variance, the applicant has established by competent evidence that:

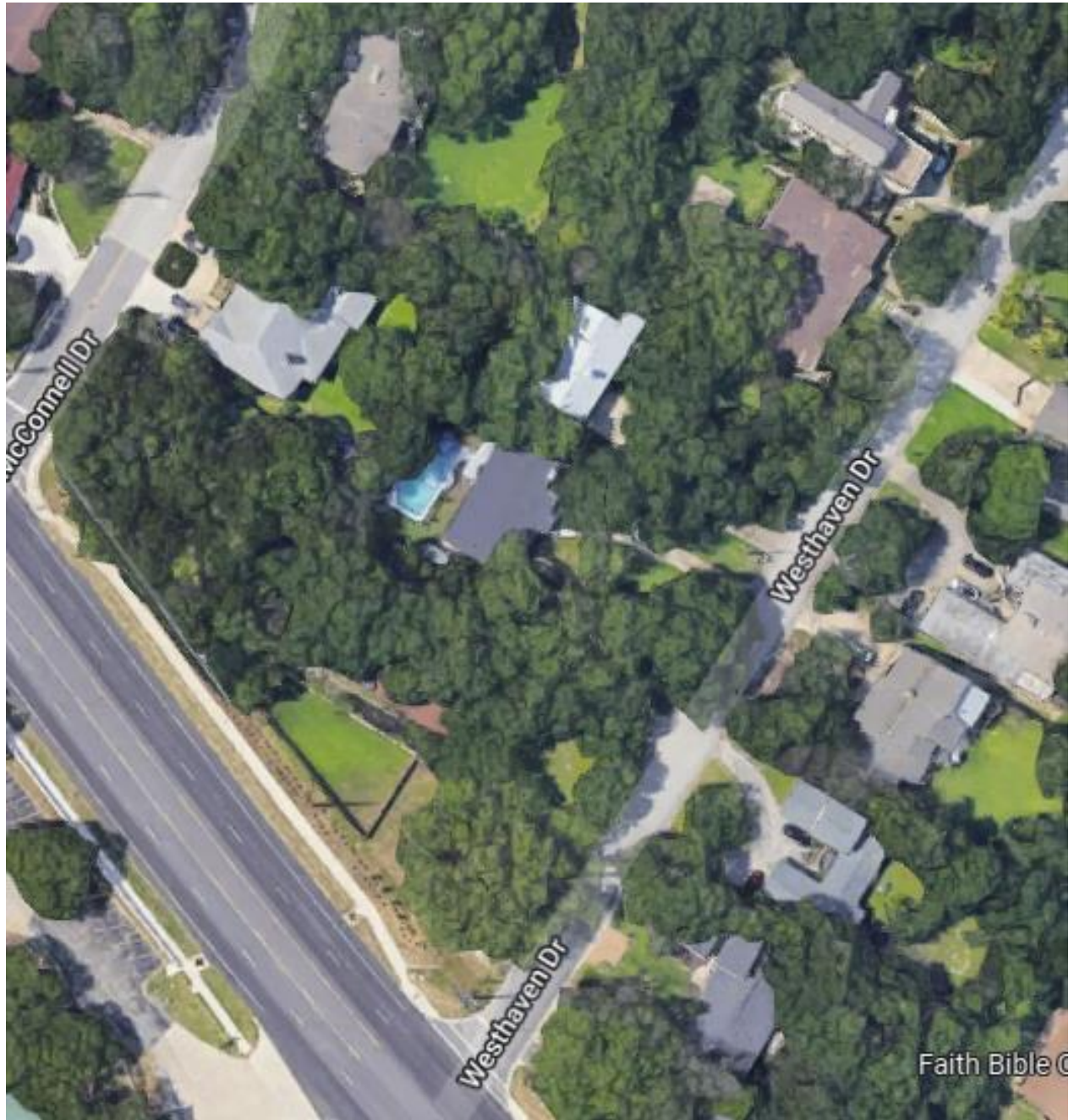
1. The strict or literal enforcement of the terms of this chapter, because of special conditions, will result in unnecessary hardship to the applicant.
The application states – “We have come to learn that the way that our lot / home / and existing improvements on the property were developed, along with the current Zoning Regulations as of 2022, make achieving a COMPLIANT Impervious Cover %, close to impossible when considering the following: 1) The Existing Home is Built over 100' INTO THE LOT beyond the front property line 2) This required a driveway of the same length and burn a great deal of our Impervious Cover on the lot. It is our goal to remove existing impervious cover, in undesirable locations in our backyard, in order to offset the small code compliant improvements in our rear yard.”
2. There will not be unreasonable disruption of the natural terrain or unreasonable destruction of existing flora.
The application states – “No Existing Trees or vegetation will need to be removed to accommodate the proposed improvements that we would like to make in the backyard of the property.”
3. There is no reasonable alternative to the requisite variance that will alleviate the difficulty or hardship complained of.
The application states – “We feel that we have arrived at a possible solution that has explored many different options and variables to: All of the proposed improvements that we would like to make in the backyard can be built, and adhere to all building setbacks and height requirements, and at the same time remove /replace existing impervious cover in certain locations. This would allow us TO REDUCE OUR OVERALL IMPERVIOUS COVER TO A % LOWER THAN THE EXISTING % THAT WE INHERITED.”
4. The variance will not be greater than the minimum required to alleviate the difficulty or hardship complained of.
The application states – “We feel that our design approach provides us with the improvements that we would like to make, while OVERALL REDUCING OUR INHERITED PRE-EXISTING NON CONFORMING Impervious Cover % to a value lower than what is currently on the site. Beyond the PRE-EXISTING NON CONFORMING IMPERVIOUS COVER OVERAGE that we inherited at the time of our purchase.”
5. The variance does not violate the intent of the Zoning Ordinance or goals of the Comprehensive Plan.
The application states – “The location of the house and built improvements on the property are located VERY DEEP into the site. Most of the house is located over 100' away from the edge of pavement, and the front yard contains large protected trees. Should this variance and associated improvements be granted / approved they will almost exclusively be located in the concealed backyard of the property, while the front yard will remain visually undisturbed from the street..”
6. The variance will not adversely affect neighboring properties or interfere with the enjoyment of these properties by their owners.
The application states – “As stated in Question 5, all of the improvements will be located in the backyard of the property, and within the allowable building setbacks prescribed by WLH Zoning Regulations. The reduction of impervious cover should also benefit neighboring properties.”

Outdoor Lighting

Outdoor lighting is not proposed with this variance request. Any outdoor lighting will need to comply with the City's Code.

Compliance with Adopted Uniform Building Code

AERIAL PHOTO



VARIANCE APPLICATION



Date Received: _____ Received By: _____
Amount Due \$ _____ Date Payment Received: _____
Admin Complete Date: _____ Permit No: _____

****All applications and supporting documents should be submitted electronically to
pzsec@westlakehills.org and planner@westlakehills.org****

APPLICANT & PROPERTY INFORMATION

The agent is the official contact person for this project and the single point of contact. All correspondence and communication will be conducted with the agent. If no agent is listed, the owner will be considered the agent.

Property Owner: John and Amy Brown Phone: 512.840.9192

Email: [REDACTED]

Address: 104 Westhaven Drive City: West Lake Hills State: TX Zip: 78746

Agent*: Davin Fillpot, Architect Phone: 512 289 4736

Email: [REDACTED]

Address: 404 Red Bud Trail City: West Lake Hills State: TX Zip: 78746

Property Address: _____ City: West Lake Hills State: TX Zip: 78746

Property Information

Subdivision Name: E 178.00 FT AV OF LOT 49 WESTLAKE PARK

Block: _____ Lot: _____ TCAD Tax Parcel ID: 111081

Current Zoning Classification: Single Family Total Lot Size (Acres): .36 ACRES PER TCAD

*Please submit Power of Attorney form designating authorized agent.

PROJECT INFORMATION

Please list all variances being applied for: (Please be detailed-for tree variances, must include tree #, size, species; setback variances-which setback and how far is requested encroachment; for height specify how much height being requested; etc.)

1. VARIANCE TO EXCEED THE MAX ALLOWABLE IMPERVIOUS COVER FOR A .362 ACRE LOT.
MAX ALLOWABLE IMPERVIOUS COVER PER WLH ZONING CODE = 31.9% IC (5029 SF)
WHEN WE PURCHASED OUR HOME IN FALL OF 2020, ALL BUILT AND SURVEYED IMPROVEMENTS THAT WE INHERITED ON THE LOT EXCEEDED THE MAX ALLOWABLE IC PER CODE. SEE ATTACHED AS BUILT VS PROPOSED IMPERVIOUS COVER SITE PLANS.

5) _____



VARIANCE APPLICATION

Brief Description of project/why variances are needed: _____

We are applying for the following variance:

- Exceed Max Allowable Impervious Cover of (31.9%) / 5029 SF

We wanted to make some improvements in the backyard, but as we started exploring our options, we learned that all of the existing improvements on our property that we inherited, exceeded the max allowable Impervious Cover by over 700 SF.

This meant that no matter what we wanted to do on the property, we would have to apply for this variance, even if we reduced the total impervious cover below the Current As Built Percentages.

Variance Questionnaire (*Applicant must demonstrate a hardship for variance request. The ZAPCO Commissioners, Board of Adjustment/City Council consider these responses when evaluating your application.*)

1) Describe in detail any special conditions you believe will result in unnecessary hardship to you if the terms of this ordinance are strictly or literally enforced.

We have come to learn that the way that our lot / home / and existing improvements on the property were developed, along with the current Zoning Regulations as of 2022, make achieving a COMPLIANT Impervious Cover %, close to impossible when considering the following: 1) The Existing Home is Built over 100' INTO THE LOT beyond the front property line 2) This required a driveway of the same length and burn a great deal of our Impervious Cover on the lot. It is our goal to remove existing impervious cover, in undesirable locations in our backyard, in order to offset the small code compliant improvements in our rear yard.

2) Why do you think the natural terrain and existing flora will not be unreasonably disrupted or destroyed if the variance you are requesting is granted?

No Existing Trees or vegetation will need to be removed to accommodate the proposed improvements that we would like to make in the backyard of the property.

3) What other alternatives have you considered? Why won't those other options alleviate the difficulty or hardship that you think exists?

We feel that we have arrived at a possible solution that has explored many different options and variables to :

- All of the proposed improvements that we would like to make in the backyard can be built, and adhere to all building setbacks and height requirements, and at the same time remove /replace existing impervious cover in certain locations. This would allow us TO REDUCE OUR OVERALL IMPERVIOUS COVER TO A % LOWER THAN THE EXISTING % THAT WE INHERITED.

4) Why do you believe the variance you are requesting is the minimum required to alleviate the difficulty or hardship you think exists?

We feel that our design approach provides us with the improvements that we would like to make, while OVERALL REDUCING OUR INHERITED PRE-EXISTING NON CONFORMING Impervious Cover % to a value lower than what is currently on the site. Beyond the PRE-EXISTING NON CONFORMING IMPERVIOUS COVER OVERAGE that we inherited at the time of our purchase.



VARIANCE APPLICATION

5) Why do you believe your variance does not violate the intent of the Zoning Ordinance or the goals of the City's Comprehensive Plan?

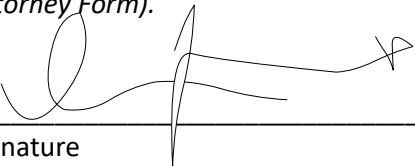
The location of the house and built improvements on the property are located VERY DEEP into the site. Most of the house is located over 100' away from the edge of pavement, and the front yard contains large protected trees. Should this variance and associated improvements be granted / approved they will almost exclusively be located in the concealed backyard of the property, while the front yard will remain visually undisturbed from the street.

6) Why do you believe your variance will not adversely affect neighboring properties or interfere with the enjoyment of these properties by their owners?

As stated in Question 5, all of the improvements will be located in the backyard of the property, and within the allowable building setbacks prescribed by WLH Zoning Regulations. The reduction of impervious cover should also benefit neighboring properties.

AUTHORIZATION & ACKNOWLEDGEMENT

The above information is true to the best of my knowledge. I attest that the real property described is owned by me and all others as signed below. If the below is signed by the authorized agent of said property, the signature of the property owner must be included below or consent must be attached (Power of Attorney Form).


Signature

3/1/2022
Date

Davin Fillpot
Printed Name

NOTICE TO NEIGHBORS OF VARIANCE REQUESTS

DATE OF NOTICE: March 21, 2022

Greetings. You are hereby notified that John Brown, the recorded owner of a property located at 104 Westhaven 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 22.03.281(b) – Schedule of Regulations.

The request is so that the property owners may: Maintain a pre-existing impervious cover that exceeds what is allowed.

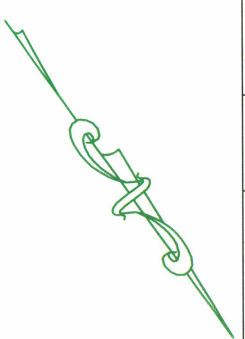
This application is scheduled to be considered at public hearings held by the Zoning and Planning Commission on April 13, 2022 at 6:30 p.m. and City Council/BOA on May 11, 2022 at 7:00 p.m. at West Lake Hills City Hall, located at 911 Westlake Drive, West Lake Hills, Texas. Please review the agenda packet, 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 agrundman@westlakehills.gov if you have any questions. Thank you!



Mark Littrell, Zoning & Planning Secretary

REMAINDER OF
LOT 49

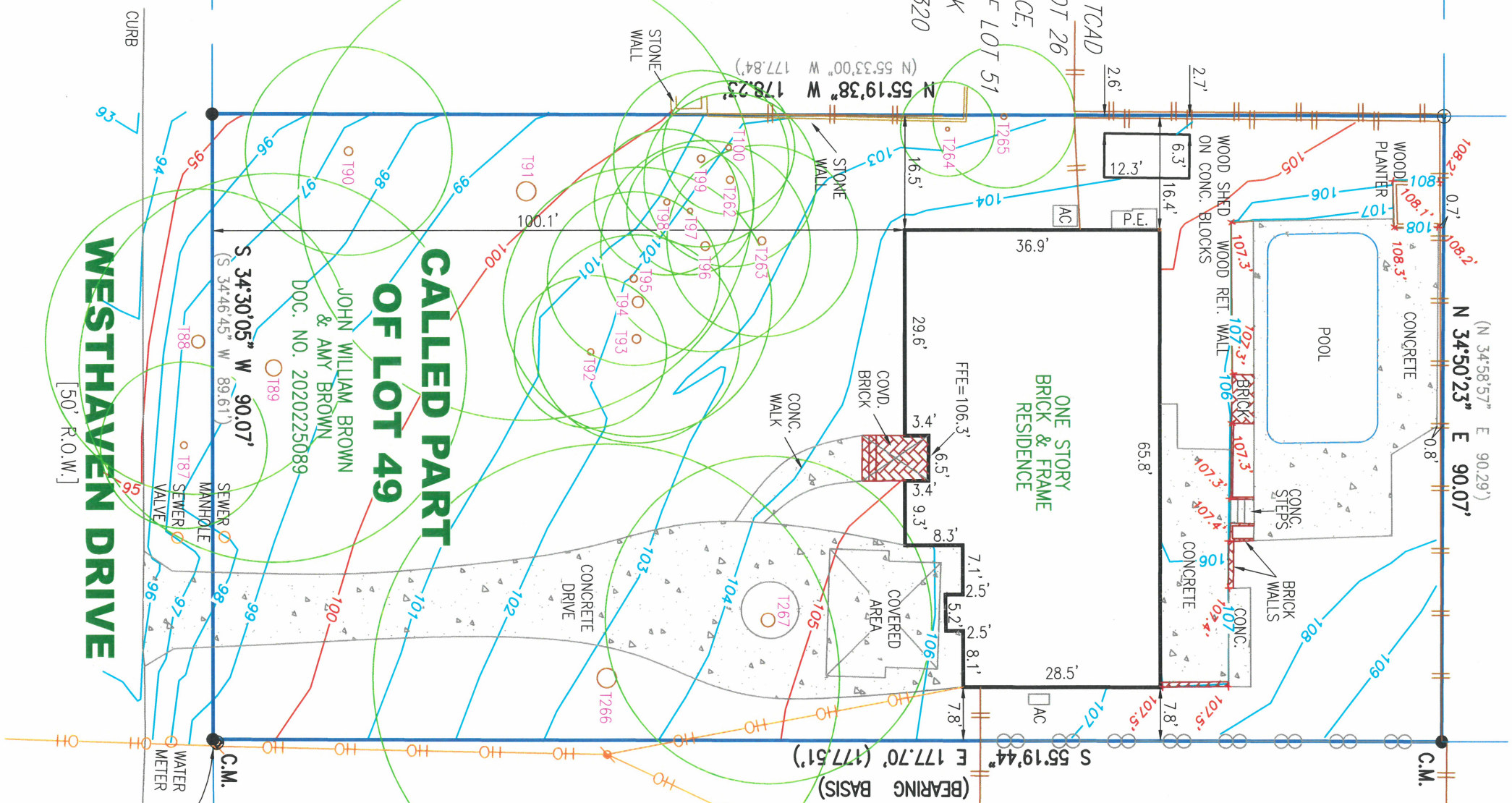
LOT 26



LOT 48

ASANGA H. PERERA
CALLED LOT 48
SAVE & EXCEPT
V.1655 P. 257
D.N. 2000090398

LOT 50
CALLED LOT 50A BY TCAD
AMENDED PLAT OF LOT 26
WESTLAKE TERRACE,
WESTLAKE PARK
DOC. NO. 201600320



TREE LEGEND

TAG NO.	TREE DESCRIPTION
T87	12.0" OAK
T88	22.0" OAK
T89	28.0" OAK
T90	15.0" OAK
T91	33.0" MS OAK
T92	11.0" MS B. LOCUST
T93	15.0" OAK
T94	19.4" MS OAK
T95	12.5" OAK
T96	15.2" OAK
T97	9.2" OAK
T98	10.5" OAK
T99	12.7" OAK
T100	9.6" OAK
T262	12.5" OAK
T263	13.8" OAK
T264	6.8" BLACK LOCUST
T265	10.3" MS B. LOCUST
T266	33.7" MS OAK
T267	23.6" MS OAK

This tree location survey certifies the size and location of the trees depicted hereon. B&G Surveying, LLC, nor the undersigned, certify the Species/Genus of these trees. For exact Species/Genus contact a Certified Arborist.

TBM: SPINDLE SET IN UTILITY POLE
ASSUMED ELEVATION=100.00'

CALLED PART
OF LOT 49
JOHN WILLIAM BROWN
& AMY BROWN
DOC. NO. 2020225089

LEGEND

- 1/2" REBAR FOUND
- 1/2" CAPPED REBAR SET
- 1/2" IRON PIPE FOUND
- 60D NAIL FOUND
- 60D NAIL SET
- CAPPED REBAR FOUND
- "x" SET IN CONCRETE
- "x" FOUND IN CONCRETE
- COTTON SPINDLE FOUND
- PUNCH HOLE FOUND
- BREAK IN SCALE
- CHAIN LINK FENCE
- WOOD FENCE
- METAL FENCE
- WIRE FENCE
- B.L. BUILDING LINE
- P.U.E. PUBLIC UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- () PER PLAT V.7 P.74
- [] C.M. CONTROL MONUMENT
- R.O.W. RIGHT OF WAY
- OVERHEAD UTILITY LINE
- POWER POLE
- AIR CONDITIONER
- TEMPORARY BENCHMARK
- FINISHED FLOOR ELEVATION
- SPOT ELEVATION
- x 107.3'

IMPORTANT NOTICE
This Survey was prepared without the benefit of a title commitment. There may be additional setback lines, easements and interests which are relevant to this property and unknown to B & G SURVEYING, LLC. Building dimensions are approximate.

VICTOR M. GARZA
REGISTERED LAND SURVEYOR
NO. 14083
TO THE LENDHOLDER AND/OR PRESENT OWNERS OF THE PREMISES SURVEYED.

STREET ADDRESS: 104 WESTHAVEN DRIVE CITY: WEST LAKE HILLS COUNTY: TRAVIS STATE OF TEXAS
LOT: * SUBDIVISION: WESTLAKE PARK
REFERENCE NAME: JOHN WILLIAM BROWN & AMY BROWN
DOC. NO.: 2020225089 OFFICIAL PUBLIC RECORDS
* = EAST 178.08' AV OF LOT 49



B & G SURVEYING, LLC
FIRM REGISTRATION NO. 100363-00
WWW.BANDGSURVEYING.COM
1404 West North Loop Blvd.
Austin, Texas 78756 - Office 512-458-6969

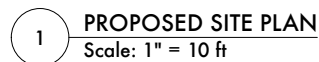
JOB #: B1013521_TWL
DATE: 11/24/2021
SCALE: 1" = 20'

FIELD WORK BY	WILLIAM	11/23/2021
CALCD BY	GF	11/23/2021
DRAFTED BY	WPO	11/23/2021
CHECKED BY	VC/WL	11/23/2021

15,767.02 SF
5029 SF Allowed

HOUSE:	2,248 SF
FULL DRIVEWAY	1,678 SF
POOL (475) + HOT TUB WATER (36):	511 SF
AC-1 (10) + AC-2 (4.5) + POOL EQUIP (18):	32.5 SF
NEW ENTRY:	60 SF
SHED:	77 SF
SUBTOTAL:	4,606.5 SF

CABANA UNDER ROOF:	336 SF
POOL PATIO (MINUS CABANA):	580 SF
LOWER PATIO AND LANDINGS:	130 SF
STAIRS:	27 SF
WALLS:	52 SF
GRAND TOTAL:	5,731.5 SF



Page 39 of 115

PROPOSED *(IN REGULAR COUNCIL)*
VARIANCE
(IN WESTLAKE HILLS)
PUBLIC HEARING
ZAP# 630
00A 700
TIME DATE 4/13/22 PLACE City of West Lake Hills
FOR INFORMATION CALL
CITY OF WEST LAKE HILLS AT
327-3628
City of West Lake Hills
811 WESTLAKE DRIVE
WEST LAKE HILLS, TEXAS 78063-4300

DO NOT REMOVE

104
Westhaven Dr





**FRONT SETBACK, IMPERVIOUS COVER AND TREE VARIANCES
STAFF REPORT**

APRIL 20, 2022

Project Address: 5902 Bee Cave Road (Hat Creek Burgers)

Project Number: 2022-1037

Agenda Item: Land Use: **5902 Bee Cave Road:** Discussion/recommendation on an application for a variance request to encroach in a front setback, exceed the maximum allowable impervious cover and remove one tree with a trunk diameter of fourteen inches or greater (West Lake Hills Code Section 22.03.281 and 22.03.304). Applicant Hat Creek Burgers WLRE LLC (Scott Brown).

Applicant Information: Scott Brown

Hearing Dates:

April 20, 2022, **ZAPCO**
May 11, 2022, Board of Adjustment/City Council

Location: The subject property is located at the northeast corner of Bee Cave Road and Loop 360.

Property Information, Zoning & Site Characteristics:

Owner: Hat Creek Burgers WLRE LLC
Legal Description: Lot 3 Collins & Bates Subdivision
Lot Size: 1.138 acres (49,571 square feet)
Zoning: B2 – Business 2

The site is surrounded by commercial properties to the north and east, and roadways to the south and west

Background & Analysis:

The lot is currently Hat Creek Burgers, and this is a proposed remodel and small addition. They are proposing to add two restrooms on the west side of the lot, which encroach in the front setback along Loop 360. They are also proposing to add to the roof, to make it match their other restaurants.

They are proposing an impervious cover of 78.65%. This site, with the incentives is allowed 43% impervious cover, and the existing site already exceeds the maximum allowable impervious cover.

They are requesting the removal of one tree, a 16-inch Live Oak, and will be required to replace 24 inches for this tree. The tree currently sits in the footprint of the outdoor dining area.

Variance Criteria Review:

When applying for a variance, the applicant has established by competent evidence that:

1. The strict or literal enforcement of the terms of this chapter, because of special conditions, will result in unnecessary hardship to the applicant.
The application states – *“The setback on Loop 360 is 75' which bisects the existing building. The expansion of the roof size increases the encroachment. The existing tree in the deck cannot remain because it would penetrate the roof. The resulting impervious cover is less than existed on the site under the previous site use as a nursery, and an impervious cover variance was granted for the original Hat Creek Burgers site plan.”*
2. There will not be unreasonable disruption of the natural terrain or unreasonable destruction of existing flora.
The application states – *“The site has previously been graded, and the changes to grading and existing vegetation are very minor. The tree proposed for removal from the deck area has the entire root zone covered by roof and deck material and is limited in its growth potential since it is surrounded by building structure.”*
3. There is no reasonable alternative to the requisite variance that will alleviate the difficulty or hardship complained of.
The application states – *“The site is quite small and has very small limits for alternative designs. There appear to not be any other alternatives to accomplish the proposed changes due to the existing site conditions.”*
4. The variance will not be greater than the minimum required to alleviate the difficulty or hardship complained of.
The application states – *“The entire roof expansion is above existing impervious cover, and the building is already sited across the 75' front building line. Additional structures in front of the building line are slated for removal. The dumpster site expansion adds the ability to add recycling to the site. The two additional parking spaces in the rear are being located over existing impervious cover, limiting the impact to the site.”*
5. The variance does not violate the intent of the Zoning Ordinance or goals of the Comprehensive Plan.
The application states – *“The proposed improvements create only limited changes to the site, and are mostly located on the Loop 360 side, or shielded from the north adjacent property by vegetation. The change in roof structure is proposed to bring the site into a standard presentation for the other Hat Creek locations. No change in use is proposed.”*
6. The variance will not adversely affect neighboring properties or interfere with the enjoyment of these properties by their owners.
The application states – *“The proposed improvements are shielded from the property owner to the north by vegetation that will remain unchanged. The east side property is likewise unaffected since the improvements are located primarily away from them. Both are commercial businesses.”*

Outdoor Lighting

Outdoor lighting is not proposed with this variance request. 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

This request will not change the subdivision.

Comprehensive Planning Analysis

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

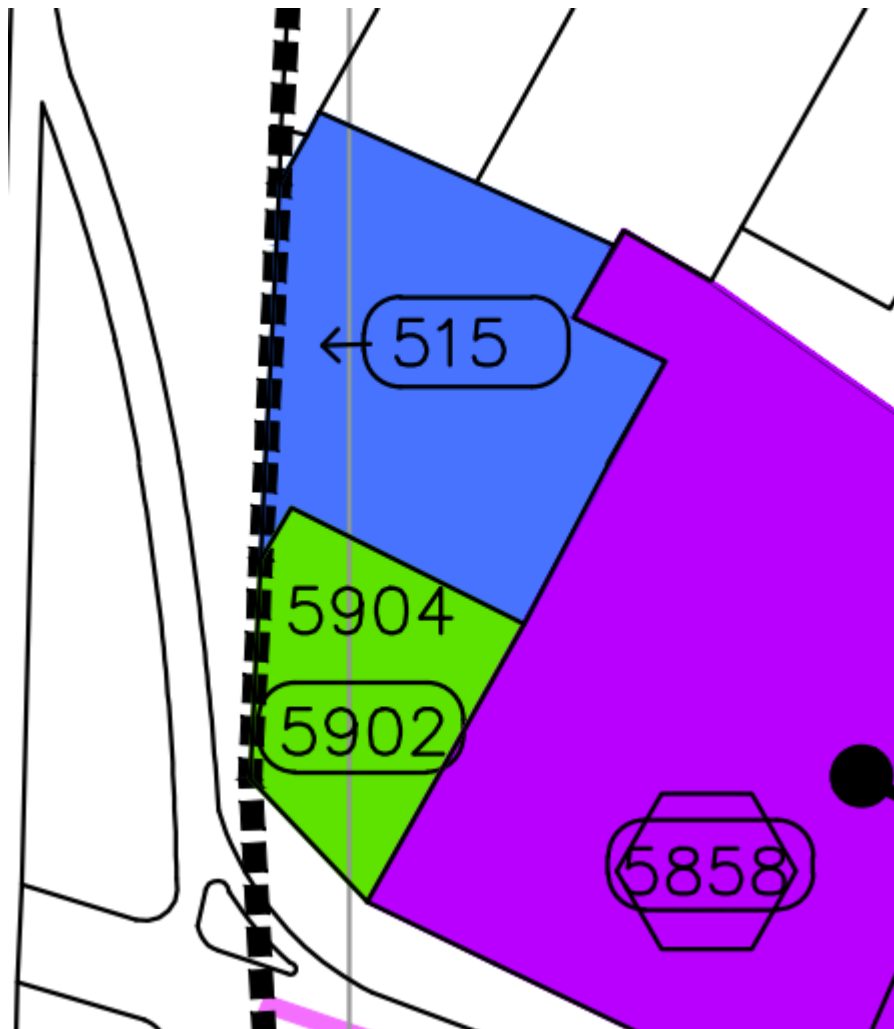
Staff Recommendation

Staff recommends: APPROVAL of the variance request as the lot already exceeds the maximum allowed impervious cover and the proposed improvements will help improve the functionality of the property.

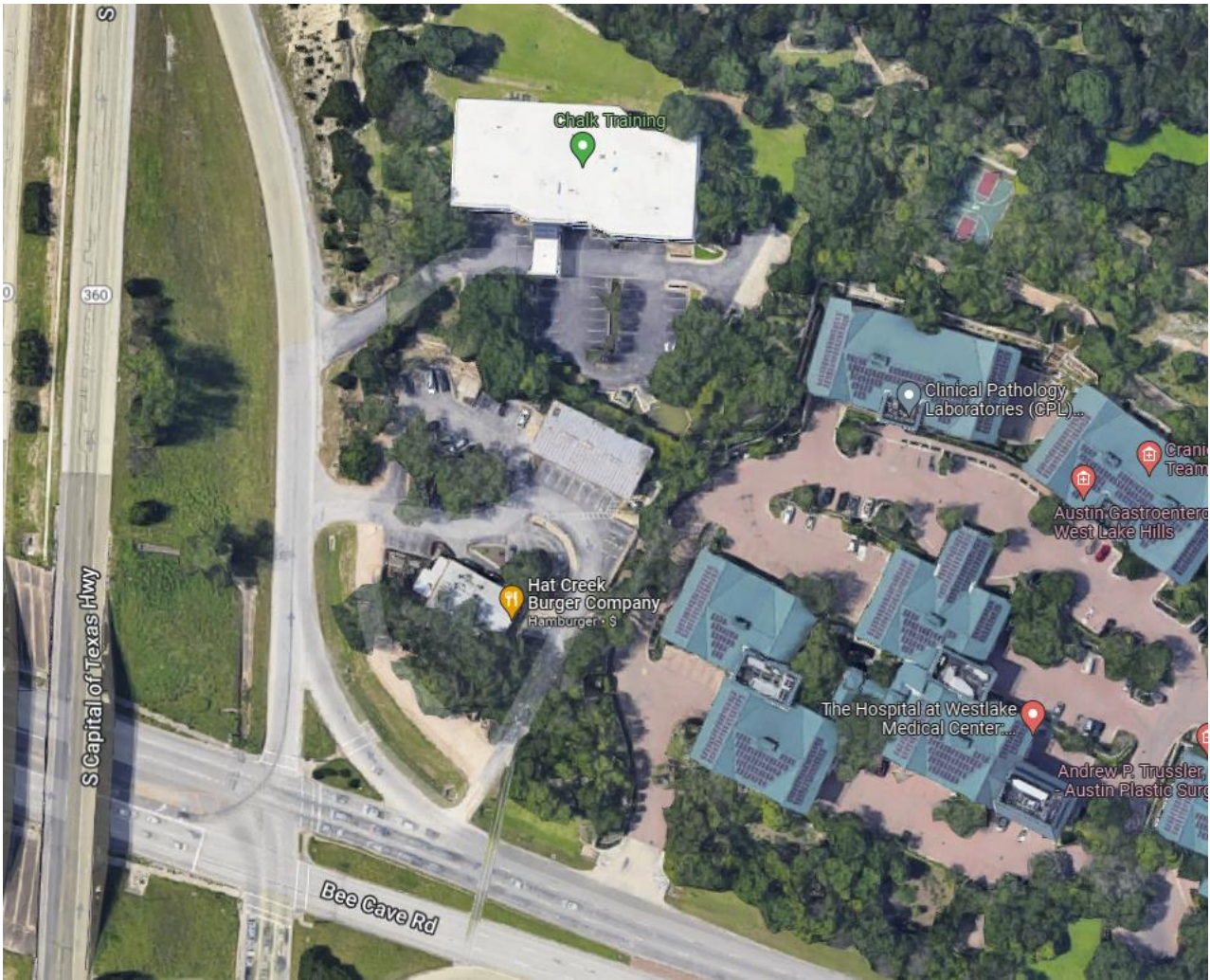
Links to Relevant Code:

- | | |
|----------------------------------|---|
| • Sec. 22.03.281 | Schedule of Regulations |
| • Sec. 22.03.514 | Criteria and process required for granting variance |
| • Sec. 22.03.304 | Tree and vegetation removal and replacement |

ZONING MAP



AERIAL PHOTO





March 21, 2022

Ashby Grundman
Director of Building and Development Services
City of West Lake Hills
911 Westlake Drive
West Lake Hills, Texas 78746

**RE: Eanes Aquatics Site Plan Improvements
4300 Westbank Drive
Austin Texas, 78746
Engineer's Summary Letter and Drainage Analysis**

Dear Mr. Grundman:

Bleyl Engineering is pleased to present the attached construction drawings for the proposed modifications to the Hat Creek Burgers site located on the northeast corner of Bee Cave Road and Capital of Texas Highway South. The project is located in the full purpose jurisdiction of the City of West Lake Hills in the Eanes Creek watershed and the Contributing Zone of the Edwards Aquifer. The property is Lot 3, Collins and Bates Subdivision.

Existing Conditions

The site existed as a nursery business prior to development by the Hat Creek Burger Company in 2011. At that time, the site was processed through the City for approval with variances and has operated in its current configuration since that approval.

Proposed Conditions

The proposed modifications to the site include a reconfiguration of the exterior roof structure, relocation of the restroom facilities parking lot modifications and expansion of the dumpster enclosure. The roof structure is being modified to coincide with all other locations of the Hat Creek enterprise to facilitate in the current branding theme of their other locations. This site was the initial restaurant in the business, and branding was not essential at the time the previous nursery building was remodeled into the existing restaurant.

The expansion of the dumpster enclosure will allow Hat Creek to add a second dumpster for recycling purposes and effectively manage the solid waste generated by the business. The expansion of the dumpster will necessitate the removal of 1 parking space(s) from the site. These spaces are being reconfigured in the location of existing impervious cover along the northern edge of the site. The total impervious cover for the site will now be 78.65%, which represents an insignificant increase of 0.13%. The increase is reflected on the Site Plan. The impervious cover

remains significantly lower than existed from the time when the site was utilized as a nursery. A variance to the now existing impervious cover amount to exceed the amount allowed by code was approved by the City in 2011.

Drainage

We have performed a drainage analysis for the site. The drainage patterns for the site are not changed with the proposed site modifications. The increase in impervious cover causes an also insignificant increase in the rate of stormwater runoff when compared with the existing site plan. However, as is demonstrated on the Drainage Plan, the amount of runoff leaving the site is still substantially less than when the site operated under a previous use.

No public utility modifications are proposed with the remodel of the site. Water and wastewater plumbing lines will be reconnected to the newly proposed restroom location.

Temporary erosion and sedimentation controls are proposed to contain the runoff of sediment from the modifications to the parking lot. No stabilized construction entrance is proposed since both entry points to the site are already paved.

Thank you for your consideration of the Hat Creek Burgers Site Plan Modifications. I trust this letter and the accompanying documents will be sufficient for you to process this application through the City of West Lake Hills.

I can be reached at any time if you have questions about the project.

Sincerely,



Kenny Watkins, P.E.
Bleyl Engineering
Project Manager

h:\jobfiles\hcb (hat creek burgers)\hcb 70359 (hat creek burgers plan revision)\03 engineering\02 reports\hcb engineering summary letter.docx



SPECIAL POWER OF ATTORNEY FORM

KNOW ALL PERSONS BY THIS DOCUMENT that I, Scott Brown
have made, constituted and appointed Bleyl Engineering
to be my duly authorized representative in connection with an application dated 03-21-2022,
to be heard by the Building Design Committee, Zoning & Planning Commission, and City
Council/Board of Adjustment of the City of West Lake Hills, Texas. All representations, whether
oral or written, made by the representative in support of the request have the full force and effect
of the applicant's approval. I do by this document constitute the above named representative as
my true and lawful attorney-in-fact to act in my name, place and stead, to do and perform any act
in connection with such application which I myself might perform or do if I was personally present.

Scott Brown

Property Owner/Applicant Name

Property Owner/Applicant Signature

4407 Bee Caves Rd WestlakeHills TX

78746

Street Address

City

State

Zip Code

(512)

Property Owner/Applicant Phone Number

This instrument was acknowledged before me on this the _____ day of _____, 20 ____.

Notary Public in and for the State of Texas

NOTICE TO NEIGHBORS OF VARIANCE REQUESTS

DATE OF NOTICE: March 22, 2022

Greetings. You are hereby notified that Hat Creek Burger WLRE, LLC, the recorded owner of a property located at 5902 Bee Cave Road 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:

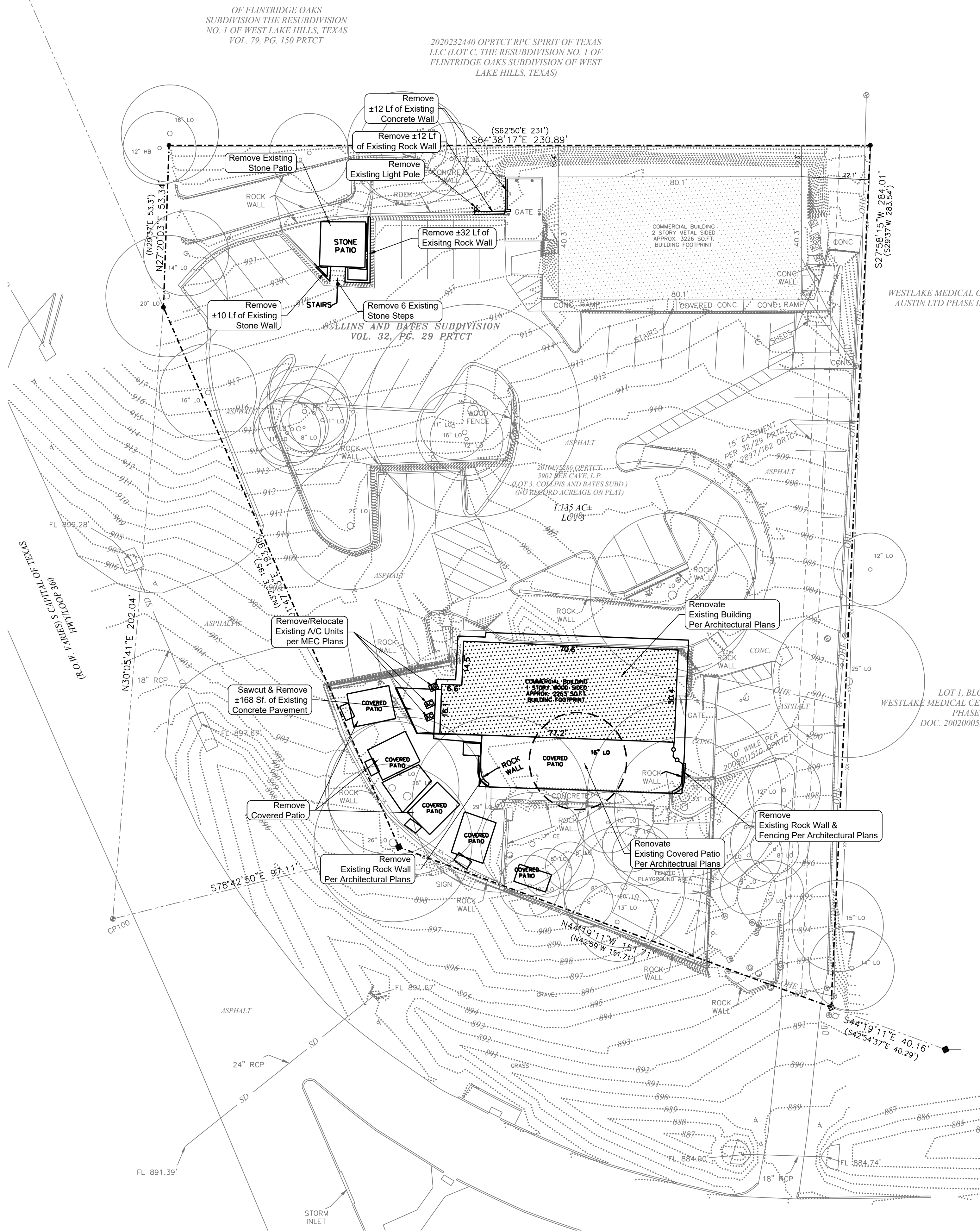
- Section 22.03.281 – Encroachment into front building setback;
- Section 22.03.281(b) – Exceed maximum approved impervious cover; and
- Section 33.03.304 – Removal of a 16" Live Oak Tree.

The request is so that the property owners may: Expansion and improvement to a site plan.

This application is scheduled to be considered at public hearings held by the Zoning and Planning Commission on April 20, 2022 at 6:30 p.m. and City Council/BOA on May 11, 2022 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 agrundman@westlakehills.gov if you have any questions. Thank you!



Mark Littrell, Zoning & Planning Secretary



Site Demolition Notes

1. Install all tree protection fencing as per sheet 3.
2. All demolition within the full critical root zone of preserved trees to be performed with hand tools only.
3. A pre-construction meeting with the Environmental Inspector is required prior to any site disturbance.
4. All abandoned piping is to be plugged.
5. Existing trees on the site are to remain unless noted otherwise.
6. Contractor is to remove all demolished materials from site, and to repair or replace any materials or items destroyed to remain.
7. Demolition work should be completed prior to any commencement of work on the proposed building remodel.



Call Before You Dig!!

Legal Description

Lot 3, Collins and Bates Subdivision.

Tree Legend

3447 Trees to remain

3268H Heritage Trees

3268P Protected Trees

3268 Trees to be Removed

Benchmarks

TBM - Bee Caves entrance culvert 18" RCP east flow
Elevation = 884.74'

Existing Conditions & Demolition Plan

Hat Creek Burgers
5902 Bee Caves Road
Austin, Texas 78746
Travis County

BLEYL ENGINEERING

Texas Firm Registration No. F-678

Tel. 512-454-2400

www.dieyiengineering.com

AUSTIN BRYAN CONROE HOUSTON

Prepared For:

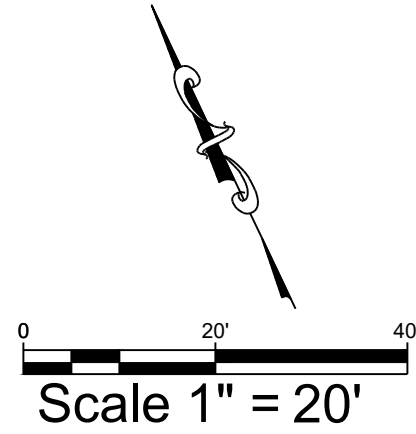
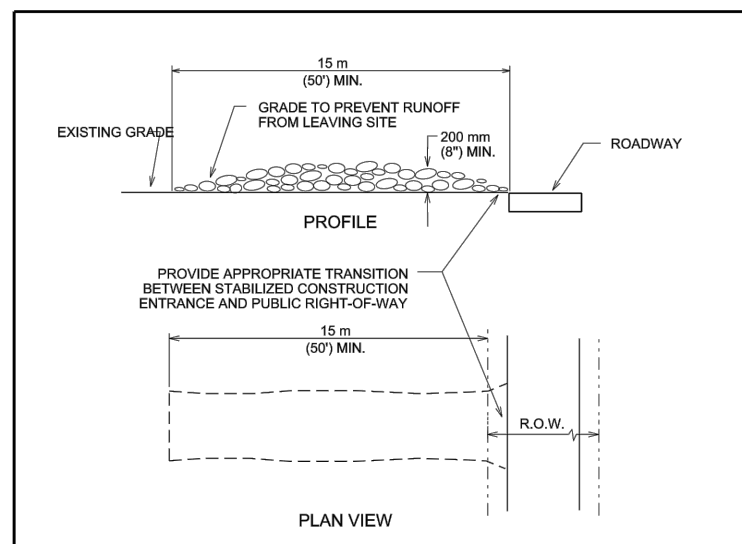
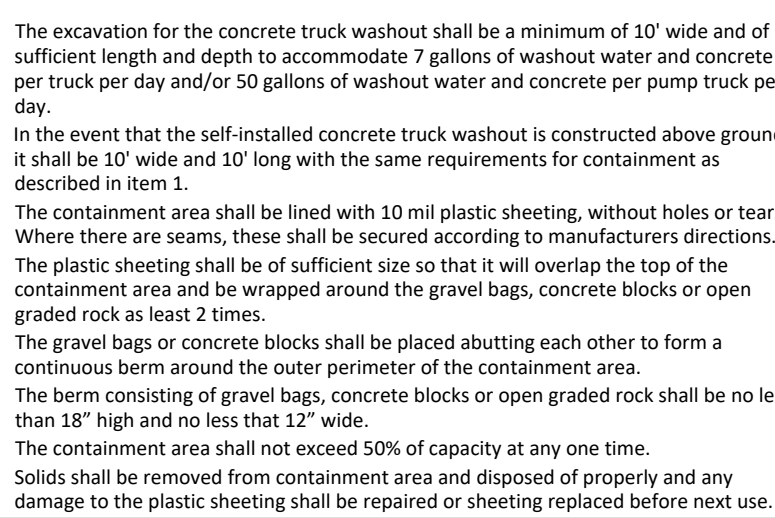
Revision	Date	By	App	Comment

n: KW, CS

CAD:	CS	Review:	KW
------	----	---------	----

Project No:	HCB 70359
-------------	-----------

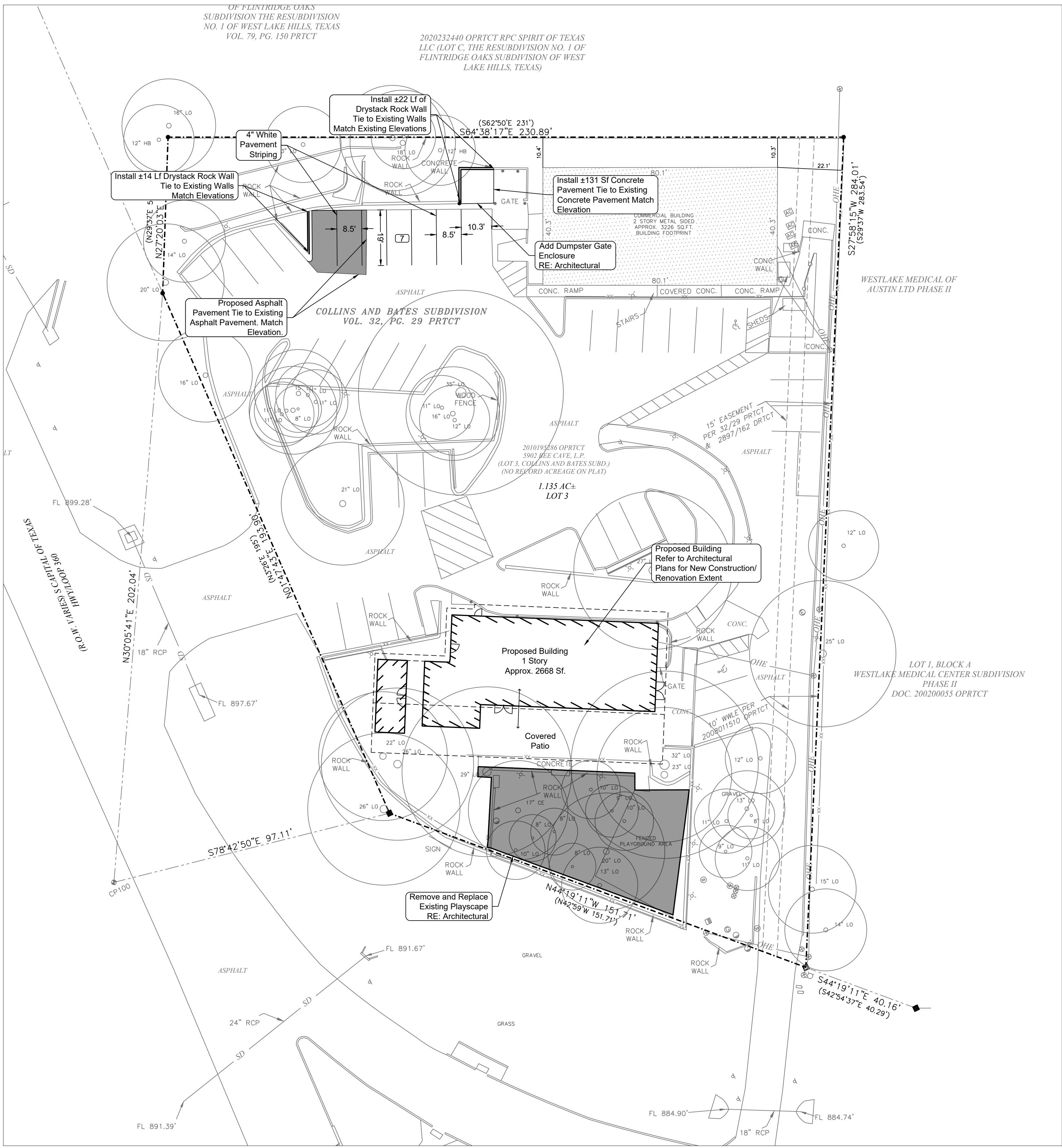
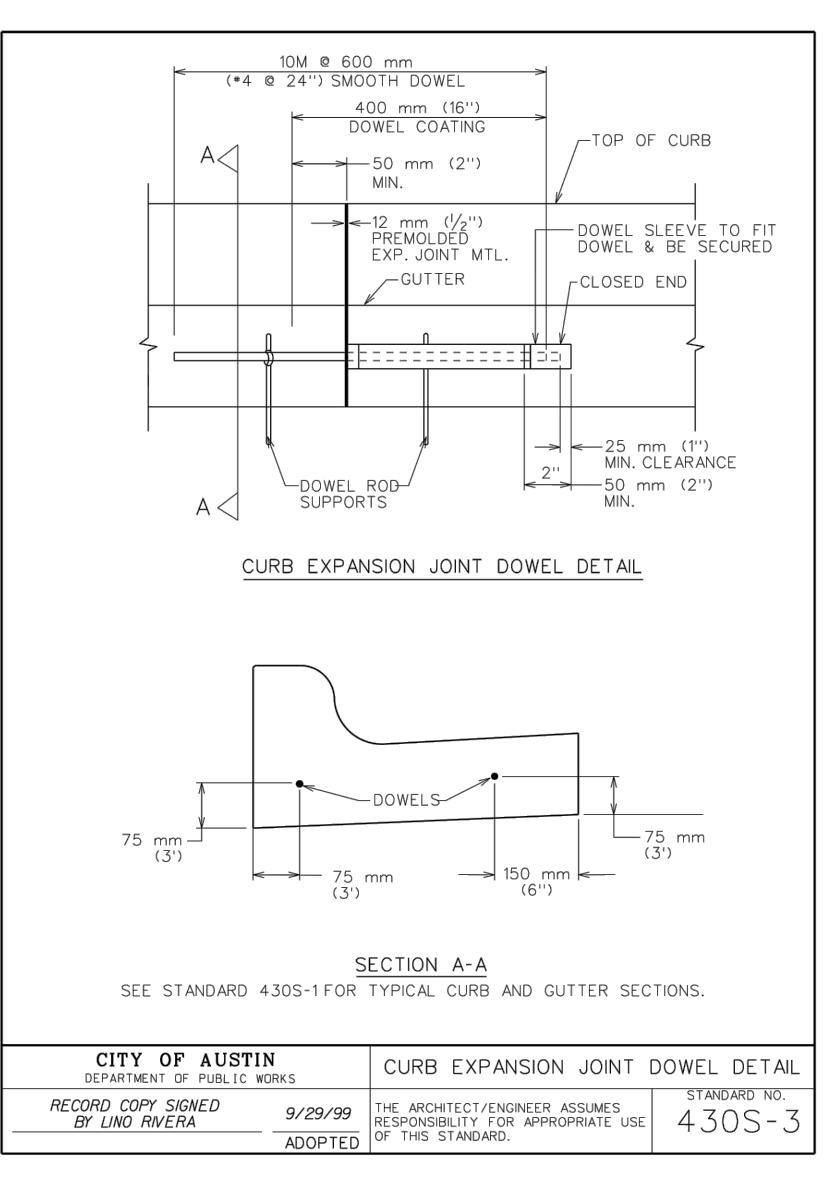
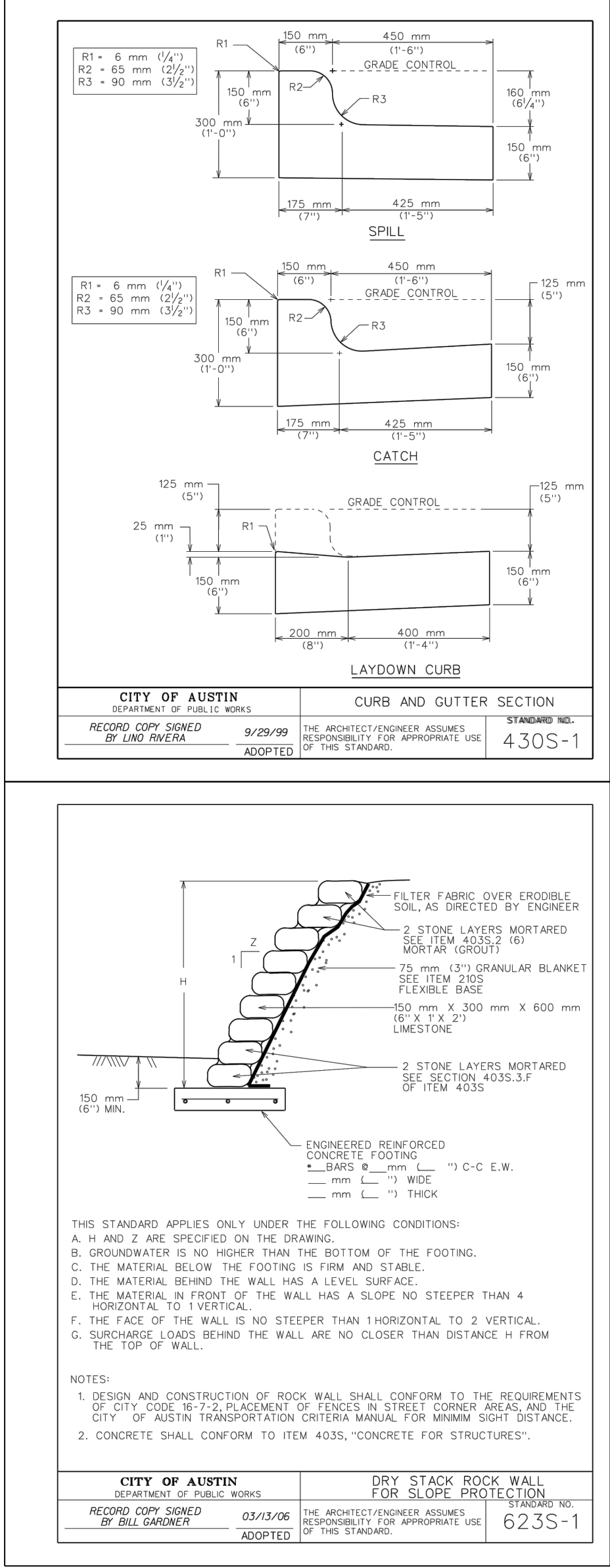
Sheet: **2** of **TBD**



- Release of this application does not constitute a verification of all data, information and calculations supplied by the applicant. The engineer of record is solely responsible for the completeness, accuracy and adequacy of his/her submittal, whether or not the application is reviewed for Code compliance by City engineers.



Design: KW, CS	
CAD: CS	Review: KW
Project No: HCB 70359	
Sheet: 3 of TBD	

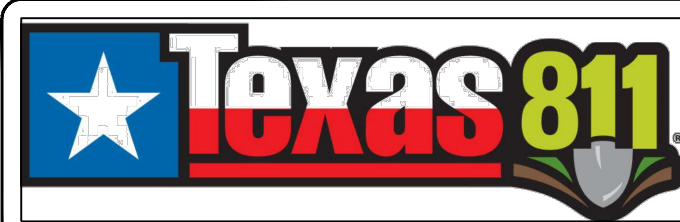


Legal Description
Lot 3, Collins and Bates Subdivision.

Benchmarks
TBM - Bee Caves entrance culvert 18" RCP east flowline.
Elevation = 884.74'

The location of all existing utilities shown on these plans has been based upon record information only and may not match locations as constructed. The contractor shall contact Texas 811 for assistance in determining existing utility locations prior to beginning construction. Contractor shall field verify locations of utility crossings prior to beginning construction.

Release of this application does not constitute a verification of all data, information and calculations supplied by the applicant. The engineer of record is solely responsible for the completeness, accuracy and adequacy of his/her submittal, whether or not the application is reviewed for Code compliance by City engineers.



Call Before You Dig!!

BLEYL ENGINEERING

PLANNING • DESIGN • MANAGEMENT
12007 Technology Blvd, Ste 150, Austin TX 78727
Texas Firm Registration No. F-678
Tel. 512-454-2400
www.bleylengineering.com

Site Plan

Hat Creek Burgers
5902 Bee Caves Road
Austin, Texas 78746
Travis County

This Document is Released for the
Purpose of Interim Review Under
Authority of

Kenny Watkins, P.E. (TX # 64738)

3/21/2022
Date

It is not to be used for Construction

Design: KW, CS
CAD: CS Review: KW
Project No: HCB 70359

Sheet: **4** of **TBD**

Revision	Date	By	App	Comment

Drew Gressett
Hat Creek Burgers
4407 Bee Cave Road, Ste 511
Austin, Texas 78746

Prepared For:

ORIGINAL LAYOUT SIZE - 24X36
@2022 H:\BFILES\HCB\HAT CREEK BURGERS\PLAN REVISION\04 CAD\PILOT SHEET\DRAINAGE AREA MAPS DWG 3/21/2022 Alexis Estrada



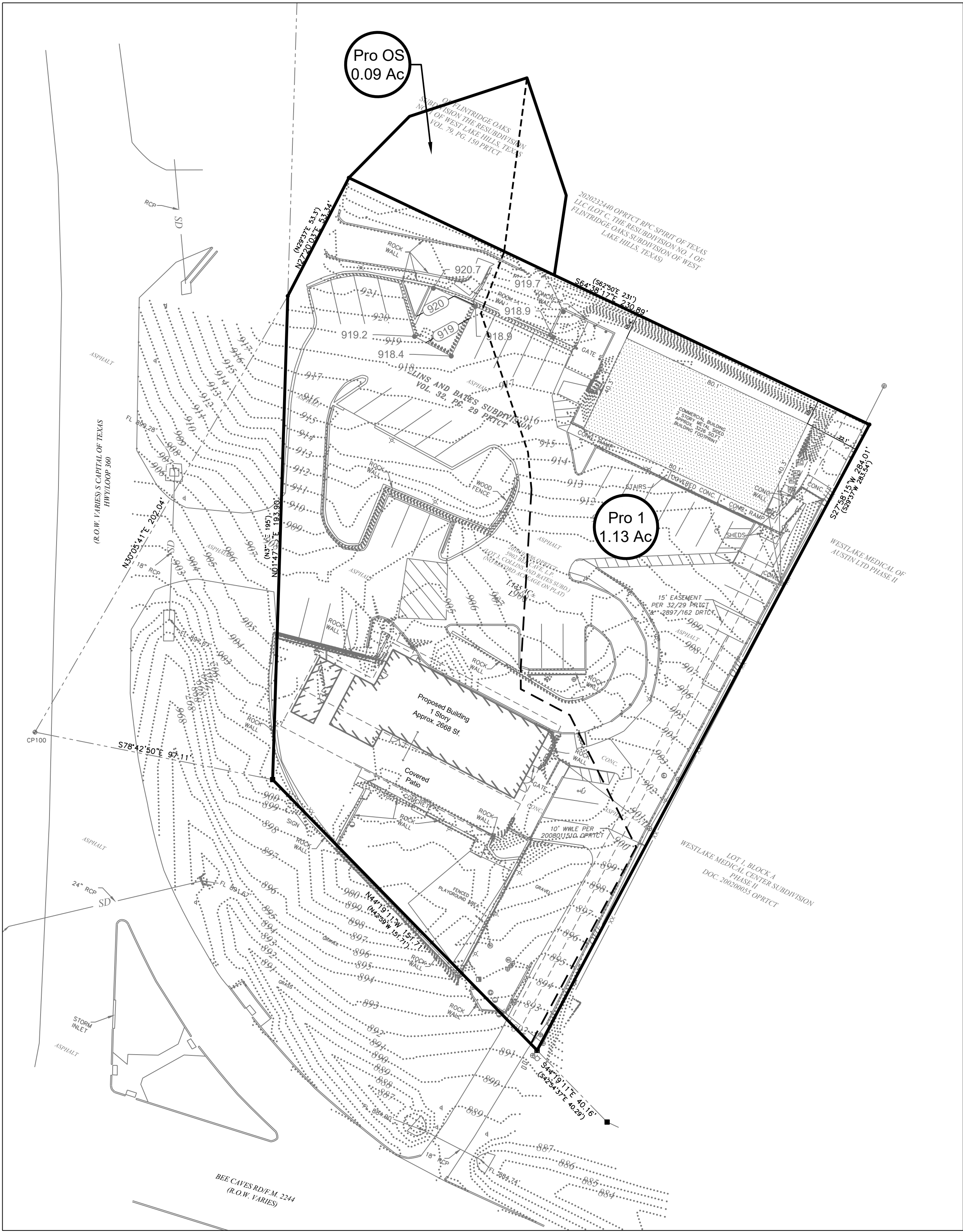
Existing Drainage Area Map

Existing Atlas 14 Rational Method Runoff Calculations (2011 - Predeveloped Nursery Site)																	
Private Post-Development Rational Method Calculations																	
Basin Name	Area (ac)	Impervious Cover (%)	Impervious Area (ac)	Pervious Area (ac)	T _c (min)	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
						Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)
Ex OS	0.09	0.00	0.00	0.09	5	0.34	6.31	0.19	0.40	9.61	0.35	0.44	11.79	0.47	0.51	15.42	0.71
Ex 1	1.13	90.84	1.03	0.10	5	0.71	6.31	5.06	0.78	9.61	8.47	0.83	11.79	11.06	0.92	15.42	16.03

Proposed Atlas 14 Rational Method Runoff Calculations (2011 - Original Hat Creek Burgers Site Plan)																	
Private Post-Development Rational Method Calculations																	
Basin Name	Area (ac)	Impervious Cover (%)	Impervious Area (ac)	Pervious Area (ac)	T _c (min)	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
						Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)
Pro OS	0.09	0.00	0.00	0.09	5	0.34	6.31	0.19	0.40	9.61	0.35	0.44	11.79	0.47	0.51	15.42	0.71
Pro 1	1.13	78.52	0.89	0.24	5	0.65	6.31	4.61	0.73	9.61	7.93	0.79	11.79	10.53	0.86	15.42	14.91

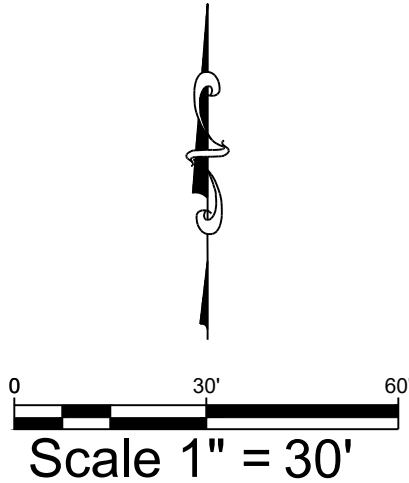
Post-Developed Atlas 14 Rational Method Runoff Calculations (2022)																	
Private Post-Development Rational Method Calculations																	
Basin Name	Area (ac)	Impervious Cover (%)	Impervious Area (ac)	Pervious Area (ac)	T _c (min)	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
						Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)	Coefficient (C)	Intensity, I (in/hr)	Runoff, Q (cfs)
Pro OS	0.09	0.00	0.00	0.09	5	0.34	6.31	0.19	0.40	9.61	0.35	0.44	11.79	0.47	0.51	15.42	0.71
Pro 1	1.13	78.65	0.89	0.24	5	0.65	6.31	4.61	0.73	9.61	7.93	0.79	11.79	10.53	0.86	15.42	14.92

CN Calculations						
Drainage Area	Open Space (Lawns, parks, golf courses, cemeteries, etc.) Good Condition - 80			Total Area	Average Sum CN	
	Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil D - 98					
ID	AC	AC	AC	CN		
EX OS	80	98	0.090	0.000	0.09	80
EX 1	0.104	1.027	1.13	96		
PRO OS	0.090	0.000	0.09	80		
PRO 1	0.241	0.889	1.13	94		



Proposed Drainage Area Map

Drainage Area ID	TIME OF CONCENTRATION															
	OVERLAND SHEET FLOW				SHALLOW CONCENTRATED FLOW				TOTAL				TOTAL			
n	Length	P ₂	Slope	Overland Travel Time	Slope	Distance	Surface ("Paved" or "Unpaved")	Velocity Coefficient*	Velocity	Shallow Concentrated Flow Travel Time	Travel Distance	Time of Concentration (Calculated)	Time of Concentration (Computational)	Lag Time (Calculated)	Time of Concentration (Computational)	TOTAL
Name	none	ft	inches	ft/ft	min	ft/ft	ft	type	none	ft/s	min	ft	min	min	min	min
EX 1	0.150	100.00	4.14	0.1570	3.78	0.0900	251.00	Paved	20.33	6.10	0.69	351.00	4.46	5.00	2.68	3.00
EX OS	0.015	70.00	4.14	0.1000	0.54	0.0000	0.00	Unpaved	16.13	0.00	0.00	70.00	0.54	5.00	0.32	3.00
PRO OS	0.015	70.00	4.14	0.1000	0.54	0.0000	0.00	Unpaved	16.13	0.00	0.00	70.00	0.54	5.00	0.32	3.00
PRO 1	Developed											351.00	4.46	5.00	2.68	3.00



Drainage Area Map

Hat Creek Burgers
5902 Bee Caves Road
Austin, Texas 78746
Travis County

BLEYL ENGINEERING
PLANNING • DESIGN • MANAGEMENT
12007 Technology Blvd, Ste 150, Austin TX 78727
Texas Firm Registration No. F-678
Tel. 512-454-2400
www.bleylengineering.com

Prepared For:

Drew Gressett
Hat Creek Burgers
4407 Bee Cave Road, Ste 511
Austin, Texas 78746

Design: KW, CS
CAD: CS Review: KW
Project No: HCB 70359
Sheet: **5** of **TBD**

Revision

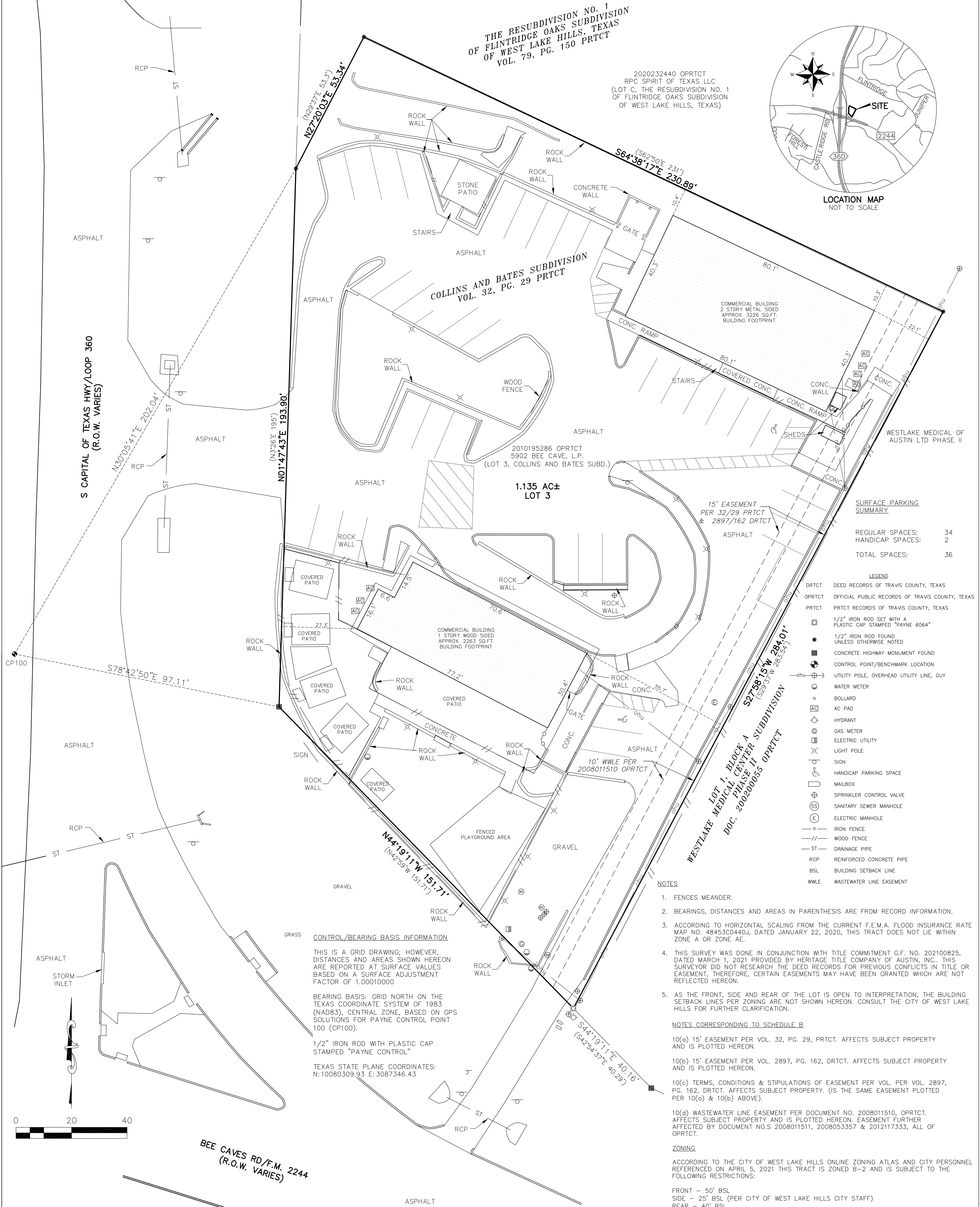
Date

By

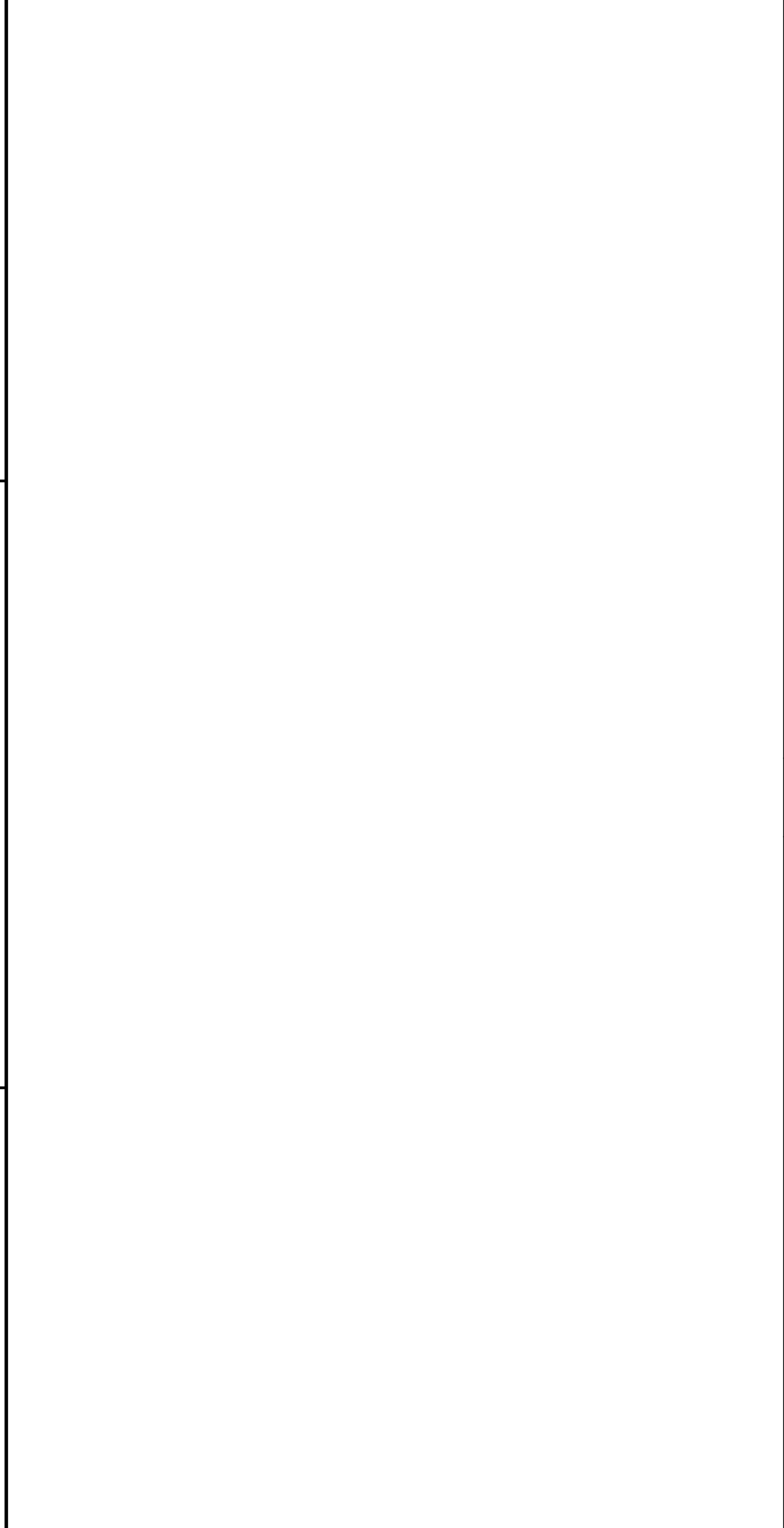
App

Comment

Page 53 of 115



OWNER PROVIDED CHART							
#	ITEM	SUPPLIED BY OWNER	INSTALLE D BY GC	INSTALLED BY OWNER	FINISHING TOUCHES REQUIRED BY GC-SUB	NOTES	REMARKS
1	WALK-IN COOLERS, CONDENSERS, COILS	X		X	X		
2	REFRIGERATION LINES TO ICE MACHINES AND WALK-INS		X				
3	STAINLESS STEEL WALL PANELING AT COOKLINE, PREP LINE AND DISHWASH AREA		X				
4	STAINLESS STEEL CORNER GUARDS		X				
5	STAINLESS STEEL CUSTOM KITCHEN EQUIPMENT	X		X			
6	KITCHEN EQUIPMENT	X		X	X		
7	ALL LIGHT FIXTURES, LIGHT BULBS, AS INDICATED PER PLANS		X				LIGHT PACKAGE SUPPLIED AND INSTALLED BY G.C.
8	INTERIOR DECOR PACKAGE, ARTWORK	X					
9	TELEVISION	X		X			
10	BUILDING SIGNS	X		X			ROUGH INS BY G.C.
11	LANDSCAPE AND IRRIGATION						CHASES BY G.C.
12	PYLON, AND/OR MONUMENT SIGN	X		X	X		FOUNDATION, CONDUIT AND WIRING BY G.C.
1. ADA SIGNS FOR RESTROOM BY G.C. MISC. STICK ON SIGNS, DESIGNATING VARIOUS UTILITY ROOMS AND DELIVERY HOURS, THAT ARE FURNISHED BY OWNER, TO BE INSTALLED BY G.C.							
2. G.C. TO PROVIDE CONDUIT WITH PULL STRINGS							
3. RECEIVE AND PROTECT EQUIPMENT, COORDINATE WITH MEP TRADES AND SUPPLIER. GREASE PIPING FURNISHED AND INSTALLED BY G.C.							



SYMBOL LEGEND	
	ALIGN
	ROOM NAME
	ROOM NUMBER
	DOOR NUMBER
	EXISTING DOOR
	DETAIL REFERENCE SHEET NUMBER
	DETAIL SECTION REFERENCE SHEET NUMBER
	SECTION REFERENCE SHEET NUMBER
	EXT. ELEVATION REFERENCE SHEET NUMBER
	INTERIOR ELEVATION REFERENCE SHEET NUMBER
	WALL MATERIAL TYPE
	FLOOR MATERIAL TYPE
	MISC. MATERIAL TYPE
	KEYNOTE INDICATOR
	WALL TAG
	FINISH INDICATOR
	REVISION CLOUD & DELTA NUMBER
	FIRE EXTINGUISHER CABINET W/ FIRE EXTINGUISHER
	WALL-MOUNTED FIRE EXTINGUISHER

HAT CREEK - WEST LAKE

5902 BEE CAVE RD WEST LAKE HILLS, TEXAS 78746

ARCHITECT'S CONSULTANTS

STRUCTURAL ENGINEER
W.G.I.
WALNUT HILL LAKE, SUITE #903
DALLAS, TX 75231

MECHANICAL ENGINEER
NOVA ENGINEERING
4819 TX-121 #12
THE COLONY, TX 75056

PLUMBING ENGINEER
NOVA ENGINEERING
4819 TX-121 #12
THE COLONY, TX 75056

ELECTRICAL ENGINEER
NOVA ENGINEERING
4819 TX-121 #12
THE COLONY, TX 75056

OWNER'S CONSULTANTS

CIVIL ENGINEER
BLEYL ENGINEERING
12007 Technology Blvd #150
Austin, TX 78727

KITCHEN VENDOR
TOP SHELF DESIGN

SITE LOCATION MAP

OWNER CONTACT

HAT CREEK BURGER
HAT CREEK BURGER
4407 BEE CAVE RD., SUITE #212
AUSTIN, TX 78746

SCOTT BROWN
PH: (512) 732 1214
scott@hatacreekburgers.com

GENERAL CONTRACTOR

ALLIANCE BUILDERS
ALLIANCE BUILDERS
15436 FISHEER ISLAND DR
AUSTIN, TX 78717

BRAD WHITE
PH: (512) 584-5083
brad@alliancebuilders.us

ARCHITECTURAL CONTACT

WARE MALCOMB
1919 MCKINNEY AVENUE #100
DALLAS, TX 75201

STEVEN COX
P 583.5379
scoc@waremalcomb.com
PH: (214) 564 2514 ext. 1712 (940) 389 8835

DEFERRED SUBMITTALS

DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEERS OF RECORD WHO SHALL REVIEW AND PROVIDE NOTATION INDICATING DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN GENERAL CONFORMANCE WITH THE BUILDING DESIGN. SUBMITTAL MATERIALS SHALL INCLUDE PLANS, DETAILS AND CALCULATIONS PREPARED AND SIGNED BY A STATE REGISTERED ENGINEER. CONTRACTOR SHALL SUBMIT ARCHITECT AND ENGINEER REVIEWED SUBMITTAL MATERIALS TO THE BUILDING OFFICIAL FOR REVIEW AND PERMIT APPROVAL. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED PRIOR TO OBTAINING THE BUILDING OFFICIAL'S APPROVAL OF THE SUBMITTAL.

1. EXTERIOR BUILDING SIGNAGE.

SITE VICINITY MAP

SHEET INDEX		TOTAL SHEETS	
		64	
SHEET ISSUED ON DATE INDICATED, WITH MODIFICATIONS		ISSUE	
SHEET ISSUED ON DATE INDICATED, NO MODIFICATIONS			
ARCHITECTURAL			
T1.1 TITLE SHEET			
T1.1a PROJECT DATA			
A0.2 GENERAL NOTES			
A0.2a GENERAL NOTES			
A0.3 ACCESSIBILITY DETAILS			
A1.0 SITE PLAN			
A1.1 OCCUPANCY AND EGRESS PLAN			
A00.1 DEMOLITION FLOOR PLAN			
A00.2 DEMOLITION CEILING PLAN			
A00.3 DEMOLITION ROOF PLAN			
A00.4 DEMOLITION EXTERIOR ELEVATIONS			
A00.5 DEMOLITION EXTERIOR ELEVATIONS			
A2.0 FOUNDATION PLAN			
A2.1 FLOOR PLAN			
A2.2 REFLECTED CEILING PLAN			
A2.3 FINISH PLAN AND SCHEDULE			
A3.0 ROOF PLAN			
A4.1 EXTERIOR ELEVATIONS			
A4.2 EXTERIOR ELEVATIONS			
A5.0 BUILDING SECTIONS			
A5.1 BUILDING SECTIONS			
A5.2 WALL SECTIONS			
A5.3 WALL SECTIONS			
A6.1 ENLARGED RESTROOM PLAN AND RESTROOM ELEVATIONS			
A6.2 INTERIOR ELEVATIONS			
A6.3 INTERIOR ELEVATIONS			
A6.4 INTERIOR ELEVATIONS			
A7.1 DOOR SCHEDULE AND WINDOW SCHEDULE			
A8.1 EXTERIOR DETAILS			
A8.2 WINDOW, DOOR AND INTERIOR DETAILS			
SP.1 SPECIFICATIONS			
SP.2 SPECIFICATIONS			
SP.3 SPECIFICATIONS			
SP.4 SPECIFICATIONS			
SP.5 SPECIFICATIONS			
SP.6 SPECIFICATIONS			
SP.7 SPECIFICATIONS			
SP.8 SPECIFICATIONS			
SP.9 SPECIFICATIONS			
SP.10 SPECIFICATIONS			
SP.11 SPECIFICATIONS			
SP.12 SPECIFICATIONS			
ARCHITECTURAL SHEET COUNT: 42			
STRUCTURAL			
S-000 COVER SHEET			
S-100 GENERAL NOTES			
S-101 SPECIAL INSPECTIONS			
S-200 FOUNDATION PLAN			
S-210 LOW FRAMING PLAN			
S-211 HIGH FRAMING PLAN			
S-300 TYPICAL FOUNDATION DETAILS			
S-301 TYPICAL FOUNDATION DETAILS			
S-500 TYPICAL FRAMING DETAILS			
S-501 TYPICAL FRAMING DETAILS			
S-502 ENLARGED FRAMING DETAILS			
S-503 ENLARGED FRAMING DETAILS			
STRUCTURAL SHEET COUNT: 12			
MECHANICAL			
MEP1.00 COVER SHEET - MEP			
MEP1.01 SPECIFICATIONS - MEP			
ME2.01 FLOOR PLAN - MECHANICAL			
MECHANICAL SHEET COUNT: 3			
PLUMBING			
P2.00 UNDERFLOOR PLAN - PLUMBING			
P2.01 FLOOR PLAN - PLUMBING			
P5.01 SCHEDULES AND DETAILS - PLUMBING			
PLUMBING SHEET COUNT: 3			
ELECTRICAL			
E2.01 FLOOR PLAN - ELECTRICAL			
ELECTRICAL SHEET COUNT: 1			

WARE MALCOMB

1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379

ARCHITECTURE
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
BUILDING MEASUREMENT
INTERIORS

HAT CREEK - WEST LAKE

5902 BEE CAVE RD WEST LAKE HILLS, TEXAS 78746

TITLE SHEET	
DATE	08/03/2022
ISSUE FOR PERMIT	
REMARKS	

PA/PM:	STEVEN COX
DRAWN BY:	C.B.
JOB NO.:	DAL21-0063-00

SHEET
T1.1

4/5/2022 4:59:24 PM

3/30/2022 6:53:21 PM

FLOOR PLAN NOTES

- [illegible]

- ## MILLWORK NOTES

20. CONTRACTOR MUST NOTIFY BUILDING OWNER/MANAGER OF ANY DISCREPANCY IN PLANS. FINISH TERMS CLEARLY SHOWN IN PLANS, BUT OMITTED FROM SCHEDULES OR LEGENDS MUST BE PREPARED AND INSTALLED BY CONTRACTOR. CONTRACTOR TO VERIFY OMITTED FINISHES WITH BUILDING OWNER/MANAGER PRIOR TO ORDERING PRODUCTS.
21. SHOP DRAWINGS MUST BE PROVIDED FOR APPROVAL PRIOR TO FABRICATION ANY SUBSTITUTIONS MUST BE APPROVED BY THE ARCHITECT PRIOR TO FABRICATION.
22. MILLWORKER TO COORDINATE & VERIFY WITH CONTRACTOR FINAL LOCATION FOR CANTILEVERED COUNTERS FOR IN-WALL SUPPORT BRACKETS, PRIOR TO GYPSUM BOARD FINISHING OF WALLS. ALL FINAL INSTALLATION HEIGHTS FOR IN-WALL SUPPORT BRACKETS MUST BE VERIFIED. ACCESSIBILITY CODES AND STANDARDS WITH COUNTERTOP MATERIAL THICKNESS INCLUDED.
23. MATERIAL COLORS NOT LISTED SHALL BE REQUESTED FROM THE ARCHITECT ON SHOP DRAWING SUBMITTALS OR VIA RFIs.
24. ALL UPPERS TO BE LAMINATED TO MATCH BASE CABINETS. BOTH UPPERS & LOWER CABINETS IN WET AREAS TO HAVE MATCHING PVC EDGE. ALL OTHERS TO HAVE PLASTIC LAMINATE EDGE BANDING U.O.N.
25. ALL CABINETS AND DOORS SHALL BE CONSTRUCTED FROM 3/4" THICK MATERIAL, U.O.N. ON DETAILS.
26. BASE CABINETS AND DOORS SHALL NOT TO RECEIVE WALL BASE UNLESS INDICATED ON FINISH PLANS OR ELEVATIONS.
27. ALL INTERIORS OF CLOSED CABINETS TO BE WHITE MELAMINE/POLYESTER OR APPROVED EQUIV. UNLESS OTHERWISE SPECIFIED.
28. ALL OPEN CABINETS OR SHELVES TO HAVE PLASTIC LAMINATE TO MATCH EXTERIORS.
29. NO 3/4" THICK SHELF SPAN LONGER THAN 32" WITHOUT SUPPORT.
30. ALL SHELVING TO BE ADJUSTABLE UNLESS OTHERWISE SPECIFIED.
31. ALL FILE FEDESTALS ARE TO BE CONFIGURED FOR "FRONT TO BACK" FILING AND BE ABLE TO ACCEPT METAL HANGERS TO ACCEPT PENDALEX TYPE FILE FOLDERS, UNLESS NOTED AS LATERAL.
32. ALL COUNTER TOPS TO BE 3/4" DEEP UNLESS OTHERWISE SPECIFIED. WHERE NO BACKSPLASH IS SPECIFIED, COUNTER TOPS TO BE SCRIBED TIGHTLY TO BACK & SIDE WALLS.
33. ALL BACKSPLASHES TO BE SCRIBED TO WALLS, AND MUST BE FLUSH TO EDGE OF BASE, UNLESS OTHERWISE SPECIFIED. ALL COUNTER TRANSITION SEAMS MUST BE CAULKED, SEALED, VERIFY EITHER MATCHING COLOR CAULK OR CLEAR SILICONE.
34. PROVIDE SIDE SPLASHES AT LOCATIONS ADJACENT TO WALLS OR WINDOWS, ESPECIALLY FOR SINKS U.O.N.
35. FACES OF PIGEONHOLES TO MATCH WORK SURFACE LAMINATE. COLOR OF EDGE BANDING OF ALL DOORS TO MATCH FACE MATERIAL.
36. IF PROVIDED, SEE SPECIFICATIONS/PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
37. COUNTERTOPS SHALL HAVE A NOSING OF COUNTERTOP MATERIAL AT LEAST 3" DEEP. WHEREBY THE COUNTER MATERIAL EXTENDS INTO THE INSIDE OF THE CABINET, I.E. OVER THE DOOR (WHEN PRESENT).
38. END PANELS AND FRONT EDGES OF EDGE PANELS WHICH ARE PROUD OF THE INTERIOR CABINET SHALL BE FACED TO MATCH DOOR FRONTS.
39. ALL HINGED DOORS TO HAVE CLEAR SLICENERS TOP AND BOTTOM ON DOOR (NOT CABINET).
40. ALL DRAWERS GLIDES SHALL HAVE SLICENERS BUILT INTO THE GLIDE AND NOT INSTALLED ON THE DRAWER OR DRAWER FRONT.
41. ALL DRAWER GLIDES SHALL BE FULL EXTENSION.
42. PROVIDE FULL OVERLAY HINGES WHICH OBTAIN +10% OF DEEP WHERE CABINETS ARE ADJACENT TO THE WALLS. PROVIDE HINGES THAT IMIT THE DOOR SWING TO KEEP THE DOOR FULL FROM DAMAGING THE WALL.

1. CONTRACTOR AND ARCHITECT TO REVIEW & APPROVE CHALK LINES OF PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTION.
2. CONTRACTOR TO VERIFY DIMENSIONS FOR ALL PLUMBING PARTITIONS.
3. EXTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE, U.O.N.
4. ALL CONDUIT PIPING TO BE CONCEALED WITHIN THE WALL CONSTRUCTION.
5. DOOR OPENINGS IN PARTITIONS NOT DIMENSIONED ARE TO BE LOCATED WITHIN 4" OF ADJACENT PERPENDICULAR PARTITION.
6. CONTRACTOR SHALL USE #6 METAL STUDS MINIMUM AT ALL PLUMBING WALLS. CONTRACTOR TO VERIFY ACTUAL DEPTH REQUIRED, ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT.
7. USE WATER RESISTANT GYPSUM BOARD AT ALL AREAS SUBJECT TO MOISTURE OR WHERE TILE IS USED.
8. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
9. ALL HOT WATER LINES SHALL BE PROPERLY INSULATED. SEE PLUMBING DRAWINGS.
10. ALL PLUMBING CLEAN-OUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS WITH EQUIPMENT, AND FINISHING TO PURSUE A FINAL PLAN. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. ALL PROPOSED LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
11. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ARCHITECT AND TENANT APPROVAL PRIOR TO MANUFACTURE OF ANY CABINET WORK, MILLWORK AND ANY OTHER SPECIAL ITEMS REQUIRING CUSTOM SHOP PREFABRICATION WORK.
12. PROVIDE AND INSTALL ALL NECESSARY WALL BACKING, STIFFENERS, BRACING, BACK UP PLATES AND/OR SUPPORTING BRACKETS AS REQUIRED FOR THE INSTALLATION OF WALL MOUNTED OR SUSPENDED EQUIPMENT OR BUILT IN ITEMS. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. SUPPLY CATALOG CUT SHEETS FOR ARCHITECT'S APPROVAL.
13. PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL CONNECTIONS AND PLUMBING SUPPLY FITTINGS & CONNECTORS TO COMPLETE INSTALLATION OF APPLIANCES & EQUIPMENT AS NOTED ON EXISTING PLAN. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. SUPPLY CATALOG CUT SHEETS FOR ARCHITECT'S APPROVAL.
14. EXACT LOCATION OF FIRE EXTINGUISHER CABINETS TO BE CONFIRMED WITH ARCHITECT BEFORE BEGINNING WORK. PROVIDE ADDITIONAL FIRE EXTINGUISHERS & CABINETS AS REQUIRED BY THE FIRE DEPARTMENT FIELD INSPECTORS.
15. UNLESS OTHERWISE NOTED, ALL GYPSUM BOARD SURFACES, WALLS, AND CEILINGS SHALL BE TAPED, SANDED SMOOTH TO A "LEVEL 4" FINISH, SO AS TO RECEIVE PAINT OR WALL COVERING MATERIAL.
16. PROVIDE SOUND INSULATION AT PERIMETER WALLS OF RESTROOMS, LOBBY, STAIRS, AND ACROSS CEILING OF RESTROOMS TO CREATE AN ACOUSTIC ENVELOPE, U.O.N.
17. PATCH AND FILL OPENINGS AT EXISTING GYPSUM BOARD PARTITIONS AND SOFFITS FOLLOWING REMOVAL OR INSTALLATION OF ANY SURFACE MOUNTED OR RECESSED PLUMBINGS, RECEPTACLES, UTILITY PIPING, STEP STANDARDS & ALL OTHER SIMILAR ELEMENTS INDICATED TO BE REMOVED DURING THE DEMOLITION PHASE OR INSTALLED DURING THE CONSTRUCTION PHASE. TAPE AND SEAL ALL SEAMS WITH JOINT COMPOUND AND PATCH TO MATCH TO EXISTING FINISH AT ADJACENT GYPSUM BOARD SURFACES AND FEATHER NEW FINISH WITH EXISTING FINISH TO PROVIDE CONSISTENT & CONTINUOUS FINISH.
18. THE MAXIMUM CONTROL JOINT SPACING FOR WALLS AND CEILINGS WITHOUT PERIMETER RELIEF IS TO BE 30 LINEAR FEET OR 900 SQUARE FEET OF SURFACE PLUMBING WITH PERIMETER RELIEF IS TO BE 30 LINEAR FEET OR 2,500 SQUARE FEET OF SURFACE AREA. EXTERIOR JOINT SPACING IS TO BE 30 LINEAR FEET OR 900 SQUARE FEET OF SURFACE AREA.
19. CONSTRUCTION SEALANT JOINTS ARE REQUIRED AT CONTINUOUS GYPSUM BOARD SURFACES WITH DISSIMILAR WALL STRUCTURE.
20. PROVIDE DOUBLE STUDS AT BOTH JAMBS OF DOOR FRAMES AND HEADER.
21. PARTITIONS SHALL NOT BE FASTENED NOR BRACED TO DUCTWORK, CONDUIT OR PIPING.
22. DO NOT MECHANICALLY SECURE NEW STUD FRAMING TO EXISTING WINDOW FRAMES

GENERAL NOTES

DATE	REMARKS
11/03/2022	ISSUE FOR PERMIT

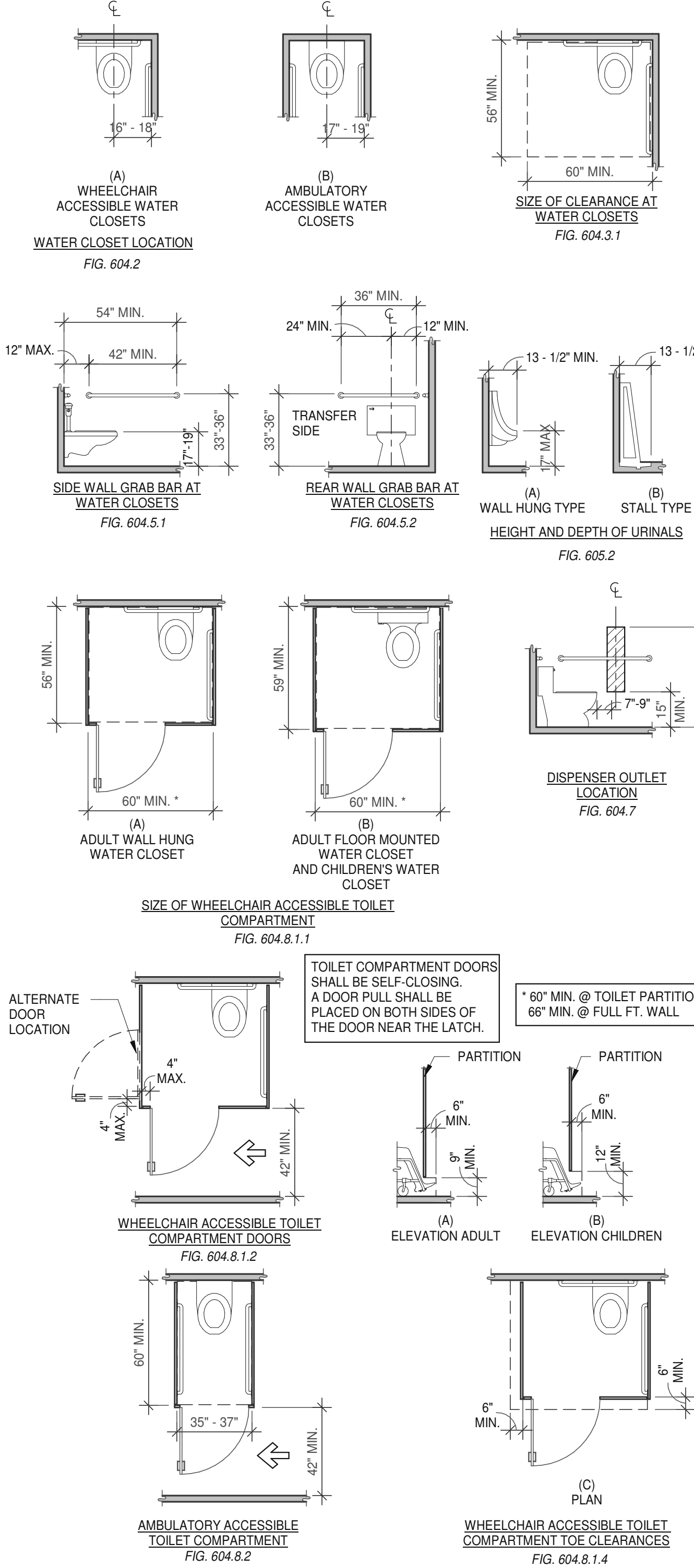
PA/PM:	STEVEN COX
--------	------------

DRAWN BY: C.B.

JOB NO.: DAL21-0063-00

ACCESSIBILITY NOTES

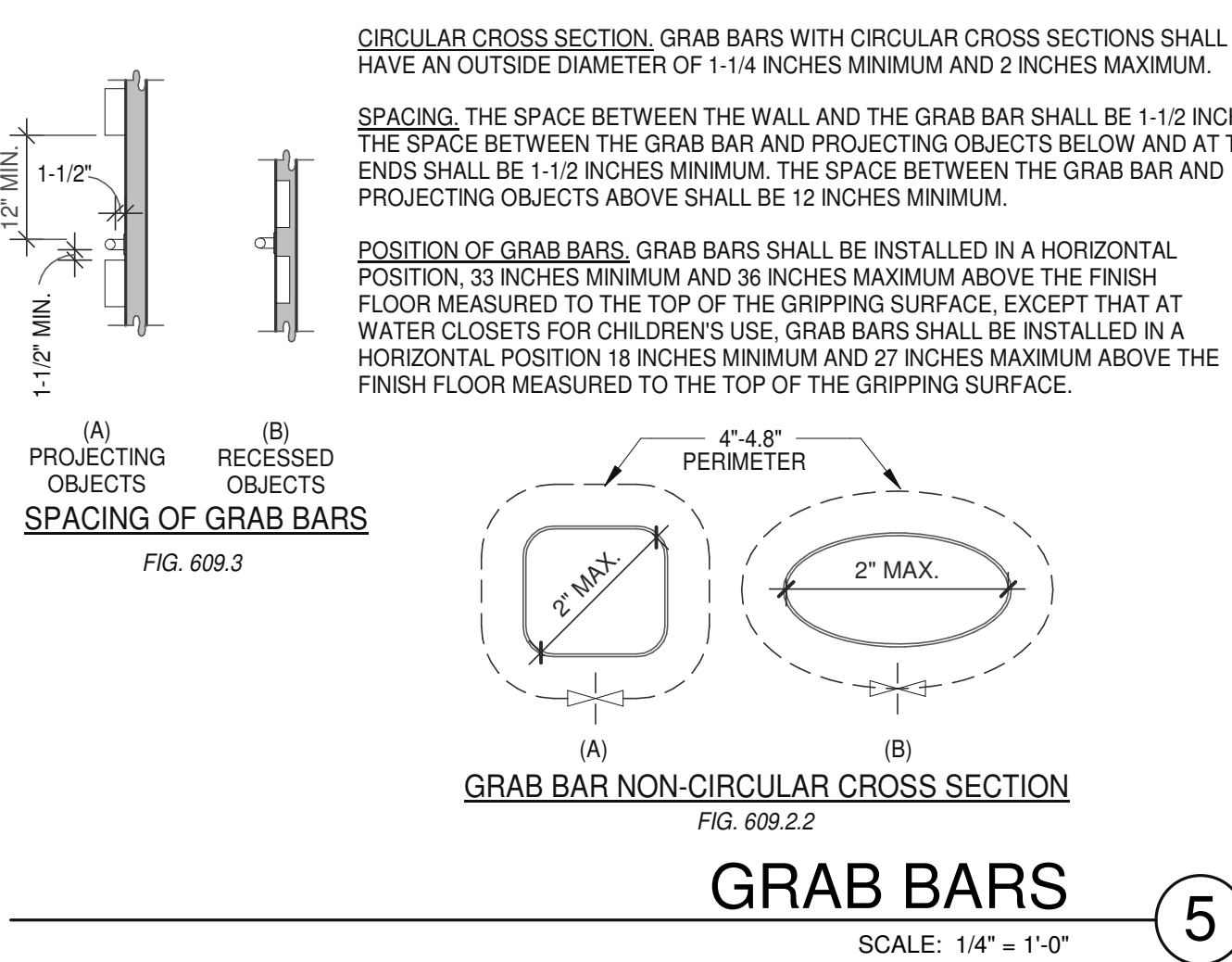
- "THE ACCESSIBILITY GUIDELINES AND CODES" MENTIONED BELOW REFER TO ALL APPLICABLE LOCAL/STATE BUILDING CODES REFERENCED ON THE PROJECT DATA SHEET OF THIS SET IN ADDITION TO THE FEDERAL REQUIREMENTS OF THE ADA (THE AMERICANS WITH DISABILITIES ACT).
- DETAILS ON THIS SHEET ARE FOR REFERENCE ONLY. REFER TO THE ACCESSIBILITY GUIDELINES AND CODES FOR ALL ACCESSIBILITY REQUIREMENTS.
- THE GENERAL CONTRACTOR SHALL BECOME FAMILIAR WITH THE ACCESSIBILITY GUIDELINES AND CODES.
- ANY DISCREPANCY CONTAINED HEREIN DOES NOT RELIEVE THE GENERAL CONTRACTOR OR OWNER FROM COMPLYING WITH THE ACCESSIBILITY GUIDELINES AND CODES.



WATER CLOSETS AND TOILETS
COMPARTMENTS & URINALS

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

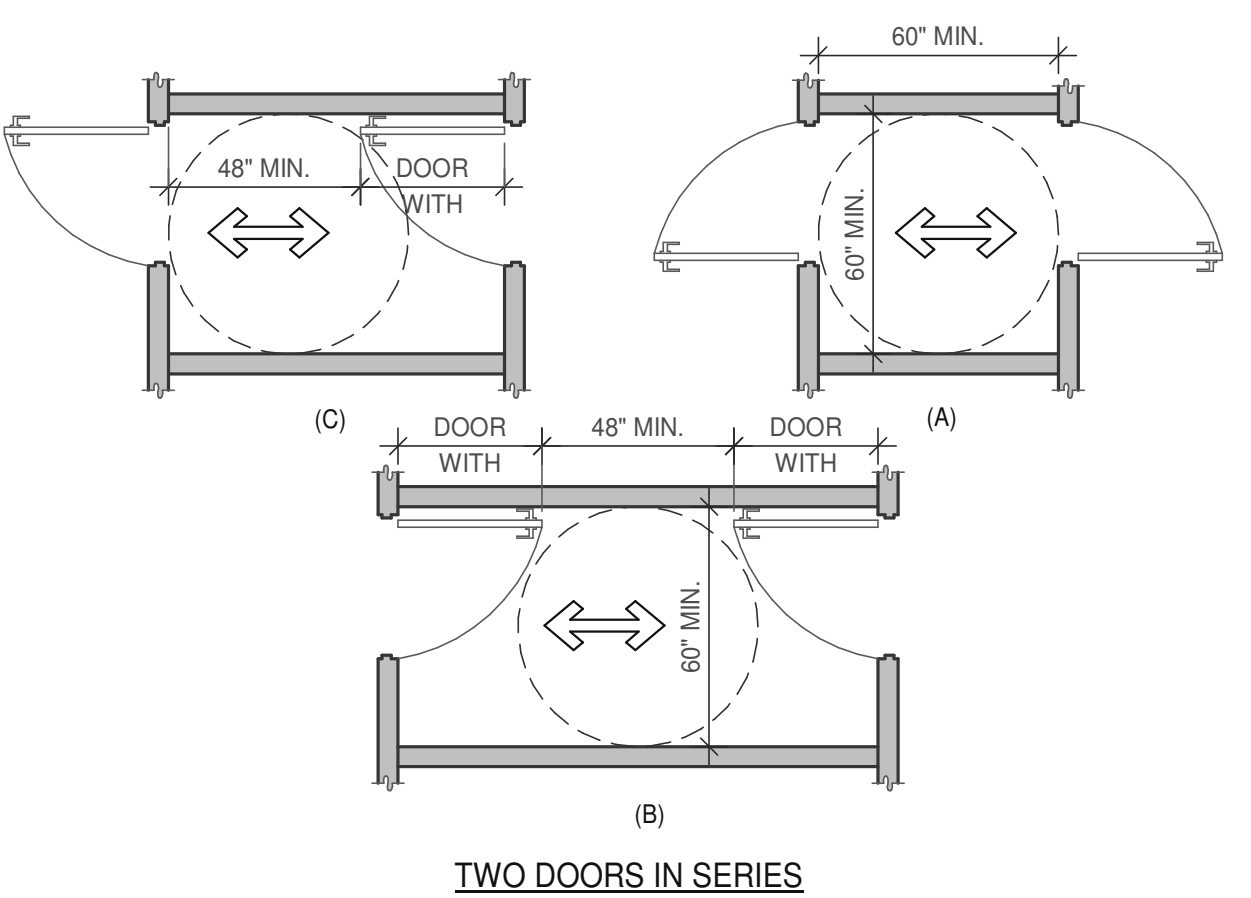
4



GRAB BARS

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

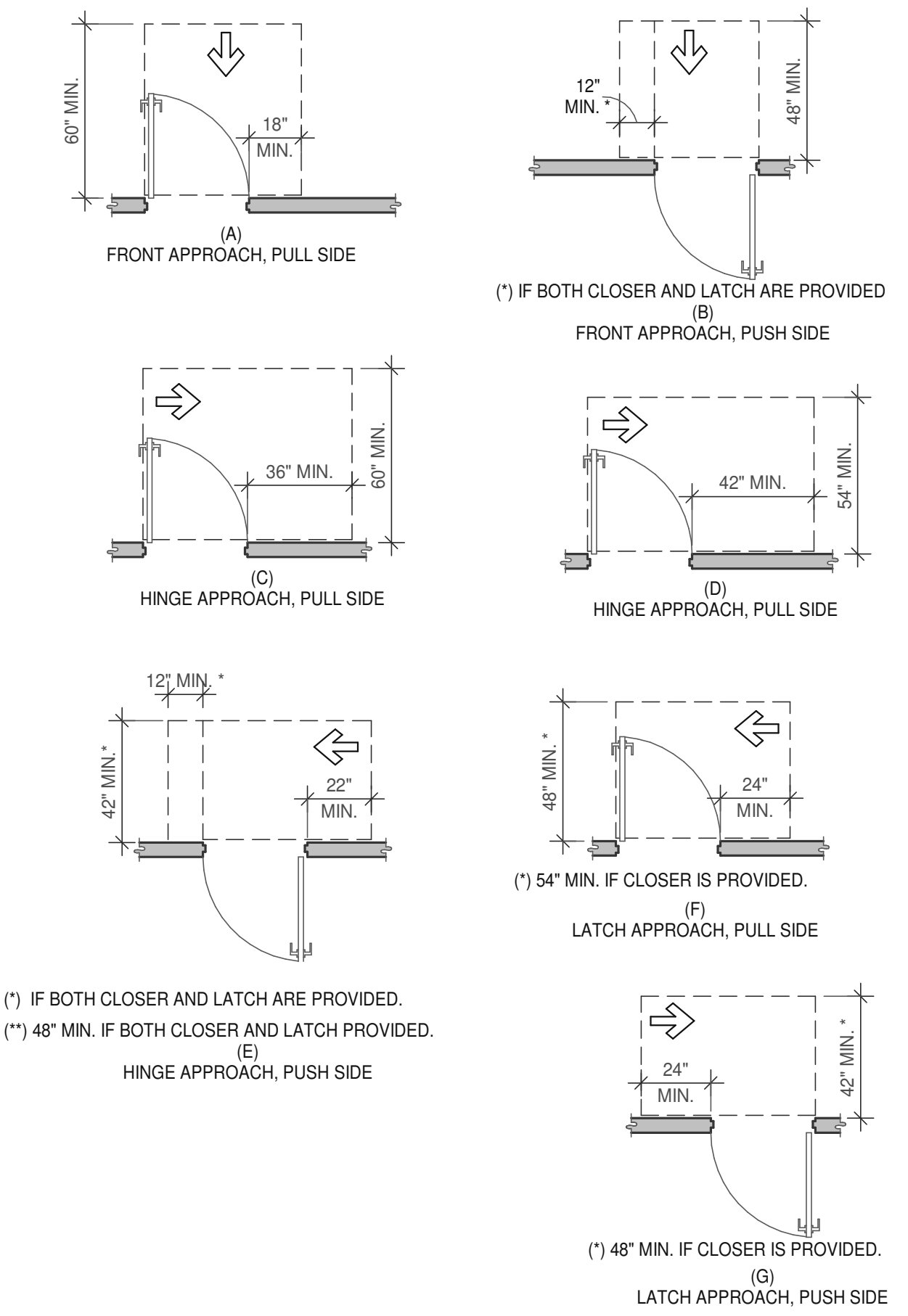
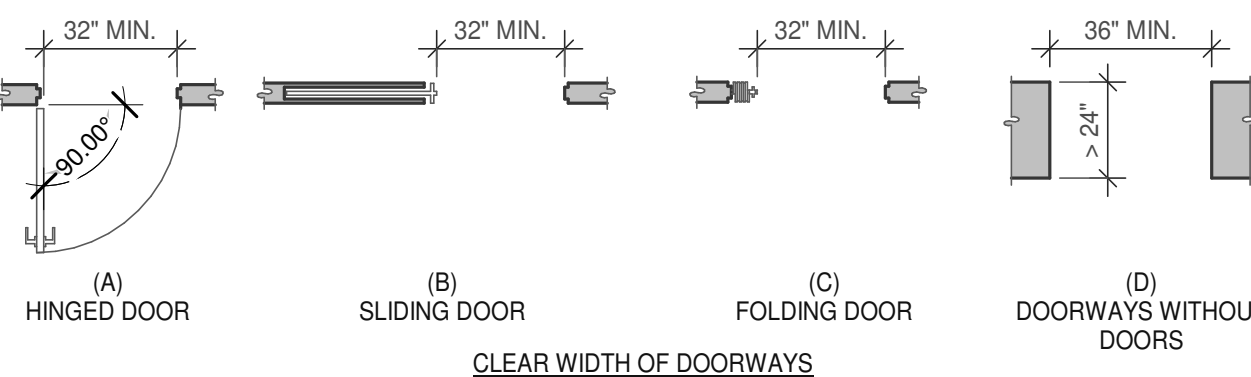
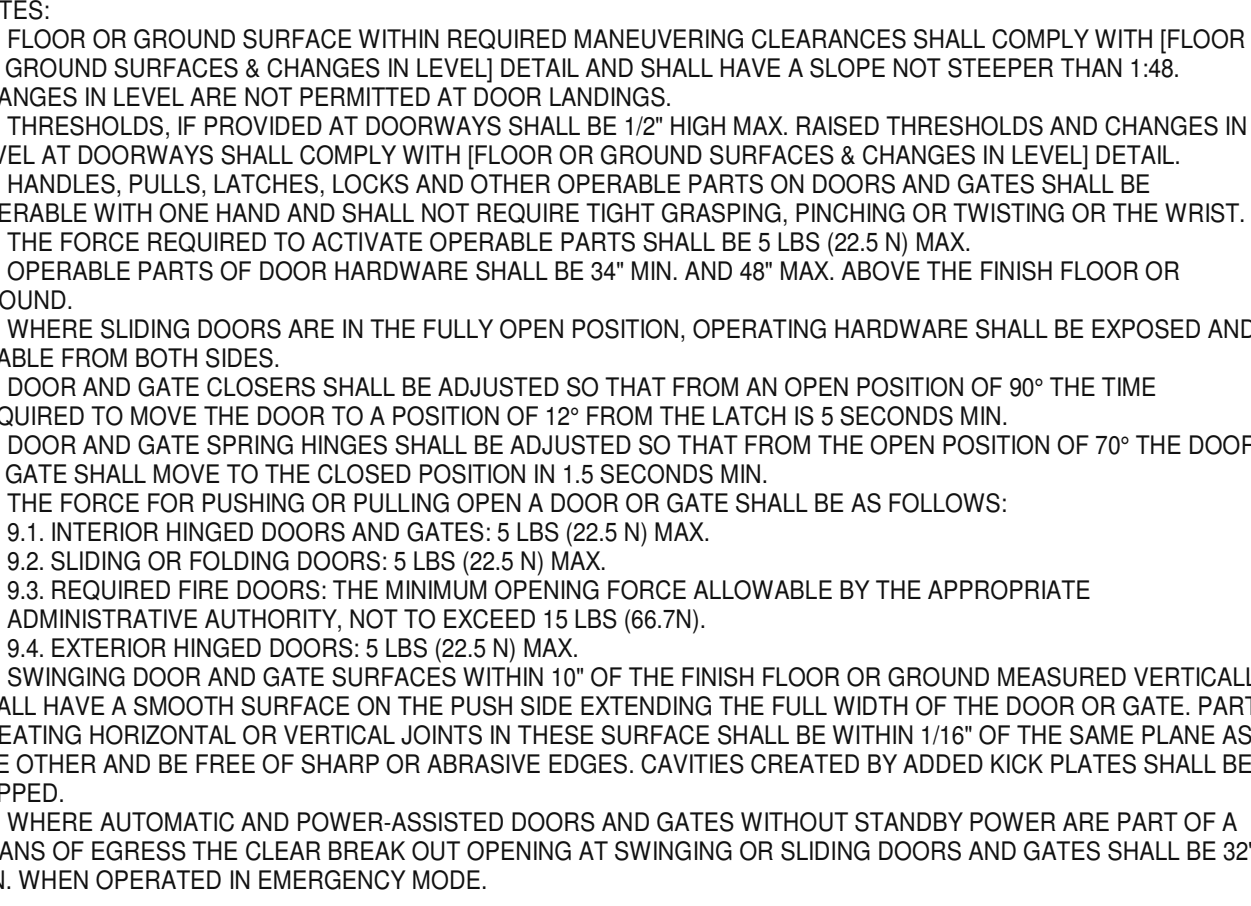
5



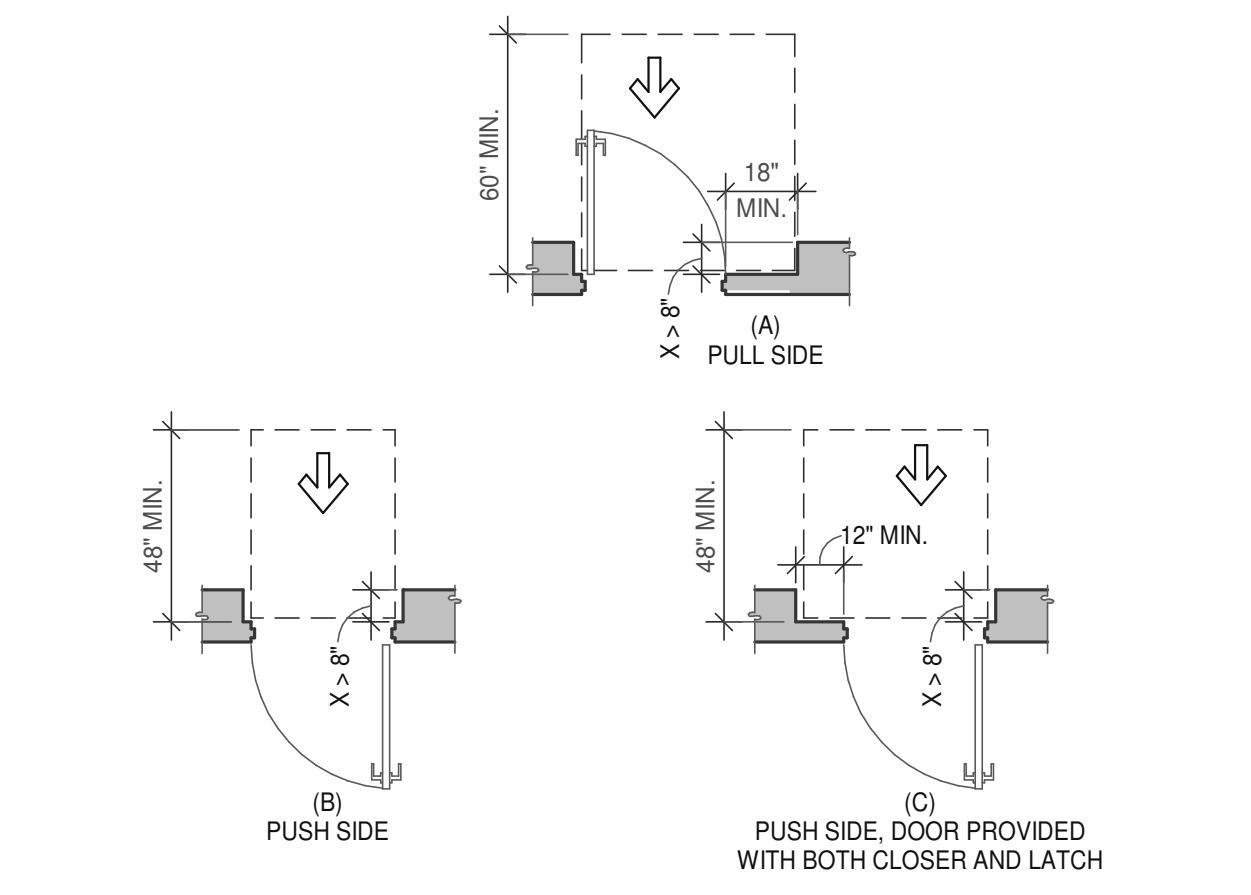
DOORS, DOORWAYS & GATES

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

6



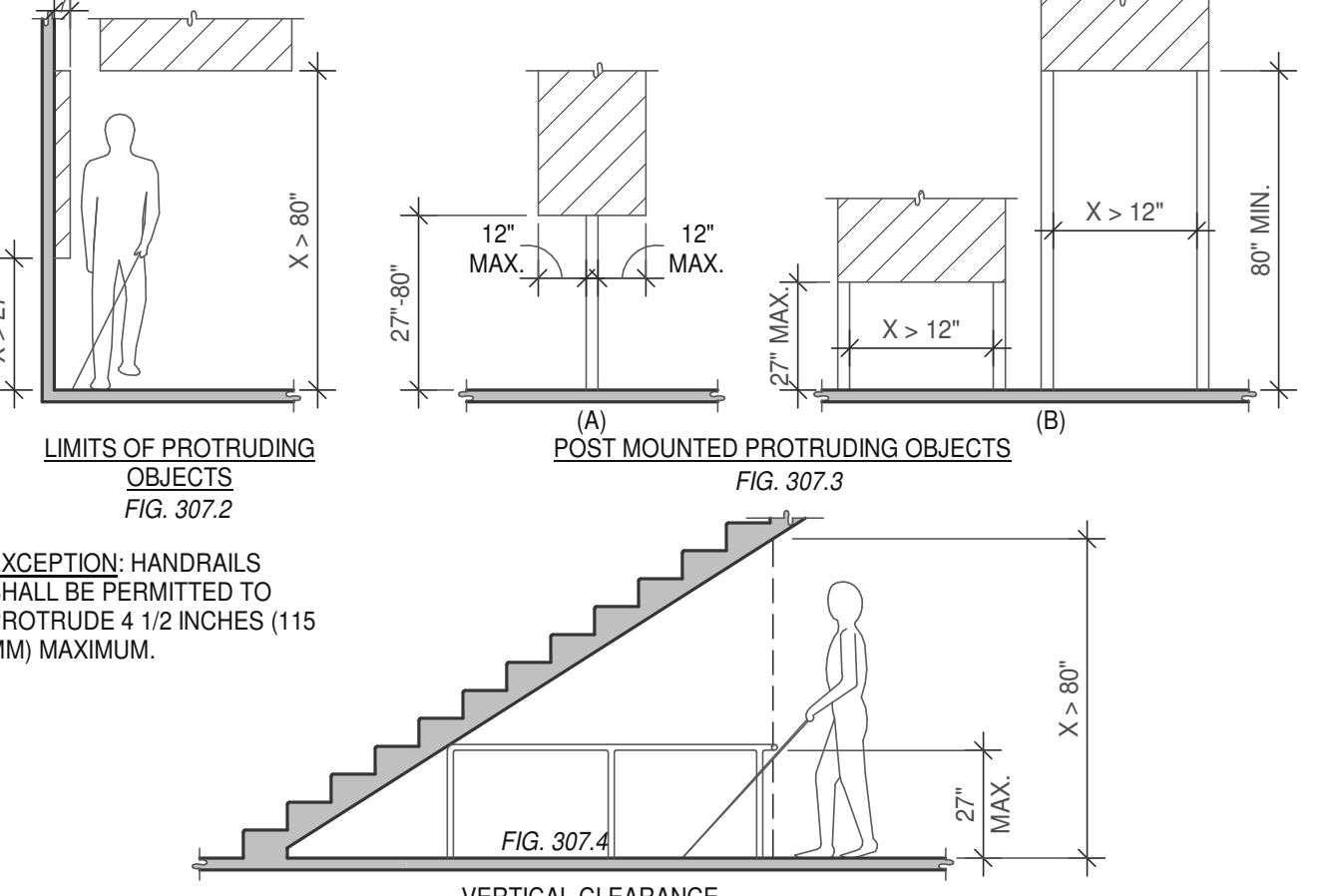
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS AND GATES



