



AGENDA
PLAN COMMISSION
Board Room, 3rd Floor
Arlington Heights Village Hall, 33 S. Arlington Heights Rd.
Arlington Heights IL 60005
January 22, 2025
7:30 PM

- I. CALL TO ORDER
- II. ROLL CALL OF MEMBERS
- III. APPROVAL OF MINUTES
 - A. ICON Studio - 3375 N. Arlington Heights Rd. - 1/8/25
- IV. PUBLIC HEARINGS
 - A. East Country Lane Townhomes - 3255 & 3310 N. Old Arlington Heights Rd. - PC#24-015
Planned Unit Development, Rezoning from M-1 to R-6, Amendment to Comprehensive Plan, Plat of Subdivision
 - B. Urban Air at Arlington Plaza - 30 W. Rand Rd. - PC#24-017
Special Use Permit for Amusement, Large & Special Use Permit for Restaurant with Variations
- V. OTHER BUSINESS
- VI. PUBLIC COMMENT

Anyone wishing to speak on a subject not on the Agenda may speak at this time. Please limit your comments to three minutes.

VII. ADJOURNMENT

Persons with disabilities requiring auxiliary aids or services, such as an American Sign Language interpreter or written materials in accessible formats, should contact the Health & Human Services Department, at 33 S. Arlington Heights Road, Arlington Heights, IL 60005, healthmail@vah.com or 847/368-5760.

PLAN

REPORT OF THE PROCEEDINGS OF A PUBLIC HEARING
BEFORE THE VILLAGE OF ARLINGTON HEIGHTS
PLAN COMMISSION

COMMISSION

RE: ICON STUDIO - 3375 NORTH ARLINGTON HEIGHTS ROAD, UNITS A, B, G & H -
PC #24-014
LAND USE VARIATION FOR A BEAUTY SALON IN THE M-1 DISTRICT

REPORT OF PROCEEDINGS had before the Village of
Arlington Heights Plan Commission Meeting taken at the Arlington Heights Village
Hall, 33 South Arlington Heights Road, 3rd Floor Board Room, Arlington Heights,
Illinois on the 8th day of January, 2025 at the hour of 7:30 p.m.

MEMBERS PRESENT:

GEORGE DROST, Acting Chairperson
JOE LORENZINI
BRUCE GREEN
TERRY ENNES
JOHN SIGALOS

ALSO PRESENT:

MICHAEL LYSICATOS, Assistant Director of Planning and Community Development
RACHEL HITZEMANN, Development Planner II
DARKO BOJIN, Assistant Planner

ACTING CHAIRPERSON DROST: I'm going to call the Plan Commission meeting to order. So, if you would rise please, and we're going to say the Pledge of Allegiance to the flag.

(Pledge of Allegiance recited.)

ACTING CHAIRPERSON DROST: Thanks.

Call of the roll, please, Ms. Rachel.

MS. HITZEMANN: Yes.

Dawson.

(No response.)

MS. HITZEMANN: Drost.

ACTING CHAIRPERSON DROST: Here.

MS. HITZEMANN: Ennes.

COMMISSIONER ENNES: Here.

MS. HITZEMANN: Green.

COMMISSIONER GREEN: Here.

MS. HITZEMANN: Jensen.

(No response.)

MS. HITZEMANN: Lorenzini.

(No response.)

MS. HITZEMANN: Sigalos.

COMMISSIONER SIGALOS: Here.

MS. HITZEMANN: Cherwin.

(No response.)

ACTING CHAIRPERSON DROST: Yes.

We'll note that there is not a quorum, but --

COMMISSIONER GREEN: But Joe is on the way.

ACTING CHAIRPERSON DROST: -- we have one on the way.

COMMISSIONER GREEN: Commissioner Lorenzini will be here, and there

he is.

ACTING CHAIRPERSON DROST: Okay.

COMMISSIONER GREEN: Hey, Joe, say here. Joe, say here.

COMMISSIONER LORENZINI: Here.

COMMISSIONER GREEN: Easier.

ACTING CHAIRPERSON DROST: Okay, we've got a quorum. Sorry for the lack of continuity here. We're going to get down to business.

First item is the approval of the minutes, and we'll do both of those: The Cherepovich Tattoo at 417 South Arlington Heights Road, and the Annual Review of the Comprehensive Plan.

COMMISSIONER ENNES: I'll make a motion to approve the minutes.

ACTING CHAIRPERSON DROST: Is there a second?

COMMISSIONER SIGALOS: I'll second.

ACTING CHAIRPERSON DROST: Any comment?

COMMISSIONER LORENZINI: I have to abstain.

ACTING CHAIRPERSON DROST: All those in favor, say aye.

(Chorus of ayes.)

COMMISSIONER GREEN: I have to abstain; I was not there.

ACTING CHAIRPERSON DROST: Any opposed, same sign.

(No response.)

ACTING CHAIRPERSON DROST: Hearing none, the motion passes to approve the minutes.

MR. LYSICATOS: So, through the Chair, just a point of --

ACTING CHAIRPERSON DROST: Yes, order?

MR. LYSICATOS: Yes. Do we want to appoint, vote on a chair?

ACTING CHAIRPERSON DROST: Oh, yes.

COMMISSIONER GREEN: I would like to recommend George to take over for tonight.

ACTING CHAIRPERSON DROST: Effective as of 7:30 this evening.

COMMISSIONER GREEN: Right.

ACTING CHAIRPERSON DROST: It's retroactive.

COMMISSIONER ENNES: I'll second that.

COMMISSIONER GREEN: All those in favor say aye.

(Chorus of ayes.)

MR. LYSICATOS: Thank you. And for the record, also on the minutes, Commissioner Lorenzini and Commissioner Green abstained, correct?

COMMISSIONER LORENZINI: Correct.

COMMISSIONER GREEN: Correct, yes.

MR. LYSICATOS: Thank you, appreciate that.

ACTING CHAIRPERSON DROST: You've got it. We're going to get organized.

All right, the first matter before us is the ICON Studio. Is the Petitioner here? Come forward, please.

MR. NOVIK: Good evening.

ACTING CHAIRPERSON DROST: Good. You are here a second time?

MR. NOVIK: Yes.