DOORS, DOORWAYS & GATES

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

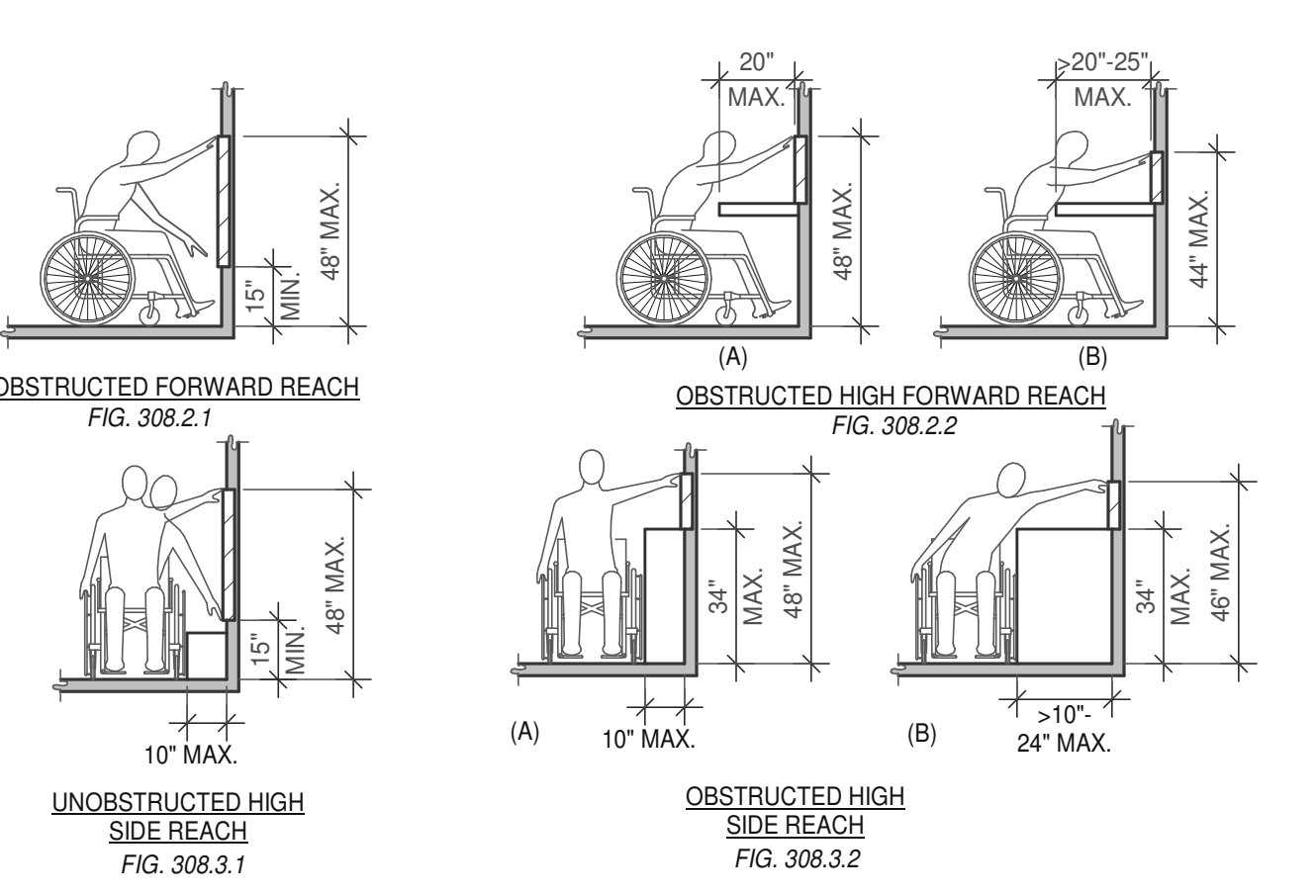
10



PROTRUDING OBJECTS

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

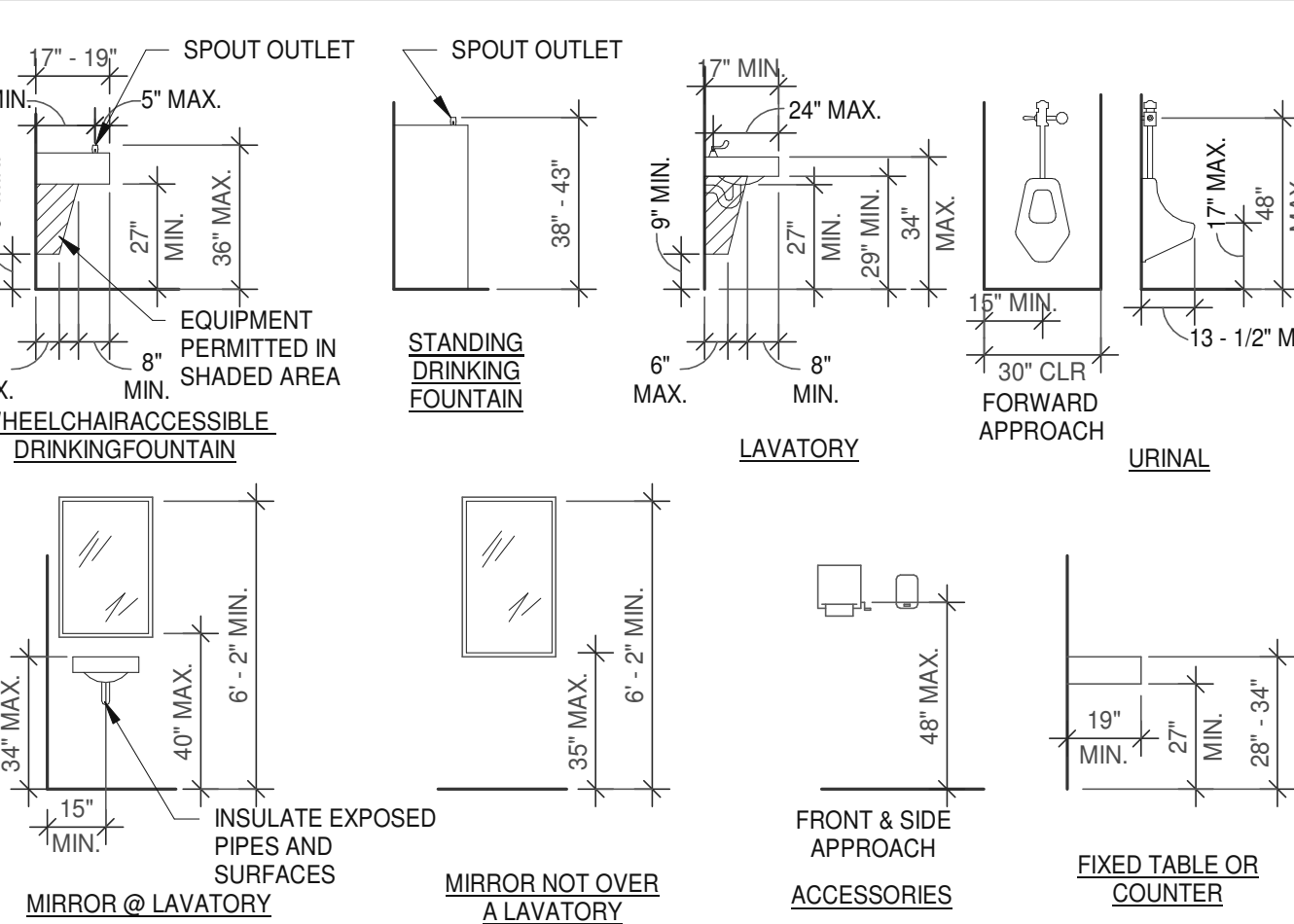
11



REACH RANGES

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

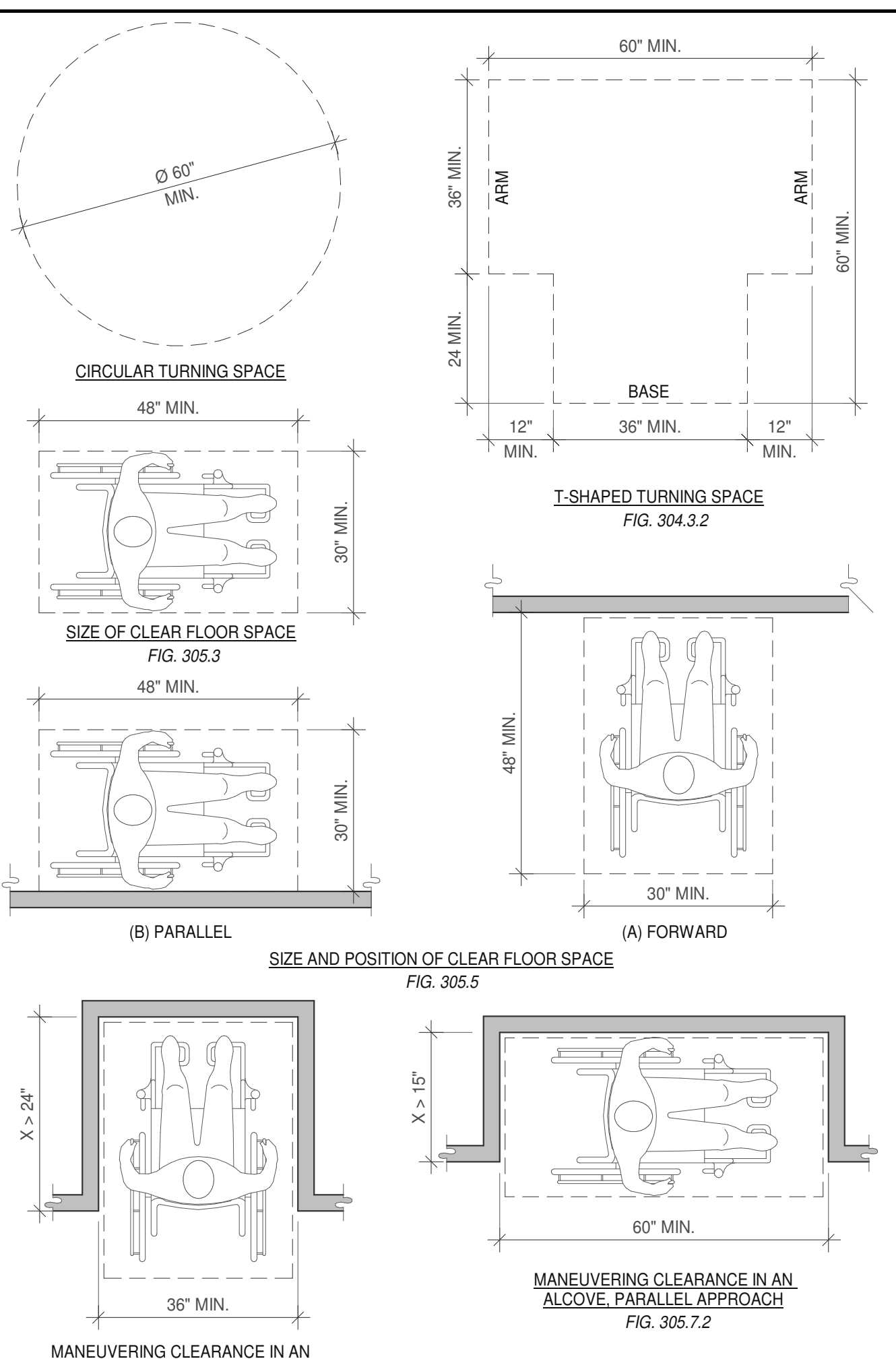
12



MOUNTING HEIGHTS

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

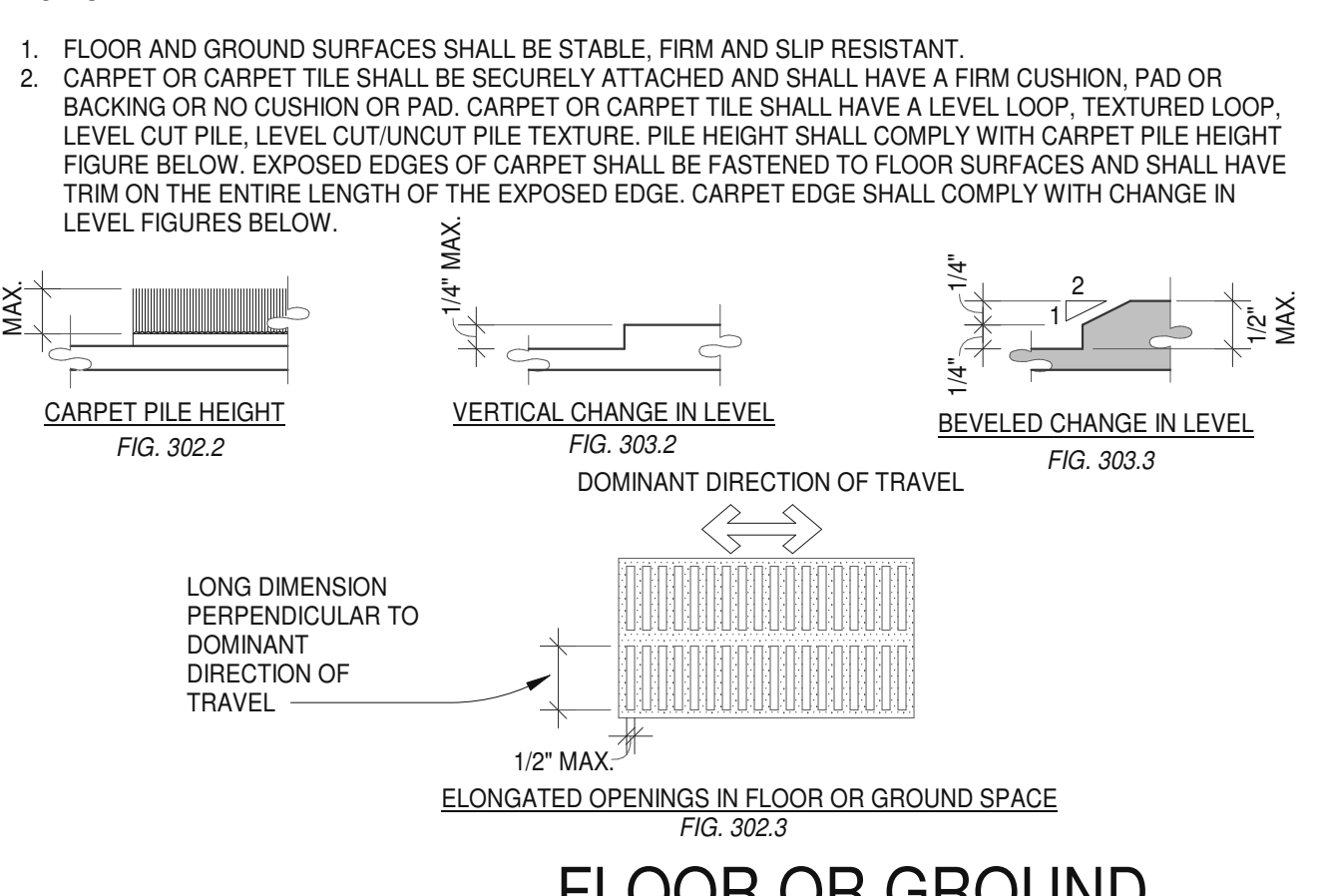
13



CLEAR FLOOR OR GROUND SPACE

SCALE: 1/2" = 1'-0"

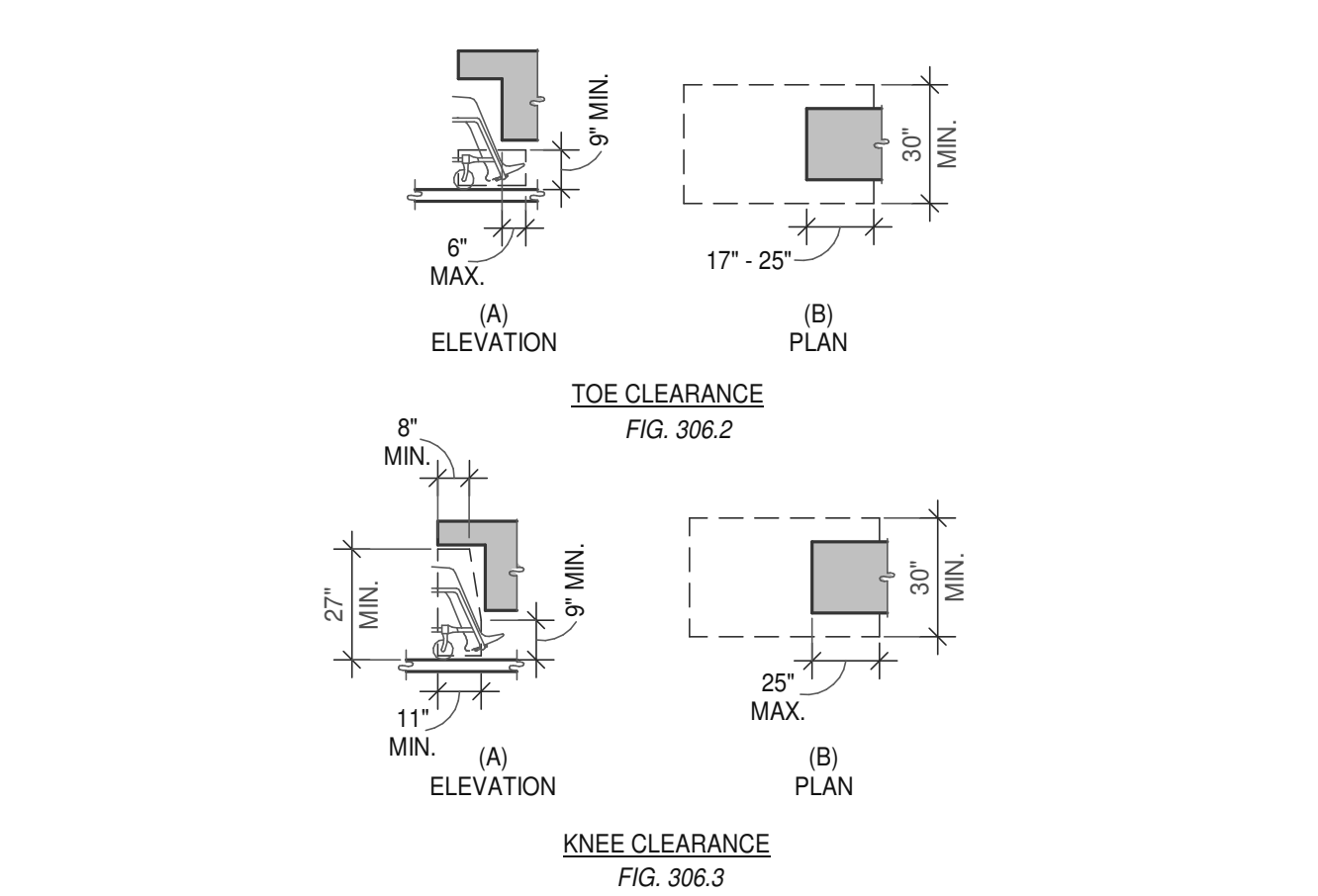
15



FLOOR OR GROUND
SURFACES & CHANGES IN LEVEL

SCALE: 1/2" = 1'-0"

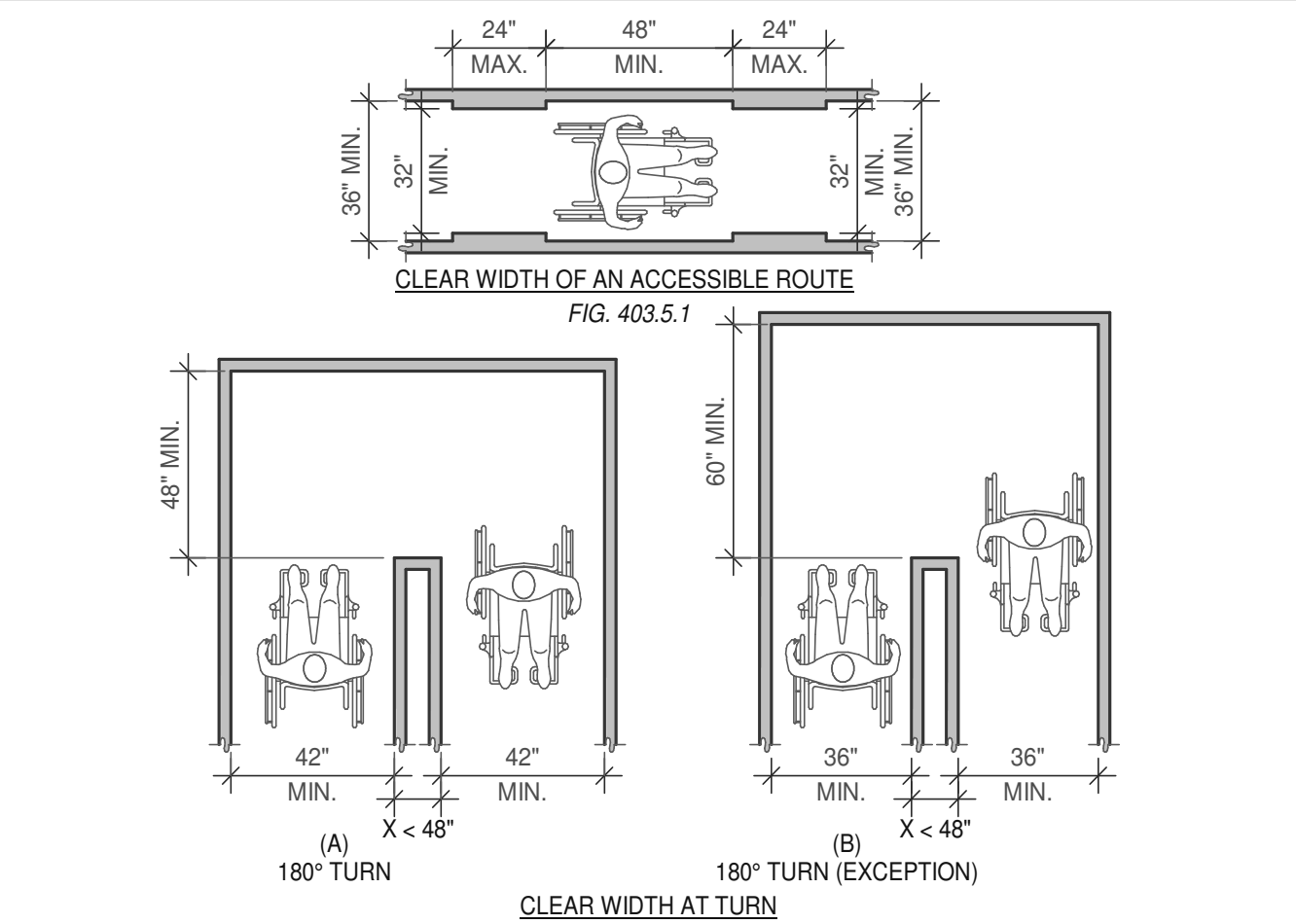
16



KNEE AND TOE CLEARANCE

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

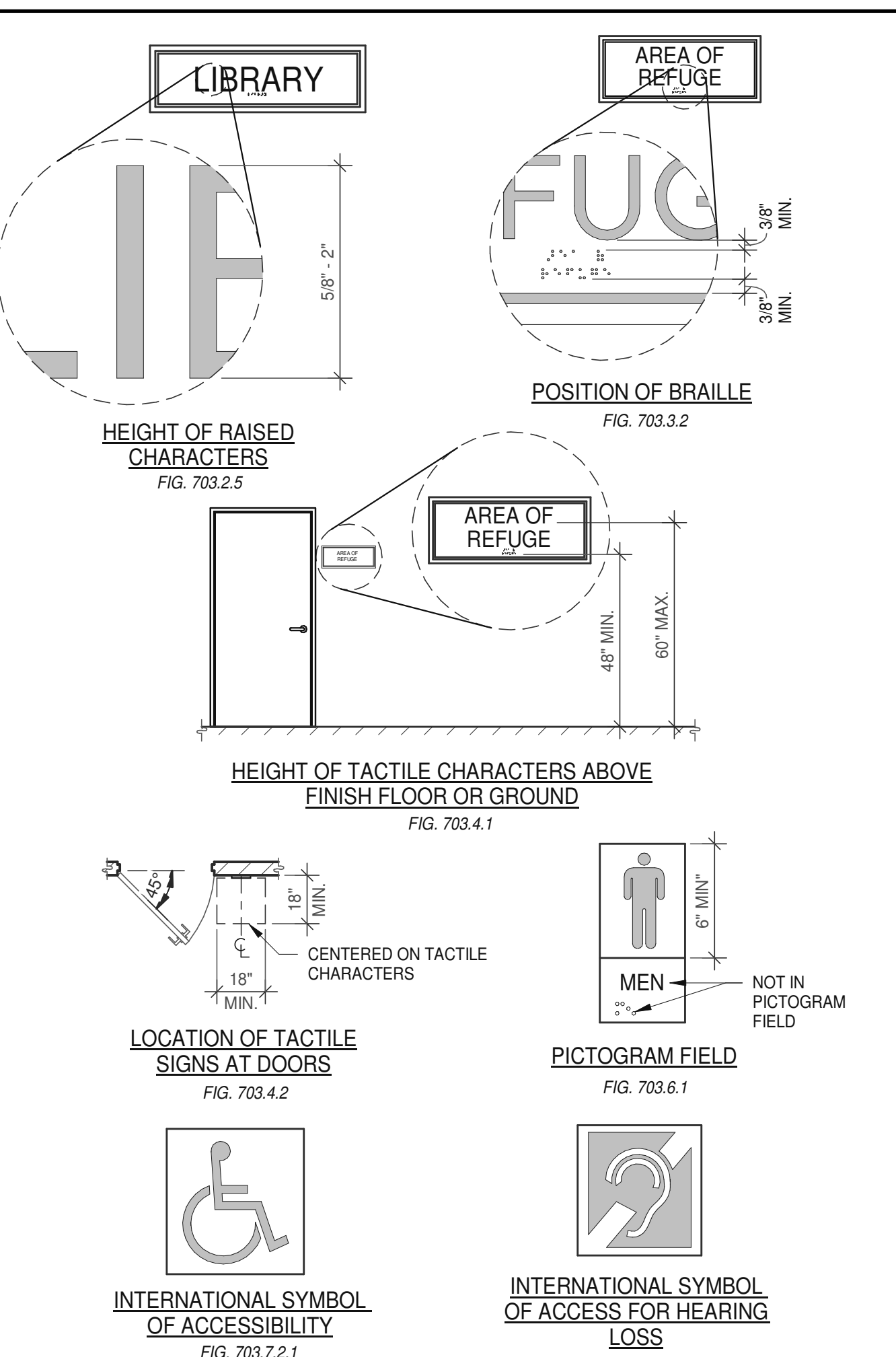
17



CLEAR WIDTH

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

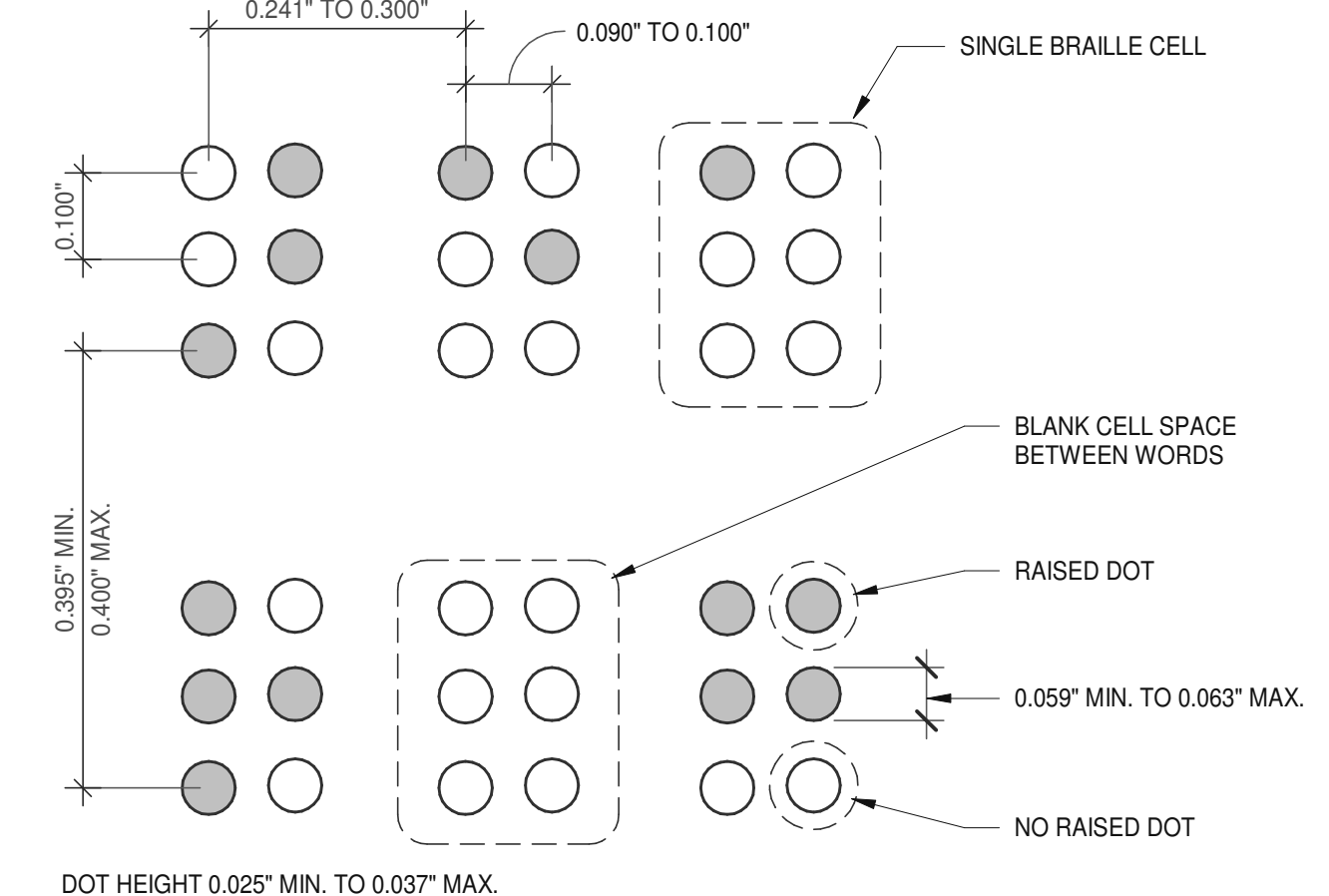
18



SIGNS

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

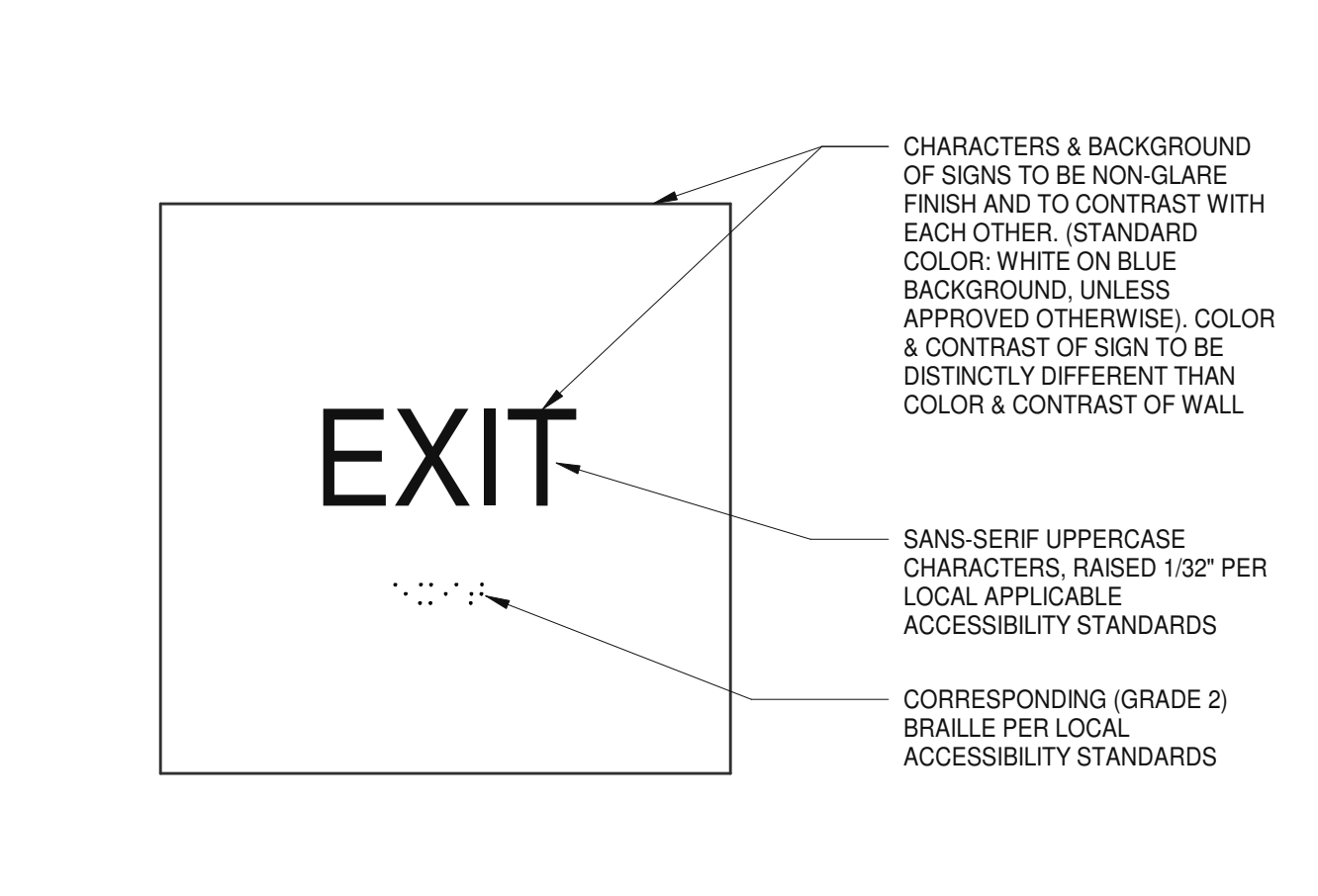
20



BRaille MEASUREMENT

SCALE: 3/8" = 1'-0"

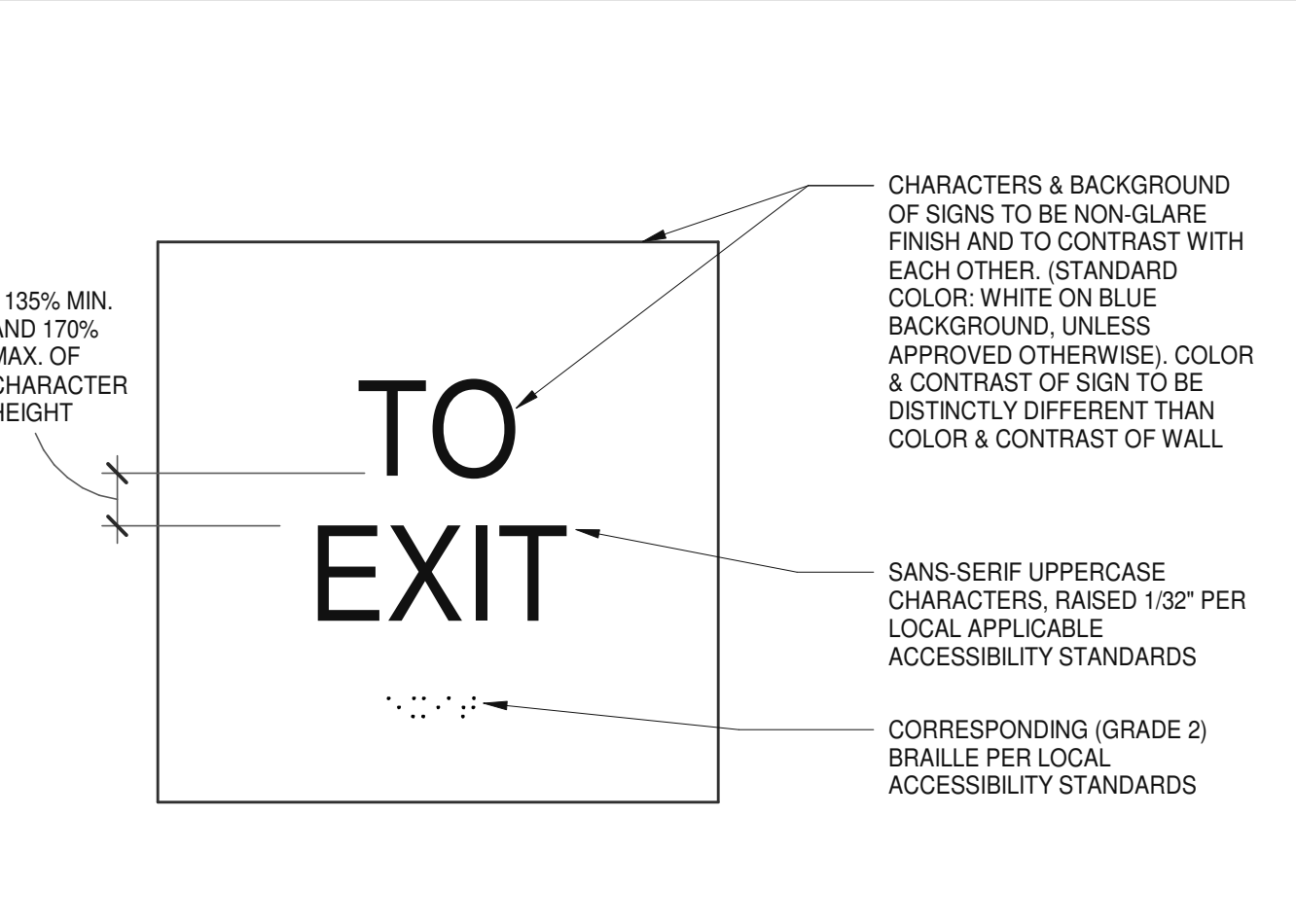
21



TACTILE "EXIT" SIGN

SCALE: 3" = 1'-0"

22

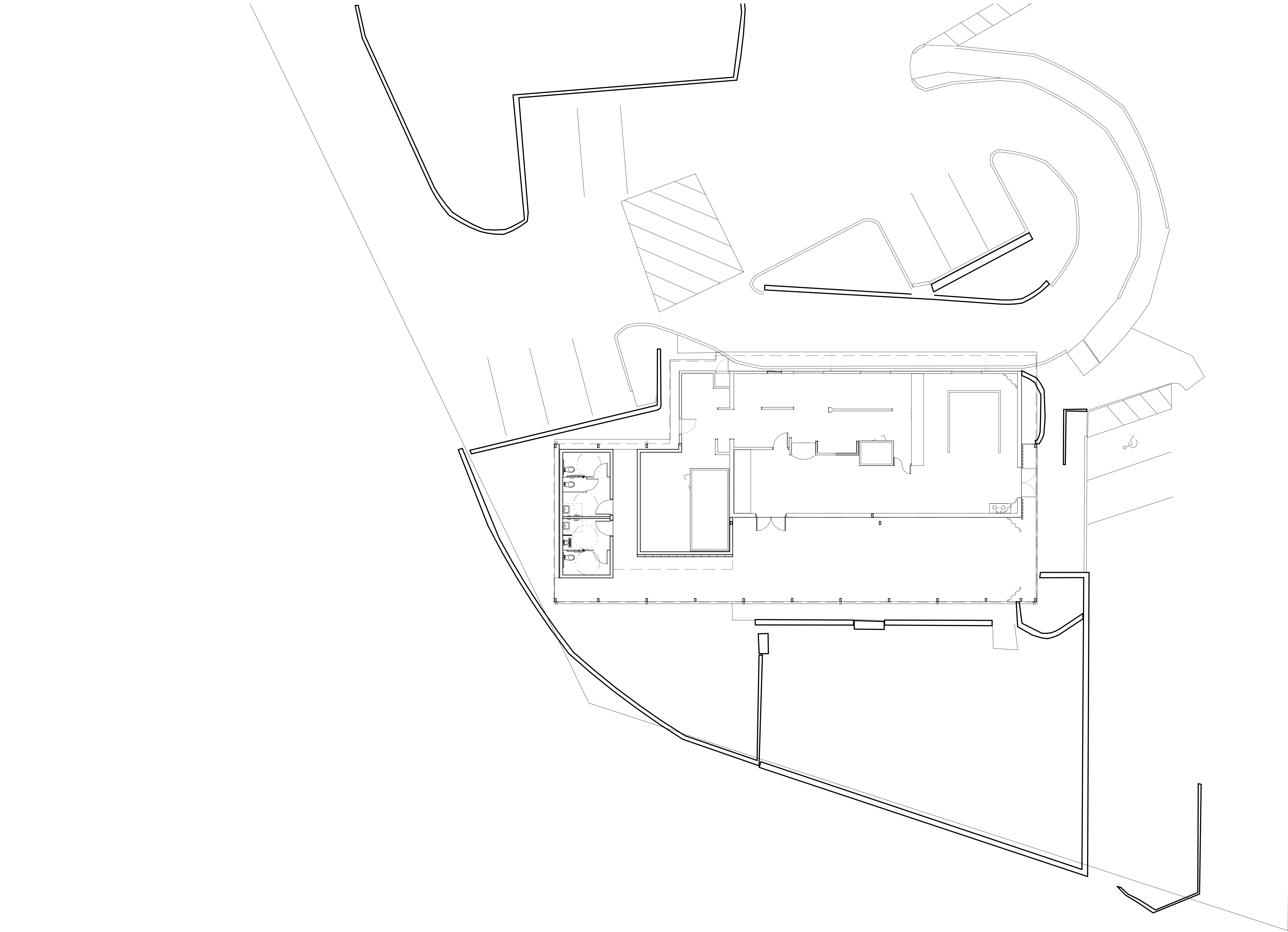


TACTILE "TO EXIT" SIGN

SCALE: 3" = 1'-0"

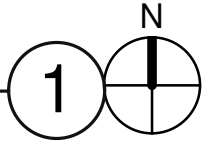
23

C:\pwworkspace\AEC\1\project.dwg



1"=10'
0 5' 10' 20' 50'

SITE PLAN
SCALE: 1" = 10'-0"



KEY PLAN

GENERAL NOTES

SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

KEYNOTES: -

SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

SITE PLAN	
DATE	REMARKS
08/02/2022	ISSUE FOR PERMIT

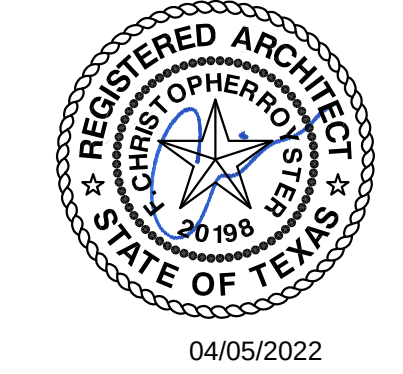
P.A.P.M.:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET
A1.0

4/5/2022 4:58:08 PM

HAT CREEK - WEST LAKE

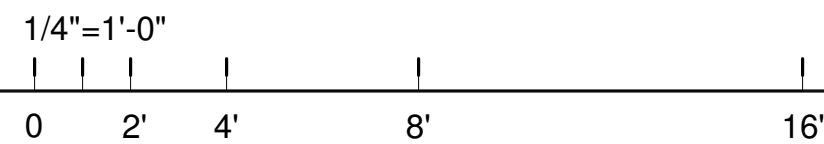
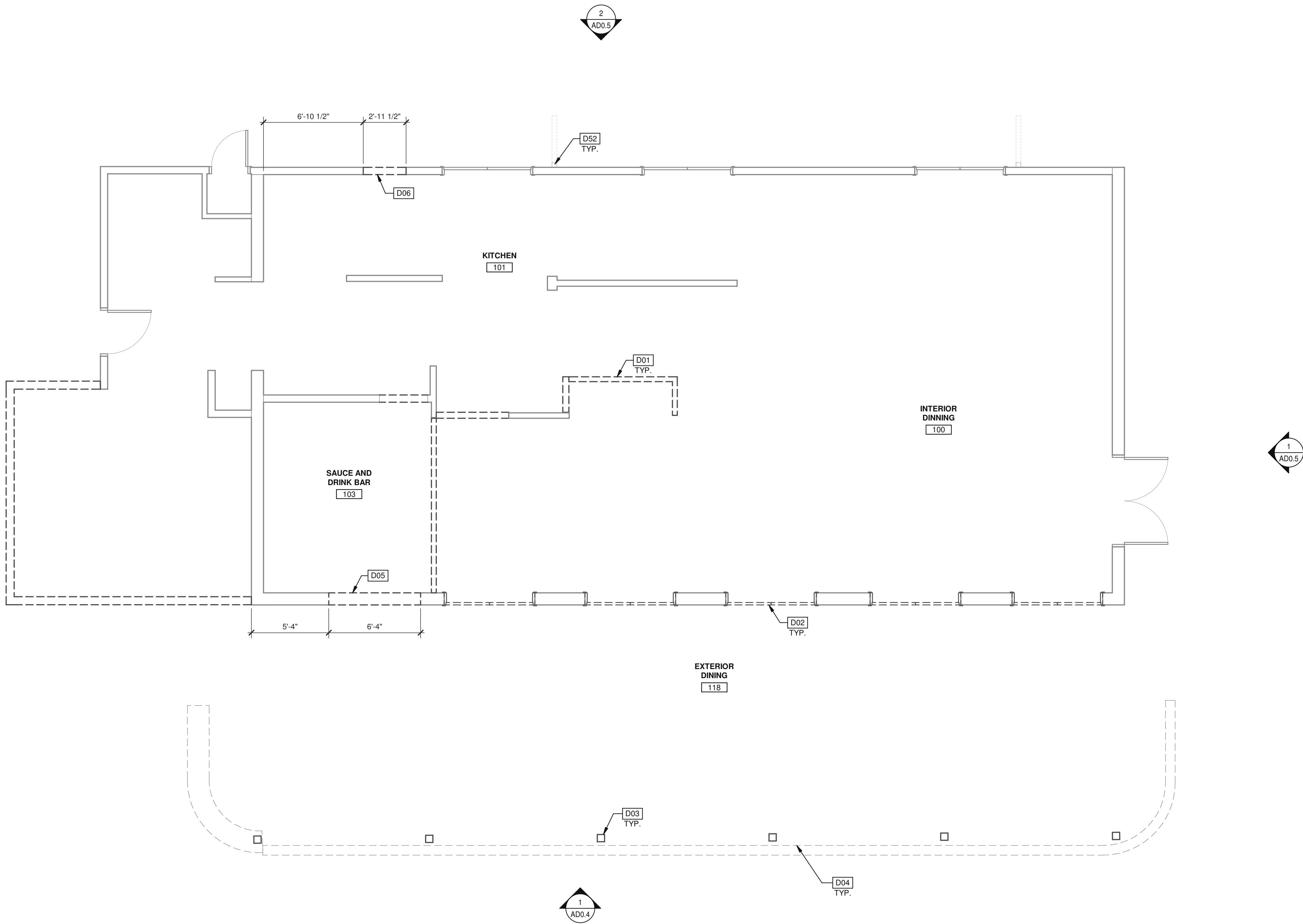
5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



WARE MALCOMB
ARCHITECTURE
PLANNING
INTERIORS
CIVIL ENGINEERING
BRANDS
BUILDING MEASUREMENT
1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY AND COPYRIGHT OF WARE MALCOMB AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY AGREEMENT WITH WARE MALCOMB. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE KEPT ON THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF WARE MALCOMB PRIOR TO THE COMMENCEMENT OF ANY WORK.

B:\M\2021\DAL21-0063-00_Hat Creek - West Lake Remodel\000_Arch\1.dwg



DEMOLITION FLOOR PLAN
SCALE: 1/4" = 1'-0"

LEGENDS

- EXISTING WALL
- EXISTING CONSTRUCTION TO BE DEMOLISHED

KEYNOTES:

- D01 REMOVE PARTITIONS AND RELATED ELECTRICAL OUTLETS AS INDICATED. TERMINATE ELECTRICAL LINES BACK TO POINT OF ORIGIN.
- D02 REMOVE DOOR ASSEMBLY.
- D03 REMOVE COLUMN.
- D04 REMOVE LOW WALL.
- D05 CUT-IN SECTION OF WALL AS REQUIRED FOR NEW PAIR OF 3'-0" DOORS.
- D06 CUT-IN SECTION OF WALL AS REQUIRED FOR NEW WINDOW.
- D08 EXISTING DOWNSPOUT TO REMAIN.

DEMOLITION FLOOR PLAN NOTES

- SEE SHEET A0.2 & A.02a FOR GENERAL NOTES
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE.

DEMOLITION FLOOR PLAN

REMARKS

DATE
03/02/2022

ISSUE FOR PERMIT

P.A.P.M.: STEVEN COX

DRAWN BY.: C.B.

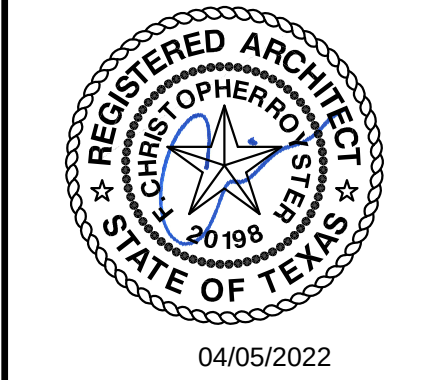
JOB NO.: DAL21-0063-00

SHEET

AD0.1

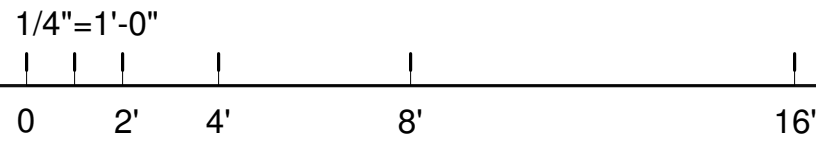
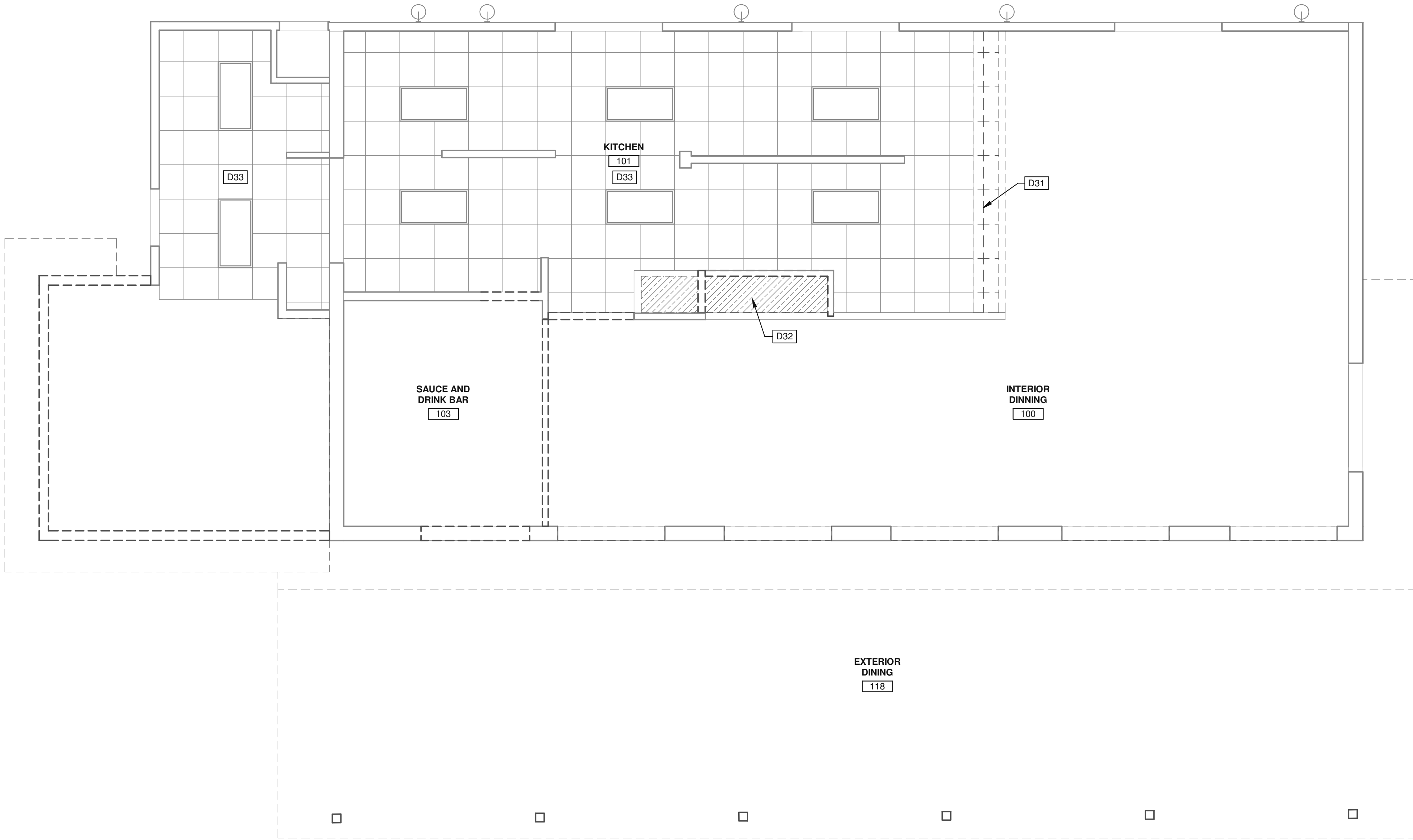
HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

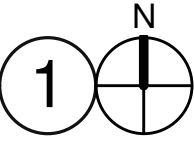


WARE MALCOMB
ARCHITECTURE
PLANNING
INTERIORS
CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT
1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379

B:\M\2021\DAL21-0063-00_Hat Creek - West Lake Remodel\000_Layout.dwg



DEMOLITION CEILING PLAN
SCALE: 1/4" = 1'-0"



LEGENDS

- EXISTING SUSPENDED CEILING GRID & TILES TO REMAIN
- EXISTING SUSPENDED CEILING GRID & TILES TO BE REMOVED
- EXISTING GYPSUM BOARD CEILING TO BE REMOVED
- EXISTING 2'x4' LIGHT FIXTURE TO REMAIN

KEYNOTES:

- D31 REMOVE EXISTING CEILING GRID & TILES IN THIS AREA.
- D32 REMOVE EXISTING GYPSUM BOARD CEILING IN THIS AREA.
- D33 THE CEILING AND LIGHTING IN THIS AREA IS EXISTING TO REMAIN.

DEMOLITION CEILING PLAN NOTES

- SEE SHEET A0.2 & A.02a FOR GENERAL NOTES
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE.

DEMOLITION CEILING PLAN

REMARKS

DATE
03/03/2022

ISSUE FOR PERMIT

P.A.P.M.: STEVEN COX
DRAWN BY.: C.B.
JOB NO.: DAL21-0063-00

SHEET
AD0.2

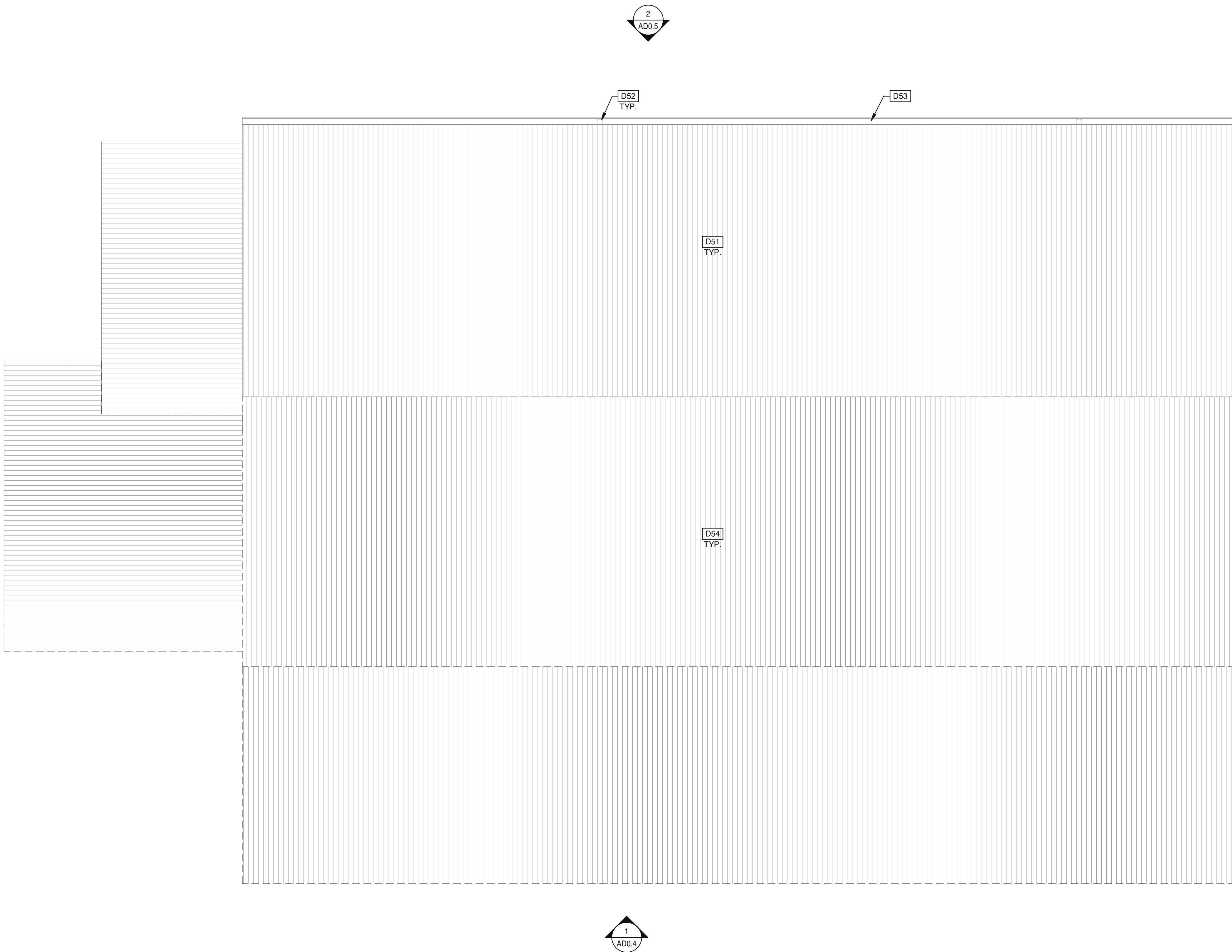
HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



WARE MALCOMB
ARCHITECTURE
PLANNING
INTERIORS
CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT
1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379

BM 301 (DAL21-0063-00) Job Owner: West Lake Remodel0003_A003.rvt



1/4"=1'-0"
0 2' 4' 8' 16'

DEMOLITION ROOF PLAN
SCALE: 1/4" = 1'-0" 1 N

KEYNOTES:

D51 EXISTING ROOF TO REMAIN.
D52 EXISTING DOWNSPOUT TO REMAIN.
D53 EXISTING METAL GUTTER TO REMAIN.
D54 EXISTING METAL ROOF TO BE DEMOLISHED.

DEMOLITION ROOF PLAN NOTES
SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE.

DEMOLITION ROOF PLAN

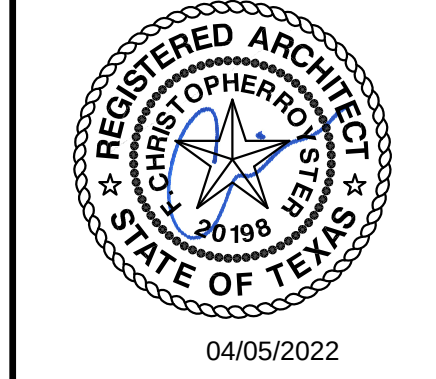
DATE	ISSUE FOR PERMIT	REMARKS
03/03/2022		

P.A.P.M.:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET
AD0.3

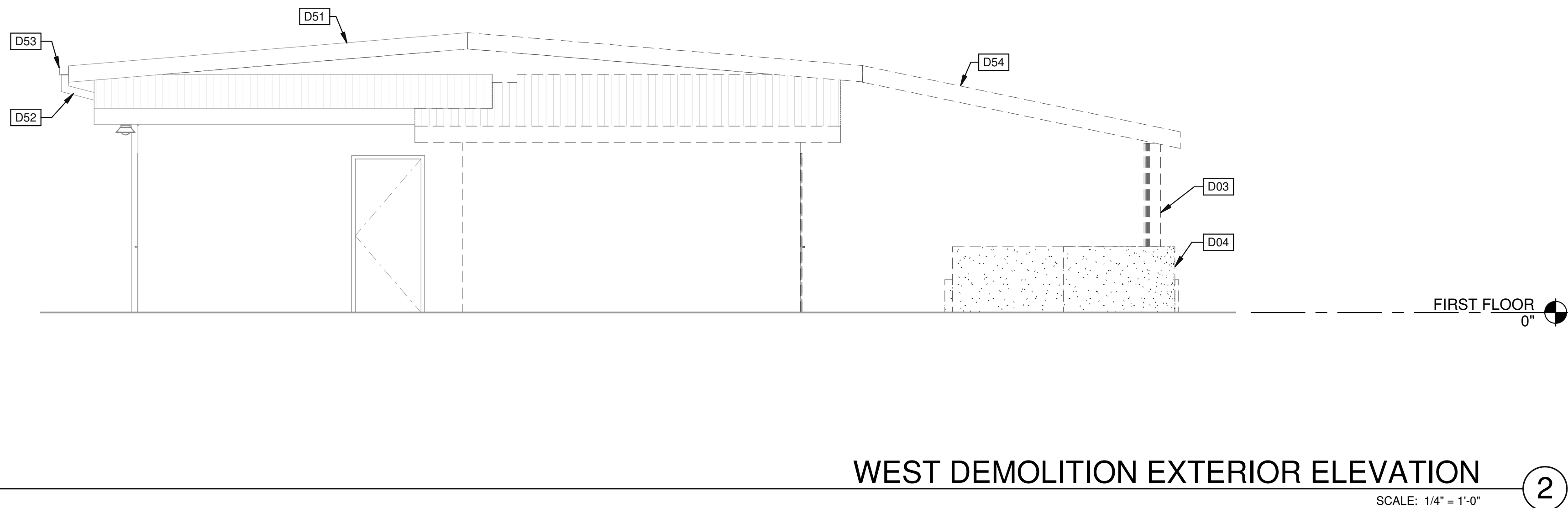
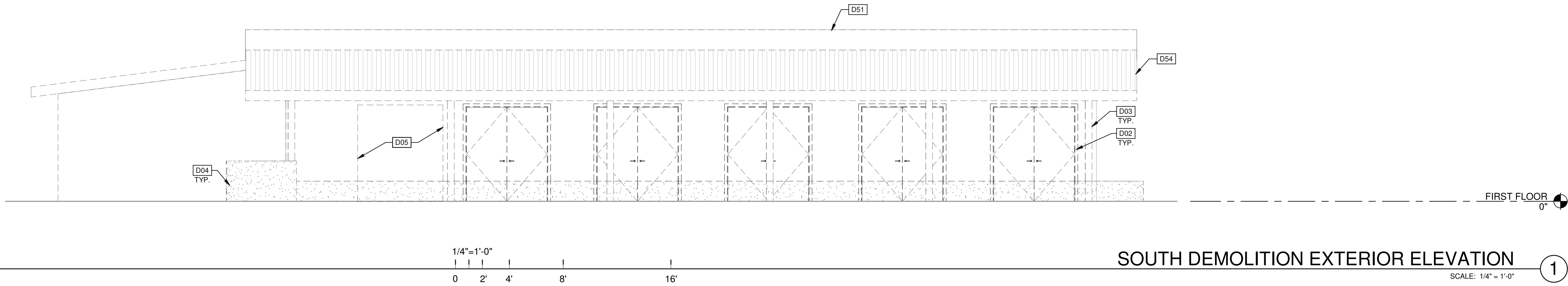


HAT CREEK - WEST LAKE
5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



WARE MALCOMB
ARCHITECTURE
PLANNING
INTERIORS
CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT
2919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY AND COPYRIGHT OF WARE MALCOMB AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY AGREEMENT WITH WARE MALCOMB. WRITE DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY WORK.



LEGEND

EXISTING ROOF TO BE DEMOLISHED.

EXISTING LOW WALL TO BE DEMOLISHED.**KEYNOTES:**

D02 REMOVE DOOR ASSEMBLY.

D03 REMOVE COLUMN.

D04 REMOVE LOW WALL.

D05 CUT-IN SECTION OF WALL AS REQUIRED FOR NEW PAIR OF 3'-0" DOORS.

D51 EXISTING ROOF TO REMAIN.

D52 EXISTING DOWNSPOUT TO REMAIN.

D53 EXISTING METAL GUTTER TO REMAIN.

D54 EXISTING METAL ROOF TO BE DEMOLISHED.

BM 301 DAL21-0063-00.dwg User: C:\Users\Ware\OneDrive\Documents\Ware\Projects\West Lake\Bentley\0003_ADO.dwg

WARE MALCOMB

ARCHITECTURE
PLANNING
INTERIORS

CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT

1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379



HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

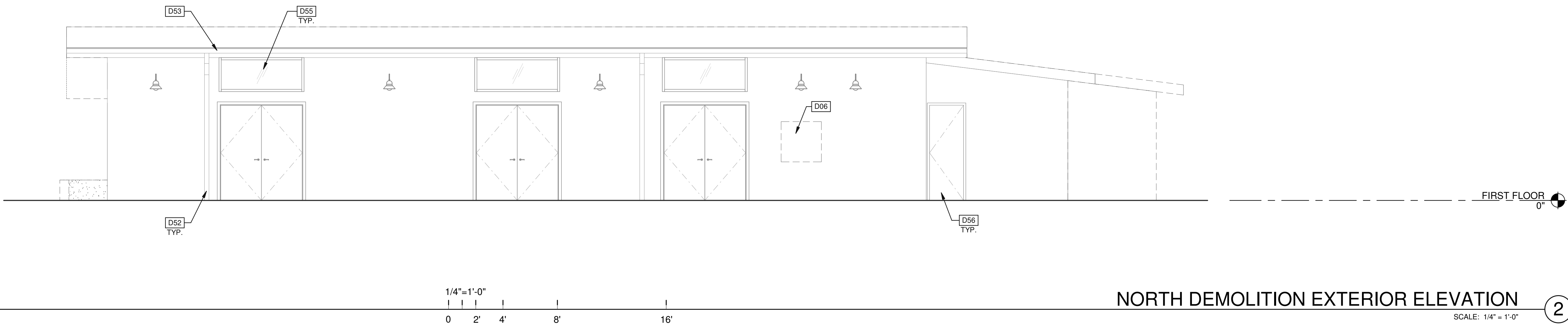
DEMOLITION EXTERIOR ELEVATIONS		
DATE	ISSUE FOR PERMIT	REMARKS
03/03/2022		

PA/PM:	STEVEN COX
DRAWN BY:	C.B.
JOB NO.:	DAL21-0063-00

SHEET

AD0.4

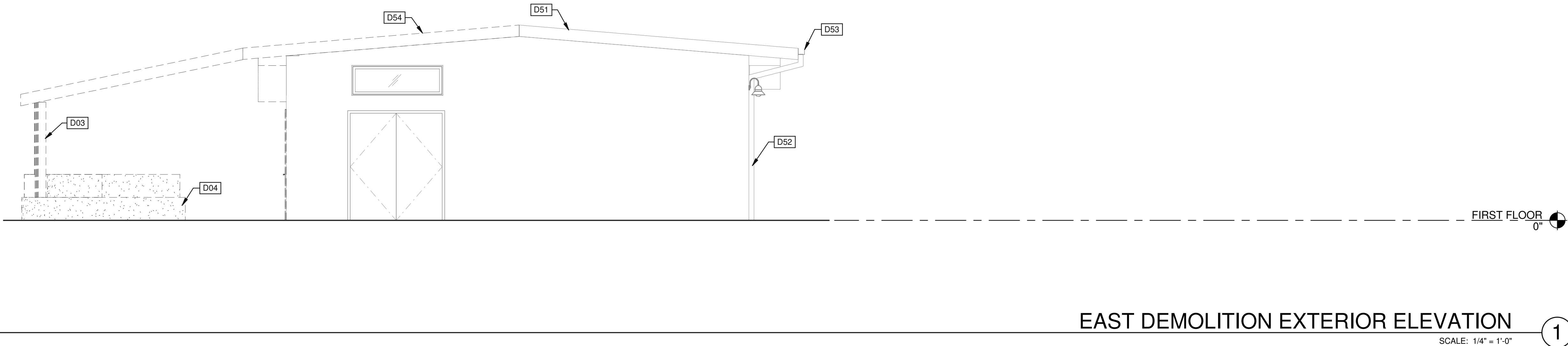
3/30/2022 6:54:16 PM



NORTH DEMOLITION EXTERIOR ELEVATION

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

2

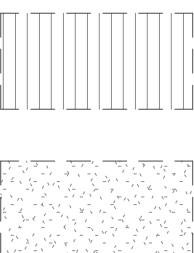


EAST DEMOLITION EXTERIOR ELEVATION

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

1

LEGEND



EXISTING ROOF TO BE DEMOLISHED.
EXISTING LOW WALL TO BE DEMOLISHED.

KEYNOTES: -

- D03 REMOVE COLUMN.
- D04 REMOVE LOW WALL.
- D06 CUT-IN SECTION OF WALL AS REQUIRED FOR NEW WINDOW.
- D51 EXISTING ROOF TO REMAIN.
- D52 EXISTING DOWNSPOUT TO REMAIN.
- D53 EXISTING METAL GUTTER TO REMAIN.
- D54 EXISTING METAL ROOF TO BE DEMOLISHED.
- D55 EXISTING WINDOW TO REMAIN.
- D56 EXISTING DOOR TO REMAIN.

DEMOLITION EXTERIOR ELEVATIONS

REMARKS

DATE
03/03/2022

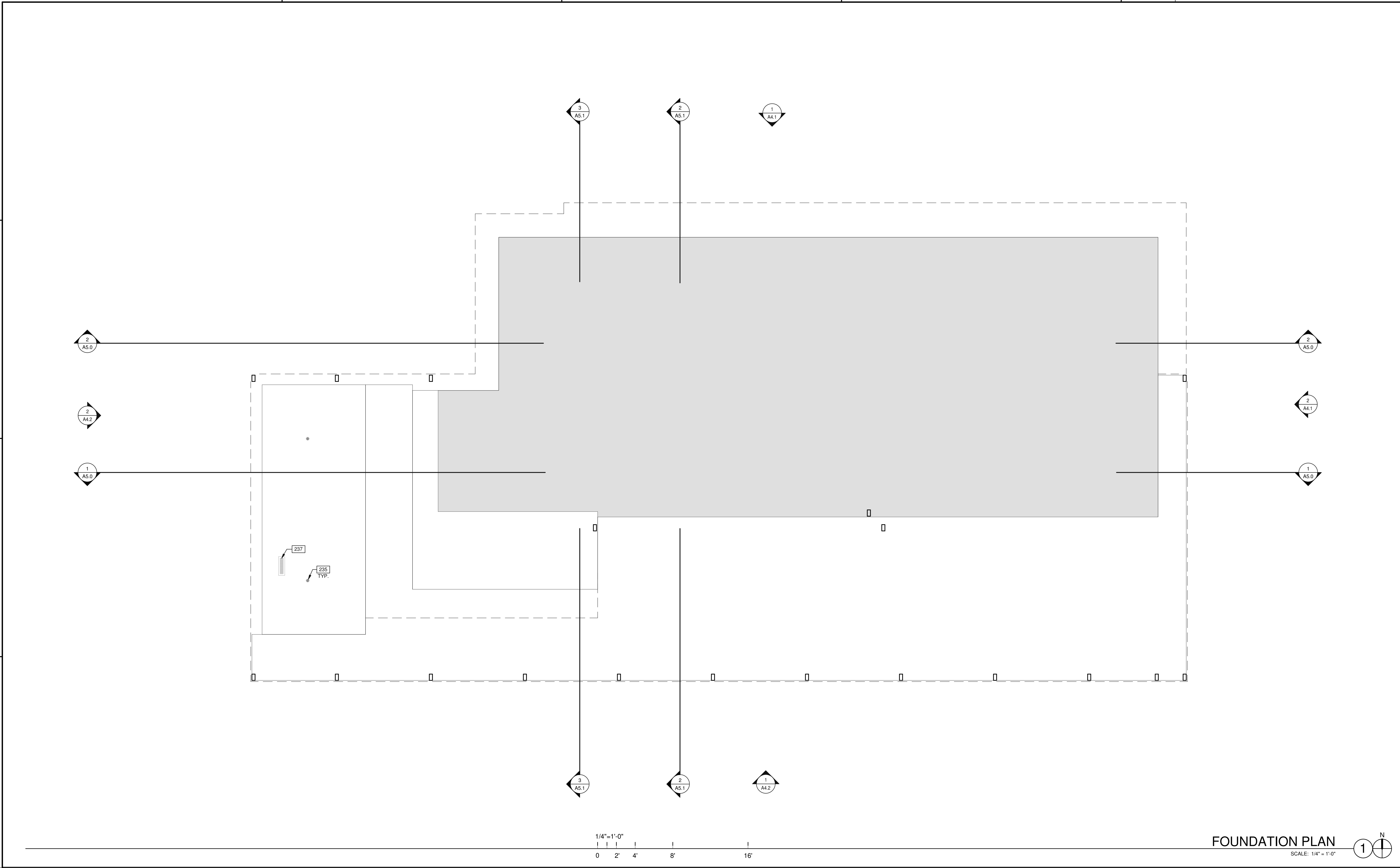
ISSUE FOR PERMIT

PA/PM: STEVEN COX
DRAWN BY: C.B.
JOB NO.: DAL21-0063-00

SHEET

AD0.5

BM 3051 (DAL21-0063-00) Job Owner: West Lake Remodel0002_A0201.dwg



KEYNOTES:

235 FLOOR DRAIN.

237 FLOOR TRENCH DRAIN.

LEGEND

NEW SLAB

EXISTING SLAB

WARE MALCOMB

ARCHITECTURE
PLANNING
INTERIORS

CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT

1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379

REGISTERED ARCHITECT
CHRIS O'NEAL
STATE OF TEXAS
04/05/2022

HAT CREEK
Burger Company

HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

FOUNDATION PLAN

DATE	ISSUE FOR PERMIT	REMARKS
08/03/2022		

P.A.P.M.: STEVEN COX

DRAWN BY.: C.B.

JOB NO.: DAL21-0063-00

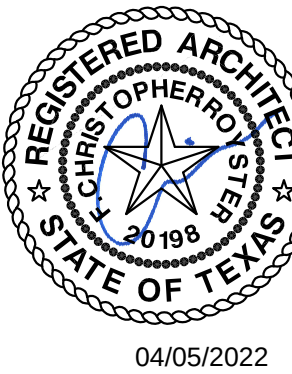
SHEET

A2.0

9/30/2022 6:53:31 PM

Page 67 of 115

WARE MALCOMB
ARCHITECTURE
PLANNING
INTERIORS
CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT
1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379



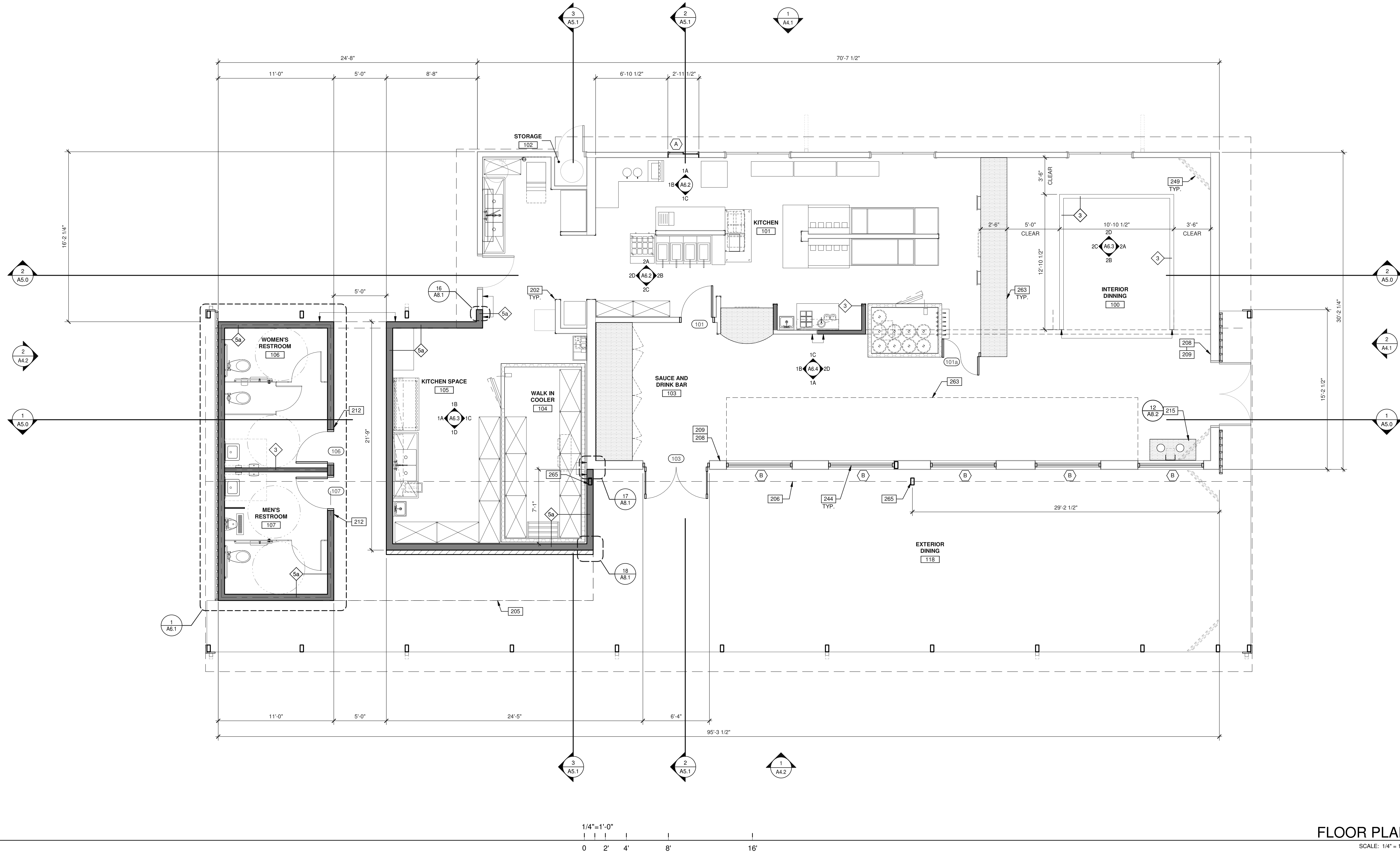
HAT CREEK - WEST LAKE
5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

FLOOR PLAN		REMARKS
DATE	ISSUE FOR PERMIT	
09/03/2022		

PA/PM: STEVEN COX
DRAWN BY: C.B.
JOB NO.: DAL21-0063-00

SHEET
A2.1

3/30/2022 6:53:24 PM



LEGEND

- FIRE EXTINGUISHER
- DOOR TAG - SEE DOOR SCHEDULE ON SHEET A7.1

WALL LEGEND

- FULL HEIGHT WALL
- FULL HEIGHT WALL WITH SOUND BATT INSULATION
- PARTIAL HEIGHT WALLS
- ACME FULL SIZE BRICK
- COOLER / FREEZER WALL, BY KEY
- EXISTING WALL

KEYNOTES:

- 202 STAINLESS STEEL CORNER GUARD.
- 205 LINE OF ROOF OVERHANG ABOVE.
- 206 LINE OF ROOF RIDGE / VALLEY ABOVE.
- 208 OCCUPANCY LOAD SIGN, VERIFY EXACT LOCATION WITH FIRE MARSHAL PRIOR TO INSTALLATION.
- 209 TACTILE "EXIT ROUTE" SIGN, VERIFY FINAL LOCATION AND WORDING WITH FIRE MARSHAL PRIOR TO INSTALL.
- 212 RESTROOM SIGNAGE.
- 215 STEEL TRASH RECEPTACLE.
- 244 WINDOW AS SCHEDULED.
- 249 NEW TELEVISION, REFER TO ELECTRICAL DRAWINGS.
- 263 OUTLINE OF CEILING ABOVE.
- 265 NEW COLUMN, REFER TO STRUCTURAL DRAWINGS.

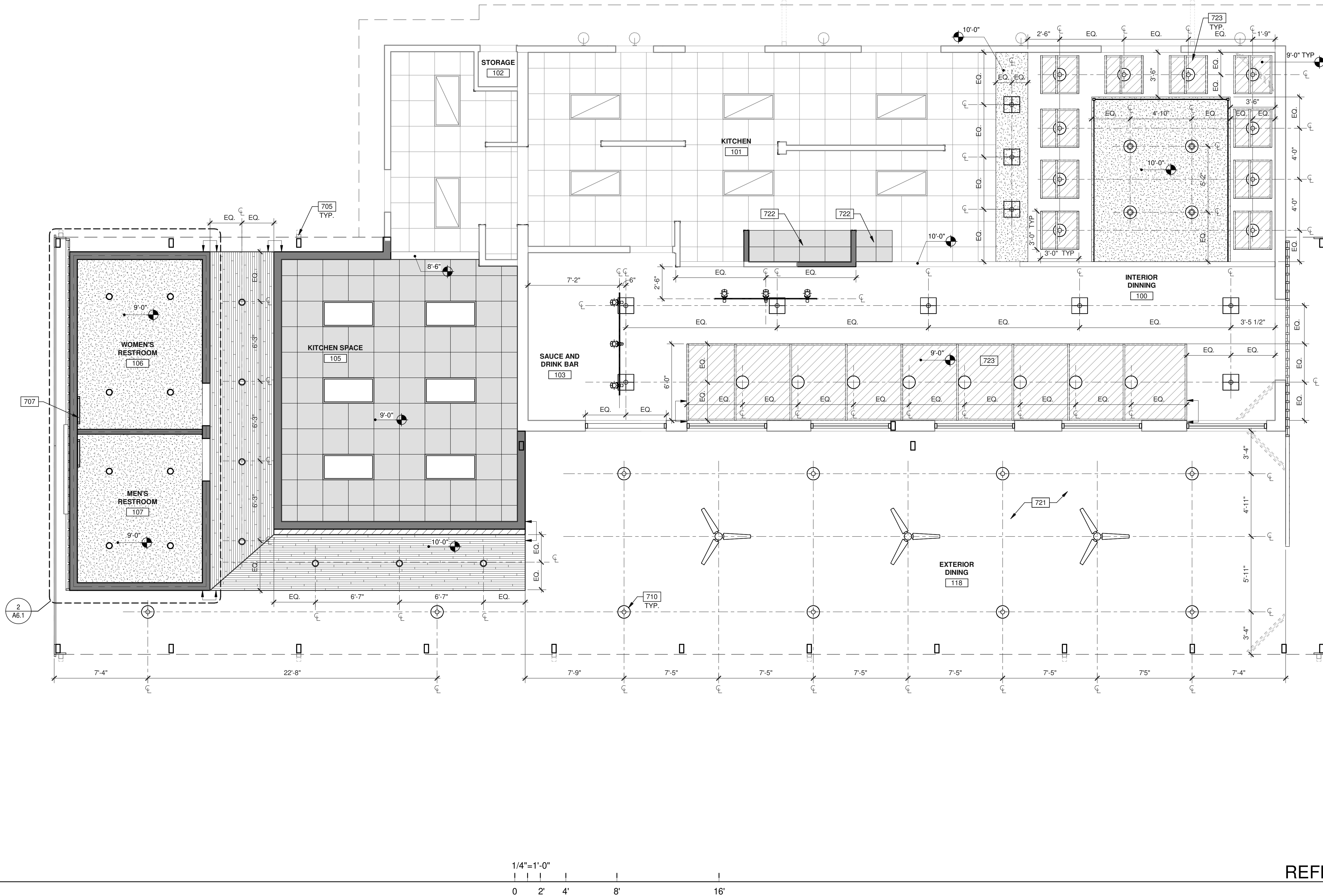
GENERAL NOTES

- SEE SHEET A0.2 & A.02a FOR GENERAL NOTES
- 1. GENERAL CONTRACTOR SHALL PROVIDE EXTENSION PIECES AND LONGER FASTENERS, SHEET METAL COLLARS THRU EXTERIOR FINISHES FOR LIGHT FIXTURE, FA DEVICES, HBS, ETC.



HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

LEGEND

- EXISTING SUSPENDED CEILING GRID & TILES TO REMAIN
- NEW SUSPENDED CEILING SYSTEM THROUGHOUT TO BE ARMSTRONG/USG 2'x2' WHITE TILE
- NEW 5/8" GYPSUM BOARD CEILING OR SOFFIT - USE RATED MATERIAL & CONSTRUCTION WHERE REQUIRED.
- NEW 1/2" WOOD SOFFIT - USE RATED MATERIAL & CONSTRUCTION WHERE REQUIRED.
- NEW METAL SCREEN SUSPENDED.
- EXISTING 2'x4' LIGHT FIXTURE TO REMAIN.
- NEW 2'x4' LED LIGHT FIXTURE.

- RECESSED 6" OR 8" LED DOWNLIGHT.
- PENDANT LIGHT FIXTURE. INSTALL AT +10'-0" A.F.F.
- PENDANT LIGHT FIXTURE. INSTALL AT +7'-0" A.F.F.
- WALL-MOUNTED EXIT SIGN WITH BATTERY BACKUP, SHADED QUADRANT INDICATES FACE OF LETTERING, SIGN TO INCLUDE DIRECTIONAL ARROW AS INDICATED.

NOTE: ADDITIONAL DIRECTIONAL EXIT SIGNS MAY BE REQUIRED PRIOR TO FINAL INSPECTION AND SUBJECT TO BUILDING INSPECTOR.

KEYNOTES:

- 705 PREFINISHED METAL DOWNSPOUT AND GUTTERS.
- 707 CENTER LIGHT OVER RESTROOM LAVATORY.
- 710 MOUNT LIGHT FIXTURE TO WOOD SLEEPERS.
- 721 EXISTING HEATERS (CORNERS FACING PLAY GROUND) AND TVs (CLEARANCE OF FANS AND LIGHTS).
- 722 NEW LAY-IN CEILING TO MATCH EXISTING.
- 723 NEW METAL SUSPENDED SCREEN WITH METAL STUD FRAMING.

CEILING PLAN NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE.
- NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS BEFORE PROCEEDING WITH INSTALLING THE WORK.
- SEE FIXTURE SCHEDULE FOR FIXTURE TYPE DESIGNATIONS, AND TYPICAL MOUNTING HEIGHTS (U.O.N.). COORDINATE MOUNTING OPTIONS WITH OWNER'S REPRESENTATIVE & ARCHITECT. NOTIFY OWNER/ARCHITECT OF ANY CONFLICTS WITH OTHER ELEMENTS PRIOR TO INSTALLATION.
- ALL MATERIALS USED WITHIN CEILING PLENUM SHALL BE NON-COMBUSTIBLE.
- IN GYPSUM BOARD CEILINGS THE LIGHTS, HVAC ELEMENTS, FIRE DEVICES, ETC. ARE TO ALIGN IN A NEAT AND REGULAR PATTERN. REVIEW LAYOUT WITH ARCHITECT PRIOR TO ROUGH-IN.
- DEVICES IN ACOUSTICAL CEILING TILES TO BE CENTERED IN A 2'x2' TILE, OR 2'x2' PORTION OF A 2'x4' TILE, U.O.N.
- GENERAL CONTRACTOR TO IDENTIFY QUANTITY AND LOCATIONS OF ALL ACCESS PANELS TO CEILING PLENUM SPACES IN GYPSUM BOARD CEILINGS. ACCESS PANELS TO BE AVOIDED WHERE POSSIBLE. IF AN ACCESS PANEL IS REQUIRED, COORDINATE LOCATION WITH ARCHITECT. CEILING ACCESS PANELS TO BE FLUSH FRAMELESS GYPSUM BOARD INFILL PANELS.
- SEE KEYNOTE INFORMATION FOR ANY REQUIRED CEILING INSULATION.
- ALL ACOUSTICAL CEILING GRIDS & TILE TO BE CENTERED WITHIN A ROOM, U.O.N.
- WHERE LIGHTING IS WITHIN MILLWORK OR WALL ELEMENTS SUCH AS MIRRORS, GC IS RESPONSIBLE TO COORDINATE WITH ALL ELECTRICAL TRADES.

REFLECTED CEILING PLAN

DATE	ISSUE FOR PERMIT	REMARKS
08/02/2022		

PAPM:	STEVEN COX
DRAWN BY:	C.B.
JOB NO.:	DAL21-0063-00

SHEET
A2.2



HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

[illegible]

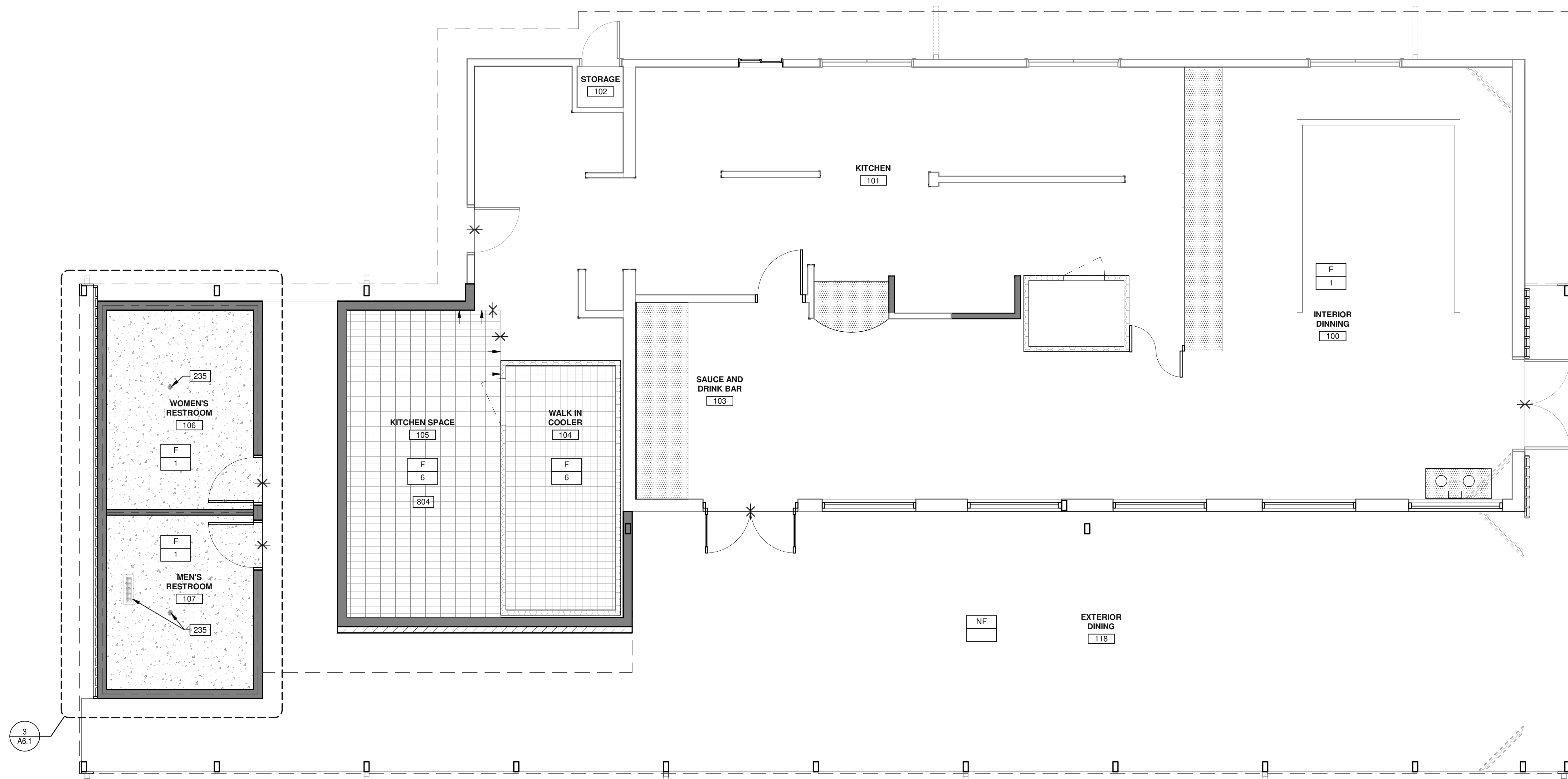
PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET

A2.3

3/30/2022 6:53:39 PM

Page 70 of 115

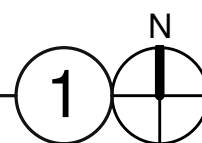


1/4"=1'-0"

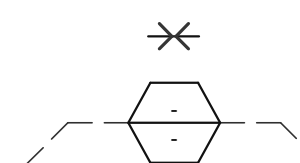
0 2' 4' 8' 16'

FINISH PLAN

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



FINISHES



INDICATES LINE OF FLOOR TRANSITION

INDICATES LOCATION OF NON-TYPICAL WALL FINISH

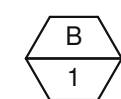
INDICATES DIRECTION OF FLOORING INSTALLATION

WALL FINISHES

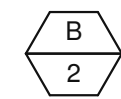


ITEM: WHITE PAINT
MANUF.: SHERWIN WILLIAMS
DETAILS: IBIS WHITE, SW7000
FINISH: EGGSHELL

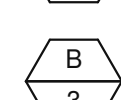
BASE FINISHES



ITEM: STAINLESS STEEL BASE
MANUF.: DIAMOND LIFE
DETAILS: BASE MOLDING MX, 4" BRUSHED STAINLESS
STEEL



ITEM: STEEL
MANUF.: QUARRY TILE BASE
DETAIL S: DAL-TILE
0082 STORM GRAY



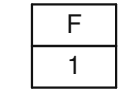
ITEM:	METAL COVE BASE
MANUF.:	SCHLUTER SYSTEM
DETAILS:	BRUSHED CHROME

WALL FINISHES

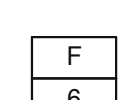


ITEM: CERAMIC TILE
MANUF.: CONCEPT SURFACES, COLOR: BOND GREY
DETAILS: SIZE: 12" X 24" VERTICAL STACK BOND,
SEMI-POLISHED, STRAIGHT EDGE (NO BEVEL,
GROUT: LATICRETE, #45 RAVEN

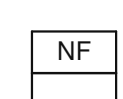
FLOOR FINISHES



ITEM: INTEGRAL BLACK POLISHED CONCRETE
MANUF.: MICRO GUARD
COLOR/NO.: BASE SEALER: CONCRETE CLEAR
WATERPROOFING SEALER, #AD702. SURFACE
SEALER: HARD TILE CLEAR MATTE FINISH
TREATMENT, #AD708, GRIND AND SEAL AFTER
POUR



ITEM: GRAY QUARRY TILE
MANUF.: DAL-TILE
COLOR/NO.: 0Q82 STORM GRAY



ITEM: NO FINISH
MANUF.:
COLOR/NO.:

GENERAL NOTES

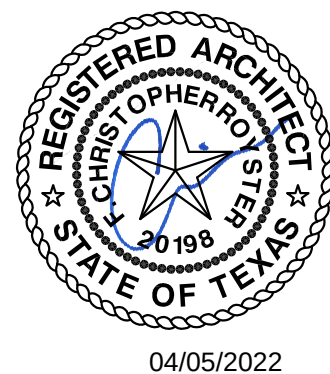
SEE SHEET A0.2 FOR GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE. CONTRACTOR TO INCLUDE ALL ABOVE DISCREPANCIES IN BASE BID.
2. SEPARATE WALLS, CEILING AND DETAILS FOR ADDITIONAL FINISH INFORMATION.
3. PREPARE WALLS TO RECEIVE (2) COATS EGGSHELL PAINT, U.O.N.
5. PROVIDE LEVEL 5 FINISH FOR WALLS UNDER SKYLIGHTS & AT WALL-WASH LIGHT LOCATIONS.
6. COORDINATE WITH OTHER TRADES AT LOCATIONS OF SPECIALTY WALL FINISHES, BRANDING OR SIGNAGE FOR SPECIFIC WALL PREP.
7. MEASUREMENT FROM PROJECT BOUNDARY TO RECEIVE PAINT (P-1A), RUBBER BASE (B-1) AND CARPET (C-1) U.O.N.
8. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO RECEIVE PAINT (P-1B), U.O.N.
9. PAINT DECK ABOVE AND ALL EXPOSED MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION TO RECEIVE PAINT (P-1C), U.O.N.
10. ALL FINISHES TO BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.
11. ALL FINISH TRANSITIONS AT DOORS TO BE LOCATED CENTERED UNDER THE DOOR, U.O.N.
12. PROVIDE FINISHING TRANSITIONS AS FOLLOWS, U.O.N.:
 - a. RUBBER REDUCING STRIP AT ALL TRANSITIONS BETWEEN CARPET AND RESILIENT FLOORING OR CONCRETE.
 - b. STAINLESS STEEL TRIM BY SILLUETER OR EQUAL AT ALL TRANSITIONS BETWEEN TILESTONE AND OTHER FINISHES.

KEYNOTES:

235 FLOOR DRAIN.
804 G.C. TO VERIFY MATERIAL SQ.FT. IN FIELD.

JHM 380 \DAL21-0X3-00 Hot Creek - West Lake Rammed\T053_ARCH.rvt



HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

[illegible]

PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

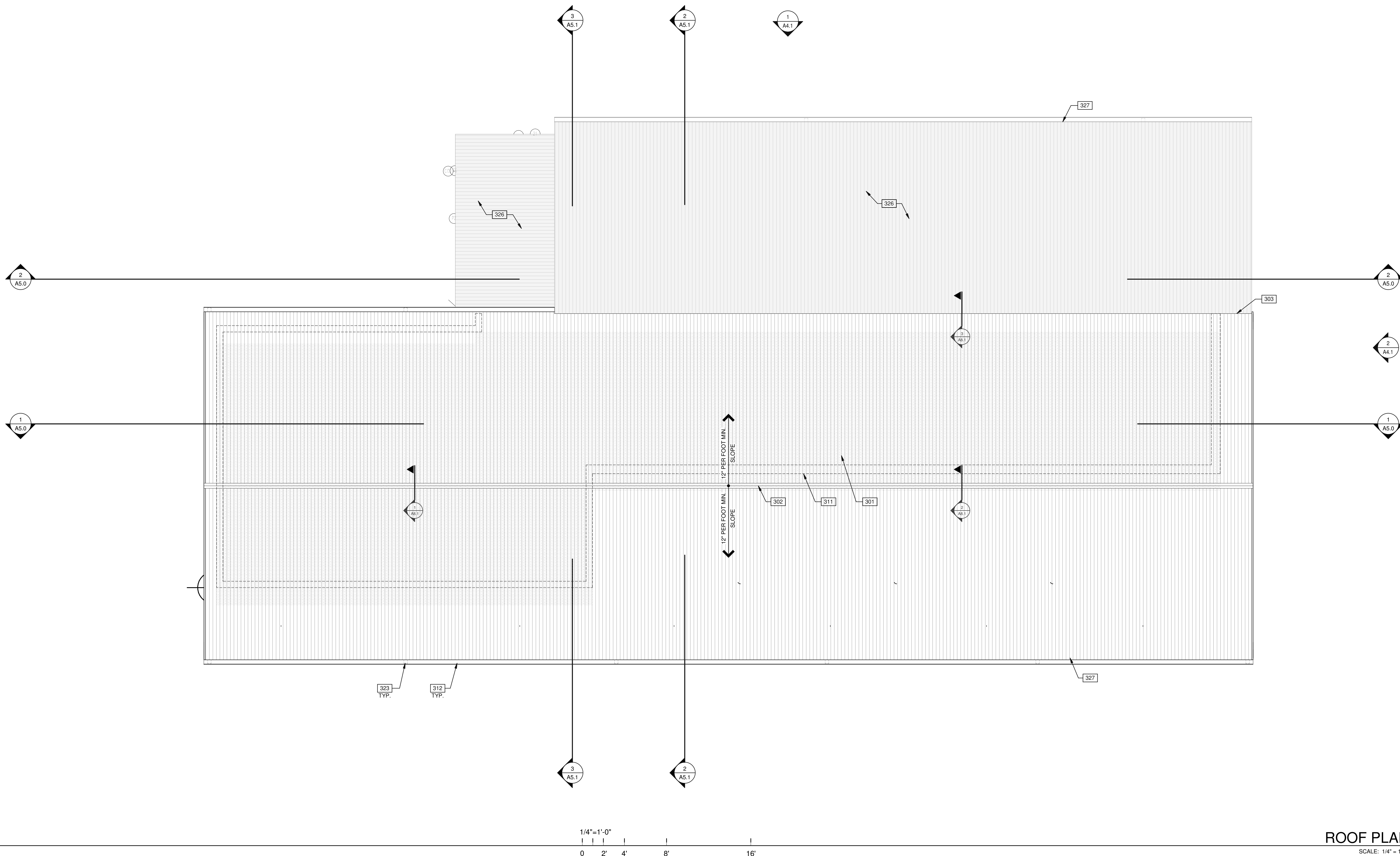
SHEET

A3.0

3/30/2022 6:53:42 PM

Page 71 of 11

ITEM 3910-00AL21-0043-00 Hot Creek - West Lake Runmeda00023 ARCH.net



ROOF PLAN

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

ROOF FINISHES

R	ITEM:	STANDING SEAM METAL
1	MANUF:	-
	COLOR/NO.:	GRAY (THIS COLOR NEEDS TO BE APPROVED BY SCOTT BROWN PRIOR TO ORDER AND INSTALLATION)
R	ITEM:	PVC MEMBRANE
2	MANUF:	DUROLAST
	COLOR/NO.:	WHITE
	DETAILS:	40 MIL PVC SINGLE PLY MEMBRANE
R	ITEM:	PVC MEMBRANE
3	MANUF:	DUROLAST
	COLOR/NO.:	BLACK
	DETAILS:	40 MIL PVC SINGLE PLY MEMBRANE PROVIDES AND INSTALLED BY KITCHEN VENDOR ON TOP OF EXTERIOR COOLER

LEGEND

MATERIALS

	R-1 STANDING SEAM METAL
	EXISTING STANDING SEAM METAL
	INDICATE INTERIOR OF BUILDING BELOW OF ROOF

ABBREVIATIONS

T.O.P. = TOP OF PARAPET
H.P. = TOP OF ROOFING - HIGH POINT
M.P. = TOP OF ROOFING - MID POINT
L.P. = TOP OF ROOFING - LOW POINT

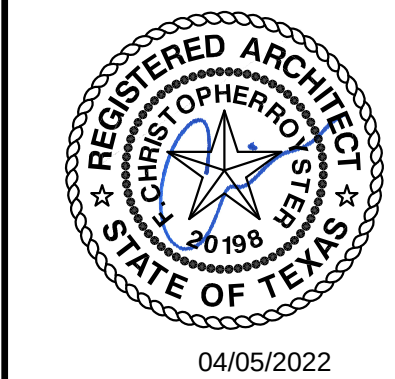
KEYNOTES:

SEE SHEET A0.2 & A0.2a FOR GENERAL NOTES

301 ROOF MEMBRANE FLASHING BELOW CORRUGATED METAL ROOFING AT
ALL ENCLOSED AREAS.
302 ROOF RIDGE METAL CAP.
303 ROOF VALLEY.
311 LINE OF WALL BELLOW.
312 PREFINISHED METAL GUTTER.
323 PREFINISHED METAL DOWNSPOUT CONNECTED TO STORM DRAIN.
326 EXISTING ROOF.
327 PAINT EXISTING ROOFS TO MATCH NEW R-1 ROOFING COLOR.

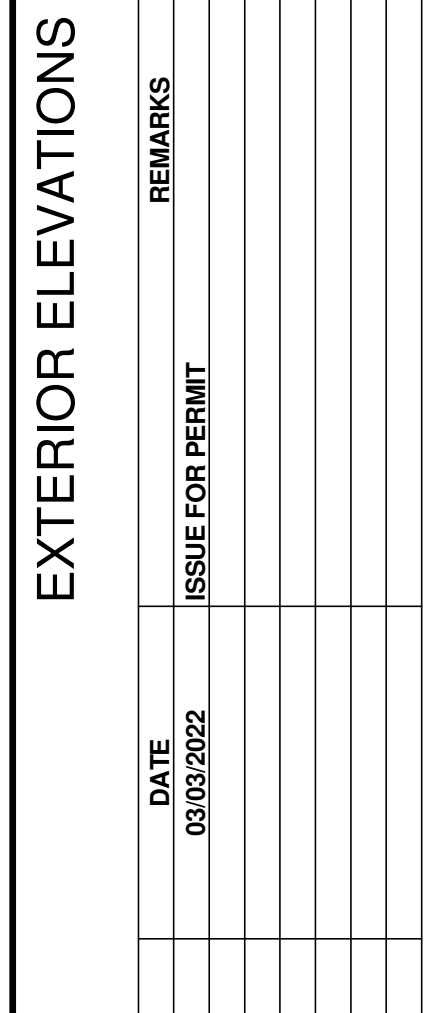
GENERAL NOTES

1. ALL PIPES SHALL BE PAINTED ON THE ROOF.
2. GAS PIPES SHALL BE PAINTED SAFETY YELLOW.
3. VENT PIPES SHALL BE PAINTED WHITE.
4. ALL VENT PIPES SHALL HAVE A CHARCOAL AIR FILTER INSTALLED WITH THEM



HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



PA/PM:	STEVEN COX
--------	------------

DRAWN BY.:	C.B.
-------------------	------

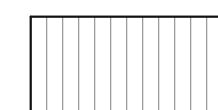
JOB NO.:	DAL21-0063-00
----------	---------------

SHEET

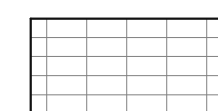
A4.1

3/30/2022 6:53:45 PM

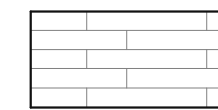
MATERIALS:



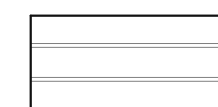
R-1
STANDING SEAM METAL



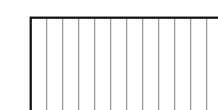
EF-1
ITEM : BRICK
MANUF: YANKEE HILL
COLOR/NO: METRO IRON SPOT



EF-2
ITEM : CEDAR SHIPLAP SIDING
MANUF: -
COLOR/NO: 6" STAINED



EF-3
ITEM : CEDAR SHIPLAP SIDING
MANUF: -
COLOR/NO: 1"X4" STAINED CEDAR BOARDS 1/2" SPACING
WITH 1 RED STRIPE (SECOND BOARD FROM THE TOP)



EF-4
ITEM : STANDING SEAM METAL
MANUF: -
COLOR/NO: GREY (THIS COLOR NEEDS TO BE
APPROVED BY SCOTT BROWN PRIOR TO ORDER AND
INSTALLATION)



EF-5
ITEM : CEDAR SHIPLAP SIDING



EF-6
ITEM : BRAKE METAL
MANUF:-
COLOR/NO: COLOR SHALL MATCH STOREFRONT FINISH

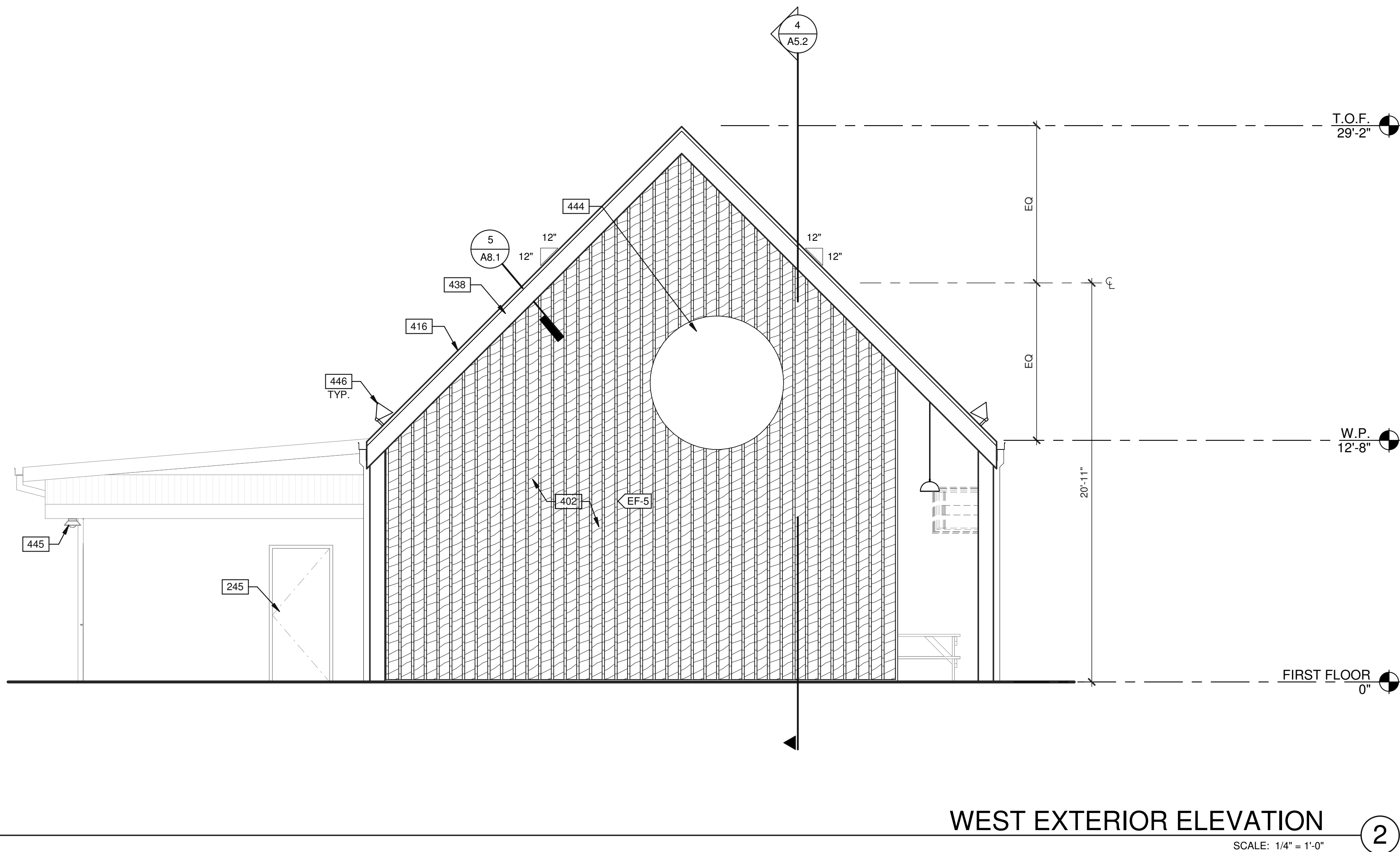
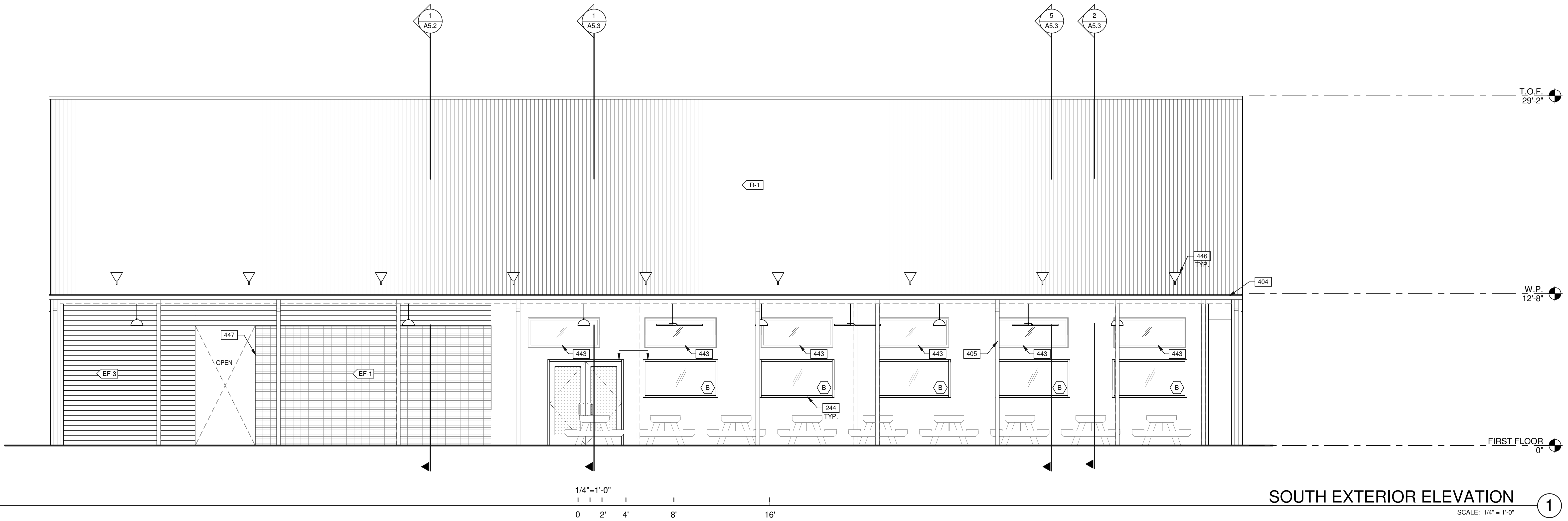
GLASS:



VISION GLASS

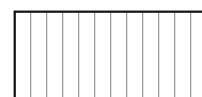
ALL GLASS USED ON THE ENVELOPE OF THE BUILDING TO BE:
XXXXXXX
U FACTOR = 0.28 AND SHGC = 0.28
GLASS WIND LOAD RESISTANCE CALCULATIONS ARE UNDER SEPARATE PERMIT

244 WINDOW AS SCHEDULED.
302 ROOF RIDGE METAL CAP.
402 WOOD SLAT SCREEN WALL WITH 1" GAPS BETWEEN BOARDS. PAINT
PLYWOOD BEHIND SLATS BLACK ON PLAYSIGN SHEAR WALLS.
404 PRE-FINISHED METAL GUTTER.
405 4"x4" PRE-FINISHED DOWNSPOUT.
416 PRE-FINISHED METAL FINISH HATCH/ STANDING SEAM METAL ROOFING.
438 2x WOOD FASCIA WITH PRE-FINISHED METAL FINISH.
445 WALL MOUNTED LIGHT FIXTURE.
446 ROOF MOUNTED UPLIGHT FIXTURE.
448 EXISTING RED PAINT.

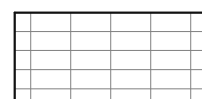


LEGEND

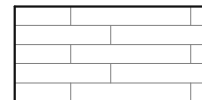
MATERIALS:



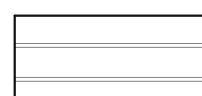
R-1
ITEM: STANDING SEAM METAL



EF-1
ITEM: BRICK
MANUF: YANKEE HILL
COLOR/NO: METRO IRON SPOT



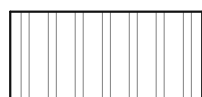
EF-2
ITEM: CEDAR SHIPLAP SIDING
MANUF: -
COLOR/NO: 6" STAINED



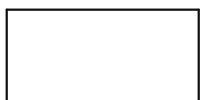
EF-3
ITEM: CEDAR SHIPLAP SIDING
MANUF: -
COLOR/NO: 1"x4" STAINED CEDAR BOARDS 1/2" SPACING
WITH 1 RED STRIPE (SECOND BOARD FROM THE TOP)



EF-4
ITEM: STANDING SEAM METAL
MANUF: -
COLOR/NO: GREY (THIS COLOR NEEDS TO BE
APPROVED BY SCOTT BROWN PRIOR TO ORDER AND
INSTALLATION)



EF-5
ITEM: CEDAR SHIPLAP SIDING
MANUF: -
COLOR/NO: 6" STAINED



EF-6
ITEM: BRAKE METAL
MANUF: -
COLOR/NO: COLOR SHALL MATCH STOREFRONT FINISH

GLASS:



VISION GLASS

ALL GLASS USED ON THE ENVELOPE OF THE BUILDING TO BE:
XXXXXX
U FACTOR = 0.28 AND SHGC = 0.28
GLASS WIND LOAD RESISTANCE CALCULATIONS ARE UNDER SEPARATE PERMIT

KEYNOTES:

- 244 WINDOW AS SCHEDULED.
245 DOOR AS SCHEDULED.
402 WOOD SLAT SCREEN WALL WITH 1" GAPS BETWEEN BOARDS. PAINT
PLYWOOD BEHIND SLATS BLACK ON PLAYSIGN SHEAR WALLS.
404 PRE-FINISHED METAL GUTTER.
405 4"x4" PRE-FINISHED DOWNSPOUT.
416 PRE-FINISHED METAL FINISH MATCH STANDING SEAM METAL ROOFING.
438 2x WOOD FASCIA WITH PRE-FINISHED METAL FINISH.
443 EXISTING TRANSOM WINDOWS.
444 SIGNAGE BY OWNER, COORDINATE POWER REQUIREMENTS.
445 WALL MOUNTED LIGHT FIXTURE.
446 ROOF MOUNTED UPLIGHT FIXTURE.
447 CONTROL JOINT IN BRICK SHALL ALIGN WITH ALUMINIUM COWLING
AROUND WINDOW.

EXTERIOR ELEVATIONS

REMARKS

DATE
08/03/2022
ISSUE FOR PERMIT

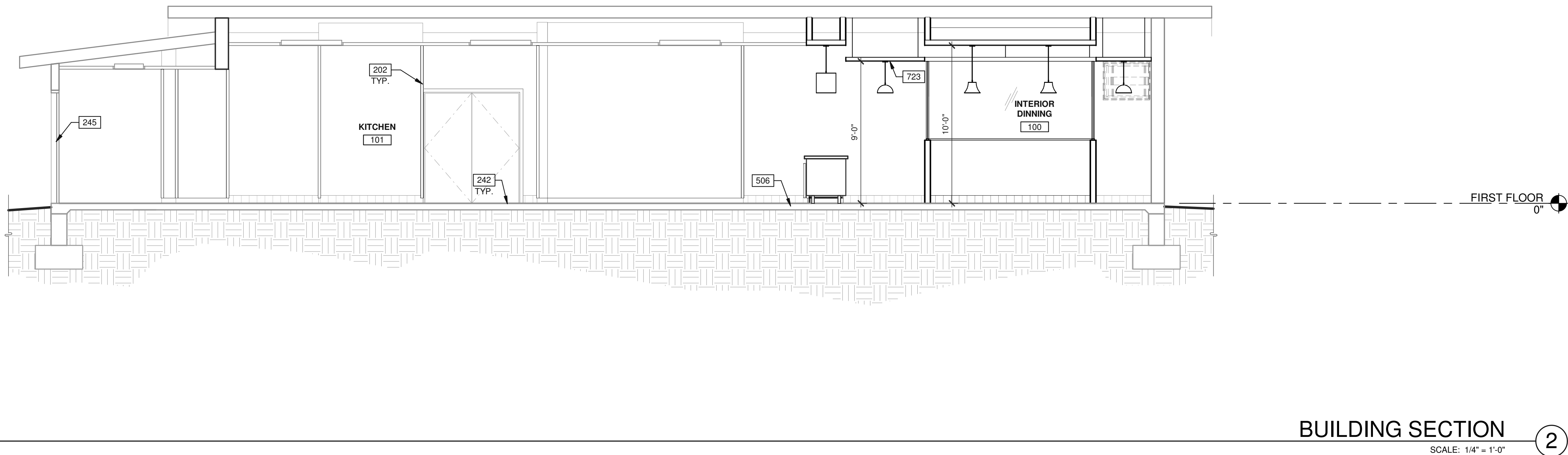
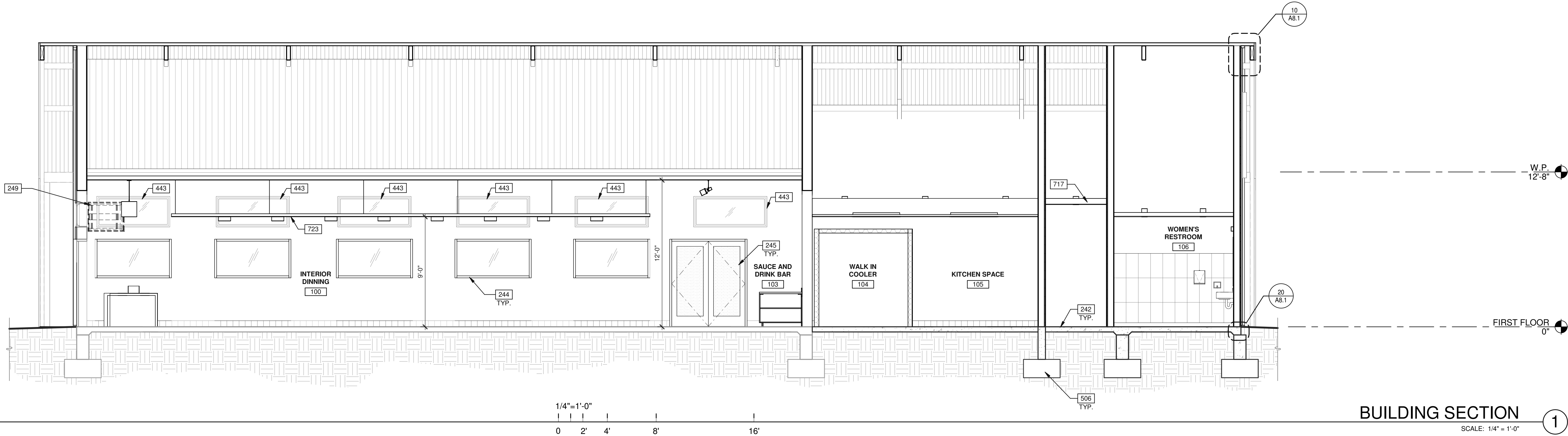
P.A.P.M.: STEVEN COX

DRAWN BY: C.B.

JOB NO.: DAL21-0063-00

SHEET

A4.2



KEYNOTES:

- SEE SHEET A0.2 & A.02a FOR GENERAL NOTES
- 202 STAINLESS STEEL CORNER GUARD.
 - 242 FLOORING AS SCHEDULED.
 - 244 WINDOW AS SCHEDULED.
 - 245 DOOR AS SCHEDULED.
 - 249 NEW TELEVISION. REFER TO ELECTRICAL DRAWINGS.
 - 443 EXISTING TRANSOM WINDOWS.
 - 506 STRUCTURAL FOUNDATION.
 - 717 LAY-IN CEILING AS SCHEDULED.
 - 723 NEW METAL SUSPENDED SCREEN.

BUILDING SECTIONS

DATE	ISSUE FOR PERMIT	REMARKS
03/03/2022		

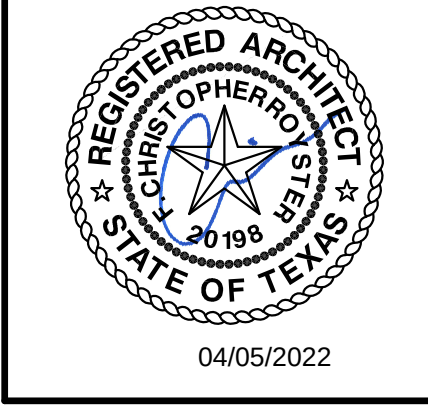
P.A.P.M.:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET
A5.0

3/30/2022 6:53:48 PM

HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



WARE MALCOMB
ARCHITECTURE
PLANNING
BRANDING
BUILDING MEASUREMENT
CIVIL ENGINEERING
Suite #100
Dallas, TX 75203
P 469.553.5379



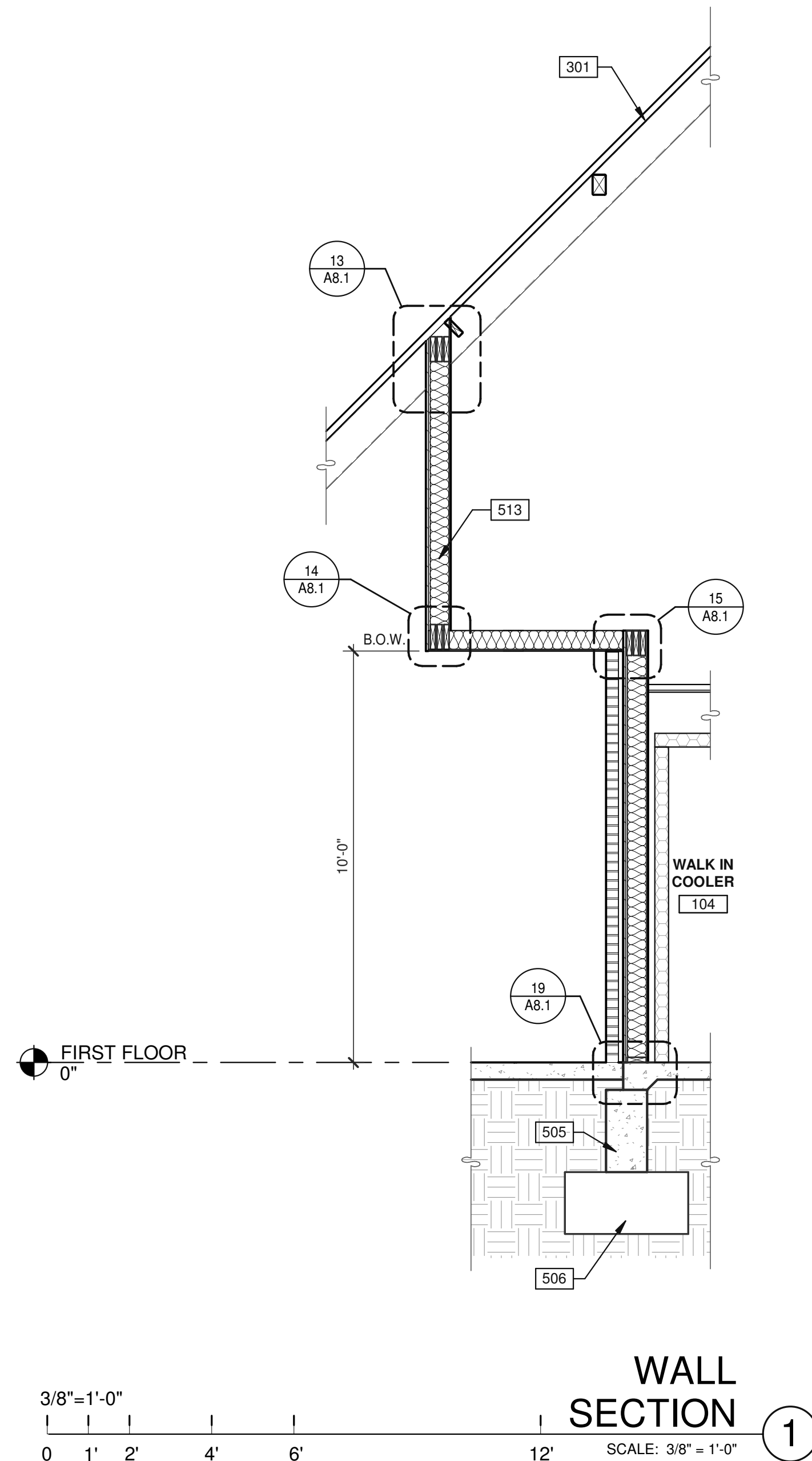
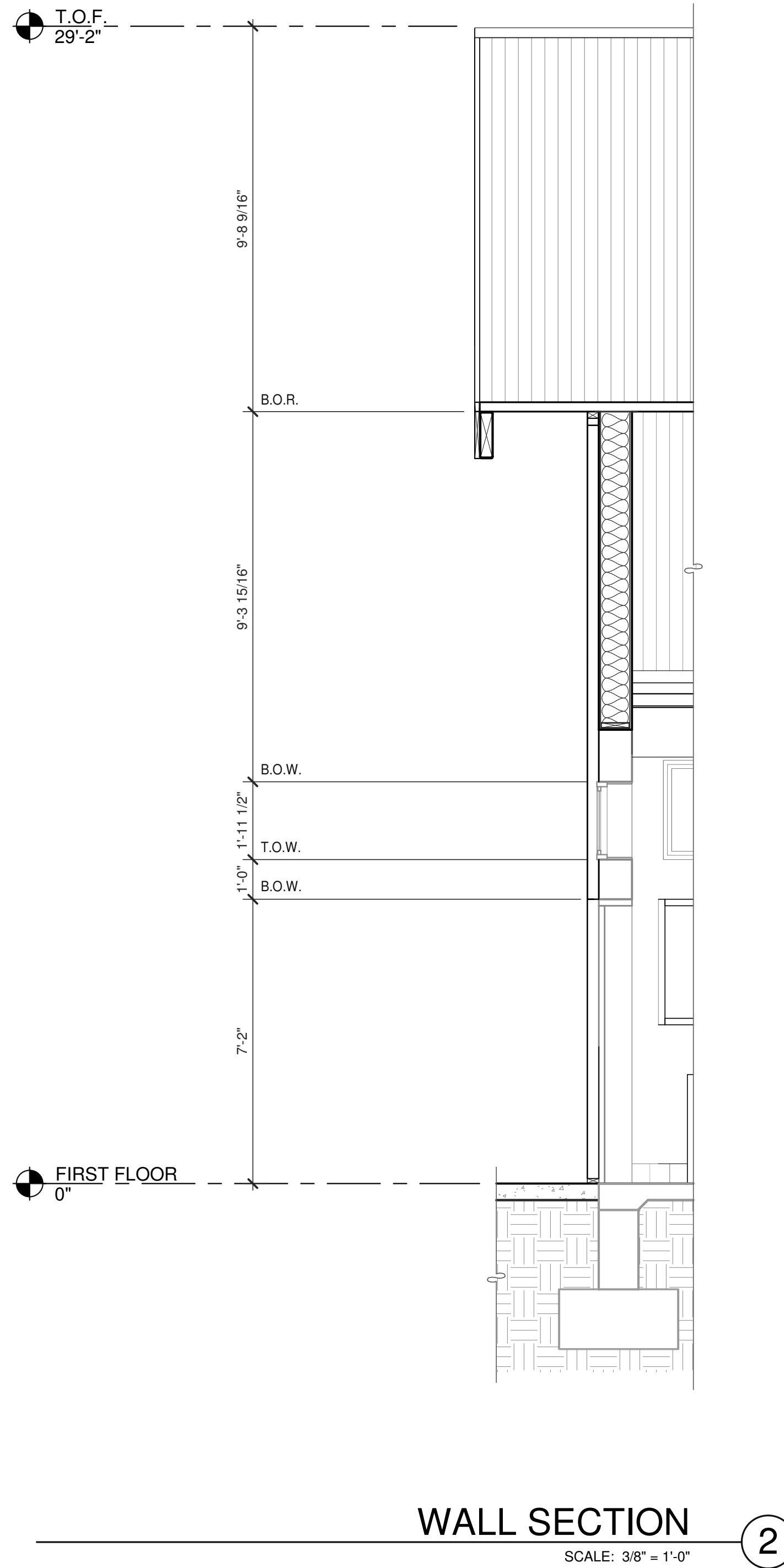
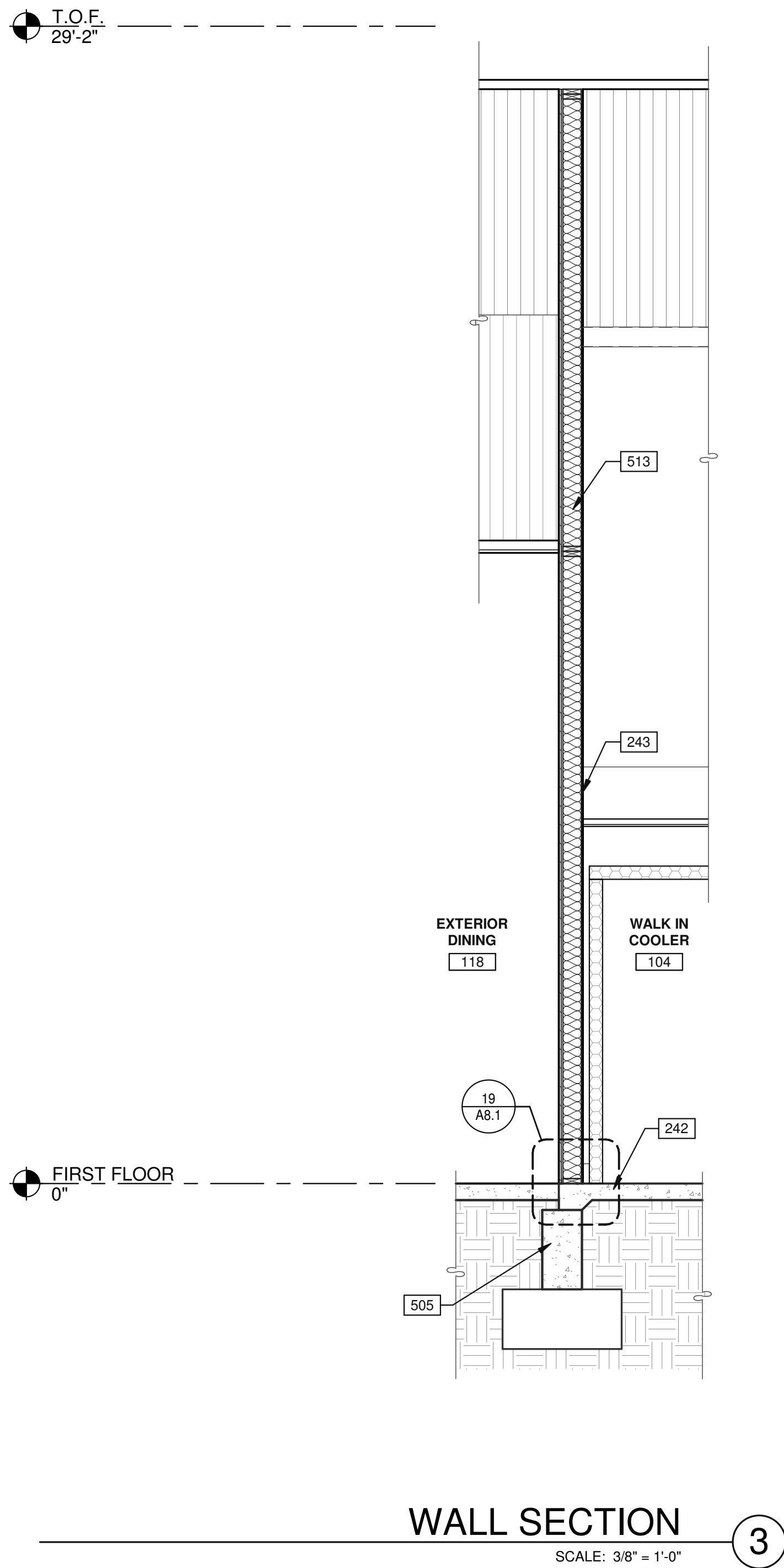
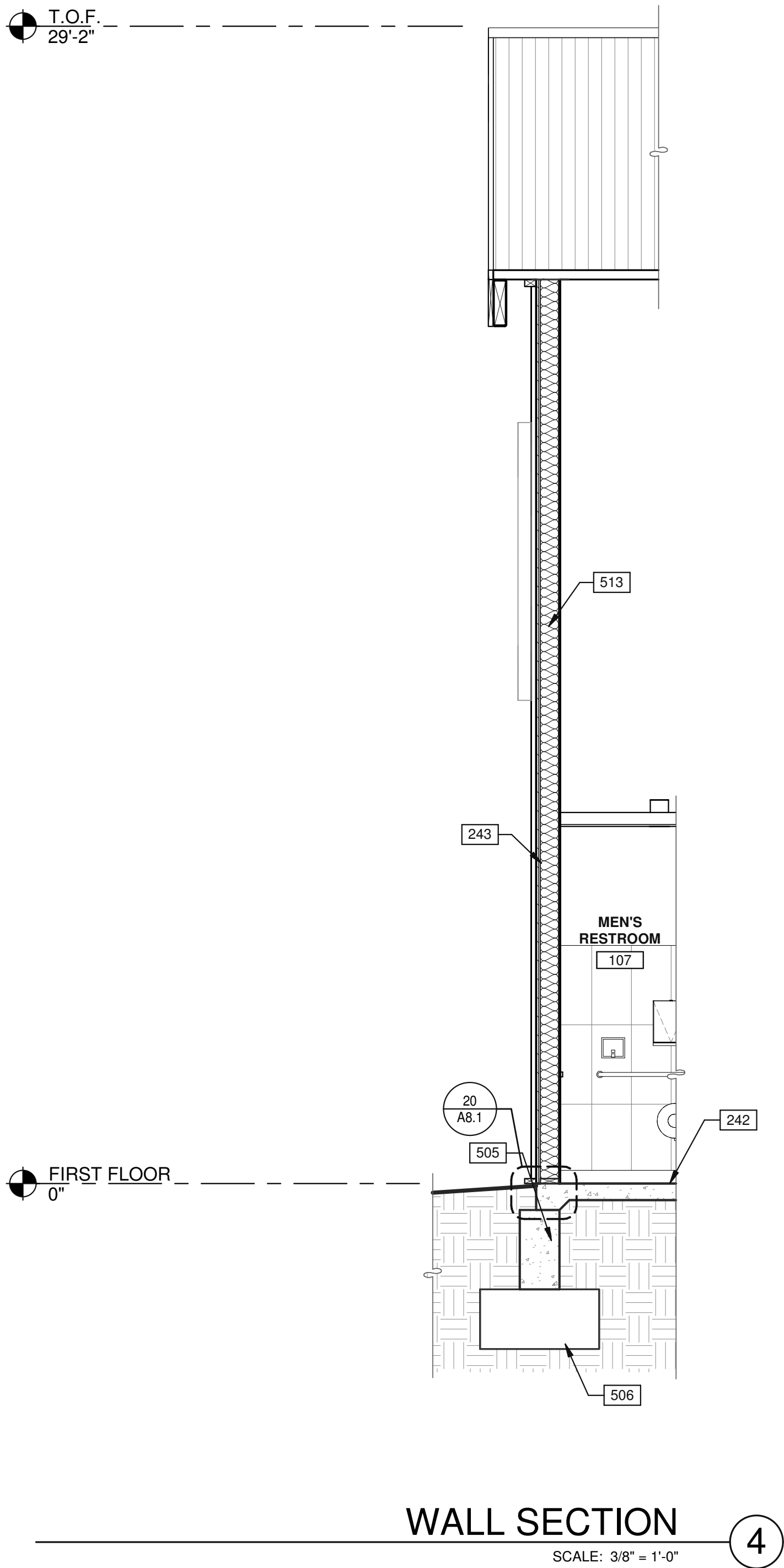
SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

- ## BUILDING SECTIONS

PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

A5.1

BM 3051 DAL21-0063-00, Hat Creek - West Lake Renovation, ARD21-01



KEYNOTES:

SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

- 242 FLOORING AS SCHEDULED.
- 243 WALL FINISH AS SCHEDULED.
- 301 ROOF MEMBRANE FLASHING BELOW CORRUGATED METAL ROOFING AT ALL ENCLOSED AREAS.
- 505 CONCRETE BEAM, RE: STRUCTURAL.
- 506 STRUCTURAL FOUNDATION.
- 513 R-21 BATT INSULATION.

WALL LEGEND

- FULL HEIGHT WALL
- FULL HEIGHT WALL WITH SOUND BATT INSULATION
- PARTIAL HEIGHT WALLS
- ACME FULL SIZE BRICK
- COOLER / FREEZE WALL, BY KEC
- EXISTING WALL

WALL SECTIONS

DATE: 08/03/2022

ISSUE FOR PERMIT

P.A.P.M.: STEVEN COX

DRAWN BY.: C.B.

JOB NO.: DAL21-0063-00

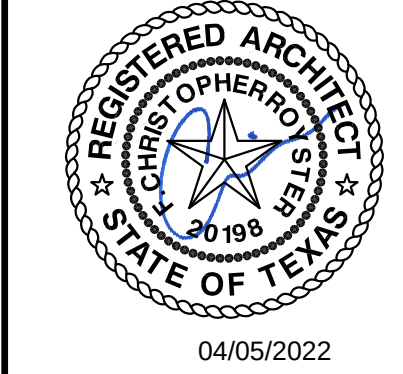
SHEET

A5.2

3/30/2022 6:53:51 PM

HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



WARE MALCOMB
ARCHITECTURE
PLANNING
INTERIORS
CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT
1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P: 469.553.5379



5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

[illegible]

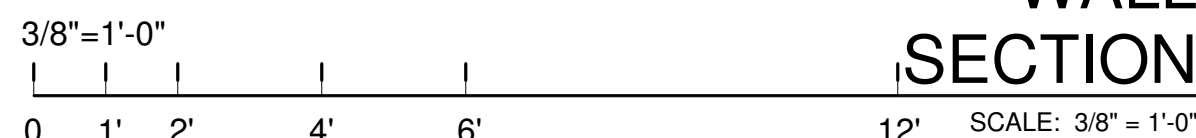
PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

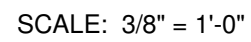
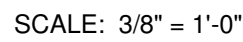
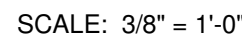
SHEET

A5.3

242 FLOORING AS SCHEDULED.
244 WINDOW AS SCHEDULED.
301 ROOF MEMBRANE FLASHING BELOW CORRUGATED METAL ROOFING AT ALL
ENCLOSED AREAS.
443 EXISTING TRANSOM WINDOWS.
505 CONCRETE BEAM, RE: STRUCTURAL.
506 STRUCTURAL FOUNDATION.

	FULL HEIGHT WALL
	FULL HEIGHT WALL WITH SOUND BATT INSULATION
	PARTIAL HEIGHT WALLS
	ACME FULL SIZE BRICK
	COOLER / FREEZE WALL, BY KEC
	EXISTING WALL





SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"

SHEET

A6.



SCALE: 3/8" = 1'-0"

(1)



SCALE: 3/8" = 1'-0"

2

SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

249	NEW TELEVISION. REFER TO ELECTRICAL DRAWINGS.
723	NEW METAL SUSPENDED SCREEN.

HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

INTERIOR ELEVATIONS

DATE	REMARKS
02/02/2000	ISSUE FOR DEBIT

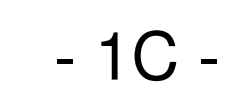
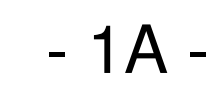
PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET

A6.2

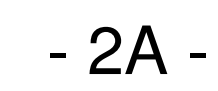
3/30/2022 6:54:01 PM

Page 79 of 115



SCALE: 3/8" = 1'-0"

1



SCALE: 3/8" = 1'-0"

2

SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

249	NEW TELEVISION. REFER TO ELECTRICAL DRAWINGS.
723	NEW METAL SUSPENDED SCREEN.

DATE	REMARKS
02/02/2000	ISSUE FOR DEBIT

PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET

A6.3

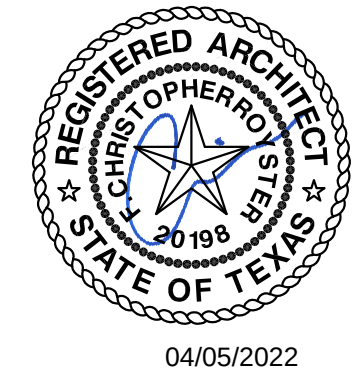
3/30/2022 6:54:04 PM

Page 80 of 115

The logo for Hat Creek Burger Company is a circular emblem. Inside the circle, the words "HAT CREEK" are written in a large, bold, black, sans-serif font. Below this, the words "Burger Company" are written in a smaller, black, cursive script font. A horizontal line separates the two text elements.

HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746



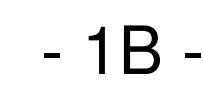
04/05/2022

WARE MALCOMB

ARCHITECTURE
PLANNING
INTERIORS

CIVIL ENGINEERING
BRANDING
BUILDING MEASUREMENT

1919 McKinney Avenue, Suite #100
Dallas, TX, 75201
P 469.583.5379



SCALE: 3/8" = 1'-0"

1

SEE SHEET A0.2 & A.02a FOR GENERAL NOTES

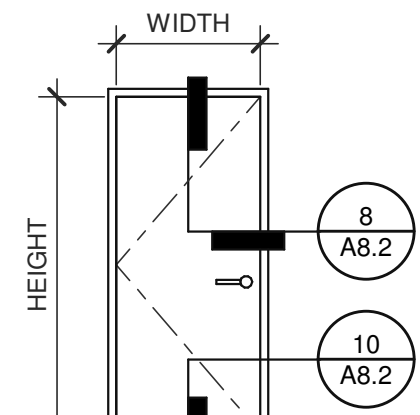
- 215 STEEL TRASH RECEPTACLE.
249 NEW TELEVISION. REFER TO ELECTRICAL DRAWINGS.
723 NEW METAL SUSPENDED SCREEN.

A6.4

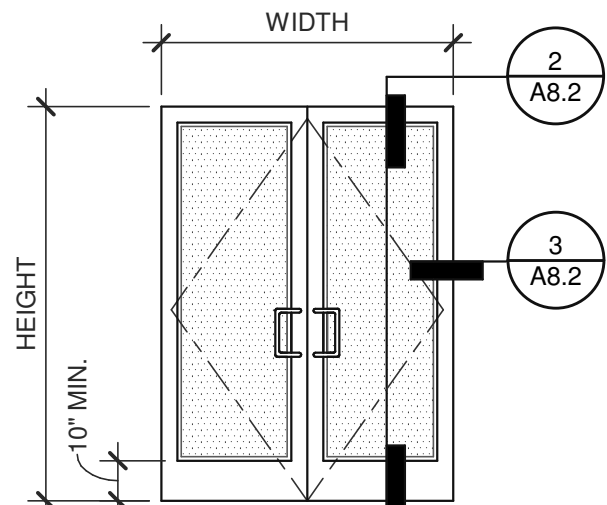
3/30/2022 6:54:07 PM

Page 81 of 115

DOOR TYPES



F1
SOLID FLUSH

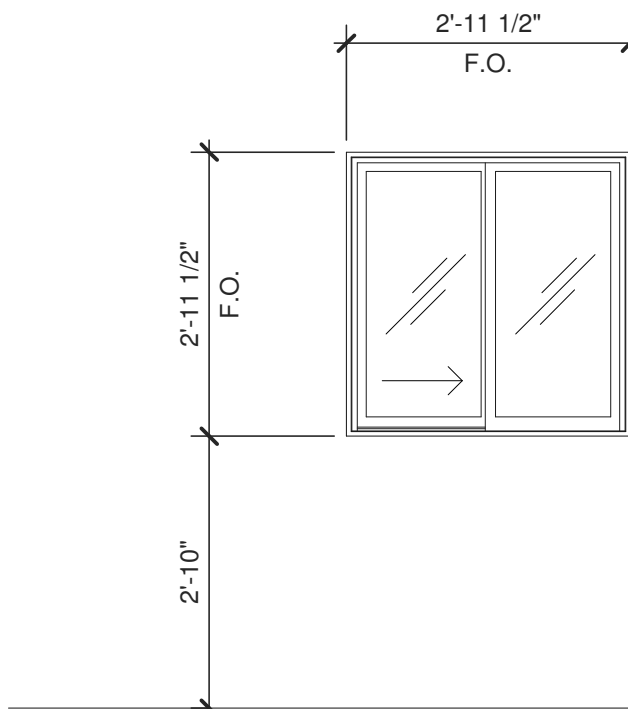


SF2
DOUBLE
STOREFRONT

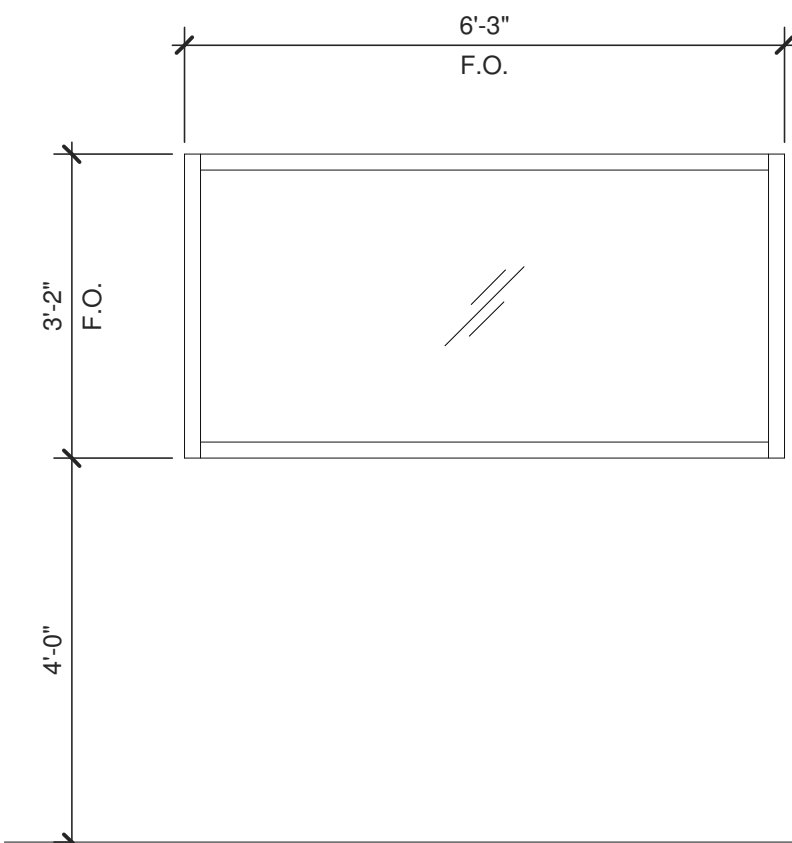
DOOR SCHEDULE

DOOR NO.	ROOM NAME	DOOR						FRAME				FIRE RATING	HOWARE NO.	CARD READER	COMMENTS
		TYPE	WIDTH	HEIGHT	THICK	MATERIAL	FINISH	MATERIAL	FINISH						
101	SAUCE AND DRINK BAR	F1	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	PAINTED	HOLLOW METAL	PAINTED						
101a	INTERIOR DINNING	E1	3'-6"	7'-0"	1 3/4"	HOLLOW METAL	PAINTED	STEEL	PAINTED						
103	EXTERIOR DINING	SF2	6'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	CLEAR ANODIZED	ALUMINUM STOREFRONT	CLEAR ANODIZED		81				
106	WOMEN'S RESTROOM	F1	3'-0"	7'-0"	1 3/4"	WOOD	STAINED	HOLLOW METAL	PAINTED		84				
107	MEN'S RESTROOM	F1	3'-0"	7'-0"	1 3/4"	WOOD	STAINED	HOLLOW METAL	PAINTED		84				

WINDOW TYPES



 WINDOW TYPE



 WINDOW TYPE

DOOR HARDWARE

B1- STANDARD DOOR - RECEIVING			
Each Assembly to have:			
1EA	CONTINUOUS HINGE	CFM HD1-DOOR HEIGHT	
1EA	EXIT DEVICE	DGI 8804 PSB	US32D
1EA	DOOR CLOSER	351 PS	EN
1EA	KICK PLATE	K1050 10"x2" LOW ABE CSK	US32D
1EA	DOOR STOP	466	BLACK
1EA	PANIC THRESHOLD	2005AT MSE32SSSS-OPENING WIDTH	
1EA	GASKETING	3801AS (HEAD AND JAMBS)	
1EA	RAIN GUARD	346C-FRAME WIDTH	
1EA	SWEEP	345ANB-DOOR WIDTH	
1EA	VIEWER	622	STNN
B3- FIRE RISER DOOR			
Each Assembly to have:			
1EA	CONTINUOUS HINGE	CFM HD1-DOOR HEIGHT	
1EA	STOREROOM LOCK	DGI 28 10304 LL	US26D
1EA	DOOR CLOSER	351 PS	EN
1EA	PANIC THRESHOLD	2005AT MSE32SSSS-OPENING WIDTH	
1EA	GASKETING	303CS (HEAD AND JAMBS)	
1EA	RAIN GUARD	346C-FRAME WIDTH	
1EA	SWEEP	345ANB-DOOR FRAME	
B4-BESTROOM DOOR			
Each Assembly to have:			
3EA	HINGE	TAP2714 4-1/2"x4-1/2"	US26D
1EA	PUSH PLATE	70E	US 32D
1EA	DOOR PULL	111 MTG-TYPE 1	US32D
1EA	DOOR CLOSER	143 DCP99 (AS REQUIRED)	EN
1EA	KICK PLATE	1050 10"x2" LOW ABE CSK	US32D
1EA	DOOR STOP	466411H (AS REQUIRED PER APPLICATION)	US32D
3EA	SILENCER	608	
B5- WOOD SINGLE DOOR - SERVICE YARD W/O PANIC HARDWARE			
Each Assembly to have:			
2EA	HINGE		
1EA	PULL		
1EA	EXIT DEVICE (EXTERIOR RATED)		
1EA	CLOSER		EN
1EA	ARMOR PLATE	8x2 LOW FH-CSK .050	BLACK

HARDWARE LEGEND

MK	McKINNEY
PE	PEMCO
RO	ROCKWOOD MANUFACTURING CO., WWW.ROCKWOODMFG.COM 1.800.458.2424
AD	ADAMS RITE
SA	SARGENT

REMARK KEY NOTES

1. FLOOR STOPS SHALL BE INSTALLED 18" AWAY FROM DOOR FRAME

GENERAL NOTES

SEE SHEET A0.2 FOR GENERAL DOOR NOTES

1. REFER TO THE PARTITION PLAN AND SPECIFICATIONS (IF PROVIDED) FOR ADDITIONAL DOOR INFORMATION.
2. SOLID CORE DOOR TO BE LAMINATED WITH _____
3. DOOR FRAMES TO BE WESTERN INTEGRATED TIMELY.
4. HOLLOW METAL DOORS TO BE PAINTED SAME COLOR AS THE ADJACENT WALL; FINISH TO BE SEMI-GLOSS. SEE FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
5. PROVIDE RATED FIRE GLASS IN RATED ASSEMBLIES, U.O.N.
6. FIELD VERIFY OPENING WIDTH AND HEIGHT FOR ALL NEW DOOR IN EXISTING OPENINGS.
7. ALL HOLLOW METAL FRAMES TO BE WELDED TYPE, U.O.N.
8. RATED DOORS SHALL HAVE AUTOMATIC CLOSERS AND COMPLY WITH REQUIREMENTS OF ALL GOVERNING CODES & STANDARDS.

DOOR SCHEDULE AND WINDOW SCHEDULE

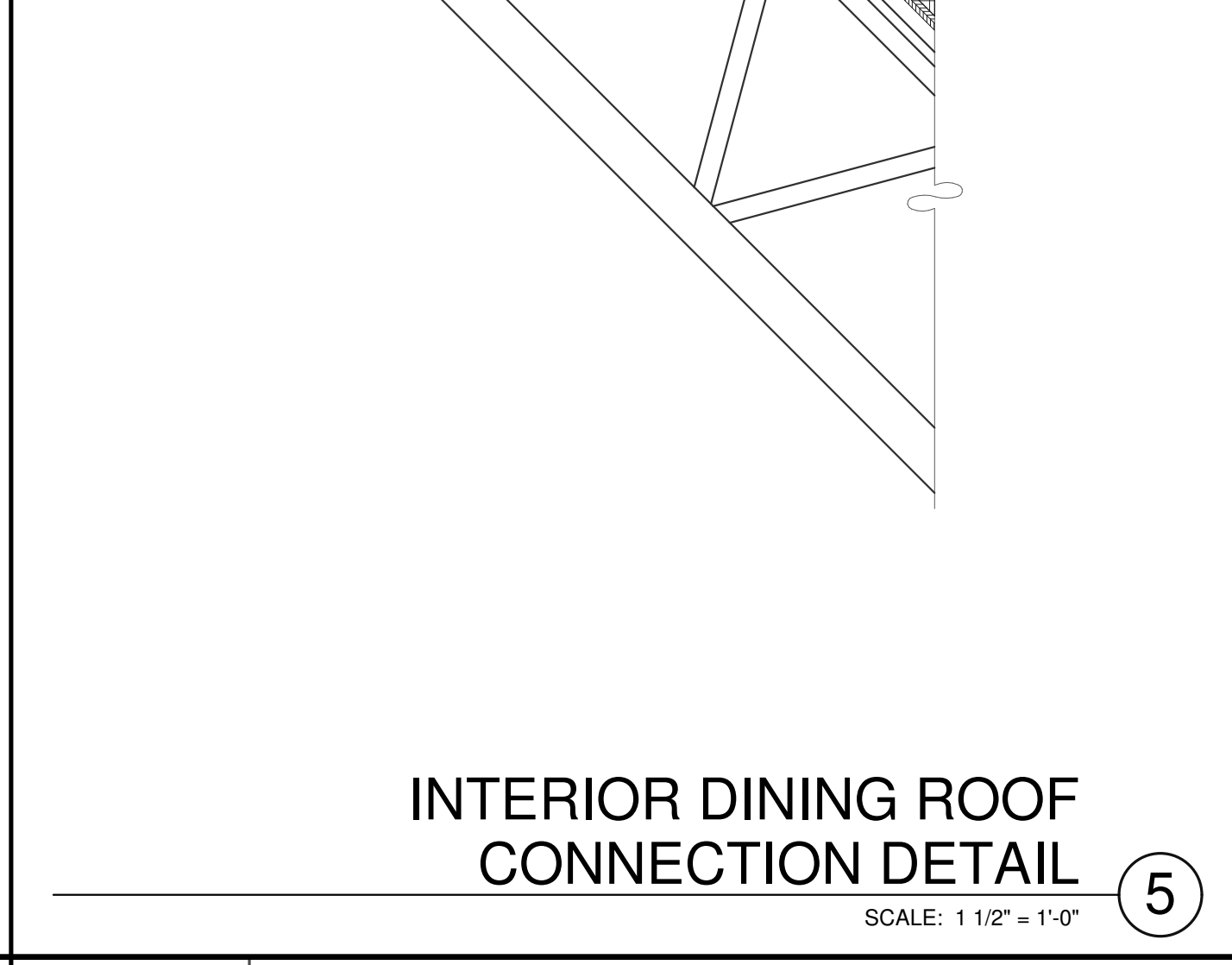
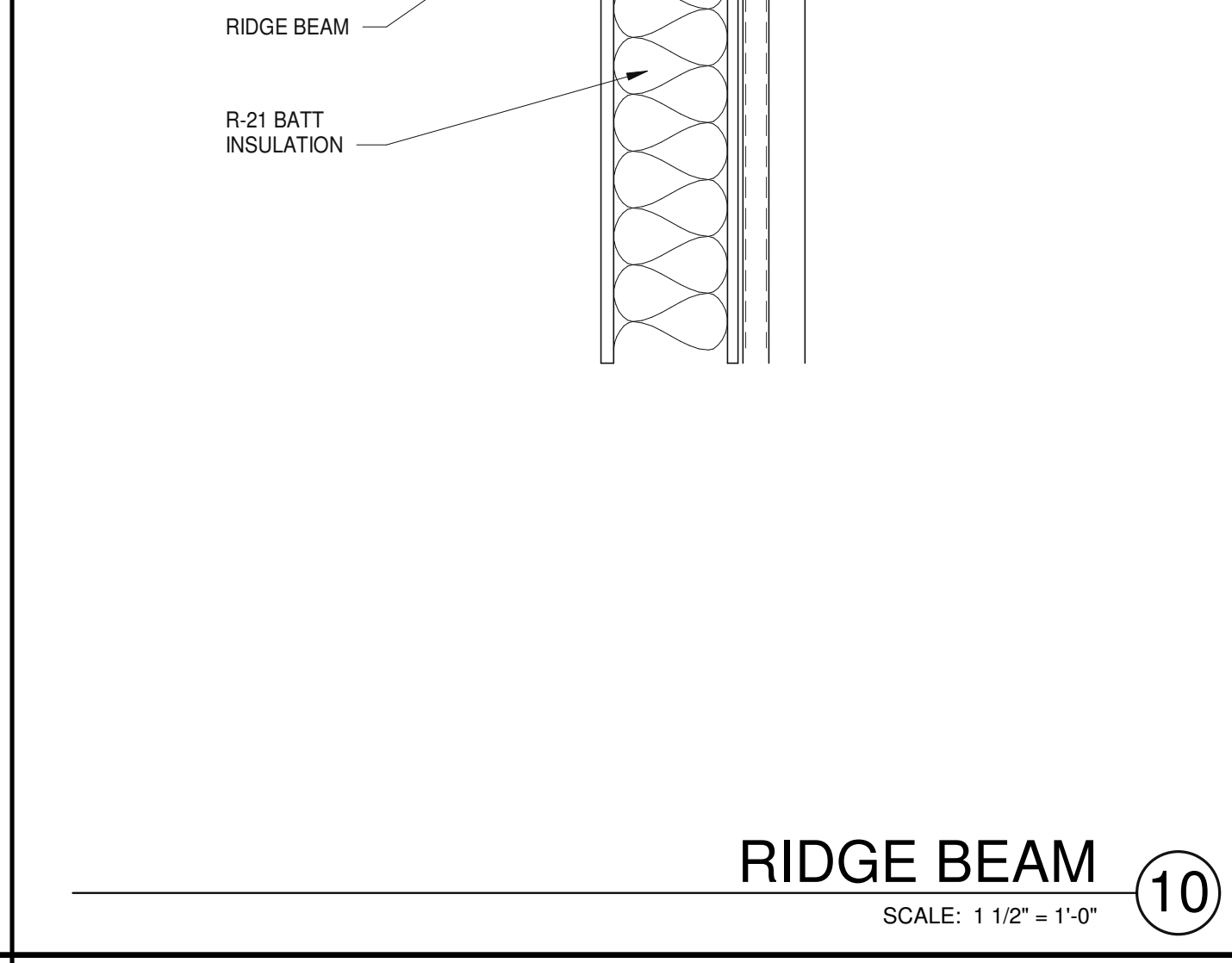
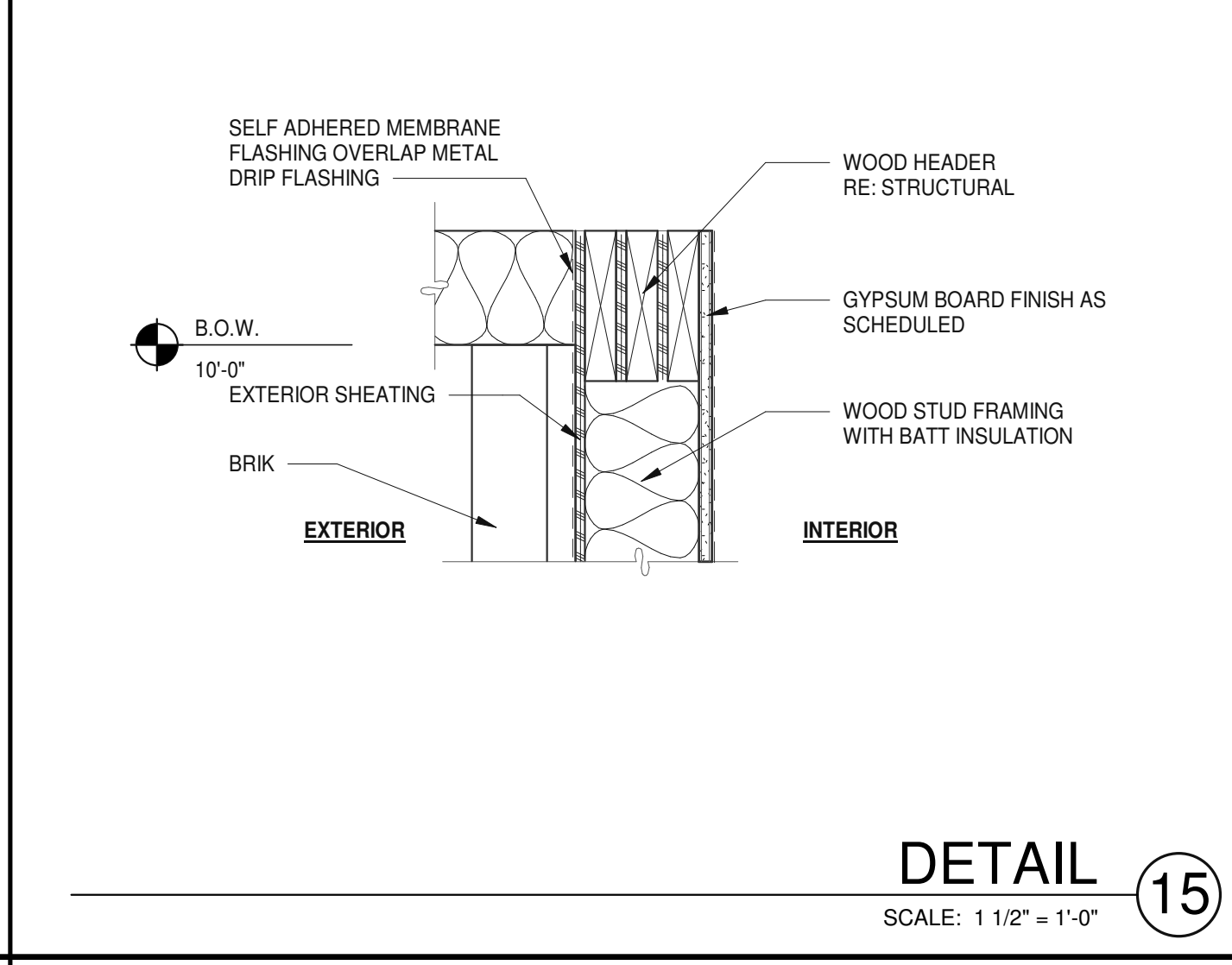
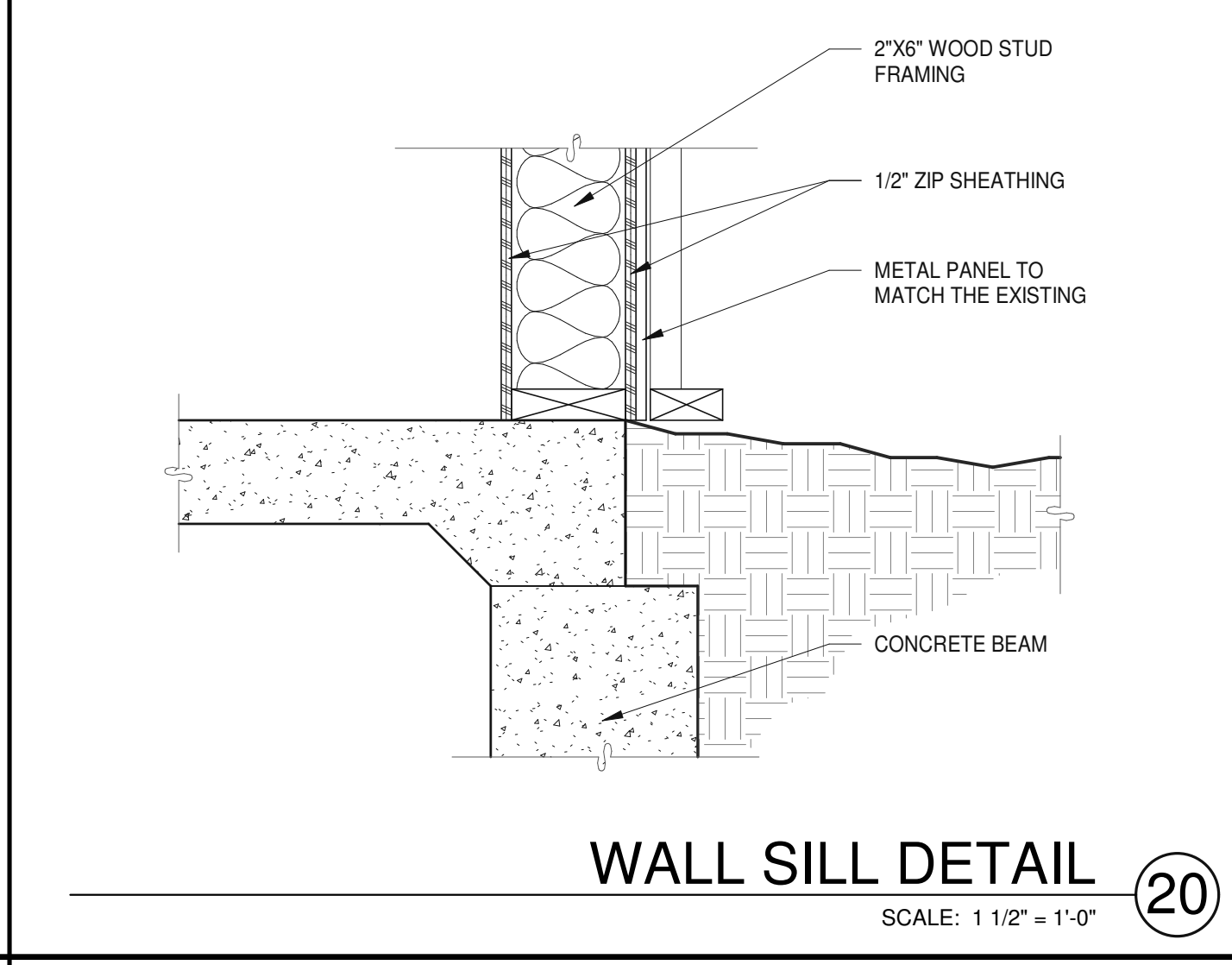
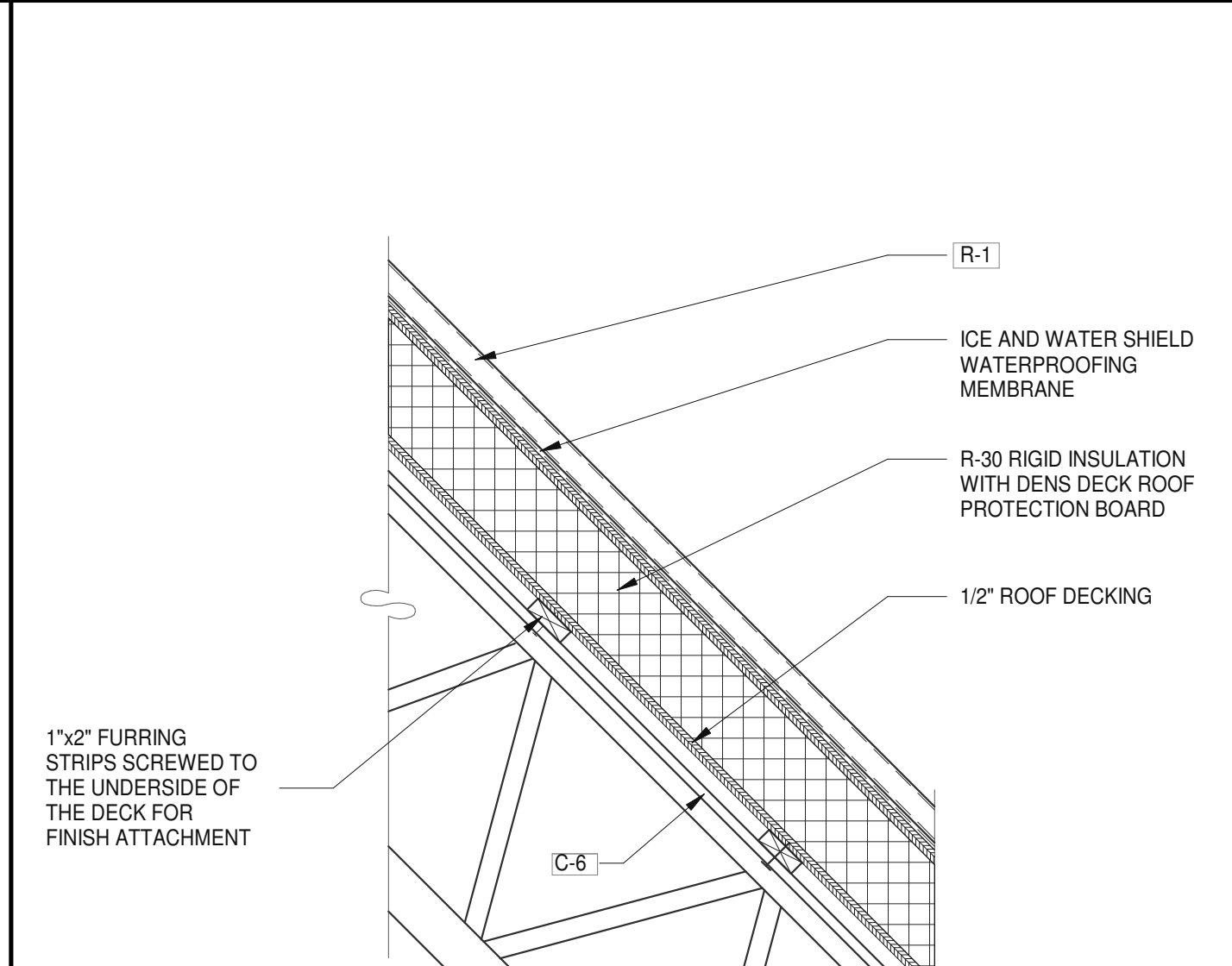
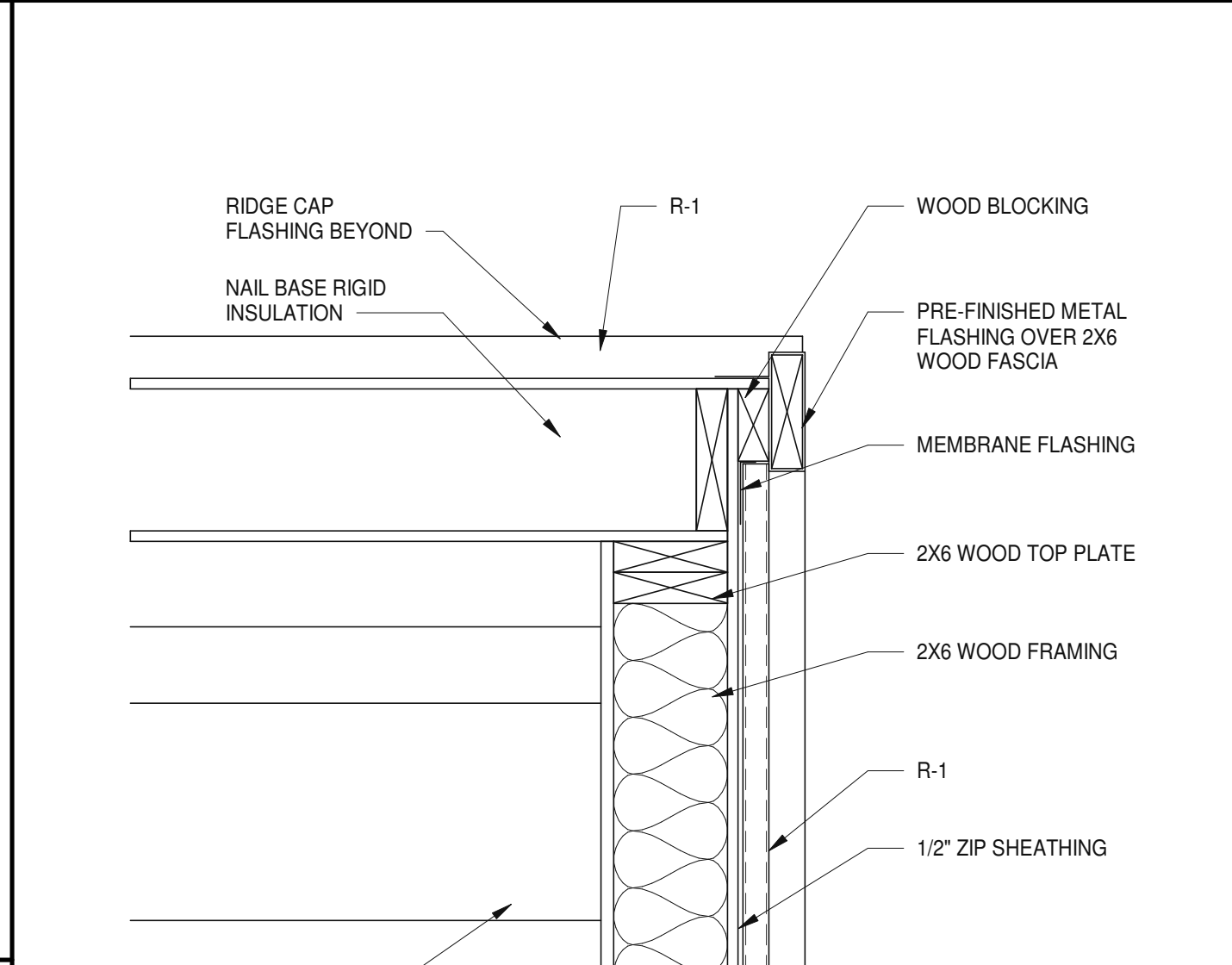
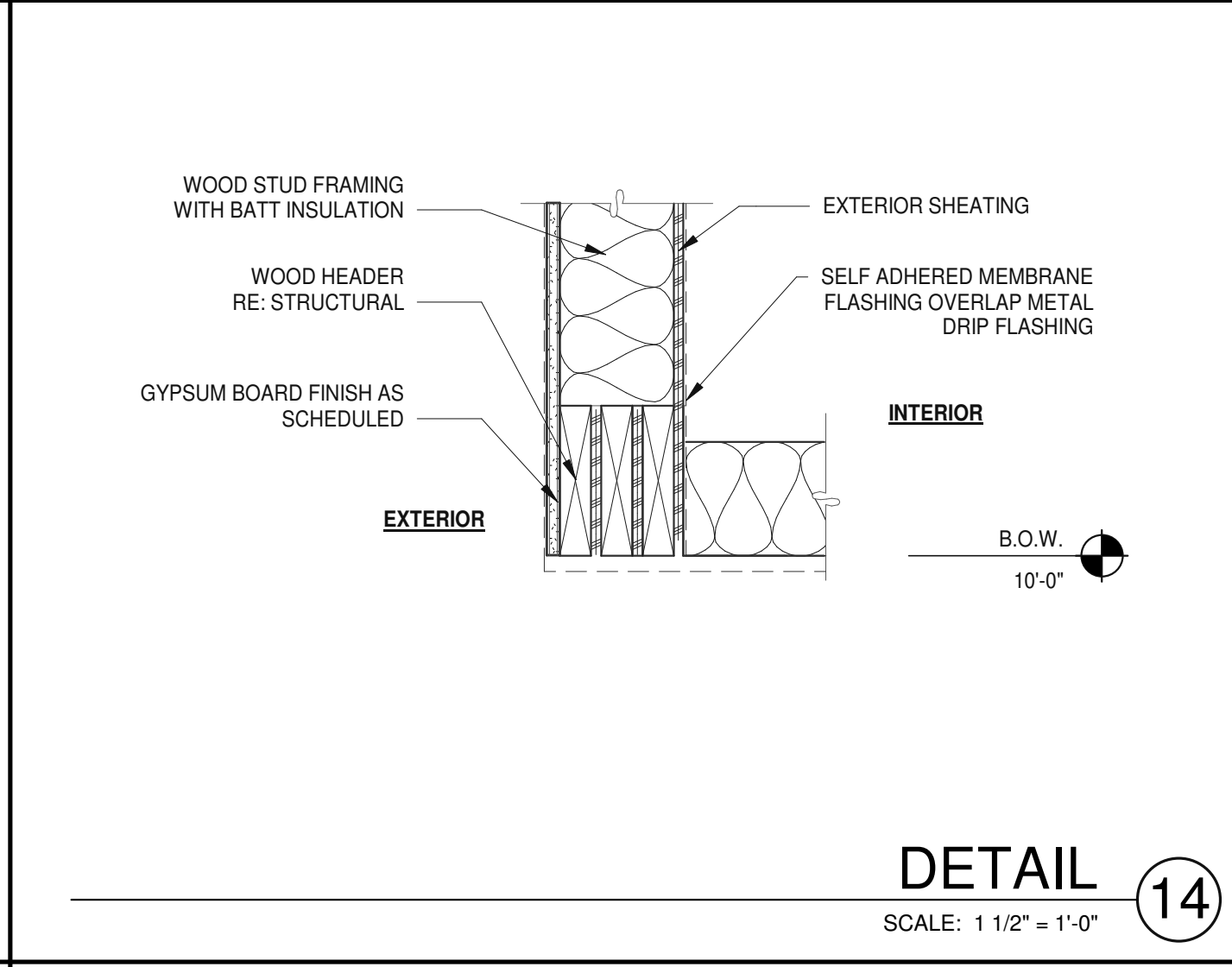
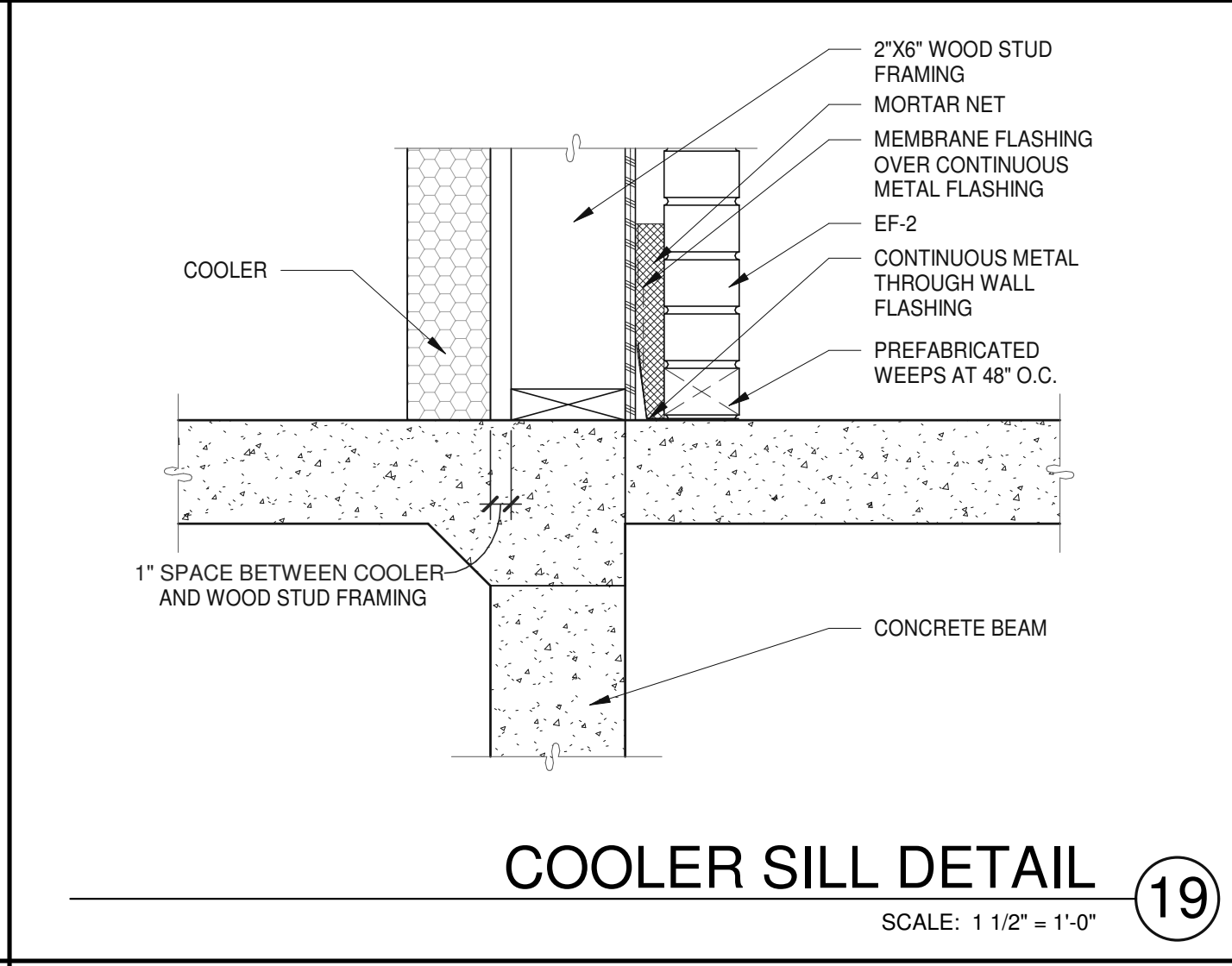
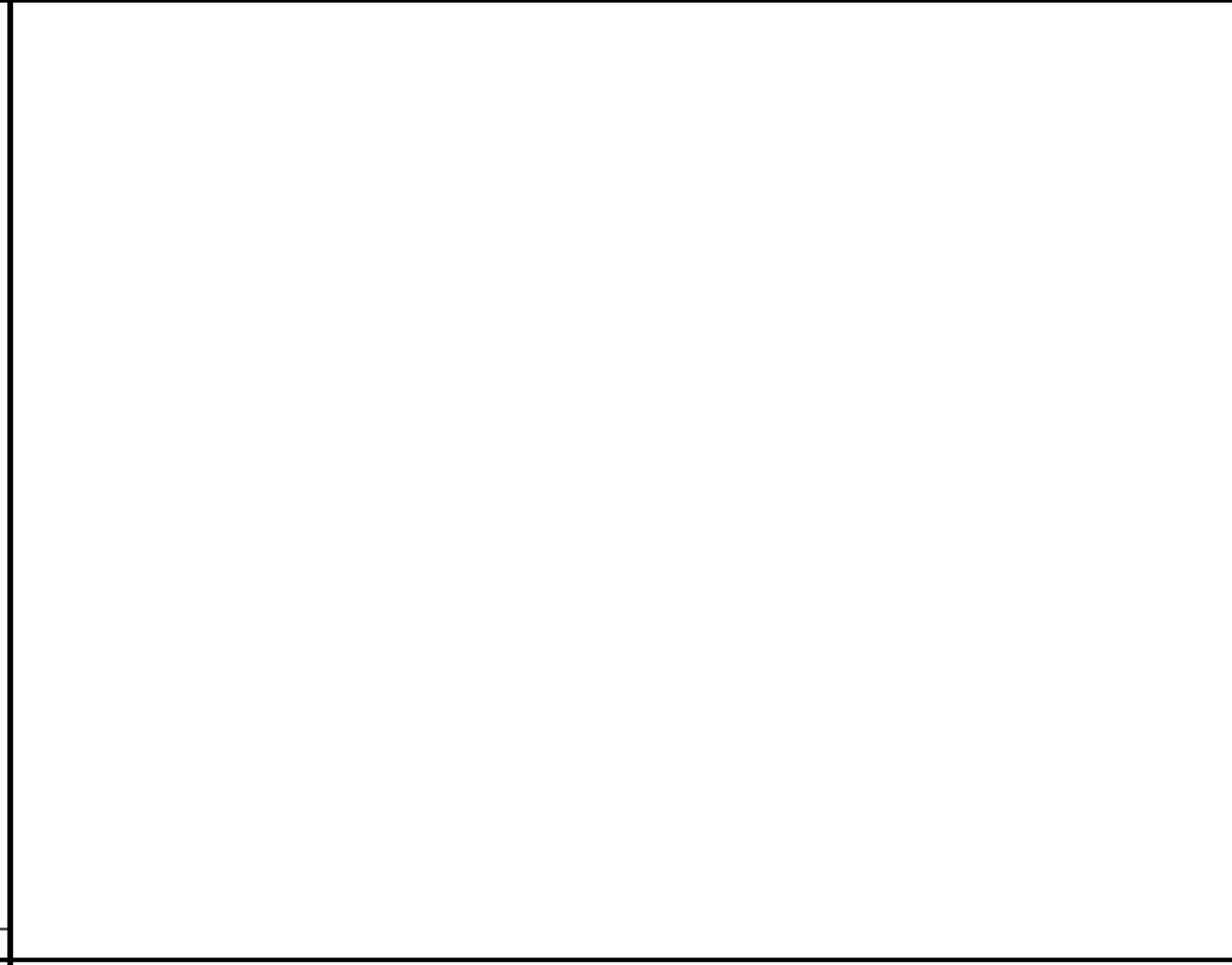
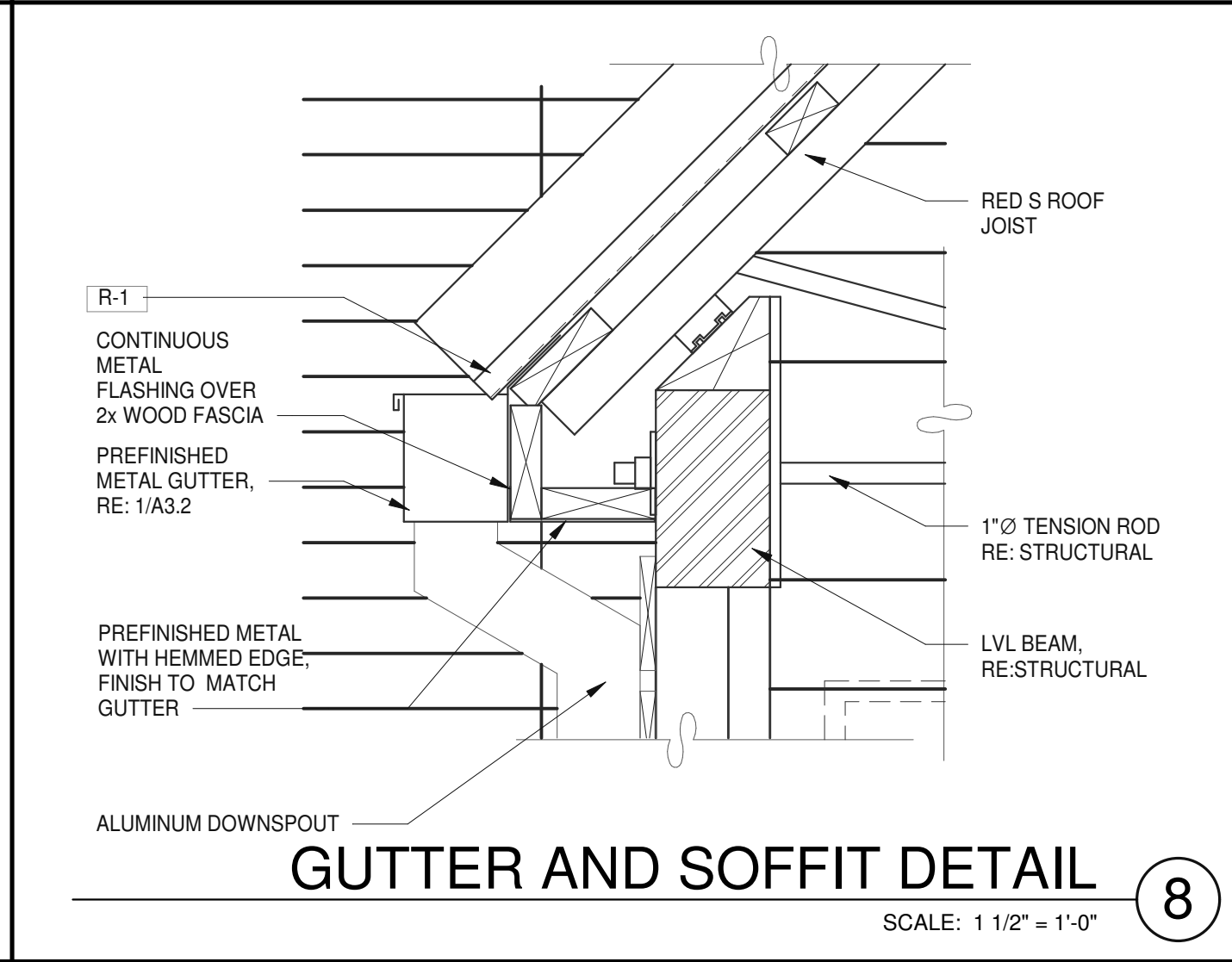
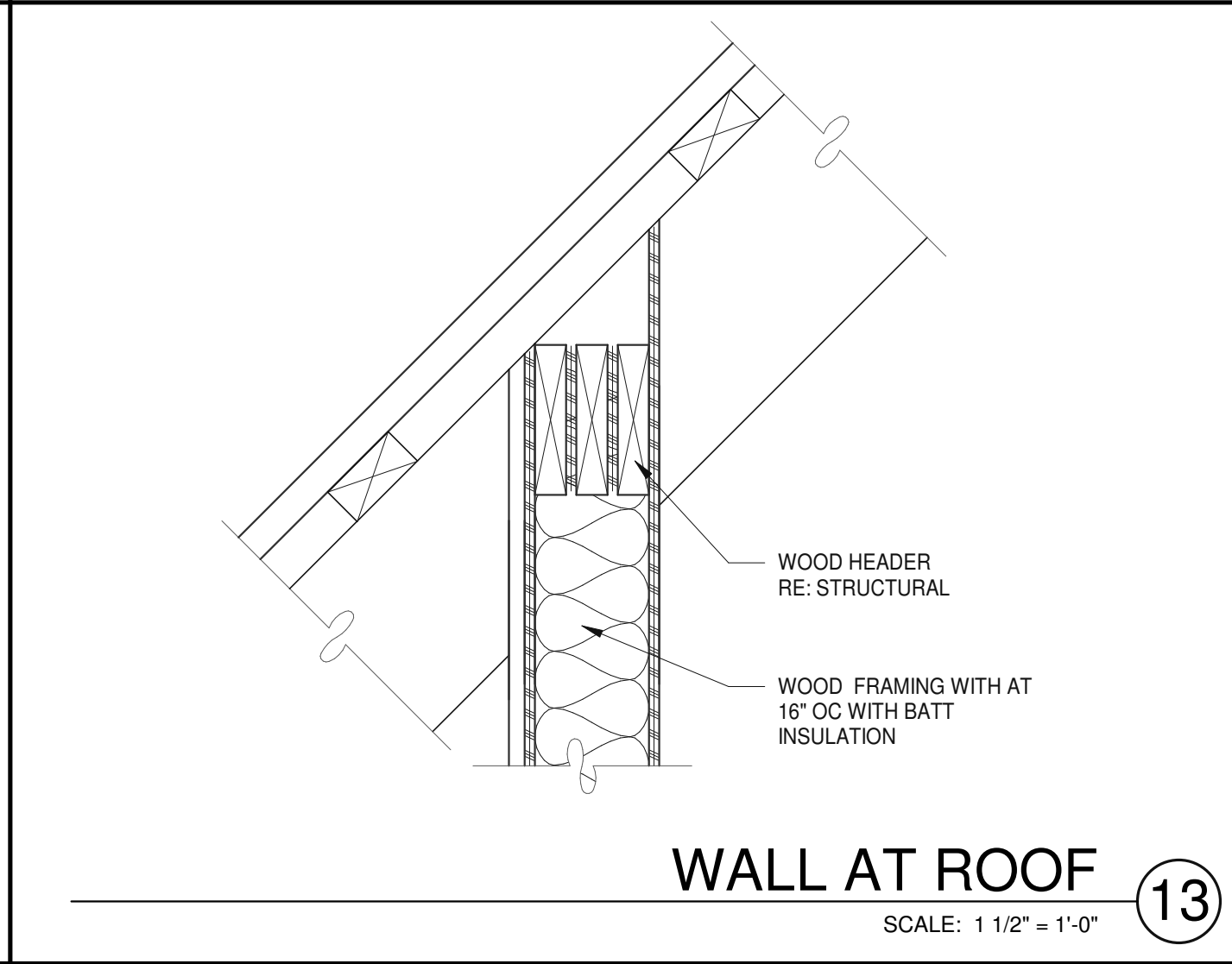
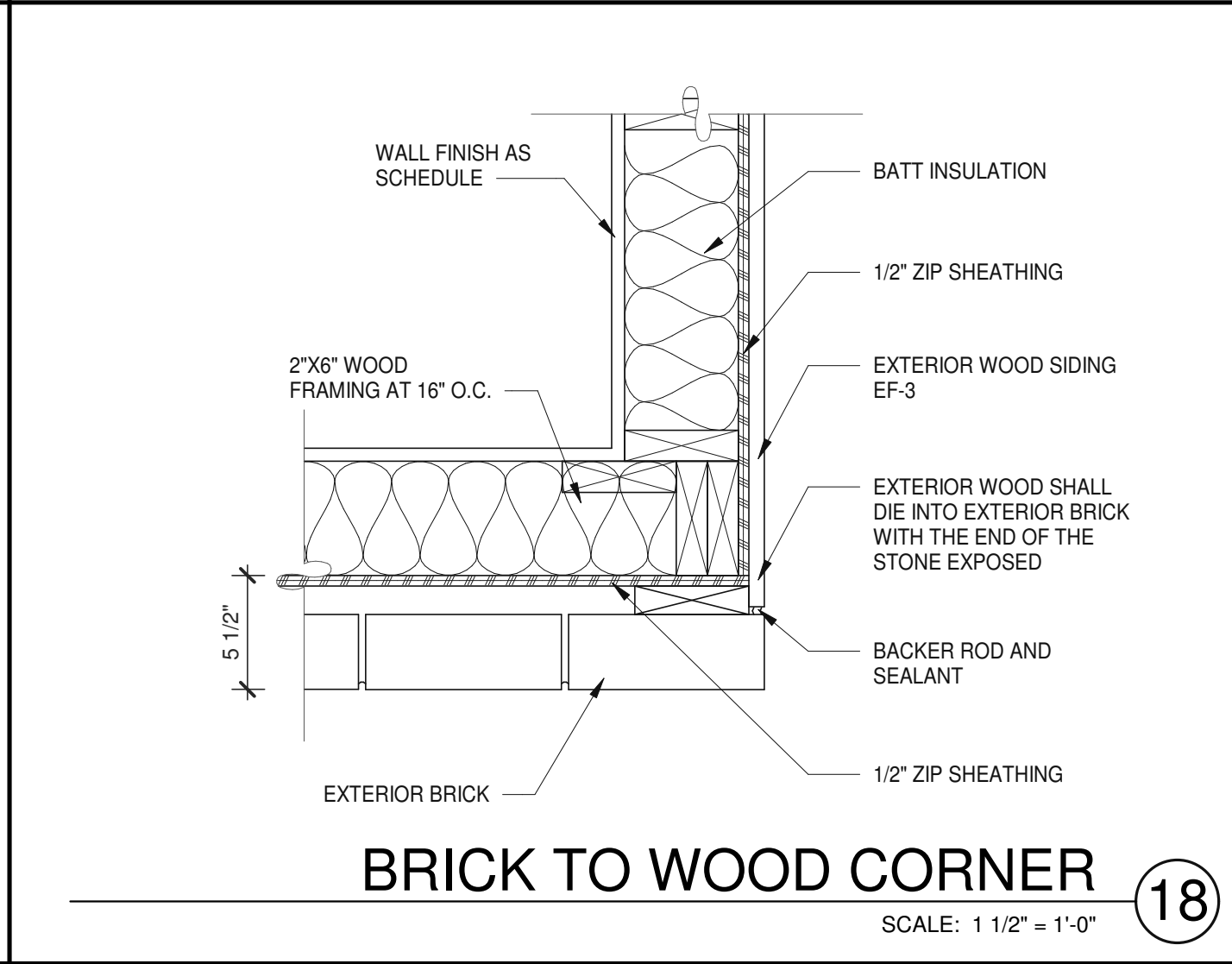
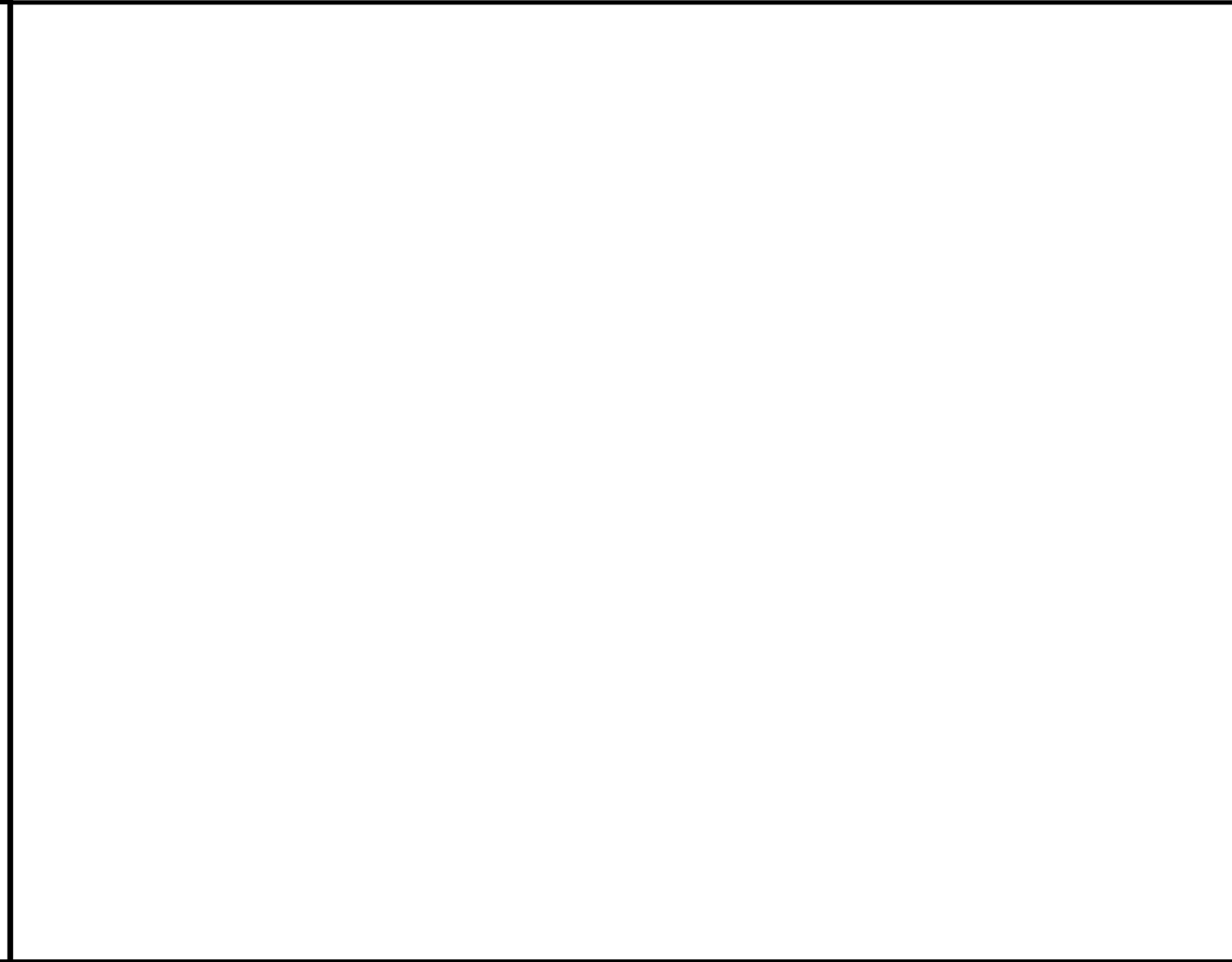
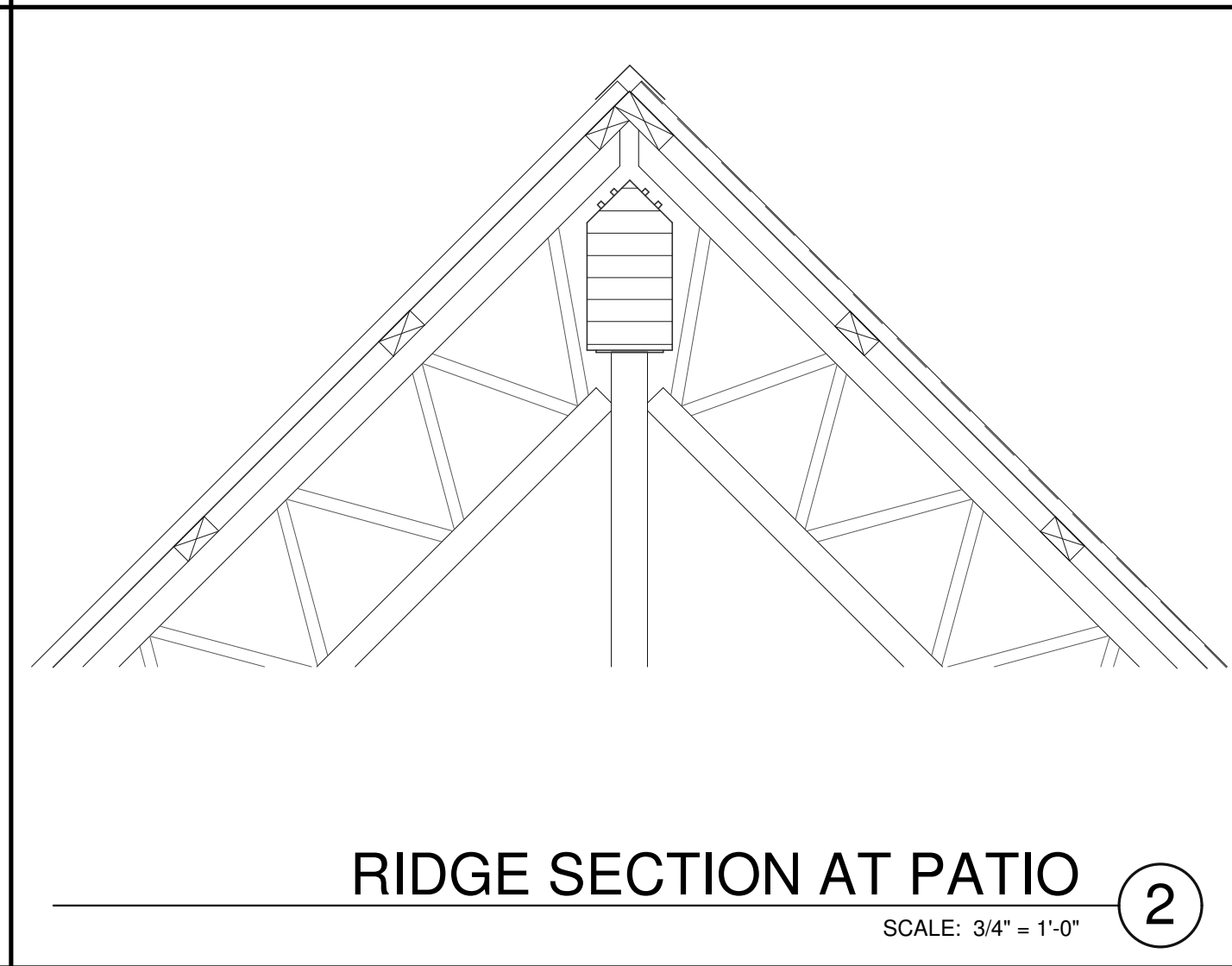
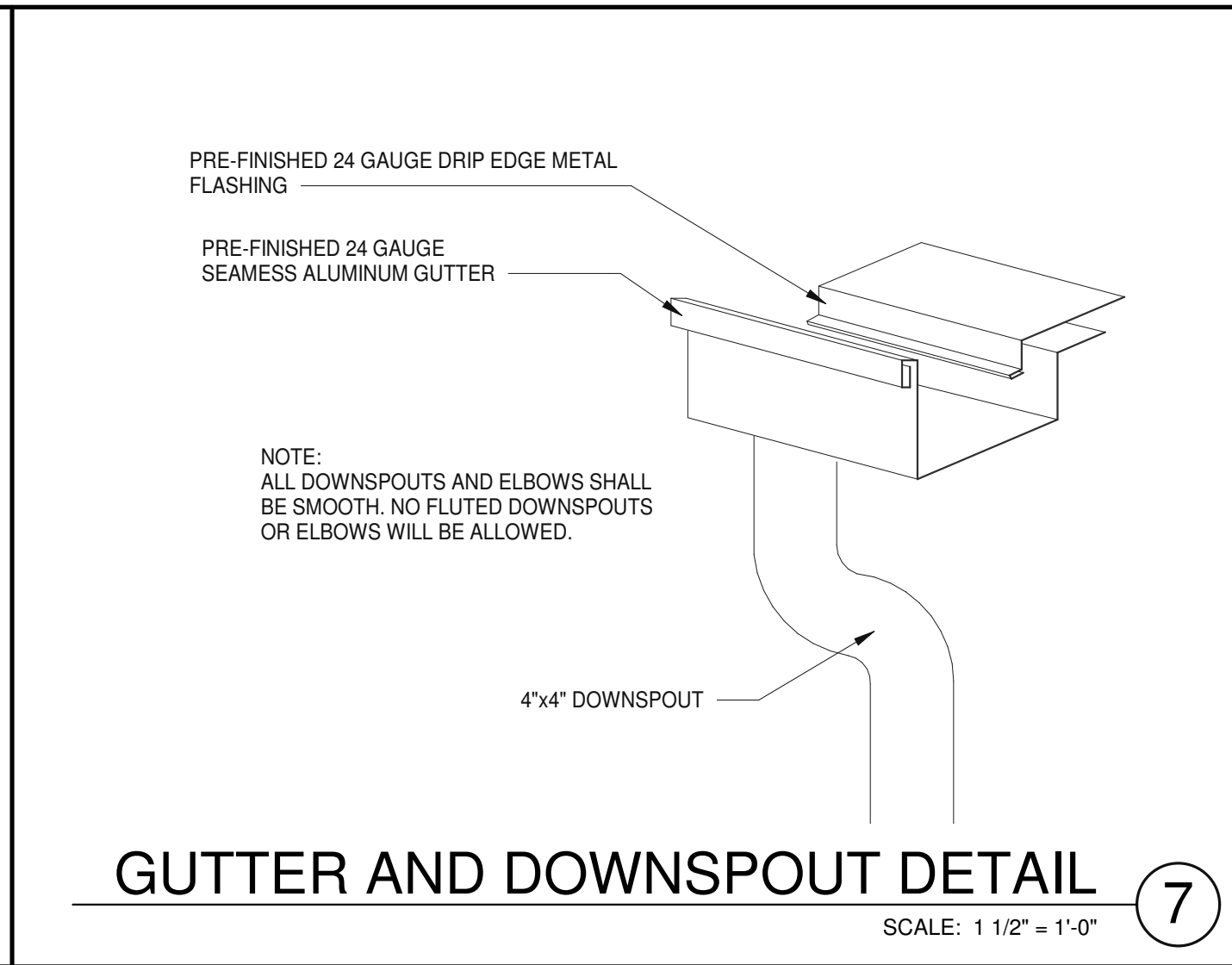
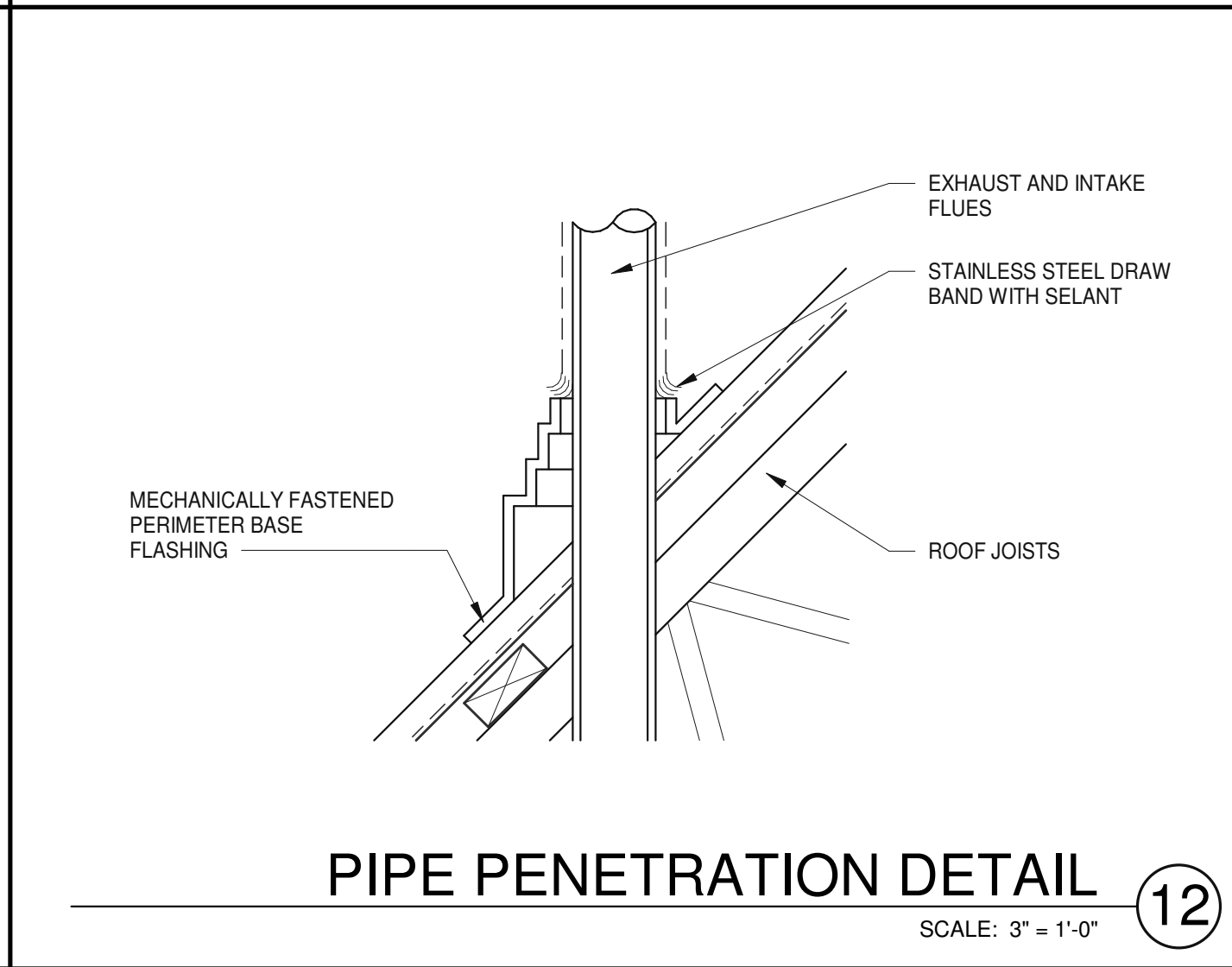
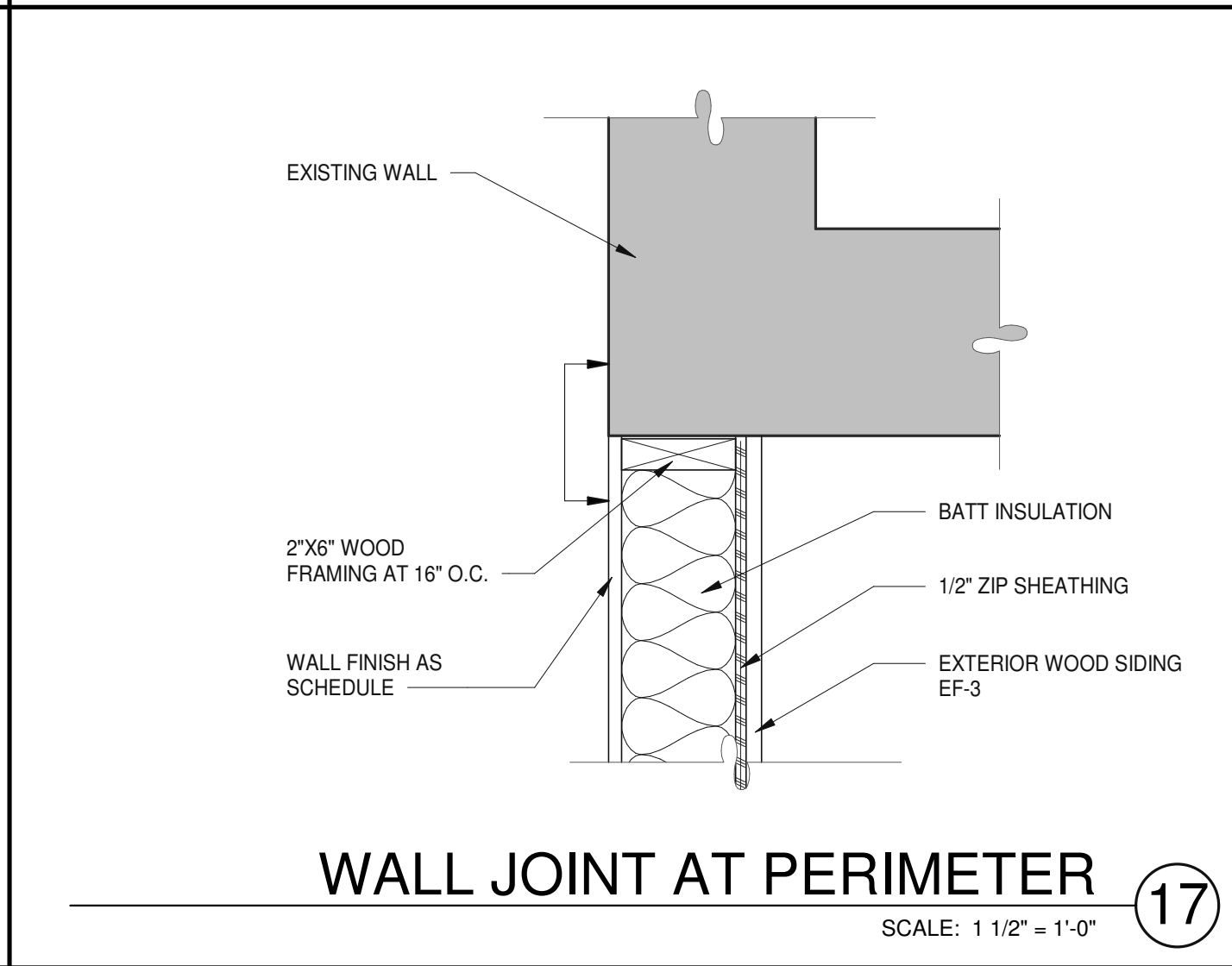
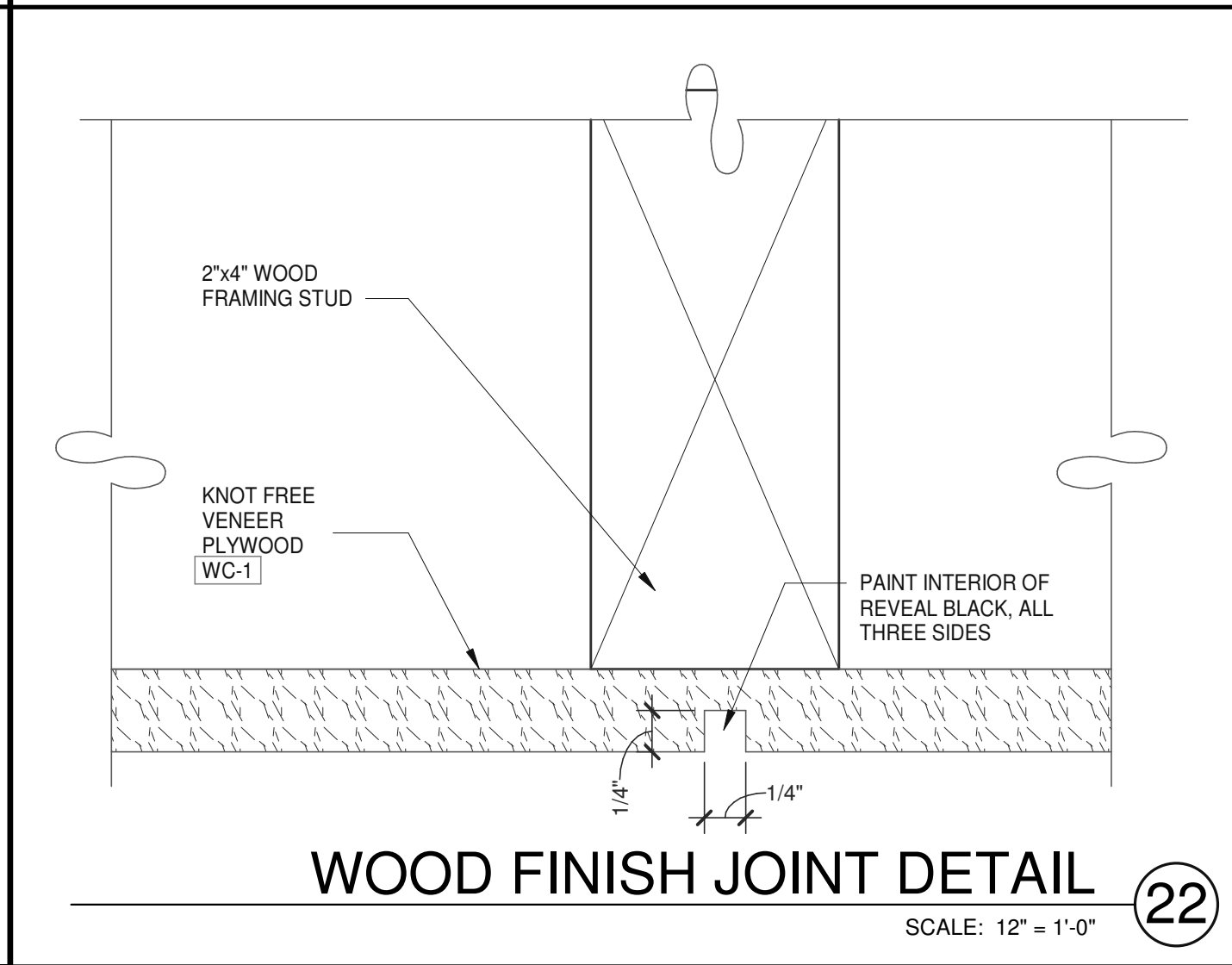
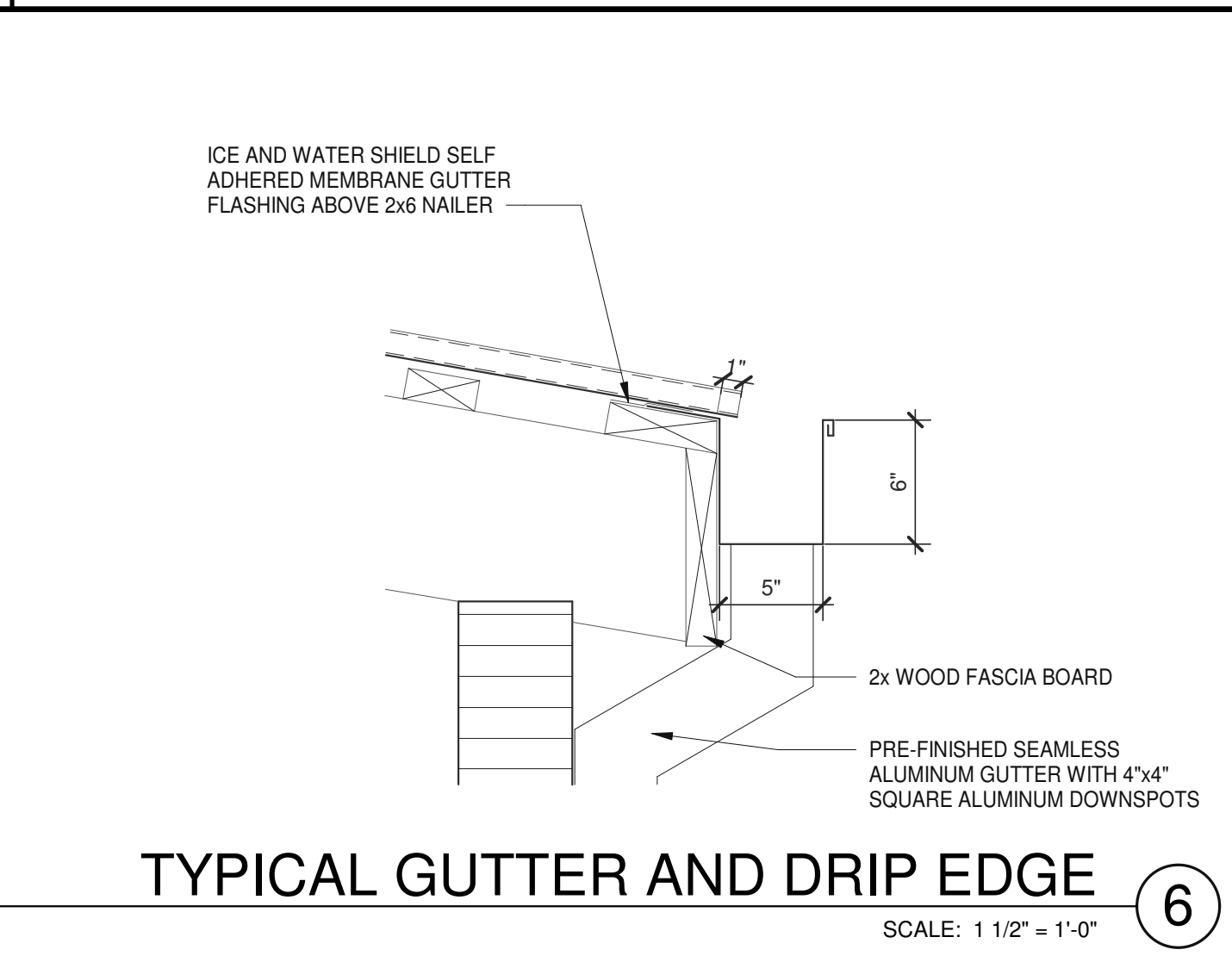
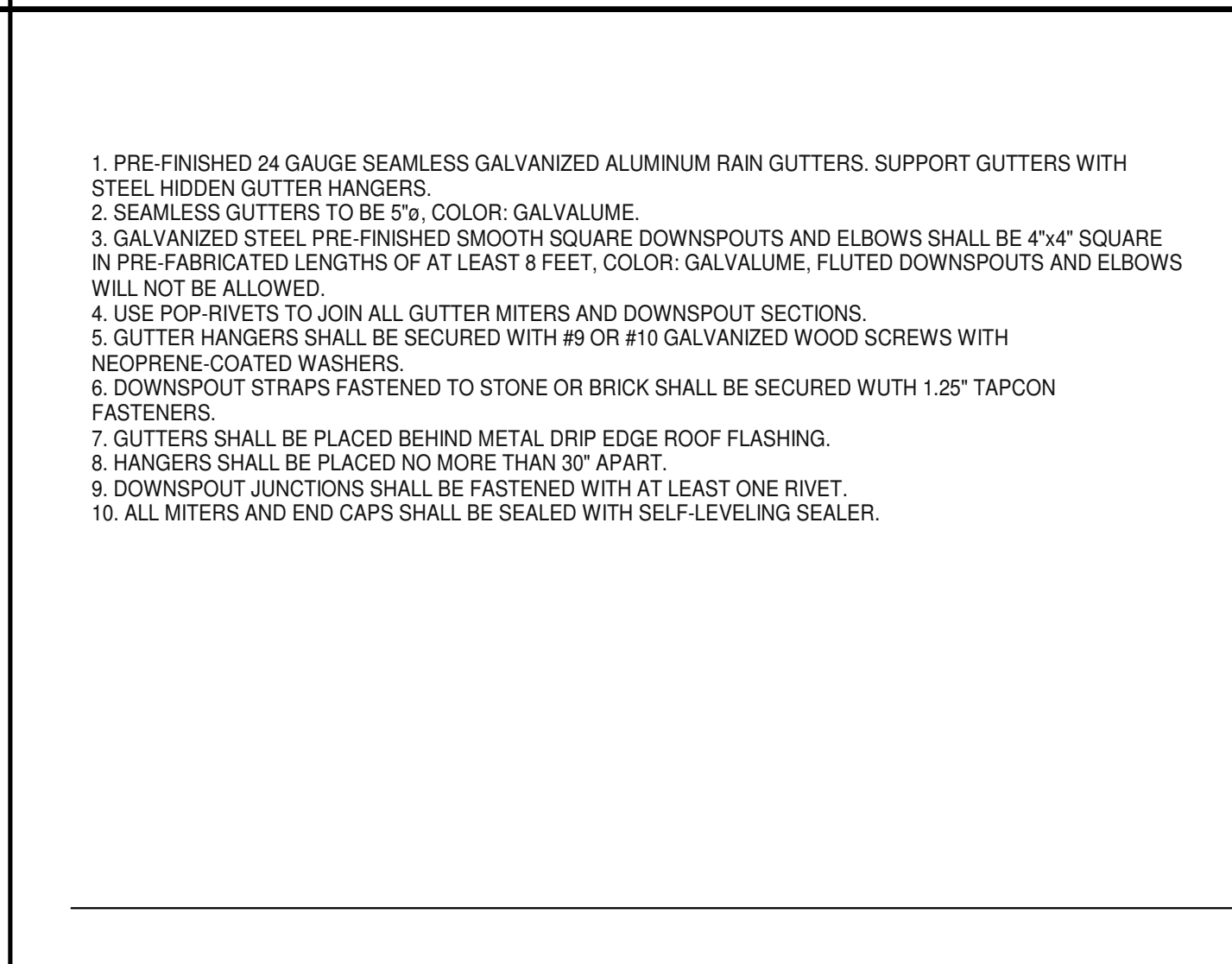
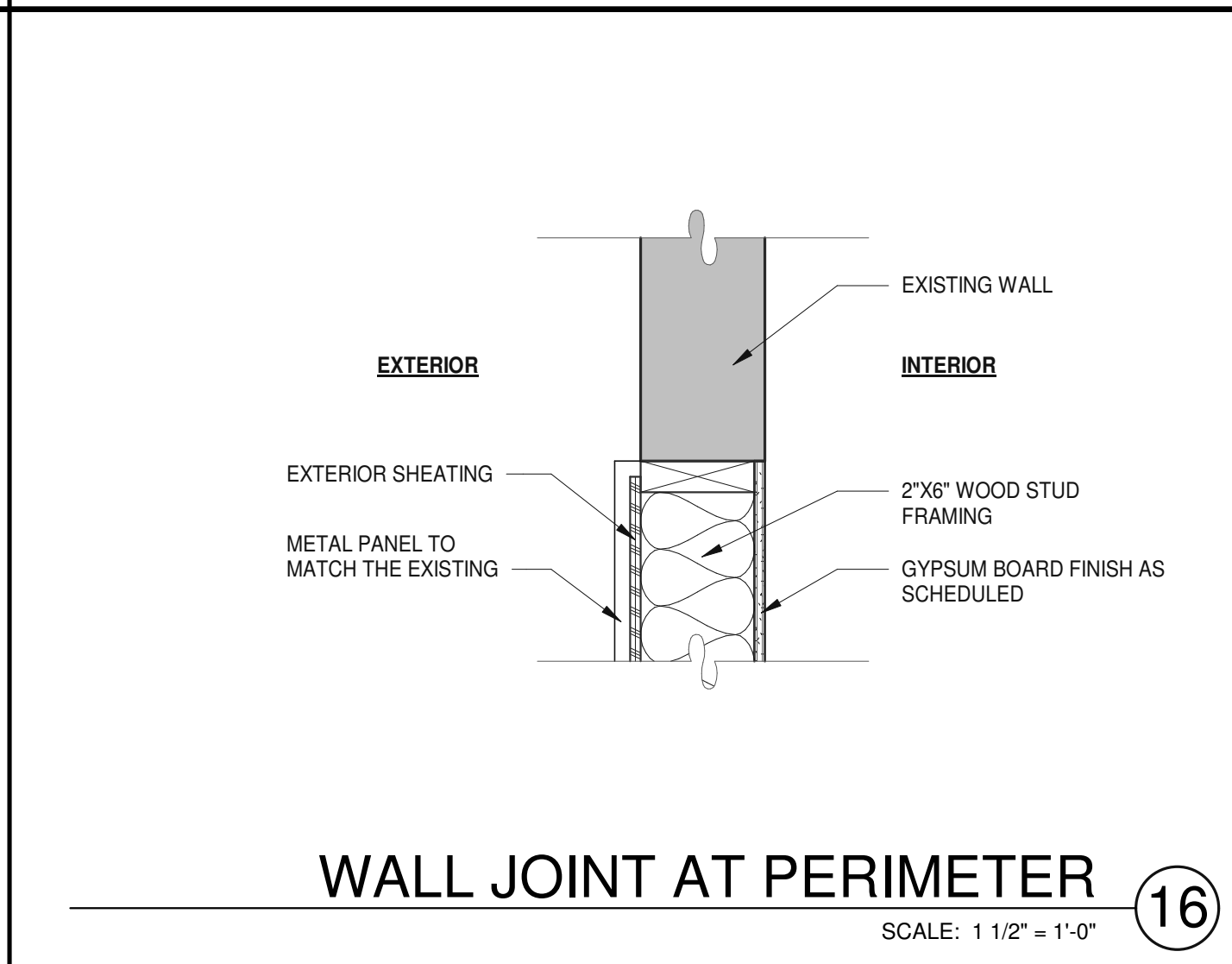
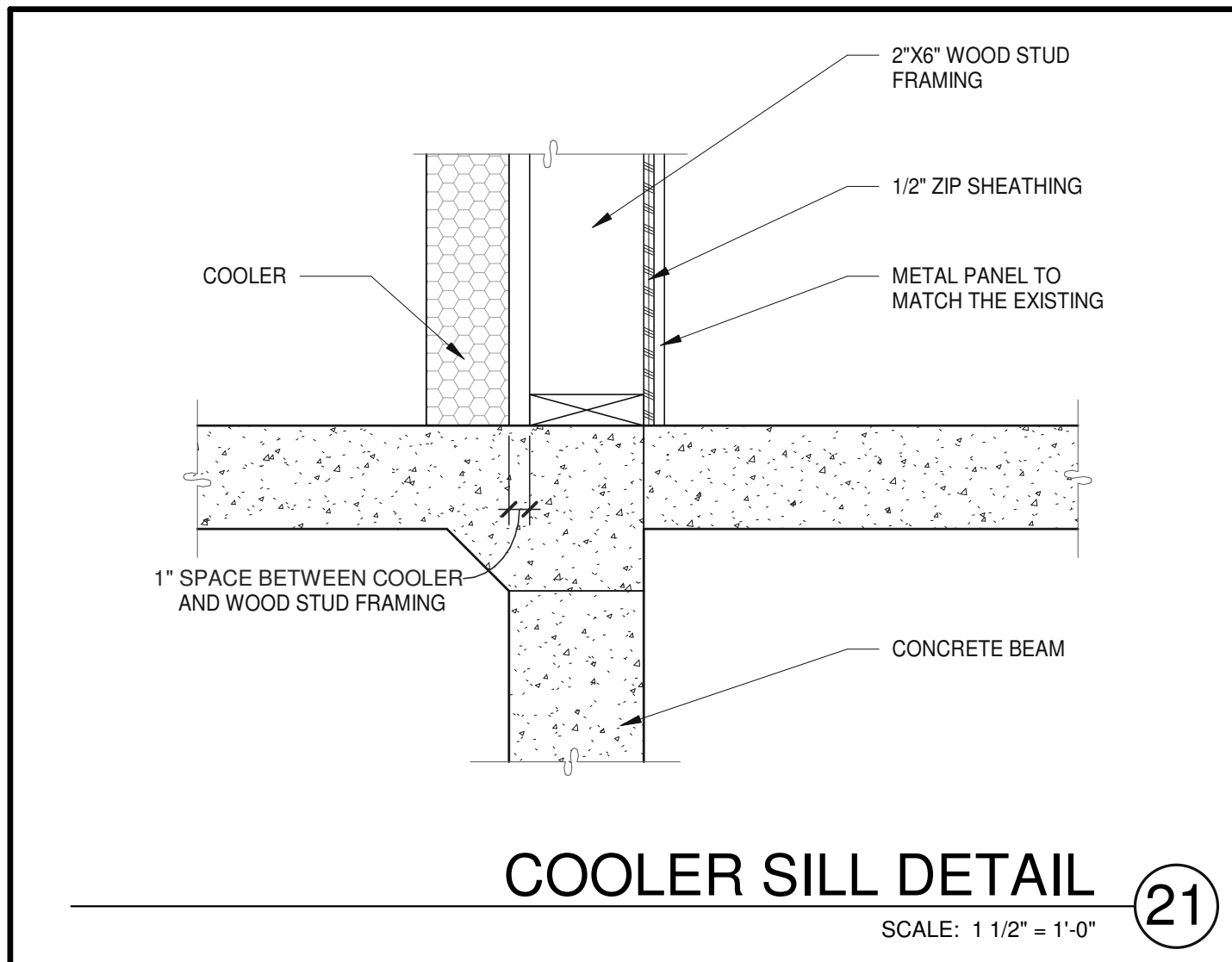
[illegible]

PA/PM:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET

A7.1

3/30/2022 6:54:08 PM



WARE MALCOMB

ARCHITECTURE
PLANNING
INTERIORS

CIVIL ENGINEERING
1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P: 469.553.5379
F: 469.553.5379

REGISTERED ARCHITECT
STATE OF TEXAS
04/05/2022

HAT CREEK
Burger Company

HAT CREEK - WEST LAKE

5002 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

EXTERIOR DETAILS	
DATE	REMARKS
03/03/2022	ISSUE FOR PERMIT

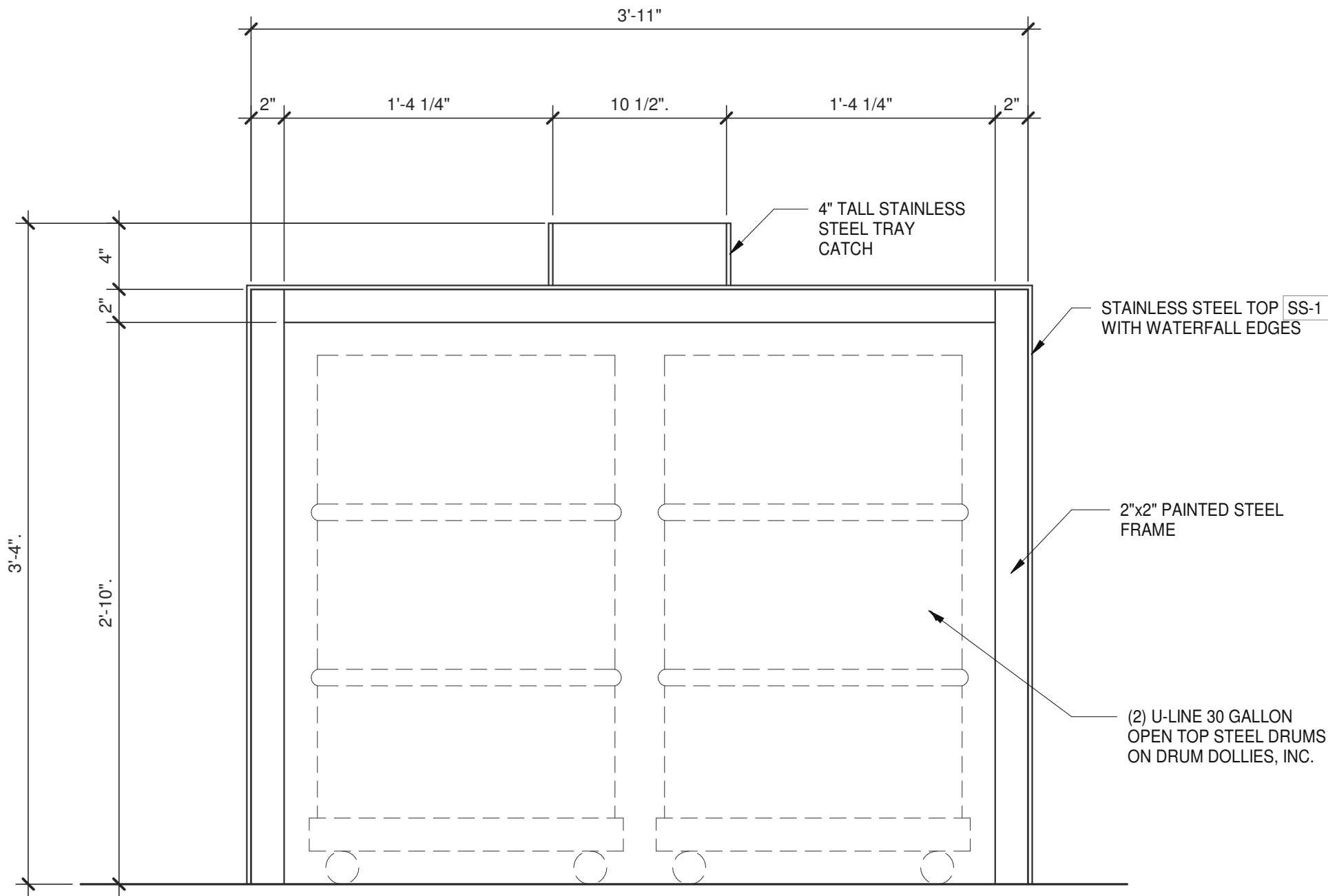
P.A.P.M.:	STEVEN COX
DRAWN BY.:	C.B.
JOB NO.:	DAL21-0063-00