ACTING CHAIRPERSON DROST: But I'm still going to swear you in. Would you raise your right hand?

(Witness sworn.)

ACTING CHAIRPERSON DROST: Okay, and we have maybe a little summary of what you're expecting. Oh, one other item, have you read this sheet which is the conditions of approval should you approve them?

MR. LYSICATOS: Well, we sent an e-mail of the modified conditions.

MR. NOVIK: Oh, yes, yes. Yes, yes.

ACTING CHAIRPERSON DROST: So, are there any items that you have any concerns about or objections to?

MR. NOVIK: No.

ACTING CHAIRPERSON DROST: Okay, then please continue. Your name and spelling?

MR. NOVIK: Yes. My name is Artemiy, so I'm founder of ICON Studio. We're planning to open our beauty salon; it's going to be like a beauty salon for a person who wants to get like a change in image and get hairstyles. My wife, actually she's a nail technician.

She's going to be working with me, so she's going to be controlling like other parts of my studio. So, we're trying to open there like a good hair salon in Arlington Heights, making good services for people.

Actually, one more thing, I have another type of business. It's like transplantation of the hair, it's like a consultation to, you know, people can come in and get like a consultation for hair transplant. So, this is, yes.

ACTING CHAIRPERSON DROST: Yes, and so you were here before.

MR. NOVIK: Yes.

ACTING CHAIRPERSON DROST: What was the reason that you're here the second time?

MR. NOVIK: Today?

ACTING CHAIRPERSON DROST: Yes.

MR. NOVIK: To get like a zoning change.

ACTING CHAIRPERSON DROST: A zoning change, all right. Okay, and we'll hear that. Anything else to add to the record?

MR. NOVIK: No.

ACTING CHAIRPERSON DROST: So, I'll call upon the Staff to provide us with the Staff report.

MS. HITZEMANN: Just to clarify, I'm not sure that he has been in front of the Plan Commission before.

ACTING CHAIRPERSON DROST: Oh, I see, okay.

MS. HITZEMANN: It was the Conceptual.

ACTING CHAIRPERSON DROST: Oh, Conceptual, all right. Sorry about that, but we'll clear it up. It will look good when we get done.

MR. NOVIK: Sorry, for me it's like something new. I'm the artist, and for me it's something new.

ACTING CHAIRPERSON DROST: Yes.

MS. HITZEMANN: Oh, we also need to certify that the public notice has been done.

ACTING CHAIRPERSON DROST: Oh, yes. Was public notice given?

MR. NOVIK: Yes, yes.

ACTING CHAIRPERSON DROST: Okay, in what form?

MR. NOVIK: Letters, yes.

ACTING CHAIRPERSON DROST: Okay, thank you. Letters and the sign?

MS. HITZEMANN: And it was also posted in the Herald.

MR. NOVIK: Yes, yes, and the two signs.

ACTING CHAIRPERSON DROST: And the signs, okay.

MR. NOVIK: Two signs, yes.

ACTING CHAIRPERSON DROST: So, we're in compliance with that and we can proceed now with the Staff report.

MS. HITZEMANN: Yes.

Good evening, Commissioners. So, the property in question for this petition is located at 3375 North Arlington Heights Road within a multi-tenant office building. The property is zoned M-1 Research Development and Light Manufacturing District, and is classified as R&D, Manufacturing and Warehousing within the Comprehensive Plan Land Use Map. The property is also located within the Arlington Office Complex PUD.

Petitioner intends to lease and remodel Units A, B, G and H of the building to outfit them for a beauty salon. The units have a combined area of approximately 2,557 square feet. Beauty salons are not permitted within the M-1 District or the PUD, and as such, a PUD amendment to allow a land use variation is requested with this petition for this business to operate at this location.

The property shown here in red is located off East Country Lane between North Arlington Heights Road and Old Arlington Heights Road and is south of Dundee Road which is a few blocks to the north.

ICON intends to lease approximately 2,557 square feet of space that will include four facial rooms, one nail salon, one hair salon, and a makeup counter. There will be an estimated 14 employees, and the hours will be Monday through Friday, 9:00 a.m. to 7:00 p.m., and Saturday, 8:00 a.m. to 6:00 p.m.

So, with the new use, parking for this complex will be at a deficit of 30 spaces or 12 percent. Staff had the Petitioner conduct a parking study or analysis that show the existing peak capacity on Thursdays with 59 spaces occupied, which is about 25 percent capacity of the parking lot. At the owner's request, and due to the recent decline in office uses, Staff calculated what the parking demand would be if the current vacant spaces were occupied as office and if the current non-general office spaces were utilized as medical. Even with full occupancy and non-general office spaces being used as medical, the parking demand would be 84 spaces or 35 percent capacity of the lot. With this, Staff is recommending a condition that there will be no more than 16,807 square feet of medical or non-general office uses within the complex. This allows the owner some leeway in future uses.

The Staff Development Committee recommends approval of the PUD amendment for land use variation for a beauty salon within the M-1 District and parking variation subject to the conditions included in the Staff report and listed on the slide. With that, that concludes my presentation.

ACTING CHAIRPERSON DROST: Okay.

COMMISSIONER GREEN: I'd like to make a motion to enter the Staff report into the record.

ACTING CHAIRPERSON DROST: Is there a second?

COMMISSIONER LORENZINI: I'll second.

ACTING CHAIRPERSON DROST: Any comment, further comment?

(No response.)

ACTING CHAIRPERSON DROST: Okay, those in favor?

(Chorus of ayes.)

ACTING CHAIRPERSON DROST: Any opposed, same sign?

(No response.)

ACTING CHAIRPERSON DROST: Hearing none, the Staff report is entered. We'll start with any comments from the Commissioners.

(No response.)

ACTING CHAIRPERSON DROST: None? So, I'll go to the audience. Is there anybody in the audience that has any comments?

(No response.)

ACTING CHAIRPERSON DROST: All right, so I'll come back to the Commissioners and we can start with Commissioner Sigalos.
John?

COMMISSIONER SIGALOS: No, I really don't. I was at the Conceptual Plan Review and I understand your business there. So, no, I really don't have any questions at this point.

COMMISSIONER ENNES: I have a couple of questions. As a tenant in an office building like that, the tenants over there have little signs identifying their business.

MR. NOVIK: Yes, there's going to be.

COMMISSIONER ENNES: Part of the PUD?

MR. NOVIK: Yes.

COMMISSIONER ENNES: As a salon, will you have, what kind of signage will you need?

MR. NOVIK: It's going to be like the name of the salon.

COMMISSIONER ENNES: Will this be a lighted sign?

MR. NOVIK: Oh, I think no, you know, because we have like a little more private studio. It's not like, it's going to be like only by appointments. So, it's not like for public, so yes.

COMMISSIONER ENNES: Okay, I have a question for Staff. When we have a tenant, a proposed tenant -- you have a signed lease already?

MR. NOVIK: Yes.

COMMISSIONER ENNES: When we have a tenant looking for a variance, why isn't this the responsibility of the property owner to come and request a variance on their property?

MS. HITZEMANN: So, I mean, in a perfect world, I think that would be the case, that the owner would request it.

COMMISSIONER ENNES: Arlington Heights is in a perfect world.

MS. HITZEMANN: I think that it typically falls on the person requesting it in terms of, you know, the owner could find somebody else who has a business that would be permitted already and not needing to go through this extra process. So, I think in their eyes, maybe they don't want to take on the potential work and cost of doing that and really placed it on the future tenant if they really want to be in that location.

COMMISSIONER ENNES: But as the Village, if we're going to grant a variance to somebody's property, that's a legal definition, it's something that affects --

MS. HITZEMANN: So, we do require that the owner sign off that they know that this petition is happening and that they are okay with it. So, they are --

COMMISSIONER ENNES: So, they have approved it, but --

MS. HITZEMANN: Yes.

COMMISSIONER ENNES: -- we haven't gotten it. Did I miss that? Is that something we got in the record?

MS. HITZEMANN: So, that is included as part of their Plan Commission application. I don't believe that we typically include it with the packet, but it is --

MR. LYSICATOS: We don't typically include the affidavit of ownerships, and we've -- I'm sorry, I didn't mean to --

MS. HITZEMANN: Go ahead.

MR. LYSICATOS: We received an affidavit of ownership from both property owners. There's two property owners within the PUD. We received that affidavit from both property owners and actually have been coordinating with Mr. Novik as well as representatives of the ownership group of the building as well. So, we have a clear understanding that they've seen

the recommendations and know that this is moving forward. So, we've had coordination from the owner as well as the lessee, and that is the actual lead Petitioner on this.

COMMISSIONER ENNES: So, this prospective tenant ends up paying for parking studies and everything?

MS. HITZEMANN: So, in this case, the parking study was waived. It was more of a parking survey, so depending on the project and Staff's analysis of if that needs to be done or not. Typically, the bigger projects that are done by kind of those bigger developers will require a full parking study. In this case, we usually deal with like a parking survey where they just kind of go out and survey how many cars are out there at a certain point of time. So, it's not as cost and labor intensive.

MR. LYSICATOS: It's essentially at the discretion of the owner. If the owner, you know, wants the Petitioner to handle that part of it, that's up to them. If they feel that it's not going to burden their ability to fill the space, they may do that. They may decide they want to be the lead applicant. It's quite common to have the petitioners that will be operating the businesses be the lead petitioner even within a PUD, but we see it different ways, and that's a good question.

COMMISSIONER ENNES: I'm certainly okay with the landlord pushing that expense, that responsibility down to the tenant if he's got so many tenants banging on the doors to try to get in in these days of high vacancy, but I do think it's good to know that we have requested and gotten the property owner's approval.

MS. HITZEMANN: Yes, and that's required for any application.

COMMISSIONER ENNES: I'm not going to worry then; that's good to know.

MR. LYSICATOS: Yes.

COMMISSIONER ENNES: That's all I have.

ACTING CHAIRPERSON DROST: Yes, adding to that, many times it's like Jack and the Beanstalk, you know, where you come back with beans in your hand and, you know, the owner says what the heck are you doing, where you have these perhaps costly improvements in landscape and improvement on the driveway because part of the Plan Commission's opportunities are to, or the Planning Department is to remedy items that may have been neglected over a period of time, and especially on order projects.

So, that's a good question. So, if we recommend more cost-related items to this petition, we just, you know, don't want your landlord to yell at you, what did you do, what were you thinking, but you have a good relationship?

MR. NOVIK: Yes, yes. Absolutely.

ACTING CHAIRPERSON DROST: Is the landlord here? Okay, so you are there. Yes, that's the other question, and so you're supportive of the project, okay.

MR. NOVIK: So, yes, we're going to be good. Yes, definitely.

ACTING CHAIRPERSON DROST: All right, great.

COMMISSIONER ENNES: I should have started with a different question.

MR. LYSICATOS: No bad questions.

ACTING CHAIRPERSON DROST: My question is, yes, asked and answered.

Commissioner Green?

COMMISSIONER GREEN: Well, now seeing that the landlords are here, I don't have any questions. Terry took care of all those. I think it's a great project. I think it's a good fit.

MR. NOVIK: Thanks so much. Thanks.

COMMISSIONER LORENZINI: Yes, Mr. Novik, have you done or run another business similar to this?

MR. NOVIK: No, not in the United States. I was running the same business in Moscow in Russia. So, I have the experience. In the United States, for me it's something a little bit new one, but I'm going to be good with it.

COMMISSIONER LORENZINI: You know, I compliment you. It seems like a pretty ambitious plan.

MR. NOVIK: Yes, yes. I have a huge experience in this, you know, in this business. How it works, you know, how to work with people and how to, you know, create like a good team and, you know, a good salon.

COMMISSIONER LORENZINI: Do you have any clients lined up or any --

MR. NOVIK: Yes, I have like a lot. A lot, yes, a lot. They're waiting, they're waiting.

COMMISSIONER LORENZINI: Okay, well, it sounds good.

MR. NOVIK: I promised them I'm going to open somewhere before the New Year, but we're still in, you know --

COMMISSIONER LORENZINI: I'd say it's pretty ambitious and I wish you luck.

MR. NOVIK: Yes, thank you so much. Thanks.

ACTING CHAIRPERSON DROST: And were you in the community before to develop or to introduce your talents to our Arlington Heights community?