SHEET

A8.1

3/30/2022 6:54:10 PM

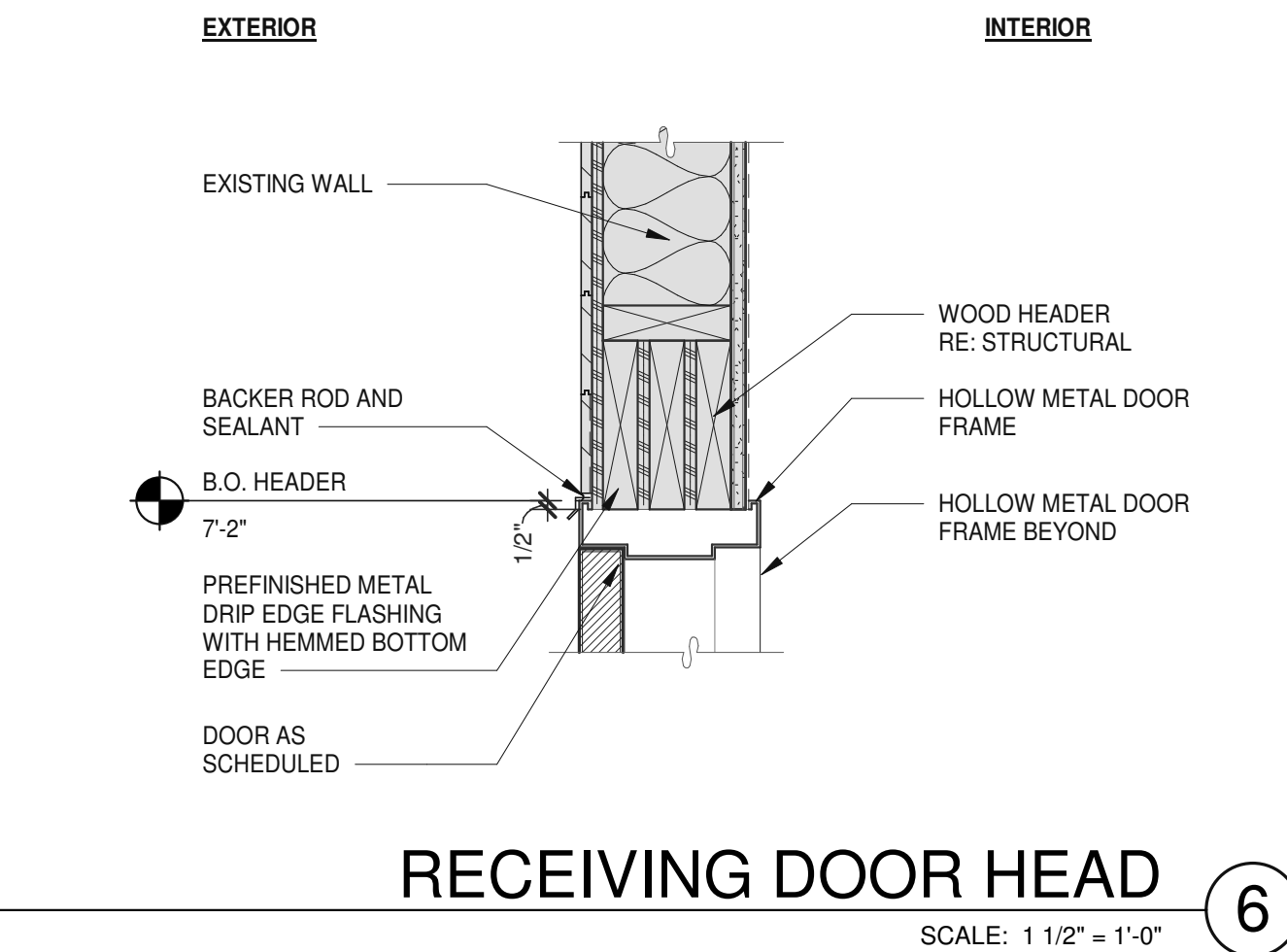
BM 305 (24) 21-0000-00, Proj. Name: West Lake Remodel0000, ARD21-01



TRASH CAN ELEVATION

SCALE: 1 1/2" = 1'-0"

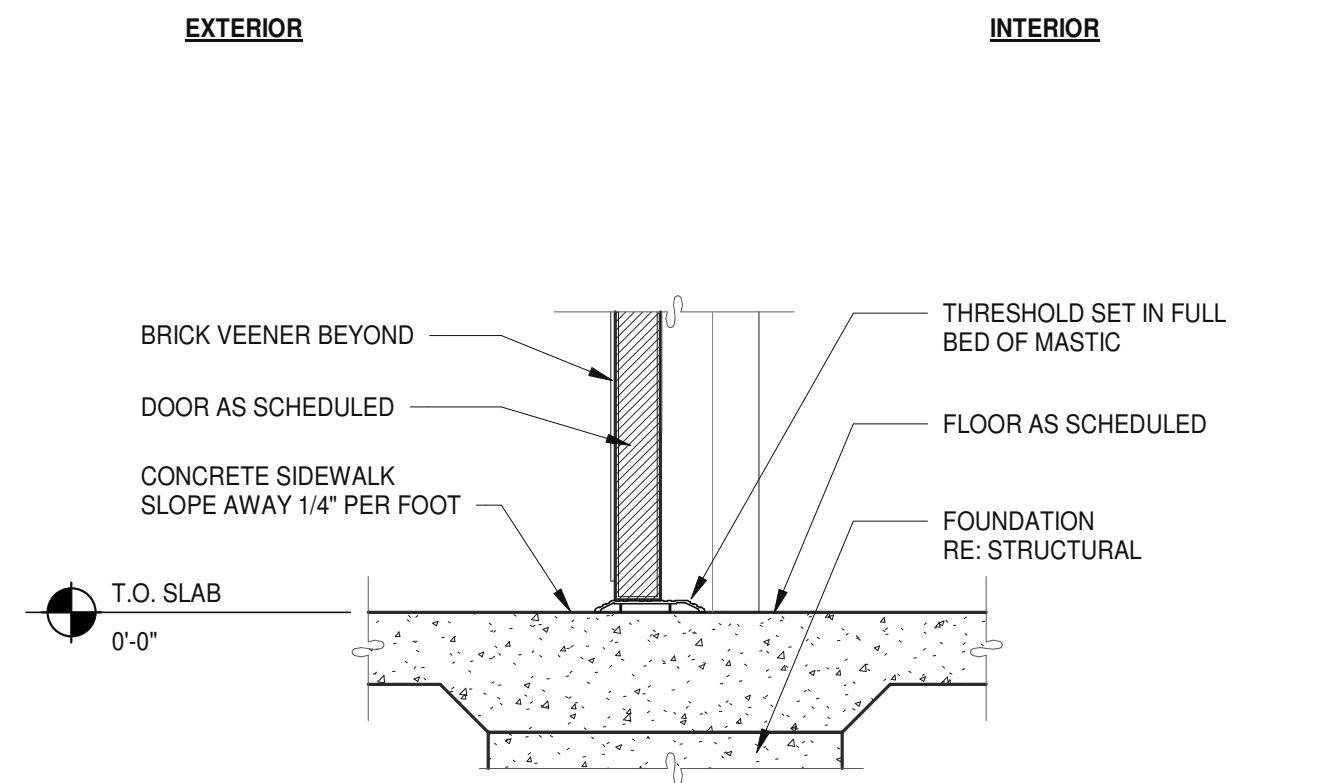
12



RECEIVING DOOR HEAD

SCALE: 1 1/2" = 1'-0"

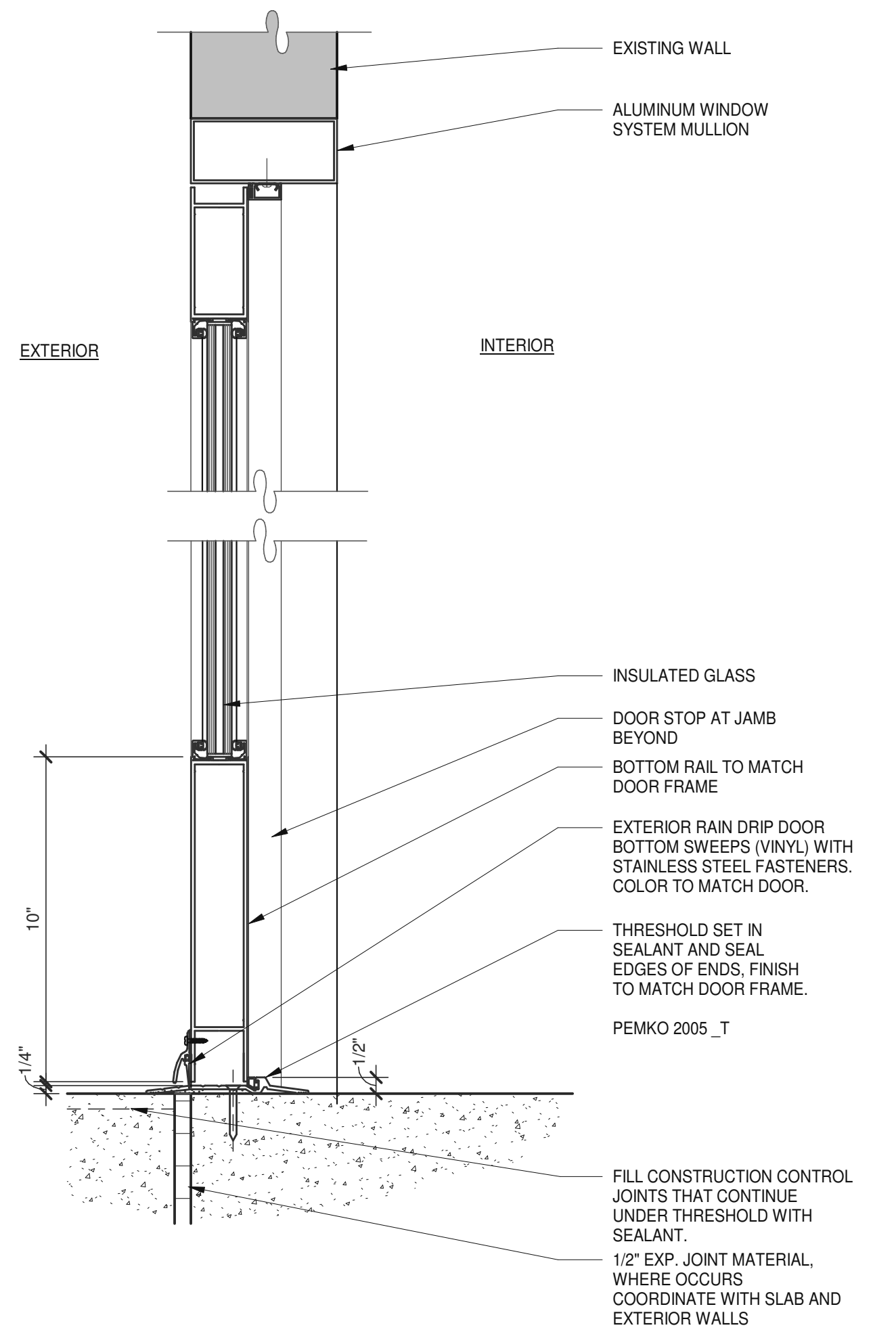
6



MECHANICAL DOOR SILL

SCALE: 1 1/2" = 1'-0"

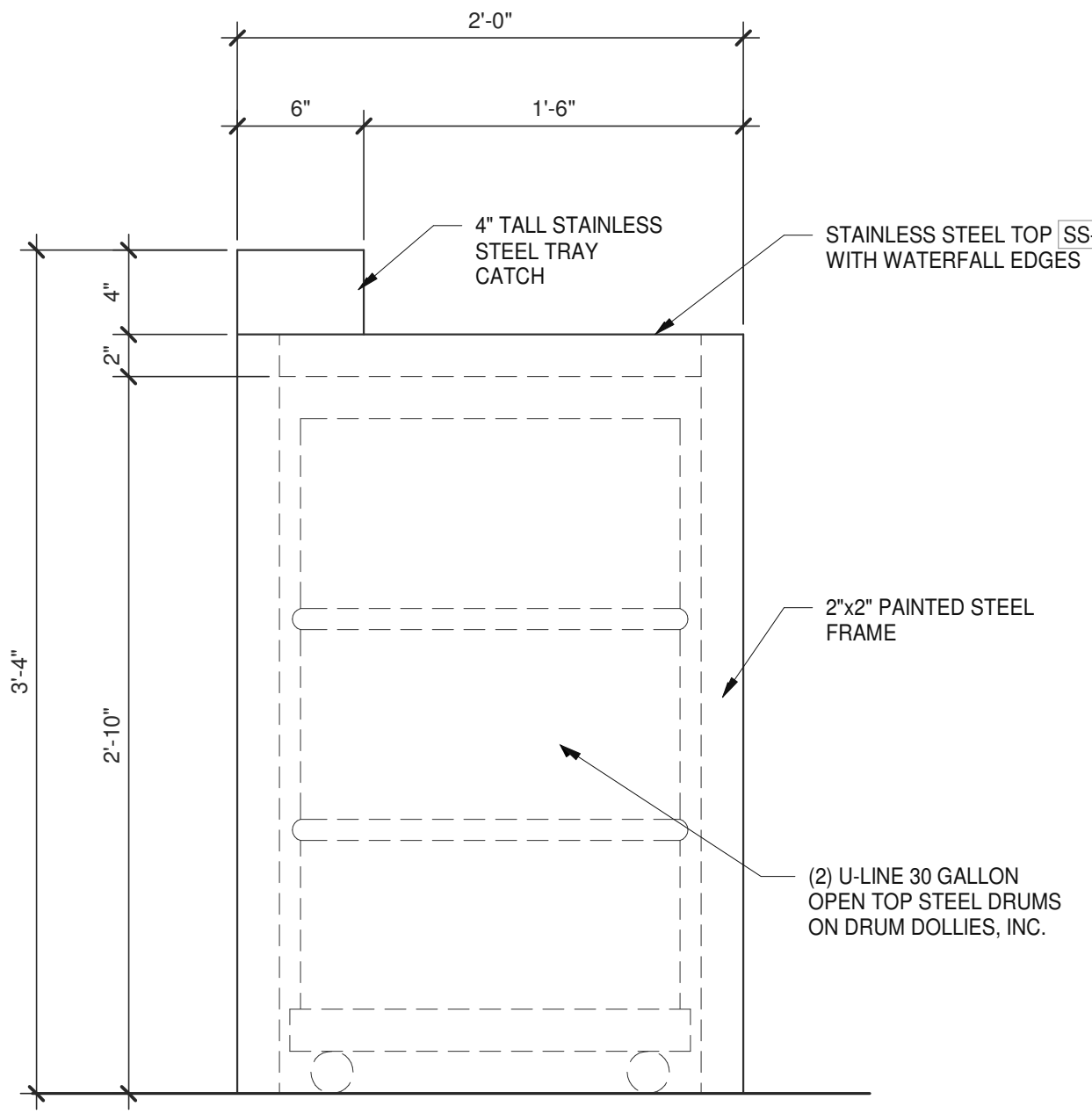
7



STOREFRONT DOOR

SCALE: 3" = 1'-0"

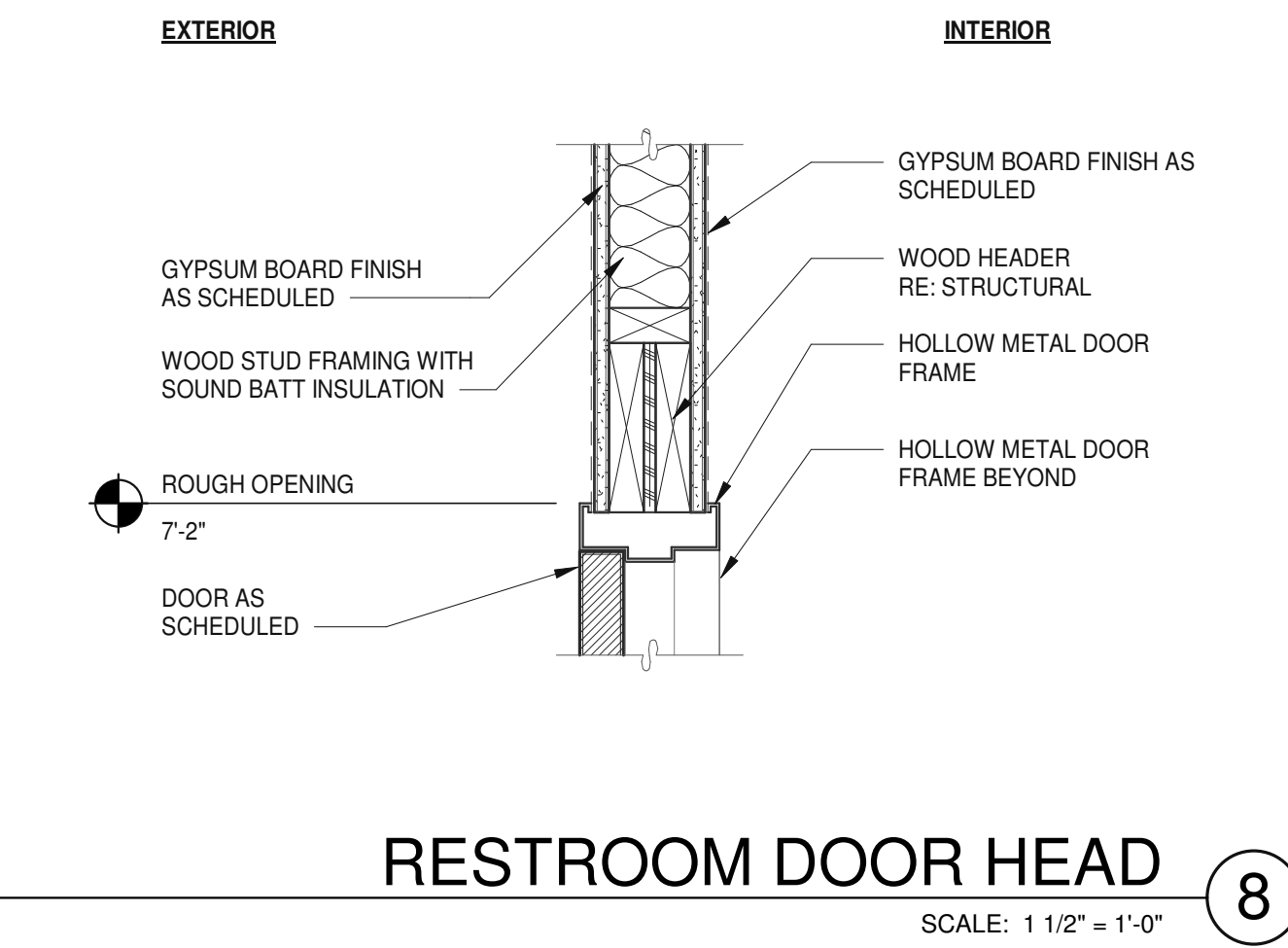
2



TRASH CAN ELEVATION

SCALE: 1 1/2" = 1'-0"

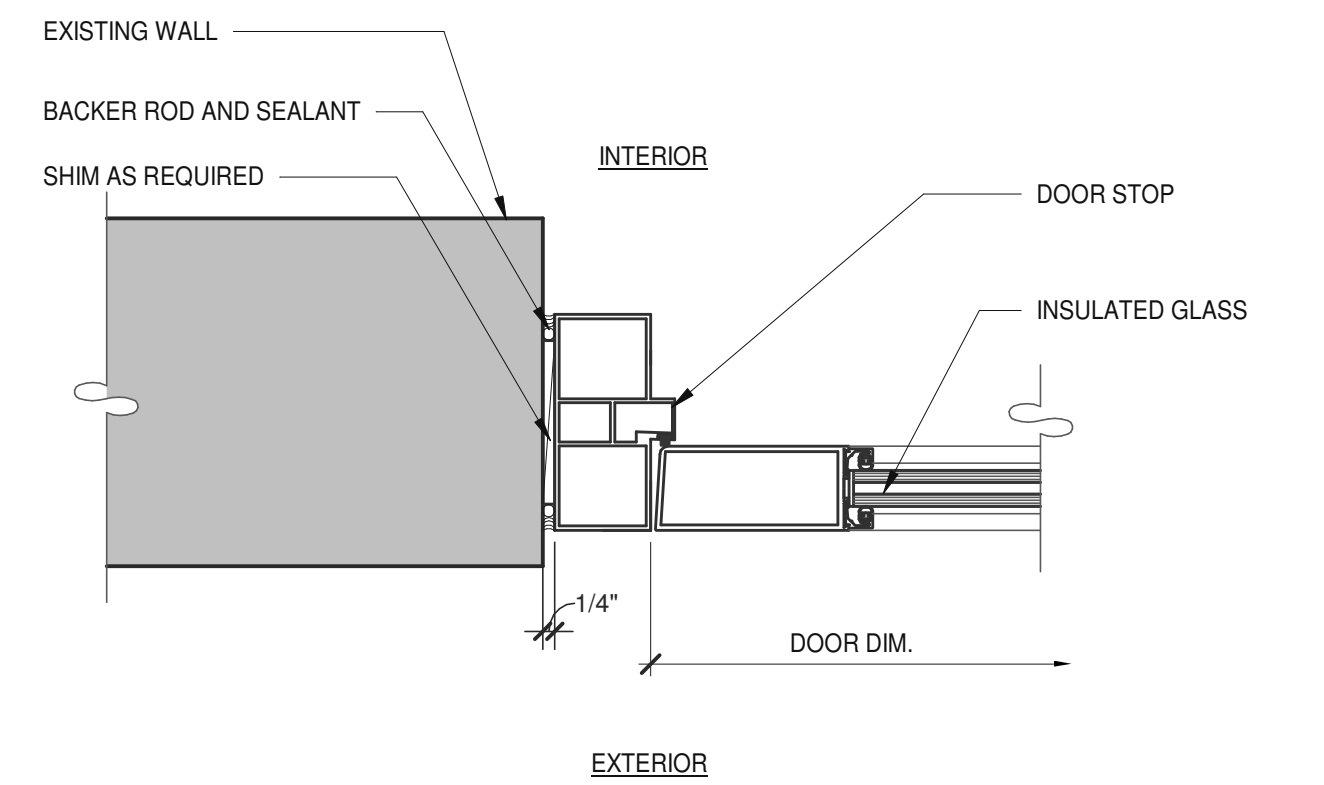
14



RESTROOM DOOR HEAD

SCALE: 1 1/2" = 1'-0"

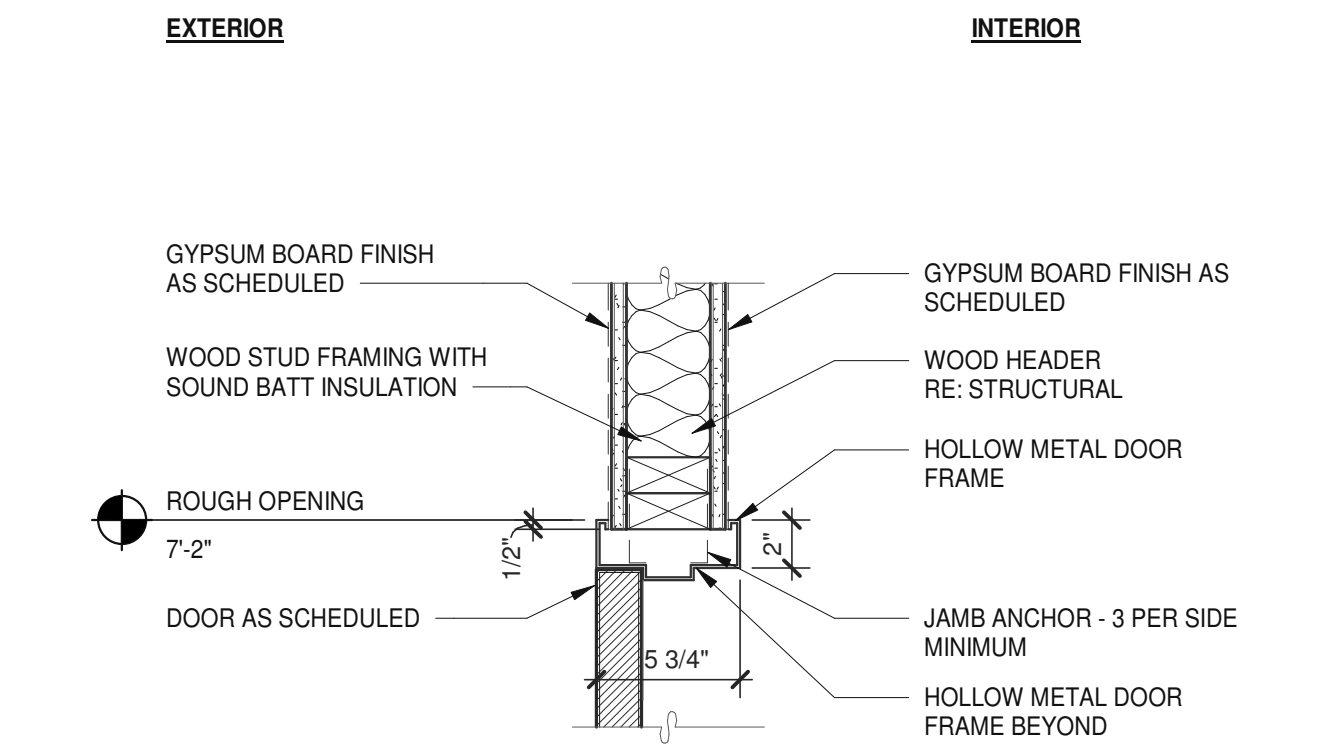
8



STOREFRONT DOOR JAMB @ WALL

SCALE: 3" = 1'-0"

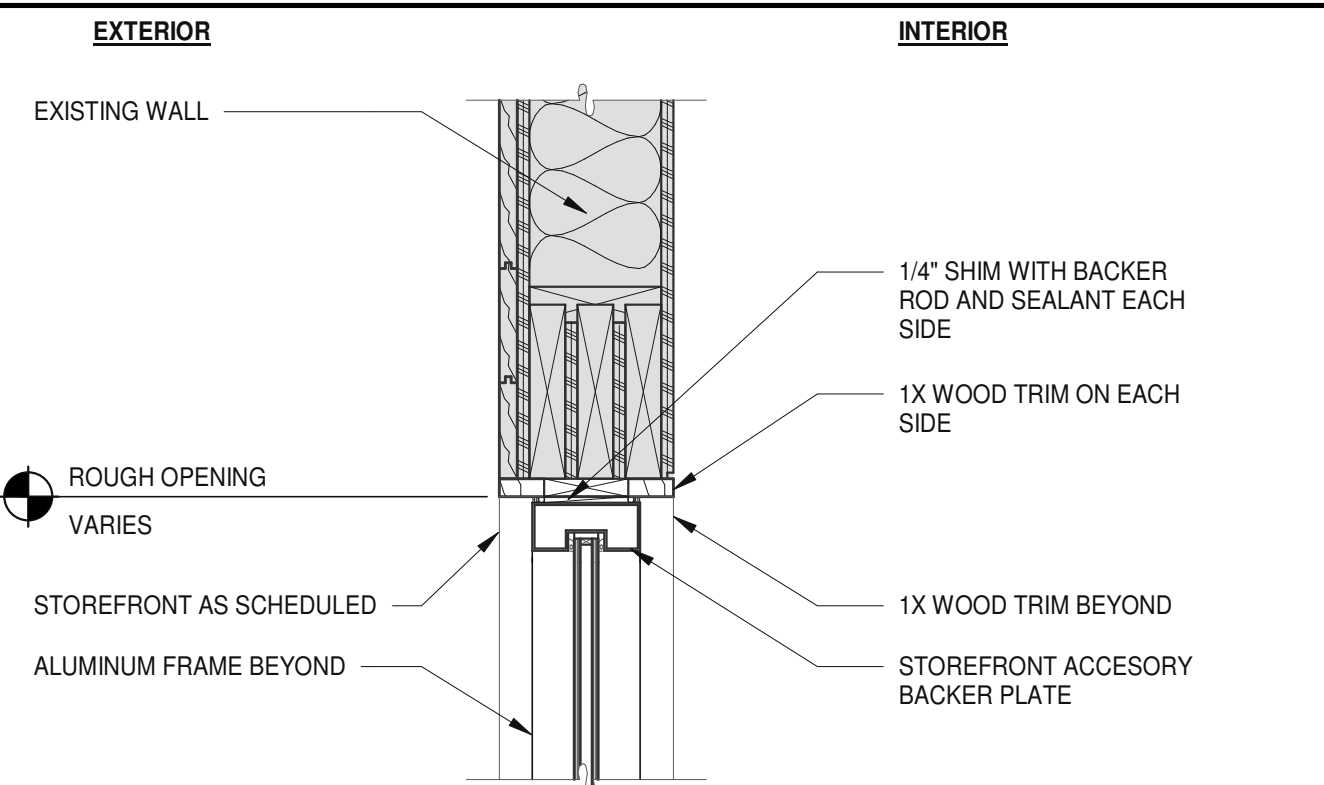
3



RESTROOM DOOR JAMB

SCALE: 1 1/2" = 1'-0"

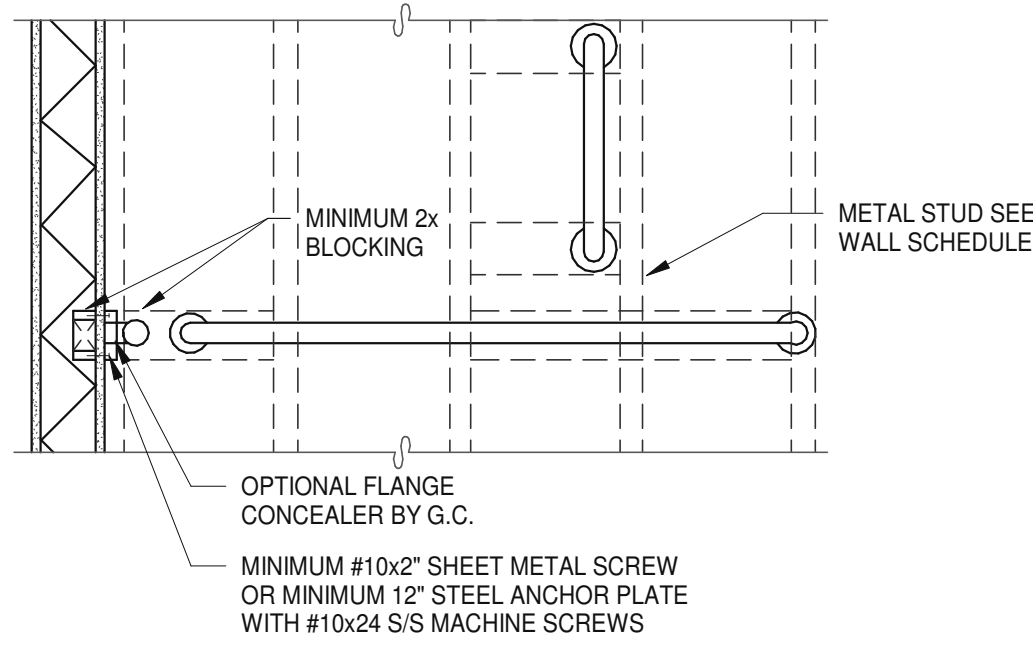
9



TRANSOM HEAD (JAMB & SILL SIM)

SCALE: 1 1/2" = 1'-0"

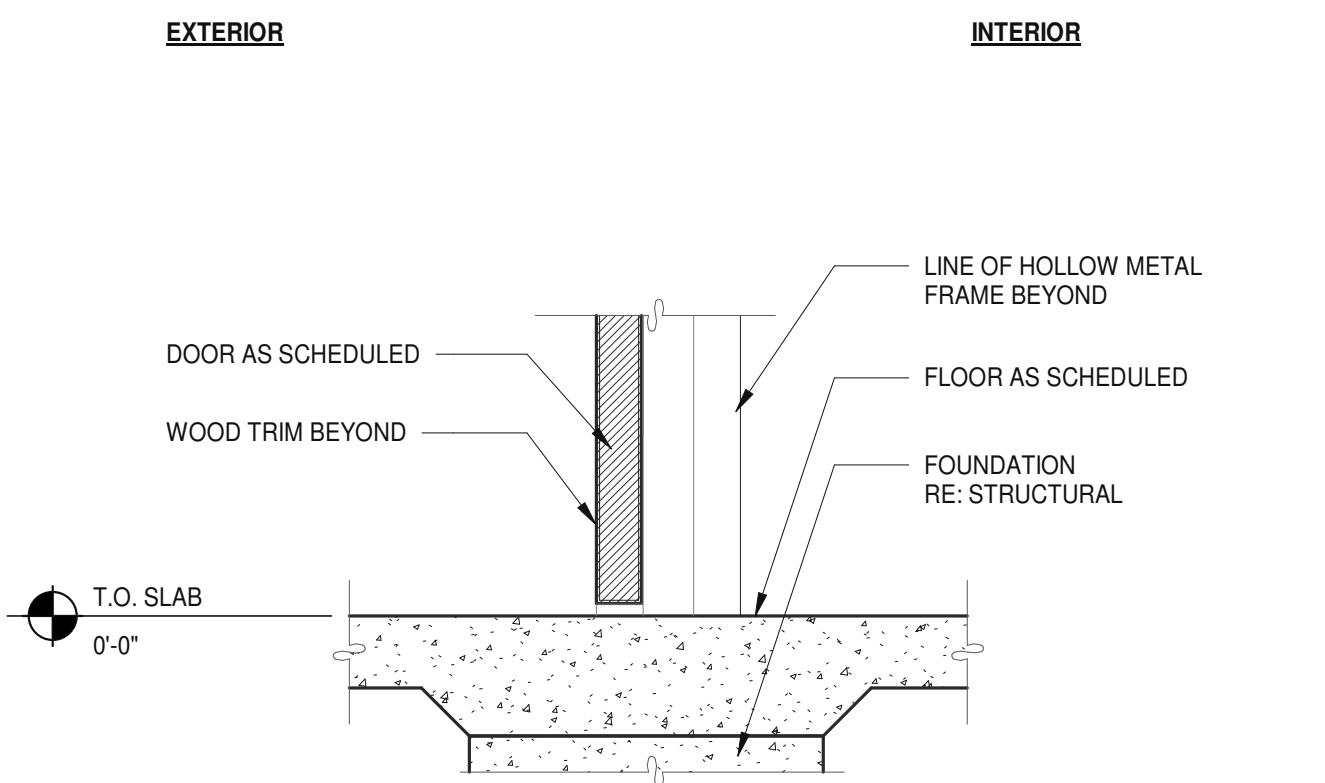
4



TYPICAL GRAB BAR BLOCKING DETAIL

SCALE: 3" = 1'-0"

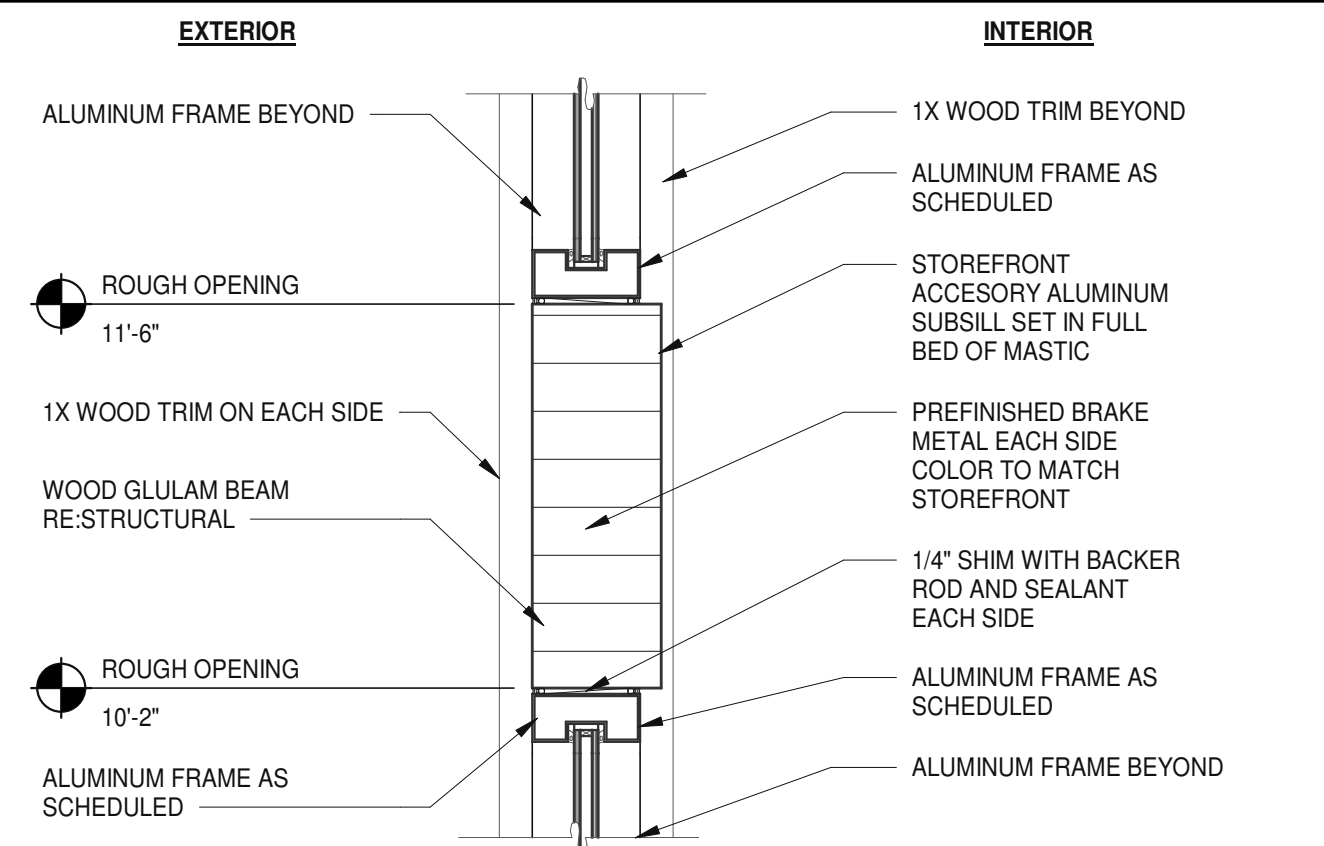
15



RESTROOM DOOR SILL

SCALE: 1 1/2" = 1'-0"

10



HEAD/TRANSOM SILL

SCALE: 1 1/2" = 1'-0"

5

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

WARE MALCOMB

ARCHITECTURE
PLANNING
INTERIORS

CIVIL ENGINEERING
BRIDGES
BUILDING MEASUREMENT

1919 McKinney Avenue, Suite #100
Dallas, TX 75201
P 469.553.5379



HAT CREEK - WEST LAKE

5902 BEE CAVE RD
WEST LAKE HILLS, TEXAS 78746

WINDOW, DOOR AND INTERIOR DETAILS

DATE: 03/03/2022

ISSUE FOR PERMIT

REMARKS

P.A.P.M.: STEVEN COX

DRAWN BY: C.B.

JOB NO.: DAL21-0063-00

SHEET

A8.2

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

DIVISION 0 - CONTRACT AND BID INFORMATION

SECTION 01000 - INSTRUCTIONS TO BIDDERS
SECTION 01020 - SUPPLEMENTARY INSTRUCTIONS TO BIDDERS
SECTION 03030 - BID FORM
SECTION 03050 - ADMINISTRATIVE REQUIREMENTS
SECTION 07000 - GENERAL CONDITIONS
SECTION 08000 - SUPPLEMENTARY CONDITIONS

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01100 - SUMMARY OF WORK
SECTION 01110 - WORK COVERED BY CONTRACT DOCUMENTS
SECTION 01200 - EXCAVATION, FOUNDATION, COMPACTION AND GRADING
SECTION 01300 - CHANGE ORDER PROCEDURES
SECTION 01400 - QUALITY REQUIREMENTS
SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS
SECTION 01600 - PRODUCT REQUIREMENTS
SECTION 01700 - EXECUTION REQUIREMENTS
SECTION 01720 - CONSTRUCTION LAYOUT
SECTION 01780 - CLOSEOUT SUBMITTALS

DIVISION 2 - SITEWORK

*REFER TO CIVIL DOCUMENTS FOR BALANCE OF SITE CONSTRUCTION SPECIFICATIONS
SECTION 02010 - SUBSURFACE INVESTIGATION
SECTION 02100 - SITE CLEARING
SECTION 02200 - EXCAVATION, FOUNDATION, COMPACTION AND GRADING
SECTION 02300 - EROSION CONTROL
SECTION 02361 - TERMITE CONTROL
SECTION 02505 - CONCRETE PAVING: WALKS, CURBS, GUTTERS AND APPROACHES
SECTION 02511 - ASPHALT/TC CONCRETE PAVING
SECTION 02580 - PAVEMENT MARKING
SECTION 02800 - ORNAMENTAL DECKS AND GATES
SECTION 02854 - PARKING BUMPERS (WHEEL STOPS)

DIVISION 3 - CAST IN PLACE CONCRETE

SECTION 03030 - CAST IN PLACE CONCRETE

DIVISION 4 - MASONRY

SECTION 04210 - BRICK MASONRY
SECTION 04220 - CONCRETE UNIT MASONRY
SECTION 04700 - TIE SET BRICK FACING TILE

DIVISION 5 - METALS

SECTION 05120 - STRUCTURAL STEEL
SECTION 05500 - METAL FABRICATIONS

DIVISION 6 - WOOD AND PLASTICS

SECTION 06100 - ROUGH CARPENTRY
SECTION 06160 - SHEATHING (ZIP SYSTEM)
SECTION 06170 - LAMINATED VENEER STRUCTURAL TIMBER
SECTION 06192 - WOOD CHORD METAL TRUSSES
SECTION 06196 - FLYWOOD WEB JOIST
SECTION 06200 - FINISH CARPENTRY
SECTION 06410 - CUSTOM CABINETS

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

SECTION 07212 - BOARD AND BATT INSULATION
SECTION 07250 - SILL SEALER GASKET
SECTION 07260 - WEATHER BARRIERS
SECTION 07411 - PREFORMED METAL ROOFING
SECTION 07460 - FIBER CEMENT SIDING AND TRIM
SECTION 07500 - ELASTOMERIC MEMBRANE ROOFING
SECTION 07620 - SHEET METAL FLASHING AND TRIM
SECTION 07700 - MANUFACTURED ROOF SPECIALTIES
SECTION 07800 - JOINT SEALERS

DIVISION 8 - DOORS AND WINDOWS

SECTION 08110 - SLIDING DOORS AND FRAMES
SECTION 08211 - FLUSH WOOD DOORS
SECTION 08410 - ALUMINUM ENTRANCES AND STOREFRONTS
SECTION 08522 - PASS-THRU WINDOW
SECTION 08710 - DOOR HARDWARE
SECTION 08800 - GLAZING

DIVISION 9 - FINISHES

SECTION 09200 - GYPSUM BOARD ASSEMBLIES
SECTION 09300 - TILE
SECTION 09310 - PENDANT ACOUSTICAL CEILINGS
SECTION 09711 - PREFINISHED PANELS
SECTION 09900 - FINISHES AND COATINGS

DIVISION 10 - SPECIALTIES

SECTION 10167 - STAINLESS STEEL TOILET COMPARTMENTS
SECTION 10402 - ARCHITECTURAL SIGNAGE
SECTION 10505 - METAL LOCKERS
SECTION 10523 - FIRE EXTINGUISHERS AND ACCESSORIES
SECTION 10800 - TOILET ACCESSORIES

DIVISION 11 - EQUIPMENT

SECTION 11400 - FOOD SERVICE EQUIPMENT

DIVISION 15 - MECHANICAL AND PLUMBING

SECTION 15010 - MECHANICAL REQUIREMENTS
SECTION 15080 - PIPES AND PIPE FITTINGS
SECTION 15100 - VALVES
SECTION 15120 - PIPING SPECIALTIES
SECTION 15140 - SUPPORTS AND ANCHORS
SECTION 15200 - MECHANICAL INSULATION
SECTION 15300 - FIRE PROTECTION
SECTION 15411 - POTABLE WATER SYSTEMS
SECTION 15412 - SOIL AND WASTE SYSTEMS
SECTION 15420 - PLUMBING EQUIPMENT
SECTION 15440 - PLUMBING FIXTURES
SECTION 15480 - NATURAL GAS SYSTEMS
SECTION 15781 - PACKAGED HEATING AND COOLING UNITS
SECTION 15841 - LOW PRESSURE DUCTWORK
SECTION 15870 - POWER AND GRAVITY VENTILATORS
SECTION 15910 - DUCTWORK ACCESSORIES
SECTION 15952 - AIR OUTLETS AND INLETS
SECTION 15980 - TESTING, ADJUSTING AND BALANCING

SECTION 16000 - ELECTRICAL
SECTION 16050 - BASIC METHODS AND REQUIREMENTS
SECTION 16100 - RACEWAYS
SECTION 16120 - WIRES AND CABLES
SECTION 16135 - ELECTRICAL BOXES AND FITTINGS
SECTION 16142 - ELECTRICAL CONNECTIONS FOR EQUIPMENT
SECTION 16143 - WIRING DEVICES
SECTION 16150 - MOTOR CONTROLLERS AND CONTRACTORS
SECTION 16170 - CIRCUIT AND MOTOR DISCONNECTS
SECTION 16180 - OVERCURRENT PROTECTIVE DEVICES
SECTION 16190 - SUPPORTIVE DEVICES
SECTION 16195 - ELECTRICAL IDENTIFICATION
SECTION 16445 - ELECTRICAL - DISTRIBUTION AND BRANCH CIRCUIT
SECTION 16450 - GROUNDING
SECTION 16510 - INTERIOR BUILDING LIGHTING
SECTION 16520 - EXTERIOR BUILDING LIGHTING
SECTION 16721 - FIRE ALARM AND SMOKE DETECTION SYSTEMS

DIVISION 0 - CONTRACT AND BID INFORMATION

SECTION 01000 - INSTRUCTIONS TO BIDDERS

1. AIA DOCUMENT A701, LATEST EDITION, "INSTRUCTIONS TO BIDDERS" ARE INCLUDED AS PART OF THESE SPECIFICATIONS AND IF HEREIN REPRINTED IN FULL.
A. A COPY OF AIA A701, LATEST EDITION MAY BE OBTAINED FROM OWNER, ARCHITECT, OR DIRECTLY FROM THE AMERICAN INSTITUTE OF ARCHITECTS
1735 NEW YORK AVENUE,
N.W. WASHINGTON, D.C. 20006

2. CONTRACTORS SHALL UTILIZE THE FOLLOWING DOCUMENTS, LATEST EDITION, IN THE NEGOTIATION AND EXECUTION OF THE PROJECT:
A. AIA DOCUMENT A701 - INSTRUCTIONS TO BIDDERS
B. AIA DOCUMENT G700 - APPLICATION AND CERTIFICATE FOR PAYMENT
C. AIA DOCUMENT G703 - CONTINUATION SHEET
D. AIA DOCUMENT G701 - CHANGE ORDER
E. AIA DOCUMENT G705 - CERTIFICATE OF INSURANCE
F. AIA DOCUMENT G706 - CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
G. AIA DOCUMENT A708 - CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS
H. AIA DOCUMENT A201 - GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION
I. AIA DOCUMENT A101 - OWNER CONTRACTOR AGREEMENT FORM - STIPULATED SUM

SECTION 01020 - SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

THE FOLLOWING SUPPLEMENTS MODIFY, CHANGE, DELETE FROM, OR ADD TO THE INSTRUCTIONS TO BIDDERS (AIA A701, LATEST EDITION) WHERE ANY ARTICLE OF THE INSTRUCTION TO BIDDERS IS MODIFIED OR ANY PARAGRAPH, SUB-PARAGRAPH, OR CLAUSE THEREOF IS MODIFIED OR DELETED BY THESE SUPPLEMENTAL INSTRUCTIONS. THE UNALTERED PROVISIONS OF THE ARTICLE, PARAGRAPH, SUB-PARAGRAPH, OR CLAUSE SHALL REMAIN IN EFFECT.

1. ARTICLE 1, PARAGRAPH 1.8: ADD:
BIDDING IS BY INVITATION FROM THE OWNER, ONLY

2. ARTICLE 3, PARAGRAPH 3.1: DELETE AND INSERT THE FOLLOWING:
OWNER WILL PROVIDE EACH INVITED BIDDER A COMPLETE SET OF ELECTRONIC FILES (.PDF FORMAT) OF THE BIDDING DOCUMENTS. BIDDING CONTRACTOR WILL BE RESPONSIBLE FOR PRINTING AND DISTRIBUTION.

3. ARTICLE 4, PARAGRAPH 4.1: DELETE AND INSERT THE FOLLOWING:
4.1.1 BIDS SHALL BE SUBMITTED ON FORMS IDENTICAL TO THE BID FORM PROVIDED BY THE OWNER, ONE (1) ORIGINAL WITH ORIGINAL SIGNATURE(S). BIDS TRANSMITTED VIA FACSIMILE OR E-MAIL, PROVIDED THEY ARE RECEIVED BY THE PRESCRIBED DEADLINE, ARE ACCEPTABLE. ORIGINALS SHALL BE SENT BY OVERNIGHT SERVICE FOR NEXT DAY DELIVERY.

4. ARTICLE 4, PARAGRAPH 4.2:
DELETE THIS PARAGRAPH IN ITS ENTIRETY, AS NO BID SECURITY WILL BE REQUIRED.

4. ARTICLE 4, PARAGRAPH 4.4.1:
THE STIPULATED TIME PERIOD SHALL BE CONSTRUED AS 120 CALENDAR DAYS.

6. ARTICLE 6, PARAGRAPH 6.2:
DELETE THIS PARAGRAPH IN ITS ENTIRETY.

7. ARTICLE 7, PARAGRAPH 7.1.1:
DELETE THIS PARAGRAPH IN ITS ENTIRETY, AS NO BOND WILL BE REQUIRED.

8. ARTICLE 7, PARAGRAPH 7.2.2:
DELETE "UNLESS OTHERWISE PROVIDED" AND SUBSTITUTE "UNLESS OTHERWISE ACCEPTABLE TO THE OWNER".

SECTION 03030 - BID FORM

1. THE FORM OF PROPOSAL WILL BE FURNISHED SEPARATELY BY THE OWNER.

SECTION 07000 - GENERAL CONDITIONS

1. AIA DOCUMENT A201, LATEST EDITION, "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" ARE INCLUDED AS PART OF THESE SPECIFICATIONS SAME AS IF HEREIN REPRINTED IN FULL.
A. A COPY OF AIA A201, MAY BE OBTAINED FROM OWNER, ARCHITECT, OR DIRECTLY FROM THE AMERICAN INSTITUTE OF ARCHITECTS
1735 NEW YORK AVENUE, N.W.,
WASHINGTON, D.C. 20006

SECTION 08000 - SUPPLEMENTARY CONDITIONS

THE FOLLOWING SUPPLEMENTS MODIFY, CHANGE, DELETE FROM, OR ADD TO GENERAL CONDITIONS (AIA A201), WHERE ANY ARTICLE OF THE GENERAL CONDITIONS IS MODIFIED OR ANY PARAGRAPH, SUB-PARAGRAPH, OR CLAUSE THEREOF IS MODIFIED OR DELETED BY THESE SUPPLEMENTAL INSTRUCTIONS. THE UNALTERED PROVISIONS OF THE ARTICLE, PARAGRAPH, SUB-PARAGRAPH, OR CLAUSE SHALL REMAIN IN EFFECT.

1. ARTICLE 7, PARAGRAPH 7.3.6 IS FURTHER CLARIFIED AS FOLLOWS:
WHEN THE OWNER AUTHORIZES THE CONTRACTOR TO PERFORM CHANGES OR ADDITIONS INVOLVING EXTRA LABOR AND MATERIAL, AND IF THE CONTRACTOR IS DIRECTED TO PROCEED ON THE BASIS OF THE ACTUAL COST OF LABOR AND MATERIAL BY CHANGE ORDER, THE FOLLOWING ALLOWANCES WILL BE ALLOWED FOR OVERHEAD (INCLUDING PROFIT AND INSURANCE) & PROFIT:
(1) FOR THE CONTRACTOR: TO BE NOTED IN THE GENERAL CONTRACTORS BID SUBMITTAL.
(2) EXTRA WORK COVERED BY UNIT PRICES AS REQUESTED IN THE BID FORM, INCLUDE CONTRACTORS OVERHEAD.
(3) SUPERINTENDENTS TIME SHALL NOT BE INCLUDED IN T&M EXTRA WORK.

2. ARTICLE 8, ADD PARAGRAPH 8.3.4:
8.3.4 THE CONTRACTOR SHALL HAVE NO CLAIM FOR AN EXTENSION OF TIME UNLESS SUCH TIME IS STATED ON THE FACE OF A WRITTEN CHANGE ORDER AND APPROVED AND ACCEPTED IN WRITING BY THE OWNER ON SUCH CHANGE ORDER. ANY ATTEMPTED RESERVATION BY THE CONTRACTOR OR THE RIGHT TO SUBSEQUENTLY CLAIM ANY EXTENSION OF TIME NOT STATED ON THE FACE OF A WRITTEN CHANGE ORDER APPROVED AND ACCEPTED BY THE OWNER SHALL BE NULL AND VOID.

3. ARTICLE 9, PARAGRAPH 9.3: ADD THE FOLLOWING:
PAYMENT REQUESTS MUST BE RECEIVED BY THE OWNER NO LATER THAN THE 26TH DAY OF EACH MONTH, AND MUST BE ACCOMPANIED BY A LIEN WAIVER IN FULL EACH PARTICIPATING CONTRACTOR, SUBCONTRACTOR, AND SUPPLIER SEEKING PAYMENT. OWNER WILL NOT BE REQUIRED TO MAKE ANY PAYMENT WITHOUT THE REQUIRED LIEN WAIVERS.

4. ARTICLE 9, PARAGRAPH 9.4: DELETE IN ITS ENTIRETY.

5. ARTICLE 9, PARAGRAPH 9.6.1: DELETE AND SUBSTITUTE:
9.6.1 UPON RECEIPT OF CONTRACTOR'S APPLICATION FOR PAYMENT, OWNER WILL MAKE SUCH PAYMENT TO THE CONTRACTOR WITHIN 15 DAYS OR AS SOON AS PRACTICAL THEREAFTER.

6. ARTICLE 9, PARAGRAPHS 9.10.6 AND 9.10.7:
9.10.6 BEFORE OWNER ISSUES FINAL PAYMENT HEREUNDER, THE CONTRACTOR SHALL SUBMIT TO THE OWNER:
(A) AN AFFIDAVIT THAT ALL PAYROLL AND BILLS FOR MATERIAL AND EQUIPMENT, AND OTHER INDEBTEDNESS CONNECTED WITH THE WORK FOR WHICH THE OWNER OR ITS PROPERTY MIGHT IN ANY WAY BE RESPONSIBLE, HAVE BEEN PAID OTHERWISE SATISFIED.
(B) THE CONSENT OF SURETY TO FINAL PAYMENT
(C) IF REQUIRED BY THE OWNER, OTHER DATA ESTABLISHING PAYMENT OR SATISFACTION OF ALL SUCH OBLIGATIONS, SUCH AS RECEIPTS, RELEASES AND WAIVERS OF LIENS ARISING OUT OF THE CONTRACT DOCUMENTS, TO THE EXTENT AND IN SUCH FORM AS MAY BE DESIGNATED BY THE OWNER. IF ANY SUBCONTRACTOR AND/OR MATERIAL MAN REFUSES TO FURNISH A RELEASE OR WAIVER REQUIRED BY THE OWNER, THE CONTRACTOR MAY FURNISH A BOND, AT ITS EXPENSE, SATISFACTORY TO THE OWNER TO INDEMNIFY THE OWNER AGAINST SUCH LIEN. IF ANY SUCH LIEN REMAINS UNSATISFIED AFTER ALL PAYMENTS ARE MADE, THE CONTRACTOR SHALL REFUND TO THE OWNER ALL MONIES THAT THE OWNER MAY BE COMPELLED TO PAY IN DISCHARGING SUCH LIEN, INCLUDING WITHOUT LIMITATION, ALL COST AND REASONABLE ATTORNEY'S FEES.
9.10.7 ALL WAIVERS AND SUBORDINATION AGREEMENTS REQUIRED HEREUNDER SHALL BE IN THE FORM ACCEPTABLE TO THE OWNER.

7. ARTICLE 11, DELETE FIRST PARAGRAPH OF 11.1.1 BEGINNING WITH "THE CONTRACTOR" ENDING WITH "BE LABEL" AND SUBSTITUTE THE FOLLOWING:
(1) PRIOR TO THE COMMENCEMENT OF THE WORK, THE CONTRACTOR SHALL PROCURE, AND CONTRACTOR SHALL MAINTAIN, ALL INSURANCE REQUIRED UNDER THIS PARAGRAPH 11.1.1 CONTRACTOR SHALL REQUIRE EACH SUBCONTRACTOR TO PROVIDE COVERAGE ADEQUATE TO PROTECT SUBCONTRACTOR AND ITS EMPLOYEES UNDER THE TERMS OF COVERAGE OF SUCH POLICIES ARE UNACCEPTABLE TO OWNER, CONTRACTOR AND/OR SUBCONTRACTOR SHALL REVISE THE COVERAGE OF OBTAIN ADDITIONAL COVERAGE AS REASONABLY REQUESTED BY OWNER. OWNERS APPROVAL OF COVERAGE OF EACH SUBCONTRACTORS INSURANCE SHALL NOT RELIEVE OR LIMIT THEIR LIABILITY UNDER THE CONTRACT DOCUMENTS. IN THE EVENT OF THE FAILURE OF CONTRACTOR TO FURNISH AND MAINTAIN SUCH INSURANCE, THE OWNER SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO TAKE OUT AND MAINTAIN SUCH INSURANCE FOR THE ACCOUNT OF CONTRACTOR. CONTRACTOR SHALL NOT ALLOW ANY SUBCONTRACTOR TO COMMENCE WORK OR ITS SUBCONTRACTOR TO COMMENCE WORK UNLESS THE CONTRACTOR HAS HAD BEEN OBTAINED, CONTRACTOR SHALL PURCHASE AND MAINTAIN SUCH INSURANCE AS WILL PROTECT IT FROM CLAIMS SET FORTH BELOW WHICH MAY ARISE OUT OF OR RESULT FROM CONTRACTORS OPERATIONS UNDER THE CONTRACT DOCUMENTS. WHETHER SUCH OPERATIONS BE BY CONTRACTOR OR BY SUBCONTRACTOR OR BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE.

8. ARTICLE 11: DELETE PARAGRAPH 11.1.2 AND SUBSTITUTE THE FOLLOWING:

11.1.2 THE LIABILITY INSURANCE PURCHASED AND MAINTAINED BY CONTRACTOR PURSUANT TO THIS PARAGRAPH AND 11.1.1 SHALL INCLUDE THESE TYPES AND BE IN THE MINIMUM AMOUNTS AS FOLLOWS:
(A) WORKMAN'S COMPENSATION
(I) WORKERS OR WORKMANS COMPENSATION - MAXIMUM PERMITTED BY STATUTE.
(II) EMPLOYER'S LIABILITY - \$1 MILLION.
(B) COMPREHENSIVE GENERAL LIABILITY
(I) BODILY INJURY AND PROPERTY DAMAGE HAVING A COMBINED SINGLE LIMIT OF \$2 MILLION AND INCLUDING THE FOLLOWING COVERAGE:
(I) COMPREHENSIVE FORM
(II) PREMISES - OPERATED BY THE CONTRACTOR
(III) EXPLOSION AND COLLAPSE HAZARD
(IV) UNDERGROUND HAZARD
(V) CONTRACTOR SHALL UTILIZE THE FOLLOWING DOCUMENTS, LATEST EDITION, IN THE NEGOTIATION AND EXECUTION OF THE PROJECT:
(I) BROAD FORM CONTRACTUAL INSURANCE
(II) BROAD FORM PROPERTY DAMAGE (EXTENDED TO APPLY TO COMPLETED OPERATIONS)
(VIII) INDEPENDENT CONTRACTORS
(I) PERSONAL INJURY WITH EMPLOYEES AND CONTRACTUAL EXCLUSIONS DELETED)
(C) AUTOMOBILE LIABILITY (COMPREHENSIVE FORM) INSURING CONTRACTOR FOR OPERATIONS FOR ALL OWNED, HIRED, AND NON-OWNED VEHICLE LIMIT OF \$2 MILLION.
(D) UMBRELLA EXCESS LIABILITY: \$3 MILLION PER OCCURRENCE/AGGREGATE

9. ARTICLE 11, PARAGRAPH 11.3:
DELETE ALL REFERENCES TO OWNER FURNISHED PROPERTY INSURANCE.
THE GENERAL CONTRACTOR SHALL FURNISH BUILDERS RISK INSURANCE, INCLUDING THE PERILS OF FIRE EXTENDED COVERAGE, VANDALISM, AND MALICIOUS MISCHIEF IN AN AMOUNT OF NOT LESS THAN 100% OF THE INSURABLE VALUE OF ALL THE WORK AND THE COVERAGE WRITTEN ON BUILDERS RISK COVERAGE FORM CP020, INCLUDING CAUSES OF LOSS BASIC FORM CP0100 OR CAUSES OF LOSS - SPECIAL FORM CP0300 OR AN ACCEPTABLE INLAND MARINE POLICY. ALL RISK INSTALLATION FLOTTER FORM WITH A COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE IN WHICH THE PROJECT IS LOCATED.

10. ARTICLE 12, ADD PARAGRAPH 12.2.2.1 (A):
12.2.2.1 (A) IF DURING THE CONTRACTS ONE (1) YEAR WARRANTY AFTER COMPLETION THE OWNER REQUEST THAT TEST BE PERFORMED TO DETERMINE IF CORRECTIONS IN THE WORK NEED TO BE MADE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF THE WORK. IF THE OWNER, IF THE RESULTS OF THE TESTS INDICATE THAT NO CORRECTIONS ARE NECESSARY.
THE CONTRACTOR SHALL, IF THE RESULTS OF THE TEST INDICATE THAT CORRECTIONS ARE NECESSARY.

11. ARTICLE 13, PARAGRAPH 13.6.1:
13.6.1 INTEREST RATE SHALL BE TEN PERCENT (10%)

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01100 - SUMMARY OF WORK

1. PROJECT
(A) PROJECT NAME: HAT CREEK BURGER COMPANY RESTAURANT - LAKEWAY, TX
(B) OWNERS NAME: HAT CREEK BURGER COMPANY
4407 BEE CAVE ROAD, SUITE 212
AUSTIN, TEXAS 78746

2. CONTRACT DESCRIPTION
A. CONTRACT TYPE: A SINGLE PRIME CONTRACT BASED ON A STIPULATED PRICE AS PROVIDED BY OWNER COMPLETION OF BUILDING BEFORE SUBSTANTIAL COMPLETION.
B. WORK RESPONSIBILITY LIST BELOW IS NOT INCLUSIVE. REFER TO OWNER PROVIDED CHART ON COVER SHEET OF THE DRAWINGS FOR ADDITIONAL INFORMATION.

3. WORK RESPONSIBILITY
A. NOT IN CONTRACT (N/C): ITEMS SHOWN OR NOTED "N/C" ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS SHALL BE FURNISHED AND INSTALLED BY OWNER UNDER SEPARATE CONTRACT, EXCEPTS AS DESCRIBED HEREINAFTER. THE CONTRACTOR SHALL RECEIVE, UNLOAD AS REQUIRED, STORE, COORDINATE AND ACCOMMODATE THE CONTRACTOR'S OPERATIONS DURING THE WORK AND BE RESPONSIBLE TO THE EXTENT OF CARRYING NECESSARY INSURANCE TO COVER ITEMS IN CASE OF THEFT, FIRE, LOSS, MALICIOUS DAMAGE AND OTHER MISCELLANEOUS DAMAGE.
B. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR ALL MATERIALS SHOWN ON THE DRAWINGS FOR A COMPLETE INSTALLATION, INCLUDED, BUT NOT INCLUSIVE, IN THIS CATEGORY ARE:
1. ALUMINUM FABRICATED STAINLESS STEEL ITEMS
2. KITCHEN EQUIPMENT
3. BAR EQUIPMENT
4. WALK IN COOLERS AND FREEZERS
5. STAINLESS STEEL TABLES AND SHELVES
6. BEER SYSTEM: CONTRACTOR IS RESPONSIBLE FOR PIPE CHASES, PLUMBING AND SERVICES PER PLAN
7. CO2 DISPENSING UNIT
8. ALL REFRIGERATION UNIT LINES AND CALIBRATION
9. ILLUMINATED SIGN PACKAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING INDIVIDUAL ELECTRICAL SUB-UPS AT EACH SITE SIGN AND/OR EACH WALL SIGN AS REQUIRED PER PLANS AND MAKE FINAL CONNECTION. GC SHALL BE RESPONSIBLE FOR THE REMAINING SIGNAGE.
10. DETAILS ON CONSTRUCTION DOCUMENTS.
11. MUSIC/INTERCOM SYSTEM: CONTRACTOR SHALL SUPPLY ELECTRICAL SERVICE AND WIRE ALARM, SECURITY AND BURGLAR ALARM SYSTEMS. CONTRACTOR SHALL OWNERS CONSTRUCTION MANAGER. CONTRACTOR TO PROVIDE ADEQUATE WOOD BACKING TO INSTALL ALL NECESSARY EQUIPMENT.
12. FIRE ALARM, SECURITY AND BURGLAR ALARM SYSTEMS: CONTRACTOR SHALL SUPPLY ELECTRICAL SERVICE AND WIRE CHASES WITH PULL STRINGS PER PLANS AND COORDINATE INSTALLATION WITH OWNERS CONSTRUCTION MANAGER.
13. CONTRACTOR TO PROVIDE ADEQUATE WOOD BACKING TO INSTALL ALL NECESSARY EQUIPMENT.
14. POINT OF SALE AND BACK OFFICE SYSTEMS: ALL SYSTEM EQUIPMENT SHALL BE PROVIDED BY OWNER, INCLUDING COMPUTER CABLE, ALL EQUIPMENT SHALL BE INSTALLED BY OWNERS CONSTRUCTION MANAGER. ALL CABLE AND WIRING SHALL BE INSTALLED IN CONDUIT INSTALLED BY GENERAL CONTRACTOR AS PER PLANS.
15. SODA SYSTEM: CONTRACTOR IS RESPONSIBLE FOR PIPE CHASES, PLUMBING AND ELECTRICAL SERVICES PER PLAN AND COORDINATION INSTALLATION.
16. TELEPHONES: OWNERS CONSTRUCTION MANAGER WILL SUPPLY AND INSTALL PERMANENT TELEPHONE AND JACKS. CONTRACTOR SHALL SUPPLY AND INSTALL JUNCTION BOXES WITH PULL STRINGS PER PLANS FOR S&D INSTALLATION AND COORDINATE WITH OWNERS CONSTRUCTION MANAGER.
17. WINDOW BLINDS

4. ARTICLE 9, PARAGRAPH 9.4: DELETE IN ITS ENTIRETY.

5. ARTICLE 9, PARAGRAPH 9.6.1: DELETE AND SUBSTITUTE:
9.6.1 UPON RECEIPT OF CONTRACTOR'S APPLICATION FOR PAYMENT, OWNER WILL MAKE SUCH PAYMENT TO THE CONTRACTOR WITHIN 15 DAYS OR AS SOON AS PRACTICAL THEREAFTER.

6. ARTICLE 9, PARAGRAPHS 9.10.6 AND 9.10.7:
9.10.6 BEFORE OWNER ISSUES FINAL PAYMENT HEREUNDER, THE CONTRACTOR SHALL SUBMIT TO THE OWNER:
(A) AN AFFIDAVIT THAT ALL PAYROLL AND BILLS FOR MATERIAL AND EQUIPMENT, AND OTHER INDEBTEDNESS CONNECTED WITH THE WORK FOR WHICH THE OWNER OR ITS PROPERTY MIGHT IN ANY WAY BE RESPONSIBLE, HAVE BEEN PAID OTHERWISE SATISFIED.
(B) THE CONSENT OF SURETY TO FINAL PAYMENT
(C) IF REQUIRED BY THE OWNER, OTHER DATA ESTABLISHING PAYMENT OR SATISFACTION OF ALL SUCH OBLIGATIONS, SUCH AS RECEIPTS, RELEASES AND WAIVERS OF LIENS ARISING OUT OF THE CONTRACT DOCUMENTS, TO THE EXTEND AND IN SUCH FORM AS MAY BE DESIGNATED BY THE OWNER. IF ANY SUBCONTRACTOR AND/OR MATERIAL MAN REFUSES TO FURNISH A RELEASE OR WAIVER REQUIRED BY THE OWNER, THE CONTRACTOR MAY FURNISH A BOND, AT ITS EXPENSE, SATISFACTORY TO THE OWNER TO INDEMNIFY THE OWNER AGAINST SUCH LIEN. IF ANY SUCH LIEN REMAINS UNSATISFIED AFTER ALL PAYMENTS ARE MADE, THE CONTRACTOR SHALL REFUND TO THE OWNER ALL MONIES THAT THE OWNER MAY BE COMPELLED TO PAY IN DISCHARGING SUCH LIEN, INCLUDING WITHOUT LIMITATION, ALL COST AND REASONABLE ATTORNEY'S FEES.
9.10.7 ALL WAIVERS AND SUBORDINATION AGREEMENTS REQUIRED HEREUNDER SHALL BE IN THE FORM ACCEPTABLE TO THE OWNER.

7. ARTICLE 11, DELETE FIRST PARAGRAPH OF 11.1.1 BEGINNING WITH "THE CONTRACTOR" ENDING WITH "BE LABEL" AND SUBSTITUTE THE FOLLOWING:
(1) PRIOR TO THE COMMENCEMENT OF THE WORK, THE CONTRACTOR SHALL PROCURE, AND CONTRACTOR SHALL MAINTAIN, ALL INSURANCE REQUIRED UNDER THIS PARAGRAPH 11.1.1 CONTRACTOR SHALL REQUIRE EACH SUBCONTRACTOR TO PROVIDE COVERAGE ADEQUATE TO PROTECT SUBCONTRACTOR AND ITS EMPLOYEES UNDER THE TERMS OF COVERAGE OF SUCH POLICIES ARE UNACCEPTABLE TO OWNER, CONTRACTOR AND/OR SUBCONTRACTOR SHALL REVISE THE COVERAGE OF OBTAIN ADDITIONAL COVERAGE AS REASONABLY REQUESTED BY OWNER. OWNERS APPROVAL OF COVERAGE OF EACH SUBCONTRACTORS INSURANCE SHALL NOT RELIEVE OR LIMIT THEIR LIABILITY UNDER THE CONTRACT DOCUMENTS. IN THE EVENT OF THE FAILURE OF CONTRACTOR TO FURNISH AND MAINTAIN SUCH INSURANCE, THE OWNER SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO TAKE OUT AND MAINTAIN SUCH INSURANCE FOR THE ACCOUNT OF CONTRACTOR. CONTRACTOR SHALL NOT ALLOW ANY SUBCONTRACTOR TO COMMENCE WORK OR ITS SUBCONTRACTOR TO COMMENCE WORK UNLESS THE CONTRACTOR HAS HAD BEEN OBTAINED, CONTRACTOR SHALL PURCHASE AND MAINTAIN SUCH INSURANCE AS WILL PROTECT IT FROM CLAIMS SET FORTH BELOW WHICH MAY ARISE OUT OF OR RESULT FROM CONTRACTORS OPERATIONS UNDER THE CONTRACT DOCUMENTS. WHETHER SUCH OPERATIONS BE BY CONTRACTOR OR BY SUBCONTRACTOR OR BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE.

8. ARTICLE 11: DELETE PARAGRAPH 11.1.2 AND SUBSTITUTE THE FOLLOWING:

1. PROJECT
(A) PROJECT NAME: HAT CREEK BURGER COMPANY RESTAURANT - LAKEWAY, TX
(B) OWNERS NAME: HAT CREEK BURGER COMPANY
4407 BEE CAVE ROAD, SUITE 212
AUSTIN, TEXAS 78746

2. CONTRACT DESCRIPTION
A. CONTRACT TYPE: A SINGLE PRIME CONTRACT BASED ON A STIPULATED PRICE AS PROVIDED BY OWNER COMPLETION OF BUILDING BEFORE SUBSTANTIAL COMPLETION.
B. WORK RESPONSIBILITY LIST BELOW IS NOT INCLUSIVE. REFER TO OWNER PROVIDED CHART ON COVER SHEET OF THE DRAWINGS FOR ADDITIONAL INFORMATION.

3. WORK RESPONSIBILITY
A. NOT IN CONTRACT (N/C): ITEMS SHOWN OR NOTED "N/C" ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS SHALL BE FURNISHED AND INSTALLED BY OWNER UNDER SEPARATE CONTRACT, EXCEPTS AS DESCRIBED HEREINAFTER. THE CONTRACTOR SHALL RECEIVE, UNLOAD AS REQUIRED, STORE, COORDINATE AND ACCOMMODATE THE CONTRACTOR'S OPERATIONS DURING THE WORK AND BE RESPONSIBLE TO THE EXTENT OF CARRYING NECESSARY INSURANCE TO COVER ITEMS IN CASE OF THEFT, FIRE, LOSS, MALICIOUS DAMAGE AND OTHER MISCELLANEOUS DAMAGE.
B. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR ALL MATERIALS SHOWN ON THE DRAWINGS FOR A COMPLETE INSTALLATION, INCLUDED, BUT NOT INCLUSIVE, IN THIS CATEGORY ARE:
1. ALUMINUM FABRICATED STAINLESS STEEL ITEMS
2. KITCHEN EQUIPMENT
3. BAR EQUIPMENT
4. WALK IN COOLERS AND FREEZERS
5. STAINLESS STEEL TABLES AND SHELVES
6. BEER SYSTEM: CONTRACTOR IS RESPONSIBLE FOR PIPE CHASES, PLUMBING AND SERVICES PER PLAN
7. CO2 DISPENSING UNIT
8. ALL REFRIGERATION UNIT LINES AND CALIBRATION
9. ILLUMINATED SIGN PACKAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING INDIVIDUAL ELECTRICAL SUB-UPS AT EACH SITE SIGN AND/OR EACH WALL SIGN AS REQUIRED PER PLANS AND MAKE FINAL CONNECTION. GC SHALL BE RESPONSIBLE FOR THE REMAINING SIGNAGE.
10. DETAILS ON CONSTRUCTION DOCUMENTS.
11. MUSIC/INTERCOM SYSTEM: CONTRACTOR SHALL SUPPLY ELECTRICAL SERVICE AND WIRE ALARM, SECURITY AND BURGLAR ALARM SYSTEMS. CONTRACTOR SHALL OWNERS CONSTRUCTION MANAGER. CONTRACTOR TO PROVIDE ADEQUATE WOOD BACKING TO INSTALL ALL NECESSARY EQUIPMENT.
12. FIRE ALARM, SECURITY AND BURGLAR ALARM SYSTEMS: CONTRACTOR SHALL SUPPLY ELECTRICAL SERVICE AND WIRE CHASES WITH PULL STRINGS PER PLANS AND COORDINATE INSTALLATION WITH OWNERS CONSTRUCTION MANAGER.
13. CONTRACTOR TO PROVIDE ADEQUATE WOOD BACKING TO INSTALL ALL NECESSARY EQUIPMENT.
14. POINT OF SALE AND BACK OFFICE SYSTEMS: ALL SYSTEM EQUIPMENT SHALL BE PROVIDED BY OWNER, INCLUDING COMPUTER CABLE, ALL EQUIPMENT SHALL BE INSTALLED BY OWNERS CONSTRUCTION MANAGER. ALL CABLE AND WIRING SHALL BE INSTALLED IN CONDUIT INSTALLED BY GENERAL CONTRACTOR AS PER PLANS.
15. SODA SYSTEM: CONTRACTOR IS RESPONSIBLE FOR PIPE CHASES, PLUMBING AND ELECTRICAL SERVICES PER PLAN AND COORDINATION INSTALLATION.
16. TELEPHONES: OWNERS CONSTRUCTION MANAGER WILL SUPPLY AND INSTALL PERMANENT TELEPHONE AND JACKS. CONTRACTOR SHALL SUPPLY AND INSTALL JUNCTION BOXES WITH PULL STRINGS PER PLANS FOR S&D INSTALLATION AND COORDINATE WITH OWNERS CONSTRUCTION MANAGER.
17. WINDOW BLINDS

4. ARTICLE 9, PARAGRAPH 9.4: DELETE IN ITS ENTIRETY.

5. ARTICLE 9, PARAGRAPH 9.6.1: DELETE AND SUBSTITUTE:
9.6.1 UPON RECEIPT OF CONTRACTOR'S APPLICATION FOR PAYMENT, OWNER WILL MAKE SUCH PAYMENT TO THE CONTRACTOR WITHIN 15 DAYS OR AS SOON AS PRACTICAL THEREAFTER.

6. ARTICLE 9, PARAGRAPHS 9.10.6 AND 9.10.7:
9.10.6 BEFORE OWNER ISSUES FINAL PAYMENT HEREUNDER, THE CONTRACTOR SHALL SUBMIT TO THE OWNER:
(A) AN AFFIDAVIT THAT ALL PAYROLL AND BILLS FOR MATERIAL AND EQUIPMENT, AND OTHER INDEBTEDNESS CONNECTED WITH THE WORK FOR WHICH THE OWNER OR ITS PROPERTY MIGHT IN ANY WAY BE RESPONSIBLE, HAVE BEEN PAID OTHERWISE SATISFIED.
(B) THE CONSENT OF SURETY TO FINAL PAYMENT
(C) IF REQUIRED BY THE OWNER, OTHER DATA ESTABLISHING PAYMENT OR SATISFACTION OF ALL SUCH OBLIGATIONS, SUCH AS RECEIPTS, RELEASES AND WAIVERS OF LIENS ARISING OUT OF THE CONTRACT DOCUMENTS, TO THE EXTEND AND IN SUCH FORM AS MAY BE DESIGNATED BY THE OWNER. IF ANY SUBCONTRACTOR AND/OR MATERIAL MAN REFUSES TO FURNISH A RELEASE OR WAIVER REQUIRED BY THE OWNER, THE CONTRACTOR MAY FURNISH A BOND, AT ITS EXPENSE, SATISFACTORY TO THE OWNER TO INDEMNIFY THE OWNER AGAINST SUCH LIEN. IF ANY SUCH LIEN REMAINS UNSATISFIED AFTER ALL PAYMENTS ARE MADE, THE CONTRACTOR SHALL REFUND TO THE OWNER ALL MONIES THAT THE OWNER MAY BE COMPELLED TO PAY IN DISCHARGING SUCH LIEN, INCLUDING WITHOUT LIMITATION, ALL COST AND REASONABLE ATTORNEY'S FEES.
9.10.7 ALL WAIVERS AND SUBORDINATION AGREEMENTS REQUIRED HEREUNDER SHALL BE IN THE FORM ACCEPTABLE TO THE OWNER.

B. FOODSERVICE EQUIPMENT INSTALLATION:
(A) THE KITCHEN EQUIPMENT SUPPLIER (KES) SHALL OFF LOAD, UNCRATE AND STORE ALL FOOD SERVICE EQUIPMENT ON SITE IN PLACE. LEVEL AND SCRIBE TO WALLS, FLOOR AND BASE AS REQUIRED. PULL EQUIPMENT TIGHT AND SECURE FIELD JOINTS AND PROPERLY DISPOSE OF ALL PACKING MATERIAL.
(B) PROPERLY ANCHOR OR FASTEN TO WALLS, FLOOR, CEILING, AND BASE AS PER INSTALLATION RECOMMENDATIONS OF THE FOOD SERVICE EQUIPMENT MANUFACTURER.
(C) PROVIDE ALL KITCHEN BEAD WHERE EQUIPMENT JOINS TOGETHER OR ABUTS WALL SURFACES. COLOR OF SILICONE TO BE CLEAR.
(D) ASSEMBLE AND SECURE IN PLACE ALL LOOSE COMPONENTS SUCH AS, BUT NOT LIMITED TO, THE FOLLOWING EXAMPLES: TOPS OF BASE UNITS, SHELVES, LEGS, DISPENSERS, ETC.
(E) INSTALLATION OF ALL FOOD SERVICE EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE CODES AND STANDARDS REQUIRED BY THE LOCAL HEALTH DEPARTMENT.
(F) THE CONTRACTOR SHALL PROVIDE ROUGH IN WATER, DRAINAGE AND OTHER SERVICE PIPING AND/OR EQUIPMENT TO BE PROVIDED BY OTHERS. PROVIDE SAME CAPPING DRAIN OUTLETS WITH SUITABLE PLUGS AND TERMINATING WATER AND OTHER SERVICE WITH SHUT-OFF VALVES AND COCKS. AFTER INSTALLATION OF FOOD SERVICE EQUIPMENT, CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS.
(G) THE CONTRACTOR SHALL REMOVE ALL PLASTIC INDIRECT DRAIN HOSES FROM ALL FOOD SERVICE EQUIPMENT AND REPLACE WITH HARD COPPER PIPING.
(H) THE CONTRACTOR SHALL PROVIDE ROUGH-IN ELECTRICAL WIRING TERMINATED IN OUTLET BOXES ADJACENT TO FOOD SERVICE EQUIPMENT AND, AFTER INSTALLATION OF EQUIPMENT, SHALL PROVIDE FINAL WIRING TO THE LOCAL HEALTH DEPARTMENT.
(I) THE CONTRACTOR SHALL PROVIDE ROUGH-IN ELECTRICAL WIRING TERMINATED IN OUTLET BOXES ADJACENT TO FOOD SERVICE EQUIPMENT AND, AFTER INSTALLATION OF EQUIPMENT, SHALL PROVIDE FINAL WIRING TO THE LOCAL HEALTH DEPARTMENT.
(J) THE CONTRACTOR SHALL PROVIDE ROUGH-IN ELECTRICAL WIRING TERMINATED IN OUTLET BOXES ADJACENT TO FOOD SERVICE EQUIPMENT AND, AFTER INSTALLATION OF EQUIPMENT, SHALL PROVIDE FINAL WIRING TO THE LOCAL HEALTH DEPARTMENT.

1. CONTRACTOR SHALL ADEQUATELY SEAL WITH ESCUTCHEONS ALL UTILITY AND SERVICE PIPING AND OTHER REQUIRED OPENINGS THROUGH WALLS AND FLOORING.
2. CONTRACTOR SHALL SEAL CONDUIT/OUTLET PENETRATIONS WITH APPROVED FOAM INSULATION AND SILICONE CAULKING AS REQUIRED.
(J) WORKMANSHIP:
1. GRADING: WHERE TWO METAL SURFACES ARE BUTT WELDED, GRAN SHALL RUN IN THE SAME DIRECTION.
2. WELDS: ALL WELDS OF SAME COMPOSITION ON PARTS SHALL BE WELDED COMPLETE, STRONG, AND DUCTILE WITH RUBBLE GROUND OFF AND JOINTS FINISHED SMOOTH, POLISHED, AND RE-GRANDED. WELDS SHALL NOT BE VISIBLE ON CONTINUOUS APPEARANCE. ALL WELDING SHALL BE OF A NON-TOXIC NATURE WHEN USED ON SURFACES EXPOSED TO UNPACKAGED FOOD.
(K) WELDING: ALL WELDING SHALL BE PER AWS STANDARDS BY ELECTRIC ARC METHOD WITH ROD OR GAS COMPOSITION ON PARTS SHALL BE WELDED COMPLETE, STRONG, AND DUCTILE WITH RUBBLE GROUND OFF AND JOINTS FINISHED SMOOTH, POLISHED, AND RE-GRANDED. WELDS SHALL NOT BE VISIBLE ON CONTINUOUS APPEARANCE. ALL WELDING SHALL BE OF A NON-TOXIC NATURE WHEN USED ON SURFACES EXPOSED TO UNPACKAGED FOOD.
(L) GRINDING, POLISHING, AND FINISHING: ANY MATERIAL SUNKEN OR DERESSED BY WELDING OPERATION SHALL NOT BE ACCEPTED. IN ALL CASES, TEXTURES FROM ADJACENT SURFACES AND, IF NECESSARY, GROUND AGAIN TO ELIMINATE LOS SPOTS. SPOTS SHOWING EVIDENCE OF WARPAGE AND/OR BURN DISCOLORATION WILL NOT BE ACCEPTED. IN ALL CASES, TEXTURES FROM ROUGH GRINDING SHALL BE REMOVED BY SUCCESSIVE FINER POLISHING OPERATIONS UNTIL THE GRAN OF THE ENTIRE SURFACE IS HOMOGENEOUS.

10. ARTICLE 12, ADD PARAGRAPH 12.2.2.1 (A):
12.2.2.1 (A) IF DURING THE CONTRACTS ONE (1) YEAR WARRANTY AFTER COMPLETION THE OWNER REQUEST THAT TEST BE PERFORMED TO DETERMINE IF CORRECTIONS IN THE WORK NEED TO BE MADE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF THE WORK. IF THE OWNER, IF THE RESULTS OF THE TESTS INDICATE THAT NO CORRECTIONS ARE NECESSARY.
THE CONTRACTOR SHALL, IF THE RESULTS OF THE TEST INDICATE THAT CORRECTIONS ARE NECESSARY.

11. ARTICLE 13, PARAGRAPH 13.6.1:
13.6.1 INTEREST RATE SHALL BE TEN PERCENT (10%)

1. PROJECT
(A) PROJECT NAME: HAT CREEK BURGER COMPANY RESTAURANT - LAKEWAY, TX
(B) OWNERS NAME: HAT CREEK BURGER COMPANY
4407 BEE CAVE ROAD, SUITE 212
AUSTIN, TEXAS 78746

2. CONTRACT DESCRIPTION
A. CONTRACT TYPE: A SINGLE PRIME CONTRACT BASED ON A STIPULATED PRICE AS PROVIDED BY OWNER COMPLETION OF BUILDING BEFORE SUBSTANTIAL COMPLETION.
B. WORK RESPONSIBILITY LIST BELOW IS NOT INCLUSIVE. REFER TO OWNER PROVIDED CHART ON COVER SHEET OF THE DRAWINGS FOR ADDITIONAL INFORMATION.

3. WORK RESPONSIBILITY
A. NOT IN CONTRACT (N/C): ITEMS SHOWN OR NOTED "N/C" ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS SHALL BE FURNISHED AND INSTALLED BY OWNER UNDER SEPARATE CONTRACT, EXCEPTS AS DESCRIBED HEREINAFTER. THE CONTRACTOR SHALL RECEIVE, UNLOAD AS REQUIRED, STORE, COORDINATE AND ACCOMMODATE THE CONTRACTOR'S OPERATIONS DURING THE WORK AND BE RESPONSIBLE TO THE EXTENT OF CARRYING NECESSARY INSURANCE TO COVER ITEMS IN CASE OF THEFT, FIRE, LOSS, MALICIOUS DAMAGE AND OTHER MISCELLANEOUS DAMAGE.
B. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR ALL MATERIALS SHOWN ON THE DRAWINGS FOR A COMPLETE INSTALLATION, INCLUDED, BUT NOT INCLUSIVE, IN THIS CATEGORY ARE:
1. ALUMINUM FABRICATED STAINLESS STEEL ITEMS
2. KITCHEN EQUIPMENT
3. BAR EQUIPMENT
4. WALK IN COOLERS AND FREEZERS
5. STAINLESS STEEL TABLES AND SHELVES
6. BEER SYSTEM: CONTRACTOR IS RESPONSIBLE FOR PIPE CHASES, PLUMBING AND SERVICES PER PLAN
7. CO2 DISPENSING UNIT
8. ALL REFRIGERATION UNIT LINES AND CALIBRATION
9. ILLUMINATED SIGN PACKAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING INDIVIDUAL ELECTRICAL SUB-UPS AT EACH SITE SIGN AND/OR EACH WALL SIGN AS REQUIRED PER PLANS AND MAKE FINAL CONNECTION. GC SHALL BE RESPONSIBLE FOR THE REMAINING SIGNAGE.
10. DETAILS ON CONSTRUCTION DOCUMENTS.
11. MUSIC/INTERCOM SYSTEM: CONTRACTOR SHALL SUPPLY ELECTRICAL SERVICE AND WIRE ALARM, SECURITY AND BURGLAR ALARM SYSTEMS. CONTRACTOR SHALL OWNERS CONSTRUCTION MANAGER. CONTRACTOR TO PROVIDE ADEQUATE WOOD BACKING TO INSTALL ALL NECESSARY EQUIPMENT.
12. FIRE ALARM, SECURITY AND BURGLAR ALARM SYSTEMS: CONTRACTOR SHALL SUPPLY ELECTRICAL SERVICE AND WIRE CHASES WITH PULL STRINGS PER PLANS AND COORDINATE INSTALLATION WITH OWNERS CONSTRUCTION MANAGER.
13. CONTRACTOR TO PROVIDE ADEQUATE WOOD BACKING TO INSTALL ALL NECESSARY EQUIPMENT.
14. POINT OF SALE AND BACK OFFICE SYSTEMS: ALL SYSTEM EQUIPMENT SHALL BE PROVIDED BY OWNER, INCLUDING COMPUTER CABLE, ALL EQUIPMENT SHALL BE INSTALLED BY OWNERS CONSTRUCTION MANAGER. ALL CABLE AND WIRING SHALL BE INSTALLED IN CONDUIT INSTALLED BY GENERAL CONTRACTOR AS PER PLANS.
15. SODA SYSTEM: CONTRACTOR IS RESPONSIBLE FOR PIPE CHASES, PLUMBING AND ELECTRICAL SERVICES PER PLAN AND COORDINATION INSTALLATION.
16. TELEPHONES: OWNERS CONSTRUCTION MANAGER WILL SUPPLY AND INSTALL PERMANENT TELEPHONE AND JACKS. CONTRACTOR SHALL SUPPLY AND INSTALL JUNCTION BOXES WITH PULL STRINGS PER PLANS FOR S&D INSTALLATION AND COORDINATE WITH OWNERS CONSTRUCTION MANAGER.
17. WINDOW BLINDS

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS - CONTINUE

SECTION 01400 - QUALITY REQUIREMENTS

1. SUBMITTALS
- (A) TEST AND REPORT: AFTER EACH TEST/INSPECTION, PROMPTLY SUBMIT ELECTRONIC COPY OR REPORT TO OWNER'S CONSTRUCTION MANAGER AND TO CONTRACTOR.
- 1). INCLUDE
- A). DATE ISSUED.
- B). PROJECT TITLE AND NUMBER
- C). NAME OF INSPECTOR
- D). DATE AND TIME OF SAMPLING OR INSPECTION.
- E). IDENTIFICATION OF PRODUCT AND SPECIFICATIONS SECTION.
- F). LOCATION IN THE PROJECT
- G). TIME AND DATE OF TEST/INSPECTION.
- H). RESULTS OF TEST/INSPECTION.
- I). CONFORMANCE WITH CONTRACT DOCUMENTS.
- J). PROVIDE INTERPRETATION OF RESULTS.
- 2). TEST REPORTS ARE SUBMITTED FOR THE LIMITED PURPOSE OF ASSESSING CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
- (B). CERTIFICATES: WHEN SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS, SUBMIT CERTIFICATION BY THE MANUFACTURER OR CONTRACTOR OR SUBCONTRACTOR IN QUANTITIES SPECIFIED FOR PRODUCT DATA.
- 1). INDICATE MATERIAL OR PRODUCT CONFORMS TO OR EXCEEDS SPECIFIED REQUIREMENTS. SUBMIT SUPPORTING REFERENCE DATA, AFFIDAVITS, AND CERTIFICATIONS AS APPROPRIATE.
2. REFERENCES AND STANDARDS
- (A). FOR PRODUCTS AND WORKMANSHIP SPECIFIED BY REFERENCE TO A DOCUMENT OF DOCUMENTS NOT INCLUDED IN THE SPECIFICATIONS, ALSO REFERRED TO AS REFERENCE STANDARDS, COMPLY WITH REQUIREMENTS OF THE CURRENT STANDARD, EXCEPT WHEN MORE RIGID REQUIREMENTS ARE SPECIFIED OR ARE REQUIRED BY APPLICABLE CODES.
- (B). SHOULD SPECIFIED REFERENCE STANDARDS CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM OWNER'S CONSTRUCTION MANAGER BEFORE PROCEEDING.
3. TESTING AND INSPECTION AGENCIES
- (A) OWNER WILL EMPLOY SERVICES OF AN INDEPENDENT TESTING AGENCY TO PERFORM SPECIFIED TESTING. EMPLOYMENT OF AGENCY IN NO WAY RELIEVES CONTRACTOR'S OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.
4. CONTROL OF INSTALLATION
- (A) MONITOR QUALITY CONTROL OVER SUPPLIERS, MANUFACTURERS, PRODUCTS, SERVICES, SITE CONDITIONS, AND WORKMANSHIP, TO PROVIDE WORK OF SPECIFIED QUALITY.
- (B). COMPLY WITH MANUFACTURERS' INSTRUCTIONS, INCLUDING EACH STEP IN SEQUENCE.
- (C). COMPLY WITH SPECIFIED STANDARDS AS MINIMUM QUALITY FOR THE WORK EXCEPT WHERE MORE STRINGENT TOLERANCES, CODES, OR SPECIFIED REQUIREMENTS INDICATE HIGHER STANDARDS OR MORE PRECISE WORKMANSHIP.
- (D). VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED ON SHOP DRAWINGS OR AS INSTRUCTED BY THE MANUFACTURER.
5. TOLERANCES
- (A). MONITOR FABRICATION AND INSTALLATION TOLERANCE CONTROL OF PRODUCTS TO PRODUCE ACCEPTABLE WORK. DO NOT PERMIT TOLERANCES TO ACCUMULATE.
- (B). COMPLY WITH MANUFACTURERS' TOLERANCES. SHOULD MANUFACTURERS' TOLERANCES CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM OWNER'S CONSTRUCTION MANAGER BEFORE PROCEEDING. OWNER STANDARDS WILL TAKE PRECEDENCE, AND IN MOST CASES WILL BE SIGNIFICANTLY HIGHER THAN INDUSTRY STANDARDS.
6. TESTING AND INSPECTION
- (A) TESTING AGENCY DUTIES:
- 1). PROVIDE QUALIFIED PERSONNEL AT SITE. COOPERATE WITH OWNER'S CONSTRUCTION MANAGER AND INSPECTOR IN THE PERFORMANCE OF SERVICES.
- 2). PERFORM SPECIFIED SAMPLING AND TESTING OF PRODUCTS IN ACCORDANCE WITH SPECIFIED STANDARDS.
- 3). ASCERTAIN COMPLIANCE OF MATERIALS AND MIXES WITH REQUIREMENTS OF CONTRACT DOCUMENTS.
- 4). PROMPTLY NOTIFY OWNER'S CONSTRUCTION MANAGER AND CONTRACTOR OF OBSERVED DEFECTS/LARIES OR NON-COMFORMANCE OF WORK OR PRODUCTS.
- 5). PERFORM ADDITIONAL TESTS AND INSPECTIONS REQUIRED BY OWNER'S CONSTRUCTION MANAGER.
- 6). SUBMIT REPORTS OF ALL TESTS/INSPECTIONS SPECIFIED IN ELECTRONIC (PDF) FORMAT.
- (B) LIMITS ON TESTING/INSPECTION AGENCY AUTHORITY:
- 1). AGENCY MAY NOT RELEASE, REVISE, ALTER, OR ENLARGE ON REQUIREMENTS OF CONTRACT DOCUMENTS.
- 2). AGENCY MAY NOT APPROVE OR ACCEPT ANY PORTION OF THE WORK, MAY NOT ASSUME ANY DUTIES OF CONTRACTOR, AND HAS NO AUTHORITY TO STOP THE WORK.
- (C) CONTRACTOR RESPONSIBILITIES:
- 1). DELIVER TO AGENCY AT DESIGNATED LOCATION, ADEQUATE SAMPLES OF MATERIALS PROPOSED TO BE USED WHICH REQUIRE TESTING, ALONG WITH PROPOSED MIX DESIGNS.
- 2). COOPERATE WITH LABORATORY PERSONNEL, AND PROVIDE ACCESS TO THE WORK AREA TO MANUFACTURERS' FACILITIES.
- 3). PROVIDE INCIDENTAL LABOR AND FACILITIES:
- A). TO OBTAIN AND HANDLE SAMPLES AT THE SITE OR AT SOURCE OF PRODUCTS TO BE TESTED/INSPECTED.
- B). TO FACILITATE TESTS/INSPECTIONS.
- C). TO PROVIDE STORAGE AND CURING OR TEST SAMPLES.
- 4). NOTIFY OWNER'S CONSTRUCTION MANAGER AND LABORATORY 24 HOURS PRIOR TO EXPECTED TIME FOR OPERATIONS REQUIRING TESTING/INSPECTION SERVICES.
- 5). EMPLOY SERVICES OF AN INDEPENDENT QUALIFIED TESTING LABORATORY AND PAY FOR ADDITIONAL SAMPLES, TEST, AND INSPECTIONS REQUIRED BY CONTRACTOR BEYOND SPECIFIED REQUIREMENTS.
- 6). ARRANGE WITH OWNER'S AGENCY AND PAY FOR ADDITIONAL SAMPLES, TESTS, AND INSPECTIONS REQUIRED BY CONTRACTOR BEYOND SPECIFIED REQUIREMENTS.
- (D). RE-TESTING REQUIRED BECAUSE OF NON-COMFORMANCE TO SPECIFIED REQUIREMENTS SHALL BE PERFORMED BY THE SAME AGENCY ON INSTRUCTIONS BY OWNER'S CONSTRUCTION MANAGER. PAYMENT FOR RE-TESTING WILL BE CHARGED TO THE CONTRACTOR BY DEDUCTING TESTING CHARGES FROM THE CONTRACT PRICE.

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1. TEMPORARY UTILITIES
- (A) PROVIDE AND PAY FOR ALL TEMPORARY ELECTRICAL, POWER, LIGHTING, WATER, HEATING AND COOLING, AND VENTILATION REQUIRED FOR CONSTRUCTION PURPOSES.
2. TELEPHONE SERVICE
- (A) PROVIDE, MAINTAIN, AND PAY FOR TELEPHONE AND FACSIMILE SERVICES TO FIELD OFFICE AT TIME OF PROJECT MOBILIZATION.
3. TEMPORARY SANITARY FACILITIES
- (A) PROVIDE AND MAINTAIN REQUIRED FACILITIES AND ENCLOSURES. PROVIDE AT TIME OF PROJECT MOBILIZATION. MAINTAIN DAILY IN CLEAN AND SANITARY CONDITION.
4. BARRIERS
- (A) PROVIDE BARRIERS TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS, TO ALLOW FOR OWNER'S USE OF SITE AND TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM DAMAGE FROM CONSTRUCTION OPERATIONS AND DEMOLITION.
- (B). PROVIDE BARRICADES AND COVERED WALKWAYS REQUIRED BY GOVERNING AUTHORITIES FOR PUBLIC RIGHTS-OF-WAY AND FOR PUBLIC ACCESS TO EXISTING BUILDING.
- (C). PROTECT NON-OWNED VEHICULAR TRAFFIC, STORED MATERIALS, SITE, AND STRUCTURES FROM DAMAGE.
5. FENCING
- (A) PROVIDE A FOOT HIGH FENCE AROUND CONSTRUCTION SITE; EQUIP WITH VEHICULAR AND PEDESTRIAN GATES WITH LOCKS.
6. SECURITY
- (A) PROVIDE SECURITY AND FACILITIES TO PROTECT WORK, EXISTING FACILITIES, AND OWNER'S OPERATIONS FROM UNAUTHORIZED ENTRY, VANDALISM, OR THEFT.
7. VEHICULAR ACCESS AND PARKING
- (A). COORDINATE ACCESS AND HAUL ROUTES WITH GOVERNING AUTHORITIES AND OWNER.
- (B). PROVIDE AND MAINTAIN ACCESS TO FIRE HYDRANTS, FREE OF OBSTRUCTIONS.
- (C). PROVIDE TEMPORARY PARKING AREAS TO ACCOMMODATE CONSTRUCTION PERSONNEL, WHEN SITE SPACE IS NOT ADEQUATE, PROVIDE ADDITIONAL OFF-SITE PARKING.

8. WASTE REMOVAL
- (A). PROVIDE WASTE REMOVAL FACILITIES AND SERVICES AS REQUIRED TO MAINTAIN THE SITE IN CLEAN AND ORDERLY CONDITION. PROVIDE CONTAINERS WITH LIDS AND REMOVE BRACKERS/ON SITE.
- (B). IF MATERIALS TO BE RECYCLED OR RE-USED ON THE PROJECT MUST BE STORED ON-SITE, PROVIDE SUITABLE NON-COMBUSTIBLE CONTAINERS; LOCATE CONTAINERS AROUND PERIMETER OF SITE, PROVIDE APPROPRIATE SECURITY, AND UNLESS OTHERWISE APPROVED BY THE AUTHORITIES HAVE JURISDICTION.
- (C). OPEN FREE-ALL CHUTES AND NOT PERMITTED. TERMINATE CLOSED CHUTES INTO APPROPRIATE CODE APPROPRIATE CONTAINERS.
9. PROJECT IDENTIFICATION SIGN
- (A). WITHIN SEVEN DAYS OF DATE OF NOTICE TO PROCEED, PROVIDE AND ERECT ONE (1) PROJECT IDENTIFICATION SIGN, IN A LOCATION DIRECTED BY THE OWNER, MINIMUM 4 FEET x 8 FEET.
- 1). SIGN SHALL CONSIST OF 4x4 INCH POSTS SUPPORTING A 4'-0" HIGH BY 8'-0" WIDE SHEET OF 3/4 INCH THICK EXTERIOR GRADE PLYWOOD. LOCATE POST 1'-0" FROM ENDS OF PLYWOOD; 6'-0" CENTERS. BOTTOM OF PLYWOOD SHALL BE AT 4'-0" ABOVE GRADE.
- 2). FRAMEWORK SHALL RECEIVE A FABRIC SIGN TO BE FURNISHED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR. INSTALLATION OF SIGN WILL BE BY WRAP AND STAPLE METHOD; LONG STAPLES, CLOSELY SPACED ON BACK SIDE.
- 3). IF A PERMIT IS REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT.
10. CONTRACTOR SIGNS AND ADVERTISING
- (A). CONTRACTOR AND PRINCIPAL SUBCONTRACTORS MAY HAVE COMPANY SIGNS ON FIELD OFFICE, AT CONTRACTOR'S EXPENSE, IF SO DESIRED. NO OTHER FREE-STANDING SIGNS OR ADVERTISING OF ANY KIND OTHER THAN "WARNING" SIGNS AND NOTICES, REQUIRED BY LAW WILL BE PERMITTED ON THE SITE OR ABOUT THE PREMISES WITHOUT OWNER PERMISSION.
11. FIELD OFFICES
- (A). OFFICE: WEATHER TIGHT, WITH LIGHTING, ELECTRICAL, OUTLETS, HEATING, COOLING AND FURNITURE. EQUIPPED WITH STURDY FURNITURE, DRAWING RACK AND DRAWING DISPLAY TABLE.
- (B). PROVIDE SPACE FOR PROJECT MEETINGS, WITH TABLE AND CHAIRS TO ACCOMMODATE 6 PERSONS.

SECTION 01600 - PRODUCT REQUIREMENTS

1. SUBMITTALS
- (A). PRODUCT DATA SUBMITTALS: SUBMIT MANUFACTURER'S STANDARD PUBLISHED DATA. MARK EACH COPY, TO IDENTIFY APPLICABLE PRODUCTS, MODELS, OPTIONS, AND OTHER DATA. SUPPLEMENT MANUFACTURER'S STANDARD DATA TO PROVIDE INFORMATION SPECIFIC TO THIS PROJECT.
- (B). SHOP DRAWING SUBMITTALS: PREPARED SPECIFICALLY FOR THIS PROJECT; INDICATE UTILITY AND ELECTRICAL CHARACTERISTICS, UTILITY CONNECTION REQUIREMENTS, AND LOCATION OF UTILITY OUTLETS FOR SERVICE FOR FUNCTIONAL EQUIPMENT AND APPLIANCES.
- (C). SAMPLE SUBMITTALS: ILLUSTRATE FUNCTIONAL AND AESTHETIC CHARACTERISTICS OF THE PRODUCT, WITH INTEGRAL PARTS AND ATTACHMENT DEVICES. COORDINATE SAMPLES WITH OTHER SUBMITTALS FOR INTERGRATING AND COORDINATING.
- 1). FOR SELECTION FROM STANDARDS FINISHES: SUBMIT SAMPLES OF THE FULL RANGE OF THE MANUFACTURE'S STANDARDS COLORS, TEXTURES, AND PATTERNS.
- (D). ALL SUBMITTALS SHALL BE IN ELECTRONIC (PDF) FORMAT.
2. NEW PRODUCTS
- (A). PROVIDE NEW PRODUCTS UNLESS SPECIFICALLY REQUIRED OR PERMITTED BY THE CONTRACT DOCUMENTS.
3. PRODUCT OPTIONS
- (A). PRODUCTS SPECIFIED BY REFERENCE STANDARDS OR BY DESCRIPTION ONLY: USE ANY PRODUCT MEETING THOSE STANDARDS OR DESCRIPTION.
- (B). PRODUCTS SPECIFIED BY NAMING ONE OR MORE MANUFACTURERS: USE A PRODUCT OF ONE OF THE MANUFACTURERS NAMES AND MEETING SPECIFICATIONS, NO OPTIONS OR SUBSTITUTIONS ALLOWED.
- (C). PRODUCTS SPECIFIED BY NAMING ONE OR MORE MANUFACTURERS WITH A PROVISION FOR SUBSTITUTIONS: SUBMIT A REQUEST FOR SUBSTITUTION FOR ANY MANUFACTURER NOT NAMED, CLEARLY DESIGNATED AS A "REQUEST FOR SUBSTITUTION".
4. SUBSTITUTION PROCEDURES
- (A). INSTRUCTIONS TO BIDDERS SPECIFY TIME RESTRICTIONS FOR SUBMITTING REQUEST FOR SUBSTITUTIONS DURING THE BIDDING PERIOD. COMPLY WITH REQUIREMENTS SPECIFIED IN THIS SECTION.
- (B). SUBSTITUTIONS MAYBE CONSIDERED WHEN A PRODUCT BECOMES UNAVAILABLE THROUGH NO FAULT OF THE CONTRACTOR. IF SUCH SUBSTITUTIONS WILL BE ALLOWED.
- (C). DOCUMENT EACH REQUEST WITH COMPLETE DATA SUBSTANTIATING COMPLIANCE OF PROPOSED SUBSTITUTION WITH CONTRACT DOCUMENTS.
- (D). A REQUEST OF SUBSTITUTION CONSTITUTES A REPRESENTATION THAT THE SUBMITTER: 1). HAS INVESTIGATED PROPOSED PRODUCT AND DETERMINED THAT IT MEETS OR EXCEEDS THE QUALITY LEVEL OF THE SPECIFIED PRODUCT 2). WILL PROVIDE THE SAME WARRANTY FOR THE SUBSTITUTION AS FOR THE SPECIFIED PRODUCT.
- (E). WILL COORDINATE INSTALLATION AND MAKE CHANGES TO THE OTHER WORK WHICH MAY SUBSEQUENTLY BECOME APPARENT.
- (F). WAIVES CLAIMS FOR ADDITIONAL COSTS OR TIME EXTENSION WHICH MAY SUBSEQUENTLY BECOME APPARENT.
- (G). SUBSTITUTIONS WILL NOT BE CONSIDERED WHEN THEY ARE INDICATED OR IMPLIED ON SHOP DRAWINGS OR PRODUCT DATA SUBMITTALS, WITHOUT SEPARATE WRITTEN REQUEST, OR WHEN ACCEPTANCE WILL REQUIRE REVISION TO THE CONTRACT DOCUMENTS.
5. OWNER-SUPPLIED PRODUCTS
- (A). CONTRACTOR'S RESPONSIBILITIES
- 1). REVIEW OWNER REVIEWED SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- 2). RECEIVE AND UNLOAD PRODUCTS AT SITE. INSPECT FOR COMPLETENESS OR DAMAGE.
- 3). HANDLE, STORE, INSTALL, AND FINISH PRODUCTS.
- 4). REPAIR OR REPLACE ITEMS DAMAGED AFTER RECEIPT.
6. TRANSPORTATION AND HANDLING
- (A). COORDINATE SCHEDULE AND PRODUCT DELIVERY TO DESIGNATED PREPARED AREAS IN ORDER TO MINIMIZE SITE STORAGE TIME AND POTENTIAL DAMAGE TO STORED MATERIALS.
- (B). TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.
- (C). PROVIDE EQUIPMENT AND PERSONNEL TO HANDLE PRODUCTS BY METHODS TO PREVENT SOILING, DISFIGNMENT, OR DAMAGE.
7. STORAGE AND PROTECTION
- (A). DESIGNATE RECEIVING/STORAGE AREAS FOR INCOMING PRODUCTS SO THAT THEY ARE DELIVERED ACCORDING TO INSTALLATION SCHEDULE AND PLACED CONVENIENT TO WORK AREA IN ORDER TO MINIMIZE WASTE DUE TO EXCESSIVE MATERIALS HANDLING AND MISAPPLICATION.
- (B). STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS WITH LABELS INTACT AND LEGIBLE.
- (C). STORE SENSITIVE PRODUCTS IN WEATHER TIGHT, CLIMATE CONTROLLED, ENCLOSURES IN AN ENVIRONMENT FAVORABLE PRODUCT.
- (D). FOR EXTERIOR STORAGE OF FABRICATED PRODUCTS, PLACE ON SLOPED SURFACES ABOVE GROUND.
- (E). COVER PRODUCTS SUBJECT TO DETEIORATION WITH IMPERVIOUS SHEET COVERING. PROVIDE VENTILATION TO PREVENT CONDENSATION AND DEGRADATION OF PRODUCTS.
- (F). ARRANGE STORAGE OF PRODUCTS TO PERMIT ACCESS FOR INSPECTION, PERIODICALLY INSPECT TO VERIFY PRODUCTS ARE UNDAUNAGED AND ARE MAINTAINED IN ACCEPTABLE CONDITION.

SECTION 01700 - EXECUTION REQUIREMENTS

1. EXAMINATION
- (A). VERIFY WHAT EXISTING SITE CONDITIONS AND SUBSTRATE SURFACES ARE ACCEPTABLE AND SUBSEQUENT WORK. START OF WORK MEANS ACCEPTANCE OF EXISTING CONDITIONS.
- (B). VERIFY THAT EXISTING SUBSTRATE IS CAPABLE OF STRUCTURAL SUPPORT OR ATTACHMENT OF NEW WORK BEING APPLIED OR ATTACHED.
- (C). VERIFY THAT UTILITY SERVICES ARE AVAILABLE, OF THE CORRECT CHARACTERISTICS AND IN THE CORRECT LOCATIONS.
- (D). PRIOR TO CUTTING, EXAMINE EXISTING CONDITIONS PRIOR TO COMMENCING WORK. UNCOVERING EXISTING WORK, ASSESS CONDITIONS AFFECTING PERFORMANCE OF WORK. BEGINNING OF CUTTING OR PATCHING MEANS ACCEPTANCE OF EXISTING CONDITIONS.
2. PREPARATION
- (A). CLEAN SUBSTRATE PRIOR TO APPLYING NEXT MATERIAL OR SUBSTANCE.
- (B). SEAL CRACKS OR OPENINGS OF SUBSTRATE PRIOR TO APPLYING NEXT MATERIAL OR SUBSTANCE.
- (C). APPLY MANUFACTURER REQUIRED OR RECOMMENDED SUBSTRATE PRIMER, SEALER, OR CONDITIONER PRIOR TO APPLYING ANY NEW MATERIAL OR SUBSTANCE IN CONTACT OR BOND.
3. LAYING OUT THE WORK
- (A). VERIFY LOCATIONS OF SURVEY CONTROL POINTS PRIOR TO START WORK.
- (B). PRESERVE PERMANENT REFERENCES POINTS DURING CONSTRUCTION.
- (C). PROMPTLY REPORT TO ARCHITECT/ENGINEER THE LOSS OF DESTRUCTION OF ANY REFERENCE POINT OR RELOCATION REQUIRED BECAUSE OF CHANGES IN GRADES OR OTHER REASONS.
- (C). ESTABLISH ELEVATIONS, LINES AND LEVELS. LOCATE AND LAY OUT BY INSTRUMENTATION AND SIMILAR APPROPRIATE MEANS:
- 1). SITE IMPROVEMENTS INCLUDING PAVEMENTS, STAKES FOR GRADING, FILL AND TOPSOIL PLACEMENT, UTILITY LOCATIONS, SLOPES, AND INVERT ELEVATIONS.
- 2). GRID OR AXIS FOR STRUCTURES.
- 3). BUILDING FOUNDATION, COLUMN LOCATIONS, GROUND FLOOR ELEVATIONS, AND PLUMBING.
- 4). MAINTAIN A COMPLETE AND ACCURATE LOG OF CONTROL AND SURVEY WORK AS IT PROGRESSES.

4. CUTTING AND PATCHING
- (A). EXECUTE CUTTING AND PATCHING INCLUDING EXCAVATION AND FILL TO COMPLETE THE WORK, TO UNCOVER WORK IN ORDER TO INSTALL IMPROPERLY SEQUENCED WORK, TO REPAIR DEFECTS, AND REPLACE WORK OR NON-COMFORMING WORK, TO REMOVE SAMPLES OF INSTALLED WORK FOR TESTING WHEN REQUESTED, TO PROVIDE OPENINGS IN THE WORK FOR PENETRATION OF MECHANICAL AND ELECTRICAL WORK, TO EXECUTE PATCHING TO COMPLEMENT EXISTING WORK, AND TO FIT PRODUCTS TOGETHER TO INTEGRATE WITH OTHER WORK.
- (B). EXECUTE WORK BY METHODS TO AVOID DAMAGE TO OTHER WORK, AND WHICH WILL PROVIDE APPROPRIATE SURFACES TO RECEIVE PATCHING AND FINISHING.
- (C). EMPLOY SKILLED AND EXPERIENCED INSTALLER TO PERFORM CUTTING FOR WEATHER EXPOSED AND MOISTURE RESISTANT ELEMENTS, AND SIGHT EXPOSED SURFACES.
- (D). CUR RIGID MATERIALS USING APPROPRIATE SAWS OR DRILLS. PNEUMATIC TOOLS NOT ALLOWED WITHOUT PRIOR APPROVAL.
- (E). RESTORE WORK WITH NEW PRODUCTS IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.
- (F). FIT WORK AIR TIGHT TO PIPES, SLEEVES, DUCTS, CONDUIT, AND OTHER PENETRATIONS THROUGH SURFACES.
- (G). PATCH SURFACES OF FIRE RATED WALLS, PARTITIONS, CEILING, OR FLOOR CONSTRUCTION, COMPLETELY SEAL VOIDS WITH FIRE RATED MATERIAL TO FULL THICKNESS OF THE PENETRATED ELEMENT.
- (H). REFINISH SURFACES TO MATCH ADJACENT FINISH. FOR CONTINUOUS SURFACES, REFINISH TO NEAREST INTERSECTION OR NATURAL BREAK. FOR AN ASSEMBLY, REFINISH ENTIRE UNIT.
5. PROTECTION OF INSTALLED WORK
- (A). PROTECT INSTALLED WORK FROM DAMAGE BY CONSTRUCTION OPERATIONS.
- (B). PROTECT FINISHED FLOORS, STAIRS, AND OTHER SURFACES FROM TRAFFIC, DIRT, WEAR, DAMAGE, OR MOVEMENT OF HEAVY OBJECTS, BY PROTECTING WITH DURABLE SHEET MATERIALS.
- (C). PROTECT EXISTING OR STORAGE UNDER WATERPROOFED OR ROOFED SURFACES, IF TRAFFIC OR ACTIVITY IS NECESSARY, OBTAIN RECOMMENDATIONS FOR PROTECTION FROM WATERPROOFING OR ROOFING MATERIAL MANUFACTURER.
6. SYSTEMS STARTUP
- (A). COORDINATE SCHEDULE FOR START-UP OF VARIOUS EQUIPMENT AND SYSTEMS.
- (B). VERIFY THAT EACH PIECE OF EQUIPMENT OR SYSTEM HAS BEEN CHECKED FOR PROPER LUBRICATION, DRIVE ROTATION, BELT TENSION, CONTROL SEQUENCE, AND FOR CONDITIONS WHICH MAY CAUSE DAMAGE.
- (C). VERIFY TESTS, METER READINGS, AND SPECIFIED ELECTRICAL CHARACTERISTICS AGREE WITH THOSE REQUIRED BY THE EQUIPMENT OR SYSTEM MANUFACTURER.
- (D). VERIFY THAT WIRING AND SUPPORT COMPONENTS FOR EQUIPMENT ARE COMPLETE AND TESTED.
- (E). EXECUTE START-UP UNDER SUPERVISION OF APPLICABLE CONTRACTOR PERSONNEL AND/OR MANUFACTURERS REPRESENTATIVE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- (F). USE MANUFACTURERS START-UP PROCEDURES AS APPLICABLE AND SUBMIT SIGNED COPY TO OWNER'S CONSTRUCTION MANAGER.
- (G). SUBMIT A WRITTEN REPORT THAT EQUIPMENT OR SYSTEM HAS BEEN PROPERLY INSTALLED AND IS FUNCTIONING CORRECTLY.
7. DEMONSTRATION AND INSTRUCTION
- (A). DEMONSTRATE START-UP, OPERATION, CONTROL, ADJUSTMENT, TROUBLESHOOTING, SERVING, MAINTENANCE, AND SHUTDOWN OF EACH ITEM OF EQUIPMENT AT SCHEDULED TIME, THROUGHOUT THE PROJECT.
- (B). FOR EQUIPMENT OR SYSTEMS REQUIRING SEASONAL OPERATION, PERFORM DEMONSTRATION FOR OTHER SEASON WITHIN SIX MONTHS.