MR. NOVIK: Not in Arlington Heights. I worked before in Buffalo Grove.

ACTING CHAIRPERSON DROST: Oh, well, that's close.

MR. NOVIK: Yes, yes, yes. I want to move to --

ACTING CHAIRPERSON DROST: I'd say that you aren't a stranger per se to the northwest suburbs because we have businesses that do attract people from outside Arlington Heights, believe it or not.

MR. NOVIK: Yes.

ACTING CHAIRPERSON DROST: So, it's good to, you know, have that traffic. What kind of licensing or what kind of special certificates do you need to do what you do?

MR. NOVIK: I need a certificate for a business like, I have not worked with that yet so I'm in the process, so I think it's like a Village --

ACTING CHAIRPERSON DROST: The Village business license?

MR. NOVIK: Yes, business license, yes. I have my license like a barber license. My wife, she has the license. So, it's going to be, yes, just the license from the Village for our business.

ACTING CHAIRPERSON DROST: Yes, what about in the hair restoration business?

MR. NOVIK: It's going to be like more a consultation business. So, it's not like, nothing --

ACTING CHAIRPERSON DROST: Just consultation, you don't actually do the --

MR. NOVIK: Yes, yes. Yes, I work with a few good clinics in Milwaukee and I consult, make the consultation for people here and send them to Milwaukee.

ACTING CHAIRPERSON DROST: I see, so you're like a finder.

MR. NOVIK: Yes, yes.

ACTING CHAIRPERSON DROST: Sort of a referral, or you refer them to the --

MR. NOVIK: Yes. I worked with, you know, with the transplant before, and you know, here it's a pretty long process for me to start another, you know, to start again to do this. So, for me, it's much easier to send the people to, you know, to the specialists.

ACTING CHAIRPERSON DROST: You see the signs on the tollway, Brian Urlacher, you know, had the --

MR. NOVIK: Yes.

ACTING CHAIRPERSON DROST: Is that what you're --

MR. NOVIK: No.

ACTING CHAIRPERSON DROST: All right, well, good. I don't have any further questions and we closed the public. So, anybody want to come up with the --

COMMISSIONER GREEN: I would like to make a motion.

A motion to recommend to the Village Board of Trustees approval of an amendment to Planned Unit Development (PUD) Ordinances #79-166, #80-105, #81-028, #81-035 and #19-002.

This recommendation is subject to the following variations:

- 1. A Land Use Variation to allow a barber/beauty salon in the M-1 Research, Development and Light Manufacturing District.**
- 2. A Variation to Chapter 28, Section 10.4-2, *Schedule of Parking Requirements*, to reduce the required off-street parking from 273 to 238 spaces.**

This recommendation is subject to the following conditions:

- 1. There shall be no more than 16,807 square feet of medical office or non-general office uses within the subject property.**
- 2. Within six months following receipt of a notice that the Village has determined in its discretion that the on-site parking on the property is insufficient to meet the parking demand for all uses on the property, the Applicant must take all practicable steps necessary to provide additional on-site parking, provide off-site parking spaces in proximity to the property, or reduce the demand for parking by modifying the nature or intensity of the uses on the property, all to the satisfaction of the Village.**
- 3. The Petitioner, being an agent of the property owner, shall address the following landscaping conditions no later than May 15, 2025:**
 - a. The following are required to be in conformance with Village Code:**
 - i. Provide four-inch caliper shade trees at the ends of all parking rows (Chapter 28, Section 6.15B). There are islands where the tree is absent and must be replaced.**
 - ii. Per Chapter 28, Section 15A, all paved areas adjoining the right-of-way shall be effectively screened with landscaping that is three feet tall. Please infill with landscaping where the screen is absent.**
 - b. The following are required as part of conformance with the originally**

approved landscape plan:

- i. **Infill along the foundation for each building where landscaping is absent.**
4. **The existing sidewalk from the entrance to the parking lot and the pavement for the accessible stall nearest to the entrance shall be replaced. Plans for these improvements shall be submitted at time of permit.**
5. **The Petitioner shall comply with all federal, state, and Village codes, regulations and policies.**

COMMISSIONER ENNES: I'll second that.

ACTING CHAIRPERSON DROST: Okay, any comments or further discussion?

(No response.)

ACTING CHAIRPERSON DROST: Hearing none, I'll put it to a vote, and we'll do an individual vote on the Commissioners.

MS. HITZEMANN: Yes.

Dawson.

(No response.)

MS. HITZEMANN: Ennes.

COMMISSIONER ENNES: Yes.

MS. HITZEMANN: Green.

COMMISSIONER GREEN: Yes.

MS. HITZEMANN: Jensen.

(No response.)

MS. HITZEMANN: Lorenzini.

COMMISSIONER LORENZINI: Yes.

MS. HITZEMANN: Sigalos.

COMMISSIONER SIGALOS: Yes.

MS. HITZEMANN: Cherwin.

(No response.)

MS. HITZEMANN: And Drost.

ACTING CHAIRPERSON DROST: Aye.

So, you have our approval as the Plan Commission, and now you'll have to go before our Village Board of Trustees.

Is there a date that you have for the Petitioner?

MR. LYSICATOS: We have not set a date yet, but we'll work with them going forward.

ACTING CHAIRPERSON DROST: You'll work on it, yes. Well, good luck.

MR. NOVIK: Thank you so much.

ACTING CHAIRPERSON DROST: All right.

Okay, any other business that we have?

COMMISSIONER GREEN: There's the public comment that's next.

ACTING CHAIRPERSON DROST: Yes, that's next. All right, hearing no other business, public comments? Anybody from the audience? Mr. Moens?

(No response.)

ACTING CHAIRPERSON DROST: None, okay. I'm done.

COMMISSIONER GREEN: I'd like to make a motion to adjourn.

ACTING CHAIRPERSON DROST: Okay. Second?

COMMISSIONER SIGALOS: I'll second.

COMMISSIONER ENNES: I'll second that, or triple it.

ACTING CHAIRPERSON DROST: Okay, all those in favor?

(Chorus of ayes.)

ACTING CHAIRPERSON DROST: Any opposed?

(No response.)

ACTING CHAIRPERSON DROST: The motion has been carried; the meeting is adjourned. Thank you all.

(Whereupon, at 7:55 p.m., the public hearing on the above-mentioned petition was adjourned.)



VILLAGE OF
ARLINGTON HEIGHTS
INC. 1887

**Plan Commission
1/22/2025**

Item: East Country Lane Townhomes - 3255 & 3310 N. Old
Arlington Heights Rd. - PC#24-015
Planned Unit Development, Rezoning from M-1 to R-6,
Amendment to Comprehensive Plan, Plat of Subdivision

Department: Planning & Community Development

Item Description:

The Plan Commission public hearing for petitioner PC24-015, East Country Lane Townhomes PUD, Preliminary Plat, Rezoning, and Comprehensive Plan Amendment with variations, which previously advertised in the Daily Herald, posted on-site, and mailed to adjacent property owners will not occur on January 22, 2025.

The Plan Commission petition PC24-015, East Country Lane Townhomes PUD, Preliminary Plat, Rezoning, and Comprehensive Plan Amendment with variations is continued to the regularly scheduled Plan Commission public hearing on February 26, 2025 at 7:30 PM in Village Hall, 3rd Floor Board Room, 33 S. Arlington Heights Road, Arlington Heights, Illinois 60005.

For more information, please contact Dan Osoba at 847-368-5215 or dosoba@vah.com.

ATTACHMENTS:

None



VILLAGE OF
ARLINGTON HEIGHTS
INC. 1887

**Plan Commission
1/22/2025**

Item: Urban Air at Arlington Plaza - 30 W. Rand Rd. - PC#24-017
Special Use Permit for Amusement, Large & Special Use
Permit for Restaurant with Variations

Department: Planning & Community Development

Item Description:

Requested Action:

1. Special Use Permit to allow a Large Amusement Facility on the subject property.
2. Special Use Permit to allow a Restaurant on the subject property.

Variations Required:

1. Chapter 28, Section 10.4-4, to reduce the parking requirement from 1,225 parking stalls to 1,139 parking stalls.

Recommendation

The Staff Development Committee reviewed the proposed Special Use Permit to allow an Amusement Facility, Large, Special Use Permit to allow a Restaurant on the subject property, Variation to Chapter 28 of the Municipal Code, Section 6.12-1 to waive the requirement for a traffic study, and Variation to Chapter 28 of the Municipal Code, Section 10.4-4, to reduce the parking requirement from 1,146 spaces to 1,129 spaces, and recommends APPROVAL of the application subject to the following conditions:

1. The petitioner shall obtain a liquor license for any alcohol to be served on the premises.
2. The petitioner shall provide interior sound proofing if noise complaints occur within the shopping center or on adjacent properties at the discretion of the Village.
3. The petitioner shall comply with all Federal, State, and Village Codes, Regulations, and Policies.

ATTACHMENTS:

1. PC Staff Report_Urban Air
2. CPRC Minutes 7-24-2024
3. Public Notice

4. Aerial
5. Narrative
6. Justification for SUP and Variations
7. ALTA Survey
8. Market Study
9. Parking Study
10. Preliminary Construction Drawings
11. Round 1 Comments_Urban Air at Arlington Plaza
12. Round 2 Comments_Urban Air at Arlington Plaza
13. Petitioner Response



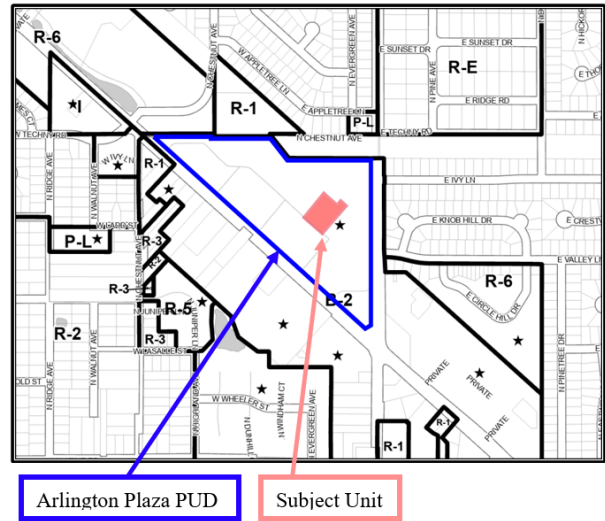
**VILLAGE OF ARLINGTON HEIGHTS
STAFF DEVELOPMENT
COMMITTEE REPORT**

PC File Number: PC 24-017
Project Title: Urban Air at Arlington Plaza
Address: 30 W Rand Rd
PIN: 03-17-300-006

To: Plan Commission
Prepared By: Dan Osoba, Planner I
Meeting Date: January 22, 2025
Date Prepared: January 15, 2025

Petitioner: Kayleigh Rollins
 Senior Project Manager
Address: 1245 Humbracht Cir.
 Bartlett, IL 60103

Existing Zoning: B-2: General Business District
Comprehensive Plan: Commercial



SURROUNDING LAND USES

Direction	Existing Zoning	Existing Use	Comprehensive Plan
North	R-1, One Family Dwelling District R-3, One Family Dwelling District R-6, Multi-Family Dwelling District	Commonwealth Edison Utility Lines, Crescent Place Multi-family apartments	Parks, Moderate Density Multi-Family
South	B-2, General Business District	Annex of Arlington & various commercial uses	Commercial
East	R-3, One Family Dwelling District R-6, Multi-Family Dwelling District B-2, General Business District	SF Residential Homes, Two-family home, Northpoint Shopping Center	Single-Family Detached, Offices Only, Commercial
West	B-2, General Business District	Arlington Performance Center and various commercial uses	Commercial

Requested Action:

1. Special Use Permit to allow a Large Amusement Facility on the subject property.
2. Special Use Permit to allow a Restaurant on the subject property.

Variations Required:

1. Chapter 28, Section 10.4-4, to reduce the parking requirement from 1,225 parking stalls to 1,139 parking stalls.

Project Background:

The subject property is part of the Arlington Plaza Shopping Center, an approximately 28-acre shopping center located at the northeast intersection of Rand Road and Arlington Heights Road. The 93,050 square foot subject unit is vacant and is the former home to Burlington Coat Factory. The shopping center has multiple points of vehicular access, including two full access signalized intersections along Rand Road, two additional right-in/right-out access points on Rand Road, and another Rand Road access point that allows full ingress but is restricted to right-only egress. On the Arlington Heights Road side, the subject property includes one signalized full access intersection and one non-signalized full access intersection.