8. CLEANING
- (A). PROGRESS CLEANING
- 1). MAINTAIN AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH. MAINTAIN SITE IN A CLEAN AND ORDERLY CONDITION.
- 2). REMOVE DEBRIS AND RUBBISH FROM PIPE CHASES, PLENUMS, ATTICS, CRAWL SPACES, AND OTHER CLOSED OR RESTRICTED AREAS PRIOR TO ENCLOSING THE SPACE.
- 3). BROOM AND VACUUM CLEAN INTERIOR AREAS PRIOR TO START OF SURFACE FINISHING, AND CONTINUE SURVEY THROUGHOUT THE PROJECT.
- 4). COLLECT AND REMOVE WASTE MATERIALS, DEBRIS, AND TRASH/RUBBISH FROM SITE WEEKLY AND DISPOSE OFF-SITE; DO NOT BURN OR BURY.
- (B). FINAL CLEANING
- 1). USE CLEANING MATERIALS THAT ARE NON-HAZARDOUS.
- 2). CLEAN INTERIOR AND EXTERIOR GLASS, SURFACES EXPOSED TO VIEW, REMOVE LABELS, STAINS AND OTHER SUBSTANCES. POLISH TRAILWAYS, MARKS AND GLASSY SURFACES, VACUUM CARPETED AND SOFT SURFACES.
- 3). CLEAN EQUIPMENT AND FIXTURES TO A SANITARY CONDITION WITH CLEANING MATERIALS.
- 4). CLEAN FILTERS OF OPERATING EQUIPMENT.
- 5). CLEAN DEBRIS FROM ROOFS, GUTTERS, DOWNSPOUTS, AND DRAINAGE SYSTEMS.
- 6). CLEAN SITE, SWEEP PAVED AREAS, RAKE CLEAN.
- 7). REMOVE WASTE, SURPLUS MATERIALS, TRASH/RUBBISH, AND CONSTRUCTION FACILITIES FROM THE SITE, DISPOSE OF IN A LEGAL MANNER; DO NOT BURN OR BURY.
- (C). CLEANING SCHEDULE
- 1). IN ADDITION TO THE DAILY BUILDING AND SITE CLEANING NOTED ABOVE, THE GENERAL CONTRACTOR IS TO INCLUDE THREE COMPLETE CLEANINGS ARE TO BE SCHEDULED AS POSSIBLE:
- A). 1. COMPLETE CLEANING OF BUILDING AND SITE AT TIME OF PUNCH LIST.
- B). 2. CLEANING SHALL BE A RE-CLEAN OF THE BUILDING AND SITE PRIOR TO COMPLETION OF PUNCH LIST AND TURNOVER. RE-CLEANING WILL BE REQUIRED UNTIL OWNER'S CONSTRUCTION MANAGER DETERMINES THAT THE BUILDING HAS BEEN PROPERLY CLEANED.
- C). 3. RE-CLEANING SHALL BE COMPLETED TO TOP BOTTOM, INSIDE AND OUT, FINAL CLEANING, AT NIGHT DURING TRAINING AT A DATE SET BY OWNER'S CONSTRUCTION MANAGER.
- 2). THE SCHEDULED CLEANINGS SHALL CONSIST OF, BUT NOT BE LIMITED TO, THE FOLLOWING:
- D). SITE.
- 1). LANDSCAPING: NO LABELS OR TAGS TO REMAIN ON PLANTS, SHRUBS, TREES, ETC. AND ALL DEBRIS REMOVED.
- 2). PAVING: POWER WASHED, CLEAN, NO TIE OR WHEEL MARKS, NO STAINS OR DISCOLORATIONS, AND NO CALLING RUNS.
- 3). SIDEWALKS: NO POWER WASH ALLOWED FOR SIDEWALKS; DECK BRUSH WITH CLEANER ONLY.
- 4). ALL TRAFFIC CONTROL SIGNS AND POST HAVE ALL LABELS REMOVED.
- E). EXTERIOR
- 1). NO LABELS VISIBLE ON THE WINDOW BLINDS FROM THE EXTERIOR.
- 2). GLASS CLEANED SPOTLESS.
- 3). BRICK, STONE, AND EIFS/STUCCO WASHED DOWN.
- 4). AWNINGS CLEAN, DUST FREE AND SPOT FREE.
- 5). WINDOW SILLS AND FLASHINGS CLEANED OF ALL MORTAR, ETC.
- F). ROOF:
- 1). NO FIRE RATING TAGS OR SUPPLY TAGS IN ROOF SHINGLES.
- 2). METAL AND TPO ROOFING MATERIALS WASHED WITH SOFT DECK BRUSH AND TIE WITH BLEACH SOLUTION OR EQUIVALENT.
- 3). ROOF TOP EQUIPMENT WASHED AND DUST FREE.
- G). INTERIOR
- 1). CLEANING COMPLETED SO THAT ALL SURFACES, REGARDLESS IF VISIBLE OR NOT, ARE CLEAN AND DUST AND DIRT FREE. THE INTERIOR OF THE BUILDING IS WILL REMAIN CLEAN AND DUST FREE FOR TWO DAYS MINIMUM.
- 2). RESTROOM FIXTURES SANITIZED.
- 3). WINDOWS, MIRRORS AND ALL GLASS SPOTLESS.
- 4). ALL STICKERS REMOVED FROM PLANT POTS, LIGHT FIXTURES, WINDOW BLINDS, TV'S EQUIPMENT OF ANY KIND AND ALL PROTECTIVE WRAP REMOVED OF ANY KIND.
- 5). CLEAN OUTH, FLOOR DRAINS AND FLOOR SINKS POLISHED.
- 6). INTERIORS OF ALL CABINETS, BEHIND GRILLS, UNDERSIDES OF SHELVING, TOP OF ICE MACHINES, ETC., CLEAN AND DUST FREE.
- 7). UNDERSIDES OF ALL TABLE BRACKETS DUST FREE.

9. CLOSEOUT PROCEDURES
- (A). ACCOMPANY OWNER ON PRELIMINARY INSPECTION TO DETERMINE ITEMS TO BE LISTED FOR COMPLETION OR CORRECTION IN CONTRACTOR'S NOTICE OF SUBSTANTIAL COMPLETION.
- (B). NOTIFY OWNER WHEN WORK IS CONSIDERED READY FOR SUBSTANTIAL COMPLETION.
- (C). CORRECT ITEMS OF WORK LISTEN IN EXECUTED CERTIFICATES OF SUBSTANTIAL COMPLETION AND COMPLY WITH REQUIREMENTS FOR ACCESS TO OWNER OCCUPIED AREAS.
- (D). NOTIFY OWNER WHEN WORK IS CONSIDERED FINALLY COMPLETE.
10. PROJECT SUPERVISION AFTER SUBSTANTIAL COMPLETION
- (A). PROJECT SUPERINTENDENT SHALL REMAIN ON SITE THROUGH COMPLETION OF PUNCH LIST.

SECTION 01720 - CONSTRUCTION LAYOUT

1. SUMMARY
- (A). SECTION INCLUDES:
- 1). LAYOUT OF WORK.
- 2). LAND SURVEY WORK.
2. SUBMITTALS
- (A). CERTIFICATES: SUBMIT A CERTIFICATE SIGNED BY THE LAND SURVEYOR CERTIFYING THE LOCATION AND ELEVATION OF ALL CONTROL POINTS.
- (B). FINAL PROPERTY SURVEY: SUBMIT 5 COPIES OF THE FINAL PROPERTY SURVEY ALONG WITH ELECTRONIC FILES, BOTH AUTOCAD AND PDF FORMATS.
- (C). PROJECT RECORD DRAWINGS: SUBMIT A RECORD OF WORK PERFORMED AND RECORD SURVEY DATA AS REQUIRED UNDER PROVISIONS OF SECTIONS 01300 AND 01780.
3. QUALITY ASSURANCE
- (A). SURVEYOR QUALIFICATIONS: ENGAGE A LAND SURVEYOR REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED TO PERFORM REQUIRED LAND SURVEYING SERVICES.
- (B). DO NOT BEGIN CONSTRUCTION UNTIL LAYOUT OF WORK IS REVIEWED BY THE LAND SURVEYOR.
4. EXAMINATION
- (A). IDENTIFY EXISTING CONTROL POINTS AND PROPERTY LINE CORNER STAKES.
- (B). VERIFY LAYOUT INFORMATION SHOWN ON THE DRAWINGS, IN RELATION TO THE PROPERTY SURVEY AND EXISTING BENCHMARKS, BEFORE PROCEEDING TO LAY OUT THE WORK. LOCATE AND PROTECT EXISTING BENCHMARKS AND CONTROL POINTS. PRESERVE PERMANENT REFERENCE POINTS DURING CONSTRUCTION.
- (C). DO NOT CHANGE OR RELOCATE BENCHMARKS OR CONTROL POINTS WITHOUT PRIOR WRITTEN APPROVAL. PROMPTLY REPORT LOST OR DESTROYED REFERENCE POINTS OR RELOCATIONS TO RELOCATE REFERENCE POINTS BECAUSE OF NECESSARY CHANGES AND/OR RELOCATIONS TO RELOCATE REFERENCE POINTS.
- (D). PROMPTLY REPLACE LOST OR DESTROYED PROJECT CONTROL POINTS. BASE REPLACEMENTS ON THE ORIGINAL SURVEY CONTROL POINTS.
- (E). ESTABLISH AND MAINTAIN A MINIMUM OF 2 PERMANENT BENCHMARKS ON THE SITE, REFERENCED TO DATA ESTABLISHED BY SURVEY CONTROL POINTS.
- 1). RECORD BENCHMARK LOCATIONS, WITH HORIZONTAL AND VERTICAL DATA, ON PROJECT RECORD DRAWINGS.
- (F). EXISTING UTILITIES AND EQUIPMENT: BEFORE BEGINNING SITE CONSTRUCTION, INVESTIGATE AND VERIFY THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND OTHER CONSTRUCTION UTILITIES. LOCATE AND INVERT ELEVATION AT POINTS OF CONNECTION OF SANITARY SEWER, STORM SEWER, AND WATER-SERVICE PIPING.
5. PERFORMANCE
- (A). WORK FROM LINES AND LEVELS ESTABLISHED BY THE PROPERTY SURVEY. ESTABLISH BENCHMARKS AND MARKERS TO SET LINES AND LEVELS AS NEEDED TO LOCATE EACH ELEMENT OF THE PROJECT. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS.
- (B). ADVISE SUB-CONTRACTORS OF MARKED LINES AND LEVELS PROVIDED FOR THEIR USE.
- 2). AS CONSTRUCTION PROCEEDS, CHECK EACH MAJOR ELEMENT FOR LINE, LEVEL, AND PLUMB.
- 3). SURVEYORS LOG: MAINTAIN A SURVEYOR'S LOG OF CONTROL AND THE OTHER SURVEY WORK, MAKE THIS LOG AVAILABLE FOR REFERENCE.
- 1). RECORD DEVIATIONS FROM REQUIRED LINES AND LEVELS, AND ADVISE THE OWNER WHEN DEVIATIONS THAT EXCEED INDICATED OF TOLERANCES ARE DETECTED. ON PROJECT RECORD DRAWINGS, RECORD DEVIATIONS THAT ARE ACCEPTED AND NOT CORRECTED.
- (C). BUILDING LINES AND LEVELS: LOCATE AND LAY-OUT BATTER BOARDS FOR STRUCTURES, BUILDING FOUNDATIONS, COLUMN LOCATIONS, FLOOR LEVELS, AND CONTROL LINES AND LEVELS REQUIRED FOR MECHANICAL AND ELECTRICAL WORK.
- (D). SITE IMPROVEMENTS: LOCATE AND LAY-OUT SITE IMPROVEMENTS, INCLUDING GRADING, STAKES FOR GRADING, FILL, AND TOPSOIL PLACEMENT, UTILITY SLOPES, AND INVERT ELEVATIONS.
- (E). EXISTING UTILITIES: FURNISH INFORMATION NECESSARY TO ADJUST, MOVE, OR RELOCATE EXISTING UTILITIES, UTILITY POLES, LINES, SERVICES, OR OTHER APPURTENANCES LOCATED IN OR AFFECTED BY CONSTRUCTION. COORDINATE WITH LOCAL AUTHORITIES HAVING JURISDICTION.
- (F). FINAL PROPERTY SURVEY: PREPARE A FINAL PROPERTY SURVEY SHOWING SIGNIFICANT FEATURES (REAL PROPERTY) FOR THE PROJECT. INCLUDE ON THE SURVEY A CERTIFICATION, SIGNED BY THE SURVEYOR, THAT PRIMAL METERS, BOUNDS, LINES AND LEVELS OF THE PROJECT ARE ACCURATELY POSITIONED AS SHOWN ON THE SURVEY.

SECTION 01780 - CLOSEOUT SUBMITTALS

1. SUBMITTALS
- (A). PROJECT RECORD DOCUMENTS: SUBMIT DOCUMENTS TO OWNER WITH CLAM FOR FINAL APPROVAL FOR PAYMENT.
- (B). OPERATION AND MAINTENANCE DATA:
- 1). SUBMIT TWO COPIES OF PRELIMINARY DRAFT OR PROPOSED FORMATS AND OUTLINES OF CONTENTS BEFORE START OF WORK. OWNER'S CONSTRUCTION MANAGER WILL REVIEW AND APPROVE THE CONTENTS OF THESE FORMATS.
- 2). FOR EQUIPMENT, OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION AND OPERATED BY OWNER, SUBMIT COMPLETED DOCUMENTS WITHIN TEN DAYS AFTER ACCEPTANCE.
- 3). SERMIT TWO SETS OF REVISED FINAL DOCUMENTS IN FINAL FORM, BOTH HARD AND ELECTRONIC FORMATS, WITHIN 10 DAYS AFTER FINAL INSPECTION.
- (C). WARRANTIES AND BONDS:
- 1). FOR EQUIPMENT OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION, THE OWNER'S PERMISSION, SUBMIT DOCUMENTS WITHIN TEN DAYS AFTER ACCEPTANCE.
- 2). MAKE OTHER SUBMITTALS WITHIN TEN DAYS AFTER DATE OF SUBSTANTIAL COMPLETION, PRIOR TO THE DATE OF THE FINDINGS OR FOR THE FINAL INSPECTION.
- 3). FOR ITEMS OF WORK FOR WHICH ACCEPTANCE IS DELAYED BEYOND DATE OF SUBSTANTIAL COMPLETION, PRIOR TO FINAL APPLICATION FOR PAYMENT.
- 4). ALL WARRANTIES SHALL START AS OF RESTAURANT "OPENING DAY".
2. PROJECT RECORD DOCUMENTS
- (A). PROJECTOR OWNER SHALL PROVIDE A SET OF THE FOLLOWING RECORD DOCUMENTS; RECORD ACTUAL REVISIONS TO THE WORK:
- 1). DRAWINGS
- 2). SPECIFICATIONS
- 3). ADDENDA
- 4). CHANGE ORDERS AND OTHER MODIFICATIONS TO THE CONTRACT.
- 5). REVIEWED SHOP DRAWINGS, PROJECT DATA AND NOTICES.
- 6). MANUFACTURERS INSTRUCTION FOR ASSEMBLY, INSTALLATION, AND ADJUSTING.
- 7). ENSURE ENTRIES ARE COMPLETE AND ACCURATE, ENABLING FUTURE REFERENCE BY OWNER.
- (C). STORE RECORD DOCUMENTS SEPARATE FROM DOCUMENTS USED TO CONSTRUCTION.
- (D). RECORD INFORMATION CONCURRENT WITH CONSTRUCTION PROGRESS.
- (E). SPECIFICATIONS: LEGIBLE AND ACCESSIBLE TO ALL PERSONNEL. PROVIDE A DESCRIPTION OF ACTUAL PRODUCTS INSTALLED, INCLUDING THE FOLLOWING:
- 1). MANUFACTURERS NAME AND PRODUCT MODEL AND NUMBER.
- 2). PRODUCT SUBSTITUTIONS AND REVISIONS.
- 3). CHANGES MADE BY ADDENDA AND MODIFICATIONS.
- (F). RECORD DRAWINGS AND SHOP DRAWINGS: LEGIBLY MARK EACH ITEM TO RECORD ACTUAL CONSTRUCTION INFORMATION.
- 1). MEASURED DEPTHS OF FOUNDATIONS IN RELATION TO FINISH FIRST FLOOR DATUM.
- 2). MEASURED HORIZONTAL AND VERTICAL LOCATIONS OF UNDERGROUND UTILITIES AND APPURTENANCES, REFERENCED TO PERMANENT BENCHMARKS.
- 3). MEASURED LOCATIONS OF INTERNAL UTILITIES AND APPURTENANCES CONCEALED IN CONSTRUCTION, REFERENCED TO VISIBLE AND ACCESSIBLE FEATURES OF THE WORK.
- 4). FIELD CHANGES OF DIMENSION AND DETAIL.
- 5). DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS.

3. OPERATION AND MAINTENANCE DATA
- (A). FOR EACH PRODUCT OR SYSTEM ON FORMS PROVIDED BY MANUFACTURER LIST NAMES, ADDRESSES AND TELEPHONE NUMBERS OF SUBCONTRACTORS AND SUPPLIERS, INCLUDING LOCAL SOURCE OF SUPPLIES AND REPLACEMENT PARTS.
- (B). PRODUCT DATA: MARK EACH SHEET TO CLEARLY IDENTIFY SPECIFIC PRODUCTS AND COMPONENT PARTS, AND DATA APPLICABLE TO INSTALLATION, DEplete INAPPLICABLE INFORMATION.
- (C). DRAWINGS: SUPPLEMENT PRODUCT DATA TO ILLUSTRATE RELATIONS OF COMPONENT PARTS OF EQUIPMENT AND SYSTEMS, SHOW DATA AND FLOW DIAGRAMS. DO NOT USE PROJECT RECORD DOCUMENTS AS MAINTENANCE DRAWINGS.
- (D). TYPED TEXT: AS REQUIRED TO SUPPLEMENT PRODUCT DATA, PROVIDE LOGICAL SEQUENCE OF INSTRUCTIONS FOR EACH PROCEDURE, INCORPORATING MANUFACTURERS INSTRUCTIONS.

4. OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES
- (A). INSTRUCTIONS FOR CARE AND MAINTENANCE: MANUFACTURERS RECOMMENDATIONS FOR CLEANING AGENTS AND METHODS, PRECAUTIONS AGAINST DETRIMENTAL CLEANING AGENTS AND METHODS, AND RECOMMENDED SCHEDULE FOR CLEANING AND MAINTENANCE.

5. OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS
- (A). FOR EACH ITEM OF EQUIPMENT AND EACH SYSTEM:
- 1). DESCRIPTION OF UNIT OR SYSTEM, AND COMPONENT PARTS.
- 2). IDENTIFY FUNCTION, NORMAL OPERATING CHARACTERISTICS, AND LIMITING CONDITIONS.
- 3). COMPLETE NOMENCLATURE AND MODEL NUMBER OF REPLACEABLE PARTS.
- (B). PANEL BOARD CIRCUIT DIRECTIONS: PROVIDE ELECTRICAL SERVICE CHARACTERISTICS, CONTROLS, AND COMMUNICATIONS, TYPED.
- (C). OPERATING PROCEDURES: INCLUDE START-UP, BREAK-IN, AND ROUTINE NORMAL OPERATING INSTRUCTIONS, INCLUDING START-UP, STOPPING, SHUT-DOWN, AND EMERGENCY INSTRUCTIONS, INCLUDE SUMMER, WINTER, AND ANY SPECIAL OPERATING INSTRUCTIONS.
- (D). MAINTENANCE REQUIREMENTS: INCLUDE ROUTINE PROCEDURES AND GUIDE FOR PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING, DISASSEMBLY, REPAIR, AND REASSEMBLY INSTRUCTIONS, AND ALIGNMENT, ADJUSTING, BALANCING, AND CHECKING INSTRUCTIONS.
- (E). INCLUDE MANUFACTURERS PRINTED OPERATION AND MAINTENANCE INSTRUCTIONS.
- (F). INCLUDE SEQUENCE OF OPERATION BY CONTROLS MANUFACTURER.
- (G). PROVIDE ORIGINAL MANUFACTURERS PARTS LIST, ILLUSTRATIONS, ASSEMBLY DRAWINGS, AND DIAGRAMS REQUIRED FOR MAINTENANCE.
- (H). PROVIDE FRAMED INFORMATION AS FOLLOWS. ALL INFORMATION SHALL BE FRAMED IN BLACK METAL FRAMES:
- 1). SUBCONTRACTOR LIST AND SERVICE COMPANY CONTACT INFORMATION (TO BE LOCATED IN OFFICE).
- 2). WARRANTY PROCEDURE INFORMATION (LOCATED IN OFFICE).
- 3). LEGEND AND LOCATIONS OF LABELS ON VALVES AND KNOBS IN MECHANICAL ROOM (LOCATED IN MECHANICAL ROOM).
- 4). MAP OF ZONES FOR IRRIGATION SYSTEM (LOCATED WITH IRRIGATION CONTROLS).

6. OPERATION AND MAINTENANCE MANUALS
- (A). PREPARE INSTRUCTIONS AND DATA BY PERSONNEL EXPERIENCED IN MAINTENANCE AND OPERATION OF DESCRIBED PRODUCTS IN THE FORM OF AN INSTRUCTIONAL MANUAL.
- (B). BIDDERS/COMMERCIAL CONTRACTORS: PROVIDE NON-COMFORMING WORK, DURABLE PLASTIC COVERS, 2 INCH MAXIMUM RING SIZE. WHEN MULTIPLE BINDERS ARE USED, CORRELATE DATA INTO RELATED CONSISTENT GROUPINGS.
- (C). AFTER IDENTIFY EACH BINDER WITH TYPED OR PRINTED INFORMATION, PREPARE AND MAINTENANCE INSTRUCTIONS: IDENTIFY TITLE OF PROJECT, IDENTIFY SUBJECT MATTER OF CONTENTS.
- (D). PROVIDE TABLE OF CONTENTS FOR EACH SEPARATE PRODUCT AND SYSTEM, WITH TYPED DESCRIPTION OF PRODUCTS AND MAJOR COMPONENT PARTS OF EQUIPMENT.
- (E). ARRANGE CONTENT BY SYSTEMS UNDER SECTION NUMBERS AND SEQUENCE OF TABLE OF CONTENTS OF THIS PROJECT MANUAL.
- (F). CONTENTS: PREPARE A TABLE OF CONTENTS FOR EACH VOLUME, WITH EACH PRODUCT OF SYSTEM DESCRIPTION IDENTIFIED WITH TABBED DIVISIONS, IN THREE PARTS AS FOLLOWS:
- 1). PART 1: DIRECTORY, LISTING NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF OWNER'S CONSTRUCTION MANAGER, CONTRACTOR, SUBCONTRACTORS, AND MAJOR EQUIPMENT SUPPLIERS.
- 2). PART 2: OPERATION AND MAINTENANCE INSTRUCTIONS, ARRANGED BY SYSTEM AND SUBDIVIDED BY SPECIFICATION SECTION. FOR EACH CATEGORY, IDENTIFY NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF SUBCONTRACTORS AND SUPPLIERS. IDENTIFY THE FOLLOWING:
- A). SIGNIFICANT DESIGN CRITERIA.
- B). LIST OF EQUIPMENT.
- C). PARTS LIST FOR EACH COMPONENT.
- D). OPERATING INSTRUCTIONS.
- E). MAINTENANCE INSTRUCTIONS FOR EQUIPMENT AND SYSTEMS, INCLUDING RECOMMENDED CLEANING METHODS AND MATERIALS, AND SPECIAL CHANGES AND/OR RELOCATIONS TO RELOCATE REFERENCE POINTS.
- 3). PART 3: PROJECT DOCUMENTS AND CERTIFICATES, INCLUDING THE FOLLOWING:
- A). SHOP DRAWINGS AND PRODUCT DATA.
- B). CERTIFICATES

7. WARRANTIES AND BONDS
- (A). OBTAIN WARRANTIES AND BONDS, EXECUTED IN DUPLICATE BY RESPONSIBLE SUBCONTRACTORS, SUPPLIERS, AND MANUFACTURERS WITHIN TEN DAYS AFTER COMPLETION OF THE APPLICABLE ITEM OF WORK.
- (B). VERIFY THAT DOCUMENTS ARE IN PROPER FORM, CONTAIN FULL INFORMATION, AND ARE NOTARIZED.
- (C). CO-EXECUTE SUBMITTALS WHEN REQUIRED.
- (D). MANUAL BIND IN COMMERCIAL QUALITY 8-1/2 x 11 INCH THREE D SIDE RING BINDERS WITH DURABLE PLASTIC COVERS.
- (E). COVER: IDENTIFY EACH BINDER WITH TYPED OR PRINTED TITLE WARRANTIES AND ASSEMBLY WITH TITLE OF PROJECT, NAME, ADDRESS, AND TELEPHONE NUMBER OF CONTRACTOR AND EQUIPMENT SUPPLIER, AND NAME OF RESPONSIBLE COMPANY PRINCIPAL.
- (F). TABLE OF CONTENTS: NEATLY TYPED, IN THE SEQUENCE OF THE TABLE OF CONTENTS OF THE PROJECT MANUAL, WITH EACH ITEM IDENTIFIED WITH THE NUMBER AND TITLE OF THE SPECIFICATION SECTION IN WHICH SPECIFIED, AND THE NAME OF PRODUCT OF WORK ITEM.
- (G). SEPARATE EACH WARRANTY OR BOND WITH INDEX TAB SHEETS KEPT TO THE TABLE OF CONTENTS LISTING. PROVIDE FULL INFORMATION, USING SEPARATE TYPED SHEETS AS REQUIRED TO IDENTIFY EACH WARRANTY, SUPPLIER, AND MANUFACTURER, WITH NAME, ADDRESS, AND TELEPHONE NUMBER OF RESPONSIBLE PRINCIPAL.
- (H). AT CONTRACTOR'S OPTION, WARRANTY AND BOND INFORMATION CAN BE PROVIDED ELECTRONICALLY IN PDF FORMAT ON A COMPACT DISK.

DIVISION 02 - SITEWORK

SECTION 02010 - SUBSURFACE INVESTIGATION

1. SUBSURFACE INVESTIGATION
- (A). GEOTECHNICAL INVESTIGATION (SUBSURFACE SOIL TESTS) FOR THE PROJECT SITE HAS BEEN PERFORMED AND A REPORT OF THAT INVESTIGATION HAS BEEN COMPLETED. THE CONSULTANT'S REPORT AND THE REPORT THAT THE INVESTIGATION HAS BEEN COMPLETED, BASED ON HIS INTERPRETATIONS OF THE DATA OBTAINED IN THE INVESTIGATION. THE CONTRACTOR ACKNOWLEDGES THAT HE HAS REVIEWED THE CONSULTANT'S REPORT AND ANY ADDENDA THERETO, AND THAT HIS BID FOR EXCAVATION OPERATIONS, INCLUDING ALL NECESSARY LOOK REPAIRS, IS BASED ON SUBSURFACE CONDITIONS AS DESCRIBED IN THAT REPORT. IT IS RECOGNIZED THAT A SUBSURFACE INVESTIGATION MAY NOT DISCLOSE ALL CONDITIONS, AS THEY ACTUALLY EXIST BETWEEN THE TIME OF A SUBSURFACE INVESTIGATION AND THE TIME OF CONSTRUCTION OPERATIONS. THE RECOGNITION OF THESE FACTS, THIS CLAUSE IS ENTERED IN THE CONTRACT TO PROVIDE A MEANS OF EQUITABLE ADDITIONAL COMPENSATION FOR THE CONTRACTOR IF UNDESIRABLE UNANTICIPATED CONDITIONS ARE ENCOUNTERED, AND TO PROVIDE A MEANS OF REBATE TO THE OWNER IF THE CONDITIONS ARE MORE FAVORABLE THAN ANTICIPATED.
- (B). CONTRACTOR SHALL REFER TO ALL RECOMMENDATION AND FINDINGS AS SET FORTH IN SOILS GEOTECHNICAL REPORT, THE OWNER AND/OR ARCHITECT ACCEPT FOR THE CONTRACTOR'S RESPONSIBILITY FOR THE ACCURACY OF THE FINDINGS OR FOR THE RECOMMENDATIONS. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
- 2). AT ANY POINT IN TIME DURING EXCAVATION OPERATIONS THAT THE CONTRACTOR ANTICIPATES THAT THERE WILL BE A CHANGE IN THE FOUNDATION CONDITIONS, THE FOUNDATION CONSULTANT'S REPORT, HE SHALL IMMEDIATELY (WITHIN 24 HOURS) BRING THIS FACT TO THE OWNERS ATTENTION (ONCE A FACT OF UNANTICIPATED CONDITIONS HAS BEEN IDENTIFIED BY THE CONTRACTOR, AND THE CONSULTANT HAS OCCURRED, IMMEDIATE NEGOTIATIONS WILL BE UNDERTAKEN BETWEEN THE OWNER AND THE CONTRACTOR TO ARRIVE AT A CHANGE IN THE FOUNDATION CONDITIONS. THE CONTRACTOR AGREES THAT HIS STATED UNIT PRICE WOULD APPLY FOR ADDITIONAL OR REDUCED WORK UNDER THE CONTRACT.

SECTION 02100 - SITE CLEARING

1. GENERAL
- (A). REMOVE AND LEGALLY DISPOSE OF ABOVE AND BELOW GRADE IMPROVEMENTS AND STRUCTURES IF ANY AND/OR NOT INDICATED TO REMAIN, WITHIN THE PROJECT LIMITS.
- (B). REMOVE TREES, VEGETATION, ETC., WITHIN PROJECT LIMITS.
- (C). STRIP TOPSOIL WITHIN BUILDING AND PAVEMENT AREA AND STOCKPILE FOR RE-USE IN LANDSCAPE AND GREEN AREAS; EXCELL SHALL BE REMOVED FROM SITE.
- (D). PROVIDE PROTECTION TO IMPROVEMENTS TO REMAIN.

SECTION 02200 - EXCAVATION, BACKFILLING, COMPACTION, AND GRADING

THE FOLLOWING ARE GENERAL GUIDELINES FOR EXCAVATION, BACKFILLING, COMPACTION AND GRADING. WHEN NOT SPECIFICALLY ADDRESSED IN THE CIVIL CONSTRUCTION DOCUMENTS, CONTRACTOR SHALL COMPLY WITH THE PROVISIONS HEREIN.

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

DIVISION 02 - SITEWORK- CONTINUED

SECTION 02050- CONCRETE PAVING, WALKS, CURBS, GUTTERS, AND APPROACHES

1. SECTION INCLUDES
- A. CONCRETE PEDESTRIAN TRAFFIC SURFACES (WALKS, RAMPS, ETC.)
 - B. CONCRETE VEHICULAR TRAFFIC SURFACES
 - C. CONCRETE CURBS AND GUTTERS
 - D. CONCRETE TRAFFIC APPROACHES
2. REFERENCE PUBLICATIONS AND STANDARDS
- A. GOVERNING AUTHORITY: APPLICABLE STANDARDS AND REGULATIONS OF STATE AND NATIONAL AGENCIES HAVING GOVERNING AUTHORITY OVER THE WORK SPECIFIED IN THIS SECTION SHALL TAKE PRIORITY OVER ITEMS SPECIFIED HEREIN AND SHOWN ON THE DRAWINGS UNLESS THE REQUIREMENTS SET FORTH HEREIN REQUIRE A SUPERIOR QUALITY WORK.
 - B. MATERIAL STANDARDS: AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)
 - C. CONCRETE STANDARDS: AMERICAN CONCRETE INSTITUTE (ACI) ACI 317 STANDARD SPECIFICATIONS FOR CONCRETE PAVEMENT AND BASES ACI 306 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE
3. SUBMITTALS
- A. TESTING LABORATORY REPORTS: FURNISH ELECTRONIC COPIES OF THE TEST REPORTS TO THE OWNER INDICATING RESULTS OF THE CYLINDER TEST.
4. BASIC MATERIALS
- A. CONCRETE AND REINFORCING STEEL: AS SPECIFIED IN CAST-IN-PLACE CONCRETE.
5. MISCELLANEOUS MATERIALS
- A. AIR ENTRAINING AGENT: ASTM C626, MASTER BUILDERS OR EQUAL, DISPERSING ADMIXTURE, ASTM C 494, MASTER BUILDERS OR EQUAL.
 - B. CURING COMPOUND: ASTM C 309, NO. 40B BY C. HORN COMPANY OR EQUAL.
 - C. JOINT FILLER: ASTM D1751, FINE-MOLDED FIBER FILLS, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
 - D. JOINT SEALER: ASTM D 1190, CODE 2351.

6. CONCRETE MIX DESIGN
- A. CONTRACTOR SHALL EMPLOY AND PAY FOR, AS A PART OF THE CONTRACT PRICE, THE SERVICES OF AN OWNER APPROVED INDEPENDENT TESTING LABORATORY TO DETERMINE ACTUAL DESIGN STRENGTH AND SLUMP. THE FOLLOWING ARE THE MINIMUM REQUIREMENTS FOR CONCRETE: MINIMUM 3000 PSI AT 28 DAYS, REFER TO STRUCTURAL AND CIVIL DOCUMENTS FOR MORE RESTRICTIVE REQUIREMENTS.

7. INSPECTION OF SUBGRADE
- A. INSPECT SUBGRADGES PREPARED AS SPECIFIED ELSEWHERE IN THESE SPECIFICATIONS AND REPORT ANY DEFICIENCIES TO THE OWNER BEFORE BEGINNING WORK. COMMENCEMENT OF WORK SHALL INDICATE ACCEPTANCE OF SUBGRADGES BY THIS CONTRACTOR.

8. CONSTRUCTION
- A. GENERAL: DELIVER AND PLACE CONCRETE AS SPECIFIED IN CAST-IN PLACE CONCRETE.
 - B. CURBS AND GUTTERS:
 - 1. CONFIGURATIONS: CONSTRUCT TO CROSS-SECTIONAL DETAILS SHOWN ON DRAWINGS AND AT INDICATED LOCATIONS. CURBS MAY BE FULLY FORMED OR PULLED AND TROWELED TO CONFORM TO THE DETAILS SHOWN ON THE DRAWINGS.
 - 2. REINFORCEMENT: REINFORCE AS INDICATED ON THE DRAWINGS WITH CONTINUOUS REINFORCING BARS LAPPED 30 BAR DIAMETERS AND SECURELY TIED AT ALL SPLICES. METAL CHAIRS SHALL BE USED TO HOLD THE REINFORCING STEEL IN THE PROPER PLANE.
 - 3. EXPANSION JOINTS: CONSTRUCT 1/2" WIDE EXPANSION JOINTS WITH JOINT FILLER ACROSS LENGTHS OF CURB AT ALL TANGENT POINTS AND AT NOT MORE THAN TWENTY FOOT INTERVALS. CONSTRUCT ONE INCH WIDE EXPANSION JOINTS WITH JOINT FILLER BETWEEN CURBS AND CONCRETE PAVING, ALL FIXED OBJECTS, SUCH AS BUILDINGS, POLES, PIPES, CATCH BASINS, ETC., WITHIN OR ABUTTING THE CONCRETE SHALL BE SEPARATED FROM THE CONCRETE BY EXPANSION JOINTS.
 - 4. FINISHING: FINISH SURFACES WITH DENSE UNIFORM TEXTURE EQUIV TO BURLAP DRAG AND CROSS-SMOOTH WITH 1/4" DEEP CROSS JOINTS AT TEN FOOT INTERVALS WITH EDGES SMOOTHED 1/8".
 - 5. JOINTS: FILL EXPANSION JOINTS WITH JOINT FILLER EXCEPT FOR SPACE 3/4" DEEP AT SURFACE. AFTER CONCRETE HAS SET, CLEAN THE OPEN JOINT ABOVE FILLER AND FILL WITH JOINT SEALER IN ACCORDANCE WITH INSTRUCTIONS OF SEALER MANUFACTURER.

- C. TRAFFIC APPROACHES AND VEHICULAR TRAFFIC SURFACES:
- 1. CONFIGURATION: CONSTRUCT TO CROSS-SECTIONAL DETAILS SHOWN ON DRAWINGS AND AT INDICATED LOCATIONS.
 - 2. REINFORCEMENT: REINFORCE WITH #3 MINIMUM SIZE REINFORCING BARS 18 INCHES ON CENTER BOTH WAYS, UNLESS OTHERWISE INDICATED OR NOTED ON THE DRAWINGS.
 - 3. EXPANSION AND CONSTRUCTION JOINTS: AT INTENTIONAL POINTS FOR STORAGE OF CONCRETE PLACING, USE EXPANSION JOINTS AT UNINTENTIONAL POINTS OF STOPPAGE OF CONCRETE PLACING, USE CONTINUATION OF REINFORCING THROUGH JOINTS. CONSTRUCT 1/2 INCH WIDE EXPANSION JOINTS WITH JOINT FILLER AT LOCATIONS SHOWN ON THE DRAWINGS OR AT NOT MORE THAN TWENTY FOOT INTERVALS EACH WAY. IF NOT SHOWN, CONSTRUCT 1/2 INCH WIDE EXPANSION JOINTS WITH JOINT FILLER BETWEEN CURBS AND CONCRETE PAVING, ALL FIXED OBJECTS, SUCH AS BUILDINGS, POLES, PIPES, CATCH BASINS, ETC., WITHIN OR ABUTTING THE CONCRETE SHALL BE SEPARATED FROM THE CONCRETE BY EXPANSION JOINTS.
 - 4. JOINT SEALING AND SEALING: FILL EXPANSION JOINTS WITH JOINT FILLER EXCEPT FOR SPACE 3/4" DEEP AT SURFACE. AFTER CONCRETE HAS SET, CLEAN THE OPEN JOINT ABOVE FILLER AND FILL WITH JOINT SEALER IN ACCORDANCE WITH INSTRUCTIONS OF SEALER MANUFACTURER.
 - 5. FINISHING: VIBRATE, SCREED AND FLOAT CONCRETE TO LEVEL AND TEST THE SURFACE, WHICH SHALL NOT VARY OVER 1/4" IN TEN FEET WHEN TESTED WITH TEN FOOT STRAIGHT EDGE. FINISH SURFACE TO GRITTY TEXTURE WITH BURLAP DRAG OR STRAIGHT CONTINUOUS STROKES WITH A STIFF BRISTLE PUSH BROOM. FINISH ALL EDGES SMOOTH WITH 1/8" OR 1/4" RADIIUS.

- D. WALKS:
- 1. CONFIGURATIONS: CONSTRUCT TO CROSS-SECTIONAL DETAILS SHOWN ON DRAWINGS AND AT INDICATED LOCATIONS.
 - 2. SAND COURSE: CONCRETE SHALL BE PLACED OVER A SAND COURSE PLACED ON THE STABILIZED SUBGRADE AS SHOWN ON THE DRAWINGS OR A MINIMUM OF 1" THICK IF NOT SHOWN ON THE DRAWINGS.
 - 3. REINFORCING: REINFORCE WITH 6 X 6 X W14, W16, W18, W24, W27, W30, W36, W40, W44, W50, W54, W60, W66, W72, W76, W80, W84, W90, W96, W100, W106, W110, W116, W122, W128, W132, W138, W144, W150, W156, W160, W166, W172, W178, W184, W190, W196, W200, W206, W212, W218, W224, W230, W236, W242, W248, W254, W260, W266, W272, W278, W284, W290, W296, W300, W306, W312, W318, W324, W330, W336, W342, W348, W354, W360, W366, W372, W378, W384, W390, W396, W400, W406, W412, W418, W424, W430, W436, W442, W448, W454, W460, W466, W472, W478, W484, W490, W496, W500, W506, W512, W518, W524, W530, W536, W542, W548, W554, W560, W566, W572, W578, W584, W590, W596, W600, W606, W612, W618, W624, W630, W636, W642, W648, W654, W660, W666, W672, W678, W684, W690, W696, W700, W706, W712, W718, W724, W730, W736, W742, W748, W754, W760, W766, W772, W778, W784, W790, W796, W800, W806, W812, W818, W824, W830, W836, W842, W848, W854, W860, W866, W872, W878, W884, W890, W896, W900, W906, W912, W918, W924, W930, W936, W942, W948, W954, W960, W966, W972, W978, W984, W990, W996, W1000, W1006, W1012, W1018, W1024, W1030, W1036, W1042, W1048, W1054, W1060, W1066, W1072, W1078, W1084, W1090, W1096, W1100, W1106, W1112, W1118, W1124, W1130, W1136, W1142, W1148, W1154, W1160, W1166, W1172, W1178, W1184, W1190, W1196, W1200, W1206, W1212, W1218, W1224, W1230, W1236, W1242, W1248, W1254, W1260, W1266, W1272, W1278, W1284, W1290, W1296, W1300, W1306, W1312, W1318, W1324, W1330, W1336, W1342, W1348, W1354, W1360, W1366, W1372, W1378, W1384, W1390, W1396, W1400, W1406, W1412, W1418, W1424, W1430, W1436, W1442, W1448, W1454, W1460, W1466, W1472, W1478, W1484, W1490, W1496, W1500, W1506, W1512, W1518, W1524, W1530, W1536, W1542, W1548, W1554, W1560, W1566, W1572, W1578, W1584, W1590, W1596, W1600, W1606, W1612, W1618, W1624, W1630, W1636, W1642, W1648, W1654, W1660, W1666, W1672, W1678, W1684, W1690, W1696, W1700, W1706, W1712, W1718, W1724, W1730, W1736, W1742, W1748, W1754, W1760, W1766, W1772, W1778, W1784, W1790, W1796, W1800, W1806, W1812, W1818, W1824, W1830, W1836, W1842, W1848, W1854, W1860, W1866, W1872, W1878, W1884, W1890, W1896, W1900, W1906, W1912, W1918, W1924, W1930, W1936, W1942, W1948, W1954, W1960, W1966, W1972, W1978, W1984, W1990, W1996, W2000, W2006, W2012, W2018, W2024, W2030, W2036, W2042, W2048, W2054, W2060, W2066, W2072, W2078, W2084, W2090, W2096, W2100, W2106, W2112, W2118, W2124, W2130, W2136, W2142, W2148, W2154, W2160, W2166, W2172, W2178, W2184, W2190, W2196, W2200, W2206, W2212, W2218, W2224, W2230, W2236, W2242, W2248, W2254, W2260, W2266, W2272, W2278, W2284, W2290, W2296, W2300, W2306, W2312, W2318, W2324, W2330, W2336, W2342, W2348, W2354, W2360, W2366, W2372, W2378, W2384, W2390, W2396, W2400, W2406, W2412, W2418, W2424, W2430, W2436, W2442, W2448, W2454, W2460, W2466, W2472, W2478, W2484, W2490, W2496, W2500, W2506, W2512, W2518, W2524, W2530, W2536, W2542, W2548, W2554, W2560, W2566, W2572, W2578, W2584, W2590, W2596, W2600, W2606, W2612, W2618, W2624, W2630, W2636, W2642, W2648, W2654, W2660, W2666, W2672, W2678, W2684, W2690, W2696, W2700, W2706, W2712, W2718, W2724, W2730, W2736, W2742, W2748, W2754, W2760, W2766, W2772, W2778, W2784, W2790, W2796, W2800, W2806, W2812, W2818, W2824, W2830, W2836, W2842, W2848, W2854, W2860, W2866, W2872, W2878, W2884, W2890, W2896, W2900, W2906, W2912, W2918, W2924, W2930, W2936, W2942, W2948, W2954, W2960, W2966, W2972, W2978, W2984, W2990, W2996, W3000, W3006, W3012, W3018, W3024, W3030, W3036, W3042, W3048, W3054, W3060, W3066, W3072, W3078, W3084, W3090, W3096, W3100, W3106, W3112, W3118, W3124, W3130, W3136, W3142, W3148, W3154, W3160, W3166, W3172, W3178, W3184, W3190, W3196, W3200, W3206, W3212, W3218, W3224, W3230, W3236, W3242, W3248, W3254, W3260, W3266, W3272, W3278, W3284, W3290, W3296, W3300, W3306, W3312, W3318, W3324, W3330, W3336, W3342, W3348, W3354, W3360, W3366, W3372, W3378, W3384, W3390, W3396, W3400, W3406, W3412, W3418, W3424, W3430, W3436, W3442, W3448, W3454, W3460, W3466, W3472, W3478, W3484, W3490, W3496, W3500, W3506, W3512, W3518, W3524, W3530, W3536, W3542, W3548, W3554, W3560, W3566, W3572, W3578, W3584, W3590, W3596, W3600, W3606, W3612, W3618, W3624, W3630, W3636, W3642, W3648, W3654, W3660, W3666, W3672, W3678, W3684, W3690, W3696, W3700, W3706, W3712, W3718, W3724, W3730, W3736, W3742, W3748, W3754, W3760, W3766, W3772, W3778, W3784, W3790, W3796, W3800, W3806, W3812, W3818, W3824, W3830, W3836, W3842, W3848, W3854, W3860, W3866, W3872, W3878, W3884, W3890, W3896, W3900, W3906, W3912, W3918, W3924, W3930, W3936, W3942, W3948, W3954, W3960, W3966, W3972, W3978, W3984, W3990, W3996, W4000, W4006, W4012, W4018, W4024, W4030, W4036, W4042, W4048, W4054, W4060, W4066, W4072, W4078, W4084, W4090, W4096, W4100, W4106, W4112, W4118, W4124, W4130, W4136, W4142, W4148, W4154, W4160, W4166, W4172, W4178, W4184, W4190, W4196, W4200, W4206, W4212, W4218, W4224, W4230, W4236, W4242, W4248, W4254, W4260, W4266, W4272, W4278, W4284, W4290, W4296, W4300, W4306, W4312, W4318, W4324, W4330, W4336, W4342, W4348, W4354, W4360, W4366, W4372, W4378, W4384, W4390, W4396, W4400, W4406, W4412, W4418, W4424, W4430, W4436, W4442, W4448, W4454, W4460, W4466, W4472, W4478, W4484, W4490, W4496, W4500, W4506, W4512, W4518, W4524, W4530, W4536, W4542, W4548, W4554, W4560, W4566, W4572, W4578, W4584, W4590, W4596, W4600, W4606, W4612, W4618, W4624, W4630, W4636, W4642, W4648, W4654, W4660, W4666, W4672, W4678, W4684, W4690, W4696, W4700, W4706, W4712, W4718, W4724, W4730, W4736, W4742, W4748, W4754, W4760, W4766, W4772, W4778, W4784, W4790, W4796, W4800, W4806, W4812, W4818, W4824, W4830, W4836, W4842, W4848, W4854, W4860, W4866, W4872, W4878, W4884, W4890, W4896, W4900, W4906, W4912, W4918, W4924, W4930, W4936, W4942, W4948, W4954, W4960, W4966, W4972, W4978, W4984, W4990, W4996, W5000, W5006, W5012, W5018, W5024, W5030, W5036, W5042, W5048, W5054, W5060, W5066, W5072, W5078, W5084, W5090, W5096, W5100, W5106, W5112, W5118, W5124, W5130, W5136, W5142, W5148, W5154, W5160, W5166, W5172, W5178, W5184, W5190, W5196, W5200, W5206, W5212, W5218, W5224, W5230, W5236, W5242, W5248, W5254, W5260, W5266, W5272, W5278, W5284, W5290, W5296, W5300, W5306, W5312, W5318, W5324, W5330, W5336, W5342, W5348, W5354, W5360, W5366, W5372, W5378, W5384, W5390, W5396, W5400, W5406, W5412, W5418, W5424, W5430, W5436, W5442, W5448, W5454, W5460, W5466, W5472, W5478, W5484, W5490, W5496, W5500, W5506, W5512, W5518, W5524, W5530, W5536, W5542, W5548, W5554, W5560, W5566, W5572, W5578, W5584, W5590, W5596, W5600, W5606, W5612, W5618, W5624, W5630, W5636, W5642, W5648, W5654, W5660, W5666, W5672, W5678, W5684, W5690, W5696, W5700, W5706, W5712, W5718, W5724, W5730, W5736, W5742, W5748, W5754, W5760, W5766, W5772, W5778, W5784, W5790, W5796, W5800, W5806, W5812, W5818, W5824, W5830, W5836, W5842, W5848, W5854, W5860, W5866, W5872, W5878, W5884, W5890, W5896, W5900, W5906, W5912, W5918, W5924, W5930, W5936, W5942, W5948, W5954, W5960, W5966, W5972, W5978, W5984, W5990, W5996, W6000, W6006, W6012, W6018, W6024, W6030, W6036, W6042, W6048, W6054, W6060, W6066, W6072, W6078, W6084, W6090, W6096, W6100, W6106, W6112, W6118, W6124, W6130, W6136, W6142, W6148, W6154, W6160, W6166, W6172, W6178, W6184, W6190, W6196, W6200, W6206, W6212, W6218, W6224, W6230, W6236, W6242, W6248, W6254, W6260, W6266, W6272, W6278, W6284, W6290, W6296, W6300, W6306, W6312, W6318, W6324, W6330, W6336, W6342, W6348, W6354, W6360, W6366, W6372, W6378, W6384, W6390, W6396, W6400, W6406, W6412, W6418, W6424, W6430, W6436, W6442, W6448, W6454, W6460, W6466, W6472, W6478, W6484, W6490, W6496, W6500, W6506, W6512, W6518, W6524, W6530, W6536, W6542, W6548, W6554, W6560, W6566, W6572, W6578, W6584, W6590, W6596, W6600, W6606, W6612, W6618, W6624, W6630, W6636, W6642, W6648, W6654, W6660, W6666, W6672, W6678, W6684, W6690, W6696, W6700, W6706, W6712, W6718, W6724, W6730, W6736, W6742, W6748, W6754, W6760, W6766, W6772, W6778, W6784, W6790, W6796, W6800, W6806, W6812, W6818, W6824, W6830, W6836, W6842, W6848, W6854, W6860, W6866, W6872, W6878, W6884, W6890, W6896, W6900, W6906, W6912, W6918, W6924, W6930, W6936, W6942, W6948, W6954, W6960, W6966, W6972, W6978, W6984, W6990, W6996, W7000, W7006, W7012, W7018, W7024, W7030, W7036, W7042, W7048, W7054, W7060, W7066, W7072, W7078, W7084, W7090, W7096, W7100, W7106, W7112, W7118, W7124, W7130, W7136, W7142, W7148, W7154, W7160, W7166, W7172, W7178, W7184, W7190, W7196, W7200, W7206, W7212, W7218, W7224, W7230, W7236, W7242, W7248, W7254, W7260, W7266, W7272, W7278, W7284, W7290, W7296, W7300, W7306, W7312, W7318, W7324, W7330, W7336, W7342, W7348, W7354, W7360, W7366, W7372, W7378, W7384, W7390, W7396, W7400, W7406, W7412, W7418, W7424, W7430, W7436, W7442, W7448, W7454, W7460, W7466, W7472, W7478, W7484, W7490, W7496, W7500, W7506, W7512, W7518, W7524, W7530, W7536, W7542, W7548, W7554, W7560, W7566, W7572, W7578, W7584, W7590, W7596, W7600, W7606, W7612, W7618, W7624, W7630, W7636, W7642, W7648, W7654, W7660, W7666, W7672, W7678, W7684, W7690, W7696, W7700, W7706, W7712, W7718, W7724, W7730, W7736, W7742, W7748, W7754, W7760, W7766, W7772, W7778, W7784, W7790, W7796, W7800, W7806, W7812, W7818, W7824, W7830, W7836, W7842, W7848, W7854, W7860, W7866, W7872, W7878, W7884, W7890, W7896, W7900, W7906, W7912, W7918, W7924, W7930, W7936, W7942, W7948, W7954, W7960, W7966, W7972, W7978, W7984, W7990, W7996, W8000, W8006, W8012, W8018, W8024, W8030, W8036, W8042, W8048, W8054, W8060, W8066, W8072, W8078, W8084, W8090, W8096, W8100, W8106, W8112, W8118, W8124, W8130, W8136, W8142, W8148, W8154, W8160, W8166, W8172, W8178, W8184, W8190, W8196, W8200, W8206, W8212, W8218, W8224, W8230, W8236, W8242, W8248, W8254, W8260, W8266, W8272, W8278, W8284, W8290, W8296, W8300, W8306, W8312, W8318, W8324, W8330, W8336, W8342, W8348, W8354, W8360, W8366, W8372, W8378, W8384, W8390, W8396, W8400, W8406, W8412, W8418, W8424, W8430, W8436, W8442, W8448, W8454, W8460, W8466, W8472, W8478, W8484, W8490, W8496, W8500, W8506, W8512, W8518, W8524, W8530, W8536, W8542, W8548, W8554, W8560, W8566, W8572, W8578, W8584, W8590, W8596, W8600, W8606, W8612, W8618, W8624, W8630, W8636, W8642, W8648, W8654, W8660, W8666, W8672, W8678, W8684, W8690, W8696, W8700, W8706, W8712, W8718, W8724, W8730, W8736, W8742, W8748, W8754, W8760, W8766, W8772, W8778, W8784, W8790, W8796, W8800, W8806, W8812, W8818, W8824, W8830, W8836, W8842, W8848, W8854, W8860, W8866, W8872, W8878, W8884, W8890, W8896, W8900, W8906, W8912, W8918, W8924, W8930, W8936, W8942, W8948, W8954, W8960, W8966, W8972, W8978, W8984, W8990, W8996, W9000, W9006, W9012, W9018, W9024, W9030, W9036, W9042, W9048, W9054, W9060, W9066, W9072, W9078, W9084, W9090, W9096, W9100, W9106, W9112, W9118, W9124, W9130, W9136, W9142, W9148, W9154, W9160, W9166, W9172, W9178, W9184, W9190, W9196, W9200, W9206, W9212, W9218, W9224, W9230, W9236, W9242, W9248, W9254, W9260, W9266, W9272, W9278, W9284, W9290, W9296, W9300, W9306, W9312, W9318, W9324, W9330, W9336, W9342, W9348, W9354, W9360, W9366, W9372, W9378, W9384, W9390, W9396, W9400, W9406, W9412, W9418, W9424, W9430, W9436, W9442, W9448, W9454, W9460, W9466, W9472, W9478, W9484, W9490, W9496, W9500, W9506, W9512, W9518, W9524, W9530, W9536, W9542, W9548, W9554, W9560, W9566, W9572, W9578, W9584, W9590, W9596, W9600, W9606, W9612, W9618, W9624, W9630, W9636, W9642, W9648, W9654, W9660, W9666, W9672, W9678, W9684, W9690, W9696, W9700, W9706, W9712, W9718, W9724, W9730, W9736, W9742, W9748, W9754, W9760, W9766, W9772, W9778, W9784, W9790, W9796, W9800, W9806, W9812, W9818, W9824, W9830, W9836, W9842, W9848, W9854, W9860, W9866, W9872, W9878, W9884, W9890, W9896, W9900, W9906, W9912, W9918, W9924, W9930, W9936, W9942, W9948, W9954, W9960, W9966, W9972, W9978, W9984, W9990, W9996, W10000, W10006, W10012, W10018, W10024, W10030, W10036, W10042, W10048, W10054, W10060, W10066, W10072, W10078, W10084, W10090, W10

DIVISION 05 - METALS SECTION 05120- STRUCTURAL STEEL 1. SUBMITTALS A. SHOP DRAWINGS: SUBMIT TO ARCHITECT, INDICATE SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS, LOADS, AND WELDED CONNECTIONS. B. PROVIDE SETTING DRAWINGS, TEMPLATES, AND DIRECTIONS FOR INSTALLATION OF ANCHOR BOLTS AND OTHER ANCHORAGES TO BE INSTALLED AS WORK OF OTHER SECTIONS. 2. REFERENCE STANDARDS A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES". B. AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS," INCLUDING "COMMENTARY". C. "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS" APPROVED BY RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS. D. AMERICAN WELDING SOCIETY (AWS) D1.1 "STRUCTURAL WELDING CODE - STEEL." 3. QUALITY ASSURANCE A. PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. 4. DELIVERY, STORAGE, AND HANDLING A. STORE MATERIALS TO PERMIT EASY ACCESS FOR INSPECTION AND IDENTIFICATION. KEEP STEEL MEMBERS OFF GROUND BY USING PALLETS, PLATFORMS, OR OTHER SUPPORTS. PROTECT STEEL MEMBERS AND PACKAGES MATERIALS FROM EROSION AND DETEIORATION. IF BOLTS AND NUTS BECOME DRY OR RUSTY, CLEAN AND RE-LUBRICATE BEFORE USE. 5. MATERIALS A. STRUCTURAL STEEL SHAPES, PLATES, AND BARS: ASTM A 36. B. STRUCTURAL STEEL TUBING: ASTM A500, GRADE B. C. ANCHOR BOLTS: ASTM A308, NON-HEADED TYPE UNLESS OTHERWISE INDICATED. D. QUENCHED AND TEMPERED MEDIUM-CARBON STEEL BOLTS, NUTS, AND WASHERS, COMPLYING WITH ASTM A 325. E. ELECTRODES FOR WELDING: E70XX, COMPLY WITH AWS CODE. F. STRUCTURAL STEEL PRIMER PAINT: TM66C-10-89 (OR EQUAL). G. NONMETALLIC SHRAPNEL-RESISTANT GROUT: PREMIXED, NONMETALLIC, NON-CORROSIVE, NON-STAINING GROUT CONTAINING SELECTED SILICA SANDS, PORTLAND CEMENT, SHRINKING AGENT, COMPENSATING AGED SANDS AND WATER-REDUCING AGENTS, COMPLYING WITH CE-CRD-0821. 6. FABRICATION A. SHOP FABRICATION AND ASSEMBLY: FABRICATE AND ASSEMBLE STRUCTURAL ASSEMBLIES IN SHOP TO SPECIFIED EXTENT POSSIBLE. B. PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY. C. CONNECTIONS: WELD OR BOLT SHOP CONNECTIONS, AS INDICATED. BOLT FIELD CONNECTIONS, EXCEPT WHERE WELDED CONNECTIONS OR OTHER CONNECTIONS ARE INDICATED. D. HIGH-STRENGTH BOLT CONSTRUCTION: INSTALL HIGH-STRENGTH THREADED FASTENERS IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS". E. CUT, DRILL, OR PUNCH HOLES PERPENDICULAR TO METAL SURFACE. DO NOT FLAME-CUT HOLES OR ENLARGE HOLES BY BURNING. F. SHOP PAINTING: SHOP-PAINT ALL STRUCTURAL STEEL. G. IMMEDIATELY AFTER SURFACE PREPARATION, APPLY STRUCTURAL STEEL PRIMER PAINT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND AT A RATE TO PROVIDE DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS. USE PAINTING METHODS THAT RESULT IN FULL COVERAGE OF JOINTS, CORNERS, EDGES, AND EXPOSED SURFACES. 8. ERECTION A. TEMPORARY SHORING AND BRACING: PROVIDE TEMPORARY SHORING AND BRACING MEMBERS WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS AND AS REQUIRED BY APPLICABLE LAWS AND REGULATIONS. B. FIELD ASSEMBLY: SET STRUCTURAL STEEL ACCURATELY TO LINES AND ELEVATIONS INDICATED. ALIGN AND ADJUST VARIOUS MEMBERS FORMING PART OF COMPLETE FRAME OR STRUCTURE BEFORE PERMANENTLY FASTENING. CLEAN BEARING SURFACES AND OTHER SURFACES THAT WILL BE IN PERMANENT CONTACT BEFORE ASSEMBLY. MAKE NECESSARY ADJUSTMENTS TO COMPENSATE FOR DISCREPANCIES IN ELEVATIONS AND ALIGNMENT. LEVEL AND PLUMB INDIVIDUAL MEMBERS OF STRUCTURE WITHIN SPECIFIED AISC TOLERANCES. SPlice MEMBERS ONLY WHERE INDICATED AND ACCEPTED ON SHOP DRAWINGS. SECTION 05500 METAL FABRICATIONS 1. SUMMARY A. WORK OF THIS SECTION CONSISTS OF INSTALLING ALL MATERIALS FURNISHED UNDER THIS SECTION, INCLUDING ALL EQUIPMENT, LABOR, SERVICES, AND INCIDENTAL ITEMS REQUIRED TO COMPLETE WORK AS SHOWN ON DRAWINGS AND SPECIFIED IN THIS SECTION. 1. MISCELLANEOUS FRAMING AND SUPPORTS FOR WORK IN OTHER SECTIONS TO INCLUDE APPLICATIONS WHERE FRAMING AND SUPPORTS ARE NOT SPECIFIED IN OTHER SECTIONS. 2. STEEL LINTELS, CLIP ANGLES, ETC. 3. STEEL PIPE BOLLARDS. 4. STEEL PLATE WINDOW COUPLINGS. 5. STEEL PLATE CANOPY. 6. GATES AT DUMPMSTER AREA. 7. STEEL TUBE FRAMEWORK FOR NO CLIMB NETTING. 8. STEEL LADDERS. 9. TENSION ROD TURNBUCKLE MEDALLION. 2. SUBMITTALS A. WELDER CERTIFICATES SIGNED BY CONTRACTOR CERTIFYING WELDERS COMPLY WITH REQUIREMENTS OF THIS SECTION. B. FABRICATOR SHALL BE RESPONSIBLE FOR DESIGN OF CONNECTIONS NOT SPECIFICALLY SHOWN ON THE DRAWINGS AND FOR MEMBER DIMENSIONS AND FIT. 3. QUALITY ASSURANCE A. QUALIFICATIONS: 1. WELDING AND WELDERS: a. QUALIFY WELDING PROCESSES AND WELDING OPERATORS IN ACCORDANCE WITH AWS D1.1, STRUCTURAL WELDING CODE - STEEL; D1.3, STRUCTURAL WELDING CODE SHEET STEEL; AND D1.2, STRUCTURAL WELDING CODE - ALUMINUM. b. CERTIFY EACH WELDER HAS SATISFACTORILY PASSED AWS QUALIFICATION TEST FOR WELDING PROCESSES INVOLVED AND IF PERTINENT, HAS UNDERGONE RECERTIFICATION. 4. MATERIALS A. FERROUS METALS: 1. METAL SURFACES: GENERAL: FOR FABRICATION OF MISCELLANEOUS METAL WORK WHICH WILL BE EXPOSED TO VIEW, USE ONLY MATERIALS WHICH ARE FREE OF SURFACE BLEMISHES INCLUDING PITTING, SEAM MARKS, ROLLED TRADE NAMES, AND ROUGHNESSES. 2. STEEL PLATES, SHAPES AND BARS: ASTM A36. 3. STEEL TUBING: COLD-FORMED, ASTM A500; GRADE A, UNLESS OTHERWISE INDICATED OR REQUIRED FOR DESIGN LOADS. 4. STEEL TUBING: HOT-FORMED, ASTM A501 FOR EXTERIOR INSTALLATIONS AND WHERE INDICATED PROVIDED WITH HOT-DIP GALVANIZED COATING PER ASTM A53. 5. BRACKETS, FLANGES AND ANCHORS: CAST OR FORMED METAL, OF SAME TYPE MATERIAL, AND FINISH AS SUPPORTED PARTS, UNLESS OTHERWISE INDICATED. 6. STEEL DECK PANELS AT SERVICE YARD GATES: ASTM A446 WITH G30 GALVANIZED COATING, STEEL ASTM A616, GRADE C, SHOP PRIMED. 7. CONCRETE INSERTS: a. THREADED ROD WEDGE - TYPE: GALVANIZED FERROUS CASTINGS, EITHER MALLEABLE IRON, ASTM A47, OR CAST STEEL, ASTM A7. b. PROVIDE BOLTS, WASHERS AND SHIMS AS REQUIRED; HOT-DIP GALVANIZED, ASTM A153. 8. DECORATIVE PLATE STEEL, WALL INSTALLATION: 1. GAUGE STEEL PLATE, NO FINISH, NO PRIMER. 2. SEALER: JONES BLAIR "ACRYLITHANE 23 CLEAR COAT". C. GROUT: 1. NONSHRINKING NONMETALLIC GROUT: a. PREMIXED, FACTORY PACKAGED, NON-STAINING, NON-CORROSIVE, NON-GASEOUS GROUT COMPLYING WITH CE-CRD-0821. b. PROVIDE GROUT SPECIFICALLY RECOMMENDED BY MANUFACTURER FOR INTERIOR AND EXTERIOR APPLICATIONS OF TYPE SPECIFIED IN THIS SECTION. 1. GENERAL: a. PROVIDE HOT-DIPPED GALVANIZED FASTENERS FOR EXTERIOR USE OR WHERE BUILT INTO EXTERIOR WALLS. b. SELECT FASTENERS FOR TYPE, GRADE, AND CLASS REQUIRED. 2. BOLTS AND NUTS: REGULAR HEXAGON-HEAD TYPE, ASTM A307, GRADE A. 3. LAG BOLTS: SQUARE-HEAD TYPE, FS FF-B-561. 4. MACHINE SCREWS: CADMIUM PLATED STEEL, FS FF-B-92. 5. WOOD SCREWS: FLAT HEAD CARBON STEEL, FS FF-B-111. 6. PLAIN WASHERS: ROUND, CARBON STEEL, FS FF-W-62. 7. DRILLED-IN EXPANSION ANCHORS: COMPLY WITH FS FF-S-325, GROUP III (ANCHORS, EXPANSION, NON-DRILLING), TYPE (INTERNALLY THREADED) TUBULAR EXPANSION ANCHOR), AND MACHINE BOLTS COMPLYING WITH FS FF-B-575, GRADE 5. 8. TOGGLE BOLTS: TUMBLE - WING - TYPE, FS FF-B-588, TYPE, CLASS, AND STYLE AS REQUIRED. 9. LOCK WASHERS: HELICAL - SPRING - TYPE CARBON STEEL, FS FF-W-84. 5. FABRICATION 1. GENERAL: a. FORM METAL FABRICATIONS FROM MATERIALS OF SIZE, THICKNESS, AND SHAPES INDICATED, BUT NOT LESS THAN THAT NEEDED TO COMPLY WITH PERFORMANCE REQUIREMENTS INDICATED. b. WORK TO DIMENSIONS INDICATED OR ACCEPTED ON SHOP DRAWINGS, USING PROVEN DETAILS OF FABRICATION AND SUPPORT. c. USE TYPE OF MATERIALS INDICATED OR SPECIFIED FOR VARIOUS COMPONENTS OF EACH METAL FABRICATION. d. FORM EXPOSED WORK TRUE TO LINE AND LEVEL WITH ACCURATE ANGLES AND SURFACES AND STRAIGHT SHARP EDGES. e. SHEAR AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS. f. EASE EXPOSED EDGES TO RADIUS OF APPROXIMATELY 1/32 IN. 2. CENTER SPACING: MATCH TO SMALLEST RADIUS POSSIBLE WITHOUT CAUSING GRAIN SEPARATION OR OTHERWISE IMPAIRING WORK. 3. REMOVE SHARP OR ROUGH AREAS ON EXPOSED TRAFFIC SURFACES. 4. WELDING: a. WELD CORNERS AND SEAMS CONTINUOUSLY, COMPLYING AWS RECOMMENDATIONS. b. EXPOSED CONNECTIONS: GRIND EXPOSED WELDS SMOOTH AND FLUSH TO MATCH AND BLEND WITH ADJOINING SURFACES. 10. ANCHORAGE: A. PROVIDE FOR ANCHORAGE OF TYPE INDICATED, COORDINATED WITH SUPPORTING STRUCTURE. B. FABRICATE AND SPACE ANCHORING DEVICES TO PROVIDE ADEQUATE SUPPORT FOR INTENDED USE. 2. MISCELLANEOUS FRAMING AND SUPPORTS: 1. PROVIDE MISCELLANEOUS STEEL FRAMING AND SUPPORTS WHICH ARE NOT PART OF STRUCTURAL STEEL FRAMEWORK, AS REQUIRED TO COMPLETE WORK. 2. FABRICATE MISCELLANEOUS UNITS TO SIZES, SHAPES, AND PROFILES INDICATED OR, IF NOT INDICATED, OF REQUIRED DIMENSIONS TO RECEIVE ADJOINED OTHER WORK. 3. EXCEPT AS OTHERWISE INDICATED, FABRICATE FROM STRUCTURAL STEEL SHAPES, PLATES, AND STEEL BARS OF WELDED CONSTRUCTION USING MITERED JOINTS FOR GREAT CONNECTIONS. 4. CUT, DRILL, AND TAP UNITS TO RECEIVE HARDWARE AND SIMILAR ITEMS. 5. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 6. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 7. CONSTRUCTION PANELS A. CONCEALED PERFORMANCE - RATED STRUCTURAL USE PANELS: 1. GENERAL: WHERE STRUCTURAL USE PANELS ARE INDICATED FOR THE FOLLOWING CONCEALED TYPES OF APPLICATIONS, PROVIDE A PERFORMANCE RATED PANELS COMPLYING WITH REQUIREMENTS DESIGNATED UNDER EACH APPLICATION FOR GRADE, SPAN RATING, EXPOSURE - DURABILITY CLASSIFICATIONS, EDGE DETAIL, WHERE APPLICABLE. 2. WALL SHEATHING: A RATED SHEATHING, EXTERIOR WITH SPAN RATING TO SUIT STUD SPACING. 3. ROOF SHEATHING: A RATED STRUCTURAL 1 RATED SHEATHING, EXTERIOR WITH SPAN RATING TO SUIT RAFTER SPACING. B. OTHER APPLICATIONS: 1. CONCEALED PLYWOOD: PS 1, C-C PLUGGED, EXTERIOR GRADE. 2. EXPOSED PLYWOOD: PS 1, A-D, INTERIOR GRADE. 3. ELECTRIC COMPONENT MOUNTING: A RATED SHEATHING, FIRE RETARDANT TREATED. 8. ACCESSORIES A. FASTENERS AND ANCHORS: 1. METAL AND FINISH: HOT-DIPPED GALVANIZED STEEL, PER ASTM A 153A 153M FOR HIGH HUMIDITY AND PERSERVATIVE - TREATED WOOD UNLESS OTHERWISE SPECIFIED ELSEWHERE. 2. NAILS, WIRE, BRAG, AND STAPLES: FS FF-N-105. 3. POWER DRIVEN FASTENERS: NAIL EVALUATION REPORT NER-272. 4. WOOD SCREWS: ANSI B16.1. 5. LAS BOLTS: ANSI B16.1. 6. BOLT SCREWS: COMPLYING WITH ASTM A307, GRADE A; WITH ASTM A563 HEX NUTS AND, WHERE INDICATED, PLAT WASHERS. B. JOIST HANGERS: HOT-DIPPED GALVANIZED STEEL, SIZED TO SUIT FRAMING CONDITIONS. 9. FACTORY WOOD TREATMENT A. TREATED LUMBER AND PLYWOOD: COMPLY WITH REQUIREMENTS OF AWWA U1 - USE CATEGORY SYSTEM FOR WOOD TREATMENTS DETERMINED BY USE CATEGORIES, EXCEPTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS. B. FIRE RETARDANT TREATMENT: AWWA TREATMENT C20, EXTERIOR TYPE, CHEMICAL TREATMENT PRESURE IMPREGNATED: CAPABLE OF PROVIDING A MAXIMUM FLAME SPREAD/SMOKE DEVELOPMENT RATING OF 2500 MINUTE DURATION. C. PRESERVATIVE PRESURE TREATMENT OF LUMBER ABOVE GRADE: AWWA USE CATEGORY U20B, COMMODITY SPECIFICATION 1 (TREATMENT C2) USING WATERBORNE PRESERVATIVE TO 10 LBS/FT³ RETENTION. 1. KILN DRY LUMBER AFTER TREATMENT TO MAXIMUM MOISTURE CONTENT OF 19 PERCENT. 2. TREAT LUMBER IN CONTACT WITH ROOFING, FLASHING OR WATERPROOFING. 3. TREAT LUMBER IN CONTACT WITH MASONRY OR CONCRETE. D. PRESURE TREATMENT OF LUMBER IN CONTACT WITH SOIL AND CONCRETE: AWWA TREATMENT C2 USING PRESERVATIVE TO 10 LBS/FT³ RETENTION. 1. PRESERVATIVE FOR FIELD APPLICATION TO CUT SURFACES: AS RECOMMENDED BY MANUFACTURER OF FACTORY TREATMENT CHEMICALS FOR BRUSH-APPLICATION IN THE FIELD. 10. FRAMING INSTALLATION A. SET STRUCTURAL MEMBERS LEVEL, PLUMB, AND TRUE TO LINE. DISCARD PIECES WITH DEFECTS THAT WOULD LOWER REQUIRED STRENGTH OR RESULT IN UNDESIRABLE APPEARANCE OR EXPOSED MEMBERS. B. MAKE PROPER CONNECTIONS TO EXISTING CONSTRUCTION LOADS, AND PROVIDE TEMPORARY BRACING SUFFICIENT TO MAINTAIN STRUCTURE IN TRUE ALIGNMENT AND SAFE CONDITION UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING. C. INSTALL STRUCTURAL MEMBERS FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE SPECIFICALLY DETAILLED. D. COMPLY WITH MEMBER SIZES, SPACING, AND CONFIGURATIONS INDICATED, AND FASTENER SIZE AND SPACING INDICATED, BUT NOT LESS THAN REQUIRED BY APPLICABLE CODES AND AFWA WOOD FRAME CONSTRUCTION MANUAL. E. CONSTRUCT DOOR AND WINDOW HEADS AT FLUSH AND CEILING OPENINGS AND UNDER WALL STUD PARTITIONS THAT ARE PARALLEL TO FLOOR JOISTS. USE METAL JOIST HANGERS UNLESS OTHERWISE DETAILLED. F. FRAME OPENINGS WITH TWO OR MORE STUDS AT EACH JAMB; SUPPORT HEADERS ON CRIPPLE STUDS. SECTION 06100 - SHEATHING (ZIP SYSTEM SHEATHING) 1. SUMMARY A. SECTION INCLUDES 1. WALL SHEATHING WITH INTEGRAL WATER-RESISTIVE BARRIER AND AIR BARRIER. 2. REFERENCES A. ASTM INTERNATIONAL (ASTM): 1. ASTM A153A153M - STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL, HARDWARE. 2. ASTM D569 - STANDARD TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS. 3. ASTM E119 - STANDARD TEST METHODS FOR FIRE TESTS OF BUILDING. 4. ASTM E2357 - STANDARD TEST METHOD FOR DETERMINING AIR LEAKAGE OF AIR BARRIER ASSEMBLIES. B. INTERNATIONAL CODE COUNCIL (ICC): 1. ICC BC - INTERNATIONAL BUILDING CODE. 2. ICC EVALUATION SERVICE, INC. (ICC-ES): a. ICC-ES AC308 - ACCEPTANCE CRITERIA FOR WEATHER RESISTIVE BARRIERS. b. ICC-ES AC116 - ACCEPTANCE CRITERIA FOR NAILS AND SPIKES. c. ICC-ES AC148 - ACCEPTANCE CRITERIA FOR FLEXIBLE FLASHING MATERIALS. d. ICC-ES AC209 - ACCEPTANCE CRITERIA FOR WATER-RESISTIVE MEMBRANES FACTORY-BONDED TO WOOD-BASED STRUCTURAL SHEATHING, USED AS WATER-RESISTIVE BARRIERS. e. ICC-ES ESR-1526 - POWER DRIVEN STAPLES AND NAILS FOR USE IN ENGINEERED AND NON-ENGINEERED CONNECTIONS. f. ICC-ES NER-222 - POWER DRIVEN STAPLES AND NAILS FOR USE IN ALL TYPES OF BUILDING CONSTRUCTION. 3. SUBMITTALS A. PRODUCT DATA: FOR EACH TYPE OF SHEATHING PRODUCT SPECIFIED. B. EVALUATION REPORTS: FROM ICC-ES, FOR WOOD SHEATHING AND SEAM TAPE. C. PRODUCT CERTIFICATIONS: FROM MANUFACTURER, INDICATING THAT SHEATHING PRODUCTS COMPLY WITH ALL APPLICABLE CODES AND STANDARDS. D. FLORIDA BUILDING CODE SUPPLEMENT: SUBMIT DOCUMENTATION INDICATING THAT PRODUCTS COMPLY WITH REQUIREMENTS OF FLORIDA BUILDING CODE FOR PROJECTS IN THAT STATE. E. WARRANTY: EXECUTED COPY OF MANUFACTURER SPECIAL WARRANTIES. 4. QUALITY ASSURANCE A. PROVIDE WALL SHEATHING PRODUCTS MEETING REQUIREMENTS FOR WATER-RESISTIVE BARRIER IN ACCORDANCE WITH ICC-ES AC308. B. FLORIDA BUILDING CODE COMPLIANCE: PROVIDE SHEATHING COMPLYING WITH FLORIDA BUILDING CODE PRODUCT AND INSTALLATION REQUIREMENTS FOR LOCATIONS IN FLORIDA AND OUTSIDE OF HIGH WIND/VIBRACY WIND ZONE. 1. GENERAL: a. PROVIDE HOT-DIPPED GALVANIZED FASTENERS FOR EXTERIOR USE OR WHERE BUILT INTO EXTERIOR WALLS. b. SELECT FASTENERS FOR TYPE, GRADE, AND CLASS REQUIRED. 2. BOLTS AND NUTS: REGULAR HEXAGON-HEAD TYPE, ASTM A307, GRADE A. 3. LAG BOLTS: SQUARE-HEAD TYPE, FS FF-B-561. 4. MACHINE SCREWS: CADMIUM PLATED STEEL, FS FF-B-92. 5. WOOD SCREWS: FLAT HEAD CARBON STEEL, FS FF-B-111. 6. PLAIN WASHERS: ROUND, CARBON STEEL, FS FF-W-62. 7. DRILLED-IN EXPANSION ANCHORS: COMPLY WITH FS FF-S-325, GROUP III (ANCHORS, EXPANSION, NON-DRILLING), TYPE (INTERNALLY THREADED) TUBULAR EXPANSION ANCHOR), AND MACHINE BOLTS COMPLYING WITH FS FF-B-575, GRADE 5. 8. TOGGLE BOLTS: TUMBLE - WING - TYPE, FS FF-B-588, TYPE, CLASS, AND STYLE AS REQUIRED. 9. LOCK WASHERS: HELICAL - SPRING - TYPE CARBON STEEL, FS FF-W-84. 5. FABRICATION 1. GENERAL: a. FORM METAL FABRICATIONS FROM MATERIALS OF SIZE, THICKNESS, AND SHAPES INDICATED, BUT NOT LESS THAN THAT NEEDED TO COMPLY WITH PERFORMANCE REQUIREMENTS INDICATED. b. WORK TO DIMENSIONS INDICATED OR ACCEPTED ON SHOP DRAWINGS, USING PROVEN DETAILS OF FABRICATION AND SUPPORT. c. USE TYPE OF MATERIALS INDICATED OR SPECIFIED FOR VARIOUS COMPONENTS OF EACH METAL FABRICATION. d. FORM EXPOSED WORK TRUE TO LINE AND LEVEL WITH ACCURATE ANGLES AND SURFACES AND STRAIGHT SHARP EDGES. e. SHEAR AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS. f. EASE EXPOSED EDGES TO RADIUS OF APPROXIMATELY 1/32 IN. 2. CENTER SPACING: MATCH TO SMALLEST RADIUS POSSIBLE WITHOUT CAUSING GRAIN SEPARATION OR OTHERWISE IMPAIRING WORK. 3. REMOVE SHARP OR ROUGH AREAS ON EXPOSED TRAFFIC SURFACES. 4. WELDING: a. WELD CORNERS AND SEAMS CONTINUOUSLY, COMPLYING AWS RECOMMENDATIONS. b. EXPOSED CONNECTIONS: GRIND EXPOSED WELDS SMOOTH AND FLUSH TO MATCH AND BLEND WITH ADJOINING SURFACES. 10. ANCHORAGE: A. PROVIDE FOR ANCHORAGE OF TYPE INDICATED, COORDINATED WITH SUPPORTING STRUCTURE. B. FABRICATE AND SPACE ANCHORING DEVICES TO PROVIDE ADEQUATE SUPPORT FOR INTENDED USE. 2. MISCELLANEOUS FRAMING AND SUPPORTS: 1. PROVIDE MISCELLANEOUS STEEL FRAMING AND SUPPORTS WHICH ARE NOT PART OF STRUCTURAL STEEL FRAMEWORK, AS REQUIRED TO COMPLETE WORK. 2. FABRICATE MISCELLANEOUS UNITS TO SIZES, SHAPES, AND PROFILES INDICATED OR, IF NOT INDICATED, OF REQUIRED DIMENSIONS TO RECEIVE ADJOINED OTHER WORK. 3. EXCEPT AS OTHERWISE INDICATED, FABRICATE FROM STRUCTURAL STEEL SHAPES, PLATES, AND STEEL BARS OF WELDED CONSTRUCTION USING MITERED JOINTS FOR GREAT CONNECTIONS. 4. CUT, DRILL, AND TAP UNITS TO RECEIVE HARDWARE AND SIMILAR ITEMS. 5. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 6. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 7. CONSTRUCTION PANELS A. CONCEALED PERFORMANCE - RATED STRUCTURAL USE PANELS: 1. GENERAL: WHERE STRUCTURAL USE PANELS ARE INDICATED FOR THE FOLLOWING CONCEALED TYPES OF APPLICATIONS, PROVIDE A PERFORMANCE RATED PANELS COMPLYING WITH REQUIREMENTS DESIGNATED UNDER EACH APPLICATION FOR GRADE, SPAN RATING, EXPOSURE - DURABILITY CLASSIFICATIONS, EDGE DETAIL, WHERE APPLICABLE. 2. WALL SHEATHING: A RATED SHEATHING, EXTERIOR WITH SPAN RATING TO SUIT STUD SPACING. 3. ROOF SHEATHING: A RATED STRUCTURAL 1 RATED SHEATHING, EXTERIOR WITH SPAN RATING TO SUIT RAFTER SPACING. B. OTHER APPLICATIONS: 1. CONCEALED PLYWOOD: PS 1, C-C PLUGGED, EXTERIOR GRADE. 2. EXPOSED PLYWOOD: PS 1, A-D, INTERIOR GRADE. 3. ELECTRIC COMPONENT MOUNTING: A RATED SHEATHING, FIRE RETARDANT TREATED. 8. ACCESSORIES A. FASTENERS AND ANCHORS: 1. METAL AND FINISH: HOT-DIPPED GALVANIZED STEEL, PER ASTM A 153A 153M FOR HIGH HUMIDITY AND PERSERVATIVE - TREATED WOOD UNLESS OTHERWISE SPECIFIED ELSEWHERE. 2. NAILS, WIRE, BRAG, AND STAPLES: FS FF-N-105. 3. POWER DRIVEN FASTENERS: NAIL EVALUATION REPORT NER-272. 4. WOOD SCREWS: ANSI B16.1. 5. LAS BOLTS: ANSI B16.1. 6. BOLT SCREWS: COMPLYING WITH ASTM A307, GRADE A; WITH ASTM A563 HEX NUTS AND, WHERE INDICATED, PLAT WASHERS. B. JOIST HANGERS: HOT-DIPPED GALVANIZED STEEL, SIZED TO SUIT FRAMING CONDITIONS. 9. FACTORY WOOD TREATMENT A. TREATED LUMBER AND PLYWOOD: COMPLY WITH REQUIREMENTS OF AWWA U1 - USE CATEGORY SYSTEM FOR WOOD TREATMENTS DETERMINED BY USE CATEGORIES, EXCEPTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS. B. FIRE RETARDANT TREATMENT: AWWA TREATMENT C20, EXTERIOR TYPE, CHEMICAL TREATMENT PRESURE IMPREGNATED: CAPABLE OF PROVIDING A MAXIMUM FLAME SPREAD/SMOKE DEVELOPMENT RATING OF 2500 MINUTE DURATION. C. PRESERVATIVE PRESURE TREATMENT OF LUMBER ABOVE GRADE: AWWA USE CATEGORY U20B, COMMODITY SPECIFICATION 1 (TREATMENT C2) USING WATERBORNE PRESERVATIVE TO 10 LBS/FT³ RETENTION. 1. KILN DRY LUMBER AFTER TREATMENT TO MAXIMUM MOISTURE CONTENT OF 19 PERCENT. 2. TREAT LUMBER IN CONTACT WITH ROOFING, FLASHING OR WATERPROOFING. 3. TREAT LUMBER IN CONTACT WITH MASONRY OR CONCRETE. D. PRESURE TREATMENT OF LUMBER IN CONTACT WITH SOIL AND CONCRETE: AWWA TREATMENT C2 USING PRESERVATIVE TO 10 LBS/FT³ RETENTION. 1. PRESERVATIVE FOR FIELD APPLICATION TO CUT SURFACES: AS RECOMMENDED BY MANUFACTURER OF FACTORY TREATMENT CHEMICALS FOR BRUSH-APPLICATION IN THE FIELD. 10. FRAMING INSTALLATION A. SET STRUCTURAL MEMBERS LEVEL, PLUMB, AND TRUE TO LINE. DISCARD PIECES WITH DEFECTS THAT WOULD LOWER REQUIRED STRENGTH OR RESULT IN UNDESIRABLE APPEARANCE OR EXPOSED MEMBERS. B. MAKE PROPER CONNECTIONS TO EXISTING CONSTRUCTION LOADS, AND PROVIDE TEMPORARY BRACING SUFFICIENT TO MAINTAIN STRUCTURE IN TRUE ALIGNMENT AND SAFE CONDITION UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING. C. INSTALL STRUCTURAL MEMBERS FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE SPECIFICALLY DETAILLED. D. COMPLY WITH MEMBER SIZES, SPACING, AND CONFIGURATIONS INDICATED, AND FASTENER SIZE AND SPACING INDICATED, BUT NOT LESS THAN REQUIRED BY APPLICABLE CODES AND AFWA WOOD FRAME CONSTRUCTION MANUAL. E. CONSTRUCT DOOR AND WINDOW HEADS AT FLUSH AND CEILING OPENINGS AND UNDER WALL STUD PARTITIONS THAT ARE PARALLEL TO FLOOR JOISTS. USE METAL JOIST HANGERS UNLESS OTHERWISE DETAILLED. F. FRAME OPENINGS WITH TWO OR MORE STUDS AT EACH JAMB; SUPPORT HEADERS ON CRIPPLE STUDS. SECTION 06160 - LAMINATED VENEER STRUCTURAL TIMBER 1. SUMMARY A. SECTION INCLUDES 1. WALL SHEATHING WITH INTEGRAL WATER-RESISTIVE BARRIER AND AIR BARRIER. 2. REFERENCES A. ASTM INTERNATIONAL (ASTM): 1. ASTM A153A153M - STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL, HARDWARE. 2. ASTM D569 - STANDARD TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS. 3. ASTM E119 - STANDARD TEST METHODS FOR FIRE TESTS OF BUILDING. 4. ASTM E2357 - STANDARD TEST METHOD FOR DETERMINING AIR LEAKAGE OF AIR BARRIER ASSEMBLIES. B. INTERNATIONAL CODE COUNCIL (ICC): 1. ICC BC - INTERNATIONAL BUILDING CODE. 2. ICC EVALUATION SERVICE, INC. (ICC-ES): a. ICC-ES AC308 - ACCEPTANCE CRITERIA FOR WEATHER RESISTIVE BARRIERS. b. ICC-ES AC116 - ACCEPTANCE CRITERIA FOR NAILS AND SPIKES. c. ICC-ES AC148 - ACCEPTANCE CRITERIA FOR FLEXIBLE FLASHING MATERIALS. d. ICC-ES AC209 - ACCEPTANCE CRITERIA FOR WATER-RESISTIVE MEMBRANES FACTORY-BONDED TO WOOD-BASED STRUCTURAL SHEATHING, USED AS WATER-RESISTIVE BARRIERS. e. ICC-ES ESR-1526 - POWER DRIVEN STAPLES AND NAILS FOR USE IN ENGINEERED AND NON-ENGINEERED CONNECTIONS. f. ICC-ES NER-222 - POWER DRIVEN STAPLES AND NAILS FOR USE IN ALL TYPES OF BUILDING CONSTRUCTION. 3. SUBMITTALS A. PRODUCT DATA: FOR EACH TYPE OF SHEATHING PRODUCT SPECIFIED. B. EVALUATION REPORTS: FROM ICC-ES, FOR WOOD SHEATHING AND SEAM TAPE. C. PRODUCT CERTIFICATIONS: FROM MANUFACTURER, INDICATING THAT SHEATHING PRODUCTS COMPLY WITH ALL APPLICABLE CODES AND STANDARDS. D. FLORIDA BUILDING CODE SUPPLEMENT: SUBMIT DOCUMENTATION INDICATING THAT PRODUCTS COMPLY WITH REQUIREMENTS OF FLORIDA BUILDING CODE FOR PROJECTS IN THAT STATE. E. WARRANTY: EXECUTED COPY OF MANUFACTURER SPECIAL WARRANTIES. 4. QUALITY ASSURANCE A. PROVIDE WALL SHEATHING PRODUCTS MEETING REQUIREMENTS FOR WATER-RESISTIVE BARRIER IN ACCORDANCE WITH ICC-ES AC308. B. FLORIDA BUILDING CODE COMPLIANCE: PROVIDE SHEATHING COMPLYING WITH FLORIDA BUILDING CODE PRODUCT AND INSTALLATION REQUIREMENTS FOR LOCATIONS IN FLORIDA AND OUTSIDE OF HIGH WIND/VIBRACY WIND ZONE. 1. GENERAL: a. PROVIDE HOT-DIPPED GALVANIZED FASTENERS FOR EXTERIOR USE OR WHERE BUILT INTO EXTERIOR WALLS. b. SELECT FASTENERS FOR TYPE, GRADE, AND CLASS REQUIRED. 2. BOLTS AND NUTS: REGULAR HEXAGON-HEAD TYPE, ASTM A307, GRADE A. 3. LAG BOLTS: SQUARE-HEAD TYPE, FS FF-B-561. 4. MACHINE SCREWS: CADMIUM PLATED STEEL, FS FF-B-92. 5. WOOD SCREWS: FLAT HEAD CARBON STEEL, FS FF-B-111. 6. PLAIN WASHERS: ROUND, CARBON STEEL, FS FF-W-62. 7. DRILLED-IN EXPANSION ANCHORS: COMPLY WITH FS FF-S-325, GROUP III (ANCHORS, EXPANSION, NON-DRILLING), TYPE (INTERNALLY THREADED) TUBULAR EXPANSION ANCHOR), AND MACHINE BOLTS COMPLYING WITH FS FF-B-575, GRADE 5. 8. TOGGLE BOLTS: TUMBLE - WING - TYPE, FS FF-B-588, TYPE, CLASS, AND STYLE AS REQUIRED. 9. LOCK WASHERS: HELICAL - SPRING - TYPE CARBON STEEL, FS FF-W-84. 5. FABRICATION 1. GENERAL: a. FORM METAL FABRICATIONS FROM MATERIALS OF SIZE, THICKNESS, AND SHAPES INDICATED, BUT NOT LESS THAN THAT NEEDED TO COMPLY WITH PERFORMANCE REQUIREMENTS INDICATED. b. WORK TO DIMENSIONS INDICATED OR ACCEPTED ON SHOP DRAWINGS, USING PROVEN DETAILS OF FABRICATION AND SUPPORT. c. USE TYPE OF MATERIALS INDICATED OR SPECIFIED FOR VARIOUS COMPONENTS OF EACH METAL FABRICATION. d. FORM EXPOSED WORK TRUE TO LINE AND LEVEL WITH ACCURATE ANGLES AND SURFACES AND STRAIGHT SHARP EDGES. e. SHEAR AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS. f. EASE EXPOSED EDGES TO RADIUS OF APPROXIMATELY 1/32 IN. 2. CENTER SPACING: MATCH TO SMALLEST RADIUS POSSIBLE WITHOUT CAUSING GRAIN SEPARATION OR OTHERWISE IMPAIRING WORK. 3. REMOVE SHARP OR ROUGH AREAS ON EXPOSED TRAFFIC SURFACES. 4. WELDING: a. WELD CORNERS AND SEAMS CONTINUOUSLY, COMPLYING AWS RECOMMENDATIONS. b. EXPOSED CONNECTIONS: GRIND EXPOSED WELDS SMOOTH AND FLUSH TO MATCH AND BLEND WITH ADJOINING SURFACES. 10. ANCHORAGE: A. PROVIDE FOR ANCHORAGE OF TYPE INDICATED, COORDINATED WITH SUPPORTING STRUCTURE. B. FABRICATE AND SPACE ANCHORING DEVICES TO PROVIDE ADEQUATE SUPPORT FOR INTENDED USE. 2. MISCELLANEOUS FRAMING AND SUPPORTS: 1. PROVIDE MISCELLANEOUS STEEL FRAMING AND SUPPORTS WHICH ARE NOT PART OF STRUCTURAL STEEL FRAMEWORK, AS REQUIRED TO COMPLETE WORK. 2. FABRICATE MISCELLANEOUS UNITS TO SIZES, SHAPES, AND PROFILES INDICATED OR, IF NOT INDICATED, OF REQUIRED DIMENSIONS TO RECEIVE ADJOINED OTHER WORK. 3. EXCEPT AS OTHERWISE INDICATED, FABRICATE FROM STRUCTURAL STEEL SHAPES, PLATES, AND STEEL BARS OF WELDED CONSTRUCTION USING MITERED JOINTS FOR GREAT CONNECTIONS. 4. CUT, DRILL, AND TAP UNITS TO RECEIVE HARDWARE AND SIMILAR ITEMS. 5. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 6. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 7. CONSTRUCTION PANELS A. CONCEALED PERFORMANCE - RATED STRUCTURAL USE PANELS: 1. GENERAL: WHERE STRUCTURAL USE PANELS ARE INDICATED FOR THE FOLLOWING CONCEALED TYPES OF APPLICATIONS, PROVIDE A PERFORMANCE RATED PANELS COMPLYING WITH REQUIREMENTS DESIGNATED UNDER EACH APPLICATION FOR GRADE, SPAN RATING, EXPOSURE - DURABILITY CLASSIFICATIONS, EDGE DETAIL, WHERE APPLICABLE. 2. WALL SHEATHING: A RATED SHEATHING, EXTERIOR WITH SPAN RATING TO SUIT STUD SPACING. 3. ROOF SHEATHING: A RATED STRUCTURAL 1 RATED SHEATHING, EXTERIOR WITH SPAN RATING TO SUIT RAFTER SPACING. B. OTHER APPLICATIONS: 1. CONCEALED PLYWOOD: PS 1, C-C PLUGGED, EXTERIOR GRADE. 2. EXPOSED PLYWOOD: PS 1, A-D, INTERIOR GRADE. 3. ELECTRIC COMPONENT MOUNTING: A RATED SHEATHING, FIRE RETARDANT TREATED. 8. ACCESSORIES A. FASTENERS AND ANCHORS: 1. METAL AND FINISH: HOT-DIPPED GALVANIZED STEEL, PER ASTM A 153A 153M FOR HIGH HUMIDITY AND PERSERVATIVE - TREATED WOOD UNLESS OTHERWISE SPECIFIED ELSEWHERE. 2. NAILS, WIRE, BRAG, AND STAPLES: FS FF-N-105. 3. POWER DRIVEN FASTENERS: NAIL EVALUATION REPORT NER-272. 4. WOOD SCREWS: ANSI B16.1. 5. LAS BOLTS: ANSI B16.1. 6. BOLT SCREWS: COMPLYING WITH ASTM A307, GRADE A; WITH ASTM A563 HEX NUTS AND, WHERE INDICATED, PLAT WASHERS. B. JOIST HANGERS: HOT-DIPPED GALVANIZED STEEL, SIZED TO SUIT FRAMING CONDITIONS. 9. FACTORY WOOD TREATMENT A. TREATED LUMBER AND PLYWOOD: COMPLY WITH REQUIREMENTS OF AWWA U1 - USE CATEGORY SYSTEM FOR WOOD TREATMENTS DETERMINED BY USE CATEGORIES, EXCEPTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS. B. FIRE RETARDANT TREATMENT: AWWA TREATMENT C20, EXTERIOR TYPE, CHEMICAL TREATMENT PRESURE IMPREGNATED: CAPABLE OF PROVIDING A MAXIMUM FLAME SPREAD/SMOKE DEVELOPMENT RATING OF 2500 MINUTE DURATION. C. PRESERVATIVE PRESURE TREATMENT OF LUMBER ABOVE GRADE: AWWA USE CATEGORY U20B, COMMODITY SPECIFICATION 1 (TREATMENT C2) USING WATERBORNE PRESERVATIVE TO 10 LBS/FT³ RETENTION. 1. KILN DRY LUMBER AFTER TREATMENT TO MAXIMUM MOISTURE CONTENT OF 19 PERCENT. 2. TREAT LUMBER IN CONTACT WITH ROOFING, FLASHING OR WATERPROOFING. 3. TREAT LUMBER IN CONTACT WITH MASONRY OR CONCRETE. D. PRESURE TREATMENT OF LUMBER IN CONTACT WITH SOIL AND CONCRETE: AWWA TREATMENT C2 USING PRESERVATIVE TO 10 LBS/FT³ RETENTION. 1. PRESERVATIVE FOR FIELD APPLICATION TO CUT SURFACES: AS RECOMMENDED BY MANUFACTURER OF FACTORY TREATMENT CHEMICALS FOR BRUSH-APPLICATION IN THE FIELD. 10. FRAMING INSTALLATION A. SET STRUCTURAL MEMBERS LEVEL, PLUMB, AND TRUE TO LINE. DISCARD PIECES WITH DEFECTS THAT WOULD LOWER REQUIRED STRENGTH OR RESULT IN UNDESIRABLE APPEARANCE OR EXPOSED MEMBERS. B. MAKE PROPER CONNECTIONS TO EXISTING CONSTRUCTION LOADS, AND PROVIDE TEMPORARY BRACING SUFFICIENT TO MAINTAIN STRUCTURE IN TRUE ALIGNMENT AND SAFE CONDITION UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING. C. INSTALL STRUCTURAL MEMBERS FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE SPECIFICALLY DETAILLED. D. COMPLY WITH MEMBER SIZES, SPACING, AND CONFIGURATIONS INDICATED, AND FASTENER SIZE AND SPACING INDICATED, BUT NOT LESS THAN REQUIRED BY APPLICABLE CODES AND AFWA WOOD FRAME CONSTRUCTION MANUAL. E. CONSTRUCT DOOR AND WINDOW HEADS AT FLUSH AND CEILING OPENINGS AND UNDER WALL STUD PARTITIONS THAT ARE PARALLEL TO FLOOR JOISTS. USE METAL JOIST HANGERS UNLESS OTHERWISE DETAILLED. F. FRAME OPENINGS WITH TWO OR MORE STUDS AT EACH JAMB; SUPPORT HEADERS ON CRIPPLE STUDS. SECTION 06170 - LAMINATED VENEER STRUCTURAL TIMBER 1. SUMMARY A. SECTION INCLUDES 1. WALL SHEATHING WITH INTEGRAL WATER-RESISTIVE BARRIER AND AIR BARRIER. 2. REFERENCES A. ASTM INTERNATIONAL (ASTM): 1. ASTM A153A153M - STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL, HARDWARE. 2. ASTM D569 - STANDARD TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS. 3. ASTM E119 - STANDARD TEST METHODS FOR FIRE TESTS OF BUILDING. 4. ASTM E2357 - STANDARD TEST METHOD FOR DETERMINING AIR LEAKAGE OF AIR BARRIER ASSEMBLIES. B. INTERNATIONAL CODE COUNCIL (ICC): 1. ICC BC - INTERNATIONAL BUILDING CODE. 2. ICC EVALUATION SERVICE, INC. (ICC-ES): a. ICC-ES AC308 - ACCEPTANCE CRITERIA FOR WEATHER RESISTIVE BARRIERS. b. ICC-ES AC116 - ACCEPTANCE CRITERIA FOR NAILS AND SPIKES. c. ICC-ES AC148 - ACCEPTANCE CRITERIA FOR FLEXIBLE FLASHING MATERIALS. d. ICC-ES AC209 - ACCEPTANCE CRITERIA FOR WATER-RESISTIVE MEMBRANES FACTORY-BONDED TO WOOD-BASED STRUCTURAL SHEATHING, USED AS WATER-RESISTIVE BARRIERS. e. ICC-ES ESR-1526 - POWER DRIVEN STAPLES AND NAILS FOR USE IN ENGINEERED AND NON-ENGINEERED CONNECTIONS. f. ICC-ES NER-222 - POWER DRIVEN STAPLES AND NAILS FOR USE IN ALL TYPES OF BUILDING CONSTRUCTION. 3. SUBMITTALS A. PRODUCT DATA: FOR EACH TYPE OF SHEATHING PRODUCT SPECIFIED. B. EVALUATION REPORTS: FROM ICC-ES, FOR WOOD SHEATHING AND SEAM TAPE. C. PRODUCT CERTIFICATIONS: FROM MANUFACTURER, INDICATING THAT SHEATHING PRODUCTS COMPLY WITH ALL APPLICABLE CODES AND STANDARDS. D. FLORIDA BUILDING CODE SUPPLEMENT: SUBMIT DOCUMENTATION INDICATING THAT PRODUCTS COMPLY WITH REQUIREMENTS OF FLORIDA BUILDING CODE FOR PROJECTS IN THAT STATE. E. WARRANTY: EXECUTED COPY OF MANUFACTURER SPECIAL WARRANTIES. 4. QUALITY ASSURANCE A. PROVIDE WALL SHEATHING PRODUCTS MEETING REQUIREMENTS FOR WATER-RESISTIVE BARRIER IN ACCORDANCE WITH ICC-ES AC308. B. FLORIDA BUILDING CODE COMPLIANCE: PROVIDE SHEATHING COMPLYING WITH FLORIDA BUILDING CODE PRODUCT AND INSTALLATION REQUIREMENTS FOR LOCATIONS IN FLORIDA AND OUTSIDE OF HIGH WIND/VIBRACY WIND ZONE. 1. GENERAL: a. PROVIDE HOT-DIPPED GALVANIZED FASTENERS FOR EXTERIOR USE OR WHERE BUILT INTO EXTERIOR WALLS. b. SELECT FASTENERS FOR TYPE, GRADE, AND CLASS REQUIRED. 2. BOLTS AND NUTS: REGULAR HEXAGON-HEAD TYPE, ASTM A307, GRADE A. 3. LAG BOLTS: SQUARE-HEAD TYPE, FS FF-B-561. 4. MACHINE SCREWS: CADMIUM PLATED STEEL, FS FF-B-92. 5. WOOD SCREWS: FLAT HEAD CARBON STEEL, FS FF-B-111. 6. PLAIN WASHERS: ROUND, CARBON STEEL, FS FF-W-62. 7. DRILLED-IN EXPANSION ANCHORS: COMPLY WITH FS FF-S-325, GROUP III (ANCHORS, EXPANSION, NON-DRILLING), TYPE (INTERNALLY THREADED) TUBULAR EXPANSION ANCHOR), AND MACHINE BOLTS COMPLYING WITH FS FF-B-575, GRADE 5. 8. TOGGLE BOLTS: TUMBLE - WING - TYPE, FS FF-B-588, TYPE, CLASS, AND STYLE AS REQUIRED. 9. LOCK WASHERS: HELICAL - SPRING - TYPE CARBON STEEL, FS FF-W-84. 5. FABRICATION 1. GENERAL: a. FORM METAL FABRICATIONS FROM MATERIALS OF SIZE, THICKNESS, AND SHAPES INDICATED, BUT NOT LESS THAN THAT NEEDED TO COMPLY WITH PERFORMANCE REQUIREMENTS INDICATED. b. WORK TO DIMENSIONS INDICATED OR ACCEPTED ON SHOP DRAWINGS, USING PROVEN DETAILS OF FABRICATION AND SUPPORT. c. USE TYPE OF MATERIALS INDICATED OR SPECIFIED FOR VARIOUS COMPONENTS OF EACH METAL FABRICATION. d. FORM EXPOSED WORK TRUE TO LINE AND LEVEL WITH ACCURATE ANGLES AND SURFACES AND STRAIGHT SHARP EDGES. e. SHEAR AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS. f. EASE EXPOSED EDGES TO RADIUS OF APPROXIMATELY 1/32 IN. 2. CENTER SPACING: MATCH TO SMALLEST RADIUS POSSIBLE WITHOUT CAUSING GRAIN SEPARATION OR OTHERWISE IMPAIRING WORK. 3. REMOVE SHARP OR ROUGH AREAS ON EXPOSED TRAFFIC SURFACES. 4. WELDING: a. WELD CORNERS AND SEAMS CONTINUOUSLY, COMPLYING AWS RECOMMENDATIONS. b. EXPOSED CONNECTIONS: GRIND EXPOSED WELDS SMOOTH AND FLUSH TO MATCH AND BLEND WITH ADJOINING SURFACES. 10. ANCHORAGE: A. PROVIDE FOR ANCHORAGE OF TYPE INDICATED, COORDINATED WITH SUPPORTING STRUCTURE. B. FABRICATE AND SPACE ANCHORING DEVICES TO PROVIDE ADEQUATE SUPPORT FOR INTENDED USE. 2. MISCELLANEOUS FRAMING AND SUPPORTS: 1. PROVIDE MISCELLANEOUS STEEL FRAMING AND SUPPORTS WHICH ARE NOT PART OF STRUCTURAL STEEL FRAMEWORK, AS REQUIRED TO COMPLETE WORK. 2. FABRICATE MISCELLANEOUS UNITS TO SIZES, SHAPES, AND PROFILES INDICATED OR, IF NOT INDICATED, OF REQUIRED DIMENSIONS TO RECEIVE ADJOINED OTHER WORK. 3. EXCEPT AS OTHERWISE INDICATED, FABRICATE FROM STRUCTURAL STEEL SHAPES, PLATES, AND STEEL BARS OF WELDED CONSTRUCTION USING MITERED JOINTS FOR GREAT CONNECTIONS. 4. CUT, DRILL, AND TAP UNITS TO RECEIVE HARDWARE AND SIMILAR ITEMS. 5. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 6. PROVIDE 3/4" X 1/4" ANGLE FRAME FOR OPENINGS THROUGH ROOF LARGER THAN 24" X 24". 7. CONSTRUCTION PANELS A. CONCEALED PERFORMANCE -

HAT CREEK BURGER - PROTOTYPE 1.1 TABLE OF CONTENTS

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

SECTION 07212 - BOARD AND BATT INSULATION

1. SECTION INCLUDES
A. BATT INSULATION IN EXTERIOR WALL AND CEILING CONSTRUCTION.

- B. BATT INSULATION FOR FLING PERIMETER WINDOW AND DOOR SHIM SPACES AND CREVICES IN EXTERIOR WALL AND ROOF.

- C. NAIL-LINE ROOF INSULATION BOARD AT SLOPED METAL ROOFING.

2. REFERENCES
A. ASTM C 578 - STANDARD SPECIFICATION FOR RIGID, CELLULAR POLYSTYRENE THERMAL INSULATION, 2005A.

- B. ASTM C 665 - STANDARD SPECIFICATION FOR MINERAL-FIBER BLANKET THERMAL INSULATION FOR LIGHT FRAME CONSTRUCTION AND MANUFACTURED HOUSING, 2001.

- C. ASTM C 1289 - STANDARD SPECIFICATION FOR FACED RIGID CELLULAR POLYISOCYANURATE THERMAL INSULATION BOARD, 2006.

- D. ASTM D 2842 - STANDARD TEST METHOD FOR WATER ABSORPTION OF RIGID CELLULAR PLASTIC, 2001.

- E. ASTM E 84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS, 2005.

- F. ASTM E 136 - STANDARD TEST METHOD FOR BEHAVIOR OF MATERIALS IN A VERTICAL TUBE FURNACE AT 750 DEGREES C, 2004.

3. BATT INSULATION MATERIALS
A. BATT INSULATION: ASTM C 665; PREFORMED BATT: FRICTION FR, CONFIRMING TO THE FOLLOWING:

1. COMBUSTIBILITY: NON-COMBUSTIBLE, WHEN TESTED IN ACCORDANCE WITH ASTM E 136, EXCEPT FOR FACING, IF ANY.

2. THERMAL RESISTANCE: R OF 21 IN WALLS, 30 IN ROOF.

3. FACING: ALUMINUM FOIL OR KRAFT PAPER FACED, ONE SIDE.

4. APPROVED MANUFACTURERS:

- A. CERTANTEED CORPORATION: WWW.CERTANTEED.COM.

- B. JOHNS MANVILLE CORPORATION: WWW.JM.COM.

- C. OWENS CORNING CORP: WWW.OWENSCORNING.COM.

5. NAILABLE ROOF INSULATION
A. NAIL-BASE ROOF INSULATION: 2.5 INCH THICK NAIL-BASE ROOF INSULATION, POLYISOCYANURATE FOAM CORE BONDED TO 7/16 INCH ORIENTED STRUCTURAL BOARD OVER 1 INCH POLYISOCYANURATE RIGID INSULATION BOARD.

1. FLAME SPREAD INDEX: 50 OR LESS, WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

2. SMOKE DEVELOPED INDEX: 450 OR LESS, WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

3. COMPRESSIVE STRENGTH: 20 PSI

4. BOARD SIZE: 48 X 96 INCH.

5. THERMAL RESISTANCE: R-VALUE OF 12 FOR COMPOSITE BOARD R-VALUE OF 18 FOR INSULATION BOARD FOR TOTAL OF R-30.

6. APPROVED MANUFACTURERS:

- A. JOHNS MANVILLE, "NAILBOARD": WWW.SPECMJ.COM

- B. R-MAX, "NAILABLE BASE 3": WWW.RMAX.COM

- C. ATLAS ROOFING CORP., "ACFOAM NAILBASE": WWW.ATLASROOFING.COM

- D. HOMASOTE COMPANY, "THERMASOTE NALBASE": WWW.HOMASOTE.COM

6. ACCESSORIES
A. TAPE: BRIGHT ALUMINUM SELF-ADHERING TYPE, MESH REINFORCED, 2 INCH WIDE.

- B. INSULATION FASTENERS: IMPALING CLIP OF UNFINISHED STEEL WITH WASHER RETAINER AND CLIPS, TO BE ADHERED TO SURFACE TO RECEIVE INSULATION, LENGTH TO SUIT INSULATION THICKNESS AND SUBSTRATE, CAPABLE OF SECURELY AND RIGIDLY FASTENING INSULATION IN PLACE.

- C. ADHESIVE: TYPE RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATION.

7. BATT INSULATION
A. INSTALL INSULATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- B. INSTALL IN EXTERIOR WALL AND ROOF SPACES WITHOUT GAPS OR VOIDS, DO NOT COMPRESS INSULATION.

- C. TRIM INSULATION NEATLY TO FIT SPACES. INSULATE MISCELLANEOUS GAPS AND VOIDS.

- D. FIT INSULATION TIGHTLY IN CAVITIES AND TIGHTLY TO EXTERIOR SIDE OF MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLANE OF THE INSULATION.

- E. INSTALL INSULATION IN WALLS WITH FACED SIDE FACING THE BUILDING INTERIOR.

- F. TAPE INSULATION BATTS IN PLACE.

- G. TAPE SEAL BUTT ENDS, LAPPED FLANGES, AND TEARS OR CUTS IN MEMBRANE.

8. BOARD INSTALLATION AT SLOPED ROOFING
A. INSTALL RIGID ROOF INSULATION OVER ENTIRE SLOPING ROOF AREA WITH VENT STRIPS PARALLEL TO ROOF IN ACCORD WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

- B. OVERLAY NAIL BASE INSULATION ON TOP OF RIGID INSULATION BOARD WITH STAGGERED SEAMS IN PERPENDICULAR DIRECTION

- C. ALLOW 1/8" SPACING BETWEEN UNITS. USE MANUFACTURERS RECOMMENDED FASTENERS. INSULATION FASTENERS OF SUFFICIENT LENGTH TO PENETRATE INSULATION BOARD BELOW AND A MINIMUM 1" INTO ROOF DECK SUBSTRATE, BUT NOT THROUGH THE DECK, AT APPLICABLE INTERVALS TO ACHIEVE FM-I-90 RATING OR AS REQUIRED BY LOCAL CODE.

- SECTION 07230 - SILL SEALER GASKET

1. SECTION INCLUDES
A. SILL SEALER GASKET AT EXTERIOR WALLS.

2. DELIVERY, STORAGE AND HANDLING
A. STORE SILL SEALER IN A DRY AREA ABOVE 60° BEFORE USE.

3. SILL SEALER
A. SILL SEALER "PROTECTO TRIPLE GUARD ENERGY SILL SEALER BY PROTECTO WRAP (1-800-759-9727), PROTECTO TRIPLE GUARD ENERGY SILL SEALER IS AVAILABLE IN 3 1/2" AND 6 1/2" WIDTHS AND 1 1/4" THICK.

4. ACCESSORIES
A. PRIMER: #100 PRIMER BY PROTECTO WRAP.

5. PREPARATION
A. AREAS TO BE SEALED MUST BE CLEAN AND DRY, KNOCK OFF AND REMOVE ANY ROUGH OR JAGGED EDGES.

6. INSTALLATION
A. ROLL OUT PROTECTO ENERGY PLATE LINER AND ALIGN WITH PERIMETER OF SLAB. PEEL OFF THE RELEASE LINER FROM THE BOTTOM OF THE ENERGY PLATE LINER AND PLACE THE EXPOSED ADHESIVE SIDE DOWN ON TOP OF THE FOUNDATION.

- B. PRESSING THE ADHESIVE BOTTOM OF THE PROTECTO ENERGY PLATE LINER IN PLACE IS ESSENTIAL TO PROPERLY ADHERE THE PRODUCT TO THE FOUNDATION.

- C. FOR RE BAR OR ANCHOR BOLTS COMING OUT OF THE FOUNDATION, MAKE AN "X" CUT IN THE BACK OF THE PROPERTY LINER AND SLIDE OVER THE PROTRUSION PRESSING FIRMLY IN PLACE.

7. COLD WEATHER REQUIREMENTS
A. FOR INSTALLATIONS BELOW 40° F:

1. KEEP PROTECTO ENERGY PLATE LINER SEALER IN A WARM HEATED SPACE ABOVE 60° F BEFORE USE.

2. PRIME THE TOP OF THE FOUNDATION WITH #100 PRIMER AND FOLLOW PRIMER TO TACK UP, DO NOT APPLY ENERGY PLATE LINER TO WET PRIMER.

3. PEEL AND STICK THE PROTECTO ENERGY PLATE LINER SILL SEALER IN PLACE.

4. PROTECTO WRAP PROTECTO-TAK 16.25 OZ. SPRAY ADHESIVE MAY BE USED IN PLACE OF # 100 PRIMER.

- SECTION 07260 - WEATHER BARRIERS

1. SECTION INCLUDES

- A. VAPOR BARRIER MUST HAVE ALL OF THE FOLLOWING QUALITIES:

1. PERMEANCE OF LESS THAN 0.01 PERMS (GRAINS/FT²·Hr·IN-Hg) PER ASTM F 1249 OR ASTM E 96.

2. ASTM E 1745 CLASS A

3. AIR BARRIERS: MATERIALS TO STOP PASSAGE OF AIR THROUGH EXTERIOR WALLS, JOINTS BETWEEN EXTERIOR WALLS AND ROOF, AND JOINTS AROUND FRAMES OF OPENINGS IN EXTERIOR WALLS TO COMPLY WITH ICC-ES APPROVED CRITERIA AC-38.

2. SHEET SEAL MATERIALS

- A. VAPOR RETARDER: STEGO WRAP VAPOR BARRIER (10 MIL) BY STEGO INDUSTRIES LLC FOR UNDERSLAB APPLICATIONS.

- B. MOISTURE BARRIER: 30 LB FELT FOR HORIZONTAL APPLICATIONS.

3. ACCESSORIES
A. VAPOR RETARDER SEAM TAPE:

1. PERMEANCE LESS THAN 0.3 PERMS PER ASTM F 1249 OR ASTM E 96

2. STEGO TAPE BY STEGO INDUSTRIES LLC

- B. AIR BARRIER SEAM TAPE:

1. PERMEANCE LESS THAN 0.3 PERMS PER ASTM F 1249 OR ASTM E 96

2. TYVEK SEAM TAPE

- C. PIPE BOOTS

1. CONSTRUCT PIPE BOOTS FROM VAPOR BARRIER MATERIAL, PRESSURE SENSITIVE TAPE AND/OR MASTIC PER MANUFACTURERS INSTRUCTIONS.

4. INSTALLATION
A. INSTALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- SECTION 07411 - PREFORMED METAL ROOFING (STANDING SEAM)

1. SECTION INCLUDES

- A. STANDING SEAM ROOF PANELS
B. MATCHING METAL TRIM AND FLASHING
C. CONCEALED FASTENERS
D. SHOP DRAWINGS
E. SAMPLES

2. REFERENCES
A. SMACNA (ASMM) - ARCHITECTURAL SHEET METAL MANUAL: SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.

- B. ASTM A762-89: STANDARD SPECIFICATION FOR STEEL SHEET, ALUMINUM-ZINC ALLOY COATED BY THE HOT-DIP PROCESS, GENERAL REQUIREMENTS

3. SUBMITTALS
A. SUBMIT SHOP DRAWINGS PER SUBMITTALS SECTION PRIOR TO FABRICATION, FOR OWNERS ACCEPTANCE. SHOW GAUGES, PROFILES, FASTENER TYPES AND LOCATIONS, AND FLASHING DETAILS.

- B. SUBMIT SAMPLES OF PANEL PROPOSED WITH COLOR SAMPLES ON ACTUAL MATERIAL, FOR OWNERS ACCEPTANCE AND COLOR SELECTION.

4. QUALITY ASSURANCE
A. WIND UPLIFT: PROVIDE ROOF PANEL SYSTEM INCLUDING SUPPORTS MEETING REQUIREMENTS OF UNDERWRITERS LABORATORIES, INC. FOR CLASS 90 WIND UPLIFT RESISTANCE.

5. WARRANTY
A. METAL PANEL MANUFACTURER, UPON FINAL ACCEPTANCE FOR PROJECT, FURNISH A WARRANTY COVERING BASE METAL AGAINST RUPTURE, STRUCTURAL FAILURE, AND PERFORMANCE DUE TO NORMAL ATMOSPHERIC CORROSION EXPOSURE FOR A PERIOD OF 25 YEARS.

- B. METAL PANEL MANUFACTURER, UPON FINAL ACCEPTANCE FOR PROJECT, FURNISH A WARRANTY COVERING PANEL FINISH AGAINST CRACKING, CHECKING, BLISTERING, PEELING, FLAKING, CHIPPING, CHALKING, AND FADING FOR A PERIOD OF 25 YEARS.

- C. UL (RMSD)-ROOFING MATERIALS AND SYSTEMS DIRECTORY: UNDERWRITERS LABORATORIES INC.; CURRENT EDITION.

- D. FINISH: MANUFACTURER'S STANDARD KYMAR 500 COATING, COLOR AS NOTED ON DRAWINGS.

7. METAL TRIM AND FLASHINGS
A. FABRICATE FROM SAME THICKNESS AND FINISH MATERIAL AS ROOFING PANELS.

8. FASTENERS
A. CONCEALED, CORROSION RESISTANT, WEATHER TIGHT, TYPE AND SIZE REQUIRED BY MANUFACTURER'S SPECIFICATIONS. STAINLESS STEEL FASTENING SHALL BE USED FOR CONNECTING DISSIMILAR METALS.

9. CLOSURES
A. MANUFACTURER'S STANDARD, MATCH PANELS, TO FIT CONFIGURATION OF THE PANEL SPECIFIED.

10. UNDERLAYMENT
A. W. R. GRADE COMPANY, ICE AND WATER SHIELD

11. JOINT SEALANTS
A. AS SPECIFIED IN SEALANTS AND CAULKING.

12. HANDLING
A. PERFORM IN A MANNER TO PREVENT BENDING, WARPING, TWIST, OR OTHER DAMAGE. DO NOT USE DAMAGED OR BENT MATERIALS.

13. STORAGE
A. STORE UNITS ON RAISED SUPPORT AND PROTECT FROM WEATHER.

14. WORKMANSHIP
A. USE ONLY SKILLED AND EXPERIENCED PERSONNEL. WORKMANSHIP SHALL BE EQUAL TO THE BEST PRACTICE OF MODERN METAL ROOFING INSTALLATION.

15. INSTALLATION
A. GENERAL REQUIREMENTS:
1. ROOFING SHEETS: PROVIDE THE FINISHED DIMENSIONS, SEAM TO SEAM. FURNISH CONTINUOUS SHEETS, SINGLE PIECES LESS THAN EIGHT (8) FEET LONG MAY BE USED TO CONNECT TO SHOP FABRICATED INSIDE AND OUTSIDE CORNERS.

2. INSTALLATION: INSTALL PANELS WEATHER TIGHT, WITHOUT WAVES, WARPS, BUCKLES, FASTENING STRESSES OR DISTORTION, ALLOWING FOR EXPANSION AND CONTRACTION. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED SHOP DRAWINGS.

3. DISSIMILAR MATERIALS CONTACT: WHERE SHEET METAL IS SHOWN CONTACTING CONCRETE, MASONARY MATERIALS, STEEL, OTHER DISSIMILAR METAL, OR A CONTACTING WOOD, KEEP SHEET METAL FROM DIRECT CONTACT WITH THE DISSIMILAR MATERIALS BY A COAT OF BITUMINOUS OINT APPLIED TO A THICKNESS OF 12 TO 14 MILS.

4. PRIMER: #100 PRIMER BY PROTECTO WRAP.

5. PREPARATION
A. AREAS TO BE SEALED MUST BE CLEAN AND DRY, KNOCK OFF AND REMOVE ANY ROUGH OR JAGGED EDGES.

6. INSTALLATION
A. ROLL OUT PROTECTO ENERGY PLATE LINER AND ALIGN WITH PERIMETER OF SLAB. PEEL OFF THE RELEASE LINER FROM THE BOTTOM OF THE ENERGY PLATE LINER AND PLACE THE EXPOSED ADHESIVE SIDE DOWN ON TOP OF THE FOUNDATION.

- B. PRESSING THE ADHESIVE BOTTOM OF THE PROTECTO ENERGY PLATE LINER IN PLACE IS ESSENTIAL TO PROPERLY ADHERE THE PRODUCT TO THE FOUNDATION.

- C. FOR RE BAR OR ANCHOR BOLTS COMING OUT OF THE FOUNDATION, MAKE AN "X" CUT IN THE BACK OF THE PROPERTY LINER AND SLIDE OVER THE PROTRUSION PRESSING FIRMLY IN PLACE.

7. COLD WEATHER REQUIREMENTS
A. FOR INSTALLATIONS BELOW 40° F:

1. KEEP PROTECTO ENERGY PLATE LINER SEALER IN A WARM HEATED SPACE ABOVE 60° F BEFORE USE.

2. PRIME THE TOP OF THE FOUNDATION WITH #100 PRIMER AND FOLLOW PRIMER TO TACK UP, DO NOT APPLY ENERGY PLATE LINER TO WET PRIMER.