Urban Air is proposing to lease approximately 67,000 square-feet of the former Burlington Coat factory space within Arlington Plaza, which would be divided to create two separate units. The remaining second unit would be 26,435 square feet and remain unleased at this time. Headquartered in Texas, with multiple locations across the nation, Urban Air is an indoor adventure park and family recreation center that provides a venue for entertainment and physical recreation, primarily geared towards children and young adults. They have several existing locations in the Chicagoland area (Naperville, St. Charles, Crystal Lake, Bloomingdale, North Riverside), and additional locations opening soon (Vernon Hills, Glenview). The facility would provide a wide mix of activities, including the following:

- Go Karts
- Laser Tag
- Trampoline area
- Arcades and Virtual Reality area
- Climbing Walls and Ropes Course
- Bumper Cars
- A café/restaurant and seating area
- 14 party rooms

Alcohol sales would be available for adults in designated areas. Initially there would be approximately total 50 employees, with peak shift including around 25 employees. The park will operate on an open-access basis, welcoming walk-in visitors and offering various membership packages for frequent guests. Reservations will be available for party rooms and certain high-demand attractions. An on-site café is also proposed to include concessions such as pizza, burgers, and soft drinks. The proposed hours of operation are Monday through Thursday 4:00 PM to 9:00 PM; Friday 10:00 AM to 9:00 PM; and Saturday 12:00 PM to 8:00 PM.

The subject property is part of the Arlington Plaza PUD, which was originally approved in 1970. This PUD includes the four larger multi-tenant buildings to the rear of the main parking areas, as well as four outlot buildings along Rand Road (Nostimo's Greek Kitchen, Arby's, vacant Olson Rug building, Village Bank & Trust). Parking is shared amongst the PUD, with a total of 1,139 parking spaces available to the businesses within.

Zoning and Comprehensive Plan

The subject property is zoned B-2, General Business District, which only allows "restaurants" and "amusement facilities, large" through the issuance of a Special Use Permit. The site is classified as Commercial on the Comprehensive Plan and the proposed usage is compatible with this designation as well as the surrounding commercial development context of Arlington Plaza.

Special Use Permits shall only be granted when they conform to the three criteria of approval as outlined within the Zoning Ordinance. In order to demonstrate conformance to these standards, the petitioner has provided a written justification to the following criteria:

- 1. That said special use is deemed necessary for the public convenience at this location.**
- 2. That such case will not, under the circumstances of the particular case, be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity.**
- 3. That the proposed use will comply with the regulations and conditions specified in this ordinance for such use, and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.**

Staff reviewed the petitioner's provided justification for Special Use Permits as well as the requested market study and coordinated with the petitioner to provide further information on the 26,435 square-

foot remainder space. Staff agrees with the petitioner's justification for Special Use Permits as the use offers a unique adventure park and destination for the surrounding community, making it necessary for public convenience at this location. The remaining 26,435 square-foot space has been evaluated in the market study to demonstrate the viability of the space. The market study postulates that a fitness facility, such as racquetball, fitness center or similar could occupy the 70-foot wide space to target the active adult demographic, which represents 65% of Arlington Heights' population. Other possible uses could include splitting the long, linear vacant space into smaller tenants. Such smaller uses may include beauty salons, health or wellness facilities, martial arts studios, tutoring, or smaller gymnasiums. Staff has reviewed the market study and found that the remainder space has been thoroughly evaluated and remains a viable leasable tenant space(s). The petitioner has provided information including a parking study, market study, and business operations plan to determine that the use will not be a detriment to the health, safety, morals, or general welfare of persons living or working in the vicinity. Lastly, the petitioner has indicated Urban Air is dedicated to maintaining full compliance with all local and state regulations, with the exception of the parking variation request (see the Parking Section below).

Building

The petitioner has indicated that no exterior improvements are included with this petition. Signage will be submitted under a separate building permit application.

Since food service and alcohol will be provided, the facility will need to obtain a liquor license and comply with all Health Department requirements for food service. A condition of approval is recommended by the SDC to that effect.

Site Plan and Landscaping

The petitioner has not identified any site alterations as part of the proposed Special Use Permit application. Staff evaluated the condition of the parking lot and determined that repairs, resurfacing, or restriping is not needed at this time. Several sections of the parking lot have been resurfaced and striped recently and the remainder of the parking lot is in good condition. Additionally, staff evaluated the existing site landscaping to ensure that it conforms to all code requirements and found that no landscaping improvements were required at this time.

Traffic and Parking

Per section 6.12-1 of Chapter 28 of the Municipal Code, any Special Use Permit application over 5,000 square feet in floor area and located along a Major Arterial (such as Rand Road) must submit a traffic and parking study from a certified Traffic Engineer that assesses access (location, design, and Level of Service), on-site circulation, parking, trip generation, and impacts to adjacent roadways. Given that the Arlington Plaza shopping center contains multiple points of signalized full access to major arterials, the Staff Development Committee is accepting of the variation request to waive the requirement of a traffic study. A parking study was provided with the Plan Commission petition and reviewed in conjunction with a parking variation request.

Per Code, a total of 1,146 parking stalls are required within the PUD upon occupancy of Urban Air within the subject unit. Since there are only 1,139 parking stalls located onsite, a deficit of 7 parking stalls will occur. In addition to a Variation to waive the traffic study, the following parking Variation has also been requested:

- **Variation from Chapter 28, Section 10.4-4, to reduce the parking requirements from 1,146 parking stalls to 1,139 parking stalls.**

The parking requirement for Urban Air as well as the Arlington Plaza Shopping Center are listed below:

Unit	Use	Square Area	Parking Square Footage	Divider	Parking Required
1	L Electronics	900	900	300	3
2	Shiny Nail	900	900	250	4
3	Barks in Style Pet Grooming	1,200	1,200	300	4

4	Lions Tae Kwon Do	3,000	1,500	50	30
5	Foot Nirvana	3,000	3,000	250	12
6	Sandra Rossi Beauty School	9,800	9,800	1/emp; 0.5/student	58
7	Community Threads	22,100	22,100	300	74
8	China Buffet	6,750	3,240	45	72
9,10	Treasure Hunt Deals	17,875	17,875	300	60
11A	Planet Fitness	22,002	22,002	250	88
11B	Five Star Furniture and Outlet	45,300	45,300	600	76
11C	Proposed Urban Air*	66,992	66,992	30% occupancy of Recreational Facility; 1 space per 45 of restaurant; 1 space per 300 s.f. of amusement device arcade	332
11D	VACANT	26,435	26,435	300	88
12 --21	Harlem Furniture	27,700	27,700	600	46
22	America's Best Vision Center	4,000	4,000	300	13
23	Harvest Fresh Grocery & Café	23,472	23,472	300	78
24	North Arlington Barber Shop	900	900	250	4
25	Fifth Ave. Sushi	2,100	902	45	20
	Village Bank and Trust	7,896	7,896	300	26
28	VACANT	4,000	4,000	300	13
29	Big Chicken	2,614	1,287	45	29
30	Available (Pad)		0	45	0
31	Proposed Qargo Coffee**	5,000	5,000	300	17
	TOTAL	303,936			1,146
	Parking Provided				1,139
	Parking Surplus / (Deficit)				(7)
Arlington Plaza					
*Urban Air is evaluated with an overall occupancy of 298 (838 total occupancy - 556 occupancy of seating areas - 16 occupancy of amusement device arcade) Restaurant is 1 per 45 s.f., Amusement Device Arcade is 1 per 300 s.f.					
**To be evaluated under a separate Plan Commission application; parking rate is vacant (1 space per 300 s.f.) for the purposes of Urban Air					

A detailed parking study was provided, which outlines peak usage and capacity at the facility, surveys the existing parking demand within the shopping center during peak times to establish baseline demand, provides data and parking surveys from other Urban Air facilities in similar Chicagoland locations to forecast the increase in parking demand, and estimates total future peak parking demand within the Arlington Plaza shopping center upon full occupancy with Urban Air along with any other vacant units within the center.

The parking survey found that the Arlington Plaza shopping center was occupied at its peak on Saturday at 2:00 PM with a peak occupancy of 23% or 201 vehicles. Using data from an Urban Air location in North Riverside, Illinois the parking study found that this Urban Air occupied 43% or 89 of 207 parking spaces

at this location. Using the data from the parking survey of Arlington Plaza and a similar Urban Air facility, the parking study extrapolated the existing demand and expected demand to show that there would be a surplus of 393 parking spaces at Arlington Plaza with this Urban Air facility.

In addition, the parking study evaluated the parking field immediately adjacent to Urban Air to determine the estimated demand within that portion of the overall parking lot. The study found that the parking field in front of the proposed use can accommodate 92% of the required number of parking spaces at peak usage, with assumptions that customers will park only in the lot immediately adjacent to the use.

The petitioner provided a written responses to the four hardship criteria necessary for Variation approval, as outlined below:

- **The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.**
- **The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.**
- **The proposed variation is in harmony with the spirit and intent of this Chapter 28.**
- **The variance requested is the minimum variance necessary to allow reasonable use of the property.**

The SDC recommends approval of the variation to waive the traffic study as no accesses are being modified with this petition. The SDC recommends approval of the petitioner's requested parking variation to reduce the requirement from 1,146 parking spaces to 1,139 parking spaces. The petitioner's response to the variation criteria indicates that the restaurant use is not a "destination restaurant" and therefore not a main driving force for why customers would come to Urban Air. The majority of the demand for parking will be for the amusement facility and amusement device arcade uses, which require less parking than a restaurant (30% of occupancy & 1 space per 300 s.f. vs. 1 space per 45 s.f. of seating area).

RECOMMENDATION

The Staff Development Committee reviewed the proposed Special Use Permit to allow an Amusement Facility, Large, Special Use Permit to allow a Restaurant on the subject property, Variation to Chapter 28 of the Municipal Code, Section 6.12-1 to waive the requirement for a traffic study, and Variation to Chapter 28 of the Municipal Code, Section 10.4-4, to reduce the parking requirement from 1,146 spaces to 1,129 spaces, and recommends **APPROVAL** of the application subject to the following conditions:

1. The petitioner shall obtain a liquor license for any alcohol to be served on the premises.
2. The petitioner shall provide interior sound proofing if noise complaints occur within the shopping center or on adjacent properties at the discretion of the Village.
3. The petitioner shall comply with all Federal, State, and Village Codes, Regulations, and Policies.

Michael Lysicatos, Assistant Director of Planning and Community Development

July 19, 2024

Cc: Randy Recklaus, Village Manager
All Department Heads
Temp File 1848

REPORT OF THE PROCEEDINGS OF
THE CONCEPTUAL PLAN REVIEW COMMITTEE
OF THE VILLAGE OF ARLINGTON HEIGHTS PLAN COMMISSION
A MEETING HELD ON:

July 24, 2024

Project Title: Urban Air at Arlington Plaza
Address: 30 W. Rand Road
Petitioner: Kayleigh Rollins, Sr. Project Manager
Address: 1245 Humbracht Circle
Bartlett, IL 60103

Requested Action:

1. Special Use Permit to allow a Large Amusement Facility on the subject property.
2. Special Use Permit to allow a Restaurant on the subject property.

Variations Required:

1. Chapter 28, Section 10.4-4, to reduce the parking requirement from 1,225 parking stalls to 1,139 parking stalls.
2. Additional variations may be required based upon the submittal of detailed plans.

Attendees: Tom Piazza, Foxfield Developers
Nino Hermes, Owner of Urban Air
Charlie Oraham, Owner of Urban Air
Jay Cherwin, Plan Commissioner
John Sigalos, Plan Commissioner
Lynn Jensen, Plan Commissioner
Bruce Green, Plan Commissioner
Sam Hubbard, Planning Department

Project Summary:

The subject property is part of the Arlington Plaza Shopping Center, an approximately 28-acre shopping center located at the northeast intersection of Rand Road and Arlington Heights Road. The 93,050 square foot subject unit is vacant and is the former home to the Burlington Coat Factory. The shopping center has multiple points of vehicular access, including two full access signalized intersections along Rand Road, two additional right-in/right-out access points on Rand Road, and another Rand Road access point that allows full ingress but is restricted to right-only egress. On the Arlington Heights Road side, the subject property includes one signalized full access intersection and one non-signalized full access intersection.