3. PEEL AND STICK THE PROTECTO ENERGY PLATE LINER SILL SEALER IN PLACE.

4. PROTECTO WRAP PROTECTO-TAK 16.25 OZ. SPRAY ADHESIVE MAY BE USED IN PLACE OF # 100 PRIMER.

- SECTION 07460 - FIBER-CEMENT SIDING AND TRIM

1. SECTION INCLUDES
A. FIBER CEMENT SIDING TRIM, FASCIA, SOFFIT AND ACCESSORIES.

2. ENGINEERING DESIGN
A. SUBCONTRACTOR FOR THE WORK OF THIS SECTION SHALL BE RESPONSIBLE FOR FINAL DESIGN OF INSTALLATION SYSTEMS AND SHALL INSURE PROPER DESIGN FOR SPACING OF SUB-FRAMING AND ALL ATTACHMENTS. SUBCONTRACTOR MUST HAVE NOT LESS THAN THREE (3) YEARS SUCCESSFUL EXPERIENCE IN INSTALLATION OF SIMILAR CLADDING SYSTEMS.

3. REFERENCE STANDARDS
A. AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

4. SUBMITTALS
A. SUBMIT SHOP DRAWINGS PER SUBMITTALS SECTION PRIOR TO FABRICATION, FOR ARCHITECT'S APPROVAL. DRAWINGS SHALL SHOW FINISH, PROFILES, FASTENER TYPES AND LOCATIONS, AND FLASHING DETAILS.

- B. SUBMIT SAMPLE PANEL OF PROPOSED CONSTRUCTION FINISH WITH COLOR SAMPLES ON ACTUAL MATERIAL FOR APPROVAL.

5. WARRANTY
A. PRODUCT WARRANTY: LIMITED PRODUCT WARRANTY AGAINST MANUFACTURING DEFECTS.
1. HARDOFFIT PANELS FOR 30 YEARS.
2. HARDOFIT TRIM AND HARDIE FASCIA FOR 10 YEARS.

- B. WORKMANSHIP WARRANTY: APPLICATION WARRANTY FOR 2 YEARS.

6. COORDINATION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR DIMENSIONS, DETAILING, FABRICATION, FITTING AND ALIGNMENT OF THE WORK OF THIS SECTION.

7. MANUFACTURER
A. THE DRAWINGS WERE PREPARED AND THIS SPECIFICATION WRITTEN ON THE BASIS OF USING THE PRODUCTS OF JAMES HARDIE BUILDING PRODUCTS, INC., MISSION VIEJO, CA. WWW.JAMESHARDIECOMMERCIAL.COM. PRODUCTS WITH EQUAL CHARACTERISTICS BY OTHER MANUFACTURERS ARE ACCEPTABLE UNDER THE CONDITIONS OF THESE SPECIFICATIONS.

8. PRODUCTS
A. FIBER CEMENT TRIM, FASCIA, VENTED SOFFIT AND ACCESSORIES SHALL BE COMPOSED OF AUTOCLAVED, NON-ASBESTOS, FIBER-CEMENT COMPLYING WITH THE PROVISIONS OF ASTM C1181. PRODUCT SHALL PROVIDE THE FOLLOWING MINIMUM PROPERTIES: MODULUS OF RUPTURE (EQUILIBRIUM) >1450 PSI, ASTM C1181, DENSITY 80 PCF ASTM C1181, FLAME SPREAD/SMOKE DEVELOPMENT 00 ASTM E84.

- B. REFER TO FINISH SCHEDULE ON DRAWINGS FOR SPECIFIC PRODUCTS, FINISH, SIZES, ETC., FOR ALL FIBER CEMENT TRIM, FASCIA AND VENTED SOFFIT PRODUCTS USED ON PROJECT.

- C. FACTORY PRIMER: PROVIDE FACTORY APPLIED UNIVERSAL PRIMER.

- D. TEXTURE: SMOOTH

9. FASTENERS
A. CONCEALED, GALVANIZED, CORROSION RESISTANT, TYPE AND SIZE REQUIRED BY DESIGN.

10. JOINT SEALANTS
A. AS SPECIFIED IN SEALANTS AND CAULKING

11. HANDLING
A. PERFORM IN A MANNER TO PREVENT BENDING, WARPING, TWISTING OR OTHER DAMAGE. ALL MATERIAL SHALL BE CLEAN AND STRAIGHT, DAMAGED OR BENT MATERIALS SHALL NOT BE USED.

12. STORAGE
A. STORE UNITS ON RAISED SUPPORT AND PROTECT FROM THE WEATHER.

13. WORKMANSHIP
A. USE ONLY SKILLED AND EXPERIENCED PERSONNEL. ALL WORKMANSHIP SHALL BE EQUAL TO THE BEST PRACTICE OF MODERN SIDING INSTALLATION.

14. ERECTION
A. ERECT IN COMPLETE ACCORD WITH APPROVED SHOP DRAWINGS AND MANUFACTURERS WRITTEN INSTRUCTIONS. USE FULL LENGTH PANELS WHENEVER POSSIBLE TO MINIMIZE END JOINTS.

- SECTION 07530 - ELASTOMERIC MEMBRANE ROOFING

1. SECTION INCLUDES
A. ELASTOMERIC ROOFING MEMBRANE, MECHANICALLY FASTENED CONVENTIONAL APPLICATION.

- B. INSULATION, FLAT AND TAPERED.

2. REFERENCES
A. ASTM C 1289- STANDARD SPECIFICATION FOR FACED RIGID CELLULAR POLYISOCYANURATE THERMAL INSULATION BOARD, 2006.

- B. BRCS 2014- THE NRCA ROOFING AND WATERPROOFING MANUAL: NATIONAL ROOFING CONTRACTORS ASSOCIATION, FIFTH EDITION, WITH INTERIM UPDATES.

- C. UL (RMSD)-ROOFING MATERIALS AND SYSTEMS DIRECTORY: UNDERWRITERS LABORATORIES INC.; CURRENT EDITION.

- D. FINISH: MANUFACTURER'S STANDARD KYMAR 500 COATING, COLOR AS NOTED ON DRAWINGS.

7. METAL TRIM AND FLASHINGS
A. FABRICATE FROM SAME THICKNESS AND FINISH MATERIAL AS ROOFING PANELS.

8. FASTENERS
A. CONCEALED, CORROSION RESISTANT, WEATHER TIGHT, TYPE AND SIZE REQUIRED BY MANUFACTURER'S SPECIFICATIONS. STAINLESS STEEL FASTENING SHALL BE USED FOR CONNECTING DISSIMILAR METALS.

9. CLOSURES
A. MANUFACTURER'S STANDARD, MATCH PANELS, TO FIT CONFIGURATION OF THE PANEL SPECIFIED.

10. UNDERLAYMENT
A. W. R. GRADE COMPANY, ICE AND WATER SHIELD

11. JOINT SEALANTS
A. AS SPECIFIED IN SEALANTS AND CAULKING.

12. HANDLING
A. PERFORM IN A MANNER TO PREVENT BENDING, WARPING, TWIST, OR OTHER DAMAGE. DO NOT USE DAMAGED OR BENT MATERIALS.

13. STORAGE
A. STORE UNITS ON RAISED SUPPORT AND PROTECT FROM WEATHER.

14. WORKMANSHIP
A. USE ONLY SKILLED AND EXPERIENCED PERSONNEL. WORKMANSHIP SHALL BE EQUAL TO THE BEST PRACTICE OF MODERN METAL ROOFING INSTALLATION.

15. INSTALLATION
A. GENERAL REQUIREMENTS:
1. ROOFING SHEETS: PROVIDE THE FINISHED DIMENSIONS, SEAM TO SEAM. FURNISH CONTINUOUS SHEETS, SINGLE PIECES LESS THAN EIGHT (8) FEET LONG MAY BE USED TO CONNECT TO SHOP FABRICATED INSIDE AND OUTSIDE CORNERS.

2. INSTALLATION: INSTALL PANELS WEATHER TIGHT, WITHOUT WAVES, WARPS, BUCKLES, FASTENING STRESSES OR DISTORTION, ALLOWING FOR EXPANSION AND CONTRACTION. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED SHOP DRAWINGS.

3. DISSIMILAR MATERIALS CONTACT: WHERE SHEET METAL IS SHOWN CONTACTING CONCRETE, MASONARY MATERIALS, STEEL, OTHER DISSIMILAR METAL, OR A CONTACTING WOOD, KEEP SHEET METAL FROM DIRECT CONTACT WITH THE DISSIMILAR MATERIALS BY A COAT OF BITUMINOUS OINT APPLIED TO A THICKNESS OF 12 TO 14 MILS.

4. PRIMER: #100 PRIMER BY PROTECTO WRAP.

5. PREPARATION
A. AREAS TO BE SEALED MUST BE CLEAN AND DRY, KNOCK OFF AND REMOVE ANY ROUGH OR JAGGED EDGES.

6. INSTALLATION
A. ROLL OUT PROTECTO ENERGY PLATE LINER AND ALIGN WITH PERIMETER OF SLAB. PEEL OFF THE RELEASE LINER FROM THE BOTTOM OF THE ENERGY PLATE LINER AND PLACE THE EXPOSED ADHESIVE SIDE DOWN ON TOP OF THE FOUNDATION.

- B. PRESSING THE ADHESIVE BOTTOM OF THE PROTECTO ENERGY PLATE LINER IN PLACE IS ESSENTIAL TO PROPERLY ADHERE THE PRODUCT TO THE FOUNDATION.

- C. FOR RE BAR OR ANCHOR BOLTS COMING OUT OF THE FOUNDATION, MAKE AN "X" CUT IN THE BACK OF THE PROPERTY LINER AND SLIDE OVER THE PROTRUSION PRESSING FIRMLY IN PLACE.

7. COLD WEATHER REQUIREMENTS
A. FOR INSTALLATIONS BELOW 40° F:

1. KEEP PROTECTO ENERGY PLATE LINER SEALER IN A WARM HEATED SPACE ABOVE 60° F BEFORE USE.

2. PRIME THE TOP OF THE FOUNDATION WITH #100 PRIMER AND FOLLOW PRIMER TO TACK UP, DO NOT APPLY ENERGY PLATE LINER TO WET PRIMER.

3. PEEL AND STICK THE PROTECTO ENERGY PLATE LINER SILL SEALER IN PLACE.

4. PROTECTO WRAP PROTECTO-TAK 16.25 OZ. SPRAY ADHESIVE MAY BE USED IN PLACE OF # 100 PRIMER.

- SECTION 07700 - MANUFACTURED ROOF SPECIALTIES

1. SECTION INCLUDES
A. COPINGS AND GRAVEL GUTS:

1. ARCHITECTURAL PRODUCTS: CO, PRODUCT TYPE AP STANDARD COPING: WWW.ARP-PROD.COM.

2. W.P. HICKMAN CO, PRODUCT PERMANAP COPING: WWW.WPH.COM.

3. MM SYSTEMS CORP, PRODUCT SNAP-LOCK COPING: WWW.MMSYSTEMSCORP.COM.

4. SUBSTITUTIONS: SEE SECTION 01600 - PRODUCT REQUIREMENTS.

5. ROOF HATCH: BILCO CO. WWW.BILCO.CO.

6. ROOF LADDER SAFETY POST: BILCO CO. WWW.BILCO.CO.

7. FRAMES: CURBS: ONE-PIECE CURB AND FRAME WITH INTEGRAL CAP FLASHING TO RECEIVE ROOF FLASHINGS; EXTENDED BOTTOM FLANGE TO SUIT MOUNTING.

8. MATERIAL: GALVANIZED STEEL, 14 GAGE, 0.0747 INCH THICK.

9. FINISH: FACTORY PRIME PAINT.

10. INSULATION: 1 INCH RIGID GLASS FIBER, LOCATED ON OUTSIDE FACE OF CURB.

11. FRAMES: CURBS: ONE-PIECE CURB AND FRAME WITH INTEGRAL CAP FLASHING TO RECEIVE ROOF FLASHINGS; EXTENDED BOTTOM FLANGE TO SUIT MOUNTING.

12. MATERIAL: GALVANIZED STEEL, 14 GAGE, 0.0747 INCH THICK, LINER 22 GAGE, 0.03 INCH THICK.

13. FINISH: FACTORY PRIME PAINT.

14. INSULATION: 1 INCH RIGID GLASS FIBER.

15. GASKET: NEOPRENE, CONTINUOUS AROUND COVER PERIMETER.

16. HARDWARE: STEEL, ZINC COATED AND CHROMATE SEALED, UNLESS OTHERWISE INDICATED OR REQUIRED BY MANUFACTURER.

17. LIFTING MECHANISMS: COMPRESSION SPRING OPERATOR WITH SHOCK ABSORBERS THAT AUTOMATICALLY OPENS UPON RELEASE OF LATCH; CAPABLE OF LIFTING COVERS DESPITE 10 PSF LOAD.

18. HINGES: HEAVY DUTY PINKLE TYPE.

19. HOLD OPEN ARM WITH VINYL-COATED HANDLE FOR MANUAL RELEASE.

20. LATCH: UPON CLOSING, ENGAGE LATCH AUTOMATICALLY AND RESET MANUAL RELEASE.

21. MANUAL RELEASE: PULL HANDLE ON INTERIOR.

22. LOCKING: PADLOCK HASP ON INTERIOR.

- SECTION 07820 - SHEET METAL FLASHING AND TRIM

1. SECTION

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

SECTION 07212 - BOARD AND BATT INSULATION

1. SECTION INCLUDES	A. FLUSH-MOUNT PASS THROUGH WINDOWS.
2. RELATED SECTIONS	A. SECTION 07620 (07 62 00) - SHEET METAL FLASHING AND TRIM. B. SECTION 07920 (07 92 00) - JOINT SEALANTS.
3. REFERENCES	A. ASTM A 240 - HEAT-RESISTING CHROMIUM AND CHROMIUM-NICKEL STAINLESS STEEL, PLATE, SHEET, AND STRIP FOR PRESSURE VESSELS. B. ASTM A 485 - STEEL, SHEET, ZINC-COATED (GALVANIZED), OR ZINC-IRON ALLOY-COATED (GALVANNEAL) BY THE HOT-DIP PROCESS. C. ASTM B 209 - ALUMINUM AND ALUMINUM-ALLOY SHEET AND PLATE. D. ASTM B 221 - ALUMINUM AND ALUMINUM-ALLOY EXTRUDED BARS, RODS, WIRE, PROFILES, AND TUBES. E. ASTM C 1048 - HEAT-TREATED FLAT GLASS-KIND HS, KIND FT COATED AND UNCOATED GLASS.
4. SUBMITTALS	A. COMPLY WITH SECTION 01300 - ADMINISTRATIVE REQUIREMENTS. B. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA, INCLUDING MATERIALS, COMPONENTS, FABRICATION, FINISH, AND INSTALLATION INSTRUCTIONS. C. SHOP DRAWINGS: SUBMIT MANUFACTURER'S SHOP DRAWINGS, INCLUDING PLANS, ELEVATIONS, SECTIONS, AND DETAILS, INDICATING DIMENSIONS, TOLERANCES, MATERIALS, FABRICATION, GLAZING, FASTENERS, HARDWARE, FINISH, ELECTRICAL WIRING DIAGRAMS, OPTIONS, AND ACCESSORIES.
5. DELIVERY, STORAGE, AND HANDLING	A. DELIVERY: DELIVER MATERIALS TO SITE IN MANUFACTURER'S ORIGINAL UNOPENED CONTAINERS AND PACKAGING, WITH LABELS CLEARLY IDENTIFYING PRODUCT NAME AND MANUFACTURER, SETTING BLOCKS, AND SPACERS, 2005. B. STORAGE: STORE MATERIALS IN CLEAN, DRY AREA INDOORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. C. HANDLING: PROTECT MATERIALS AND FINISH FROM DAMAGE DURING HANDLING AND INSTALLATION.
6. MANUFACTURER	A. READY ACCESS, INC., 1815 ARTHUR DRIVE, WEST CHICAGO, ILLINOIS 60185. TOLL FREE (800) 621-5045. PHONE (830) 876-7766. FAX (830) 876-7767. WEB SITE WWW.READY-ACCESS.COM. E-MAIL: READY@READY-ACCESS.COM.
7. FLUSH-MOUNT PASS-THRU WINDOWS	A. FLUSH-MOUNT PASS-THRU WINDOWS: 275 SINGLE PANEL MANUAL OPEN/SELF-CLOSING SLIDER WINDOW. 1. SERVICE OPENING: AS NOTED ON CONSTRUCTION DOCUMENTS.
8. DOOR OPERATION:	a. CLOSE: MANUAL. b. OPEN: MANUAL OR SELF-CLOSING.
9. DOOR TYPE: SLIDING, 1 DOOR PANEL	
10. OPENING DIRECTION: AS NOTED ON CONSTRUCTION DOCUMENTS.	
11. FRAME: EXTRUDED ALUMINUM, ASTM B 221, ALLOY 6063-T6 AND 6063-T52.	
12. ALUMINUM SHEET: ASTM B 209, ALLOY 5005-AQ-H34.	
13. GALVANIZED STEEL SHEET: ASTM A 653, GR90.	
14. BOTTOM STILL: ANGLED DOWNWARD, TRAP-FREE.	
15. SECURITY LOCK: ALUMINUM BAR EXTRUSION WITH SLIDING SPRING-LOADED LOCKING CLIP.	
16. FASTENERS: STAINLESS STEEL RIVETS AND HEX-HEAD ZINC-PLATED SELF-THREADING MACHINE SCREWS.	
17. HANDLE: BLACK DELRIN HANDLE WITH PRESSED-IN STAINLESS STEEL SPRING PINS. STAINLESS STEEL HANDLE MOUNTING BRACKET. STAINLESS STEEL SPRING-LOADED MOUNTING BASE.	
18. GLAZING: 1/4-INCH TEMPERED GLASS, ASTM C 1048, CLEAR.	
19. SILICONE GLAZING SEALANT: DOW CORNING 999A.	
20. FABRICATION	A. ASSEMBLY: FACTORY ASSEMBLED, FACTORY GLAZED.
21. ALUMINUM FINISH	A. ANODIZED: 1. FINISH TO MATCH EXISTING ALUMINUM STOREFRONT SYSTEM.
22. EXAMINATION	A. EXAMINE AREAS TO RECEIVE PASS-THRU WINDOWS: NOTIFY ARCHITECT OF CONDITIONS THAT WOULD ADVERSELY AFFECT INSTALLATION OR SUBSEQUENT USE. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.
23. PREPARATION	A. ENSURE OPENINGS TO RECEIVE PASS-THRU WINDOWS ARE PLUMB, LEVEL, SQUARE, ACCURATELY ALIGNED, CORRECTLY LOCATED, AND IN TOLERANCE.
24. INSTALLATION	A. INSTALL PASS-THRU WINDOWS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. INSTALL PASS-THRU WINDOWS PLUMB, LEVEL, SQUARE, TRUE TO LINE, AND WITHOUT WARP OR RACK. C. INSTALL PASS-THRU WINDOW COMPONENTS WEATHERLIGHT. D. ANCHOR PASS-THRU WINDOWS SECURELY IN PLACE TO SUPPORTS, USE ATTACHMENT METHODS PERMITTING ADJUSTMENT FOR CONSTRUCTION TOLERANCES, IRREGULARITIES, ALIGNMENT, AND EXPANSION AND CONTRACTION. E. SEPARATE ALUMINUM FROM OTHER METAL SURFACES WITH BITUMINOUS COATINGS OR OTHER MEANS APPROVED BY ARCHITECT. F. SHEET METAL FLASHING: INSTALL SHEET METAL FLASHING AS SPECIFIED IN SECTION 07620. G. JOINT SEALANTS: INSTALL JOINT SEALANTS AS SPECIFIED IN SECTION 07900.
25. ADJUSTING	A. ADJUST DOORS TO BE WEATHER TIGHT IN CLOSED POSITION. B. ADJUST DOORS AND OPERATING HARDWARE TO FUNCTION PROPERLY AND FOR SMOOTH OPERATION WITHOUT BINDING.
26. CLEANING	A. CLEAN PASS-THRU WINDOWS PROMPTLY AFTER INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. REMOVE EXCESS JOINT SEALANT IN ACCORDANCE WITH SEALANT MANUFACTURER'S INSTRUCTIONS. C. DO NOT USE HARSH CLEANING MATERIALS OR METHODS THAT WOULD DAMAGE GLAZING OR FINISH.
27. PROTECTION	A. PROTECT INSTALLED PASS-THRU WINDOWS TO ENSURE THAT, EXCEPT FOR NORMAL WEATHERING, PASS-THRU WINDOWS WILL BE WITHOUT DAMAGE OR DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.
SECTION 08710-DOOR HARDWARE	
1. SECTION INCLUDES	A. HARDWARE FOR WOOD AND HOLLOW STEEL DOORS.
2. REFERENCES	A. ANSI/HCO A117.1 - AMERICAN NATIONAL STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES; INTERNATIONAL CODE COUNCIL, 2003. B. BHMA A156.1 THRU 156.1 - BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.; 2005. C. DHI A115 SERIES - SPECIFICATIONS FOR STEEL DOORS AND FRAME PREPARATION FOR HARDWARE; DOOR AND HARDWARE INSTITUTE, 2000. D. DHI (DOCS) - RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR STANDARD STEEL DOORS AND FRAMES; DOOR AND HARDWARE INSTITUTE, 2004. E. DHI WDHS 3 - RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR FLUSH WOOD DOORS; DOOR AND HARDWARE INSTITUTE, 1996.
3. SUBMITTALS	A. SHOP DRAWINGS: 1. INDICATE LOCATIONS AND MOUNTING HEIGHTS OF EACH TYPE OF HARDWARE, SCHEDULES, CATALOG NOS., ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS. 2. SUBMIT MANUFACTURER'S PARTS LISTS AND TEMPLATES. B. MAINTENANCE DATA: INCLUDE DATA ON OPERATING HARDWARE, LUBRICATION REQUIREMENTS, AND INSPECTION PROCEDURES RELATED TO PREVENTATIVE MAINTENANCE. C. KEYS: DELIVER WITH IDENTIFYING TAGS TO OWNER BY SECURITY SHIPMENT DIRECT FROM HARDWARE SUPPLIER. D. WARRANTY: SUBMIT MANUFACTURER'S WARRANTY AND ENSURE THAT FORMS HAVE BEEN COMPLETED IN OWNER'S NAME AND REGISTERED WITH MANUFACTURER.
4. COORDINATION	A. COORDINATE THE WORK WITH OTHER DIRECTLY AFFECTED SECTIONS INVOLVING MANUFACTURE OR FABRICATION OF INTERNAL REINFORCEMENT FOR DOOR HARDWARE.
5. GENERAL REQUIREMENTS FOR DOOR HARDWARE PRODUCTS	A. PROVIDE PRODUCTS THAT COMPLY WITH THE FOLLOWING: 1. APPLICABLE PROVISIONS OF FEDERAL, STATE, AND LOCAL CODES. 2. PROVIDE PRODUCTS FROM THE MANUFACTURERS AND FINISH LISTED IN THE SCHEDULE LOCATED IN THE CONSTRUCTION DOCUMENTS. NO SUBSTITUTION ALLOWED WITHOUT WRITTEN APPROVAL. B. FINISHES: IDENTIFIED IN SCHEDULE LOCATED IN THE CONSTRUCTION DOCUMENTS.

6. KEYING	A. DOOR LOOKS: MASTER KEYED. B. SUPPLY KEYS IN THE FOLLOWING QUANTITIES: 1. 4 MASTER KEYS 2. STAMP ALL PERMANENT MASTER KEYS WITH A SET NUMBER AND "DO NOT DUPLICATE" 3. 4 CONSTRUCTION KEYS 4. 4 CONTROL KEYS AND 4 EXTRA CYLINDER COPIES. 5. 4 CHANGE KEYS FOR EACH LOCK. 6. RE-KEY ENTIRE BUILDING AT BUILDING TURNOVER.
7. EXAMINATION	A. VERIFY THAT DOORS AND FRAMES ARE READY TO RECEIVE WORK AND DIMENSIONS ARE AS INDICATED ON SHOP DRAWINGS.
8. INSTALLATION	A. INSTALL HARDWARE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPLICABLE CODES. B. USE TEMPLATES PROVIDED BY HARDWARE ITEM MANUFACTURER. C. MOUNTING HEIGHTS FROM FINISHED FLOOR TO CENTER LINE OF HARDWARE ITEM: 1. FOR STEEL DOORS AND FRAMES, COMPLY WITH DHI "RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR STEEL DOORS AND FRAMES." 2. FOR WOOD DOORS: COMPLY WITH DHI "RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR WOOD FLUSH DOORS." D. ADJUST HARDWARE FOR SMOOTH OPERATION.
SECTION 08800 - GLAZING	
1. SECTION INCLUDES	A. GLASS. B. GLAZING COMPOUNDS AND ACCESSORIES.
2. REFERENCES	A. FC CR 1201 - SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS; CURRENT EDITION. B. ASTM C 864 - STANDARD SPECIFICATION FOR DENSE ELASTOMERIC COMPRESSION SEAL GASKETS; SETTING BLOCKS, AND SPACERS; 2005. C. ASTM C 920 - STANDARD SPECIFICATION FOR ELASTOMERIC JOINT SEALANTS; 2005. D. ASTM C 1036 - STANDARD SPECIFICATION FOR GLASS, 2001. E. ASTM C 1038 - STANDARD SPECIFICATION FOR HEAT-TREATED FLAT GLASS-KIND HS, KIND FT COATED AND UNCOATED GLASS; 2004. F. ASTM C 1193 - STANDARD GUIDE FOR USE OF JOINT SEALANTS; 2005a. G. ASTM E 2190 - STANDARD SPECIFICATION FOR INSULATING GLASS UNIT PERFORMANCE AND EVALUATION; 2002.
3. PERFORMANCE REQUIREMENTS	A. PROVIDE GLASS AND GLAZING MATERIALS FOR CONTINUITY OF BUILDING ENCLOSURE VAPOR RETARDER AND AIR BARRIER: 1. IN CONJUNCTION WITH VAPOR RETARDER AND JOINT SEALER MATERIALS DESCRIBED IN OTHER SECTIONS. 2. TO MAINTAIN A CONTINUOUS AIR BARRIER AND VAPOR RETARDER THROUGHOUT THE GLAZED ASSEMBLY FROM GLASS PANE TO HEE BEAD OF GLAZING SEALANT.
4. SUBMITTALS	A. PRODUCT DATA ON GLASS TYPES: PROVIDE STRUCTURAL, PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS, SIZE LIMITATIONS, SPECIAL HANDLING OR INSTALLATION REQUIREMENTS. B. PROVIDE DATA ON GLAZING COMPOUNDS: PROVIDE CHEMICAL, FUNCTIONAL, AND ENVIRONMENTAL CHARACTERISTICS, LIMITATIONS, SPECIAL APPLICATION REQUIREMENTS. IDENTIFY AVAILABLE COLORS. C. CERTIFICATES: CERTIFY THAT PRODUCTS MEET OR EXCEED SPECIFIED REQUIREMENTS.
5. QUALITY ASSURANCE	A. PERFORM WORK IN ACCORDANCE WITH GANA GLAZING MANUAL AND FGMA SEALANT MANUAL FOR GLAZING INSTALLATION METHODS.
6. FLAT GLASS MATERIALS	A. CLEAR FLOAT GLASS: CLEAR, FULLY TEMPERED. 1. COMPLY WITH ASTM C 1036, TYPE I, TRANSPARENT FLAT, CLASS 1 CLEAR, QUALITY Q3 (GLAZING SELECT). 2. COMPLY WITH ASTM C 1048. 3. 6 MM MINIMUM THICK. B. SAFETY GLASS: CLEAR, FULLY TEMPERED WITH HORIZONTAL TEMPERING. 1. COMPLY WITH ASTM C 1036, TYPE I, TRANSPARENT FLAT, CLASS 1 CLEAR, QUALITY Q3 (GLAZING SELECT) AND ASTM C 1048. 2. COMPLY WITH FC CR 1201 TEST REQUIREMENTS FOR CATEGORY II. C. WALL MIRROR: 1. PLATE GLASS, ELECTROPLATED AND BAKED FOR CORROSION RESISTANCE. 2. THICKNESS: 1/4". 3. COLOR: CLEAR. 4. DO NOT ALLOW FIELD CUTTING OF MIRROR.
7. SEALED INSULATING GLASS MATERIALS	A. INSULATED GLASS UNITS: DOUBLE PANE WITH LOW E GLASS TO ELASTOMER EDGE SEAL. 1. DURABILITY: CERTIFIED BY AN INDEPENDENT TESTING AGENCY TO COMPLY WITH ASTM E 2190. 2. PURGE INTERPANE SPACE WITH DRY HERMETIC AIR. 3. TOTAL UNIT THICKNESS OF 1" INCH MINIMUM.

8. GLAZING COMPOUNDS	A. BUTYL SEALANT: SINGLE COMPONENT; ASTM C 920, GRADE NS, CLASS 12-12. USES M AND A; SHORE A HARDNESS 20 TO 25; 0.0001 INCH COLOR; NON-SKINNING. B. SILICONE SEALANT: SINGLE COMPONENT; NEUTRAL CURING; CAPABLE OF WATER IMMERSION WITHOUT LOSS OF PROPERTIES; NON-BLEEDING, NON-STAINING; ASTM C 920, TYPE 1, GRADE NS, CLASS 25, USES M, A, AND G, CURED SHORE A HARDNESS OF 15 TO 25; COLOR AS NOTED IN FINISH SCHEDULE ON DRAWINGS.
9. GLAZING ACCESSORIES	A. SETTING BLOCKS: NEOPRENE, 80 TO 90 SHORE A DUROMETER HARDNESS, ASTM C 864 OPTION 1 LENGTH OF 0.1 INCH FOR EACH SQUARE FOOT OF GLAZING OR MINIMUM 4 INCH X WIDTH OF GLAZING RABBIT SPACE MINUS 1/16 INCH X HEIGHT TO SUIT GLAZING METHOD PANE WEIGHT AND AREA. B. SPACER SHIMS: NEOPRENE, 50 TO 60 SHORE A DUROMETER HARDNESS, ASTM C 864 OPTION 1. C. GLAZING TAPE: PREFORMED BUTYL COMPOUND WITH INTEGRAL RESILIENT TUBE SPACING DEVICE, 10 TO 15 SHORE A DUROMETER HARDNESS; COILED ON RELEASE PAPER; SIZE AS RECOMMENDED BY GLASS MANUFACTURER; BLACK COLOR. 1. MANUFACTURERS: a. PECORA CORPORATION: WWW.PECORA.COM b. TREMO: WWW.TREMO.COM c. SUBSTITUTIONS: REFER TO SECTION 01600 - PRODUCT REQUIREMENTS. D. GLAZING GASKETS: RESILIENT SILICONE EXTRUDED SHAPE TO SUIT GLAZING CHANNEL. E. GLAZING CLIPS: STAINLESS STEEL. F. GLAZING FILM: NEUTRAL ANTI-GLARE WINDOW FILM. SOFT HORIZONS V338 SR CDF BY VISTA WINDOW FILM: WWW.VISTA-FILMS.COM OR APPROVED SUBSTITUTION.
10. PREPARATION	A. PRIME SURFACES SCHEDULED TO RECEIVE SEALANT. B. INSTALL SEALANTS IN ACCORDANCE WITH ASTM C 1193 AND FGMA SEALANT MANUAL. C. INSTALL SEALANT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
11. INSTALLATION - EXTERIOR WETDOY METHOD (PREFORMED TAPE AND SEALANT)	A. CUT GLAZING TAPE TO LENGTH AND SET AGAINST PERMANENT STOPS, 3/16 INCH BELOW SIGHT LINE, BEAD CORNERS BY BUTTING TAPE AND DABBING WITH BUTYL SEALANT. B. APPLY HEE BEAD OF BUTYL SEALANT ALONG INTERSECTION OF PERMANENT STOP WITH FRAME SURROUNDING SPACE; SETTING SEAL BETWEEN GLASS AND FRAME TO COMPLETE THE CONTINUITY OF THE AIR AND VAPOR SEAL. C. PLACE SETTING BLOCKS AT 1/4 POINTS WITH EDGE BLOCK NO MORE THAN 6 INCHES FROM CORNERS. D. REST GLAZING ON SETTING BLOCKS AND PUSH AGAINST TAPE AND HEE BEAD OF SEALANT WITH SUFFICIENT PRESSURE TO ATTAIN FULL CONTACT AT PERIMETER OF PANE OR GLASS UNIT. E. INSTALL REMOVABLE STOPS, WITH SPACER STRIPS INSERTED BETWEEN GLAZING AND APPLIED STOPS, 1/4 INCH BELOW SIGHT LINE. PLACE GLAZING TAPE ON GLAZING PANE OR UNIT WITH TAPE FLUSH WITH SIGHT LINE. F. FILL GAP BETWEEN GLAZING AND STOP WITH SEALANT TO DEPTH EQUAL TO BITE OF FRAME ON GLAZING, BUT NOT MORE THAN 3/8 INCH BELOW SIGHT LINE. G. APPLY CAP BEAD OF SEALANT ALONG VOID BETWEEN THE STOP AND THE GLAZING, TO UNIFORM LINE, FLUSH WITH SIGHT LINE. TOOL OR WIPE SEALANT SURFACE SMOOTH.
12. INSTALLATION - INTERIOR DRY METHOD (TAPE AND TAPE)	A. CUT GLAZING TAPE TO LENGTH AND SET AGAINST PERMANENT STOPS, PROJECTING 1/16 INCH (1.6MM) ABOVE SIGHT LINE. B. PLACE SETTING BLOCKS AT 1/4 POINTS WITH EDGE BLOCK NO MORE THAN 6 INCHES FROM CORNERS. C. REST GLAZING ON SETTING BLOCKS AND PUSH AGAINST TAPE FOR FULL CONTACT. D. PLACE GLAZING TAPE ON FREE PERIMETER OF GLAZING IN SAME MANNER DESCRIBED ABOVE. E. INSTALL REMOVABLE STOP WITHOUT DISPLACEMENT OF TAPE. EXERT PRESSURE ON TAPE FOR FULL CONTINUOUS CONTACT. F. KNIFE TRIM PROTRUDING TAPE.
13. INSTALLATION - GLAZING FILM	A. INSTALL FILM PER MANUFACTURER'S RECOMMENDATIONS. B. PROVIDE NEW FILM AT ALL EXTERIOR GLAZING.
14. INSTALLATION - WALL MIRRORS	A. SET IN 2"x2" STEEL ANGLE WITH TAPE. B. PROVIDE BOTTOM SUPPORT FOR MIRRORS FOR 3 DAYS UNTIL ADHESIVE HAS SET. C. TOLERANCES: 1. OFFSET IN ALIGNMENT OF ADJOINING EDGES: MAX 1/16 INCH. 2. OFFSET IN FACE ALIGNMENT OVER WALL SURFACE: MAX 1/8 INCH. 3. NO GAP BETWEEN ADJACENT MEMBERS.
15. CLEANING	A. REMOVE GLAZING MATERIALS FROM FINISH SURFACES. B. REMOVE LABELS AFTER WORK IS COMPLETE. C. CLEAN GLASS AND ADJACENT SURFACES.
16. PROTECTION	A. AFTER INSTALLATION, MARK PANE WITH "X" BY USING REMOVABLE PLASTIC TAPE OR PASTE; DO NOT MARK HEAT ABSORBING OR REFLECTIVE GLASS UNITS.
SECTION 09 - FINISHES	
SECTION 09200 - GYPSUM BOARD ASSEMBLIES	
1. SECTION INCLUDES	A. FIRE RATED WALLS. B. ACOUSTIC INSULATION. C. GYPSUM TILE BACKER BOARD. D. GYPSUM WALLBOARD. E. JOINT TREATMENT AND ACCESSORIES. F. METAL FRAMING.
2. REFERENCES	A. ANSI A108.11 AMERICAN NATIONAL STANDARD FOR INTERIOR INSTALLATION OF CEMENTITIOUS BACKER UNITS; 1999 (R2005). B. ANSI A118.9 AMERICAN NATIONAL STANDARD SPECIFICATIONS FOR TEST METHODS AND SPECIFICATIONS FOR CEMENTITIOUS BACKER UNITS; 1999 (R2005). C. ASTM C 475/C 475M STANDARD SPECIFICATION FOR JOINT COMPOUND AND JOINT TAPE FOR FINISHING GYPSUM BOARD; 2002. D. ASTM C 840 STANDARD SPECIFICATION FOR APPLICATION AND FINISHING OF GYPSUM BOARD; 2005. E. ASTM C 1396/C 1396M STANDARD SPECIFICATION FOR GYPSUM BOARD; 2004. F. ASTM E 72 STANDARD TEST METHODS OF CONDUCTING STRENGTH TESTS OF PANELS FOR BUILDING CONSTRUCTION; 2005.
3. GYPSUM BOARD MATERIALS	A. MANUFACTURERS: 1. BPE AMERICA INC: WWW.BPE-NA.COM 2. G-P GYPSUM CORPORATION: WWW.GP.COM/GYPSUM 3. NATIONAL GYPSUM COMPANY: WWW.NATIONALGYPSUM.COM 4. USG: WWW.USG.COM B. GYPSUM WALLBOARD: ASTM C 1396/C 1396M. SIZES TO MINIMIZE JOINTS IN PLACE; ENDS SQUARE CUT. 1. REGULAR TYPE: A. APPLICATION: USE FOR VERTICAL SURFACES, UNLESS OTHERWISE INDICATED. B. EDGES: TAPERED. C. TYPE: TYPE: REGULAR AND TYPE X, AS INDICATED. 2. CORE TYPE: 5/8 INCH. 3. EDGES: TAPERED. 4. FIBERGLASS REINFORCED BOARD MATERIALS A. GYPSUM TILE BACKER BOARD: ASTM C1178 STANDARD SPECIFICATION FOR GLASS MAT WATER-RESISTANT GYPSUM BACKING PANEL, 5/8 INCH THICK.
4. ACCESSORIES	A. ACOUSTIC INSULATION: ASTM C 685; PREFORMED GLASS FIBER, FRICTION FIT TYPE, UNFACED. B. FINISHING ACCESSORIES: ASTM C 1047, GALVANIZED STEEL, UNLESS OTHERWISE INDICATED. 1. TYPES: AS DETAILED OR REQUIRED FOR FINISHED APPEARANCE. C. JOINT MATERIALS: ASTM C 475 AND AS RECOMMENDED BY GYPSUM BOARD MANUFACTURER FOR PROJECT CONDITIONS. 1. TAPE: 2 INCH WIDE, COATED GLASS FIBER TAPE FOR JOINTS AND CORNERS, EXCEPT AS OTHERWISE INDICATED. 2. TAPE: 2 INCH WIDE, CREASED PAPER TAPE FOR JOINTS AND CORNERS, EXCEPT AS OTHERWISE INDICATED. 3. READY-MIXED VINYL-BASED JOINT COMPOUND. D. FASTENERS: SCREWS, PER ASTM 1002; 1-1/4" TYPE "W" BUGLE HEAD INTO WOOD FRAMING 1-1/8" TYPE "S" BUGLE HEAD INTO STEEL FRAMING, AND 3/8" TYPE "S-12" PAN (OR LOW PROFILE) HEAD FOR STEEL TO STEEL FRAMING CONNECTIONS.

6. EXAMINATION	A. VERIFY THAT PROJECT CONDITIONS ARE APPROPRIATE FOR WORK OF THIS SECTION TO COMMENCE.
7. ACOUSTIC ACCESSORIES INSTALLATION	A. ACOUSTIC INSULATION: PLACE TIGHTLY WITHIN SPACES, AROUND CUT OPENINGS, BEHIND AND AROUND ELECTRICAL AND MECHANICAL ITEMS WITH PARTITIONS, AND TIGHT TO ITEMS PASSING THROUGH PARTITIONS. B. ACOUSTIC SEALANT: INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
8. FRAMING	A. WOOD FRAMING: BOARD APPLICATION AND FINISH STANDARDS: SUDGING SHALL BE 1/6" O.C. UNLESS OTHERWISE NOTED. B. INSTALL CEILING BOARDS IN THE DIRECTION AND MANNER WHICH WILL MINIMIZE THE NUMBER OF END-BUTT JOINTS, AND WHICH WILL AVOID END JOINTS IN THE CENTRAL AREA OF EACH CEILING BAY. END JOINTS SHALL BE AT LEAST 4'-0". C. INSTALL WALL PARTITION BOARDS VERTICALLY TO AVOID END-BUTT JOINTS WHEREVER POSSIBLE. D. LOCATE EITHER EDGE OR END JOINTS OVER SUPPORTS. STAGGER JOINTS OVER DIFFERENT STUDS ON OPPOSITE SIDES OF PARTITIONS. E. SPACE FASTENERS IN GYPSUM BOARD IN ACCORDANCE WITH REFERENCED STANDARDS AND MANUFACTURER'S RECOMMENDATIONS, EXCEPT AS OTHERWISE INDICATED. 1. PARALLEL APPLICATIONS: 12" O.C. IN FIELD; 8" O.C. ALONG EDGES. 2. PERPENDICULAR APPLICATIONS: 12" O.C. IN FIELD; 12" O.C. ALONG EDGES.
10. GYPSUM BOARD INSTALLATION	A. COMPLY WITH ASTM C 840 AND MANUFACTURER'S INSTRUCTIONS. INSTALL TO MINIMIZE BUTT END JOINTS, ESPECIALLY IN HIGHLY VISIBLE LOCATIONS. B. SINGLE-LAYER NON-RATED: INSTALL GYPSUM BOARD IN MOST ECONOMICAL DIRECTION, WITH ENDS AND EDGES OCCURRING OVER TRIM BEARING. C. FIRE-RATED CONSTRUCTION: INSTALL GYPSUM BOARD IN STRICT COMPLIANCE WITH REQUIREMENTS OF LISTING AUTHORITY. D. TILE BACKING BOARD: INSTALL OVER FRAMING MEMBERS WHERE INDICATED, IN ACCORDANCE WITH ANSI A108.11 AND MANUFACTURER'S INSTRUCTIONS. E. INSTALLATION ON FRAMING: USE SCREWS FOR ATTACHMENT OF ALL GYPSUM BOARD. F. SUPPORT FIXTURE LOADS USING SUPPLEMENTARY HANGERS LOCATED WITHIN 6 INCHES OF EACH CORNER, OR SUPPORT COMPONENTS INDEPENDENTLY. G. ALL GYPSUM BOARD CEILING INSTALLATIONS TO HAVE A LEVEL 3 FINISH IN ALL PUBLIC AREAS, NO LESSER FINISH WILL BE ALLOWED.
12. JOINT TREATMENT	A. CORNER BEADS: INSTALL AT EXTERNAL CORNERS, USING LONGEST PRACTICAL LENGTHS. B. JOINT TREATMENT: 1. FINISH ALL GYPSUM BOARD IN ACCORDANCE WITH ASTM C 840 LEVEL 4. 2. TAPE, FILL, AND SAND EXPOSED JOINTS, EDGES, AND CORNERS TO PRODUCE SMOOTH SURFACE READY TO RECEIVE FINISHES. 1. FEATHER COATS OF JOINT COMPOUND SO THAT CAMBER IS MAXIMUM 1/32 INCH. 2. TAPING, FILLING, AND SANDING IS NOT REQUIRED AT JOINTS BEHIND ADHESIVE APPLIED CERAMIC TILE AND FIXED CABINETRY.
13. TOLERANCES	A. MAXIMUM VARIATION OF FINISHED GYPSUM BOARD SURFACE FROM TRUE FLATNESS: 1/8 INCH IN 10 FEET IN ANY DIRECTION.
SECTION 09300 - TILE	
1. SECTION INCLUDES	A. TILE FOR FLOOR APPLICATIONS. B. TILE FOR WALL APPLICATIONS. C. FIBERGLASS REINFORCED GYPSUM BOARD AS TILE SUBSTRATE. D. ALUMINUM TRIM. E. WATERPROOFING SHEET MEMBRANE.
2. REFERENCES	A. ANSI A108 SERIES/ A118 SERIES/ A136.1 - AMERICAN NATIONAL STANDARD SPECIFICATIONS FOR THE INSTALLATION OF CERAMIC TILE (COMPENDIUM); 2005. 1. TCA (NB) - HANDBOOK FOR CERAMIC TILE INSTALLATION; TILE COUNCIL OF NORTH AMERICA, INC.; 2014.
3. QUALITY ASSURANCE	A. MAINTAIN ONE COPY OF TCA HANDBOOK AND ANSI A108 SERIES/ A118 SERIES ON SITE.
4. DELIVERY, STORAGE, AND HANDLING	A. PROTECT ADHESIVES FROM FREEZING OR OVERHEATING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. EXTRA MATERIALS	A. PROVIDE 10 SQ. FT. FOR EACH SIZE, COLOR, AND SURFACE FINISH OF TILE SPECIFIED.
6. TILE	A. REFER TO FINISH SCHEDULE ON THE CONSTRUCTION DOCUMENTS FOR MATERIAL SELECTIONS.
7. TRIM AND ACCESSORIES	A. TRIM: MATCHING BULLNOSE, SURFACE BULLNOSE, COVE BASE, AND COVE CERAMIC SHAPES AS SCHEDULED IN SIZES COORDINATED WITH FIELD TILE. 1. APPLICATIONS: USE IN THE FOLLOWING LOCATIONS: A. OPEN EDGES: SCHLUTER EDGE AS NOTED ON DRAWINGS AT ALL CONDITIONS. B. INSIDE CORNERS: SCHLUTER INSIDE EDGE AS NOTED ON DRAWINGS IN RESTROOMS. C. FLOOR TO WALL JOINTS: SCHLUTER COVE BASE AS NOTED ON DRAWINGS IN RESTROOMS. 2. MANUFACTURER: SCHLUTER.
8. ADHESIVE MATERIALS	A. ORGANIC ADHESIVE: ANSI A136.1, THINSET BOND TYPE; USE TYPE I IN AREAS SUBJECT TO PROLONGED MOISTURE EXPOSURE. B. EPOXY ADHESIVE: ANSI A118.3, THINSET BOND TYPE.
9. GROUT MATERIALS	A. STANDARD GROUT: ANY TYPE SPECIFIED ANS A118.6 OR A118.7. B. EPOXY GROUT: CUSTOM BUILDING PRODUCTS, CEG-IG, ANSI A118, MODIFIED EPOXY EMULSION GROUT.
10. EXAMINATION	A. VERIFY THAT SUB-FLOOR SURFACES ARE SMOOTH AND FLAT WITHIN THE TOLERANCES SPECIFIED FOR THAT TYPE OF WORK AND ARE READY TO RECEIVE TILE. B. VERIFY THAT WALL SURFACES ARE SMOOTH AND FLAT WITHIN THE TOLERANCES SPECIFIED FOR THAT TYPE OF WORK, ARE DUST-FREE, AND ARE READY TO RECEIVE TILE. C. VERIFY THAT SUB-FLOOR SURFACES ARE DUST-FREE AND FREE OF SUBSTANCES WHICH WOULD IMPAIR BONDING OF SETTING MATERIALS TO SUB-FLOOR SURFACES. D. VERIFY THAT CONCRETE SUBFLOORS ARE READY FOR TILE INSTALLATION BY TESTING FOR MOISTURE EMISSION RATE AND ALKALINITY; OBTAIN INSTRUCTIONS IF TEST RESULTS ARE NOT WITHIN LIMITS RECOMMENDED BY TILE MANUFACTURER AND SETTING MATERIALS MANUFACTURER.
11. PREPARATION	A. PROTECT SURROUNDING WORK FROM DAMAGE. B. VACUUM CLEAN SURFACES AND DAMP CLEAN. C. SEAL SUBSTRATE SURFACE CRACKS WITH FILLER, LEVING EXISTING SUBSTRATE SURFACES TO ACCEPTABLE FLATNESS TOLERANCES. D. INSTALL CEMENTITIOUS BACKER BOARD IN ACCORDANCE WITH ANSI A108.11 AND BOARD MANUFACTURER'S INSTRUCTIONS FOR JOINTS AND CORNERS, COVER WITH SKIM COAT OF DRY-SET MORTAR TO A FEATHER EDGE. E. PREPARE SUBSTRATE SURFACES FOR ADHESIVE INSTALLATION IN ACCORDANCE WITH ADHESIVE MANUFACTURER'S INSTRUCTIONS.
12. INSTALLATION - GENERAL	A. INSTALL WATERPROOFING MEMBRANE ALONG WALL BASE AND UP WALL SURFACE MINIMUM 1 FOOT ON BOTH SURFACES. B. INSTALL WATERPROOFING MEMBRANE, TILE AND GROUT IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF ANSI A108.1 THROUGH A108.13, MANUFACTURER'S INSTRUCTIONS, AND TCA HANDBOOK RECOMMENDATIONS. C. LAY TILE TO PATTERN INTERIOR TILE PATTERN THROUGH OPENINGS, D. CUT AND FIT TILE TO PENETRATIONS THROUGH TILE, LEAVING SEALANT JOINT SPACE, FORM CORNERS AND BASES NEATLY. ALIGN FLOOR JOINTS. D. ALLOW TILE TO SET FOR A MINIMUM OF 48 HOURS PRIOR TO GROUTING. E. GROUT TILE JOINTS. USE STANDARD GROUT UNLESS OTHERWISE INDICATED. F. APPLY SEALANT TO JUNCTION OF TILE AND DISMISSAL MATERIALS AND JUNCTION OF DISMISSAL PLANES SEALANT SHALL BE COLOR MATCHED TO GROUT COLOR.
13. INSTALLATION - FLOORS - THIN-SET METHODS	A. OVER INTERIOR CONCRETE SUBSTRATES, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F113. DRY-SET OR LATEX- PORTLAND CEMENT BOND COAT, WITH STANDARD GROUT, UNLESS OTHERWISE INDICATED. 1. WHERE EPOXY BOND AND GROUT ARE INDICATED, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD F131.
14. INSTALLATION - WALL TILE	A. OVER FIBERGLASS REINFORCED BACKER BOARD, INSTALL IN ACCORDANCE WITH TCA HANDBOOK METHOD W223. ORGANIC ADHESIVE.
15. CLEANING	A. CLEAN TILE AND GROUT SURFACES.

SECTION 09511 - SUSPENDED ACOUSTICAL CEILINGS	
1. SECTION INCLUDES	A. SUSPENDED METAL GRID CEILING SYSTEM. B. SUSPENSION ACCESSORIES.
2. REFERENCES	A. ASTM C 635 - STANDARD SPECIFICATION FOR THE MANUFACTURE, PERFORMANCE, AND TESTING OF METAL SUSPENSION SYSTEM FOR ACOUSTICAL TILE AND LAY-IN PANEL CEILINGS; 2004. B. ASTM C 636 - STANDARD PRACTISE FOR INSTALLATION OF METAL CEILING SUSPENSION SYSTEM FOR ACOUSTICAL TILE AND LAY-IN PANELS; 2004. C. ASTM E 580 - STANDARD PRACTICE FOR APPLICATION OF CELING SUSPENSION SYSTEM FOR ACOUSTICAL TILE AND LAY-IN PANELS IN JOINTS REQUIRING SEISMIC RESISTANT; 2002. D. ASTM E 1264 - STANDARD CLASSIFICATION FOR ACOUSTICAL CEILING PRODUCTS; 1998 (REAPPROVED 2005).
3. EXTRA MATERIALS	A. SEE SECTION 01600 - PRODUCT REQUIREMENTS, FOR ADDITIONAL PROVISIONS. B. PROVIDE FIVE PERCENT OF TOTAL ACQUICAL UNIT AREA OF EACH TYPE OF ACOUSTICAL UNIT FOR OWNERS USE IN MAINTENANCE OF PROJECT.
4. ACOUSTICAL UNITS	A. UNITED STATES GYPSUM, USG 1. MANUFACTURERS: A. USG: WWW.USG.COM. B. ACOUSTICAL UNITS - GENERAL: ASTM E 1264, CLASS A. 1. PRODUCT, MODEL NUMBER AND FINISH AS SCHEDULED IN THE CONSTRUCTION DOCUMENTS.
5. SUSPENSION SYSTEM(S)	A. MANUFACTURERS: 1. USG: "DOWN AIC", 16"X16" EXPOSED TEE B. SUSPENSION SYSTEM - GENERAL: ASTM C 635; ALUMINUM, DIE CUT AND INTERLOCKING COMBINATION, WITH STABILIZER STRIPS, CLIPS, SPACERS, PERIMETER MOLDINGS, AND HOLD DOWN CLIPS AS REQUIRED. PRE-FINISHED TO MATCH CEILING TILE COLOR OR AS NOTED ABOVE.
6. ACCESSORIES	A. SUPPORT CHANNELS AND HANGERS: GALVANIZED STEEL; SIZE AND TYPE TO SUIT APPLICATION, SEISMIC REQUIREMENTS SPECIFIED. B. PERIMETER MOLDINGS: SAME MATERIAL AND FINISH AS GRID. 1. AT EXPOSED GRID: PROVIDE L-SHAPED MOLDING FOR MOUNTING AT SAME ELEVATION AS FACE OF GRID.
7. INSTALLATION - SUSPENSION SYSTEM	A. INSTALL SUSPENSION SYSTEM IN ACCORDANCE WITH ASTM C 636, ASTM E 580, AND MANUFACTURER'S INSTRUCTIONS AND AS SUPPLEMENTED IN THIS SECTION. B. RIGIDLY SECURE SYSTEM, INCLUDING INTEGRAL MECHANICAL AND ELECTRICAL COMPONENTS, FOR MAXIMUM DEFLECTION OF 1/360". C. INSTALL AFTER MAJOR ABOVE-CEILING WORK IS COMPLETE. COORDINATE THE LOCATION OF HANGERS WITH OTHER INTERIOR WORK. D. HANG SUSPENSION SYSTEM INDEPENDENT OF WALLS, COLUMNS, DUCTS, PIPES AND CONDUIT, WHERE CARRYING MEMBERS ARE SPLICED, AVOID VISIBLE DISPLACEMENT OF FACE PLANE OF ADJACENT MEMBERS. E. WHERE DUCTS OR OTHER EQUIPMENT PREVENT THE REGULAR SPACING OF HANGERS, REINFORCE THE NEAREST ADJACENT HANGERS AND RELATED CARRYING CHANNELS TO SPAN THE EXTRA DISTANCE. F. DO NOT SUPPORT COMPONENTS ON MAIN RUNNERS OR CROSS RUNNERS IF WEIGHT CAUSES TOTAL DEAD LOAD EXCEED DEFLECTION CAPABILITY. G. SUPPORT FIXTURE LOADS USING SUPPLEMENTARY HANGERS LOCATED WITHIN 6 INCHES OF EACH CORNER, OR SUPPORT COMPONENTS INDEPENDENTLY. H. DO NOT ECCENTRICALLY LOAD SYSTEM OR INDUCE ROTATION OF RUNNERS. I. PERIMETER MOLDING: INSTALL AT INTERSECTION OF CEILING AND VERTICAL SURFACES AND AT JUNCTIONS WITH OTHER INTERRUPTIONS. 1. USE LONGEST PRACTICAL LENGTHS. 2. OVERLAP AND RIVET CORNERS.
8. INSTALLATION - ACOUSTICAL UNITS	A. INSTALL ACOUSTICAL UNITS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. FIT ACOUSTICAL UNITS IN PLACE, FREE FROM DAMAGED EDGES OR OTHER DEFECTS DETRIMENTAL TO APPEARANCE AND FUNCTION. C. FIT BORDER TRIM NEATLY AGAINST ABUTTING SURFACES. D. INSTALL UNITS AFTER ABOVE-CEILING WORK IS COMPLETE. E. INSTALL ACOUSTICAL UNITS LEVEL, IN UNIFORM PLANE, AND FREE FROM TWIST, WARP AND DENTS. F. CUTTING ACUSTICAL UNITS: 1. MAKE FIELD CUT EDGES OF SAME PROFILE AS FACTORY EDGES.
SECTION 09711 - PREFINISHED PANELS	
1. SECTION INCLUDES	A. PREFINISHED PANEL SYSTEM FOR ADHESIVE MOUNTING.
2. APPROVED MANUFACTURERS	A. KEMLE B. MARLITE
3. FIBERGLASS REINFORCED PANEL (FRP)	A. THICKNESS: 3/32" B. PEBBLES C. COLOR: AS SCHEDULED ON CONSTRUCTION DOCUMENTS. D. MOLDINGS: SOLID VINYL, WIDE PROFILE AND MATCH THE COLOR OF THE PANELS. E. CLOSURES: SOLID VINYL, WIDE PROFILE TO MATCH THE COLOR OF THE PANELS.
4. SEALANT	A. ONE PART OF SILICONE RUBBER, ASTM C820 AND PS TT-S-001543A, FDA APPROVED, OR AS RECOMMENDED BY FRP MANUFACTURER. B. COLOR: CLEAR TO TRANSLUCENT.
5. INSTALLATION	A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. B. USE THE ADHESIVES RECOMMENDED BY THE PANEL MANUFACTURER UNLESS PROHIBITED BY LOCAL REGULATIONS; OBTAIN MANUFACTURER'S APPROVAL OF ALTERNATIVE ADHESIVES. C. AVOID CONTAMINATION OF PANEL FACES; CLEAN AS NECESSARY AND REPLACE IF NOT POSSIBLE TO REPAIR TO ORIGINAL CONDITION. D. INSTALL PANELS OVER WATER RESISTANT DRYWALL IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, USING NON-FLAMMABLE ADHESIVE (100% COVERAGE). 1. DRYWALL MUST BE INSTALLED (AND ALL JOINTS TAPED) FLOOR TO CEILING TO PROVIDE A GOOD BONDABLE SURFACE TO ACCEPT INSTALLATION OF FRP PANELS. E. DISCARD UNITS OF MATERIAL, WHICH ARE UNSOUND, WARPED, BOWED, TWISTED, IMPROPERLY TREATED, OR TOO SMALL TO FABRICATED. WORK WITH MINIMUM OF JOINTS OR OPTIMUM JOINTING ARRANGEMENTS, OR WHICH ARE OF DEFECTIVE MANUFACTURE WITH RESPECT TO SURFACES, SIZES, OR PATTERNS. F. SCORE AND CUT WORK TO FIT ADJOINING WORK. G. CAULK ALL JOINTS AND ALL ROUNDOUS WITH SILICONE SEALANT.
SECTION 09900 - PAINTS AND COATINGS	
1. SECTION INCLUDES	A. SURFACE PREPARATION. B. FIELD APPLICATION OF PAINTS, STAINS, VARNISHES, AND OTHER COATINGS.
2. DELIVERY, STORAGE, AND HANDLING	A. DELIVER PRODUCTS TO SITE IN SEALED AND LABELED CONTAINERS; INSPECT TO VERIFY ACCEPTABILITY. B. CONTAINER LABEL: INCLUDE MANUFACTURER'S NAME, TYPE OF PAINT, BRAND NAME, LOT NUMBER, BRAND CODE, COVERAGE, SURFACE PREPARATION, DRYING TIME, CLEANUP REQUIREMENTS, COLOR DESIGNATION, AND INSTRUCTIONS FOR MIXING AND REDUCING. C. PAINT MATERIALS: STORE AT MINIMUM AMBIENT TEMPERATURE OF 45 DEGREES F AND A MAXIMUM OF 90 DEGREES F, IN VENTILATED AREA, AND AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS.
3. ENVIRONMENTAL REQUIREMENTS	A. DO NOT APPLY MATERIALS WHEN SURFACE AND AMBIENT TEMPERATURES ARE OUTSIDE THE TEMPERATURE RANGES REQUIRED BY THE PAINT PRODUCT MANUFACTURER. B. PROVIDE LIGHTING LEVEL OF 80 FT CANDLES MEASURED MID-HEIGHT AT SUBSTRATE SURFACE.
4. SUBMITTALS	A. PREPARE TWO (2) COLOR/TONE SAMPLES FOR EACH COLOR FOR EACH TYPE OF SUBSTRATE TO BE PAINTED OR STAINED PER SUBMITTALS. B. MAKE SAMPLES NOT LESS THAN TWELVE INCHES (12") SQUARE. C. SUBMIT MANUFACTURER'S PRINTED LITERATURE ON EACH COATING SYSTEM TO BE USED.
5. EXTRA MATERIALS	A. SUPPLY 1 GALLON OF EACH COLOR; STORE WHERE DIRECTED. B. LABEL EACH CONTAINER WITH COLOR IN ADDITION TO THE MANUFACTURER'S LABEL.
6. MANUFACTURERS	A. PAINT AND COATING MANUFACTURERS SHALL BE AS SCHEDULED HEREIN AND ON THE DRAWINGS.
7. PAINTS AND COATING - GENERAL	A. PAINTS AND COATINGS: READY MIXED, EXCEPT FIELD-CATALYZED COATINGS. PREPARE PIGMENTS TO A SOFT PASTE CONSISTENCY, CAPABLE OF BEING READY AND UNIFORMLY DISPERSED TO A HOMOGENEOUS COATING. B. VOLATILE ORGANIC COMPOUND (VOC) CONTENT: 1. PROVIDE COATINGS THAT COMPLY WITH THE MOST STRINGENT REQUIREMENTS SPECIFIED IN 40 CFR 59, SUBPART D - NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR ARCHITECTURAL COATINGS.

8. EXAMINATION	A. EXAMINE SURFACES SCHEDULED TO BE FINISHED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY CONDITION THAT MAY POTENTIALLY AFFECT PROPER APPLICATION. B. MEASURE MOISTURE CONTENT OF SURFACES USING AN ELECTRONIC MOISTURE METER. DO NOT APPLY FINISHES UNLESS MOISTURE CONTENT OF SURFACES ARE BELOW THE FOLLOWING MAXIMUMS: 1. WOOD: 15 PERCENT, MEASURED IN ACCORDANCE WITH ASTM D 4442
9. PREPARATION	A. SURFACES: CORRECT DEFECTS AND CLEAN SURFACES WHICH AFFECT WORK OF THIS SECTION. B. MARKS: SEAL WITH SIELLAC THOSE WHICH MAY BLEED THROUGH SURFACE FINISHES. C. IMPERVIOUS SURFACES: REMOVE MILDEW BY SCRUBBING WITH SOLUTION OF TETRA-SODIUM PHOSPHATE AND BLEACH. RINSE WITH CLEAN WATER AND ALLOW SURFACE TO DRY. D. GYPSUM BOARD SURFACES TO BE PAINTED: FILL MINOR DEFECTS WITH FILLER COMPOUND. SPOT PRIME DEFECTS AFTER REPAIR. GYPSUM CEILING SURFACES IN ALL PUBLIC AREAS ARE REQUIRED TO HAVE A LEVEL 5 FINISH SURFACES; DO NOT START PAINTING UNTIL SURFACES FINISH LEVEL IS VERIFIED, BEGINNING OF PAINTING GYPSUM INDICATES OF SURFACE.<

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

DIVISION 09 - FINISHES - CONTINUE

SECTION 09000 - PAINTS AND COATINGS

INTERIOR SURFACES

1. WOOD BEAMS, JOIST OR TRUSSES "STAINED"
SHERWIN WILLIAMS
1ST COAT: MINWAX PRE-STAIN WOOD CONDITIONER, 154-8866
2ND COAT: S-W WOODCLASSICS OIL STAIN, A48 SERIES
- GLIDDEN PROFESSIONAL
1ST COAT: MINWAX PRE-STAIN WOOD CONDITIONER, 154-8866
2ND COAT: GLIDDEN PROFESSIONAL, 1700 WOODPRIDE INTERIOR WOOD FINISHING STAIN
2. WOOD DOORS, "STAINED"
SHERWIN WILLIAMS
1ST COAT: MINWAX PRE-STAIN WOOD CONDITIONER, 154-8866
2ND COAT: S-W WOODCLASSICS OIL STAIN, A48 SERIES
3RD COAT: S-W WOODCLASSICS WATERBORNE POLYURETHANE VARNISH, A68P90 SERIES, SATIN
- GLIDDEN PROFESSIONAL
1ST COAT: MINWAX PRE-STAIN WOOD CONDITIONER, 154-8866
2ND COAT: GLIDDEN PROFESSIONAL, 1700 WOODPRIDE INTERIOR WOOD FINISHING STAIN
3RD COAT: GLIDDEN PROFESSIONAL, 1902 WOODPRIDE INTERIOR POLYURETHANE SATIN VARNISH
3. GYPSUM WALLBOARD
SHERWIN WILLIAMS
1ST COAT: S-W PROMAR 200 INTERIOR LATEX PRIMER, B26W8200
2ND COAT: S-W PROMAR 200 LATEX SEMI-GLOSS, B51W2200 SERIES
3RD COAT: SAME AS SECOND COAT
- GLIDDEN PROFESSIONAL
1ST COAT: 1000 H-HIDE WATER - BASED PRIMER-SEALER
2ND COAT: GLIDDEN PROFESSIONAL ULTRA, A48 SERIES
3RD COAT: SAME AS SECOND COAT
4. FERROUS METAL AND EXPOSED GAS LINES, DOORS, DOOR FRAMES
SHERWIN WILLIAMS
1ST COAT: S-W DTM ACRYLIC SEMI-GLOSS, B66-200 SERIES
2ND COAT: S-W DTM ACRYLIC SEMI-GLOSS, B66-200 SERIES
- GLIDDEN PROFESSIONAL
1ST COAT: DEVCO COATINGS DEVXLEF 4216 HP SEMI-GLOSS
2ND COAT: SAME AS SECOND COAT
5. WOOD TRIM AND PANELING "STAINED"
SHERWIN WILLIAMS
1ST COAT: MINWAX PRE-STAIN WOOD CONDITIONER, 154-8866
2ND COAT: S-W WOODCLASSICS OIL STAIN, A48 SERIES
3RD COAT: S-W WOODCLASSICS WATERBORNE POLYURETHANE VARNISH, A68P90 SERIES, SATIN
4TH COAT: SAME AS THIRD COAT
- GLIDDEN PROFESSIONAL
1ST COAT: MINWAX PRE-STAIN WOOD CONDITIONER, 154-8866
2ND COAT: S-W WOODCLASSICS OIL STAIN, A48 SERIES
3RD COAT: S-W WOODCLASSICS WATERBORNE POLYURETHANE VARNISH, A68P90 SERIES, SATIN
4TH COAT: SAME AS THIRD COAT

DIVISION 10 - SPECIALTIES

SECTION 10167 - STAINLESS STEEL TOILET COMPARTMENTS

1. SECTION INCLUDES
A. STAINLESS STEEL TOILET COMPARTMENTS AND URINAL SCREENS.
2. MANUFACTURERS
A. TOILET COMPARTMENTS:
1. AMERICAN SANITARY PARTITION CORP.: WWW.AM.SANITARY-PARTITION.COM
2. GLOBAL PARTITIONS: WWW.GLOBALPARTITIONS.COM
3. FRY SPECIALTY COMPANY, SANTEE, CA., 619-562-6446
4. ACCURATE PARTITIONS, LYONS, IL., 708-442-8800
5. GLOBAL PARTITIONS, EASTONVILLE, GA., 706-827-2700
6. SUBSTITUTIONS: SECTION 01000 - PRODUCT REQUIREMENTS
3. COMPONENTS
A. TOILET COMPARTMENTS: EQUAL TO TYPE SS-FF, FULL FLUSH, AMERICAN SANITARY PARTITION CORP., COOCE, FL., (407) 656-0611, FLOOR ANCHORED OVERHEAD BRACED
- B. DOOR AND PANEL DIMENSIONS:
1. STAINLESS STEEL TYPE #304 - #4 FINISH
2. CLEAR, FLANGE AND DOORS SHALL BE STAINLESS STEEL CONSTRUCTION, LAMINATED TO A HONEYCOMB CORE
3. EDGES SHALL BE FORMED TO INTERLOCK WITH FACE PANELS, ALL CORNERS WELDED AND GRINDING SMOOTH
4. ALL FITTINGS SHALL BE STAINLESS STEEL #4 FINISH AND PROVIDE MEANS FOR ADJUSTMENT
- C. URINAL SCREENS: WALL MOUNTED WITH TWO PANEL BRACKETS, AND FLOOR-TO-CEILING VERTICAL UPRIGHT CONSISTING OF PILASTER ANCHORED TO FLOOR AND CEILING
1. SIZE: 18 X 42
2. TO MATCH TOILET COMPARTMENT AS SPECIFIED
4. ACCESSORIES
A. ALL FITTINGS SHALL BE STAINLESS STEEL, WITH #4 FINISH AND ADJUSTABLE TO KEEP TILED AND GLESS CLEAR FROM WALLS. TIE COVER BASES SHALL BE 3" HIGH, OF NO. 304 STAINLESS STEEL
B. PLASTER BRACKETS: POLISHED STAINLESS STEEL
C. ATTACHMENTS, SCREWS AND BOLTS: STAINLESS STEEL, TAMPER PROOF TYPE
D. FOR ATTACH PANEL, AND FILTERS TO BRACKETS, THROUGH-BOLTS AND NUTS, TAMPER PROOF
- E. HARDWARE: POLISHED STAINLESS STEEL:
1. PIVOT HINGES, GRAVITY TYPE, ADJUSTABLE FOR DOOR CLOSE POSITIONING; TWO PER DOOR
2. DOOR LATCH: SLIDE TYPE WITH EXTERIOR EMERGENCY ACCESS FEATURE
3. DOOR STRIKE AND KEYPER WITH RUBBER BUMPER, MOUNTED ON PLASTER IN ALIGNMENT WITH DOOR LATCH
4. COAT HOOK WITH RUBBER BUMPER, ONE PER COMPARTMENT, MOUNTED ON DOOR
5. PROVIDE DOOR PULL FOR OUTSWINGING DOORS
5. EXAMINATION
A. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED
B. VERIFY CORRECT SPACING OF AND BETWEEN PLUMBING FIXTURES
C. VERIFY CORRECT LOCATION OF BUIL-IN FRAMING, ANCHORAGE, AND BRACING
6. INSTALLATION
A. INSTALL PARTITIONS SECURE, RIGID, PLUMB, AND LEVEL IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS
B. MAINTAIN 3/8 TO 1/2 INCH SPACE BETWEEN WALL AND PANELS AND BETWEEN WALL AND END PLASTERS
C. ATTACH PANEL BRACKETS SECURELY TO WALLS USING ANCHOR DEVICES
D. ATTACH PANELS AND PLASTERS TO BRACKETS. LOCATE HEAD RAIL JOINTS AT PILASTER CENTER LINE
E. FIELD TOUCH-UP OF SCRATCHES OR DAMAGED FINISH WILL NOT BE PERMITTED. REPLACE DAMAGED OR SCRATCHED MATERIALS WITH NEW MATERIALS
7. ERECTION TOLERANCES
A. MAXIMUM VARIATION FROM TRUE POSITION: 1/4 INCH
B. MAXIMUM VARIATION FROM PLUMB: 1/8 INCH
8. ADJUSTING
A. ADJUST AND ALIGN HARDWARE TO UNIFORM CLEARANCE AT VERTICAL EDGE OF DOORS
B. RETURN EXCEEDING 3/16 INCH
C. ADJUST HINGES TO POSITION DOORS IN PARTIAL OPENING POSITION WHEN UNLATCHED
D. RETURN OUT SWINGING DOORS TO CLOSED POSITION
E. ADJUST ADJACENT COMPONENTS FOR CONSISTENCY OF LINE OR PLANE

SECTION 10442 - ARCHITECTURAL SIGNAGE

1. DESIGN AND FABRICATION
A. PROVIDE OPENINGS FOR FABRICATION, REGARDLESS OF PRODUCTION TECHNIQUE, METHOD, OR PROCESS SPECIFIED, SHALL BE APPROVED BY THE OWNER PRIOR TO PRODUCTION IN ORDER TO ENSURE CONFORMITY TO DESIGN WITH REGARD TO LETTER FORM AND HEIGHT, WORDING, SPELLING, CAPITALIZATION, PUNCTUATION, LETTER SPACING, LEADING AND LAYOUT OR COMPOSITION
2. MANUFACTURER
A. INTERIOR SIGNAGE: THE DRAWINGS WERE PREPARED AND THIS SPECIFICATION WRITTEN ON THE BASIS OF USING THE PRODUCTS OF KROY SIGN SYSTEMS, SCOTTSDALE, ARIZONA
B. STREET ADDRESS SIGNAGE: THE DRAWINGS WERE PREPARED AND THIS SPECIFICATION WRITTEN ON THE BASIS OF USING THE PRODUCTS OF WESTON LETTERS, NORTH HOLLYWOOD, CA
C. IT IS THE INTENT TO LIMIT COMPETITIVE BIDDING. PRODUCTS WITH EQUAL CHARACTERISTICS BY OTHER MANUFACTURERS ARE ACCEPTABLE UNDER THE CONDITIONS OF THESE SPECIFICATIONS
3. GENERAL
A. REGULATORY SIGNAGE SERIES OPAQUE ACRYLIC, MATTE FINISH PLQUES, WITH FRONT SURFACE, NOT 3/4 INCH DEPTH. NO SIGN WORK SHALL BE PERMITTED IN THE BUILDING BEFORE THE BUILDING IS COMPLETELY ENCLOSED AND ALL PAINTING AND WORK OF OTHER TRADES IS FINISHED
B. INSTALL SIGNS IN ACCORD WITH APPROVED SHOP DRAWINGS. INSTALL TRUE TO LINE, PLUMB, LEVEL, SQUARE, IN PROPER PLACES WITH OTHER WORK AND FREE FROM OBJECTIONABLE DEFECTS. ANCHOR TO ADEQUATELY RESIST ALL NORMALLY SUBJECTED STRESSES
4. INSTALLATION
A. INSTALLATION SHALL BE STARTED AT THE TIME ESTABLISHED BY THE GENERAL CONTRACTOR. HOWEVER, NO SIGN WORK SHALL BE PERMITTED IN THE BUILDING BEFORE THE BUILDING IS COMPLETELY ENCLOSED AND ALL PAINTING AND WORK OF OTHER TRADES IS FINISHED
B. INSTALL SIGNS IN ACCORD WITH APPROVED SHOP DRAWINGS. INSTALL TRUE TO LINE, PLUMB, LEVEL, SQUARE, IN PROPER PLACES WITH OTHER WORK AND FREE FROM OBJECTIONABLE DEFECTS. ANCHOR TO ADEQUATELY RESIST ALL NORMALLY SUBJECTED STRESSES

SECTION 10529 - FIRE EXTINGUISHERS AND ACCESSORIES

1. SECTION INCLUDES
A. FIRE EXTINGUISHERS
B. ACCESSORIES
2. REFERENCES
A. NFPA 10- STANDARD FOR PORTABLE FIRE EXTINGUISHERS; NATIONAL FIRE PROTECTION ASSOCIATION
B. UL (PFD)- FIRE PROTECTION EQUIPMENT DIRECTORY; UNDERWRITERS LABORATORIES INC.; CURRENT EDITION
3. MANUFACTURERS
A. FIRE EXTINGUISHERS AND ACCESSORIES:
1. LARSEN'S MANUFACTURING CO.: WWW.LARSENSMFG.COM
C. USE ONLY MECHANIC SKILLED IN THE WORK THEY ARE TO PERFORM AND HAVE A COMPETENT REPRESENTATIVE ON THE JOB WHEN ANY WORK IS BEING DONE
D. NO WORK SHALL BE DONE UNLESS THE SUPERINTENDENT OF THE CONTRACTOR IS ON THE JOB AND THE WORK SHALL BE PROPERLY PROTECTED. ALL RUBBER REMOVED PROMPTLY, AND EXPOSED WORK SHALL BE CAREFULLY CLEANED PRIOR TO FINAL ACCEPTANCE
E. THE TERM "PROVIDE" SHALL INCLUDE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL, COMPLY WITH ALL CODES, ORDINANCES, AND REGULATIONS
F. IN DECISIONS ARISING FROM DISCREPANCIES, INTERPRETATION OF DRAWINGS AND SPECIFICATIONS, SUBSTITUTES, AND OTHER PERTINENT MATTERS, THE DECISION OF THE OWNER'S REPRESENTATIVE'S APPROVAL SHALL BE FINAL
4. CLASSIFICATION
1. CLASS: B.C.
2. SIZE: 10
3. SIZE AND CLASSIFICATION AS SCHEDULED
4. MODEL: WP10
5. BRACKET: B2
6. QUANTITY: 1. LOCATE FIRST ONE (1) WHERE NOTED ON DRAWINGS, WITH ONE (1) ADDITIONAL EXTINGUISHERS LOCATED PER LOCAL FIRE OFFICIAL DIRECTION IF NEEDED
C. WET CHEMICAL TYPE
1. CLASS: K
2. SIZE: 2.5 GALLON
3. MODEL: WC 2.12
4. BRACKET: B4
5. QUANTITY: 1. LOCATE FIRST ONE (1) WHERE NOTED ON DRAWINGS, WITH ONE (1) ADDITIONAL EXTINGUISHERS LOCATED PER LOCAL FIRE OFFICIAL DIRECTION IF NEEDED
5. ACCESSORIES
A. EXTINGUISHER BRACKETS: FORMED STEEL, CHROME-PLATED
6. INSTALLATION
A. INSTALL IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS
B. SECURE RIGIDLY IN PLACE

SECTION 10800 - TOILET ACCESSORIES

1. SECTION INCLUDES
A. TOILET ACCESSORIES TO BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE
2. COORDINATE ROUGH-IN, OPENINGS AND WOOD BLOCKING
3. PRODUCTS
A. SEE SCHEDULE ON DRAWINGS FOR ACCESSORIES
4. INSTALLATION
A. INSTALL FIXTURES, ACCESSORIES AND ITEMS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS, AND WHERE AFFECTED, AT HEIGHTS OR LOCATIONS FOR THE HANDICAPPED AS NOTED ON THE DRAWINGS
B. INSTALL TRUE, PLUMB AND LEVEL, SECURELY AND RIGIDLY ANCHORED TO SUBSTRATE
5. GENERAL
A. MATERIALS OR PRODUCTS SPECIFIED HEREIN AND/OR INDICATED ON DRAWINGS BY TRADE NAME, MANUFACTURER, OR TYPE SHALL BE PROVIDED BY THE CONTRACTOR. IF EQUIPMENT OR MATERIAL WHICH HAS NOT HAD PRIOR APPROVAL WILL NOT BE PERMITTED AT THE JOB SITE. SUBMITTALS SHALL BE MADE FOR ALL EQUIPMENT AND SYSTEMS AS INDICATED IN THE RESPECTIVE SPECIFICATION SECTION
B. ALL SUBMITTALS SHALL INCLUDE ADEQUATE DESCRIPTIVE LITERATURE, CATALOG CUTS, SHOP DRAWINGS AND OTHER DATA NECESSARY FOR THE OWNER TO ASCERTAIN THAT THE PROPOSED EQUIPMENT AND MATERIALS COMPLY WITH SPECIFICATION AND DRAWING REQUIREMENTS. CATALOG CUTS SUBMITTED FOR APPROVAL SHALL BE LEGIBLE AND CLEARLY IDENTIFY EQUIPMENT BEING SUBMITTED
C. SHOP AND ERECTION DRAWING SUBMITTALS SHALL CONFORM TO THE REQUIREMENTS OF THE GENERAL CONDITIONS AND DIVISION-1 SPECIFICATIONS EXCEPT AS MODIFIED HEREIN
D. SUBMIT REQUIRED AND/OR REQUESTED SHOP AND ERECTION DRAWINGS, FOR REVIEW BY THE OWNER BEFORE ORDERING OR INSTALLING ANY EQUIPMENT OR MATERIAL
E. SHOP DRAWINGS SHALL CONSIST OF MANUFACTURERS SCALE DRAWINGS, CUTS OR CATALOGS, INCLUDING DESCRIPTIVE LITERATURE WHICH SHALL CLEARLY INDICATE THE CONSTRUCTION, MATERIAL, PHYSICAL DIMENSIONS, WIRING DIAGRAMS AND COMPLETE OPERATING DATA CLEARLY MARKED FOR EACH ITEM
6. MAKE SUBMITTALS FOR THE EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE FOLLOWING:
1. SUBMITTALS SHALL BE MARKED TO SHOW SPECIFICATION REFERENCE INCLUDING THE SECTION AND PARAGRAPH NUMBERS
2. THE SUBMITTALS SHALL INCLUDE THE FOLLOWING:
A. INFORMATION THAT CONFIRMS COMPLIANCE WITH CONTRACTOR REQUIREMENTS, INCLUDING THE MANUFACTURERS NAME, MODEL OR CATALOG NUMBERS, CATALOG INFORMATION, TECHNICAL DATA SHEETS, SHOP DRAWINGS, PICTURES, NAMEPLATE DATA AND TEST REPORTS AS REQUIRED. PROVIDE ANY ADDITIONAL INFORMATION SPECIFICALLY REQUESTED IN THE INDIVIDUAL SPECIFICATION SECTION OR ON THE DRAWINGS
G. THE GENERAL CONTRACTOR WILL CERTIFY THAT ALL SHOP DRAWINGS ARE IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE NOTED, AND THE SPECIFIC AREA OF THE DEVIATION OUTLINED AND IN CONTRASTING COLOR WITH A COMPLETE EXPLANATION FOR THE REASONS FOR THE DEVIATION. ANY REDUCTION OF THE SYSTEM SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE
H. THE ENGINEERS REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR DEVIATIONS FROM DRAWINGS AND SPECIFICATIONS. THE ENGINEERS REVIEW SHALL BE CONSTRUED TO APPLY ONLY TO GENERAL ARRANGEMENT AND SHOP OPERATING CONDITION. THE OWNER SHALL RECEIVE A WRITTEN GUARANTEE COVERING ALL DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. ANY DEFECTS APPEARING WITHIN THIS YEAR PERIOD SHALL BE REPAIRED WITHOUT ADDITIONAL COST TO THE OWNER
7. COORDINATION WITH OTHER TRADES
A. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES TO AVOID INTERFERENCES AND DELAYS. HE SHALL ASSIST IN WORKING OUT SPACE REQUIREMENTS TO MAKE A SATISFACTORY INSTALLATION
B. IF THE CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES, OR SO AS TO CAUSE ANY INTERFERENCE WITH THE WORK OF OTHER TRADES, HE SHALL MAKE THE NECESSARY CHANGES IN HIS WORK TO CORRECT THEN CONDITION WITHOUT EXTRA CHARGE
C. THE CONTRACTOR SHALL FURNISH TO OTHER TRADES, AS REQUIRED, ALL NECESSARY TEMPLATES, PATTERNS, SETTING PLANS, AND SHOP DETAILS FOR THE PROPER INSTALLATION OF WORK AND FOR THE PURPOSE OF COORDINATING ADJACENT WORK
8. EQUIPMENT IDENTIFICATION
A. EACH UNIT SHALL BE IDENTIFIED BY ITS SYSTEM NUMBER AND OTHER APPROPRIATE DESIGNATION BY STENCILING IN LETTERS OF APPROVED SIZE AND WORDING. EQUIPMENT IDENTIFICATION SHALL INCLUDE: SUPPLY AND EXHAUST FANS, AIR CONDITIONING AND HEAT IN MACHINERY AND APPARATUS, CONTROL CABINETS, AND OTHER EQUIPMENT UNITS AS MAY BE DIRECTED BY THE OWNER

SECTION 11400 - FOOD SERVICE EQUIPMENT

1. SECTION INCLUDES
A. INSTALLATION OF OWNER PROVIDED FOOD SERVICE EQUIPMENT
B. EQUIPMENT SHALL BE FURNISHED, ASSEMBLED, AND SET IN PLACE UNDER SEPARATE CONTRACT, WITH FINAL UTILITY CONNECTION BY GENERAL CONTRACTOR
2. RELATED SECTIONS
A. MECHANICAL AND ELECTRICAL SERVICES AND FINAL CONNECTIONS TO EQUIPMENT
3. OWNER / CONTRACTOR RESPONSIBILITIES
A. OWNER WILL PROVIDE EQUIPMENT MANUFACTURERS INSTALLATION INSTRUCTIONS AND OPERATION/MAINTENANCE DATA FOR CONTRACTORS USE
B. COORDINATE SITE OF ACCESS AND ROUTE TO PLACE INSTALLATION
4. FOOD SERVICE EQUIPMENT (NIC):
1. EQUIPMENT SCHEDULED ON THE DRAWINGS AS (NIC)
2. WALK-IN COOLERS AND FREEZERS WITH THERMOSTATS
3. MOTOR STARTERS
5. FOOD SERVICE EQUIPMENT (BY OWNER):
1. EQUIPMENT SCHEDULED ON THE DRAWINGS AS (B.O.)
2. MECHANICAL REFRIGERATION SYSTEMS, INCLUDING COMPRESSOR UNITS, CONDENSERS, EVAPORATOR COILS, AND CONTROL VALVES
3. STAINLESS STEEL TRIM STRIPS, SUPPORTS AND CONNECTIONS, ATTACHMENT DEVICES, AND ACCESSORIES
4. EXHAUST HOOD AND ANKUL SYSTEM
6. REFRIGERANT SYSTEM INSTALLATION (BY KES):
1. FITTINGS: WROUGHT COPPER OR BRASS DESIGNED FOR USE WITH HIGH TEMPERATURE SOLDER
2. PIPING JOINTS: MADE WITH SILVER SOLDER (SIL-FOS)
3. PIPING: PROPERLY SUSPENDED FROM AN ANCHOR TO THE STRUCTURE WITH ADJUSTABLE HANGERS 8" O.C. MAXIMUM
4. SUCTION LINES: SIZE TO HAVE MAXIMUM PRESSURE DROP OF TWO POUNDS IN MEDIUM TEMPERATURE SYSTEMS, ONE POUND IN LOW TEMPERATURE SYSTEM
5. LIQUID LINES: SIZED TO GIVE MAXIMUM PRESSURE TO PREVENT TRAPPING OF OIL
6. RIGID INSTALLATION ON ALL SUCTION LINES TO BE IMMEDIATELY INSULATED BY ARMSTRONG-1" THICK AT MEDIUM TEMP, 1-1/2" THICK AT LOW TEMP. REFRIGERANT LINES IN PVC OR EMT CONDUIT TO BE SEALED AT BOTH ENDS WITH DEW CORNING 3-6548 SILICONE RTV FLOW
7. EVACUATION AND CHARGING: AFTER COMPLETION OF THE PRESSURE TEST, THE SYSTEM SHALL BE EVACUATED USING AN APPROVED AUXILIARY VACUUM PUMP. CONNECTIONS FOR EVACUATIONS TO BE IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS
4. DELIVERY, HANDLING AND STORAGE
A. DELIVERY: UPON RECEIVING EQUIPMENT BY KITCHEN EQUIPMENT SUPPLY VENDOR, CHECK CRATES/CARTONS IDENTIFICATION LABELS WITH RECEIVING P.O., ASSURE CORRECT ITEM HAS BEEN RECEIVED
B. HANDLING: UNCRATE EQUIPMENT IN ORGANIZED MANNER. TAKE CARE NOT TO IMPLUSE LOOSE PARTS, ACCESSORIES, ASSEMBLY, AND OPERATING INSTRUCTIONS, AND WARNING CARDS. KEEP UTILITY HOOKUP NOTES AND TAGS ON EQUIPMENT UNTIL AFTER CONNECTIONS ARE MADE. ASSEMBLE IN WORKMANSHIP MANNER IN ACCORD WITH MANUFACTURERS' DIRECTIONS, TAKING CARE TO MAKE SURE FASTENERS ARE TIGHT AND COMPONENTS ARE ALIGNED AND SQUARE
C. STORAGE: STORE EQUIPMENT CLEAR OF FLOOR IN MANNER TO PREVENT WARPING, TWISTING, OR SAGGING
5. INSTALLATION
A. INSTALL ITEMS IN ACCORD WITH MANUFACTURERS' INSTRUCTIONS AND FABRICATORS SHOP DRAWINGS. INSTALL IN ACCORD WITH LOCAL GOVERNING HEALTH, BUILDING, AND SAFETY, AND FIRE PROTECTION CODES AND REGULATIONS AND NEMA, UL, AIA, ASME AND NFPA
B. ELECTROLYSIS: INSULATE TO PREVENT ELECTROLYSIS BETWEEN DISSIMILAR METALS
C. PROVIDE SEALANT TO ACHIEVE CLEAN JOINT WITHOUT CREVICES

- C. EQUIPMENT
GENERAL: SET IN PLACE AND POSITION PER KITCHEN EQUIPMENT PLAN; READY FOR UTILITY HOOK UP. AFTER UTILITY HOOKUPS ARE MADE, LEVEL AND SECURE DISHABLES TO TOWARD DISHWASHER. COMPLETELY CLOSE AND SEAL GAPS, JOINTS AND SEAMS. REPAIR ALL FINISHES, EQUIPMENT AND WALLS, GELING AND FLOORS WITH STAINLESS STEEL TRIM STRIPS AND/OR CLEAR SILICONE SEALANT. DO NOT USE SEALANT IN JOINTS OR SEAMS OVER 3/16 INCH WIDE
2. REFRIGERANT PIPING: INSTALL COPPER TUBING AND FITTINGS, CUT WITH PIPE CUTTERS AND RESHARE WITH SIZING TOOL. EXPOSE PIPING TO VIEW AS REQUIRED BY AMERICAN SAFETY COUNCIL FOR REFRIGERATION. FOR EXPOSED TUBING AND EQUIPMENT AREAS OR ACCESSIBLE UNDER CEILING SPACES, USE HARD COPPER TUBING, RUN EXPOSED TUBING IN SUCH MANNER AS TO PREVENT DAMAGE FROM ACTIVITIES IN AREAS, OTHERWISE RUN TUBING OUT OF CONDUCT WITH THE INTENT TO LIMIT COMPETITIVE BIDDING. PRODUCTS WITH EQUAL CHARACTERISTICS BY OTHER MANUFACTURERS ARE ACCEPTABLE UNDER THE CONDITIONS OF THESE SPECIFICATIONS
3. SUCTION LINES: SIZE TO GIVE MAX PRESSURE DROP FROM EVAPORATOR TO MACHINE OF 2 LB. FOR HIGH TEMP SYSTEM AND 1 IN. FOR FREEZER SYSTEM, ALLOWING GAS VELOCITIES OF NOT LESS THAN 100 RPM IN HORIZONTAL RUNS AND 1500 RPM IN VERTICAL RISERS. SIZE LIQUID LINES TO GIVE MAX PRESSURE DROP OF 3 BS. FROM RECEIVER TO EVAPORATOR
B. TUBING RUNS: GRADE TO PREVENT TRAPPING OF OIL
C. PLIES: SECURE SUCTION AND LIQUID LINES FOR EACH SYSTEM TOGETHER, EXCEPT WHEN RUN THROUGH CONDUIT; 24 INCH INTERVALS WITH BLACK PLASTIC ELECTRICAL TAPE
D. INSULATION: INSULATE REFRIGERANT SUCTION LINES OUTSIDE OF REFRIGERATED COMPARTMENTS BACKING TO COMPRESSORS
E. HANGERS AND SUPPORTS: PROVIDE ADJUSTABLE HANGERS, ANCHORS OR STRAPS REQUIRED FOR PROPER SUPPORT OF PIPING NOT RUN IN CONDUIT. SPACE HANGERS NOT TO EXCEED 10 FEET O.C. AND CLOSER WHERE REQUIRED FOR PROPER SUPPORT OF SMALL PIPING. PROVIDE INSULATED REFRIGERANT PIPING WITH APPROVED TYPE SLEEVES AT HANGER POINTS
3. WALK-IN COOLER FREEZER BAYS: TRANSIT LEVEL FLOOR SCREENS PRIOR TO WALL AND CEILING PANEL ERECTION, SEAL WALL AND OVER CEILING PENETRATIONS FOR ELECTRICAL OR GAS. FOR REFRIGERANT PIPING, PROVIDE PROPER SUPPORT AND HANGERS. BUILD-UP ELECTRICAL CONDUITS, ON EXTERIOR OR BOX
C. TEMPERATURE, HUMIDITY, PRESSURE AND SIMILAR CONTROLS ESSENTIAL TO THE OPERATION OF MECHANICAL SYSTEMS AND EQUIPMENT, INCLUDING INTERLOCK WIRING, SHALL BE PROVIDED UNDER DIVISION 15 OF SPECIFICATIONS, INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF DIVISION 16
D. MOTOR AND CONTROL WIRING SHALL BE PROVIDED UNDER DIVISION 15 MECHANICAL TO OPERATE EQUIPMENT SPECIFIED, BUT SHALL NOT BE LESS THAN THAT SPECIFIED
E. ALL LOW VOLTAGE (120V AND UNDER) TEMPERATURE CONTROL WIRING FOR EQUIPMENT SHALL BE PROVIDED UNDER THIS DIVISION
F. CONDUIT WHEN REQUIRED FOR CONTROL WIRING SHALL BE PROVIDED UNDER THIS DIVISION
4. CONTROLLERS, AND CONTROL EQUIPMENT NECESSARY FOR MECHANICAL EQUIPMENT OPERATION SHALL BE PROVIDED UNDER DIVISION 15 MECHANICAL. STARTERS NOT INTEGRAL WITH MECHANICAL EQUIPMENT AND STARTERS MOUNTED IN MOTOR CONTROL CENTERS SHALL BE PROVIDED UNDER DIVISION 16 ELECTRICAL
B. POLYIMYL CHLORIDE DRAIN, WASTE, AND VENT PIPE (PVC): ASTM D2685
G. SOLVENT CEMENT: ASTM D2564
H. VALVE FITTINGS: 1. CAST-IRON VALVES: MSS SP-71
2. BRONZE VALVES: MSS SP-80
3. STEEL VALVES: ANSI B16.34
I. VALVE FEATURES
A. GENERAL: PROVIDE VALVES WITH FEATURES INDICATED AND, WHERE NOT OTHER INDICATED, PROVIDE VALVE HANDLES AS DETERMINED BY INSTALLATION REQUIREMENTS. COMPLY WITH ASME B31.3 FOR BUILDING SERVICES PIPING, AND ASME B31.1 FOR POWER PIPING
B. BYPASS: COMPLY WITH MSS SP-45, AND EXCEPT AS OTHERWISE INDICATED, PROVIDE MANUFACTURERS STANDARD BYPASS PIPING AND VALVING
C. DRAIN: COMPLY WITH MSS SP-45, AND PROVIDE THREADED PIPE PLUGS
D. FLANGED: VALVE FLANGES COMPLYING WITH ANSI B16.1 (CAST IRON), ANSI B16.5 (STEEL), OR ANSI B16.24 (BRONZE)
E. THREADED: VALVE ENDS COMPLYING WITH ANSI B2.1
F. SOLDER-JOINT: VALVE ENDS COMPLYING WITH ANSI B16.18
13. INSTALLATION
A. GENERAL: EXCEPT AS OTHERWISE INDICATED, COMPLY WITH THE FOLLOWING REQUIREMENTS:
1. INSTALL VALVE WHERE REQUIRED FOR PROPER OPERATION OF PIPING AND EQUIPMENT, INCLUDING VALVES IN BRANCH LINES WHERE NECESSARY TO ISOLATE SECTIONS OF PIPING. LOCATE VALVES SO AS TO BE ACCESSIBLE AND SO THAT SEPARATE SUPPORT CAN BE PROVIDED WHEN NECESSARY
2. INSTALL VALVES WITH STEMS ALIGNED UP IN VERTICAL POSITION WHERE POSSIBLE, BUT IN NO CASE WITH STEMS POINTED DOWNWARD FROM HORIZONTAL PLANE UNLESS UNAVOIDABLE. INSTALL VALVE DRAINS WITH HOSE-END ADAPTER FOR EACH VALVE. ACCEPTABLE BE BELOW HORIZONTAL PLANE
B. INSULATION: WHERE INSULATION IS INDICATED, INSTALL EXTENDED STEM VALVES, ARRANGED IN PROPER MANNER TO RECEIVE INSULATION
C. MECHANICAL ACTUATORS: INSTALL MECHANICAL ACTUATORS WITH CHAIN OPERATORS WHERE INDICATED. EXTEND CHAINS TO ABOUT 5' ABOVE FLOOR AND HOOK TO CLIPS TO CLEAR PASSAGE
D. SELECTION OF VALVE ENDS (PIPE CONNECTIONS): EXCEPT AS OTHERWISE INDICATED, SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH NON-METALLIC DISCS TO LOCATIONS INSIDE AND WHERE THERE IS NO RISK OF OVERPRESSURE. SELECT AND INSTALL VALVES WITH THE FOLLOWING ENDS OR TYPES OF PIPE/TUBE CONNECTIONS:
1. TUBE SIZE 2" AND SMALLER: SOLDERED-JOINT VALVES
2. NORMALLY RETAIN ALL FOLLOWING TYPES UNLESS CERTAIN TYPES NOT DESIRED OR NOT PERMITTED
3. PIPE SIZE 2" AND SMALLER: ONE OF THE FOLLOWING, AT INSTALLERS OPTION:
a. THREADED VALVES
b. GROOVED-END VALVES
c. BUTT-WELDING VALVES
d. SOCKET-WELDING VALVES
e. FLANGED VALVES
f. FLANGED VALVES
g. SINGLE FLANGED VALVES
h. SINGLE FLANGE VALVES
i. HANGERS
j. MECHANICAL JOINT END VALVES
E. VALVE SYSTEM: SELECT AND INSTALL VALVES WITH OUTSIDE SCREW AND YOKE STEMS, EXCEPT PROVIDE INSIDE SCREW AND NON-RISING STEM VALVES WHERE HEADROOM PREVENTS FULL OPENING OF OS&Y VALVES
F. NON-METALLIC DISCS: LIMIT SELECTION AND INSTALLATION OF VALVES WITH

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

SECTION 15120 - PIPING SPECIALTIES A. RELATED DOCUMENTS 1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION—1 SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION. 2. THIS SECTION IS A DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION, AND IS PART OF EACH DIVISION—15 SECTION MAKING REFERENCE TO PIPING SPECIALTIES SPECIFIED HEREIN. B. DESCRIPTION OF WORK 1. EXTENT OF PIPING SPECIALTIES WORK REQUIRED BY THIS SECTION IS INDICATED ON DRAWINGS AND SCHEDULES AND BY REQUIREMENTS OF THIS SECTION. 2. TYPES OF PIPING SPECIALTIES SPECIFIED IN THIS SECTION INCLUDE THE FOLLOWING: A. PIPE ESCUTCHEONS: INSTALL PIPE ESCUTCHEONS ON EACH PIPE PENETRATION THRU FLOORS, WALLS, PARTITIONS, AND CEILINGS WHERE PENETRATION IS EXPOSED TO VIEW; AND ON EXTERIOR OF BUILDING, SECURE ESCUTCHEON TO PIPE OR INSULATION SO ESCUTCHEON COVERS PENETRATION HOLE, AND IS FLUSH WITH ADJOINING SURFACE. B. Y-TYPE STRAINERS: INSTALL Y-TYPE STRAINERS FULL SIZE OF PIPELINE, IN ACCORDANCE WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS. INSTALL PIPE NIPPLE AND SHUTOFF VALVE IN STRAINER BELLOW DOWN CONNECTION, FULL SIZE OF CONNECTION, EXCEPT FOR STRAINERS 2" AND SMALLER INSTALLED AHEAD OF CONTROL VALVES FEEDING INDIVIDUAL TERMINALS, WHERE INDICATED, PROVIDE DRAIN LINE FROM SHUTOFF VALVE TO PLUMBING DRAIN, FULL SIZE OF BLOW DOWN CONNECTION, FULL SIZE OF CONNECTION. C. LOCATE Y-TYPE STRAINERS IN SUPPLY LINE AHEAD OF THE FOLLOWING EQUIPMENT, AND ELSEWHERE AS INDICATED, IF INTEGRAL STRAINER IS NOT INCLUDED IN EQUIPMENT: - PUMPS - STEAM TRAPS SERVING STEAM MAIN DRIPS - TEMPERATURE CONTROL VALVES - PRESSURE REGULATING VALVES - TEMPERATURE OR PRESSURE REGULATING VALVES - DIELECTRIC UNIONS: INSTALL AT EACH PIPING JOINT BETWEEN FERROUS AND NON-FERROUS PIPING, CONJUNCTION WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS. - MECHANICAL SLEEVE SEALS: LOOSELY ASSEMBLE RUBBER LINES AROUND PIPE WITH BOLTS AND PRESSURE PLATES LOCATED UNDER EACH BOLT HEAD AND NUT, PUSH INTO SLEEVE AND CENTER, TIGHTEN BOLTS UNTIL LINKS HAVE EXPANDED TO FORM WATER-TIGHT SEAL. - FIRE BARRIER PENETRATION SEALS: FILL ENTIRE OPENING WITH SEALING COMPOUND, ADHERE TO MANUFACTURERS' INSTALLATION INSTRUCTIONS. - WATER HAMMER ARRESTERS: INSTALL IN UPRIGHT POSITION, IN LOCATIONS AND OF SIZES IN ACCORDANCE WITH PDI STANDARD WH—201, AND ELSEWHERE AS INDICATED. D. INSTALLATION OF FABRICATED PIPING SPECIALTIES 1. DRIP PANS: HANG FROM STRUCTURE WITH RODS AND BUILDING ATTACHMENTS, WELD RODS TO SIDES OF DRIP PAN, BRACE TO PREVENT SAGGING OR SWAYING, CONNECT DRAIN LINE TO DRAIN CONNECTION, AND RUN TO NEAREST PLUMBING DRAIN OR ELSEWHERE AS INDICATED. 2. PIPE SLEEVES: INSTALL PIPE SLEEVES OF TYPES INDICATED WHERE PIPING PASSES THROUGH WALLS, FLOORS, CEILINGS, AND ROOFS. DO NOT INSTALL SLEEVES THROUGH STRUCTURAL MEMBERS OF WORK, EXCEPT AS DETAILED ON DRAWINGS, OR AS REVIEWED BY ARCHITECT/ENGINEER. INSTALL SLEEVES ACCURATELY CENTERED ON PIPE, FULL SIZE SLEEVES SO THAT PIPING AND INSULATION (IF ANY) WILL HAVE FREE MOVEMENT IN SLEEVE, INCLUDING ALLOWANCE FOR THERMAL EXPANSION, BUT NOT LESS THAN 2 PIPE SIZES LARGER THAN PIPING RUN, WHERE INSULATION INCLUDES VAPOR—BARRIER JACKET, PROVIDE SLEEVE WITH SUFFICIENT CLEARANCE FOR INSTALLATION, INSTALL LENGTH OF SLEEVE EQUAL TO THICKNESS OF CONSTRUCTION PENETRATED, AND FINISH FLUSH TO SURFACE, EXCEPT FOR FLOOR SLEEVES, 4" ABOVE FLOOR FINISH, AND 3/4" ABOVE FLOOR FINISH SLOPE TO DRAIN, PROVIDE TEMPORARY SUPPORT OF SLEEVES DURING PLACEMENT OF CONCRETE AND OTHER WORK AROUND SLEEVES, AND PROVIDE TEMPORARY CLOSURE TO PREVENT CONCRETE AND OTHER MATERIALS FROM ENTERING SLEEVES. - INSTALL SHEET—METAL SLEEVES AT INTERIOR PARTITIONS AND CEILINGS OTHER THAN SUSPENDED CEILING. - INSTALL IRON—PIPE SLEEVES AT EXTERIOR PENETRATIONS, BOTH ABOVE AND BELOW GRADE. - INSTALL STEEL—PIPE OR PLASTIC—PIPE SLEEVES EXCEPT AS OTHERWISE INDICATED. - SLEEVE SEALS: INSTALL IN ACCORDANCE WITH THE FOLLOWING: 1. LEAD AND OAKUM: FILL AND PACK ANNULAR SPACE BETWEEN SLEEVE AND PIPE WITH OAKUM, CAULK WITH LEAD, ON BOTH SIDES. SECTION 15140 - SUPPORTS AND ANCHORS A. RELATED DOCUMENTS 1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION—1 SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION. 2. THIS SECTION IS A DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION, AND IS PART OF EACH DIVISION—15 SECTION MAKING REFERENCE TO SUPPORTS AND ANCHORS SPECIFIED HEREIN. B. DESCRIPTION OF WORK 1. EXTENT OF SUPPORTS AND ANCHORS REQUIRED BY THIS SECTION IS INDICATED ON DRAWINGS AND AS SPECIFIED IN OTHER DIVISION—15 SECTIONS. 2. TYPES OF SUPPORTS AND ANCHORS SPECIFIED IN THIS SECTION INCLUDE THE FOLLOWING: - HORIZONTAL—PIPING HANGERS AND SUPPORTS - VERTICAL—PIPING CLAMPS - HANGER—ROD ATTACHMENTS - BUILDING ATTACHMENTS - SADDLES AND SHIELDS - MISCELLANEOUS MATERIALS - ROOF EQUIPMENT SUPPORTS - ANCHORS - EQUIPMENT SUPPORTS - SUPPORTS AND ANCHORS FURNISHED AS PART OF FACTORY—FABRICATED EQUIPMENT, ARE SPECIFIED AS PART OF EQUIPMENT ASSEMBLY IN OTHER DIVISION—15 SECTIONS. C. QUALITY ASSURANCE 1. CODES AND STANDARDS: - GENERAL: PROVIDE COMPLIANCE WITH APPLICABLE PLUMBING CODES PERTAINING TO PRODUCT MATERIALS AND INSTALLATION OF SUPPORTS AND ANCHORS. - UL AND FM COMPLIANCE: PROVIDE PRODUCTS WHICH ARE UL—LISTED AND FM APPROVED. B. MSS STANDARD COMPLIANCE: - PROVIDE PIPE HANGERS AND SUPPORTS OF WHICH MATERIALS, DESIGN, COMPLY WITH MSS—68. - SELECT AND APPLY PIPE HANGERS AND SUPPORTS, COMPLYING WITH MSS SP—69. - FABRICATE AND INSTALL PIPE HANGERS AND SUPPORTS, COMPLYING WITH MSS SP—69. - TECHNOLOGY USED IN THIS SECTION IS DEFINED IN MSS SP—90. D. SUBMITTALS 1. PRODUCT DATA: SUBMIT MANUFACTURERS' TECHNICAL PRODUCT DATA, INCLUDING INSTALLATION INSTRUCTIONS FOR EACH TYPE OF SUPPORT AND ANCHOR, SUBMIT PIPE HANGER AND SUPPORT SCHEDULE SHOWING MANUFACTURERS' FIGURE NUMBER, SIZE, LOCATION, AND FEATURES FOR EACH TYPE OF SUPPORT AND ANCHOR REQUIRED FOR PIPING SYSTEMS. 2. HORIZONTAL—PIPING HANGERS AND SUPPORTS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY—FABRICATED HORIZONTAL—PIPING HANGERS AND SUPPORTS COMPLYING WITH MSS SP—68, OF ONE OF THE FOLLOWING MSS TYPES LISTED, SELECTED BY INSTALLER TO SUIT VERTICAL PIPING SYSTEMS, IN ACCORDANCE WITH MSS SP—68 AND MANUFACTURERS' PUBLISHED PRODUCT INFORMATION. USE ONLY ONE TYPE BY ONE MANUFACTURER FOR EACH PIPING SERVICE. SELECT SIZE OF HANGERS AND SUPPORTS TO EXACTLY FIT PIPE SIZE OF BARE PIPE, PROVIDE COPPER—PLATED HANGERS FOR COPPER—PIPING SYSTEMS. 3. HANGER—ROD ATTACHMENTS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY—FABRICATED HANGER—ROD ATTACHMENTS COMPLYING WITH MSS SP—68, OF ONE OF THE FOLLOWING MSS TYPES LISTED, SELECTED BY INSTALLER TO SUIT HORIZONTAL—PIPING HANGERS AND BUILDING ATTACHMENTS, IN ACCORDANCE WITH MSS SP—68 AND MANUFACTURERS' PUBLISHED PRODUCT INFORMATION. USE ONLY ONE TYPE BY ONE MANUFACTURER FOR EACH PIPING SERVICE. SELECT SIZE OF HANGERS AND ROD ATTACHMENTS TO SUIT HANGER RODS, PROVIDE COPPER—PLATED HANGER—ROD ATTACHMENTS FOR COPPER—PIPING SYSTEMS. 4. BUILDING ATTACHMENTS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY—FABRICATED BUILDING ATTACHMENTS COMPLYING WITH MSS SP—68, OF ONE OF THE FOLLOWING MSS TYPES LISTED, SELECTED BY INSTALLER TO SUIT BUILDING SUBSTRATE CONDITIONS, IN ACCORDANCE WITH MSS SP—68 AND MANUFACTURERS' PUBLISHED PRODUCT INFORMATION. SELECT SIZE OF BUILDING ATTACHMENTS TO SUIT HANGER RODS, PROVIDE COPPER—PLATED BUILDING ATTACHMENTS FOR COPPER—PIPING SYSTEMS. 5. SADDLES AND SHIELDS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE SADDLES OR SHIELDS UNDER PIPING HANGERS AND SUPPORTS, FACTORY—FABRICATED, FOR ALL INSTALLED PIPING. SADDLES AND SHIELDS FOR EXACT FIT TO MATE WITH WATER OR STEAM INSULATION. 6. MISCELLANEOUS MATERIALS A. METAL FRAMING: PROVIDE PRODUCTS COMPLYING WITH NEMA SD1 M.1. B. STEEL PLATES, SHAPES, AND BARS: PROVIDE PRODUCTS COMPLYING WITH ASTM A36. C. PRESSURE RESTRICTING AND ANGLE HOSE VALVE: WITH CAST BRASS BODY AND SOLID CAST ALUMINUM ROD WHEEL HANDLE, UL LISTED AND FM APPROVED. D. FINISH: ROUGH BRASS. E. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 7. FIRE PROTECTION SPECIALTIES A. GENERAL: PROVIDE FIRE PROTECTION SPECIALTIES, UL LISTED, IN ACCORDANCE WITH THE FOLLOWING LISTING: PROVIDE SIZES AND TYPES WHICH MATCH AND MATCH PIPING AND EQUIPMENT CONNECTIONS. B. DRY—PIPE VALVES: PROVIDE CAST—IRON DRY—PIPE VALVES, DIFFERENTIAL TYPE, 175 PSI WORKING PRESSURE. C. ALARM CHECK VALVE: PROVIDE CAST—IRON WATER FLOW ALARM CHECK VALVE, 175 PSI WORKING PRESSURE. D. HOSE OUTLET VALVES: PROVIDE ANGLE HOSE VALVES, 2 1/2" SIZE WHERE NOT OTHERWISE INDICATED. E. FIRE DEPARTMENT CONNECTION VALVE: PROVIDE FIRE DEPARTMENT CONNECTION IRON SWING CHECK VALVE, 175 PSI RATED WORKING PRESSURE, OF SIZE AND END TYPE INDICATED. F. COMBINATION PRESSURE RESTRICTING AND ANGLE HOSE VALVE: PROVIDE COMBINATION PRESSURE RESTRICTING AND ANGLE HOSE VALVE, WITH CAST BRASS BODY AND SOLID CAST ALUMINUM ROD WHEEL HANDLE, UL LISTED AND FM APPROVED. G. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 8. BASIC METERS AND GAGES A. GENERAL: PROVIDE METERS AND GAGES COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "METERS AND GAGES", IN ACCORDANCE WITH THE FOLLOWING LISTING: PRESSURE GAGES, 0-250 PSI RANGE. 9. FIRE PROTECTION SPECIALTIES A. GENERAL: PROVIDE FIRE PROTECTION SPECIALTIES, UL LISTED, IN ACCORDANCE WITH THE FOLLOWING LISTING: PROVIDE SIZES AND TYPES WHICH MATCH AND MATCH PIPING AND EQUIPMENT CONNECTIONS. B. WATER FLOW DETECTOR: PROVIDE VANE TYPE WATER FLOW DETECTORS. C. WATER—MOTOR GONGS: PROVIDE 1/2" WEATHERPROOF, RED ENAMELED FINISH, WATER—MOTOR GONGS. D. LOW AIR PRESSURE HORN: PROVIDE LOW AIR PRESSURE HORN AS INDICATED. E. WATER—MOTOR GONGS: PROVIDE PRODUCTS RECOMMENDED BY MANUFACTURER FOR USE IN SERVICE INDICATED. 10. AUTOMATIC SPRINKLERS: A. GENERAL: PROVIDE AUTOMATIC SPRINKLERS OF TYPE INDICATED ON DRAWINGS, AND IN ACCORDANCE WITH THE FOLLOWING LISTING. PROVIDE FUSIBLE LINKS FOR 165F (74C) UNLESS OTHERWISE INDICATED. B. UPRIGHT: SEMI—RECESSED PENDENT. C. STANDARD DRY—TYPE PENDENT. D. STANDARD DRY—TYPE UPRIGHT. E. INTERMEDIATE SIDEWALL. F. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND CEILING. G. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 11. INSTALLATION OF DUCTWORK INSULATION A. GENERAL: PROVIDE DUCTWORK INSULATION IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT INSULATION SERVES ITS INTENDED PURPOSE. B. INSULATION: INSULATION MATERIALS WITH SMOOTH AND EVEN SURFACES. INSULATE EACH PIECE TO COMPLETE EACH SURFACE. INSULATION SHALL BE SECURED TO EACH OTHER, CLEAN AND DRY PIPE SURFACES PRIOR TO INSULATING, BUT INSULATION JOINTS FIRMLY TOGETHER TO ENSURE COVER SURFACE AND TIGHT FIT OVER SURFACES TO BE COVERED. C. MAINTAIN INTEGRITY OF VAPOR—BARRIER JACKETS ON PIPE INSULATION, AND PROTECT TO PREVENT PUNCTURE OR OTHER DAMAGE. D. COVER VALVES, FITTING, AND JOINTS WITH INSULATION IN EACH PIPING SYSTEM WITH EQUIVALENT THICKNESS AND COMPOSITION OF INSULATION AS APPLIED TO ADJOINING PIPE RUN. INSTALL FACTORY MOLDED, PRECUT OR JOB FABRICATED UNITS (AT INSTALLERS OPTION) EXCEPT WHERE SPECIFIC FOR OTHER TYPE IS INDICATED. E. GROUND PIPING PENETRATIONS, EXCEPT WHERE OTHERWISE INDICATED. F. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 12. INSULATION OF BUILDING ATTACHMENTS A. INSTALL BUILDING ATTACHMENTS AT REQUIRED LOCATIONS WITH CONCRETE OR ON STRUCTURAL STEEL FOR PROPER PIPING SUPPORT. SPACE ATTACHMENT TO INSULATION MAXIMUM PIPING SPAN LENGTH INDICATED IN MSS SP—69. INSTALL ADDITIONAL CONCENTRATED LOADS, INCLUDING VALVE FLANGES, GUIDES, STRAINERS, EXPANSION SUPERVISORY SWITCHES, AND AT CHANGES IN DIRECTION OF PIPING, INSTALL CONCRETE INSERTS, BEFORE CONCRETE IS PLACED, FASTEN INSERT SECURELY TO FORMS, WHERE CONCRETE WITH COMPRESSIVE STRENGTH LESS THAN 2500 PSI IS INDICATED, INSTALL REINFORCING BARS THROUGH OPENINGS AT 2" OF INSERTS. 13. INSTALLATION OF HANGERS AND SUPPORTS: A. GENERAL: PROVIDE HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE, COMPLY WITH MSS SP—69, ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING TO BE SUPPORTED TOGETHER ON COMMON BRACKET OR HANGER, WHERE POSSIBLE. INSTALL SUPPORTS WITH MAXIMUM SPACINGS COMPLYING WITH MSS SP—69, WHERE PIPING OF VARIOUS SIZES IS TO BE SUPPORTED TOGETHER BY TRAPZOID HANGERS, SPACE HANGERS FOR SMALLEST PIPE SIZE OR INSTALL HORIZONTAL SIDEWALL. D. INTERMEDIATE SUPPORTS FOR SMALLER DIAMETER PIPE, DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING, AND DO NOT SUPPORT PIPING FROM OTHER PIPING. E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES, EXCEPT AS OTHERWISE INDICATED FOR EXPOSED CONTINUOUS PIPE RUNS, INSTALL HANGERS AND SUPPORTS OF SAME TYPE AND STYLE AS INSTALLED FOR ADJACENT SIMILAR PIPING. F. SUPPORT FIRE—WATER PIPING INDEPENDENTLY OF OTHER PIPING. G. PROVIDE SUPPORTS FOR MOVEMENT: - SYSTEMS AND TO PERMIT FREEDOM OF ALLOWMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS. - LOAD DISTRIBUTION: INSTALL HANGERS AND SUPPORTS SO THAT PIPING LINE AND DEAD LOADING AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT. - PIPE SLOPES: INSTALL HANGERS AND SUPPORTS TO PROVIDE INDICATED PIPE SLOPES, AND SO THAT MAXIMUM PIPE DEFLECTIONS ALLOWED BY ANSI B31 PRESSURE PIPING CODES ARE NOT EXCEEDED. H. INSULATED PIPING: COMPLY WITH THE FOLLOWING INSTALLATION REQUIREMENTS: - CLAMPS: ATTACH CLAMPS, INCLUDING SPACERS (IF ANY), TO PIPING WITH CLAMPS PROJECTING THROUGH INSULATION, DO NOT EXCEED PIPE STRESSES ALLOWED BY ANSI B31. - SHIELDS: WHERE LOW—COMPRESSIVE—STRENGTH INSULATION OR VAPOR BARRIERS ARE INDICATED ON PIPE OR OVER INSULATION, PROVIDE INSULATION OR PROTECTIVE SHIELDS, FOR PIPE 8" AND OVER, INSTALL WOOD INSULATION SADDLES. - SADDLES: WHERE INSULATION WITHOUT VAPOR BARRIER IS INDICATED, INSTALL PROTECTION SADDLES. 14. INSTALLATION OF ANCHORS A. GENERAL: PROVIDE ANCHORS AT PROPER LOCATIONS TO PREVENT STRESSES FROM EXCEEDING THOSE PERMITTED BY ANSI B31, AND TO PREVENT TRANSFER OF LOADS AND STRESSES TO CONNECTED EQUIPMENT. B. FABRICATE AND INSTALL ANCHORS BY WELDING STEEL SHAPES, PLATES AND BARS TO PIPING AND TO STRUCTURE, COMPLY WITH ANSI B31 AND WITH AWS STANDARDS. C. WHERE EXPANSION COMPENSATORS ARE INDICATED, INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PIPING SYSTEMS COMPLY WITH REQUIREMENTS AND SERVE INTENDED PURPOSES. D. COMPLIANCE: PROVIDE FIRE PROTECTION PRODUCTS AND INSTALLATIONS IN ACCORDANCE WITH FM STANDARDS, PROVIDE FM LABEL ON EACH PRODUCT. E. FIRE DEPARTMENT/MARSHAL COMPLIANCE: INSTALL FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH MARSHAL REGULATIONS FOR FIRE DEPARTMENT EQUIPMENT TO SPRINKLER SYSTEMS. 15. SUBMITTALS: 1. PRODUCT DATA: SUBMIT MANUFACTURERS' TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR FIRE PROTECTION MATERIALS AND PRODUCTS. 2. SHOP DRAWINGS: SUBMIT SCALED PLANT DRAWINGS FOR FIRE PROTECTION PIPE AND FITTINGS INCLUDING, BUT NOT NECESSARILY LIMITED TO, PIPE AND TUBE SIZES, LOCATIONS, ELEVATIONS, AND SLOPES OF HORIZONTAL RUNS, WALL AND FLOOR PENETRATIONS, AND CONNECTIONS. INDICATE INTERFACE AND SPATIAL RELATIONSHIP WITH OTHER WORK. 3. APPROVAL DRAWINGS: PREPARE APPROVAL DRAWINGS OF FIRE PROTECTION SYSTEMS INDICATING PIPE SIZES, PIPE LOCATIONS, FITTINGS, SHUTOFFS, EQUIPMENT, ETC. SUBMIT WITH THE FOLLOWING JURISDICTION REQUIREMENTS: - NON-FREEZE POST HYDRANTS: BRONZE HYDRANT, TEE HANDLE KEY, BRONZE CASING WITH CAST-IRON CASING GROUND, LENGTH TO SUIT DEPTH OF BURY, DRAIN HOLE, VACUUM BREAKER, 3/4" INLET, HOSE OUTLET. - NON-FREEZE POST HYDRANTS: BRONZE HYDRANT, TEE HANDLE KEY, BRONZE CASING WITH CAST-IRON CASING GROUND, LENGTH TO SUIT DEPTH OF BURY, DRAIN HOLE, VACUUM BREAKER, 3/4" INLET, HOSE OUTLET. 16. BACKFLOW PREVENTERS: A. GENERAL: PROVIDE BACKFLOW PREVENTERS AS SCHEDULED IN THE PLUMBING DRAWINGS, IN ACCORDANCE WITH ASSE STANDARD 1013. 17. PRESSURE REGULATING VALVES: A. GENERAL: PROVIDE PRESSURE REGULATING VALVES, SINGLE SEATED, DIRECT OPERATED TYPE, BRONZE BODY, INTEGRAL STROKER, INLETTING WITH REQUIREMENTS OF ASSE STANDARD 1003, SIZE FOR MAXIMUM FLOW RATE AND INLET AND OUTLET PRESSURES INDICATED ON DRAWINGS. 18. BASIC EXPANSION COMPENSATION: A. GENERAL: PROVIDE EXPANSION COMPENSATION PRODUCTS COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "EXPANSION COMPENSATION", IN ACCORDANCE WITH THE FOLLOWING LISTING: - EXPANSION COMPENSATION - PIPE ALIGNMENT GUIDES 19. C-METERS AND GAGES: A. GENERAL: PROVIDE METERS AND GAGES COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "METERS AND GAGES", IN ACCORDANCE WITH THE FOLLOWING LISTING: - GLASS THERMOMETERS - PRESSURE GAGES 20. WATER METER: A. GENERAL: PROVIDE WATER METER AND RELATED PIPING CONFORMING TO APPLICABLE LOCAL UTILITY COMPANY REGULATIONS AND AWWA STANDARD C600. B. WATER METER: PROVIDED BY LOCAL UTILITY COMPANY, PROVIDE ROUGH-IN AND BYPASS FOR METER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. 21. RELIEF VALVES: A. GENERAL: PROVIDE RELIEF VALVES AS INDICATED, OF SIZE AND CAPACITY AS SELECTED BY INSTALLER FOR PROPER RELIEF CAPACITY, IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE. B. COMBINED PRESSURE—TEMPERATURE RELIEF VALVES: BRONZE BODY, TEST LEVER, THERMOSTATICALLY OPERATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. 22. DRAINAGE PIPING PRODUCTS: A. GENERAL: PROVIDE FACTORY—FABRICATED DRAINAGE PIPING PRODUCTS OF SIZE AND TYPE INDICATED, WHERE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. B. CLEANOUT PLUGS: CAST—BRONZE OR BRASS, THREADS COMPLYING WITH ANSI B2.1, ROUNDED TOP AS FOLLOWS: - NICKEL-BRONZE TOP MANUFACTURER STANDARD CAST UNIT OF THE PATTERN INDICATED. - PATTERN EXPOSED RIM TYPE, WITH RECESS TO RECEIVE 1/8" THICK RESILIENT FLOOR FINISH. - DRAIN CLEANOUTS: CAST—IRON BODY ADAPTABLE TO PIPE WITH CAST-BRONZE OR BRASS CLEANOUT PLUG, STAINLESS STEEL COVER, INCLUDING SCREWS. - FLASHING FLANGES: CAST—IRON WATERTIGHT STACK OR CUP SLEEVE WITH MEMBRANE FLASHING RING, PROVIDE UNDERDECK CLAMP AND SLEEVE LENGTH AS REQUIRED. - VENT FLASHING: BRASS, CAST—IRON CAULKING TYPE ROOF COUPLING FOR CAST—IRON STACKS, CAST—IRON THREADED TYPE ROOF COUPLING FOR STEEL STACKS, AND CAST—BRONZE CAST FLASHING SLEEVE FOR COPPER TUBING.	6. VERTICAL—PIPING CLAMPS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY—FABRICATED VERTICAL—PIPING CLAMPS COMPLYING WITH MSS SP—68, OF ONE OF THE FOLLOWING TYPES LISTED, SELECTED BY INSTALLER TO SUIT VERTICAL PIPING SYSTEMS, IN ACCORDANCE WITH MSS SP—68 AND MANUFACTURERS' PUBLISHED PRODUCT INFORMATION. SELECT SIZE OF VERTICAL PIPING CLAMPS TO EXACTLY FIT PIPE SIZE OF BARE PIPE, PROVIDE COPPER—PLATED CLAMPS FOR COPPER—PIPING SYSTEMS. 7. HANGER—ROD ATTACHMENTS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY—FABRICATED HANGER—ROD ATTACHMENTS COMPLYING WITH MSS SP—68, OF ONE OF THE FOLLOWING MSS TYPES LISTED, SELECTED BY INSTALLER TO SUIT HORIZONTAL—PIPING HANGERS AND BUILDING ATTACHMENTS, IN ACCORDANCE WITH MSS SP—68 AND MANUFACTURERS' PUBLISHED PRODUCT INFORMATION. USE ONLY ONE TYPE BY ONE MANUFACTURER FOR EACH PIPING SERVICE. SELECT SIZE OF HANGERS AND ROD ATTACHMENTS TO SUIT HANGER RODS, PROVIDE COPPER—PLATED HANGER—ROD ATTACHMENTS FOR COPPER—PIPING SYSTEMS. 8. BUILDING ATTACHMENTS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY—FABRICATED BUILDING ATTACHMENTS COMPLYING WITH MSS SP—68, OF ONE OF THE FOLLOWING MSS TYPES LISTED, SELECTED BY INSTALLER TO SUIT BUILDING SUBSTRATE CONDITIONS, IN ACCORDANCE WITH MSS SP—68 AND MANUFACTURERS' PUBLISHED PRODUCT INFORMATION. SELECT SIZE OF BUILDING ATTACHMENTS TO SUIT HANGER RODS, PROVIDE COPPER—PLATED BUILDING ATTACHMENTS FOR COPPER—PIPING SYSTEMS. 9. SADDLES AND SHIELDS A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE SADDLES OR SHIELDS UNDER PIPING HANGERS AND SUPPORTS, FACTORY—FABRICATED, FOR ALL INSTALLED PIPING. SADDLES AND SHIELDS FOR EXACT FIT TO MATE WITH WATER OR STEAM INSULATION. 10. MISCELLANEOUS MATERIALS A. METAL FRAMING: PROVIDE PRODUCTS COMPLYING WITH NEMA SD1 M.1. B. STEEL PLATES, SHAPES, AND BARS: PROVIDE PRODUCTS COMPLYING WITH ASTM A36. C. PRESSURE RESTRICTING AND ANGLE HOSE VALVE: WITH CAST BRASS BODY AND SOLID CAST ALUMINUM ROD WHEEL HANDLE, UL LISTED AND FM APPROVED. D. FINISH: ROUGH BRASS. E. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 11. ROOF EQUIPMENT SUPPORTS A. GENERAL: PROVIDE ROOF EQUIPMENT SUPPORTS AS DETAILED ON CONSTRUCTION DOCUMENTS. B. CONSTRUCT OF SIZES US INDICATED, COMPENSATE FOR SLOPE IN ROOF SO TOP OF SUPPORT IS DEAD LEVEL. 12. INSPECTION A. EXAMINE AREAS AND CONDITIONS UNDER WHICH SUPPORTS AND ANCHORS ARE TO BE INSTALLED, DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER. 13. INSTALLATION OF BUILDING ATTACHMENTS A. INSTALL BUILDING ATTACHMENTS AT REQUIRED LOCATIONS WITH CONCRETE OR ON STRUCTURAL STEEL FOR PROPER PIPING SUPPORT. SPACE ATTACHMENT TO INSULATION MAXIMUM PIPING SPAN LENGTH INDICATED IN MSS SP—69. INSTALL ADDITIONAL CONCENTRATED LOADS, INCLUDING VALVE FLANGES, GUIDES, STRAINERS, EXPANSION SUPERVISORY SWITCHES, AND AT CHANGES IN DIRECTION OF PIPING, INSTALL CONCRETE INSERTS, BEFORE CONCRETE IS PLACED, FASTEN INSERT SECURELY TO FORMS, WHERE CONCRETE WITH COMPRESSIVE STRENGTH LESS THAN 2500 PSI IS INDICATED, INSTALL REINFORCING BARS THROUGH OPENINGS AT 2" OF INSERTS. 14. INSTALLATION OF HANGERS AND SUPPORTS: A. GENERAL: PROVIDE HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE, COMPLY WITH MSS SP—69, ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING TO BE SUPPORTED TOGETHER ON COMMON BRACKET OR HANGER, WHERE POSSIBLE. INSTALL SUPPORTS WITH MAXIMUM SPACINGS COMPLYING WITH MSS SP—69, WHERE PIPING OF VARIOUS SIZES IS TO BE SUPPORTED TOGETHER BY TRAPZOID HANGERS, SPACE HANGERS FOR SMALLEST PIPE SIZE OR INSTALL HORIZONTAL SIDEWALL. D. INTERMEDIATE SUPPORTS FOR SMALLER DIAMETER PIPE, DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING, AND DO NOT SUPPORT PIPING FROM OTHER PIPING. E. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY INSERTS, BOLTS, RODS, NUTS, WASHERS, AND OTHER ACCESSORIES, EXCEPT AS OTHERWISE INDICATED FOR EXPOSED CONTINUOUS PIPE RUNS, INSTALL HANGERS AND SUPPORTS OF SAME TYPE AND STYLE AS INSTALLED FOR ADJACENT SIMILAR PIPING. F. SUPPORT FIRE—WATER PIPING INDEPENDENTLY OF OTHER PIPING. G. PROVIDE SUPPORTS FOR MOVEMENT: - SYSTEMS AND TO PERMIT FREEDOM OF ALLOWMENT BETWEEN PIPE ANCHORS, AND TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS, AND SIMILAR UNITS. - LOAD DISTRIBUTION: INSTALL HANGERS AND SUPPORTS SO THAT PIPING LINE AND DEAD LOADING AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT. - PIPE SLOPES: INSTALL HANGERS AND SUPPORTS TO PROVIDE INDICATED PIPE SLOPES, AND SO THAT MAXIMUM PIPE DEFLECTIONS ALLOWED BY ANSI B31 PRESSURE PIPING CODES ARE NOT EXCEEDED. H. INSULATED PIPING: COMPLY WITH THE FOLLOWING INSTALLATION REQUIREMENTS: - CLAMPS: ATTACH CLAMPS, INCLUDING SPACERS (IF ANY), TO PIPING WITH CLAMPS PROJECTING THROUGH INSULATION, DO NOT EXCEED PIPE STRESSES ALLOWED BY ANSI B31. - SHIELDS: WHERE LOW—COMPRESSIVE—STRENGTH INSULATION OR VAPOR BARRIERS ARE INDICATED ON PIPE OR OVER INSULATION, PROVIDE INSULATION OR PROTECTIVE SHIELDS, FOR PIPE 8" AND OVER, INSTALL WOOD INSULATION SADDLES. - SADDLES: WHERE INSULATION WITHOUT VAPOR BARRIER IS INDICATED, INSTALL PROTECTION SADDLES. 15. INSTALLATION OF ANCHORS A. GENERAL: PROVIDE ANCHORS AT PROPER LOCATIONS TO PREVENT STRESSES FROM EXCEEDING THOSE PERMITTED BY ANSI B31, AND TO PREVENT TRANSFER OF LOADS AND STRESSES TO CONNECTED EQUIPMENT. B. FABRICATE AND INSTALL ANCHORS BY WELDING STEEL SHAPES, PLATES AND BARS TO PIPING AND TO STRUCTURE, COMPLY WITH ANSI B31 AND WITH AWS STANDARDS. C. WHERE EXPANSION COMPENSATORS ARE INDICATED, INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PIPING SYSTEMS COMPLY WITH REQUIREMENTS AND SERVE INTENDED PURPOSES. D. COMPLIANCE: PROVIDE FIRE PROTECTION PRODUCTS AND INSTALLATIONS IN ACCORDANCE WITH FM STANDARDS, PROVIDE FM LABEL ON EACH PRODUCT. E. FIRE DEPARTMENT/MARSHAL COMPLIANCE: INSTALL FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH MARSHAL REGULATIONS FOR FIRE DEPARTMENT EQUIPMENT TO SPRINKLER SYSTEMS. 16. SUBMITTALS: 1. PRODUCT DATA: SUBMIT MANUFACTURERS' TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR FIRE PROTECTION MATERIALS AND PRODUCTS. 2. SHOP DRAWINGS: SUBMIT SCALED PLANT DRAWINGS FOR FIRE PROTECTION PIPE AND FITTINGS INCLUDING, BUT NOT NECESSARILY LIMITED TO, PIPE AND TUBE SIZES, LOCATIONS, ELEVATIONS, AND SLOPES OF HORIZONTAL RUNS, WALL AND FLOOR PENETRATIONS, AND CONNECTIONS. INDICATE INTERFACE AND SPATIAL RELATIONSHIP WITH OTHER WORK. 3. APPROVAL DRAWINGS: PREPARE APPROVAL DRAWINGS OF FIRE PROTECTION SYSTEMS INDICATING PIPE SIZES, PIPE LOCATIONS, FITTINGS, SHUTOFFS, EQUIPMENT, ETC. SUBMIT WITH THE FOLLOWING JURISDICTION REQUIREMENTS: - NON-FREEZE POST HYDRANTS: BRONZE HYDRANT, TEE HANDLE KEY, BRONZE CASING WITH CAST-IRON CASING GROUND, LENGTH TO SUIT DEPTH OF BURY, DRAIN HOLE, VACUUM BREAKER, 3/4" INLET, HOSE OUTLET. - NON-FREEZE POST HYDRANTS: BRONZE HYDRANT, TEE HANDLE KEY, BRONZE CASING WITH CAST-IRON CASING GROUND, LENGTH TO SUIT DEPTH OF BURY, DRAIN HOLE, VACUUM BREAKER, 3/4" INLET, HOSE OUTLET. 17. BACKFLOW PREVENTERS: A. GENERAL: PROVIDE BACKFLOW PREVENTERS AS SCHEDULED IN THE PLUMBING DRAWINGS, IN ACCORDANCE WITH ASSE STANDARD 1013. 18. PRESSURE REGULATING VALVES: A. GENERAL: PROVIDE PRESSURE REGULATING VALVES, SINGLE SEATED, DIRECT OPERATED TYPE, BRONZE BODY, INTEGRAL STROKER, INLETTING WITH REQUIREMENTS OF ASSE STANDARD 1003, SIZE FOR MAXIMUM FLOW RATE AND INLET AND OUTLET PRESSURES INDICATED ON DRAWINGS. 19. BASIC EXPANSION COMPENSATION: A. GENERAL: PROVIDE EXPANSION COMPENSATION PRODUCTS COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "EXPANSION COMPENSATION", IN ACCORDANCE WITH THE FOLLOWING LISTING: - EXPANSION COMPENSATION - PIPE ALIGNMENT GUIDES 20. C-METERS AND GAGES: A. GENERAL: PROVIDE METERS AND GAGES COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "METERS AND GAGES", IN ACCORDANCE WITH THE FOLLOWING LISTING: - GLASS THERMOMETERS - PRESSURE GAGES 21. WATER METER: A. GENERAL: PROVIDE WATER METER AND RELATED PIPING CONFORMING TO APPLICABLE LOCAL UTILITY COMPANY REGULATIONS AND AWWA STANDARD C600. B. WATER METER: PROVIDED BY LOCAL UTILITY COMPANY, PROVIDE ROUGH-IN AND BYPASS FOR METER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. 22. RELIEF VALVES: A. GENERAL: PROVIDE RELIEF VALVES AS INDICATED, OF SIZE AND CAPACITY AS SELECTED BY INSTALLER FOR PROPER RELIEF CAPACITY, IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE. B. COMBINED PRESSURE—TEMPERATURE RELIEF VALVES: BRONZE BODY, TEST LEVER, THERMOSTATICALLY OPERATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. 23. DRAINAGE PIPING PRODUCTS: A. GENERAL: PROVIDE FACTORY—FABRICATED DRAINAGE PIPING PRODUCTS OF SIZE AND TYPE INDICATED, WHERE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. B. CLEANOUT PLUGS: CAST—BRONZE OR BRASS, THREADS COMPLYING WITH ANSI B2.1, ROUNDED TOP AS FOLLOWS: - NICKEL-BRONZE TOP MANUFACTURER STANDARD CAST UNIT OF THE PATTERN INDICATED. - PATTERN EXPOSED RIM TYPE, WITH RECESS TO RECEIVE 1/8" THICK RESILIENT FLOOR FINISH. - DRAIN CLEANOUTS: CAST—IRON BODY ADAPTABLE TO PIPE WITH CAST-BRONZE OR BRASS CLEANOUT PLUG, STAINLESS STEEL COVER, INCLUDING SCREWS. - FLASHING FLANGES: CAST—IRON WATERTIGHT STACK OR CUP SLEEVE WITH MEMBRANE FLASHING RING, PROVIDE UNDERDECK CLAMP AND SLEEVE LENGTH AS REQUIRED. - VENT FLASHING: BRASS, CAST—IRON CAULKING TYPE ROOF COUPLING FOR CAST—IRON STACKS, CAST—IRON THREADED TYPE ROOF COUPLING FOR STEEL STACKS, AND CAST—BRONZE CAST FLASHING SLEEVE FOR COPPER TUBING.	9. BASIC SUPPORTS AND ANCHORS: A. GENERAL: PROVIDE SUPPORTS AND ANCHORS COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "SUPPORTS AND ANCHORS", IN ACCORDANCE WITH THE FOLLOWING LISTING: - ADJUSTABLE STEEL CLEVIS HANGERS, OR ADJUSTABLE BAND HANGERS, OR ADJUSTABLE BAND HANGERS, FOR HORIZONTAL—PIPING HANGERS AND SUPPORTS. - TWO—BOLT RISER CLAMPS FOR VERTICAL PIPING SUPPORTS. - STEEL TUMBLERCLIPS AND MALLEABLE IRON SOCKETS FOR HANGER—ROD ATTACHMENTS. - TOP-BEAM CL—CLAMPS, SIDE BEAM OR CHANNEL CLAMPS OR CENTER BEAM CLAMPS FOR BUILDING ATTACHMENTS. 10. BASIC VALVES: A. GENERAL: PROVIDE VALVES COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "VALVES", IN ACCORDANCE WITH THE FOLLOWING LISTING: - INTERIOR VALVES: PROVIDE GATE VALVES OR BUTTERFLY VALVES; UL LISTED. CHECK: SWING CHECK VALVES; UL LISTED. 11. SPECIAL VALVES: A. GENERAL: PROVIDE VALVES, UL LISTED, IN ACCORDANCE WITH THE FOLLOWING LISTING: - WATER—MOTOR GONGS: PROVIDE 1/2" WEATHERPROOF, RED ENAMELED FINISH, WATER—MOTOR GONGS. - LOW AIR PRESSURE HORN: PROVIDE LOW AIR PRESSURE HORN AS INDICATED. - WATER—MOTOR GONGS: PROVIDE PRODUCTS RECOMMENDED BY MANUFACTURER FOR USE IN SERVICE INDICATED. 12. AUTOMATIC SPRINKLERS: A. GENERAL: PROVIDE AUTOMATIC SPRINKLERS OF TYPE INDICATED ON DRAWINGS, AND IN ACCORDANCE WITH THE FOLLOWING LISTING. PROVIDE FUSIBLE LINKS FOR 165F (74C) UNLESS OTHERWISE INDICATED. B. UPRIGHT: SEMI—RECESSED PENDENT. C. STANDARD DRY—TYPE PENDENT. D. STANDARD DRY—TYPE UPRIGHT. E. INTERMEDIATE SIDEWALL. F. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND CEILING. G. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 13. FIRE PROTECTION SPECIALTIES A. GENERAL: PROVIDE FIRE PROTECTION SPECIALTIES, UL LISTED, IN ACCORDANCE WITH THE FOLLOWING LISTING: PROVIDE SIZES AND TYPES WHICH MATCH AND MATCH PIPING AND EQUIPMENT CONNECTIONS. B. WATER FLOW DETECTOR: PROVIDE VANE TYPE WATER FLOW DETECTORS. C. WATER—MOTOR GONGS: PROVIDE 1/2" WEATHERPROOF, RED ENAMELED FINISH, WATER—MOTOR GONGS. D. LOW AIR PRESSURE HORN: PROVIDE LOW AIR PRESSURE HORN AS INDICATED. E. WATER—MOTOR GONGS: PROVIDE PRODUCTS RECOMMENDED BY MANUFACTURER FOR USE IN SERVICE INDICATED. 14. AUTOMATIC SPRINKLERS: A. GENERAL: PROVIDE AUTOMATIC SPRINKLERS OF TYPE INDICATED ON DRAWINGS, AND IN ACCORDANCE WITH THE FOLLOWING LISTING. PROVIDE FUSIBLE LINKS FOR 165F (74C) UNLESS OTHERWISE INDICATED. B. UPRIGHT: SEMI—RECESSED PENDENT. C. STANDARD DRY—TYPE PENDENT. D. STANDARD DRY—TYPE UPRIGHT. E. INTERMEDIATE SIDEWALL. F. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND CEILING. G. DETECTOR CHECK VALVES: PROVIDE CAST—IRON BODY DETECTOR CHECK VALVE, BRONZE FITTING, WITH TAPPED BOSSSES ON EACH SIDE FOR BY-PASS METER, AIR VENT, AND COVER—MOUNTED EYEBOLT. 15. SIAMSE CONNECTIONS: A. WALL TYPE SIAMSE CONNECTIONS: PROVIDE WALL TYPE CAST BRASS SIAMSE CONNECTIONS AND ESCUTCHEON PLATE ASSEMBLY, WITH 2, 2 1/2, FIRE DEPARTMENT HOLES WITH FEMALE HOSE CONNECTIONS IN CONFORMANCE WITH LOCAL FIRE DEPARTMENT REQUIREMENTS. FIRE HOSE CONNECTION SCREW THREAD, EQUIPPED WITH INDIVIDUAL DRY-DRUP CLAMPER VALVES, EQUIPPED WITH PLUGS AND CHAINS, CONSTRUCTION MATERIALS SHALL BE AS SPECIFIED AND CONSTRUCTED WITH THE FOLLOWING ADDITIONAL CONSTRUCTION FEATURES: - FINISH: POLISHED BRASS OR CHROME PLATE. - PIPE: 4" PIPE, 1/2" THICK. - CAST LETTERING: "AUTO. SPRK." - ESCUTCHEON: 12" DIAMETER. 16. INSPECTION: A. GENERAL: EXAMINE AREAS AND CONDITIONS UNDER WHICH FIRE PROTECTION MATERIALS AND PRODUCTS ARE TO BE INSTALLED, DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO INSTALLER. 17. INSTALLATION OF BASIC IDENTIFICATION: A. GENERAL: PROVIDE IDENTIFICATION COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "MECHANICAL IDENTIFICATION", IN ACCORDANCE WITH THE FOLLOWING LISTING: - EXPANSION COMPENSATION - PIPE ALIGNMENT GUIDES 18. BASIC EXPANSION COMPENSATION: A. GENERAL: PROVIDE EXPANSION COMPENSATION PRODUCTS COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "EXPANSION COMPENSATION", IN ACCORDANCE WITH THE FOLLOWING LISTING: - EXPANSION COMPENSATION - PIPE ALIGNMENT GUIDES 19. C-METERS AND GAGES: A. GENERAL: PROVIDE METERS AND GAGES COMPLYING WITH DIVISION—15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "METERS AND GAGES", IN ACCORDANCE WITH THE FOLLOWING LISTING: - GLASS THERMOMETERS - PRESSURE GAGES 20. WATER METER: A. GENERAL: PROVIDE WATER METER AND RELATED PIPING CONFORMING TO APPLICABLE LOCAL UTILITY COMPANY REGULATIONS AND AWWA STANDARD C600. B. WATER METER: PROVIDED BY LOCAL UTILITY COMPANY, PROVIDE ROUGH-IN AND BYPASS FOR METER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. 21. RELIEF VALVES: A. GENERAL: PROVIDE RELIEF VALVES AS INDICATED, OF SIZE AND CAPACITY AS SELECTED BY INSTALLER FOR PROPER RELIEF CAPACITY, IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE. B. COMBINED PRESSURE—TEMPERATURE RELIEF VALVES: BRONZE BODY, TEST LEVER, THERMOSTATICALLY OPERATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. 22. DRAINAGE PIPING PRODUCTS: A. GENERAL: PROVIDE FACTORY—FABRICATED DRAINAGE PIPING PRODUCTS OF SIZE AND TYPE INDICATED, WHERE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS AND GOVERNING REGULATIONS. B. CLEANOUT PLUGS: CAST—BRONZE OR BRASS, THREADS COMPLYING WITH ANSI B2.1, ROUNDED TOP AS FOLLOWS: - NICKEL-BRONZE TOP MANUFACTURER STANDARD CAST UNIT OF THE PATTERN INDICATED. - PATTERN EXPOSED RIM TYPE, WITH RECESS TO RECEIVE 1/8" THICK RESILIENT FLOOR FINISH. - DRAIN CLEANOUTS: CAST—IRON BODY ADAPTABLE TO PIPE WITH CAST-BRONZE OR BRASS CLEANOUT PLUG, STAINLESS STEEL COVER, INCLUDING SCREWS. - FLASHING FLANGES: CAST—IRON WATERTIGHT STACK OR CUP SLEEVE WITH MEMBRANE FLASHING RING, PROVIDE UNDERDECK CLAMP AND SLEEVE LENGTH AS REQUIRED. - VENT FLASHING: BRASS, CAST—IRON CAULKING TYPE ROOF COUPLING FOR CAST—IRON STACKS, CAST—IRON THREADED TYPE ROOF COUPLING FOR STEEL STACKS, AND CAST—BRONZE CAST FLASHING SLEEVE FOR COPPER TUBING.	23. INSTALLATION OF POTABLE WATER DISTRIBUTION PIPING: A. GENERAL: PROVIDE POTABLE WATER DISTRIBUTION PIPING SYSTEM IN COMPLIANCE WITH LOCAL GOVERNING REGULATIONS. B. STREET MAIN CONNECTION: ARRANGE AND PAY FOR TAP IN WATER MAIN, OF SIZE AND IN LOCATION INDICATED, BY LOCAL UTILITY COMPANY. C. WATER SERVICE PIPING: EXTEND WATER
--	---	---	--

HAT CREEK BURGER - PROTOTYPE 1.1

TABLE OF CONTENTS

10. FLOOR DRAINS: A. GENERAL: PROVIDE FLOOR DRAINS OF SIZES AND TYPES AS INDICATED ON DRAWINGS 11. TRAP PRIMERS: A. GENERAL: PROVIDE BRONZE TRAP PRIMER VALVE WITH AUTOMATIC VACUUM BREAKER. COMPLY WITH ASSOCIATED 10/8 WITH 12" CONNECTIONS MATCHING PIPING SYSTEM. TRAP PRIMERS SHALL BE CONCEALED WITHIN THE WALL FRAMING, AND FINISHED WITH A WALL MOUNTED ACCESSIBLE COVER PLATE. 12. INSPECTION: A. EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH SOIL AND WASTE SYSTEMS ARE TO BE INSTALLED, DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER. 13. INSTALLATION OF BASIC IDENTIFICATION: A. GENERAL: INSTALL MECHANICAL IDENTIFICATION IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "MECHANICAL IDENTIFICATION". 14. INSTALLATION OF ABOVE GROUND PIPING: A. GENERAL: INSTALL SOIL AND WASTE PIPING IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPES AND PIPE FITTINGS", AND WITH CODE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. 15. INSTALLATION OF BUILDING DRAIN PIPING: A. GENERAL: INSTALL UNDERGROUND BUILDING DRAINS AS INDICATED AND IN ACCORDANCE WITH THE CODE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. LAY UNDERGROUND BUILDING DRAINS BEGINNING AT LOW POINT OF SYSTEMS, TRUE TO GRADES AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. PLACE BELL ENDS OF PIPING FACING UPSTREAM. INSTALL REQUIRED GASKETS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION FOR USE OF LUBRICANTS, GEMENTS, AND OTHER SPECIAL INSTALLATION REQUIREMENTS. CLEAN INTERIOR OF PIPING OF DIRT AND OTHER SUSPENDED MATERIALS. PROVIDE GREASE MAINTAIN SWAB OR DRAG LINE AND PULL FAST JOINT AS IT IS COMPLETED. FLUSH IN ENDS OF UNCOMPLETED PIPING AT END OF DAY OR WHENEVER WORK STOPS. B. INSTALL 10/8 AND VENT PRIMERS AND PIPING WITH A MINIMUM SLOPE OF 1/4" PER FOOT (2%) FOR PIPING 3" AND SMALLER, AND 1/8" PER FOOT (1%) FOR PIPING 4" AND LARGER. 16. INSTALLATION OF PIPING SPECIALTIES: A. INSTALL PIPING SPECIALTIES IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPING SPECIALTIES". 17. INSTALLATION OF SUPPORTS AND ANCHORS: A. INSTALL SUPPORTS AND ANCHORS IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "SUPPORTS AND ANCHORS". 18. INSTALLATION OF DRAINAGE PIPING PRODUCTS: A. CLEANOUTS: INSTALL FLOOR DRAINS AND BUILDING DRAIN PIPING OS INDICATED, AS REQUIRED BY CODE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION, AND AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45°. AT DOWNSTREAM PIPING FOR PIPING 4" AND SMALLER AND 1/8" FOR LARGER PIPING, AND AT BASE OF EACH VERTICAL SOIL OR WASTE STACK, INSTALL FLOOR AND WALL CLEANOUT COVERS FOR CONCEALED PIPING. SELECT TYPE TO MATCH ADJACENT BUILDING FINISH. FLASHING FLASHING FLANGE AND CLAMPING DEVICE WITH EACH STACK AND CLEANOUT PASSING THROUGH WATERPROOF MEMBRANES. C. VENT FLASHING SLEEVES: INSTALL ON STACKS PASSING THROUGH ROOF. SECURE OVER STACK FLASHING IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. 19. INSTALLATION OF FLOOR DRAINS: A. GENERAL: INSTALL FLOOR DRAINS IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS AND IN LOCATIONS INDICATED. B. COORDINATE FLASHING WORK WITH WORK OF WATERPROOFING AND ADJOINING FINISH WORK MATERIALS WHICH HAVE BEEN SELECTED FOR THEIR SURFACE FLATNESS AND SMOOTHNESS. EXPOSED SURFACES WHICH EXHIBIT FITTING, SEAM MARKS, ROLLER MARKS, FOUNDRY SAND HOLES, STAINS, DECORATION, OR OTHER SURFACE DEFECTS SHALL BE REFINISHED TO MATCH ADJACENT FINISH. C. WHERE FITTINGS, TRIM, AND ACCESSORIES ARE EXPOSED OR SEMI-EXPOSED PROVIDE BRIGHT CHROME PLATED OR POLISHED STAINLESS STEEL UNITS. PROVIDE COPPER OR BRASS WHERE NOT EXPOSED. D. STAINLESS STEEL SHEETS: ASTM A 167, TYPE 302/304, HARDEST WORKABLE TEMPER. E. FINISH NO. 4, BRIGHT, DIRECTIONAL POLISH ON EXPOSED SURFACES. F. VITREOUS CHINA: HIGH QUALITY, FREE FROM FRIE CRACKS, SPOTS, BUSTERS, PINHOLES, AND SPECKS; GLAZE EXPOSED SURFACES, AND TEST FOR CRAZING RESISTANCE IN ACCORDANCE WITH ASTM C 284. G. SYNTHETIC STONE: HIGH QUALITY, FREE FROM DEFECTS, GLAZE ON EXPOSED SURFACES, STAIN RESISTANT. 20. INSTALLATION OF TRAP PRIMERS: A. GENERAL: INSTALL TRAP PRIMERS AS INDICATED, AND IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. PITCH PIPING TOWARD DRAIN TRAP, MINIMUM OF 1/8" PER FOOT (1%). ADJUST TRAP PRIMER FOR PROPER FLOW. 21. EQUIPMENT CONNECTIONS: A. PIPING ROUTINGS TO FIXTURES: PROVIDE SOIL AND WASTE PIPING ROUTINGS TO PLUMBING FIXTURES AND PIPING, WITH APPROVED TRAP, OF SIZES INDICATED, BUT IN NO CASE SURFACE FLATNESS AND SMOOTHNESS. EXPOSED SURFACES WHICH EXHIBIT FITTING, SEAM MARKS, ROLLER MARKS, FOUNDRY SAND HOLES, STAINS, DECORATION, OR OTHER SURFACE DEFECTS SHALL BE REFINISHED TO MATCH ADJACENT FINISH. B. LOCATE PIPING ROUTINGS AS CLOSE AS POSSIBLE TO BOTTOM OF FLOOR SLAB SUPPORTING FIXTURES OR DRAINS. 22. FIELD QUALITY CONTROL: A. EXAMINE EXISTING SOIL AND WASTE SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. 23. ADJUSTING AND CLEANING: A. CLEAN, FLUSH, AND INSPECT SOIL AND WASTE PIPING IN ACCORDANCE WITH REQUIREMENTS OF DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPES AND PIPE FITTINGS". 24. PROTECTION: A. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION PERIOD, TO AVOID CLOGGING WITH CONSTRUCTION MATERIALS AND DEBRIS, AND TO PREVENT DAMAGE FROM TRAFFIC AND CONSTRUCTION WORK. SECTION 15420 - PLUMBING EQUIPMENT 1. RELATED DOCUMENTS: A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATIONS SECTIONS, APPLY TO WORK OF THIS SECTION. 2. DESCRIPTION OF WORK: A. EXTENT OF PLUMBING EQUIPMENT WORK IS INDICATED ON DRAWINGS AND PROVISIONS OF THIS SECTION, INCLUDING SCHEDULES AND EQUIPMENT LISTS ASSOCIATED WITH EITHER DRAWINGS OR THIS SECTION. B. TYPES OF PLUMBING EQUIPMENT REQUIRED FOR PROJECT INCLUDE THE FOLLOWING: 1. DOMESTIC WATER HEATERS: a. COMMERCIAL GAS-FIRED WATER HEATERS 2. INTERCEPTORS: a. GREASE INTERCEPTORS 3. QUALITY ASSURANCE: A. UL AND NEMA COMPLIANCE: PROVIDE ELECTRIC MOTORS AND ELECTRICAL COMPONENTS REQUIRED AS PART OF PLUMBING EQUIPMENT, WHICH HAVE BEEN LISTED AND LABELED BY UNDERWRITERS LABORATORIES AND COMPLY WITH NEMA STANDARDS. B. NEC COMPLIANCE: PROVIDE ELECTRICAL COMPONENTS AND PRODUCTS COMPLYING WITH APPLICABLE TO INSTALLATION AND ELECTRICAL CONNECTIONS OF ANNUAL ELECTRICAL COMPONENTS OF PLUMBING EQUIPMENT. C. ANSI COMPLIANCE: COMPLY WITH ANSI Z223.1 (NFA 54) "NATIONAL FUEL GAS CODE"; AS APPLICABLE TO INSTALLATION OF GAS-FIRED WATER HEATERS. D. AQA AND NSF LABELS: PROVIDE WATER HEATERS WHICH HAVE BEEN LISTED AND LABELED BY AMERICAN GAS ASSOCIATION AND NATIONAL SANITATION FOUNDATION. E. ASME CODE SYMBOL STAMPS: PROVIDE FOR THE FOLLOWING EQUIPMENT, COMPLY WITH ASME BOILER AND PRESSURE VESSEL CODE FOR CONSTRUCTION, AND STAMP WITH ASME CODE SYMBOL: 1. COMMERCIAL WATER HEATERS F. ASME RELIEF VALVE STAMPS: PROVIDE WATER HEATERS WITH SAFETY RELIEF VALVES BEARING ASME VALVE MARKINGS. G. PDI COMPLIANCE: COMPLY WITH APPLICABLE PLUMBING AND DRAINAGE INSTALLATION STANDARDS PERTAINING TO GREASE INTERCEPTORS. 4. SUBMITTALS: A. PRODUCT DATA: SUBMIT TO THE ARCHITECT THE MANUFACTURERS PLUMBING EQUIPMENT SPECIFICATIONS, INSTALLATION INSTRUCTIONS, CAPACITY AND WEIGHT, AND RATING, WITH SELECTION POINTS CLEARLY INDICATED. 5. COMMERCIAL GAS-FIRED WATER HEATERS: A. GENERAL: PROVIDE COMMERCIAL GAS-FIRED WATER HEATERS OF SIZE AND CAPACITY AS INDICATED ON SCHEDULE, COMPLY WITH ANSIAHSIA/IEEE 90A FOR ENERGY EFFICIENCY. PROVIDE CERTIFICATION OF DESIGN BY AQA UNDER VOLUME III TESTS FOR COMMERCIAL WATER HEATERS FOR DELIVERY OF 140°F (82°C) WATER. B. HEATER: WORKING PRESSURE OF 150 PSI; BOILER-TYPE HAND-LOU CLEANOUT; MAGNESIUM ANODE ROD; TAPPING FOR RELIEF VALVE; GLASS LINING ON INTERNAL SURFACES EXPOSED TO WATER. C. SAFETY CONTROLS: EQUIP WITH AUTOMATIC GAS SHUTOFF DEVICE TO SHUT OFF ENTIRE GAS SUPPLY IN EVENT OF EXCESSIVE TEMPERATURE IN TANK; AND PILOT SAFETY SHUTOFF. D. DRAFT HOOD: EQUIP WITH GAS CERTIFIED TRAP HOOD. E. JACKET: INSULATE TANK WITH VERMI-PUF OR GLASS FIBER INSULATION, WITH BAKED ENAMEL FINISH OVER BONDERIZED UNDERCOATING. F. WARRANTY: FURNISH 3 YEAR LIMITED WARRANTY FOR TANK LEAKAGE. G. ACCESSORIES: PROVIDE BRASS DRAIN VALVE, 3/4" PRESSURE AND TEMPERATURE RELIEF VALVE; RADIANT FLOOR SHIELD. H. CONTROLS: PROVIDE GAS PRESSURE REGULATOR; PILOT GAS REGULATOR; THERMOSTAT. 6. GREASE INTERCEPTORS: A. GENERAL: PROVIDE CAST CONCRETE GREASE INTERCEPTORS AS DETAILED ON THE DRAWINGS. 7. INSTALLATION OF GAS-FIRED WATER HEATERS: A. GENERAL: INSTALL GAS-FIRED WATER HEATERS AS INDICATED, IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, AND IN COMPLIANCE WITH APPLICABLE CODES. B. SUPPORT SET: SETS ON CONTRACTOR PROVIDED CONCRETE BLOCKS, ORIENT SOIL CONTROLS AND DEVICES NEADING SERVICE AND MAINTENANCE HAVE ADEQUATE ACCESS. WATER HEATER SHALL BE SET LEVEL AND PLUMB. <c. and="" as="" cock,="" connect="" connection.="" drip="" full="" gas="" inlet="" interfere="" leg,="" line="" locate="" not="" of="" or="" p="" piping="" replacement="" service="" size="" so="" supply:="" tee,="" the="" to="" union;="" unit="" unit.<="" with=""> D. PIPING: CONNECT HOT AND COLD WATER PIPING TO UNITS WITH SHUTOFF VALVES AND UNIONS. CONNECT RECIRCULATING WATER LINE TO UNIT WITH SHUTOFF VALVE, CHECK VALVE, AND UNION. E. FLUE: CONNECT COMBUSTION AIR INTAKE AND EXHAUST DUCT AIR TIGHT. F. START-UP: START-UP, TEST, AND ADJUST GAS-FIRED WATER HEATERS IN ACCORDANCE WITH MANUFACTURERS START-UP INSTRUCTIONS, AND UTILITY COMPANYS REQUIREMENTS. CHECK AND CALIBRATE CONTROLS, ADJUST BURNER FOR MAXIMUM EFFICIENCY. 8. INSTALLATION OF INTERCEPTORS: A. GENERAL: INSTALL INTERCEPTORS AS INDICATED, IN ACCORDANCE WITH THE DETAIL ON THE DRAWINGS, AND LOCAL CODES AND ORDINANCES. </c.>	SECTION 15440 - PLUMBING FIXTURES 1. RELATED DOCUMENTS: A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATIONS SECTIONS, APPLY TO WORK OF THIS SECTION. B. DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTIONS APPLY TO WORK OF THIS SECTION. 2. DESCRIPTION OF WORK: A. EXTENT OF PLUMBING FIXTURES WORK REQUIRED BY THIS SECTION IS INDICATED ON DRAWINGS AND SCHEDULES, AND BY REQUIREMENTS OF THIS SECTION. B. TYPES OF PLUMBING FIXTURES SPECIFIED IN THIS SECTION INCLUDE THE FOLLOWING: 1. WATER CLOSETS. 2. URINALS. 3. LAVATOIRES. 4. SERVICE SINKS. C. REFER TO DIVISION-15 SECTIONS FOR POTABLE WATER SYSTEMS USED IN CONJUNCTION WITH PLUMBING FIXTURES; NOT WORK OF THIS SECTION. D. METHODS FOR SOIL AND WASTE SYSTEMS USED IN CONJUNCTION WITH PLUMBING FIXTURES; NOT WORK OF THIS SECTION. 3. QUALITY ASSURANCE: A. MANUFACTURERS QUALIFICATIONS: FIRMS REGULARLY ENGAGED IN MANUFACTURE OF PLUMBING FIXTURES OF TYPE, STYLE AND CONFIGURATION REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN 3 YEARS. B. CODES AND STANDARDS: 1. PLUMBING FIXTURE STANDARDS: COMPLY WITH APPLICABLE PORTIONS OF THE ADOPTED CODE OF THE AUTHORITY HAVING JURISDICTION PERTAINING TO MATERIALS AND INSTALLATION OF PLUMBING FIXTURES. 2. ANSI STANDARDS: COMPLY WITH APPLICABLE ANSI STANDARDS PERTAINING TO PLUMBING FIXTURES. 3. PDI COMPLIANCE: COMPLY WITH STANDARDS ESTABLISHED BY PDI PERTAINING TO PLUMBING FIXTURES. 4. FEDERAL STANDARDS: COMPLY WITH APPLICABLE FSI WW-P-541/SERIES SECTIONS PERTAINING TO PLUMBING FIXTURES. 5. ANSI COMPLIANCE: CONSTRUCT AND INSTALL BARRIER-FREE PLUMBING FIXTURES IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT. 4. SUBMITTALS: A. PRODUCT DATA: SUBMIT TO THE ARCHITECT THE MANUFACTURERS TECHNICAL PRODUCT DATA, INCLUDING RATED CAPACITIES OF SELECTED MODEL CLEARLY INDICATED, FURNISHED SPECIFICATIONS AND ACCESSORIES; AND INSTALLATION INSTRUCTIONS. 5. PLUMBING FIXTURES: A. GENERAL: PROVIDE FACTORY-FABRICATED FIXTURES OF TYPE, STYLE, AND MATERIAL AS INDICATED ON EACH TYPE, FIXTURE, PROVIDE FIXTURE MANUFACTURERS STANDARD TRIM, CARRIER, SEATS, AND VALVES AS INDICATED BY THEIR PUBLISHED PRODUCT INFORMATION; EITHER AS DESIGNED AND CONSTRUCTED, OR AS RECOMMENDED BY MANUFACTURERS, AND AS REQUIRED FOR COMPLETE INSTALLATION, WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLERS OPTION, BUT, ALL FIXTURES OF SAME TYPE MUST BE FURNISHED BY SINGLE MANUFACTURER, WHERE TYPE IS NOT OTHERWISE INDICATED, PROVIDE FIXTURES COMPLYING WITH GOVERNING REGULATIONS. 6. MATERIALS: A. GENERAL: UNLESS OTHERWISE SPECIFIED, COMPLY WITH APPLICABLE FEDERAL SPECIFICATION WW-P-541/SERIES SECTIONS PERTAINING TO PLUMBING FIXTURES, FITTINGS, TRIM, METALS, AND FINISHES, COMPLY WITH REQUIREMENTS OF WW-P-541/SERIES SECTIONS PERTAINING TO QUALITY OF WARE, GLAZING, ENAMEL, COMPOSITION AND FINISH OF METALS, AIR GAPS, AND VACUUM BREAKERS, EVEN THOUGH SOME PLUMBING FIXTURES SPECIFIED IN THIS SECTION ARE NOT DESCRIBED IN WW-P-541/SERIES SECTIONS. B. FINISH: FINISH WORK MATERIALS WHICH HAVE BEEN SELECTED FOR THEIR SURFACE FLATNESS AND SMOOTHNESS. EXPOSED SURFACES WHICH EXHIBIT FITTING, SEAM MARKS, ROLLER MARKS, FOUNDRY SAND HOLES, STAINS, DECORATION, OR OTHER SURFACE DEFECTS SHALL BE REFINISHED TO MATCH ADJACENT FINISH. C. WHERE FITTINGS, TRIM, AND ACCESSORIES ARE EXPOSED OR SEMI-EXPOSED PROVIDE BRIGHT CHROME PLATED OR POLISHED STAINLESS STEEL UNITS. PROVIDE COPPER OR BRASS WHERE NOT EXPOSED. D. STAINLESS STEEL SHEETS: ASTM A 167, TYPE 302/304, HARDEST WORKABLE TEMPER. E. FINISH NO. 4, BRIGHT, DIRECTIONAL POLISH ON EXPOSED SURFACES. F. VITREOUS CHINA: HIGH QUALITY, FREE FROM FRIE CRACKS, SPOTS, BUSTERS, PINHOLES, AND SPECKS; GLAZE EXPOSED SURFACES, AND TEST FOR CRAZING RESISTANCE IN ACCORDANCE WITH ASTM C 284. G. SYNTHETIC STONE: HIGH QUALITY, FREE FROM DEFECTS, GLAZE ON EXPOSED SURFACES, STAIN RESISTANT. 7. PLUMBING FITTINGS, TRIM, AND ACCESSORIES: A. WATER OUTLETS: AT LOCATIONS WHERE WATER IS SUPPLIED BY MANUAL, AUTOMATIC OR REMOTE CONTROL, PROVIDE COMMERCIAL QUALITY FAUCETS, VALVES, OR DISPENSING DEVICES, OF TYPE AND SIZE INDICATED, AND AS REQUIRED TO OPERATE AS INDICATED, INCLUDE MANUAL SHUTOFF VALVES AND CONNECTING STEM PIPES TO PERMIT OUTLET SERVICING WITHOUT SHUT-DOWN OF WATER SUPPLY PIPING SYSTEMS. B. VALVE BREAKERS: PROVIDE WITH FLUSH VALVES WHERE REQUIRED BY GOVERNING REGULATIONS, INCLUDING LOCATIONS WHERE WATER OUTLETS ARE EQUIPPED FOR HOSE ATTACHMENT. C. HAND TRAPS: INCLUDE REMOVABLE P-TRAPS WHERE DRAINS ARE INDICATED FOR DIRECT CONNECTION TO DRAINAGE SYSTEM. D. CARRIERS: PROVIDE CAST-IRON SUPPORTS FOR FIXTURES OF EITHER GRAPHIC GAY, IRON, DUCTILE IRON, OR MALLEABLE IRON AS INDICATED. E. FIXTURE BOLT CAPS: PROVIDE MANUFACTURERS STANDARD EXPOSED FIXTURE BOLT CAPS FINISHED TO MATCH FIXTURE FINISH. F. SOUTICHOICES: WHERE FIXTURE SUPPLIES AND DRAINS PENETRATE WALLS IN EXPOSED LOCATIONS, PROVIDE CHROME-PLATED CAST BRASS ENCLOSEMENTS WITH SET SCREW. AERATORS: PROVIDE AERATORS OF TYPES SPECIFIED IN THE CONSTRUCTION DRAWINGS. G. COMPLY WITH ADDITIONAL FIXTURE REQUIREMENTS CONTAINED IN FIXTURE SCHEDULE ATTACHED TO THIS SECTION. 8. INSTALLATION OF PLUMBING FIXTURES: A. GENERAL: INSTALL PLUMBING FIXTURES OF TYPES INDICATED WHERE SHOWN AND AT INDICATED HEIGHTS, IN ACCORDANCE WITH FIXTURE MANUFACTURERS WRITTEN INSTRUCTIONS, INCLUDING IN DRAWINGS, AND WITH RECOGNIZED INDUSTRY PRACTICES. ENSURE THAT PLUMBING FIXTURES COMPLY WITH REQUIREMENTS AND SERVE INTENDED PURPOSES, COMPLY WITH APPLICABLE REQUIREMENTS OF THE ADOPTED CODE OF THE AUTHORITY HAVING JURISDICTION PERTAINING TO PLUMBING FIXTURES. B. FASTEN PLUMBING FIXTURES SECURELY TO INDICATED SUPPORTS OR BUILDING STRUCTURE, AND ENSURE THAT FIXTURES ARE LEVEL AND PLUMB. SECURE PLUMBING FIXTURES BEHIND OR WITHIN WALL CONSTRUCTION SO AS TO BE HIED, AND NOT SUBJECT TO PULL OR PUSH MOVEMENT. 9. ADJUSTING AND CLEANING: A. CLEAN PLUMBING FIXTURES, TRIM, AND STRAINERS OF DIRT AND DEBRIS UPON COMPLETION OF INSTALLATION. B. ADJUST WATER PRESSURE AT FAUCETS AND FLUSH VALVES TO PROVIDE PROPER FLOW STREAM AND SPECIFIED GPM. SECTION 15448 - NATURAL GAS SYSTEMS 1. RELATED DOCUMENTS: A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATIONS SECTIONS, APPLY TO WORK OF THIS SECTION. B. DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTIONS APPLY TO WORK OF THIS SECTION. 2. DESCRIPTION OF WORK: A. EXTENT OF NATURAL GAS SYSTEMS WORK, IS INDICATED ON DRAWINGS AND SCHEDULES, AND BY REQUIREMENTS OF THIS SECTION. B. TRENDING AND BACKFILL REQUIRED IN CONJUNCTION WITH GAS SERVICE PIPING IS SPECIFIED IN APPLICABLE DIVISION-2 SECTIONS, AND IS INCLUDED AS WORK OF THIS SECTION. C. REFER TO DIVISION-2 SECTIONS FOR TRENDING AND BACKFILL REQUIRED IN CONJUNCTION WITH GAS SERVICE PIPING; NOT WORK OF THIS SECTION. 3. CODES AND STANDARDS: A. ANSI COMPLIANCE: FABRICATE AND INSTALL NATURAL GAS PIPING IN ACCORDANCE WITH ANSI B31.2 "FUEL GAS PIPING". B. NFPA COMPLIANCE: FABRICATE AND INSTALL NATURAL GAS SYSTEMS IN ACCORDANCE WITH NFPA 54 "NATURAL FUEL GAS CODE". C. UTILITY COMPLIANCE: FABRICATE AND INSTALL NATURAL GAS SYSTEMS IN ACCORDANCE WITH LOCAL GAS UTILITY COMPANY. 4. SUBMITTALS: A. PRODUCT DATA: SUBMIT MANUFACTURERS TECHNICAL, PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR NATURAL GAS SYSTEMS MATERIALS AND PRODUCTS. 5. MATERIALS AND PRODUCTS: A. GENERAL: PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, AND CAPACITIES AS INDICATED, WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER. B. GAS SUPPLY: CONNECT TO GAS LINE WITH DRIP LEG, TEE, GAS COCK, AND UNION; FULL SIZE OF UNIT INLET CONNECTION. LOCATE PIPING SO AS NOT TO INTERFERE WITH SERVICE OR REPLACEMENT OF THE UNIT. C. JACKET: INSULATE TANK WITH VERMI-PUF OR GLASS FIBER INSULATION, WITH BAKED ENAMEL FINISH OVER BONDERIZED UNDERCOATING. D. WARRANTY: FURNISH 3 YEAR LIMITED WARRANTY FOR TANK LEAKAGE. E. ACCESSORIES: PROVIDE BRASS DRAIN VALVE, 3/4" PRESSURE AND TEMPERATURE RELIEF VALVE; RADIANT FLOOR SHIELD. H. CONTROLS: PROVIDE GAS PRESSURE REGULATOR; PILOT GAS REGULATOR; THERMOSTAT. 6. GREASE INTERCEPTORS: A. GENERAL: PROVIDE CAST CONCRETE GREASE INTERCEPTORS AS DETAILED ON THE DRAWINGS. 7. INSTALLATION OF GAS-FIRED WATER HEATERS: A. GENERAL: INSTALL GAS-FIRED WATER HEATERS AS INDICATED, IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, AND IN COMPLIANCE WITH APPLICABLE CODES. B. SUPPORT SET: SETS ON CONTRACTOR PROVIDED CONCRETE BLOCKS, ORIENT SOIL CONTROLS AND DEVICES NEADING SERVICE AND MAINTENANCE HAVE ADEQUATE ACCESS. WATER HEATER SHALL BE SET LEVEL AND PLUMB. C. GAS SUPPLY: CONNECT TO GAS LINE WITH DRIP LEG, TEE, GAS COCK, AND UNION; FULL SIZE OF UNIT INLET CONNECTION. LOCATE PIPING SO AS NOT TO INTERFERE WITH SERVICE OR REPLACEMENT OF THE UNIT. D. PIPING: CONNECT HOT AND COLD WATER PIPING TO UNITS WITH SHUTOFF VALVES AND UNIONS. CONNECT RECIRCULATING WATER LINE TO UNIT WITH SHUTOFF VALVE, CHECK VALVE, AND UNION. E. FLUE: CONNECT COMBUSTION AIR INTAKE AND EXHAUST DUCT AIR TIGHT. F. START-UP: START-UP, TEST, AND ADJUST GAS-FIRED WATER HEATERS IN ACCORDANCE WITH MANUFACTURERS START-UP INSTRUCTIONS, AND UTILITY COMPANYS REQUIREMENTS. CHECK AND CALIBRATE CONTROLS, ADJUST BURNER FOR MAXIMUM EFFICIENCY. 8. INSTALLATION OF INTERCEPTORS: A. GENERAL: INSTALL INTERCEPTORS AS INDICATED, IN ACCORDANCE WITH THE DETAIL ON THE DRAWINGS, AND LOCAL CODES AND ORDINANCES.	9. BASIC SUPPORTS AND ANCHORS: A. GENERAL: PROVIDE SUPPORTS AND ANCHORS COMPLYING WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "SUPPORTS AND ANCHORS". ACCORDANCE WITH THE FOLLOWING LISTING: 1. ADJUSTABLE SWIVEL PIPE RINGS FOR HORIZONTAL PIPING HANGERS AND SUPPORTS. 2. TIE-ROD CLAMPS FOR VERTICAL PIPING SUPPORTS. 3. CONCRETE INSERTS, C-CLAMPS, AND STEEL BRACKETS FOR BUILDING ATTACHMENTS. 4. SIDE-BENT CLAMPS. 10. SPECIAL VALVES: A. GENERAL: SPECIAL VALVES REQUIRED FOR NATURAL GAS SYSTEMS INCLUDE THE FOLLOWING: B. GAS COCKS: 1. GAS COCKS 2" AND SMALLER: 150 PSI NON-SHOCK WOG, BRONZE STRAIGHTWAY COCK, FLAT OR SQUARE HEAD, THREADED ENDS. 2. GAS COCKS 2 1/2" AND LARGER: 125 PSI NON-SHOCK WOG, IRON BODY BRONZE MOUNTED, STRAIGHTWAY COCK, SQUARE HEAD, FLANGED ENDS. C. CONTROL VALVES: 1. MASTER GAS CONTROL VALVE: BRONZE BODY, PACKLESS, SINGLE SEAT, MANUALLY OPERATED, NORMALLY CLOSED, UL-APPROVED. 2. MASTER GAS VALVE: SUBMIT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE CONTROL VALVES OF ONE OF THE FOLLOWING: 1. AUTOMATIC SWITCH CO. 2. ADD OTHER MANUFACTURERS NAMES AS DESIRED. 11. PRESSURE REGULATING VALVES: A. GENERAL: PROVIDE SINGLE STAGE, STEEL, JACKETED, CORROSION-RESISTANT GAS VALVES, EITHER AIR OR ATMOSPHERIC VENT, ELEVATION COMPENSATORS, WITH THREADED ENDS FOR 2" AND SMALLER, FLANGED ENDS FOR 2 1/2" AND LARGER, FOR INLET AND OUTLET GAS PRESSURES, SPECIFIC GRAVITY, AND VOLUME FLOW INDICATED. 12. GAS METER: A. GENERAL: PROVIDE DIAPHRAGM-TYPE, POSITIVE DISPLACEMENT GAS METERS WITH ALUMINUM CASES, TEMPERATURE COMPENSATED, WITH INTERNAL CORROSION-RESISTANT COMPONENTS, THREADED ENDS FOR 2" AND SMALLER, FLANGED ENDS FOR 2 1/2" AND LARGER, FOR GAS WORKING PRESSURES, SPECIFIC GRAVITY, AND VOLUME FLOW INDICATED. 13. INSPECTION: A. GENERAL: EXAMINE AREAS AND CONDITIONS UNDER WHICH NATURAL GAS SYSTEMS MATERIALS AND PRODUCTS ARE TO BE INSTALLED, DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER. 14. INSTALLATION OF BASIC IDENTIFICATION: A. GENERAL: INSTALL MECHANICAL IDENTIFICATION IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "MECHANICAL IDENTIFICATION". 15. INSTALLATION OF NATURAL GAS PIPING: A. GENERAL: INSTALL NATURAL GAS PIPING IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPES AND PIPE FITTINGS", AND WITH CODE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. B. SEALANTS ON METAL GAS PIPING THREADS WHICH ARE CHEMICALLY RESISTANT TO NATURAL GAS, USE SEALANTS SPARINGLY, AND APPLY TO ONLY MALE THREADS OF METAL FITTINGS. C. REMOVE CUTTING AND THREADING BURRS BEFORE ASSEMBLING PIPING. D. DO NOT INSTALL DEFECTIVE PIPING OR FITTINGS. DO NOT USE PIPE WITH THREADS WHICH ARE CHIPPED, STRIPPED, OR OTHERWISE DAMAGED. E. PLUG EACH GAS OUTLET, INCLUDING VALVES, WITH THREADED PLUG OR CAP IMMEDIATELY AFTER INSTALLATION AND RETAIN UNTIL CONTINUING PIPING, OR EQUIPMENT CONNECTIONS ARE MADE. F. GROUND GAS PIPING ELECTRICALLY AND CONTINUOUSLY WITHIN PROJECT, AND BOND TIGHTLY TO GROUNDING CONNECTION. G. HANG GAS PIPING IN AREAS WHERE INDICATED, AND WHERE REQUIRED BY CODE OR REGULATION. H. INSTALL "TEE" FITTING WITH BOTTOM OUTLET PLUGGED OR CAPPED, AT BOTTOM OF PIPE FITTING. I. USE DIELECTRIC UNIONS WHERE DISSIMILAR METALS ARE JOINED TOGETHER. J. INSTALL PIPING WITH 1/64" PER FOOT (1/8%) DOWNWARD SLOPE IN DIRECTION OF FLOW. K. BRACKETS: SUBMIT AND AS REQUIRED FOR COMPLETE INSTALLATION, WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLERS OPTION, BUT, ALL BRACKETS OF SAME TYPE MUST BE FURNISHED BY SINGLE MANUFACTURER, WHERE TYPE IS NOT OTHERWISE INDICATED, PROVIDE BRACKETS COMPLYING WITH GOVERNING REGULATIONS. L. INSULATE GAS PIPING EXPOSED TO FREEZING TEMPERATURES. M. DO NOT UNDER REPAIR OR REPAIR WORK, OR AS REQUIRED TO OPERATE AS INDICATED, INCLUDE MANUAL SHUTOFF VALVES AND CONNECTING STEM PIPES TO PERMIT OUTLET SERVICING WITHOUT SHUT-DOWN OF WATER SUPPLY PIPING SYSTEMS. N. VALVE BREAKERS: PROVIDE WITH FLUSH VALVES WHERE REQUIRED BY GOVERNING REGULATIONS, INCLUDING LOCATIONS WHERE WATER OUTLETS ARE EQUIPPED FOR HOSE ATTACHMENT. O. HAND TRAPS: INCLUDE REMOVABLE P-TRAPS WHERE DRAINS ARE INDICATED FOR DIRECT CONNECTION TO DRAINAGE SYSTEM. P. CARRIERS: PROVIDE CAST-IRON SUPPORTS FOR FIXTURES OF EITHER GRAPHIC GAY, IRON, DUCTILE IRON, OR MALLEABLE IRON AS INDICATED. Q. FIXTURE BOLT CAPS: PROVIDE MANUFACTURERS STANDARD EXPOSED FIXTURE BOLT CAPS FINISHED TO MATCH FIXTURE FINISH. R. SOUTICHOICES: WHERE FIXTURE SUPPLIES AND DRAINS PENETRATE WALLS IN EXPOSED LOCATIONS, PROVIDE CHROME-PLATED CAST BRASS ENCLOSEMENTS WITH SET SCREW. AERATORS: PROVIDE AERATORS OF TYPES SPECIFIED IN THE CONSTRUCTION DRAWINGS. S. COMPLY WITH ADDITIONAL FIXTURE REQUIREMENTS CONTAINED IN FIXTURE SCHEDULE ATTACHED TO THIS SECTION. 16. GAS SERVICE: A. GENERAL: ARRANGE WITH UTILITY COMPANY TO PROVIDE GAS SERVICE TO INDICATED LOCATION WITH SHUTOFF AT TERMINUS. CONSULT WITH UTILITY AS TO EXTENT OF ITS WORK, COSTS, FEES, AND PERMITS INVOLVED. PAY SUCH COSTS AND FEES; OBTAIN PERMITS FROM UTILITY. B. EXTEND SERVICE PIPING FROM UTILITY'S TERMINUS TO INSIDE BUILDING WALL, UNDER UTILITY'S DIRECTION. C. PROVIDE SHUTOFF OUTSIDE BUILDING WHERE INDICATED, IN ADJUSTABLE GAS SERVICE VALVE BOX, WITH COVER SET FLUSH TO FINISHED GRADE. 17. INSTALLATION OF PIPING SPECIALTIES: A. GENERAL: PROVIDE PIPING SPECIALTIES IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPING SPECIALTIES". 18. INSTALLATION OF SUPPORTS AND ANCHORS: A. GENERAL: PROVIDE SUPPORTS AND ANCHORS IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "SUPPORTS AND ANCHORS". 19. INSTALLATION OF NATURAL GAS PIPING: A. GENERAL: INSTALL NATURAL GAS PIPING IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPES AND PIPE FITTINGS", AND WITH CODE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. B. SEALANTS ON METAL GAS PIPING THREADS WHICH ARE CHEMICALLY RESISTANT TO NATURAL GAS, USE SEALANTS SPARINGLY, AND APPLY TO ONLY MALE THREADS OF METAL FITTINGS. C. REMOVE CUTTING AND THREADING BURRS BEFORE ASSEMBLING PIPING. D. DO NOT INSTALL DEFECTIVE PIPING OR FITTINGS. DO NOT USE PIPE WITH THREADS WHICH ARE CHIPPED, STRIPPED, OR OTHERWISE DAMAGED. E. PLUG EACH GAS OUTLET, INCLUDING VALVES, WITH THREADED PLUG OR CAP IMMEDIATELY AFTER INSTALLATION AND RETAIN UNTIL CONTINUING PIPING, OR EQUIPMENT CONNECTIONS ARE MADE. F. GROUND GAS PIPING ELECTRICALLY AND CONTINUOUSLY WITHIN PROJECT, AND BOND TIGHTLY TO GROUNDING CONNECTION. G. HANG GAS PIPING IN AREAS WHERE INDICATED, AND WHERE REQUIRED BY CODE OR REGULATION. H. INSTALL "TEE" FITTING WITH BOTTOM OUTLET PLUGGED OR CAPPED, AT BOTTOM OF PIPE FITTING. I. USE DIELECTRIC UNIONS WHERE DISSIMILAR METALS ARE JOINED TOGETHER. J. INSTALL PIPING WITH 1/64" PER FOOT (1/8%) DOWNWARD SLOPE IN DIRECTION OF FLOW. K. BRACKETS: SUBMIT AND AS REQUIRED FOR COMPLETE INSTALLATION, WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLERS OPTION, BUT, ALL BRACKETS OF SAME TYPE MUST BE FURNISHED BY SINGLE MANUFACTURER, WHERE TYPE IS NOT OTHERWISE INDICATED, PROVIDE BRACKETS COMPLYING WITH GOVERNING REGULATIONS. L. INSULATE GAS PIPING EXPOSED TO FREEZING TEMPERATURES. M. DO NOT UNDER REPAIR OR REPAIR WORK, OR AS REQUIRED TO OPERATE AS INDICATED, INCLUDE MANUAL SHUTOFF VALVES AND CONNECTING STEM PIPES TO PERMIT OUTLET SERVICING WITHOUT SHUT-DOWN OF WATER SUPPLY PIPING SYSTEMS. N. VALVE BREAKERS: PROVIDE WITH FLUSH VALVES WHERE REQUIRED BY GOVERNING REGULATIONS, INCLUDING LOCATIONS WHERE WATER OUTLETS ARE EQUIPPED FOR HOSE ATTACHMENT. O. HAND TRAPS: INCLUDE REMOVABLE P-TRAPS WHERE DRAINS ARE INDICATED FOR DIRECT CONNECTION TO DRAINAGE SYSTEM. P. CARRIERS: PROVIDE CAST-IRON SUPPORTS FOR FIXTURES OF EITHER GRAPHIC GAY, IRON, DUCTILE IRON, OR MALLEABLE IRON AS INDICATED. Q. FIXTURE BOLT CAPS: PROVIDE MANUFACTURERS STANDARD EXPOSED FIXTURE BOLT CAPS FINISHED TO MATCH FIXTURE FINISH. R. SOUTICHOICES: WHERE FIXTURE SUPPLIES AND DRAINS PENETRATE WALLS IN EXPOSED LOCATIONS, PROVIDE CHROME-PLATED CAST BRASS ENCLOSEMENTS WITH SET SCREW. AERATORS: PROVIDE AERATORS OF TYPES SPECIFIED IN THE CONSTRUCTION DRAWINGS. S. COMPLY WITH ADDITIONAL FIXTURE REQUIREMENTS CONTAINED IN FIXTURE SCHEDULE ATTACHED TO THIS SECTION. 20. INSTALLATION OF NATURAL GAS PIPING: A. GENERAL: INSTALL NATURAL GAS PIPING IN ACCORDANCE WITH DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPES AND PIPE FITTINGS", AND WITH CODE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. B. SEALANTS ON METAL GAS PIPING THREADS WHICH ARE CHEMICALLY RESISTANT TO NATURAL GAS, USE SEALANTS SPARINGLY, AND APPLY TO ONLY MALE THREADS OF METAL FITTINGS. C. REMOVE CUTTING AND THREADING BURRS BEFORE ASSEMBLING PIPING. D. DO NOT INSTALL DEFECTIVE PIPING OR FITTINGS. DO NOT USE PIPE WITH THREADS WHICH ARE CHIPPED, STRIPPED, OR OTHERWISE DAMAGED. E. PLUG EACH GAS OUTLET, INCLUDING VALVES, WITH THREADED PLUG OR CAP IMMEDIATELY AFTER INSTALLATION AND RETAIN UNTIL CONTINUING PIPING, OR EQUIPMENT CONNECTIONS ARE MADE. F. GROUND GAS PIPING ELECTRICALLY AND CONTINUOUSLY WITHIN PROJECT, AND BOND TIGHTLY TO GROUNDING CONNECTION. G. HANG GAS PIPING IN AREAS WHERE INDICATED, AND WHERE REQUIRED BY CODE OR REGULATION. H. INSTALL "TEE" FITTING WITH BOTTOM OUTLET PLUGGED OR CAPPED, AT BOTTOM OF PIPE FITTING. I. USE DIELECTRIC UNIONS WHERE DISSIMILAR METALS ARE JOINED TOGETHER. J. INSTALL PIPING WITH 1/64" PER FOOT (1/8%) DOWNWARD SLOPE IN DIRECTION OF FLOW. K. BRACKETS: SUBMIT AND AS REQUIRED FOR COMPLETE INSTALLATION, WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLERS OPTION, BUT, ALL BRACKETS OF SAME TYPE MUST BE FURNISHED BY SINGLE MANUFACTURER, WHERE TYPE IS NOT OTHERWISE INDICATED, PROVIDE BRACKETS COMPLYING WITH GOVERNING REGULATIONS. L. INSULATE GAS PIPING EXPOSED TO FREEZING TEMPERATURES. M. DO NOT UNDER REPAIR OR REPAIR WORK, OR AS REQUIRED TO OPERATE AS INDICATED, INCLUDE MANUAL SHUTOFF VALVES AND CONNECTING STEM PIPES TO PERMIT OUTLET SERVICING WITHOUT SHUT-DOWN OF WATER SUPPLY PIPING SYSTEMS. N. VALVE BREAKERS: PROVIDE WITH FLUSH VALVES WHERE REQUIRED BY GOVERNING REGULATIONS, INCLUDING LOCATIONS WHERE WATER OUTLETS ARE EQUIPPED FOR HOSE ATTACHMENT. O. HAND TRAPS: INCLUDE REMOVABLE P-TRAPS WHERE DRAINS ARE INDICATED FOR DIRECT CONNECTION TO DRAINAGE SYSTEM. P. CARRIERS: PROVIDE CAST-IRON SUPPORTS FOR FIXTURES OF EITHER GRAPHIC GAY, IRON, DUCTILE IRON, OR MALLEABLE IRON AS INDICATED. Q. FIXTURE BOLT CAPS: PROVIDE MANUFACTURERS STANDARD EXPOSED FIXTURE BOLT CAPS FINISHED TO MATCH FIXTURE FINISH. R. SOUTICHOICES: WHERE FIXTURE SUPPLIES AND DRAINS PENETRATE WALLS IN EXPOSED LOCATIONS, PROVIDE CHROME-PLATED CAST BRASS ENCLOSEMENTS WITH SET SCREW. AERATORS: PROVIDE AERATORS OF TYPES SPECIFIED IN THE CONSTRUCTION DRAWINGS. S. COMPLY WITH ADDITIONAL FIXTURE REQUIREMENTS CONTAINED IN FIXTURE SCHEDULE ATTACHED TO THIS SECTION. 21. EQUIPMENT CONNECTIONS: A. PIPING ROUTINGS TO FIXTURES: PROVIDE SOIL AND WASTE PIPING ROUTINGS TO PLUMBING FIXTURES AND PIPING, WITH APPROVED TRAP, OF SIZES INDICATED, BUT IN NO CASE SURFACE FLATNESS AND SMOOTHNESS. EXPOSED SURFACES WHICH EXHIBIT FITTING, SEAM MARKS, ROLLER MARKS, FOUNDRY SAND HOLES, STAINS, DECORATION, OR OTHER SURFACE DEFECTS SHALL BE REFINISHED TO MATCH ADJACENT FINISH. B. LOCATE PIPING ROUTINGS AS CLOSE AS POSSIBLE TO BOTTOM OF FLOOR SLAB SUPPORTING FIXTURES OR DRAINS. 22. FIELD QUALITY CONTROL: A. EXAMINE EXISTING SOIL AND WASTE SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. 23. ADJUSTING AND CLEANING: A. CLEAN, FLUSH, AND INSPECT SOIL AND WASTE PIPING IN ACCORDANCE WITH REQUIREMENTS OF DIVISION-15 BASIC MECHANICAL MATERIALS AND METHODS SECTION "PIPES AND PIPE FITTINGS". 24. PROTECTION: A. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION PERIOD, TO AVOID CLOGGING WITH CONSTRUCTION MATERIALS AND DEBRIS, AND TO PREVENT DAMAGE FROM TRAFFIC AND CONSTRUCTION WORK. SECTION 15870 - POWER AND GRAVITY VENTILATORS 1. RELATED DOCUMENTS: A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION. 2. DESCRIPTION OF WORK: A. EXTENT OF POWER AND GRAVITY VENTILATOR WORK REQUIRED BY THIS SECTION IS INDICATED ON DRAWINGS AND SCHEDULES, AND BY REQUIREMENTS OF THIS SECTION. B. TYPES OF POWER AND GRAVITY VENTILATORS SPECIFIED IN THIS SECTION INCLUDE THE FOLLOWING: 1. POWER VENTILATORS 2. CENTRIFUGAL ROOF TOP VENTILATORS 3. PREFABRICATED ROOF CURBS C. REFER TO DIVISION-15 SECTION "TESTING, ADJUSTING, AND BALANCING" FOR BALANCING OF POWER AND GRAVITY VENTILATORS; NOT WORK OF THIS SECTION. D. REFER TO DIVISION-15 TEMPERATURE CONTROL SYSTEMS SECTIONS FOR CONTROL WORK REQUIRED IN CONJUNCTION WITH POWER AND GRAVITY VENTILATORS; NOT WORK OF THIS SECTION. E. REFER TO DIVISION-16 SECTIONS FOR THE FOLLOWING WORK; NOT WORK OF THIS SECTION: 1. POWER SUPPLY WIRING FROM POWER SOURCE TO POWER CONNECTION ON VENTILATORS, INCLUDE STARTERS, DISCONNECTS, AND REQUIRED ELECTRICAL DEVICES, EXCEPT WHERE SPECIFIED AS FURNISHED, OR REQUIRED INSTALLED BY MANUFACTURER. 2. INTERLOCK WIRING BETWEEN VENTILATORS, AND BETWEEN VENTILATORS AND FIELD-INSTALLED CONTROL DEVICES. F. PROVIDE THE FOLLOWING ELECTRICAL WORK AS WORK OF THIS SECTION, COMPLYING WITH REQUIREMENTS OF DIVISION-16 SECTIONS: 1. CONTROL WIRING BETWEEN FIELD-INSTALLED CONTROLS, INDICATING DEVICES, AND VENTILATORS. 2. CONTROL WIRING SPECIFIED AS WORK OF DIVISION-15 FOR AUTOMATIC TEMPERATURE CONTROLS IS WORK OF THAT SECTION. 3. INTERLOCK WIRING SPECIFIED AS FACTORY-INSTALLED IS WORK OF THIS SECTION. 3. QUALITY ASSURANCE: A. SMACNA STANDARDS: COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, 2005" FOR FABRICATION AND INSTALLATION OF LOW PRESSURE DUCTWORK. B. NFPA COMPLIANCE: COMPLY WITH ANSINFA 80A "STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS" AND ANSINFA 98B "STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR-CONDITIONING SYSTEMS". COMPLY WITH NFPA 96 FOR GREASE EXHAUST SYSTEMS. C. MECHANICAL EXHAUST SYSTEMS: 1. KITCHEN EXHAUST SYSTEMS D. EXTERNAL INSULATION FOR LOW PRESSURE DUCTWORK IS SPECIFIED IN DIVISION-15 INSULATION SECTIONS, AND IS INCLUDED AS WORK OF THIS SECTION. D. REFER TO DIVISION-15 INSULATION SECTIONS FOR EXTERNAL INSULATION REQUIRED IN CONJUNCTION WITH LOW PRESSURE DUCTWORK; NOT WORK OF THIS SECTION. 4. QUALITY ASSURANCE: A. SMACNA STANDARDS: COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, 2005" FOR FABRICATION AND INSTALLATION OF LOW PRESSURE DUCTWORK. B. NFPA COMPLIANCE: COMPLY WITH ANSINFA 80A "STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS" AND ANSINFA 98B "STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR-CONDITIONING SYSTEMS". COMPLY WITH NFPA 96 FOR GREASE EXHAUST SYSTEMS. C. MECHANICAL EXHAUST SYSTEMS: 1. KITCHEN EXHAUST SYSTEMS D. EXTERNAL INSULATION FOR LOW PRESSURE DUCTWORK IS SPECIFIED IN DIVISION-15 INSULATION SECTIONS, AND IS INCLUDED AS WORK OF THIS SECTION. D. REFER TO DIVISION-15 INSULATION SECTIONS FOR EXTERNAL INSULATION REQUIRED IN CONJUNCTION WITH LOW PRESSURE DUCTWORK; NOT WORK OF THIS SECTION. 5. POWER VENTILATORS: A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE STANDARD PREFABRICATED POWER VENTILATOR UNITS OF TYPE AND SIZE INDICATED, MODIFIED AS NECESSARY TO COMPLY WITH REQUIREMENTS, AND AS REQUIRED FOR COMPLETE INSTALLATION. B. CENTRIFUGAL ROOF TOP VENTILATORS: PROVIDE CENTRIFUGAL, ROOF TYPE, CURVE MOUNTED, FOR EXHAUST OF FUELS, EXHAUST SYSTEMS, AND AS SPECIFIED ON SCHEDULE. C. TYPE: CENTRIFUGAL, FAN, DIRECT OR BELT DRIVEN AS SCHEDULED. PROVIDE ALUMINUM, GALVANIZED STEEL, OR FIBERGLASS WEATHERPROOFING AS SCHEDULED. D. PROVIDE SQUARE BASE TO SUIT ROOF CURB. PROVIDE PERMANENT SPLIT CAPACITOR TYPE MOTOR FOR DIRECT DRIVE TYPE; CAPACITOR-START, INDUCTION-RUN TYPE MOTOR FOR BELT DRIVE TYPE. 1. HOUSING DESIGN: HOODED DOME TYPE. 2. HOUSING DESIGN: HOODED LOW CONTOUR TYPE. E. ELECTRICAL: PROVIDE FACTORY-WIRED NON-FUSIBLE TYPE DISCONNECT SWITCH AT MOTOR IN FAN HOUSING. PROVIDE THERMAL OVERLOAD PROTECTION IN FAN MOTOR. PROVIDE CONDUIT CHASE WITHIN UNIT FOR ELECTRICAL CONNECTION. F. BRASS SCREENS: PROVIDE REMOVABLE BRASS SCREENS, 1/2" MESH, 16-G ALUMINUM OR BRASS WIRE. G. DAMPERS: PROVIDE GRAVITY-ACTUATED LOUVERED DAMPERS IN CURB BASES. H. REFER TO DIVISION-15 AUTOMATIC TEMPERATURE CONTROL SECTIONS FOR DAMPER MOTOR AND CONTROL SEQUENCE; NOT WORK OF THIS SECTION. I. MANUFACTURER: SUBMIT TO COMPLIANCE WITH REQUIREMENTS; PROVIDE CENTRIFUGAL ROOF VENTILATORS OF ONE OF THE FOLLOWING: 1. CAPTIVEFARE 2. COOK CO. LOREN. 3. GREENEHEAT FAN CORP. 6. PREFABRICATED ROOF CURBS: A. GENERAL: PROVIDE MANUFACTURERS STANDARD SHOP-FABRICATED UNITS, MODIFIED IF NECESSARY TO COMPLY WITH REQUIREMENTS. B. FABRICATE STRUCTURAL FRAMING FOR UNITS OF STRUCTURAL QUALITY SHEET STEEL (ASTM A 570, GRADE 40), FORMED TO PROFILES INDICATED OR, IF NOT INDICATED, TO MATCH THE PROFILES OF THE CURBS REQUIRED FOR COORDINATION WITH ROOFING, INSULATION, AND DECK CONSTRUCTION. INCLUDE CANT STRIPS AND DECK FLASHING WITH OFFSETS TO ACCOMMODATE ROOF INSULATION, WELD CORNERS AND SEAMS TO FORM AIR-TIGHT JOINT. C. CLEAN AND PAINT UNITS WITH MANUFACTURERS STANDARD RUST-INHIBITIVE METAL PRIMER PAINT. D. FIBERGLASS CURBS FROM ZINC-COATED STEEL, ASTM A 448, GRADE C, DESIGNATION 690 HOT-DIP COATING, MIL PHOSPHATIZED. CLEAN AND PAINT WITH RUST-INHIBITIVE METAL PRIMER PAINT, OF TYPE RECOMMENDED BY MANUFACTURER, 20 MILS DRY FILM THICKNESS. E. REINFORCE CONTINUOUS RUNS OF OVER 3'-0" LENGTH, BY INSERTING WELDED STIFFENERS OF HEAVY GAGE WITH FLANGES AS REQUIRED TO PROVIDE SUFFICIENT RIGIDITY AND STRENGTH TO WITHSTAND MAXIMUM ALLOWED FORCES IN ADDITION TO SUPERIMPOSED VERTICAL LOADS. F. SLOPING ROOF DECKS: FOR DECK SLOPES OF 1/4" PER FOOT AND MORE, FABRICATE SUPPORT UNITS TO FORM LEVEL SURFACE. G. GAGE AND HEIGHT: FABRICATE UNITS OF 14-G METAL AND AT HEIGHT ABOVE ROOF SURFACE AS INDICATED. H. WHERE GAGE OR HEIGHT ARE NOT INDICATED, FABRICATE UNITS OF 14-G METAL, AND NOMINAL HEIGHT OF 14". I. PROVIDE TREATED WOOD NAILER, NOT LESS THAN 1-5/8" THICK AND OF WIDTH INDICATED, BUT NOT LESS THAN WIDTH OF SHEET PANEL AS
---	---	---

HAT CREEK BURGER - PROTOTYPE 1.1 TABLE OF CONTENTS

[illegible]

7. **PRODUCT DATA:** SUBMIT MANUFACTURER'S DATA ON INTERIOR BUILDING LIGHTING

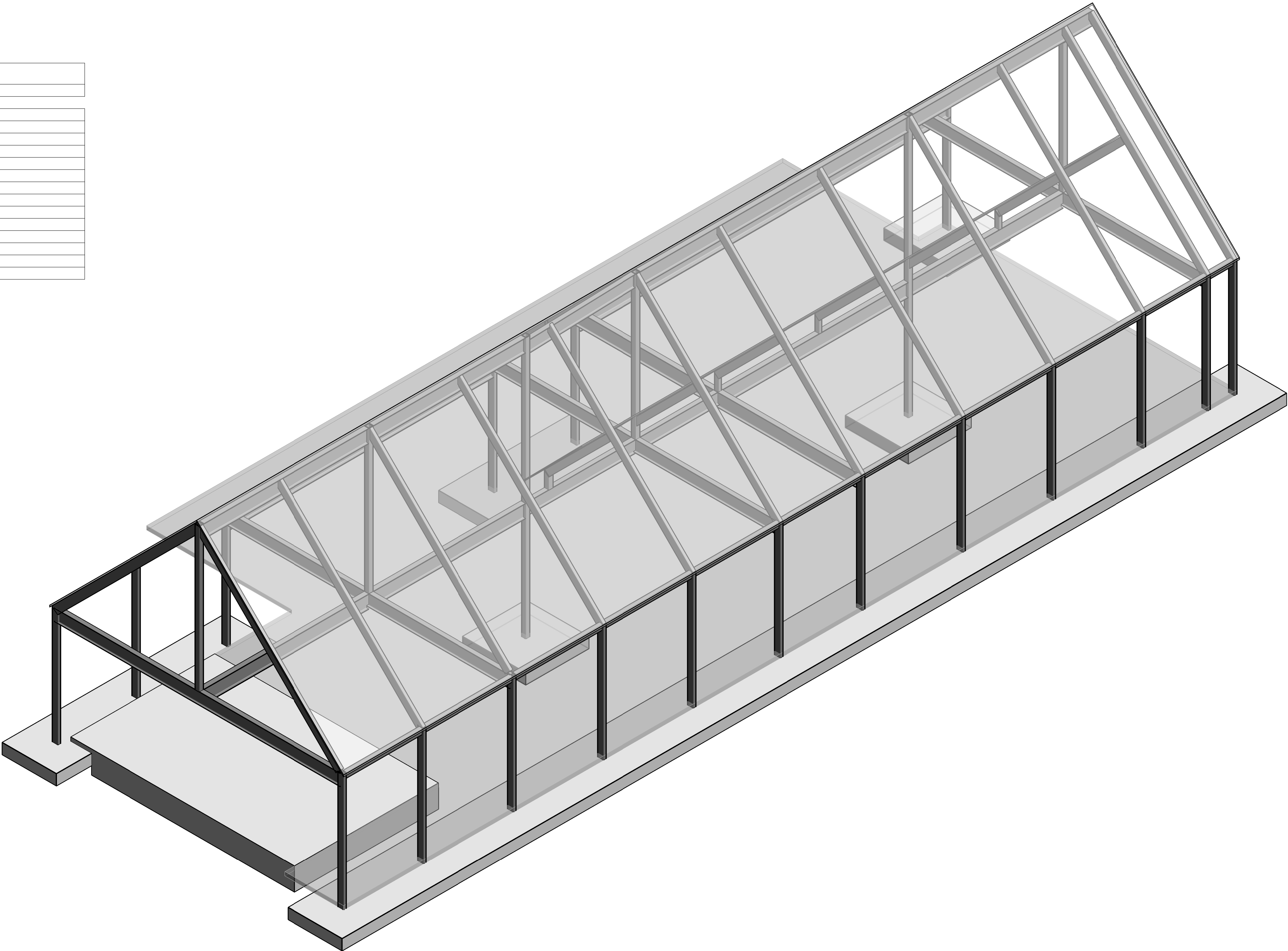
--	--	--	--	--	--

HAT CREEK WESTLAKE EXPANSION

5902 BEE CAVE RD.
WEST LAKE HILLS, TX 78746



DRAWING LIST	
Sheet Number	Sheet Name
S-000	COVER SHEET
S-100	GENERAL NOTES
S-101	SPECIAL INSPECTIONS
S-200	FOUNDATION PLAN
S-210	LOW FRAMING PLAN
S-211	HIGH FRAMING PLAN
S-300	TYPICAL FOUNDATION DETAILS
S-301	TYPICAL FOUNDATION DETAILS
S-500	TYPICAL FRAMING DETAILS
S-501	TYPICAL FRAMING DETAILS
S-502	ENLARGED FRAMING DETAILS
S-503	ENLARGED FRAMING DETAILS
X-001	ISOMETRIC VIEW
X-002	ISOMETRIC VIEW



WARE MALCOMB
Leading Design for Commercial Real Estate

architecture
planning
interiors
graphics
civil engineering
1919 McKinney Avenue, Suite 100
Dallas, TX 75201
P 469.565.5279



WESTLAKE EXPANSION
5902 BEE CAVE RD.
WEST LAKE HILLS, TX 78746

COVER SHEET	
DATE	REMARKS

PA/PM:	Approver
DRAWN BY:	Author
JOB NO.:	xxxx.xx.xxx

SHEET
S-000

3/30/2022 11:36:51 PM

GENERAL NOTES

DIVISION 01 - GENERAL REQUIREMENTS

1.1 BUILDING CODES & ORDINANCES

- A. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL BUILDING CODES/ORDINANCES AND FIRE CODES, INCLUDING THE FOLLOWING:
1. CITY OF WEST LAKE HILLS CODE OF ORDINANCES, ADOPTED FEBRUARY 9, 2021
 2. INTERNATIONAL BUILDING CODE (IBC) 2015 EDITION

1.2 SPECIAL INSPECTIONS

- A. THE OWNER SHALL ENGAGE ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS AND MATERIALS TESTING DURING CONSTRUCTION. ALL SPECIAL INSPECTIONS AND TESTING SHALL CONFORM TO THE REQUIREMENTS OF THE IBC SECTION 1705.
- B. SPECIAL INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE LOCAL BUILDING OFFICIAL. SPECIAL INSPECTIONS SHALL RELIEVE THE OWNER AND CONTRACTOR FROM REQUESTING THE BUILDING OFFICIALS INSPECTIONS REQUIRED BY IBC SECTION 110.
- C. SPECIAL INSPECTORS SHALL BE GIVEN PROPER NOTICE AND ACCESS TO THE SITE TO PERFORM TESTING AND INSPECTION AS NECESSARY.
- D. REQUIRED CATEGORIES OF SPECIAL INSPECTIONS:
1. STEEL CONSTRUCTION (IBC SECTION 1705.2)
 - i. SPECIAL INSPECTION OF STEEL FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH IBC.
 2. CONCRETE CONSTRUCTION (IBC SECTION 1705.3)
 3. MASONRY CONSTRUCTION (IBC SECTION 1705.4)
 4. SOILS (IBC SECTION 1705.6)
 5. DRIVEN DEEP FOUNDATIONS (IBC SECTION 1705.7)
 6. CAST-IN-PLACE DEEP FOUNDATIONS (IBC SECTION 1705.8)
- E. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
1. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO VERIFY THAT IT CONFORMS TO THE CONTRACT DOCUMENTS.
 2. THE SPECIAL INSPECTOR SHALL NOT AUTHORIZE OR APPROVE DEVIATIONS FROM THE CONTRACT DOCUMENTS. ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS MUST BE INITIATED BY THE CONTRACTOR VIA A WRITTEN REQUEST FOR INFORMATION (RFI) AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK.
 3. THE SPECIAL INSPECTOR SHALL FURNISH WRITTEN INSPECTION REPORTS TO THE ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR OR ENGINEER OF RECORD. IF CORRECTIONS ARE NOT MADE, THE BUILDING OFFICIAL AND ENGINEER AND/OR ARCHITECT SHALL BE NOTIFIED.

1.3 DEFERRED SUBMITTALS

- A. IN ACCORDANCE WITH IBC 107.3.4.1 AND LOCAL BUILDING DEPARTMENT REQUIREMENTS, DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION FOR PERMIT AND WHICH ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.
- B. DEFERRAL OF ANY SUBMITTAL ITEMS SHALL HAVE PRIOR APPROVAL OF THE BUILDING OFFICIAL. THE ARCHITECT OR ENGINEER OF RECORD SHALL LIST THE DEFERRED SUBMITTALS ON PLANS AND THE CONTRACTOR SHALL SUBMIT THE DEFERRED SUBMITTAL DOCUMENTS FOR REVIEW BY THE BUILDING OFFICIAL.
- C. ALL DEFERRED SUBMITTAL ITEMS SHALL BE SIGNED AND SEALED BY A DESIGN PROFESSIONAL LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
- D. DOCUMENTS FOR DEFERRED SUBMITTAL SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD A MINIMUM OF 30 DAYS PRIOR TO FABRICATION. DEFERRED SUBMITTAL DOCUMENTS WILL BE REVIEWED BY THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE WITH CONTRACT DOCUMENTS. A COPY OF THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
- E. THE ENGINEER OF RECORD IS DELEGATING THE DESIGN OF THE FOLLOWING ITEMS. ALL OF WHICH WILL BE DEFERRED SUBMITTALS:
1. TEMPORARY EARTH RETENTION SYSTEMS
 2. GLAZING SYSTEMS AND THEIR CONNECTIONS
 3. PRECAST CONCRETE INCLUDING CAST-IN FABRICATED HARDWARE
 4. STEEL STAIRS AND LANDINGS
 5. GUARDRAILS AND HANDRAILS
 6. STRUCTURAL STEEL CONNECTIONS (AS SPECIFIED)
 7. TEMPORARY BRACING AND SHORING SYSTEMS FOR SLABS, BEAMS, AND WALLS
 8. POST-TENSIONING SHOP DRAWINGS
 9. LIGHT GAUGE STEEL FRAMING AND THEIR CONNECTIONS
 10. AWNINGS AND OTHER PREFABRICATED/PRE-ENGINEERED SYSTEMS

1.6 LOADING AND DESIGN PARAMETERS - ASCE7-10 OR AS SPECIFIED HEREIN

	A.	RISK CATEGORY		II	
	B.	SUPERIMPOSED DEAD LOADINGS:			
		1. ROOF:			
		I. BUILT-UP ROOFING, INSULATION, WATERPROOFING		16	PSF
	C.	LIVE LOADING:			
		1. ROOF:			
		I. UNIFORM LOAD		20	PSF
		2. SLAB ON GRADE:			
		I. UNIFORM LOAD		100	PSF
	D.	SNOW LOADING:			
		1. IMPORTANCE FACTOR (Ie)		1.0	
		2. EXPOSURE FACTOR (Ce)		0.9	
		3. THERMAL FACTOR (Ct)		1.0	
		4. GROUND SNOW LOAD (Pg)		5.0	PSF
		5. FLAT ROOF SNOW LOAD (Pf)		3.2	PSF
		6. MINIMUM LOW-SLOPE ROOF SNOW LOAD (Pm)		5.0	PSF
		7. MAX DRIFT SURCHARGE (Pd)		0.0	PSF
		8. WIDTH OF MAX SNOW DRIFT (w)		0.0	FT
	E.	RAIN LOADING:			
		1. STRUCTURE IS DESIGNED IN ACCORDANCE WITH ASCE7 FOR EACH PORTION OF ROOF TO SUSTAIN THE LOAD OF RAINWATER THAT WILL ACCUMULATE ON IT IF THE PRIMARY DRAINAGE SYSTEM FOR THAT PORTION IS BLOCKED, INCLUSIVE OF UNIFORM LOAD CAUSED BY WATER THAT RISES ABOVE THE INLET OF THE SECONDARY DRAINAGE SYSTEM AT ITS DESIGN FLOW.			
	F.	ATMOSPHERIC ICE LOADING:			
		1. STRUCTURE IS NOT DESIGNED FOR ATMOSPHERIC ICING			
	G.	EARTH LATERAL LOADING:			
		1. SEE ITEM 31.2.1			
	H.	WIND LOADING:			
		1. ULTIMATE DESIGN WIND SPEED (Vult)		115	MPH
		2. NOMINAL DESIGN WIND SPEED (Vass)		89	MPH
		3. EXPOSURE CATEGORY		B	
		4. INTERNAL PRESSURE COEFFICIENT (Gcp)		+/- 0.18	
		5. THE FINAL NET DESIGN WIND PRESSURE FOR MAIN WIND FORCE RESISTING SYSTEM DESIGN, INCLUDING ALL PERMITTED REDUCTIONS, SHALL NOT BE LESS THAN 8 PSF FOR THE ROOF AND 16 PSF FOR THE WALLS, PROJECTED ONTO A VERTICAL PLANE NORMAL TO THE ASSUMED WIND DIRECTION.			
		6. THE FINAL NET DESIGN WIND PRESSURE FOR COMPONENTS AND CLADDING DESIGN, INCLUDING ALL PERMITTED REDUCTIONS, SHALL NOT BE LESS THAN 16 PSF ACTING IN ANY DIRECTION.			
		7. COMPONENTS AND CLADDING DESIGN PRESSURES (PSF)			
		ROOF	ROOF	WALL	WALL
		ZONE 1	ZONE 2	ZONE 4	ZONE 5
		ZONE 3	ZONE 6	ZONE 7	ZONE 8
		ZONE 9	ZONE 10	ZONE 11	ZONE 12
		ZONE 13	ZONE 14	ZONE 15	ZONE 16
		ZONE 17	ZONE 18	ZONE 19	ZONE 20
		ZONE 21	ZONE 22	ZONE 23	ZONE 24
		ZONE 25	ZONE 26	ZONE 27	ZONE 28
		ZONE 29	ZONE 30	ZONE 31	ZONE 32
		ZONE 33	ZONE 34	ZONE 35	ZONE 36
		ZONE 37	ZONE 38	ZONE 39	ZONE 40
		ZONE 41	ZONE 42	ZONE 43	ZONE 44
		ZONE 45	ZONE 46	ZONE 47	ZONE 48
		ZONE 49	ZONE 50	ZONE 51	ZONE 52
		ZONE 53	ZONE 54	ZONE 55	ZONE 56
		ZONE 57	ZONE 58	ZONE 59	ZONE 60
		ZONE 61	ZONE 62	ZONE 63	ZONE 64
		ZONE 65	ZONE 66	ZONE 67	ZONE 68
		ZONE 69	ZONE 70	ZONE 71	ZONE 72
		ZONE 73	ZONE 74	ZONE 75	ZONE 76
		ZONE 77	ZONE 78	ZONE 79	ZONE 80
		ZONE 81	ZONE 82	ZONE 83	ZONE 84
		ZONE 85	ZONE 86	ZONE 87	ZONE 88
		ZONE 89	ZONE 90	ZONE 91	ZONE 92
		ZONE 93	ZONE 94	ZONE 95	ZONE 96
		ZONE 97	ZONE 98	ZONE 99	ZONE 100
		ZONE 101	ZONE 102	ZONE 103	ZONE 104
		ZONE 105	ZONE 106	ZONE 107	ZONE 108
		ZONE 109	ZONE 110	ZONE 111	ZONE 112
		ZONE 113	ZONE 114	ZONE 115	ZONE 116
		ZONE 117	ZONE 118	ZONE 119	ZONE 120
		ZONE 121	ZONE 122	ZONE 123	ZONE 124
		ZONE 125	ZONE 126	ZONE 127	ZONE 128
		ZONE 129	ZONE 130	ZONE 131	ZONE 132
		ZONE 133	ZONE 134	ZONE 135	ZONE 136
		ZONE 137	ZONE 138	ZONE 139	ZONE 140
		ZONE 141	ZONE 142	ZONE 143	ZONE 144
		ZONE 145	ZONE 146	ZONE 147	ZONE 148
		ZONE 149	ZONE 150	ZONE 151	ZONE 152
		ZONE 153	ZONE 154	ZONE 155	ZONE 156
		ZONE 157	ZONE 158	ZONE 159	ZONE 160
		ZONE 161	ZONE 162	ZONE 163	ZONE 164
		ZONE 165	ZONE 166	ZONE 167	ZONE 168
		ZONE 169	ZONE 170	ZONE 171	ZONE 172
		ZONE 173	ZONE 174	ZONE 175	ZONE 176
		ZONE 177	ZONE 178	ZONE 179	ZONE 180
		ZONE 181	ZONE 182	ZONE 183	ZONE 184
		ZONE 185	ZONE 186	ZONE 187	ZONE 188
		ZONE 189	ZONE 190	ZONE 191	ZONE 192
		ZONE 193	ZONE 194	ZONE 195	ZONE 196
		ZONE 197	ZONE 198	ZONE 199	ZONE 200
		ZONE 201	ZONE 202	ZONE 203	ZONE 204
		ZONE 205	ZONE 206	ZONE 207	ZONE 208
		ZONE 209	ZONE 210	ZONE 211	ZONE 212
		ZONE 213	ZONE 214	ZONE 215	ZONE 216
		ZONE 217	ZONE 218	ZONE 219	ZONE 220
		ZONE 221	ZONE 222	ZONE 223	ZONE 224
		ZONE 225	ZONE 226	ZONE 227	ZONE 228
		ZONE 229	ZONE 230	ZONE 231	ZONE 232
		ZONE 233	ZONE 234	ZONE 235	ZONE 236
		ZONE 237	ZONE 238	ZONE 239	ZONE 240
		ZONE 241	ZONE 242	ZONE 243	ZONE 244
		ZONE 245	ZONE 246	ZONE 247	ZONE 248
		ZONE 249	ZONE 250	ZONE 251	ZONE 252
		ZONE 253	ZONE 254	ZONE 255	ZONE 256
		ZONE 257	ZONE 258	ZONE 259	ZONE 260
		ZONE 261	ZONE 262	ZONE 263	ZONE 264
		ZONE 265	ZONE 266	ZONE 267	ZONE 268
		ZONE 269	ZONE 270	ZONE 271	ZONE 272
		ZONE 273	ZONE 274	ZONE 275	ZONE 276
		ZONE 277	ZONE 278	ZONE 279	ZONE 280
		ZONE 281	ZONE 282	ZONE 283	ZONE 284
		ZONE 285	ZONE 286	ZONE 287	ZONE 288
		ZONE 289	ZONE 290	ZONE 291	ZONE 292
		ZONE 293	ZONE 294	ZONE 295	ZONE 296
		ZONE 297	ZONE 298	ZONE 299	ZONE 300
		ZONE 301	ZONE 302	ZONE 303	ZONE 304
		ZONE 305	ZONE 306	ZONE 307	ZONE 308
		ZONE 309	ZONE 310	ZONE 311	ZONE 312
		ZONE 313	ZONE 314	ZONE 315	ZONE 316
		ZONE 317	ZONE 318	ZONE 319	ZONE 320
		ZONE 321	ZONE 322	ZONE 323	ZONE 324
		ZONE 325	ZONE 326	ZONE 327	ZONE 328
		ZONE 329	ZONE 330	ZONE 331	ZONE 332
		ZONE 333	ZONE 334	ZONE 335	ZONE 336
		ZONE 337	ZONE 338	ZONE 339	ZONE 340
		ZONE 341	ZONE 342	ZONE 343	ZONE 344
		ZONE 345	ZONE 346	ZONE 347	ZONE 348
		ZONE 349	ZONE 350	ZONE 351	ZONE 352
		ZONE 353	ZONE 354	ZONE 355	ZONE 356
		ZONE 357	ZONE 358	ZONE 359	ZONE 360
		ZONE 361	ZONE 362	ZONE 363	ZONE 364
		ZONE 365	ZONE 366	ZONE 367	ZONE 368
		ZONE 369	ZONE 370	ZONE 371	ZONE 372
		ZONE 373	ZONE 374	ZONE 375	ZONE 376
		ZONE 377	ZONE 378	ZONE 379	ZONE 380
		ZONE 381	ZONE 382	ZONE 383	ZONE 384
		ZONE 385	ZONE 386	ZONE 387	ZONE 388
		ZONE 389	ZONE 390	ZONE 391	ZONE 392
		ZONE 393	ZONE 394	ZONE 395	ZONE 396
		ZONE 397	ZONE 398	ZONE 399	ZONE 400
		ZONE 401	ZONE 402	ZONE 403	ZONE 404
		ZONE 405	ZONE 406	ZONE 407	ZONE 408
		ZONE 409	ZONE 410	ZONE 411	ZONE 412
		ZONE 413	ZONE 414	ZONE 415	ZONE 416
		ZONE 417	ZONE 418	ZONE 419	ZONE 420
		ZONE 421	ZONE 422	ZONE 423	ZONE 424
		ZONE 425	ZONE 426	ZONE 427	ZONE 428
		ZONE 429	ZONE 430	ZONE 431	ZONE 432
		ZONE 433	ZONE 434	ZONE 435	ZONE 436
		ZONE 437	ZONE 438	ZONE 439	ZONE 440
		ZONE 441	ZONE 442	ZONE 443	ZONE 444
		ZONE 445	ZONE 446	ZONE 447	ZONE 448
		ZONE 449	ZONE 450	ZONE 451	ZONE 452
		ZONE 453	ZONE 454	ZONE 455	ZONE 456
		ZONE 457	ZONE 458	ZONE 459	ZONE 460
		ZONE 461	ZONE 462	ZONE 463	ZONE 464
		ZONE 465	ZONE 466	ZONE 467	ZONE 468
		ZONE 469	ZONE 470	ZONE 471	ZONE 472
		ZONE 473	ZONE 474	ZONE 475	ZONE 476
		ZONE 477	ZONE 478	ZONE 479	ZONE 480
		ZONE 481	ZONE 482	ZONE 483	ZONE 484
		ZONE 485	ZONE 486	ZONE 487	ZONE 488
		ZONE 489	ZONE 490	ZONE 491	ZONE 492
		ZONE 493	ZONE 494	ZONE 495	ZONE 496
		ZONE 497	ZONE 498	ZONE 499	ZONE 500
		ZONE 501	ZONE 502	ZONE 503	ZONE 504
		ZONE 505	ZONE 506	ZONE 507	ZONE 508
		ZONE 509	ZONE 510	ZONE 511	ZONE 512
		ZONE 513	ZONE 514	ZONE 515	ZONE 516
		ZONE 517	ZONE 518	ZONE 519	ZONE 520
		ZONE 521	ZONE 522	ZONE 523	ZONE 524
		ZONE 525	ZONE 526	ZONE 527	ZONE 528
		ZONE 529	ZONE 530	ZONE 531	ZONE 532
		ZONE 533	ZONE 534	ZONE 535	ZONE 536
		ZONE 537	ZONE 538	ZONE 539	ZONE 540
		ZONE 541	ZONE 542	ZONE 543	ZONE 544
		ZONE 545	ZONE 546	ZONE 547	ZONE 548
		ZONE 549	ZONE 550	ZONE 551	ZONE 552
		ZONE 553	ZONE 554	ZONE 555	ZONE 556
		ZONE 557	ZONE 558	ZONE 559	ZONE 560
		ZONE 561	ZONE 562	ZONE 563	ZONE 564
		ZONE 565	ZONE 566	ZONE 567	ZONE 568
		ZONE 569	ZONE 570	ZONE 571	ZONE 572
		ZONE 573	ZONE 574	ZONE 575	ZONE 576
		ZONE 577	ZONE 578	ZONE 579	ZONE 580
		ZONE 581	ZONE 582	ZONE 583	ZONE 584
		ZONE 585	ZONE 586	ZONE 587	ZONE 588
		ZONE 589	ZONE 590	ZONE 591	ZONE 592
		ZONE 593	ZONE 594	ZONE 595	ZONE 596
		ZONE 597	ZONE 598	ZONE 599	ZONE 600
		ZONE 601	ZONE 602	ZONE 603	ZONE 604
		ZONE 605	ZONE 606	ZONE 607	ZONE 608
		ZONE 609	ZONE 610	ZONE 611	ZONE 612
		ZONE 613	ZONE 614	ZONE 615	ZONE 616
		ZONE 617	ZONE 618	ZONE 619	ZONE 620
		ZONE 621	ZONE 622	ZONE 623	ZONE 624
		ZONE 625	ZONE 626	ZONE 627	ZONE 628
		ZONE 629	ZONE 630	ZONE 631	ZONE 632
		ZONE 633	ZONE 634	ZONE 635	ZONE 636
		ZONE 637	ZONE 638	ZONE 639	ZONE 640
		ZONE 641	ZONE 642	ZONE 643	ZONE 644
		ZONE 645	ZONE 646	ZONE 647	ZONE 648
		ZONE 649	ZONE 650	ZONE 651	ZONE 652
		ZONE 653	ZONE 654	ZONE 655	ZONE 656
		ZONE 657	ZONE 658	ZONE 659	ZONE 660
		ZONE 661	ZONE 662	ZONE 663	ZONE 664
		ZONE 665	ZONE 666	ZONE 667	ZONE 668
		ZONE 669	ZONE 670	ZONE 671	ZONE 672
		ZONE 673	ZONE 674	ZONE 675	ZONE 676
		ZONE 677	ZONE 678	ZONE 679	ZONE 680
		ZONE 681	ZONE 682	ZONE 683	ZONE 684
		ZONE 685	ZONE 686	ZONE 687	ZONE 688
		ZONE 689	ZONE 690	ZONE 691	ZONE 692
		ZONE 693	ZONE 694	ZONE 695	ZONE 696
		ZONE 697	ZONE 698	ZONE 699	ZONE 700
		ZONE 701	ZONE 702	ZONE 703	ZONE 704
		ZONE 705	ZONE 706	ZONE 707	ZONE 708
		ZONE 709	ZONE 710	ZONE 711	ZONE 712
		ZONE 713	ZONE 714	ZONE 715	ZONE 716
		ZONE 717	ZONE 718	ZONE 719	ZONE 720
		ZONE 721	ZONE 722	ZONE 723	ZONE 724
		ZONE 725	ZONE 726	ZONE 727	ZONE 728
		ZONE 729	ZONE 730	ZONE 731	ZONE 732
		ZONE 733	ZONE 734	ZONE 735	ZONE 736
		ZONE 737	ZONE 738	ZONE 739	ZONE 740
		ZONE 741	ZONE 742	ZONE 743	ZONE 744
		ZONE 745	ZONE 746	ZONE 747	ZONE 748
		ZONE 749	ZONE 750	ZONE 751	ZONE 752
		ZONE 753	ZONE 754	ZONE 755	ZONE 756
		ZONE 757	ZONE 758	ZONE 759	ZONE 760
		ZONE 761	ZONE 762	ZONE 763	ZONE 764
		ZONE 765	ZONE 766	ZONE 767	ZONE 768
		ZONE 769	ZONE 770	ZONE 771	ZONE 772
		ZONE 773	ZONE 774	ZONE 775	ZONE 776
		ZONE 777	ZONE 778	ZONE 779	ZONE 780
		ZONE 781	ZONE 782	ZONE 783	ZONE 784
		ZONE 785	ZONE 786	ZONE 787	ZONE 788
		ZONE 789	ZONE 790	ZONE 791	ZONE 792
		ZONE 793	ZONE 794	ZONE 795	ZONE 796
		ZONE 797	ZONE 798	ZONE 799	ZONE 800
		ZONE 801	ZONE 802	ZONE 803	ZONE 804
		ZONE 805	ZONE 806	ZONE 807	ZONE 808
		ZONE 809	ZONE 810	ZONE 811	ZONE 812
		ZONE 813	ZONE 814	ZONE 815	ZONE 816
		ZONE 817	ZONE 818	ZONE 819	ZONE 820
		ZONE 821	ZONE 822	ZONE 823	ZONE 824
		ZONE 825	ZONE 826	ZONE 827	ZONE 828
		ZONE 829	ZONE 830	ZONE 831	ZONE 832
		ZONE 833	ZONE 834	ZONE 835	ZONE 836
		ZONE 837	ZONE 838	ZONE 839	ZONE 840
		ZONE 841	ZONE 842	ZONE 843	ZONE 844
		ZONE 845	ZONE 846	ZONE 847	ZONE 848
		ZONE 849	ZONE 850	ZONE 851	ZONE 852
		ZONE 853	ZONE 854</		

1. Special Inspections shall be performed in accordance with Chapter 17 of the 2015 International Building Code (IBC) by a Special Inspector hired by the Owner to perform the Special Inspections listed below. The Special Inspector shall be qualified by an approved agency according to the City's building official to perform the special inspections for which they will be undertaking. The Contractor shall coordinate with and notify the Special Inspector of all tests. The Special Inspector shall be responsible to verify that the items detailed in the Construction Documents were built accordingly and shall prepare, sign, and furnish inspection reports to the building official and the Architect for all time spent at the site. The Inspector shall bring discrepancies to the immediate attention of the General Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the Architect prior to the completion of that phase of the work. These special inspections are in addition to the other inspections listed in these Structural Notes or Project Specifications.
2. Where structural load-bearing members and assemblies are shop fabricated, the Special Inspector shall verify that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricator's ability to conform to the Construction Documents and Referenced Standards, unless the fabricator is registered and approved to perform such work without special inspection.

VERIFICATION AND INSPECTION OF SOILS (IBC TABLE 1705.6)			
SPECIAL INSPECTION REQUIRED	VERIFICATION, INSPECTION AND TESTING	INSPECTION FREQUENCY	
		CONTINUOUS	PERIODIC
NO	1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	--	X
YES	2. Verify excavations are extended to proper depth and have reached proper material.	--	X
YES	3. Perform classification and testing of compacted fill materials.	--	X
YES	4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	--
YES	5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	--	X

1. Inspection tasks noted in this table are the responsibility of the Special Inspector or Quality Assurance Inspector (QAI). The fabricator and erector are responsible for all inspection tasks indicated in AISC 360-10 Section N5 and assigned to the Quality Control Inspector (QCI).
2. Inspection tasks may be coordinated with the fabricator or erector's Quality Control Inspector (QCI) where indicated with this footnote. All other tasks shall be performed by the Special Inspector.
3. When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75 mm) of the weld.

- A. SUPPORTING FREESTANDING COLUMNS:
CENTERLINES OF COLUMN.
- B. SUPPORTING GRADEBEAMS AND WALLS:
CENTERLINE OF GRADEBEAM OR WALL IN ONE
DIRECTION, GRID OR AS NOTED IN OTHER
DIRECTION. AT CORNER CONDITIONS:
CENTERLINES OF GRADEBEAMS OR WALLS.
- C. COLUMNS EMBEDDED IN GRADEBEAMS OR WALLS
(PILASTERS): CENTERLINES OF THE COLUMN.

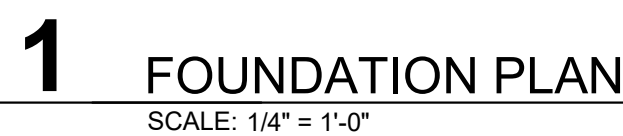
COLUMN FOOTING

STEEL COL.

F7.0
-2'-8"

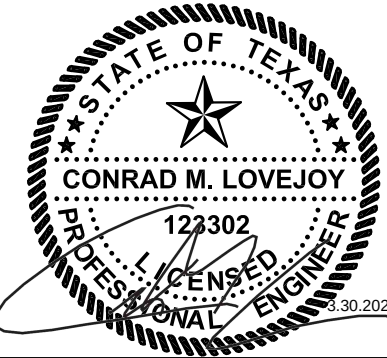
DENOTES COLUMN FOOTING MARK & TOP OF FTG. ELEVATION (SEE COL. FTG. SCHED. X/SX.X)

DENOTES BASEPLATE
MARK REF. X/SX.X



ALL BE BROUGHT TO THE NOTICE OF WARE MALCOMB PRIOR TO THE COMMENCEMENT OF ANY WORK

8144 Walnut Hill Lane, Suite 903, Dallas, TX 75245
Phone: 214.307.4767
TX Registered Engineering Firm F-15085



WESTLAKE EXPANSION

5902 BEE CAVE RD.
WEST LAKE HILLS, TX 78746

FOUNDATION PLAN

DATE	REMARKS
------	---------

PA/PM:

Approver

DRAWN BY.:

Author

JOB NO.: XXXX.XX.X

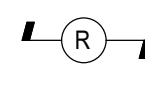
XXX.XX.X

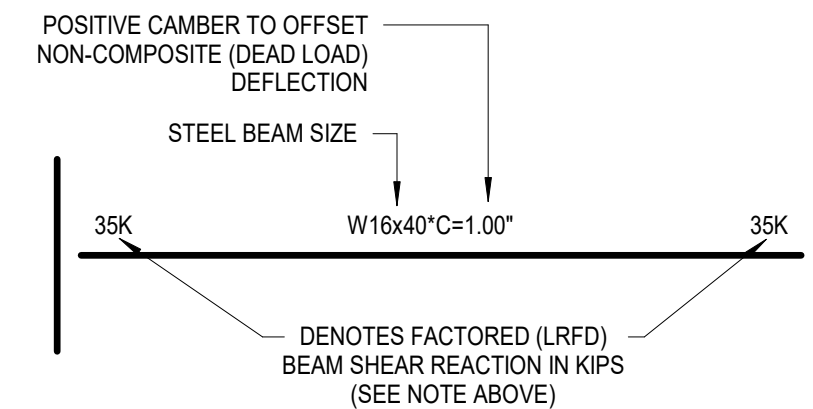
SHEET

S-200

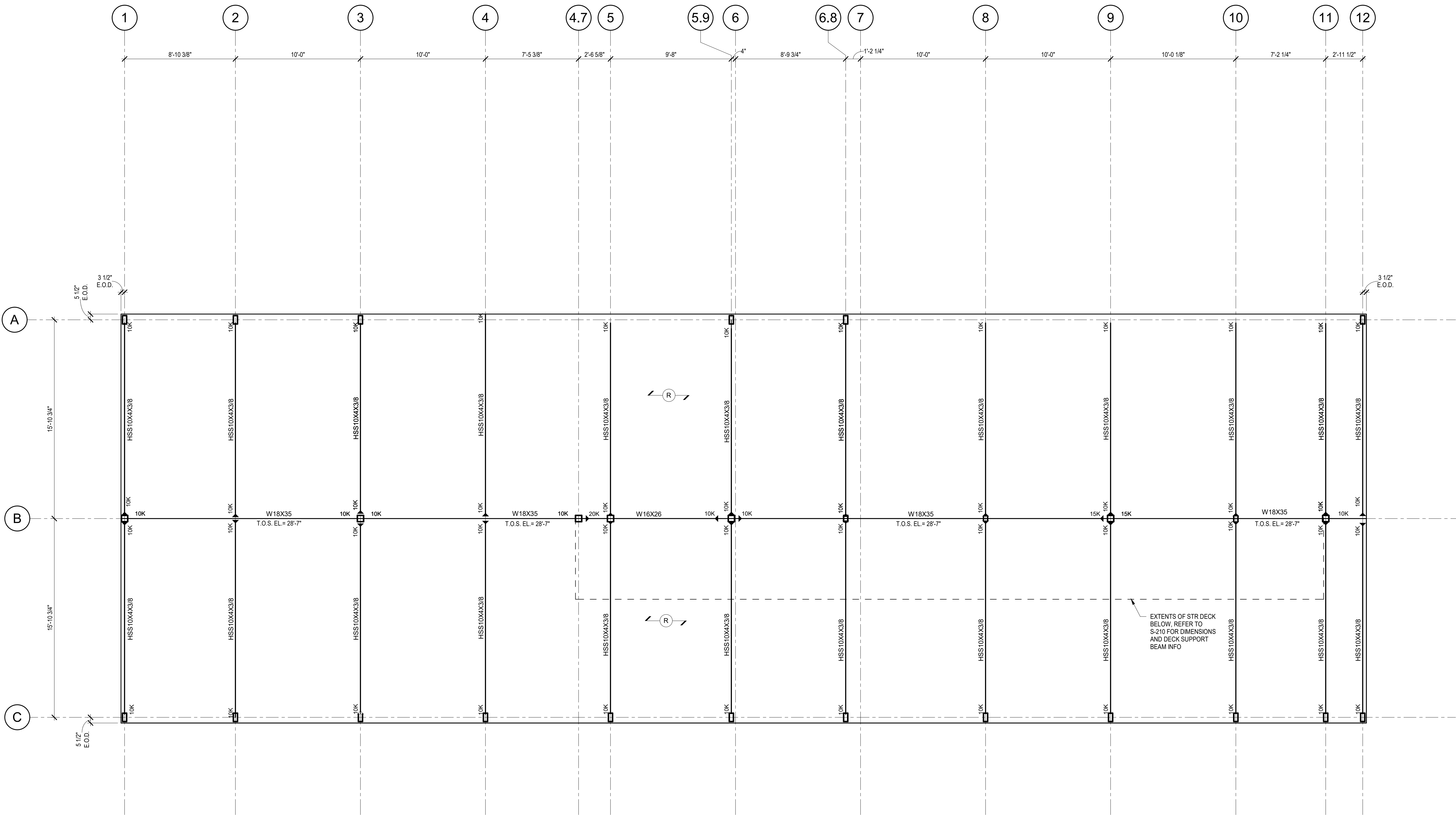
STEEL FRAMING NOTES:

1. REF. SX.X FOR STRUCTURAL NOTES, DESIGN DATA, SCHEDULES & LEGENDS.
2. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.
3. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FINISHED FLOOR ELEVATION +0'-0". REF. CIVIL DWGS.
4. REF. ARCH. DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
5. COORDINATE EXACT SIZE & LOCATION OF ANY MECHANICAL OPENINGS IN FLOOR SLAB, ROOF DECK, OR WALLS WITH THE M.E.P. CONTRACTOR. LOCATION & SIZE OF ALL DUCT OPENINGS, GRILLS, ETC. SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
6. ALL ELEVATIONS SHOWN ON PLAN INDICATE TOP OF STEEL BEAM UNLESS NOTED OTHERWISE.
7. PROVIDE FRAMES AT ALL ROOF DRAINS, ROOF HATCHES & OTHER ROOF OPENINGS PER TYPICAL DETAILS ON SX.X. COORDINATE EXACT NUMBER, LOCATION & DIMENSIONS WITH THE APPROPRIATE CONTRACTORS & THE ARCH. & M.E.P. DRAWINGS.
8. WIDE-FLANGE BEAM & GIRDER NOTATION BEAM REACTIONS SHOWN IN KIPS (LRFD) FACTORED LOADS TO BE USED FOR DESIGN OF SHEAR CONNECTION BY STEEL FABRICATOR. SIMPLE SPAN CONNECTIONS FOR BEAMS & GIRDERS LESS THAN 10 FEET IN LENGTH AND WITH NO REACTION SHOWN SHALL BE DESIGNED FOR 10 KIPS MINIMUM. SEE STEEL CONNECTION NOTES ON SHEET SX.X FOR ADDITIONAL INFORMATION.

-  DENOTES 18 GA. 2.0D DOVETAIL STEEL ROOF DECK. MAX DECK SPAN IS 11'-0" BETWEEN SUPPORTS. FASTEN DECK TO STRUCT. WITH HILTI X-EMP19 P/NP AT 24" S4 PATTERN WITH #10 TEX SCREWS SIDE LAPS AT 8" O.C. TYP.
- F.F. DENOTES FIN. FLOOR
- T.O.S. EL. DENOTES TOP OF STEEL, SLAB, PIER, ETC.
-  DENOTES BEAM-TO-COLUMN MOMENT CONNECTION. REF. 15S-500 AND SPECIFIC SECTIONS & DETAILS FOR ADD'L INFO.



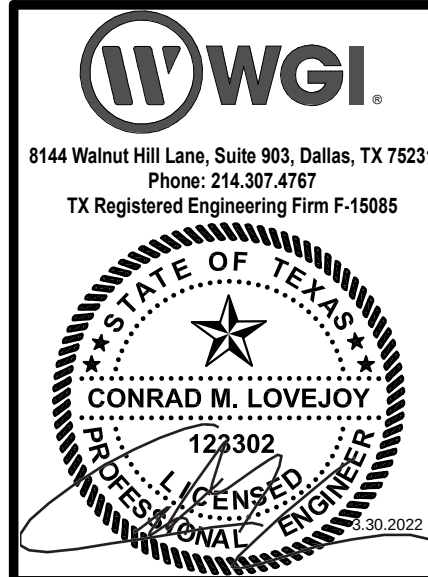
TYPICAL BEAM DIAGRAM



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

WARE MALCOMB
Leading Design for Commercial Real Estate

architecture
planning
interiors
graphics
civil engineering
1919 McKinney Avenue, Suite 100
Dallas, TX 75201
P 469.565.5579



WESTLAKE EXPANSION
5902 BEE CAVE RD.
WEST LAKE HILLS, TX 78746

HIGH FRAMING PLAN	
DATE	REMARKS

PA/PM:	Approver
DRAWN BY:	Author
JOB NO.:	xxxx.xx.xxx

SHEET
S-211

Lap Splices at Slabs/Walls* (Fy = 60 ksi)				
Rebar Size	Class A Splice		Class B Splice	
	Top Bars	Other Bars	Top Bars	Other Bars
#3	1'-0"	1'-0"	1'-4"	1'-4"
#4	1'-7"	1'-3"	2'-1"	1'-8"
#5	2'-4"	1'-10"	3'-1"	2'-5"
#6	3'-1"	2'-5"	4'-1"	3'-2"
#7	5'-0"	3'-11"	6'-6"	5'-2"
#8	6'-2"	4'-9"	8'-1"	6'-3"
#9	7'-6"	5'-10"	9'-9"	7'-7"
#10	9'-0"	7'-0"	11'-9"	9'-2"
#11	10'-7"	8'-2"	13'-10"	10'-8"

* MINIMUM CONCRETE CLEAR COVER = 3/4"

NOTES:

1. TOP BARS ARE HORIZONTAL BARS SO THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR. HORIZONTAL BARS IN WALLS ARE TO BE PROVIDED WITH LAPS AS REQUIRED FOR TOP BARS.
2. EXCEPT AS OTHERWISE INDICATED ON THE DRAWINGS, LAP SPICE LENGTHS SHALL BE NO LESS THAN (NO MINUS TOLERANCE) SHOWN IN THE TABLES ABOVE.
3. LAP SPICES SHALL NOT BE MADE AT POINTS OF MAXIMUM STRESS, AS DETERMINED BY THE ENGINEER.
4. SPICES SHALL NOT BE SPACED CLOSER THAN 6" ON CENTER.
5. ONLY MECHANICAL SPICES ARE ACCEPTABLE FOR #14 & #18 BARS. MECHANICAL SPICE SHALL DEVELOP AT LEAST 125 PERCENT OF SPECIFIED YIELD STRENGTH OF BAR. WHERE #14 OR #18 BAR IS SPICED WITH #11 BAR OR SMALLER, PROVIDE SPICE LENGTH SPECIFIED FOR SMALLER BAR.
6. FOR EPOXY COATED BARS, THE LAP SPICE LENGTH TABULATED ABOVE SHALL BE INCREASED BY MULTIPLYING THE APPROPRIATE LENGTH BY 1.5.
7. "CONCRETE CLEAR COVER" DIMENSIONS NOTED ARE DIMENSIONS FROM EDGE OF SPICED BAR TO NEAREST EDGE OF CONCRETE. CONTACT ENGINEER FOR REVISED SPICE LENGTHS IF MINIMUM COVER DIMENSIONS ARE NOT PROVIDED.

Lap Splices at Beams* (Fy = 60 ksi)				
Rebar Size	Class A Splice		Class B Splice	
	Top Bars	Other Bars	Top Bars	Other Bars
#3	1'-0"	1'-0"	1'-4"	1'-4"
#4	1'-3"	1'-0"	1'-8"	1'-4"
#5	1'-7"	1'-3"	2'-1"	1'-8"
#6	1'-11"	1'-6"	2'-6"	2'-0"
#7	2'-9"	2'-2"	3'-7"	2'-10"
#8	3'-3"	2'-6"	4'-3"	3'-3"
#9	4'-1"	3'-2"	5'-4"	4'-2"
#10	5'-0"	3'-11"	6'-6"	5'-2"
#11	6'-0"	4'-8"	7'-10"	6'-1"

* MINIMUM CONCRETE CLEAR COVER = 1 7/8"

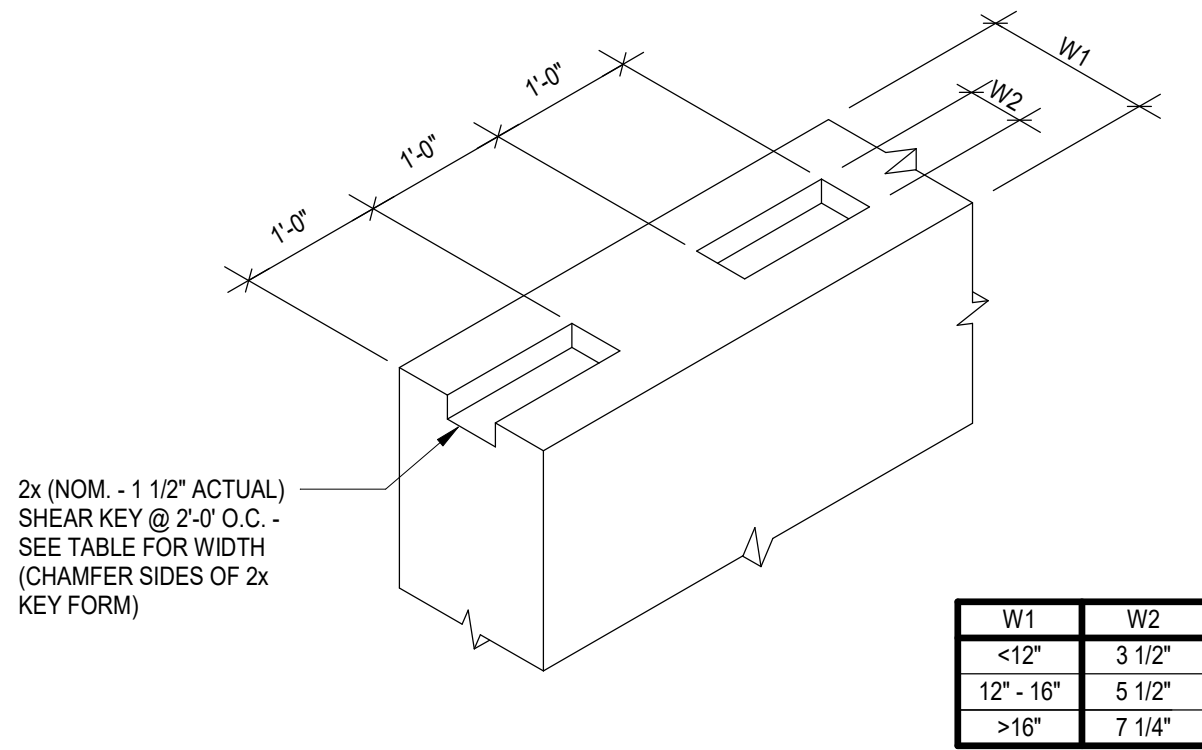
DOWEL SCHEDULE			
A		B	
MARK	SIZE	A	B
DWL-A	#4	8"	2'-0"
DWL-B	#4	2'-0"	2'-0"
DWL-C	#4	-	4'-0"
DWL-D	3/4" DIA. THD.	-	4'-0"
DWL-E	1/2" DIA. THD.	-	3'-0"

NOTES:

1. SCHEDULED DOWELS ARE MARKED "DWL" ON THE SECTIONS AND DETAILS.
2. DOWEL SPACING TO BE THE SAME AS VERTICAL BEAM OR WALL REINFORCEMENT UNLESS NOTED OTHERWISE ON DETAILS.
3. DOWELS WITH "THD." IN "SIZE" COLUMN SHALL BE RICHMOND "CONTINUOUS THREADED LAGSTUD (225)" WITH RICHMOND "STANDARD 1/2"x4" 2/15 ANCHOR W/ WASHER" FOR 1/2" DIA. DOWELS AND "STANDARD 3/4"x8" 2/15 ANCHOR W/ WASHER" ANCHORS FOR 3/4" DIA. DOWELS OR EQUAL.

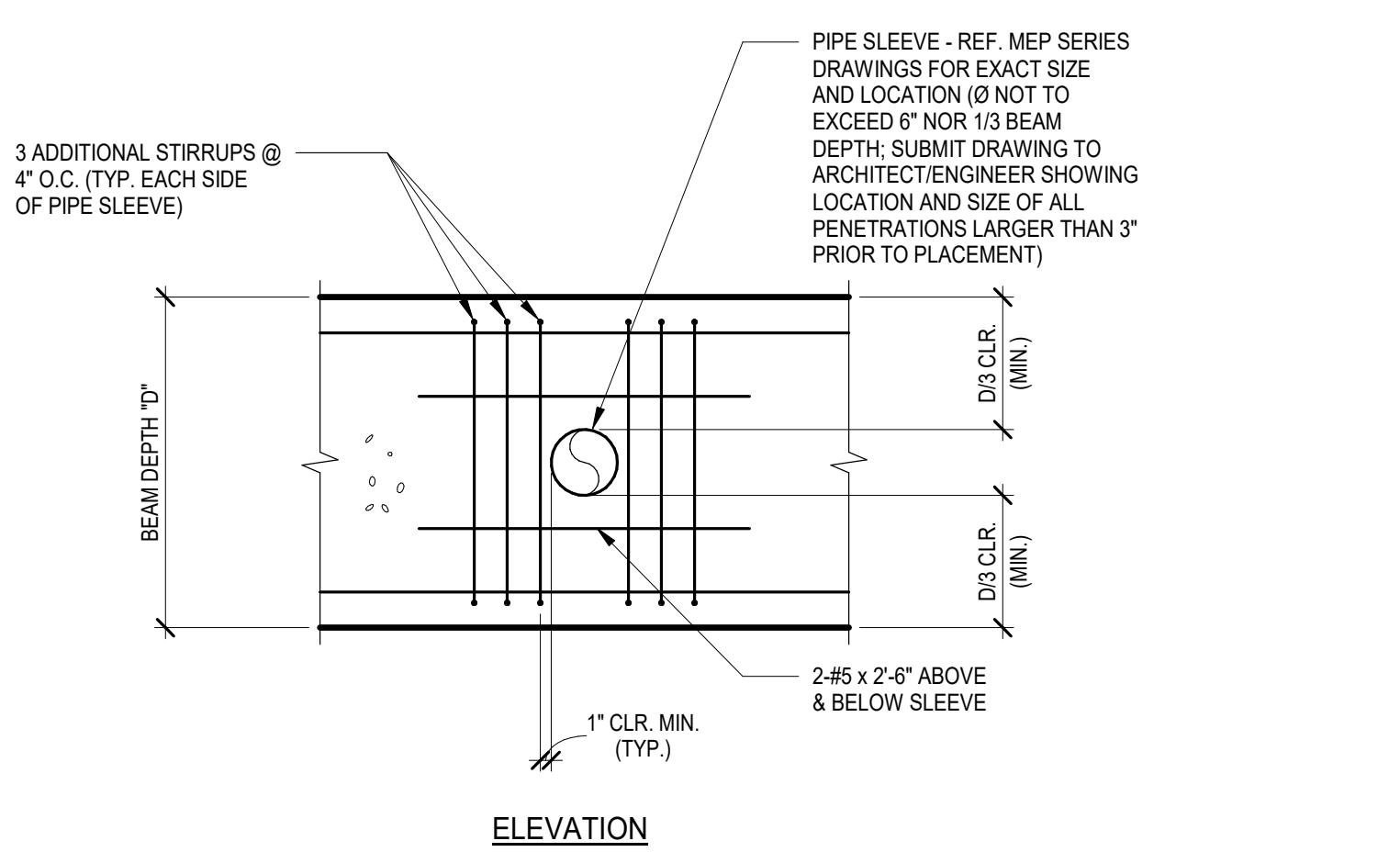
9 DOWEL SCHEDULE

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



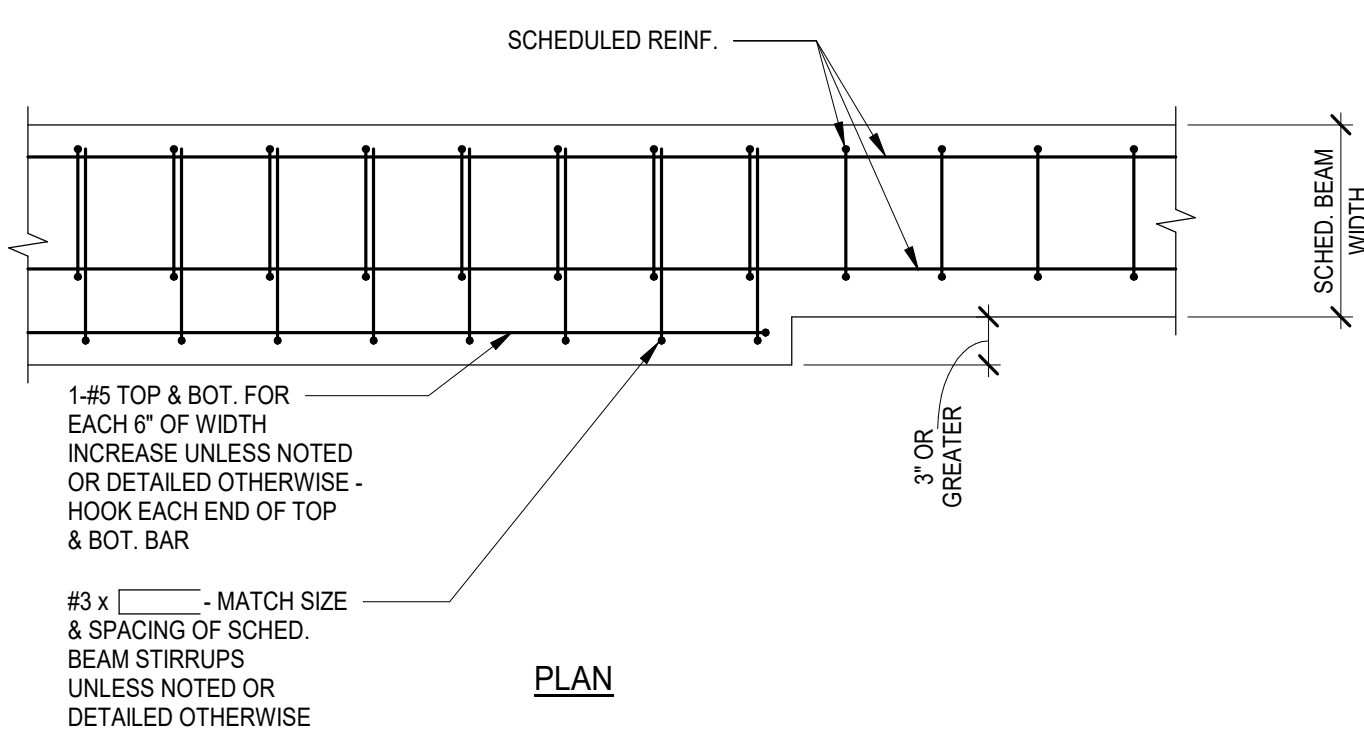
8 TYPICAL SHEAR WALL KEY AT HORIZONTAL JOINT DETAIL

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



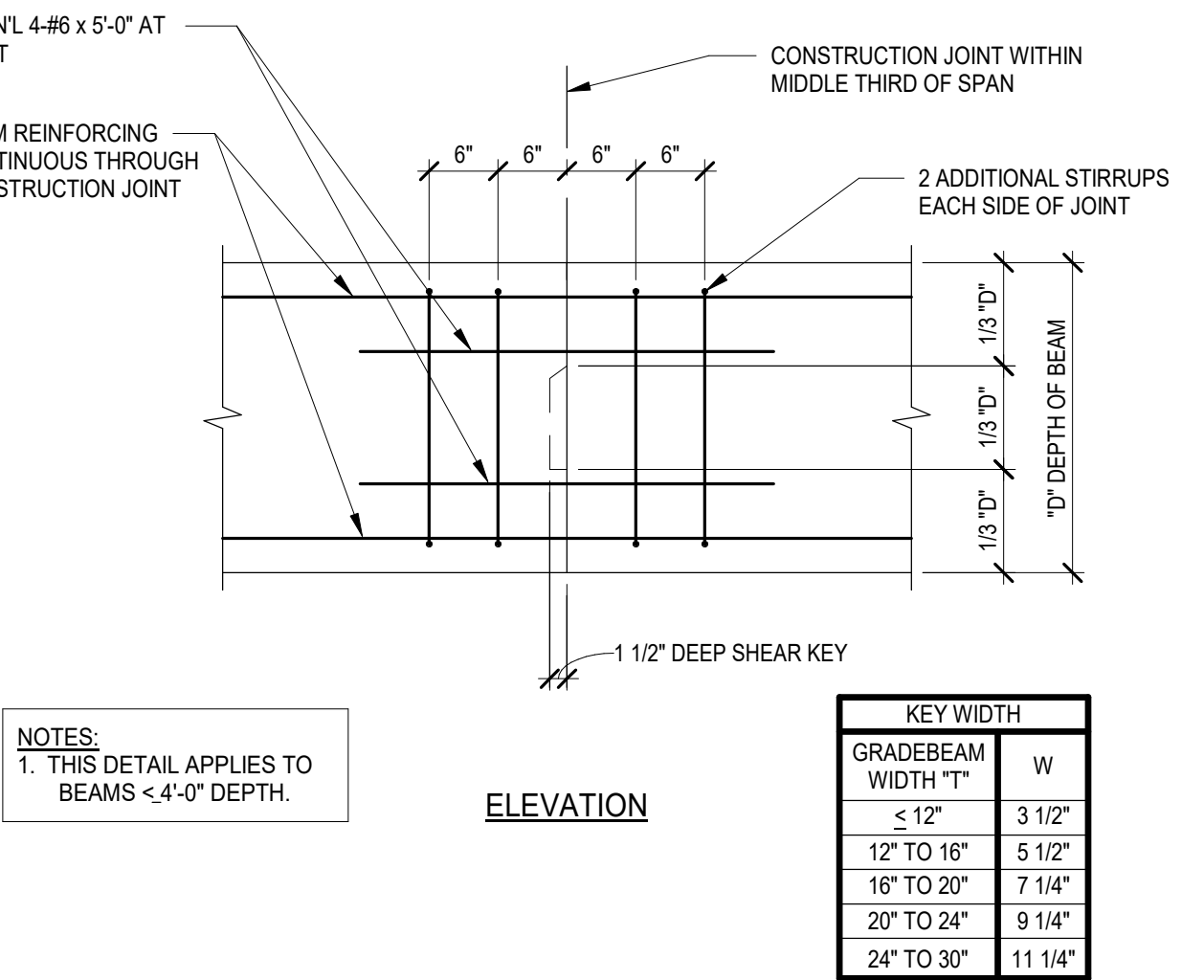
7 TYPICAL HORIZONTAL GRADE BEAM PENETRATION DETAIL

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



6 TYPICAL BEAM WITH VARYING WIDTH REINFORCING DETAIL

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

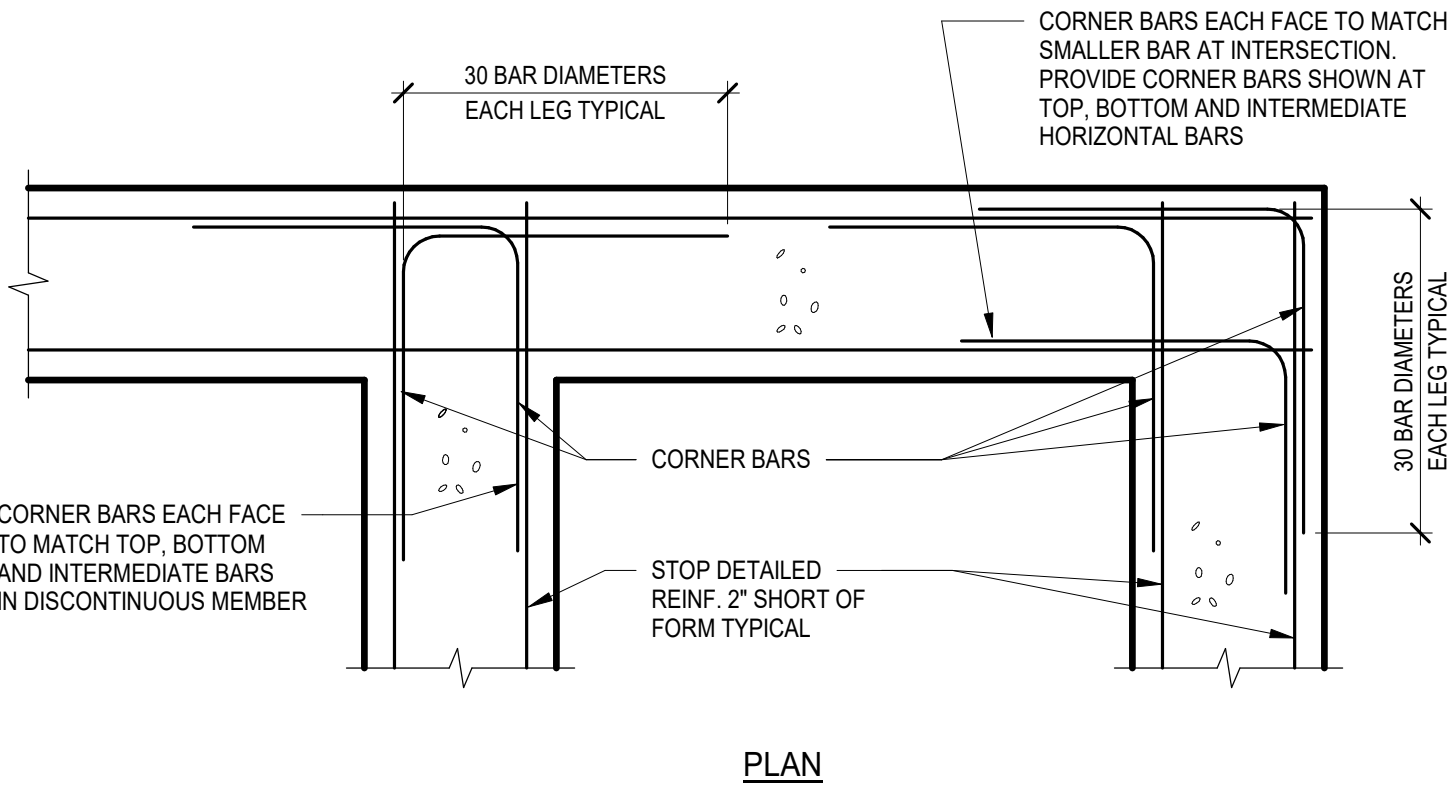


5 TYPICAL CONCRETE BEAM CONSTRUCTION JOINT DETAIL

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

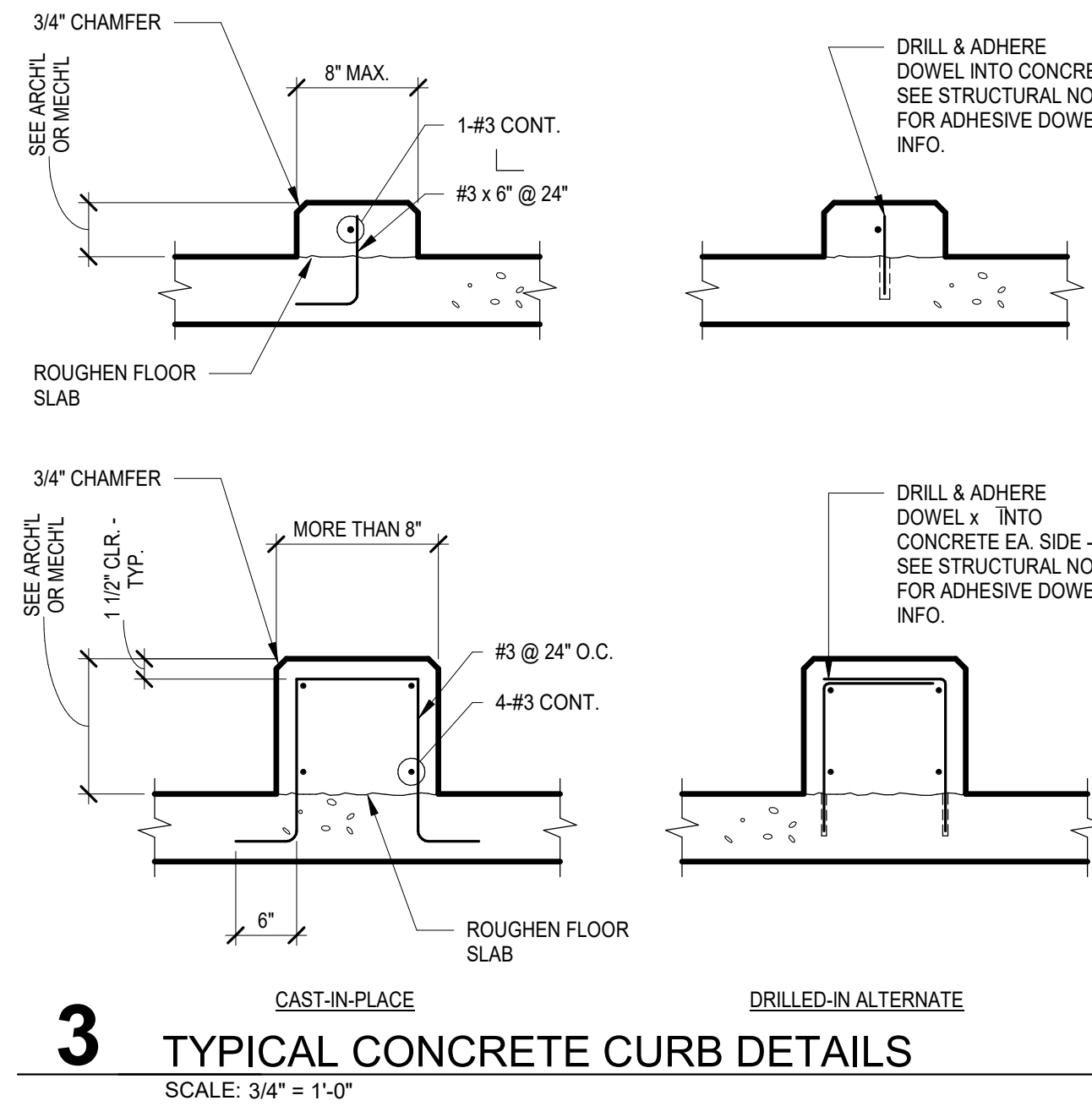
NOTES:

1. MATCH SIZE, LOCATION AND NUMBER OF HORIZONTAL BEAM AND WALL BARS, EXCEPT THAT WHERE THERE ARE MORE THAN 2 TOP OR BOTTOM BARS, ONLY THE INSIDE AND OUTSIDE BARS MUST BE MATCHED.
2. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR TOP BARS CORNER BARS MAY BE OMITTED AT TOP, WHERE 90 DEGREE HOOKS ARE PROVIDED FOR BOTTOM BARS, CORNER BARS MAY BE OMITTED AT BOTTOM.



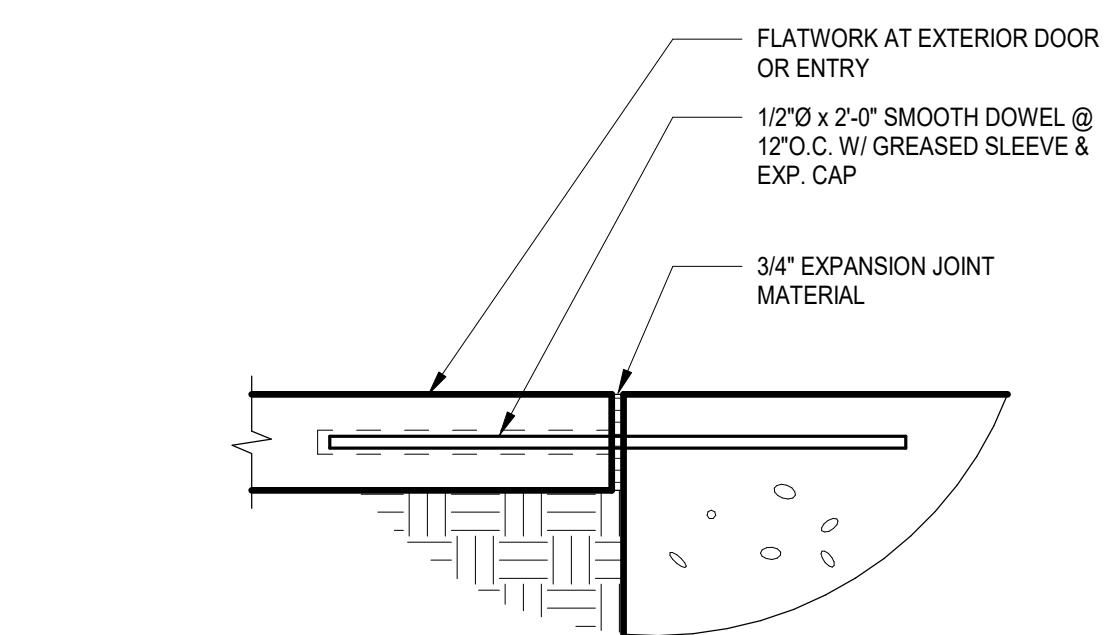
4 TYPICAL CORNER BARS AT WALL OR GRADE BEAM INTERSECTION DETAIL

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



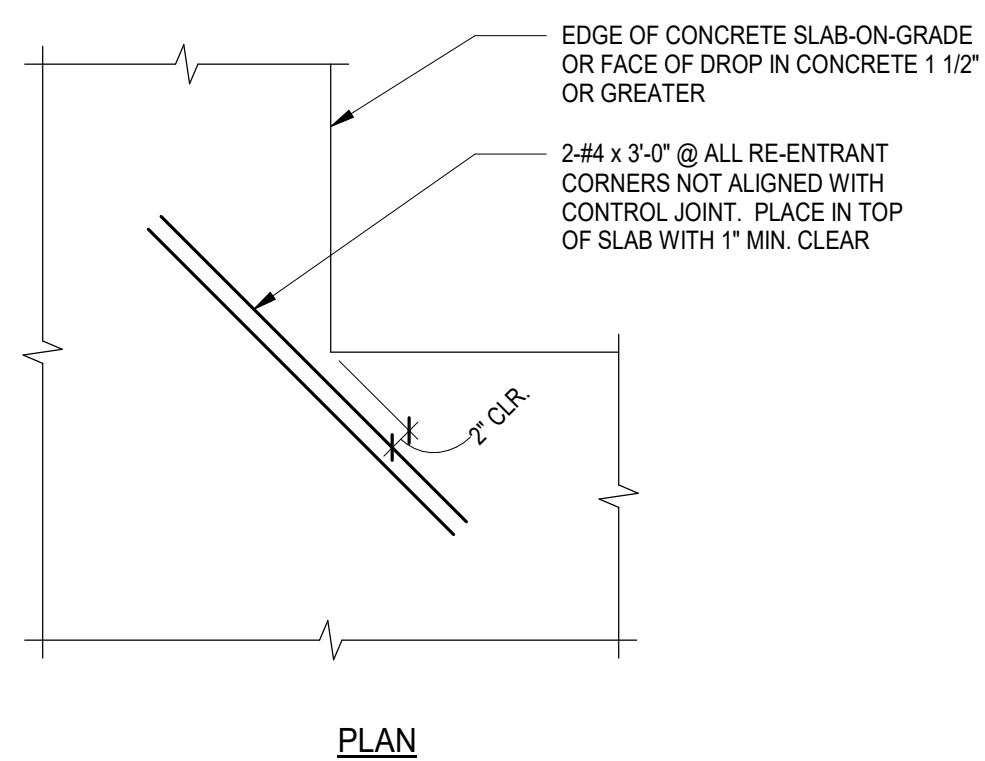
3 TYPICAL CONCRETE CURB DETAILS

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



2 TYPICAL FLATWORK AT EXTERIOR DOORS AND ENTRIES DETAIL

SCALE: 1 1/2" = 1'-0"

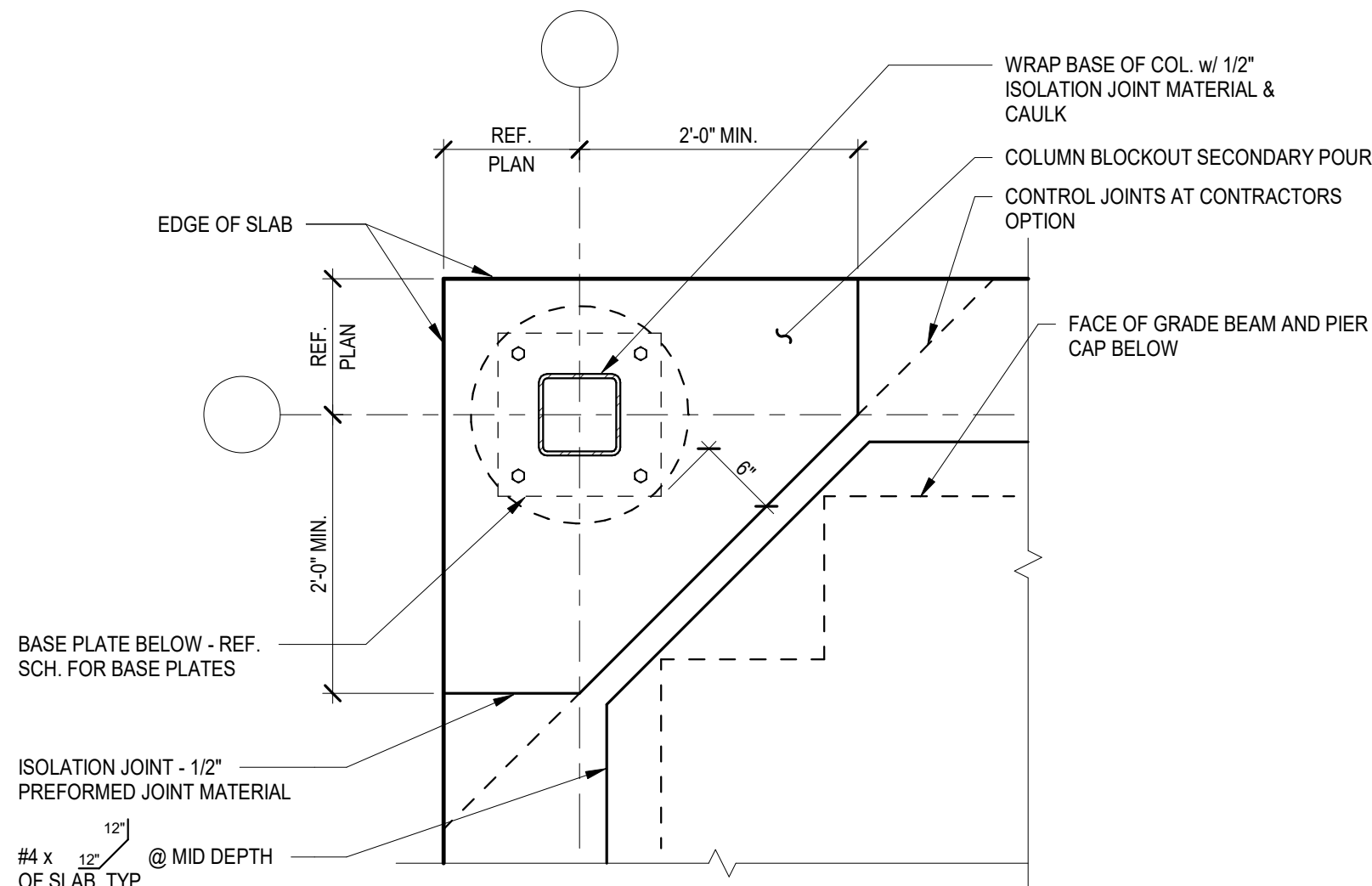


1 TYPICAL SLAB-ON-GRADE RE-ENTRANT CORNER REINFORCING DETAIL

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

14 TYPICAL LAP SPICE SCHEDULES

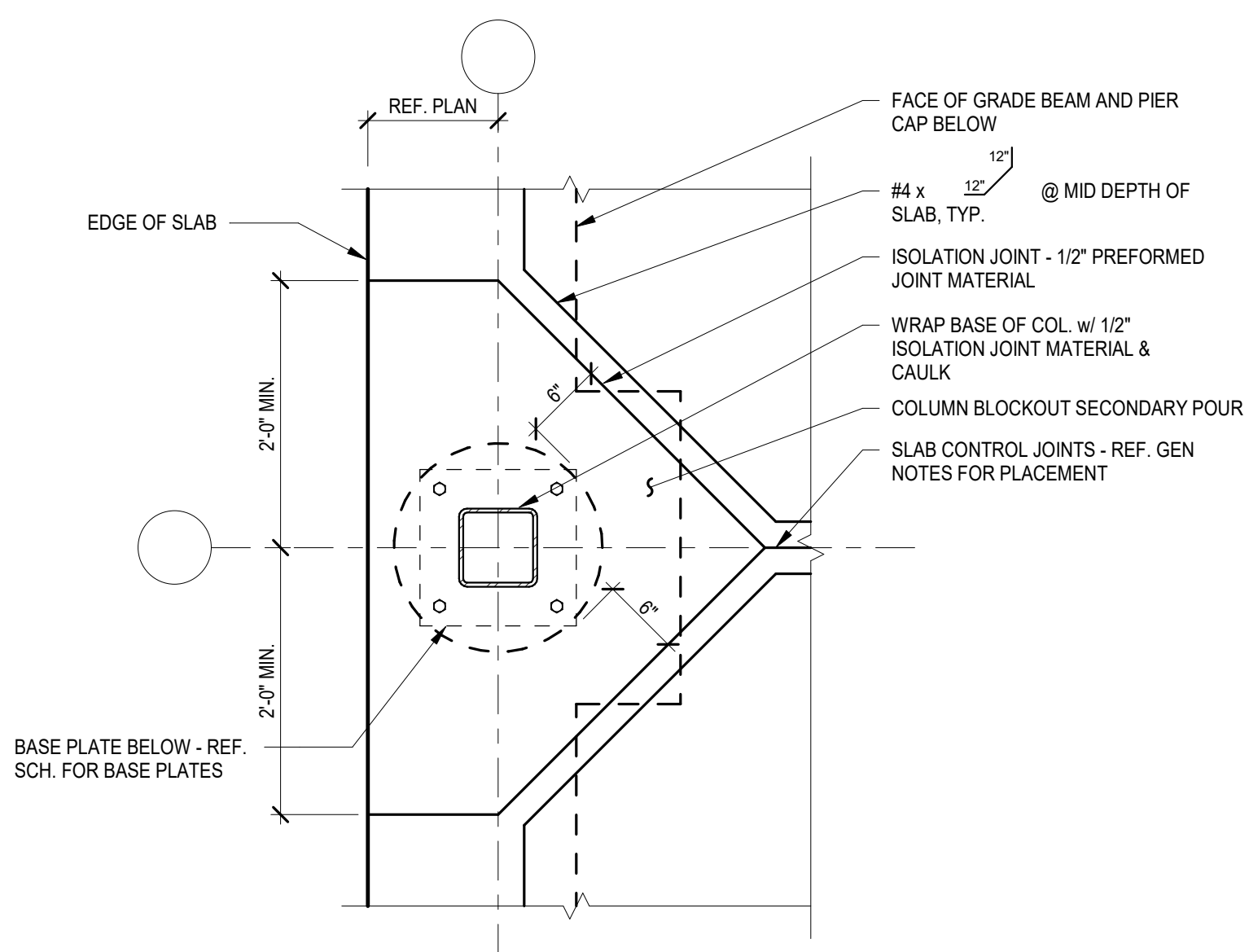
NOT TO SCALE



- NOTES:
1. TUBE COLUMN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. WIDE FLANGES, PIPES, AND OTHER STEEL SHAPES ARE SIMILAR.
 2. ADJUST 2'-0" DIMENSION AS REQUIRED TO ACCOMMODATE COLUMN BASE PLATES AND GROUTING PROCEDURES.
 3. WHERE THIN-SET EPOXY TERRAZZO OR VINYL SHEET GOODS ARE THE SCHEDULED FLOOR FINISH, ELIMINATE THE DIAMOND-SHAPED ISOLATION JOINT AND EXTEND THE CONTROL JOINTS TO THE COLUMN.

13 CORNER COLUMN BLOCKOUT

SCALE: 1" = 1'-0"



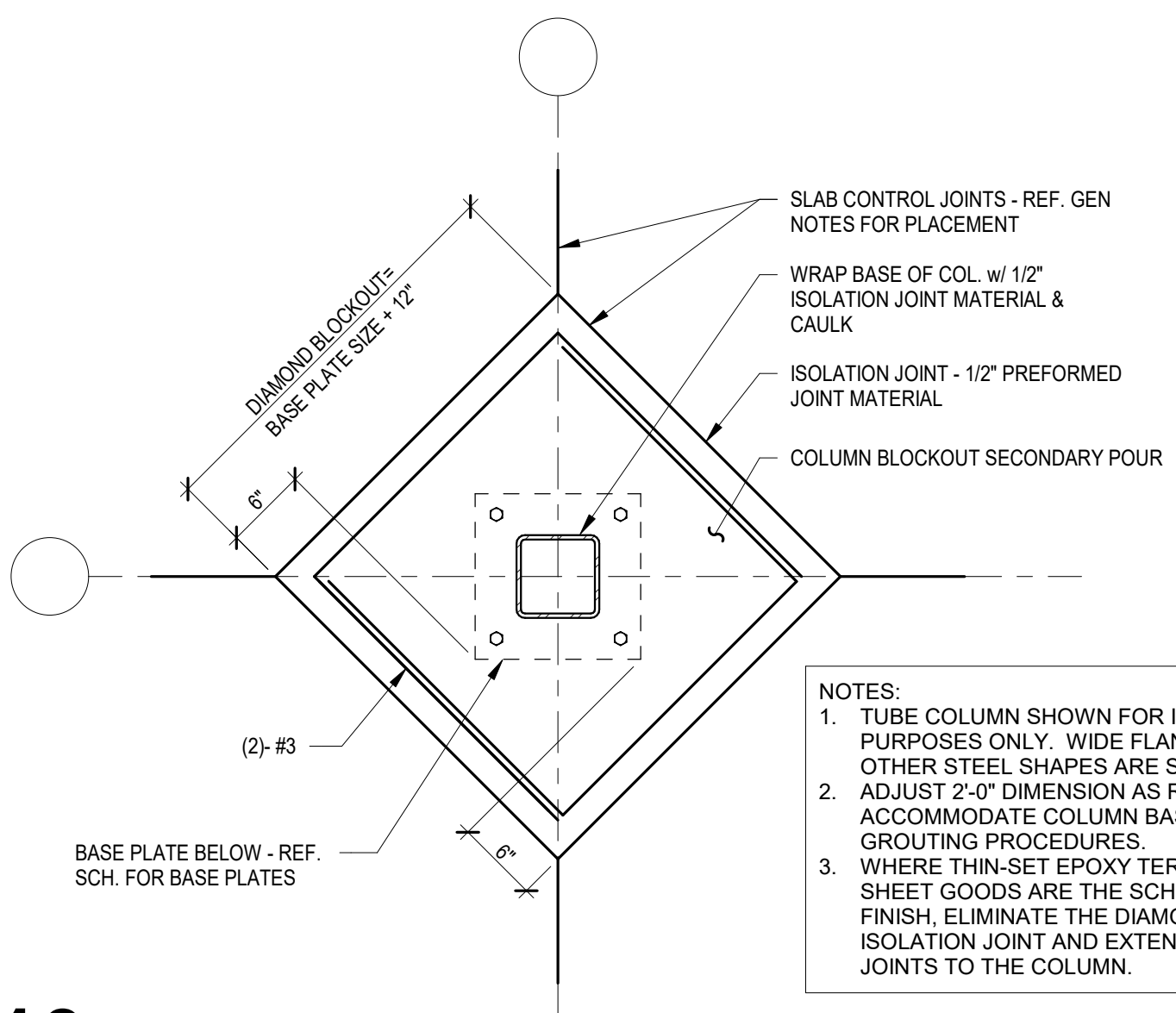
- NOTES:
1. TUBE COLUMN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. WIDE FLANGES, PIPES, AND OTHER STEEL SHAPES ARE SIMILAR.
 2. ADJUST 2'-0" DIMENSION AS REQUIRED TO ACCOMMODATE COLUMN BASE PLATES AND GROUTING PROCEDURES.
 3. WHERE THIN-SET EPOXY TERRAZZO OR VINYL SHEET GOODS ARE THE SCHEDULED FLOOR FINISH, ELIMINATE THE DIAMOND-SHAPED ISOLATION JOINT AND EXTEND THE CONTROL JOINTS TO THE COLUMN.

12 EXTERIOR COLUMN BLOCKOUT

SCALE: 1" = 1'-0"

11 TYPICAL DETAIL AT "L" OR VERTICAL PENETRATION THROUGH GRADE BEAM

SCALE: 1" = 1'-0"



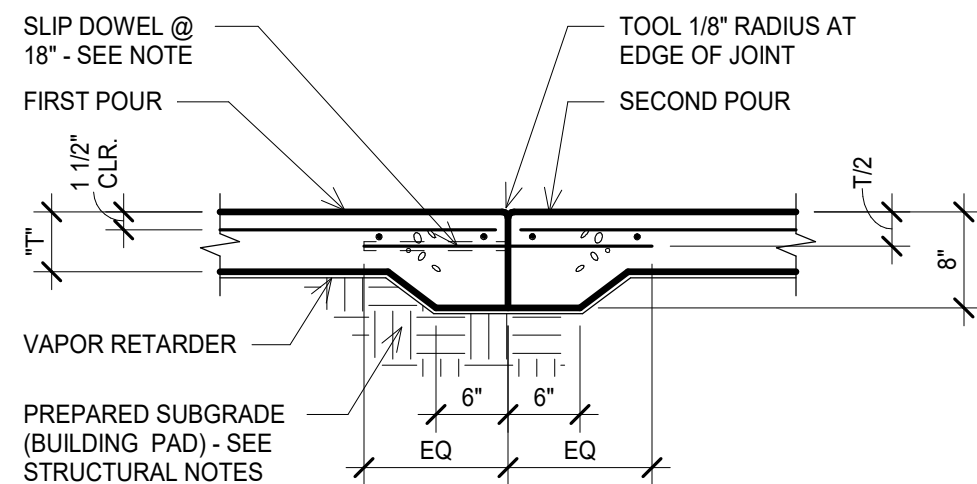
- NOTES:
1. TUBE COLUMN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. WIDE FLANGES, PIPES AND OTHER STEEL SHAPES ARE SIMILAR.
 2. ADJUST 2'-0" DIMENSION AS REQUIRED TO ACCOMMODATE COLUMN BASE PLATES AND GROUTING PROCEDURES.
 3. WHERE THIN-SET EPOXY TERRAZZO OR VINYL SHEET GOODS ARE THE SCHEDULED FLOOR FINISH, ELIMINATE THE DIAMOND-SHAPED ISOLATION JOINT AND EXTEND THE CONTROL JOINTS TO THE COLUMN.

10 INTERIOR COLUMN BLOCKOUT

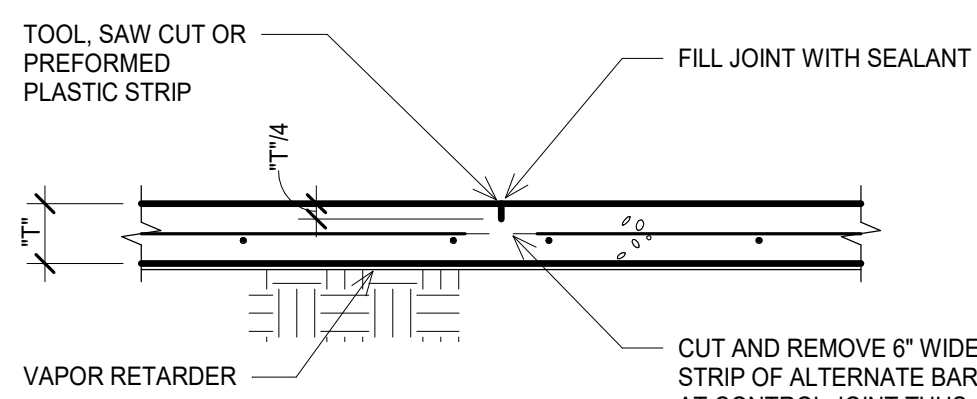
SCALE: 1" = 1'-0"

BM 3610772505 - 1st Creek Westlake - 1st Creek Westlake - EXPANSION - R101A

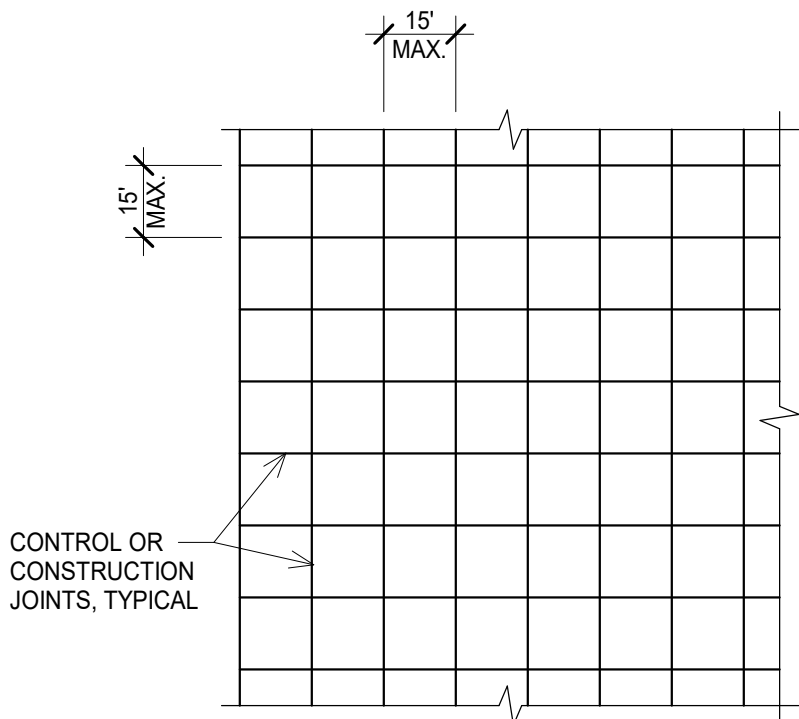
NOTE:
PROVIDE ONE OF THE FOLLOWING SLIP DOWELS:
- PMA CONSTRUCTION TECHNOLOGIES 1/4" x 4 1/2" x 4 1/2" "DIAMOND DOWEL" PLATE DOWEL SYSTEM.
- GREENSTREAK 5/8" DIA. SMOOTH x 24" "SPEED DOWEL" SYSTEM.
- 1/2" DIA. x 2'-0" A36 SMOOTH ROD.



CONSTRUCTION JOINT



CONTROL JOINT

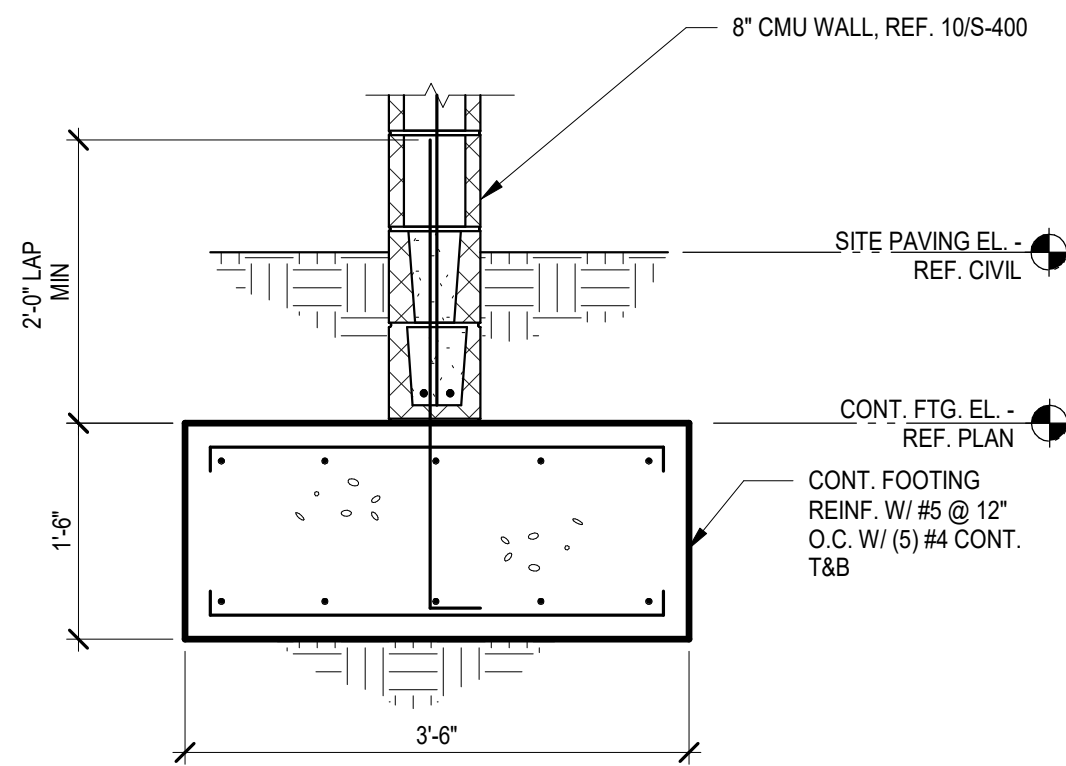


SLAB-ON-GRADE NOTES:

1. SEE PLAN FOR THICKNESS OF SLAB (T) AND REINFORCING.
2. SAWCUT JOINTS WITH IN THE TIME FRAME NOTED BELOW:
a. 12 HOURS FOR SLABS COVERED BY FINISHES OR NON PUBLIC SPACES.
b. 4 HOUR FOR SLABS EXPOSED TO PUBLIC VIEW OR WHERE NOTED "SOFF-CUT" BRAND SAW SHALL BE USED.
3. IF METAL FORMS ARE USED, REMOVE THEM BEFORE PLACING ADJACENT SLAB.
4. FOR SLABS WITH THICKNESS (T) GREATER THAN 6". THICKENED EDGES ARE NOT REQUIRED AT JOINTS.
5. PROVIDE A CONSTRUCTION OR A CONTROL JOINT ON THE CENTERLINES OF COLUMNS.
6. LAP REINFORCING 38 BAR DIAMETER MINIMUM.

CS-01

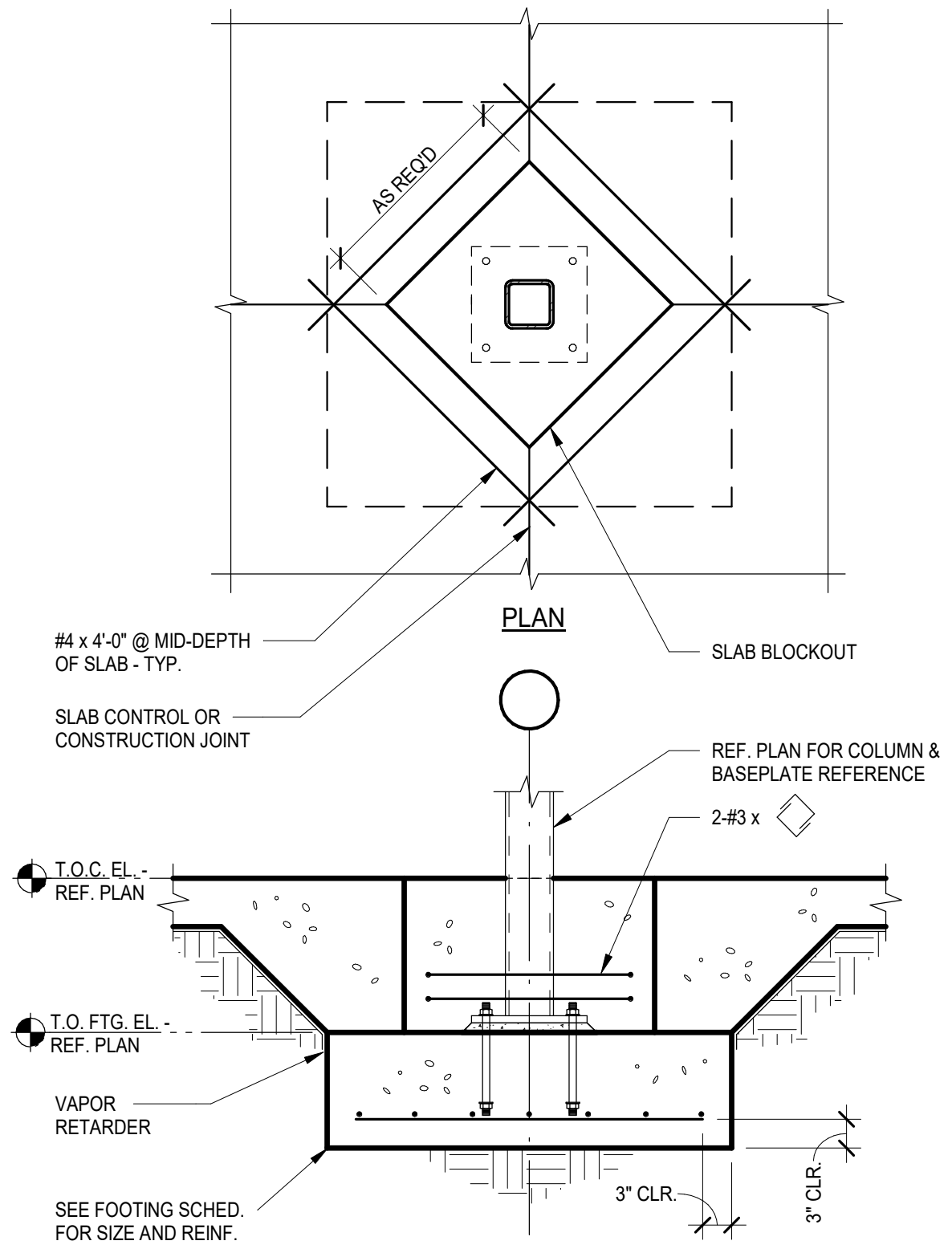
7 TYPICAL SLAB-ON-GRADE DETAIL
SCALE: 3/4" = 1'-0"



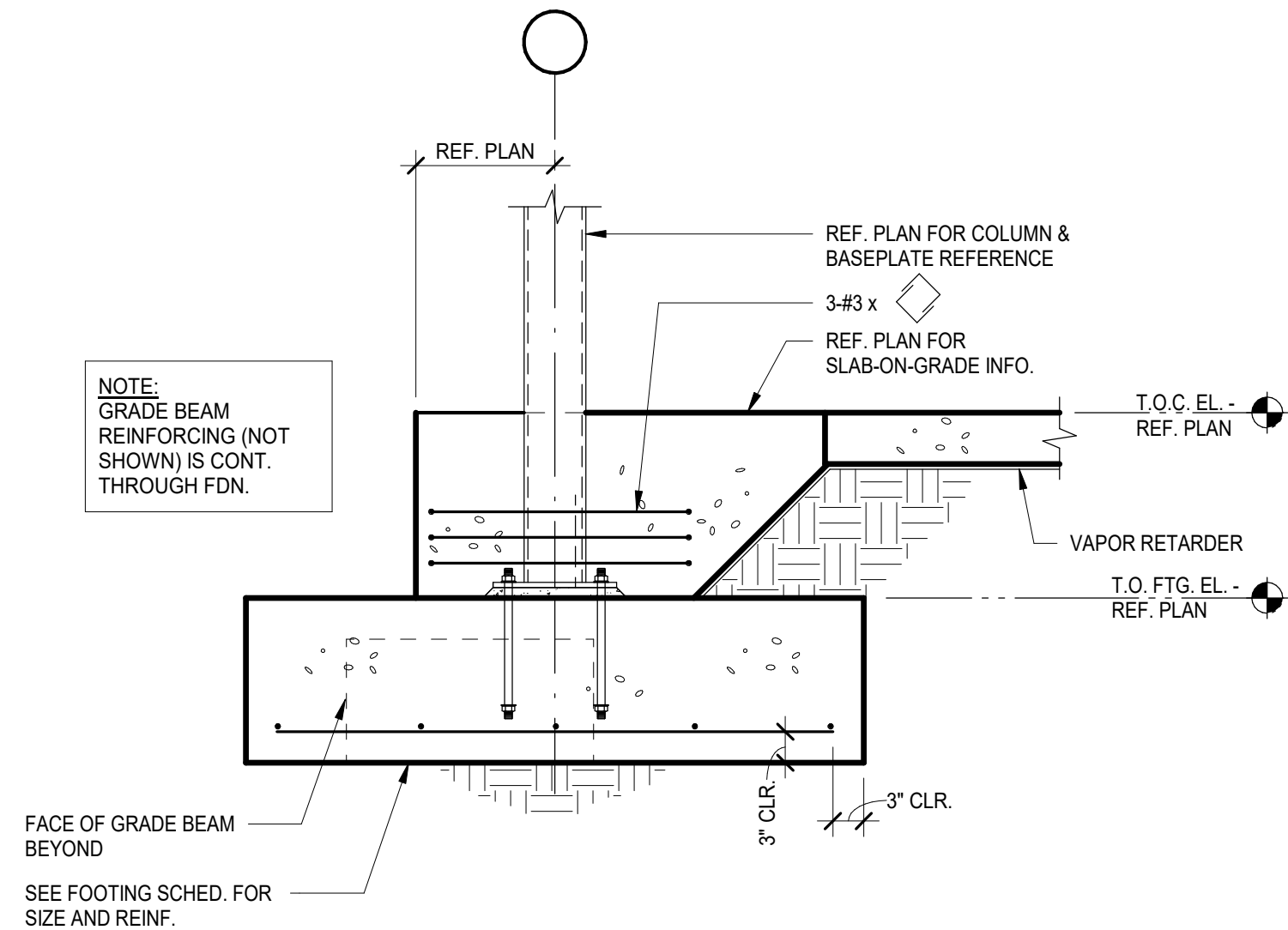
6 FOOTING DETAIL
SCALE: 3/4" = 1'-0"

SPREAD FOOTING SCHEDULE				
FOOTING MARK	FOOTING DIMENSIONS			BARS E.W. (T & B)
	L	W	T	U.N.O.
F1	7'-0"	7'-0"	1'-2"	(7) #5

MAT FOUNDATION SCHEDULE		
FOOTING MARK	BARS E.W. U.N.O.	
	T	U.N.O.
M1	1'-2"	#5 @ 8" O.C. TOP & BOT



3 TYPICAL INTERIOR FOOTING DETAIL
SCALE: 3/4" = 1'-0"

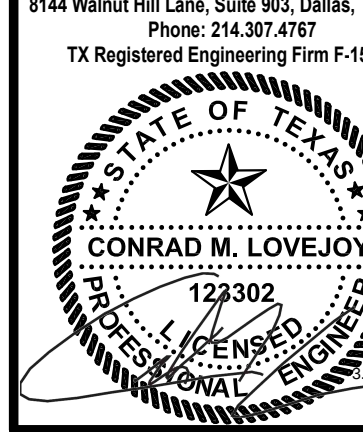


1 TYPICAL ISOLATED EXTERIOR FOOTING DETAIL
SCALE: 3/4" = 1'-0"

architecture
planning
interior design
graphics
civil engineering

1919 McKinney Avenue, Suite 100
Dallas, TX 75201
P 469.565.5279

WGI
8144 Walnut Hill Lane, Suite 903, Dallas, TX 75231
Phone: 214.397.4787
TX Registered Engineering Firm F-15085



WESTLAKE EXPANSION
5902 BEE CAVE RD.
WEST LAKE HILLS, TX 78746

TYPICAL FOUNDATION DETAILS

REMARKS

DATE

PA/PM: Approver

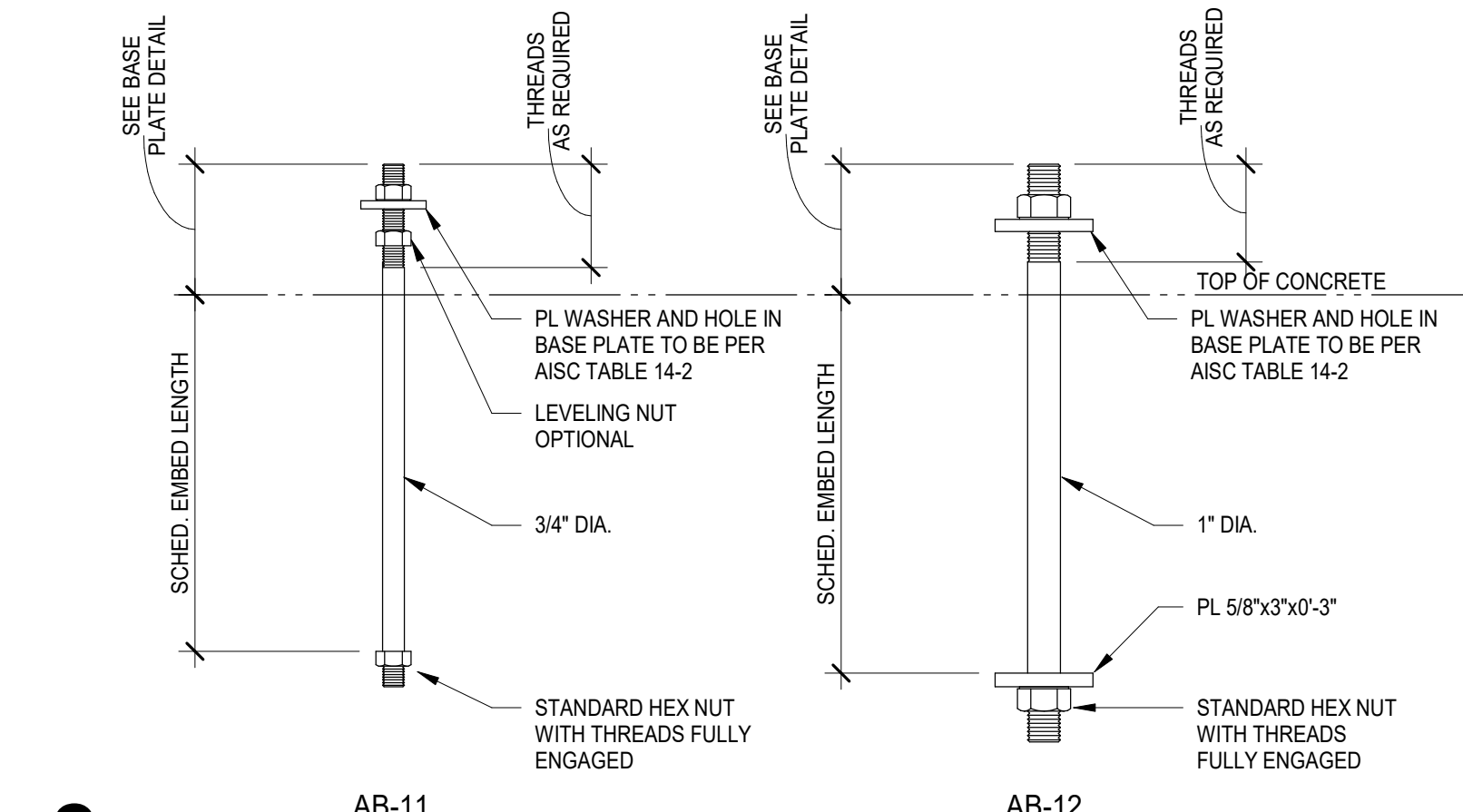
DRAWN BY: Author

JOB NO.: xxxxx.xx.xxxx

SHEET

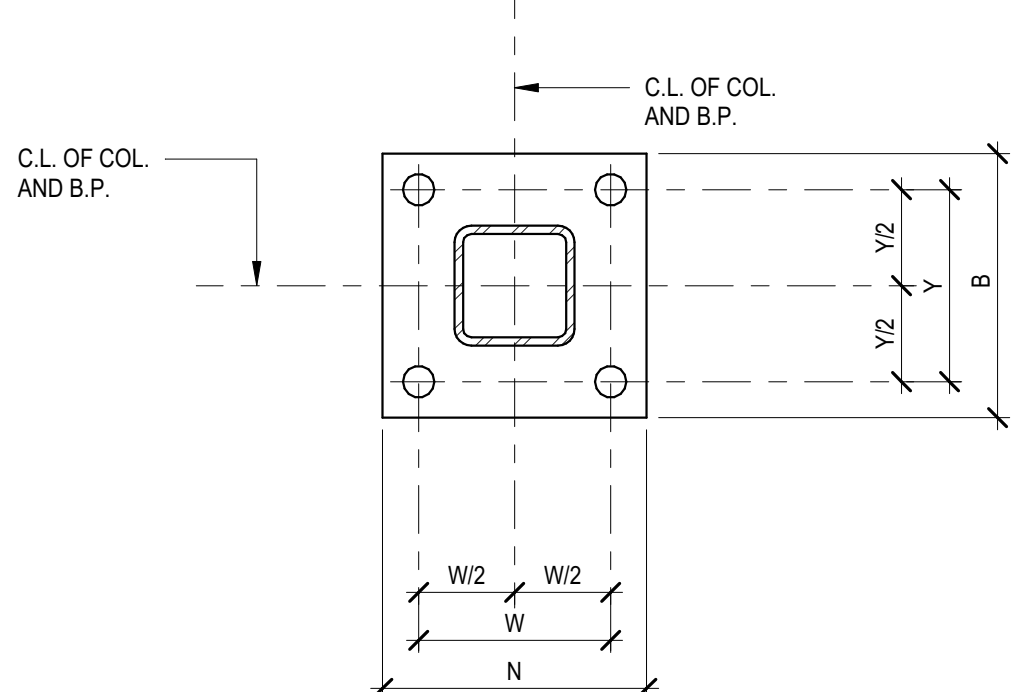
S-301

3/30/2022 11:36:40 PM

[illegible]

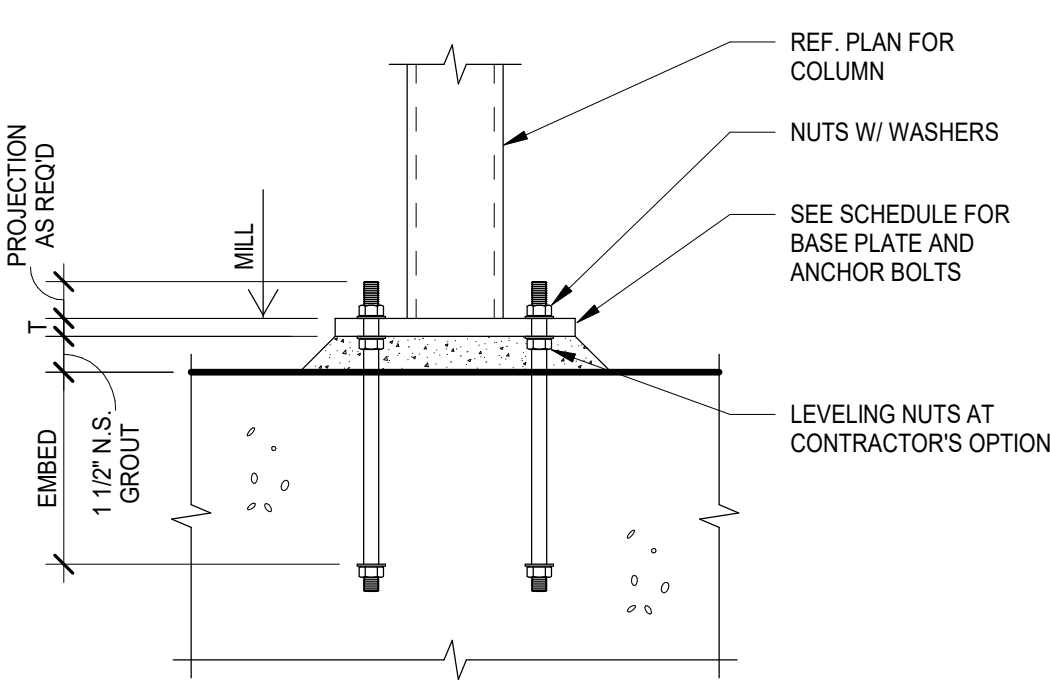
3 TYPICAL ANCHOR BOLT TYPES

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



- NOTES:
1. WELD TO BE MINIMUM SIZE REQUIRED BY A.I.S.C. FOR THICKNESS OF BASE PLATE USED.
 2. REF. COLUMN BASE PLATE TYPICAL DETAIL - HSS FOR BASE PLATE ELEVATION.
 3. OVERSIZED BOLT HOLES NOT PERMITTED FOR LATERAL RESISTING BASE PLATES.

2 TYPICAL BASE PLATE DETAIL



1 TYPICAL COLUMN BASE PLATE DETAIL

WESTLAKE EXPANSION

5902 BEE CAVERD.
WEST LAKE HILLS, TX 78746

[illegible]

PA/PM:	JMO
DRAWN BY.:	DJV/DEB
JOB NO.:	XXXX.XX.XXX

SHEET

S-501

WGI.
 114 Walnut Hill Lane, Suite 903, Dallas, TX 75231
 Phone: 214.307.4767
 TX Registered Engineering Firm F-15085

STATE OF TEXAS
 CONRAD M. LOVEJOY
 122302
 PROFESSIONAL ENGINEER
 12/30/2002

WARE MALCOMB
Leading Design for Commercial Real Estate



PA/PM:	Approver
DRAWN BY.:	Author
JOB NO.:	XXXX.XX.XXX

SHEET

S-502

WESTLAKE EXPANSION

WGI.

8144 Walnut Hill Lane, Suite 903, Dallas, TX 75231
 Phone: 214.307.4757
 TX Registered Engineering Firm F-15085

STATE OF TEXAS
 CONRAD M. LOVEJOY
 122302
 LICENSED PROFESSIONAL ENGINEER
 1-30-2002

architecture
planning
interiors
graphics
civil engineering

1919 McKinney Avenue, Suite 100
Dallas, TX 75201
P 469.583.5379

WARE MALCOMB
Leading Design for Commercial Real Estate



PA/PM:	Approver
DRAWN BY.:	Author
JOB NO.:	xxxx.xx.xxx

3/30/2022 11:35:44 PM

WGI.

8144 Walnut Hill Lane, Suite 903, Dallas, TX 75231
Phone: 214.307.4767
TX Registered Engineering Firm F-15885

STATE OF TEXAS
CONRAD M. LOVEJOY
122302
PROFESSIONAL ENGINEER
3.30.2022

WARE MALCOMB
Leading Design for Commercial Real Estate

architecture
planning
interiors
graphics
civil engineering

MECHANICAL AND PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	THIN LINE WEIGHTS REPRESENT EXISTING WORK
	BOLD LINE WEIGHTS REPRESENT NEW WORK
	DASHED LINE REPRESENTS DEMO WORK
	CONDUIT
	UNDERGROUND/UNDERFLOOR CONDUIT
	FLEXIBLE CONDUIT
	PLUG MOLD
	WIRING, HOMERUN
	WIRING, NEUTRAL
	WIRING, HOT
	WIRING, SWITCHLEG
	WIRING, GROUND
	WIRING, ISOLATED GROUND
	CONTINUATION
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	ABOVE COUNTER DUPLEX RECEPTACLE MOUNT @ 44" AFF UNO
	IG RECEPTACLE
	QUADRAPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED QUADRAPLEX RECEPTACLE
	CEILING MOUNTED QUADRAPLEX RECEPTACLE
	ABOVE COUNTER QUADRAPLEX RECEPTACLE MOUNT @ 44" AFF UNO
	IG QUADRAPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	FLUSH FLOOR MOUNTED SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	CEILING MOUNTED SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	ABOVE COUNTER DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT MOUNT @ 44" AFF UNO
	QUADRAPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	ABOVE COUNTER QUAD RECEPTACLE ON EMERGENCY CIRCUIT MOUNT @ 44" AFF UNO
	NURSE CALL, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	DUTY STATION, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	ZONE DOME
	TOILET HELP CALL, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	CORRIDOR DOME LIGHT, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	CODE CALL PANEL, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	DATA COMMUNICATIONS OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING, CONDUIT SIZE IS BASED ON MAX OF (4) CAT6 CABLES, COORDINATE WITH OWNER PRIOR TO INSTALLATION.
	FLUSH FLOOR DATA COMMUNICATIONS OUTLET
	TELEPHONE OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	FLUSH FLOOR TELEPHONE OUTLET
	TELEPHONE / DATA OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING, CONDUIT SIZE IS BASED ON MAX OF (6) CAT6 CABLES, COORDINATE WITH OWNER PRIOR TO INSTALLATION.
	FLUSH FLOOR TELEPHONE / DATA OUTLET
	FLUSH FLOOR BOX FOR RECEPTACLES, COMMUNICATIONS AND/OR AV DEVICES, PROVIDE BOX SUITABLE FOR APPLICATION, MODEL <u>WIREMOLD</u> <u>EVOLUTION EFBASS</u> OR EQUAL.
	VERTICAL DROP POLE WITH 2 CHANNELS FOR POWER AND COMMUNICATIONS, MODEL SHALL BE <u>WIREMOLD #2SD1C</u> UNO ON PLANS, VERIFY LENGTH AND FINISH PRIOR TO INSTALLATION.
	USB OUTLET EXTENSION, PROVIDE WITH (2) PORTS AND EXTEND 3/4" CONDUIT BETWEEN LOCATIONS, COORDINATE EXACT REQUIREMENTS WITH OWNER.
	RECESSED COMBINATION AV (TELEVISION) OUTLET AND DUPLEX RECEPTACLE MOUNTED AT 84" AFF UNO ON PLANS, UTILIZE RECEPTACLE SHOWN ADJACENT TO DEVICE ON FLOOR PLAN, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING FOR LOW-VOLTAGE, MODEL SHALL BE <u>PASS 3</u> <u>SEMI-ROUNDED</u> <u>ST7000</u> .
	CEILING MOUNTED AV (TELEVISION) OUTLET
	JUNCTION BOX
	WALL MOUNTED JUNCTION BOX
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	COMBINATION MOTOR STARTER
	VFD (VARIABLE FREQUENCY DRIVE)
	TVSS (TRANSIENT VOLTAGE SURGE SUPPRESSOR)
	MOTOR RATED SWITCH
	MOTOR
	MOTION DETECTOR, <u>ACUTY #WSXA</u>
	CEILING MOUNTED MOTION DETECTOR, <u>ACUTY #BCM PDT</u>
	OCCUPANCY SENSOR, <u>ACUTY #WSXA PDT</u>
	CEILING MOUNTED OCCUPANCY SENSOR, <u>ACUTY #BCM PDT</u>
	OCCUPANCY SENSOR DIMMER, <u>ACUTY #WSXA PDT D</u>
	VACANCY SENSOR, <u>ACUTY #WSXA PDT SA</u>
	CEILING MOUNTED VACANCY SENSOR, <u>ACUTY #BCM PDT</u>
	CURRENT LIMITER FOR TRACK LIGHTING WITH AMP RATING, <u>ACUTY #SILVER BULLET SERIES</u>

NOTES:
1. ALL SYMBOLS MAY NOT APPEAR ON DRAWINGS.
2. PROVIDE TAMPER-RESISTANT RECEPTACLES IN ACCORDANCE WITH NEC 406.12.
3. ALL WALL MOUNTED DEVICES (POWER, DATA, TELEPHONE, ETC.) SHALL BE MOUNTED NO LESS THAN 15" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. DATA OUTLETS SHALL BE MOUNTED AT SAME HEIGHT AS ADJACENT RECEPTACLE.
4. ALL LIGHT CONTROLS (SWITCHES, DIMMERS AND/OR SENSORS) SHALL BE MOUNTED NO MORE THAN 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. LIGHT CONTROLS SHOWN SIDE BY SIDE ON FLOOR PLANS SHALL BE GANGED TOGETHER WITHIN THE SAME COVER PLATE.
5. COORDINATE FINISH OF ELECTRICAL DEVICES WITH ARCHITECT UNLESS NOTED OTHERWISE.
(2021.01)

ELECTRICAL AND LIGHTING SYMBOLS

SYMBOL	DESCRIPTION
	THIN LINE WEIGHTS REPRESENT EXISTING WORK
	BOLD LINE WEIGHTS REPRESENT NEW WORK
	DASHED LINE REPRESENTS DEMO WORK
	CONDUIT
	UNDERGROUND/UNDERFLOOR CONDUIT
	FLEXIBLE CONDUIT
	PLUG MOLD
	WIRING, HOMERUN
	WIRING, NEUTRAL
	WIRING, HOT
	WIRING, SWITCHLEG
	WIRING, GROUND
	WIRING, ISOLATED GROUND
	CONTINUATION
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	ABOVE COUNTER DUPLEX RECEPTACLE MOUNT @ 44" AFF UNO
	IG RECEPTACLE
	QUADRAPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED QUADRAPLEX RECEPTACLE
	CEILING MOUNTED QUADRAPLEX RECEPTACLE
	ABOVE COUNTER QUADRAPLEX RECEPTACLE MOUNT @ 44" AFF UNO
	IG QUADRAPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	FLUSH FLOOR MOUNTED SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	CEILING MOUNTED SPECIAL PURPOSE RECEPTACLE (VERIFY EXACT NEMA CONFIGURATION IN FIELD)
	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	ABOVE COUNTER DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT MOUNT @ 44" AFF UNO
	QUADRAPLEX RECEPTACLE ON EMERGENCY CIRCUIT
	ABOVE COUNTER QUAD RECEPTACLE ON EMERGENCY CIRCUIT MOUNT @ 44" AFF UNO
	NURSE CALL, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	DUTY STATION, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	ZONE DOME
	TOILET HELP CALL, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	CORRIDOR DOME LIGHT, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	CODE CALL PANEL, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	DATA COMMUNICATIONS OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING, CONDUIT SIZE IS BASED ON MAX OF (4) CAT6 CABLES, COORDINATE WITH OWNER PRIOR TO INSTALLATION.
	FLUSH FLOOR DATA COMMUNICATIONS OUTLET
	TELEPHONE OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING
	FLUSH FLOOR TELEPHONE OUTLET
	TELEPHONE / DATA OUTLET WITH 1" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING, CONDUIT SIZE IS BASED ON MAX OF (6) CAT6 CABLES, COORDINATE WITH OWNER PRIOR TO INSTALLATION.
	FLUSH FLOOR TELEPHONE / DATA OUTLET
	FLUSH FLOOR BOX FOR RECEPTACLES, COMMUNICATIONS AND/OR AV DEVICES, PROVIDE BOX SUITABLE FOR APPLICATION, MODEL <u>WIREMOLD</u> <u>EVOLUTION EFBASS</u> OR EQUAL.
	VERTICAL DROP POLE WITH 2 CHANNELS FOR POWER AND COMMUNICATIONS, MODEL SHALL BE <u>WIREMOLD #2SD1C</u> UNO ON PLANS, VERIFY LENGTH AND FINISH PRIOR TO INSTALLATION.
	USB OUTLET EXTENSION, PROVIDE WITH (2) PORTS AND EXTEND 3/4" CONDUIT BETWEEN LOCATIONS, COORDINATE EXACT REQUIREMENTS WITH OWNER.
	RECESSED COMBINATION AV (TELEVISION) OUTLET AND DUPLEX RECEPTACLE MOUNTED AT 84" AFF UNO ON PLANS, UTILIZE RECEPTACLE SHOWN ADJACENT TO DEVICE ON FLOOR PLAN, PROVIDE 3/4" EC AND PULL STRING TO 6" ABOVE ACCESSIBLE CEILING FOR LOW-VOLTAGE, MODEL SHALL BE <u>PASS 3</u> <u>SEMI-ROUNDED</u> <u>ST7000</u> .
	CEILING MOUNTED AV (TELEVISION) OUTLET
	JUNCTION BOX
	WALL MOUNTED JUNCTION BOX
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	COMBINATION MOTOR STARTER
	VFD (VARIABLE FREQUENCY DRIVE)
	TVSS (TRANSIENT VOLTAGE SURGE SUPPRESSOR)
	MOTOR RATED SWITCH
	MOTOR
	MOTION DETECTOR, <u>ACUTY #WSXA</u>
	CEILING MOUNTED MOTION DETECTOR, <u>ACUTY #BCM PDT</u>
	OCCUPANCY SENSOR, <u>ACUTY #WSXA PDT</u>
	CEILING MOUNTED OCCUPANCY SENSOR, <u>ACUTY #BCM PDT</u>
	OCCUPANCY SENSOR DIMMER, <u>ACUTY #WSXA PDT D</u>
	VACANCY SENSOR, <u>ACUTY #WSXA PDT SA</u>
	CEILING MOUNTED VACANCY SENSOR, <u>ACUTY #BCM PDT</u>
	CURRENT LIMITER FOR TRACK LIGHTING WITH AMP RATING, <u>ACUTY #SILVER BULLET SERIES</u>

ELECTRICAL AND LIGHTING SYMBOLS

SYMBOL	DESCRIPTION
	SWITCH
	DOUBLE POLE SWITCH
	THREE-WAY SWITCH
	FOUR-WAY SWITCH
	DIMMER SWITCH, MODEL SHALL BE <u>CRESTRON CLW SERIES</u> , REFER TO DRAWINGS FOR LOAD AND LIGHT TYPE
	LOW-VOLTAGE CONTROLS
	PILOT LIGHT SWITCH
	TIMECLOCK SWITCH, MODEL SHALL BE <u>INTERMATIC ST7000</u> OR EQUAL.
	SPEAKER
	WALL MOUNTED VOLUME CONTROL (P.A.)
	CARD READER
	DOOR CONTACT
	KEY PAD
	MAG-LOCK
	GENERATOR
	SHUNT TRIP
	CLOCK
	METER
	KIRK-KEY INTERLOCK
	120V/208Y OR 120/240V ELECTRICAL PANEL
	277V/480Y ELECTRICAL PANEL
	TRANSFORMER
	GROUND BUS, PROVIDE 1/4" X 4" X 1/2" COPPER GROUND BUS ON ISOLATORS UNO ON PLANS
	VIA LIGHTING CONTACTOR
	SWITCH DESIGNATION
	LIGHT FIXTURE TYPE
	HATCH REPRESENTS EMERGENCY FIXTURE
	2' X 4' LIGHT FIXTURE, REFERENCE LIGHT FIXTURE SCHEDULE.
	2' X 2' LIGHT FIXTURE, REFERENCE LIGHT FIXTURE SCHEDULE.
	UTILITY STRIP, REFERENCE LIGHT FIXTURE SCHEDULE.
	DOWNLIGHT, REFERENCE LIGHT FIXTURE SCHEDULE.
	SCONCE, REFERENCE LIGHT FIXTURE SCHEDULE.
	WALL WASHER, REFERENCE LIGHT FIXTURE SCHEDULE.
	PENDANT, REFERENCE LIGHT FIXTURE SCHEDULE.
	UNDER CABINET LIGHT FIXTURE, REFERENCE LIGHT FIXTURE SCHEDULE.
	WALL PACK, REFERENCE LIGHT FIXTURE SCHEDULE.
	POLE MTD. SITE LIGHT FIXTURE, REFERENCE LIGHT FIXTURE SCHEDULE.
	EXIT SIGN CHEVRON
	SINGLE FACE EXIT SIGN SHADED AREA INDICATES ILLUMINATED FACE, MODEL SHALL BE <u>DUAL-LITE #ESDRWEI</u> UNO ON PLANS, CONFIRM FINISH
	DOUBLE FACE EXIT SIGN SHADED AREA INDICATES ILLUMINATED FACE, MODEL SHALL BE <u>DUAL-LITE #ESDRWEI</u> UNO ON PLANS, CONFIRM FINISH
	SINGLE FACE WALL MOUNTED EXIT SIGN, MODEL SHALL BE <u>DUAL-LITE #ESDRWEI</u> UNO ON PLANS, CONFIRM FINISH
	DOUBLE FACE WALL MOUNTED EXIT SIGN, MODEL SHALL BE <u>DUAL-LITE #ESDRWEI</u> UNO ON PLANS, CONFIRM FINISH
	COMBO EXIT SIGN AND EMERGENCY EGRESS LIGHTING FIXTURE, MODEL SHALL BE <u>DUAL-LITE #LJ21503L</u> UNO ON PLANS, CONFIRM FINISH
	EMERGENCY LIGHTING FIXTURE, MODEL SHALL BE <u>DUAL-LITE #LJ21503L</u> UNO ON PLANS, CONFIRM FINISH
	EXTERIOR EMERGENCY LIGHTING FIXTURE, MODEL SHALL BE <u>DUAL-LITE #ESDRWEI</u> UNO ON PLANS, CONFIRM FINISH

FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION
	THIN LINE WEIGHTS REPRESENT EXISTING WORK
	BOLD LINE WEIGHTS REPRESENT NEW WORK
	DASHED LINE REPRESENTS DEMO WORK
	FM 200 ABORT SWITCH
	MANUAL FM 200 RELEASE PULL STATION
	DOOR HOLDER
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM CONTROL PANEL
	FIRE ALARM SYSTEM FLOW SWITCH
	FIRE ALARM TAMPER SWITCH
	GENERATOR REMOTE ANNUNCIATOR PANEL
	ADA APPROVED FIRE ALARM HORN, MOUNT @ 80" AFF.
	ADA APPROVED FIRE ALARM HORN, CEILING MOUNTED.
	ADA APPROVED AUDIOVISUAL FIRE ALARM SIGNALING DEVICE, MOUNT @ 80" AFF.
	ADA APPROVED AUDIOVISUAL FIRE ALARM SIGNALING DEVICE, CEILING MOUNTED.
	ADA APPROVED STROBE ONLY FIRE ALARM DEVICE, MOUNT @ 80" AFF.
	ADA APPROVED STROBE ONLY FIRE ALARM DEVICE, CEILING MOUNTED.
	ADA APPROVED FIRE ALARM PULLSTATION DEVICE
	SMOKE DETECTOR
	UNDERFLOOR SMOKE DETECTOR
	DUCT MOUNTED SMOKE DETECTOR
	REMOTE PILOT LIGHT
	HEAT DETECTOR
	UNDERFLOOR HEAT DETECTOR
	FLAME DETECTOR
	FIRE ALARM SPEAKER

ABBREVIATIONS

TEXT	DESCRIPTION
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
B	EXISTING JUNCTION BOX WITH BLANK PLATE
BOD	BACKDRAFT DAMPER
BDD	BOTTOM OF DUCT
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
C	CONDUIT
CB	CIRCUIT BREAKER
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CO	CLEANOUT
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
CW	COPPER
CU	DOMESTIC COLD WATER
(D)	EXISTING TO BE DEMOLISHED
DCO	DOUBLE CLEANOUT
(E)	EXISTING TO REMAIN
EIA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	EMPTY CONDUIT
EMT	ELECTRICAL METALLIC TUBING
ESP	EXTERNAL STATIC PRESSURE
EW	ELECTRIC WATER COOLER
EWI	ELECTRIC WATER HEATER
ENT	ENTERING WATER TEMPERATURE
'F	DEGREES FAHRENHEIT
F	FIRE LINE
FCO	FLOOR CLEANOUT
FDS	FUSED DISCONNECT SWITCH
FLD	FLOOR DRAIN
FD	FIRE DAMPER
FS	FLOOR SINK
FSD	COMBINATION FIRE SMOKE DAMPER
G	GAS
GFI	GROUND FAULT INTERRUPTER
GRD	GROUND
GPM	GALLONS PER MINUTE
HG	REFRIGERANT HOT GAS
HP	HORSEPOWER
HR	HEATING HOT WATER RETURN
HS	HEATING HOT WATER SUPPLY
HW	HOT WATER SUPPLY
HWI	HOT WATER RETURN
IC	IN COUNTER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
KE	KITCHEN EXHAUST
KW	KILOWATT
L	LAVATORY
M/A	MAKE-UP AIR
MB	MOP BASIN
MTD	MOUNTED
(N)	NEW
NIC	NOT IN CONTRACT
N3R	NEMA 3R
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OCd	OVERFLOW CONDENSATE DRAIN
OCPD	OVERCURRENT PROTECTIVE DEVICE
OD	OVERFLOW ROOF DRAIN
OCFI	OWNER FURNISHED, CONTRACTOR INSTALLED
PBD	PARALLEL BLADE DAMPER
PSI	POUNDS PER SQUARE INCH
(R)	EXISTING TO BE RELOCATED
RA	RETURN AIR
RD	ROOF DRAIN
RL	REFRIGERANT LIQUID
RMC	RIGID METALLIC CONDUIT
RS	REVERSE OSMOSIS
RO	REFRIGERANT SUCTION
S	SINK
S/A	SUPPLY AIR
SN	SANITARY SEWER
SD	STORM DRAIN
SIM	SIMILAR
SPD	SURGE PROTECTION DEVICE

ABBREVIATIONS

TEXT	DESCRIPTION
TP	TRAP PRIMER
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TWH	TANKLESS WATER HEATER
TW	TEMPERED WATER
U	URINAL
UF	UNDERFLOOR
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
USB	UNIVERSAL SERIAL BUS, PROVIDE NEMA 5-20R DUPLEX RECEPTACLE WITH (2) USB TYPE 'A' PORTS RATED FOR 5.0 AMPS, PROVIDE HUBBELL USB0504W OR EQUAL.
USBC	UNIVERSAL SERIAL BUS, PROVIDE NEMA 5-20R DUPLEX RECEPTACLE WITH (1) USB TYPE 'A' PORT & (1) USB TYPE 'C' PORT RATED FOR 5.0 AMPS, PROVIDE HUBBELL USB0502CW OR EQUAL.
V	VENT
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VTR	VENT THROUGH ROOF
W	WALL MOUNTED
WC	WATER CLOSET
WCO	WALL CLEANOUT
WP	WEATHER PROOF

MECHANICAL SYSTEMS COMMISSIONING

THESE SYSTEMS ARE EXEMPT FROM COMMISSIONING REQUIREMENTS.

- A. IN BUILDINGS WHERE TOTAL MECHANICAL EQUIPMENT CAPACITY IS < 480,000 BTU/H (40 TONS) COOLING CAPACITY AND < 600,000 BTU/H COMBINED SERVICE WATER HEATING AND SPACE-HEATING CAPACITY
- B. AIR AND WATER FLOW RATES MEASURED AND ADJUSTED TO DELIVER FINAL FLOW RATES WITHIN TOLERANCES IN PRODUCT SPECIFICATIONS
- C. TEST AND BALANCE ACTIVITIES TO INCLUDE AIR SYSTEM AND HYDRONIC SYSTEM BALANCING

C408.2.2 - SYSTEMS ADJUSTING AND BALANCING

- A. HVAC SYSTEMS BALANCED PER GENERALLY ACCEPTED ENGINEERING STANDARDS
- B. AIR AND WATER FLOW RATES MEASURED AND ADJUSTED TO DELIVER FINAL FLOW RATES WITHIN TOLERANCES IN PRODUCT SPECIFICATIONS
- C. TEST AND BALANCE ACTIVITIES TO INCLUDE AIR SYSTEM AND HYDRONIC SYSTEM BALANCING

C408.2.2.1 - AIR SYSTEMS BALANCING

- A. EACH SUPPLY AIR OUTLET AND ZONE TERMINAL DEVICE EQUIPPED WITH MEANS FOR AIR BALANCING PER CHAPTER 6 OF THE IMC
- B. NO DISCHARGE DAMPERS USED FOR AIR-SYSTEM BALANCING ON CONSTANT VOLUME FANS AND VARIABLE VOLUME FANS WITH MOTORS > 10 HP
- C. AIR SYSTEMS BALANCED IN A MANNER TO FIRST MINIMIZE THROTTLING LOSSES, THEN, FOR FANS WITH SYSTEM POWER > 1HP, FAN SPEED ADJUSTED TO MEET DESIGN FLOW CONDITIONS
- D. EXCEPTION - FANS WITH MOTORS < 1HP ARE NOT REQUIRED TO HAVE A MEANS FOR AIR BALANCING

C408.2.2.2 - HYDRONIC SYSTEMS BALANCING

- A. INDIVIDUAL HYDRONIC HEATING AND COOLING COILS EQUIPPED WITH MEANS FOR BALANCING AND MEASURING FLOW
- B. HYDRONIC SYSTEMS PROPORTIONATELY BALANCED IN A MANNER TO FIRST MINIMIZE THROTTLING LOSSES, THEN PUMP IMPELLER TO BE TRIMMED OR PUMP SPEED TO BE ADJUSTED TO MEET DESIGN FLOW CONDITIONS
- C. EACH HYDRONIC SYSTEM TO HAVE EITHER CAPABILITY TO MEASURE PRESSURE ACROSS THE PUMP, OR TEST PORTS AT EACH SIDE OF EACH PUMP
- D. EXCEPTIONS WITH A MEANS FOR BALANCING OR MEASURING FLOW:
- PUMPS WITH PUMP MOTORS < 5HP
 - WHERE THROTTLING RESULTS IN < 5% OF NAMEPLATE HP DRAW ABOVE THAT REQUIRED IF THE IMPELLER WERE TRIMMED

C408.2.3.1 - FUNCTIONAL PERFORMANCE TESTING - EQUIPMENT

- A. TO DEMONSTRATE THE INSTALLATION AND OPERATION OF COMPONENTS, SYSTEMS, AND SYSTEM-TO-SYSTEM INTERFACING RELATIONSHIPS IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS, SUCH THAT OPERATION, FUNCTION, AND MAINTENANCE SERVICEABILITY FOR EACH OF THE COMMISSIONED SYSTEMS IS CONFIRMED
- B. TESTING TO INCLUDE ALL MODES AND SEQUENCE OF OPERATION, INCLUDING UNDER FULL-LOAD, PART-LOAD AND THE FOLLOWING EMERGENCY CONDITIONS:
- ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION
 - REDUNDANT OR AUTOMATIC BACK-UP MODE
 - PERFORMANCE OF ALARMS, AND
 - MODE OF OPERATION UPON A LOST OFF POWER AND RESTORATION OF POWER
- C. EXCEPTION - UNITARY OR PACKAGED HVAC EQUIPMENT LISTED IN TABLES C403.2.3(1) THROUGH C403.2.3(3) THAT DON'T REQUIRE SUPPLY AIR ECONOMIZERS

C408.2.3.2 - FUNCTIONAL PERFORMANCE TESTING - CONTROLS

- A. HVAC AND SMV CONTROL SYSTEMS TO BE TESTED TO DOCUMENT THAT CONTROL DEVICES, COMPONENTS, EQUIPMENT, AND SYSTEMS ARE CALIBRATED, ADJUSTED AND OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS
- B. SEQUENCES OF OPERATION TO BE FUNCTIONALLY TESTED TO DOCUMENT THEY OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS

C408.2.3.3 - FUNCTIONAL PERFORMANCE TESTING -ECONOMIZERS

- A. AIR ECONOMIZERS TO UNDERGO A FUNCTIONAL TEST TO DETERMINE THEY OPERATE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

FUNCTIONAL TESTING OF LIGHTING CONTROLS

C408.3.1.1 - OCCUPANT SENSOR CONTROLS

- A. CERTIFY LOCATION AND AIMING PER MANUFACTURER RECOMMENDATION
- B. TEST ALL SENSORS IF PROJECT < 7
- C. IF > 7 SENSORS, TEST FOR EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY
- D. WHERE MULTIPLES OF EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY ARE PROVIDED > 10%, BUT IN NO CASE < 1 OF EACH COMBINATION SHALL BE TESTED UNLESS THE CODE OFFICIAL OR DESIGN PROFESSIONAL REQUIRES A HIGHER PERCENTAGE TO BE TESTED
- E. WHERE >30% OF TESTED CONTROLS FAIL ALL REMAIN



1. COORDINATE FINAL PLACEMENT OF DIFFUSERS WITH ARCHITECTURAL RCP AND LIGHTING LAYOUT.
2. DUCTWORK IS DIAGONAL/IRREGULAR IN NATURE. BRANCH DUCTS THAT CROSS UNDER/OVER MAIN DUCT RUNS ARE SHOWN WITH BROKEN LINES. BRANCH DUCTS THAT ARE TO BE FITTED WITH TRANSITS TO ROUTE AROUND THE DUCTS ARE SHOWN WITH DOTTED LINES.
3. MAINTAIN A MINIMUM 10" OF CLEARANCE BETWEEN OUTSIDE AIR INTAKES AND BUILDING EXHAUST PER INTERNATIONAL MECHANICAL CODE.
4. ALL EXISTING MECHANICAL SYSTEMS SHALL BE TESTED PRIOR TO CONSTRUCTION TO VERIFY EXISTING CAPACITIES. CLEAN ALL COILS, CHANGE OIL ON ALL FILTERS, REPLACE ALL BELTS, AND TAKE THE FOLLOWING MEASUREMENTS TO DETERMINE THAT ALL EQUIPMENT CAPACITY IS IN PROPER WORKING CONDITION.
5. EXISTING DUCTWORK IS APPROXIMATE (BASED OFF EXISTING SITE PHOTOS). EXACT ROUTING WILL NOT BE VERIFIED FOR ANY MAJOR DISCREPANCIES. ALL EXISTING DUCTWORK THAT REMAINS SHALL BE CLEANED AND INSPECTED FOR LEAKS. REPAIR ANY LEAKS THAT MAY BE PRESENT AT THE TIME OF EXAMINATION.

① RS & RL LINES SIZED PER MANUFACTURER'S RECOMMENDATION. ROUTE TO RESPECTIVE INDOOR/OUTDOOR UNIT.



PA/PM:	PROJECT LEAD
DRAWN BY.:	DRAFTER
JOB NO.:	DAL21-0008-00

M2.01



HAT CREEK BURGER
WEST LAKE
5902 BEE CAVES ROAD
WEST LAKE HILLS, TEXAS 78746

[illegible]

PA/PM:	PROJECT LEAD
DRAWN BY.:	DRAFTER
JOB NO.:	DAL21-0008-00

SHEET

E2.01

KITCHEN EQUIPMENT SCHEDULE									
ITEM #	DESCRIPTION	QTY.	CIRCUIT NO.	LOAD (VA)	VOLTAGE/PH.	WIRE	CONDUIT	TERMINATION	HEIGHT
C01	CONVENIENCE OUTLET	6	①	1600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF
C02	CONVENIENCE OUTLET	1	①	1600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF
E2	POS SYSTEM	2	①	600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF
E3	WALK-IN REFRIGERATOR	1	①	600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF
E4	DOOR HEATER AND LIGHT CIRCUIT	1	②	1600	120V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	DFA
E4B	CO2 ALARM	1	②	1800	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	DFA
E4.1	EVAPORATOR COIL	1	②	1206	208V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	DFA
E4.2	REMOTE CONDENSING UNIT	1	①	1872	208V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	VERIFY
E7	ICE CREAM MACHINE	1	①	2184	208V/1Ø	(2)#12 & #12G.	3/4"	NEMA 6-20R	18" AFF
E13	REFRIGERATOR	1	①	600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF
E16	HEAT STRIP THRU CONTROLS	1	①	600	120V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	54" AFF
E17	HEAT STRIP THRU CONTROLS	2	①	996	120V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	53" & 68" AFF
E18	CHEESE MELTER	1	①	1656	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	DFA
E19	REFRIGERATOR	1	①	600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF
E21	ICE MACHINE	1	①	2330	208V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	84" AFF
E32	DOOR HEATER AND LIGHT CIRCUIT	1	①	1600	120V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	DFA
E32B	TEMPERATURE MONITORING SYSTEM	1	①	1600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	DFA
E32.1	EVAPORATOR COIL	1	①	240	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	DFA
E32.2	REMOTE CONDENSING UNIT	1	①	2496	208V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	VERIFY
E36	SODA DISPENSER	1	①	1600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	48" AFF
E37	ICE MACHINE	2	①	2600	208V/1Ø	(2)#12 & #12G.	3/4"	J-BOX	84" AFF
E38	TEA BREWER	2	①	1600	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	48" AFF
E40	REFRIGERATED COLD PAN	1	①	864	120V/1Ø	(2)#12 & #12G.	3/4"	NEMA 5-20R	18" AFF

NOTE: ELECTRICAL CONTRACTOR SHALL COORDINATE LAYOUT AND ELECTRICAL REQUIREMENTS WITH FOOD SERVICE PLANS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.

KEYED NOTES BY SYMBOL:

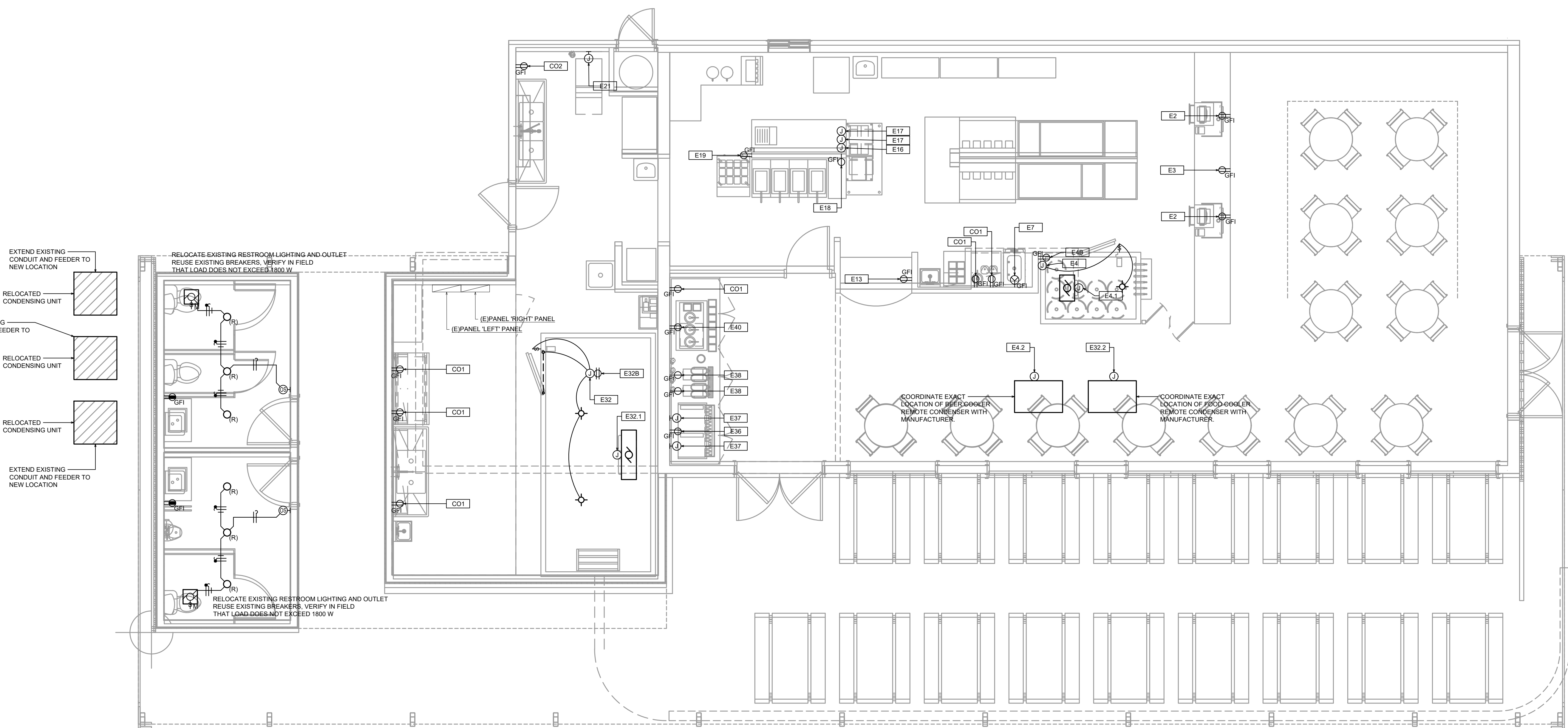
- | | |
|---|---|
| ① | REUSE EXISTING KITCHEN EQUIPMENT BREAKERS |
| ② | USE EXISTING SPARE BREAKERS |

GENERAL NOTES:

1. CONTRACTOR TO VERIFY EXISTING FIELD CONDITIONS AND REPORT BACK DISCREPANCY

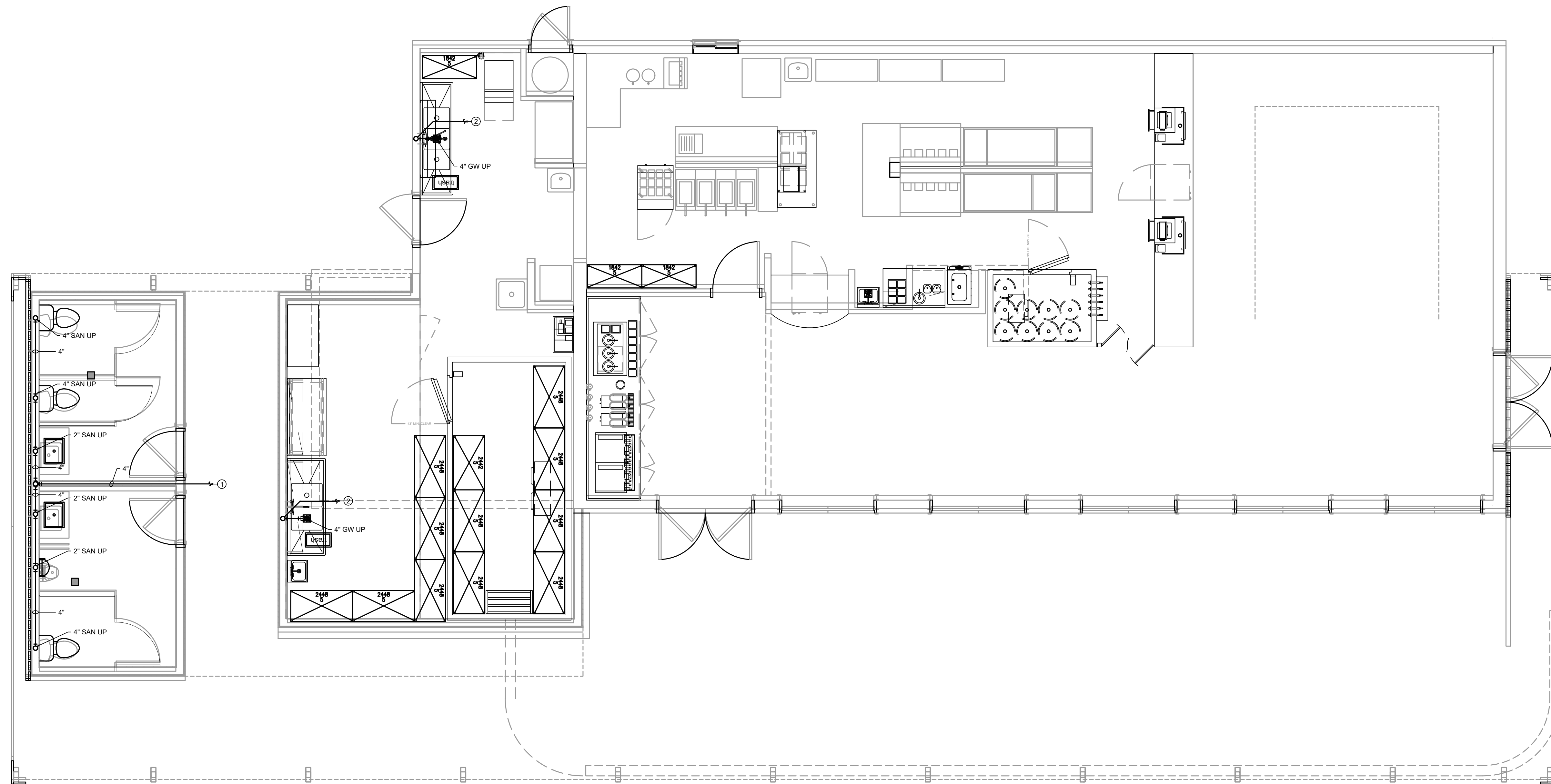
ELECTRICAL KITCHEN NOTES:

1. REFER TO KITCHEN PLANS FOR DIMENSIONS. ELEVATIONS GIVEN ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. ALL CONVENIENCE OUTLETS ARE TO BE SET HORIZONTALLY.
2. ELECTRICAL TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AND DO ANY INTERNAL WIRING REQUIRED IN THE FIXTURES AS REQUIRED BY THE SPECIFICATIONS. ALL ELECTRICAL OUTLET COVER DEVICES SHALL BE PROVIDED BY THE CONTRACTOR AND BE FURNISHED BY THE ELECTRICIAN AS WELL AS THE RECEPTACLE, UNLESS OTHERWISE NOTED. ALL NEW TEMPERATURE SENSING DEVICES SHALL BE PROVIDED BY THE CONTRACTOR. GALVANIZED JUNCTION BOX AS THE FIXTURE CUTOFF TO RECEIVE THE RECEPTACLE, UNLESS OTHERWISE NOTED. ALL DISCONNECT SWITCHES REQUIRED ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
3. ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE CODES RELATING TO HOOK-UP, INSTALLATION AND WIRING OF EQUIPMENT.
4. ALL ELECTRICAL WORK FOR FABRICATED FOODSERVICE EQUIPMENT SHALL BE COMPLETED BY THE CONTRACTOR. ALL ELECTRICAL WORK FOR PANEL OR PULL-BOX MOUNTED ON THE EQUIPMENT IN AN ACCESSIBLE POSITION. FINAL CONNECTIONS TO THE EQUIPMENT SHALL BE MADE BY THE CONTRACTOR. ALL ELECTRICAL WORK FROM PANEL DEVICES, TO BE BY THE ELECTRICAL CONTRACTOR.
5. FINAL CONNECTIONS TO ALL EQUIPMENT TO BE BY ELECTRICAL CONTRACTOR, INCLUDING MATERIALS.
6. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING:
 - A. ALL JUNCTION-BOXES, ELECTRICAL OUTLETS, COVER PLATES, SWITCHES, ETC., NOT BUILT INTO FIXTURES OR EQUIPMENT. ALL OUTLETS, JUNCTION-BOXES, COVER PLATES, ETC., IN DISHROOMS, OR AS INDICATED ON SCHEDULES, MUST BE VAPOR-PROOF.
 - B. ALL PLUGS AND CORDS NOTED ON SCHEDULE. ALL CORDS SHALL BE N.E.M.A.-RATED AND BE PROTECTED FOR THE ENTIRE LENGTH OF THE CORD. SEE NEC ARTICLE 300.
 - C. WHERE PORTIONS OF A RACEWAY ARE KNOWN TO BE SUBJECTED TO DIFFERENT TEMPERATURES, WHERE CONDENSATION IS KNOWN TO BE A PROBLEM AS IN COLD STORAGE AREAS, THE RACEWAY SHALL BE PROTECTED BY AN INSULATED COVER.



01 FLOOR PLAN - ELECTRICAL





01 UNDERFLOOR PLAN - PLUMBING

1. ALL EXISTING PLUMBING LINES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND SIZES OF ALL EXISTING PLUMBING PRIOR TO BID.
2. CONTRACTOR SHALL PROVIDE ISOLATION SHUT-OFF VALVES ON THE INCOMING WATER LINES FOR EVERY PLUMBING FIXTURE.

①	ROUTE NEW SANITARY SEWER TO NEAREST EXISTING SANITARY MAIN. FIELD VERIFY EXISTING SANITARY SEWER MAIN SIZE, LOCATION, DEPTH, AND DIRECTION OF FLOW PRIOR TO CONSTRUCTION.
②	ROUTE NEW GREASE WASTE TO NEAREST EXISTING GREASE WASTE PIPING. FIELD VERIFY EXISTING SANITARY SEWER MAIN SIZE, LOCATION, DEPTH, AND DIRECTION OF FLOW PRIOR TO CONSTRUCTION.

architecture
planning
interiors
graphics
civil engineer

1919 McKinn
Dallas, TX 75
P 469.583.537

1919 McKinney Avenue, Suite 100
Dallas, TX 75201
P 469.583.5379



HAT CREEK BURGER
WEST LAKE
5902 BEE CAVES ROAD
WEST LAKE HILLS, TEXAS 78746

UNDERFLOOR PLAN - PLUMBING

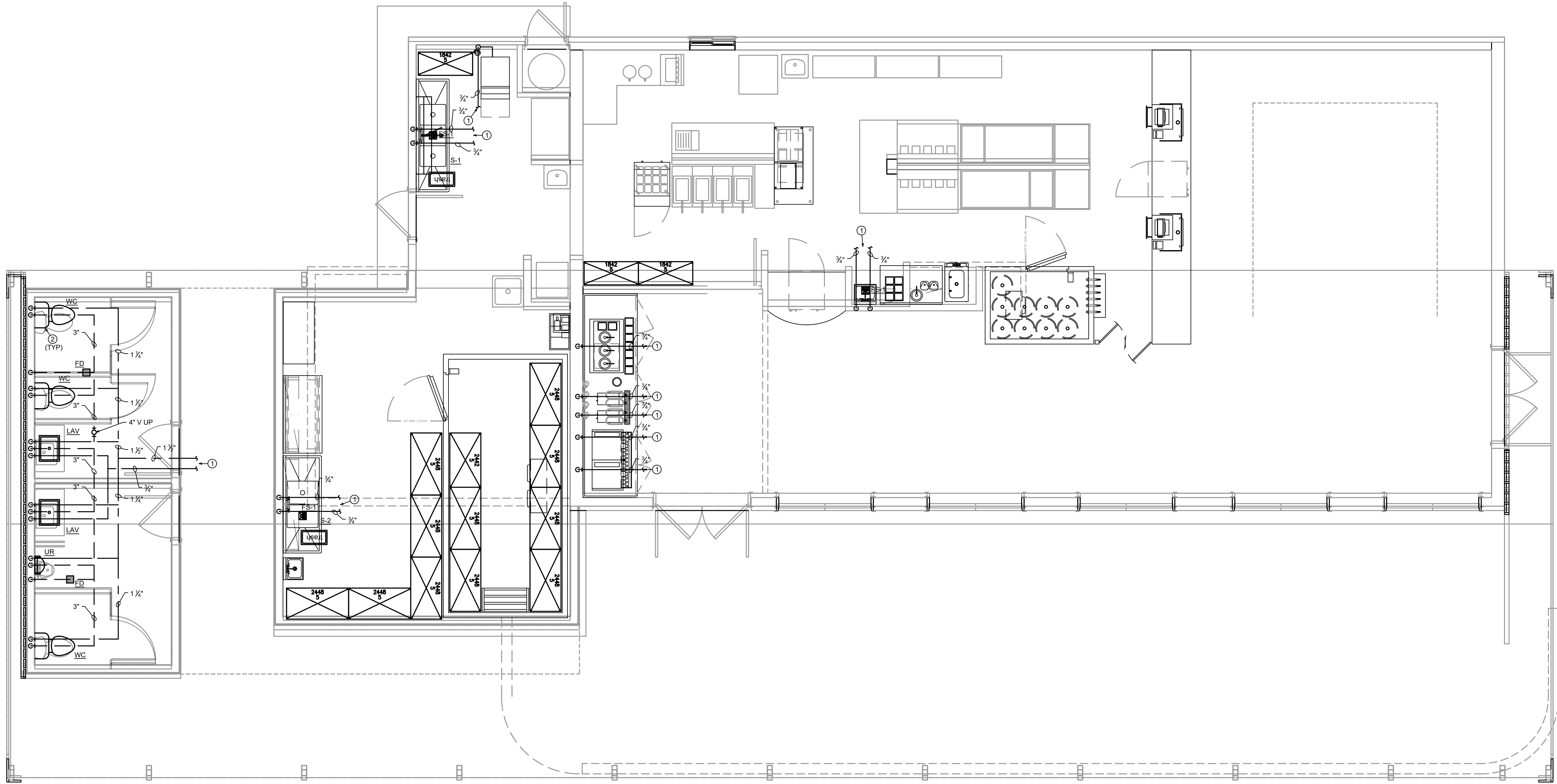
[illegible]

PA/PM:	PROJECT LEAD
DRAWN BY.:	DRAFTER
JOB NO.:	DAL21-0008-00

SHEET

P2.00





GENERAL NOTES:

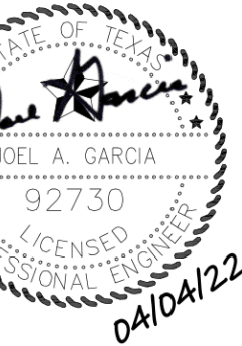
1. ALL EXISTING PLUMBING LINES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND SIZES OF ALL EXISTING PLUMBING PRIOR TO BID.
2. CONTRACTOR SHALL PROVIDE ISOLATION SHUT-OFF VALVES ON THE INCOMING WATER LINES FOR EVERY PLUMBING FIXTURE.

KEYED NOTES BY SYMBOL:

- ① ROUTE NEW CW AND HW PIPING TO NEAREST EXISTING CW AND HW MAIN PIPING. FIELD VERIFY EXISTING CW AND HW MAIN PIPING LOCATION AND SIZE PRIOR TO CONSTRUCTION.
- ② EXISTING PLUMBING FIXTURES TO BE RELOCATED TO NEW LOCATION.

architecture
planning
interiors
graphics
civil engineering

1999 McKinney Avenue Suite 100
Dallas, TX 75201
P 469.563.5279



**HAT CREEK BURGER
WEST LAKE**
5902 BEE CAVES ROAD
WEST LAKE HILLS, TEXAS 78746

FLOOR PLAN - PLUMBING

REMARKS

DATE

PA/PM:	PROJECT LEAD
DRAWN BY:	DRAFTER
JOB NO.:	DAL21-0008-00

SHEET

P2.01

1/22/2021 10:16:03 AM

01 FLOOR PLAN - PLUMBING

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