Urban Air is proposing to lease the former Burlington Coat factory space within Arlington Plaza, which would be divided to create two separate units; the first unit would include 66,615 square feet and would be leased by Urban Air, the second unit would be 26,435 square feet and remain unleased at this time. Headquartered in Texas, with multiple locations across the nation, Urban Air is an indoor adventure park and family recreation center that provides a venue for entertainment and physical recreation, primarily geared towards children and young adults. They have several existing locations in the Chicagoland area (Naperville, St. Charles, Crystal Lake, Bloomingdale, North Riverside), and additional locations opening soon (Vernon Hills, Glenview). The facility would provide a wide mix of activities, including the following:

- Go Karts
- Laser Tag
- Trampoline area
- Arcades and Virtual Reality area
- Climbing Walls and Ropes Course
- Bumper Cars
- A café/restaurant and seating area
- 14 party rooms

Alcohol sales would be available for adults in designated areas and initially there would be approximately 50 employees, with peak shift including around 25 employees. The hours of operation have not been specified for this location, however, other locations in the Chicagoland area are open every day from around 10:00am to around 8:00pm in the evening.

The subject property is part of the Arlington Plaza PUD, which was originally approved in 1970. This PUD includes the four larger multi-tenant buildings to the rear of the main parking areas, as well as four outlot buildings along Rand Road (Nostimo's Greek Kitchen, Arby's, vacant Olson Rug building, Village Bank & Trust). Parking is shared amongst the PUD, with a total of 1,139 parking spaces available to the businesses within.

Meeting Discussion:

Mr. Piazza – we are an adventure trampoline park that will be roughly 66,000 square feet of the whole entire complex, with different attractions from golf carts to trampolines to party rooms. Selling concession type foods. Hours of operation are from 3:00 pm to 9:00 pm during the week and on weekends 10:00 am to 9:00 pm. Family friendly business looking to expand in this Arlington Heights area and we're excited to.

Mr. Hubbard – this property is a vacant unit was formerly occupied by the Burlington Coat Factory, which vacated the site recently. Part of the Arlington Plaza shopping center, located on Rand Road and Arlington Heights Road on the north side of the village. It is a PUD, but this proposed use does not require any amendment to the PUD, it does require approval of a special use permit. The use is classified as a large amusement facility in the B-2 district that does require approval of special use permit. The application to the Planning Commission, will have to justify provide a point-by-point response to the three criteria necessary for special use permit approval. One of those criteria, is that the special use is deemed necessary for the public convenience at this location, in order to satisfy those criteria, we are going to ask that you provide a market analysis that evaluates the demand for this type of facility at this location, and talks about some of your competitors and where they are located relative to this site, and how you may differ from them or cater to a different market. As part of that study, we are looking to have an analysis on the second space, the Burlington Coat factory space is approximately 93,000 square feet. Urban Air would occupy 66,000 square feet of that space leaving a roughly 26,000 square foot space that's going to be long and narrow at the corner. We want to make sure that the space is still leasable from a commercial perspective, an opinion from a real estate broker that outlines how this space could be potentially leased in the future.

A liquor license will be required, we encourage you to reach out to the Village Manager's office and start that process. There may be some building upgrades needed to comply with the building and life safety requirements, so you should reach out to the building department to discuss those. No changes are purposed to the site, so that is going to negate the need for any PUD amendment, but we will be taking a site visit as part of any analysis of this application, any landscaping that needs to be upgraded or replaced should be replaced as part of this process. The real issue with this process is going to be the parking. The Arlington Plaza Shopping Center is really good access to a lot of major arterials, with several lighted intersections, from a traffic standpoint we think this is this will be fine. From a parking standpoint it can get really packed really quickly on special event times. We need to verify that there is enough parking within the shopping center to accommodate for those peak times, technically you'll have to ask for a variation to waive the traffic analysis portion of the requirement, which I think we will support, however, from a parking standpoint you will have to work with the traffic engineer and provide a detailed parking analysis. You will want to survey the existing Plaza Shopping Center to get a baseline demand. You want to survey additional Urban Air locations so that you can adequately predict what demand will be once the space is occupied. Then you want to forecast it all together, making sure that you are accommodating for any vacant spaces within the shopping center and when they are occupied, will that trigger any parking requirements. Staff is supportive of this use, we want to see this space filled, and it is a large space within the shopping center, and these facilities are well used and a good asset to the community.

Commissioner Cherwin – where are some of your other locations? And how does yours compare in size?

Mr. Hermes – Chrystal Lake, Naperville, approximately 300 locations. They are all pretty standard in size. We are proposing the 2.0, which has the built in parks and attractions.

Commissioner Cherwin – What is protocol when you convert a space like this for your activity in terms of ventilation and safety?

Mr. Piazza – part of the design requirements for Urban Air as part of the franchise requirements is that we produce one ton per 300 square feet of space, we will be adding quite rooftop units to accommodate that and have air exchange.

Commissioner Cherwin – we should do a parking study, but do you have access to the old supermarket parking area?

Mr. Piazza – I do not think they have access. However, we just started with the traffic engineering company that will be putting that together.

Commissioner Sigalos – clarified that Burlington Coat Factory is still operating in the space; it is not vacant.

Mr. Piazza – confirmed they extended their lease and are moving next to Dick's Sporting Goods, which gives us time to get our permits ready to go.

Commissioner Sigalos – you mentioned you will have go karts, so that is going to require aside from you mentioned one ton for every 300 square feet of HVAC and some kind of air filtration, will that be enough?

Mr. Piazza – it is all electric, so all good.

Commissioner Sigalos – I believe Urban Air came to CPRC in 2018, this will be great use of the space and a good project. Will you sublet the extra space?

Mr. Piazza – no we are thinking about adding pickleball, but want to get this up and running first.

Mr. Hermes – also within the Urban Air umbrella, there is an area called Unleashed Brands, and they have a lot of brands that kind of work hand in hand. One is Snapology for ages two- and five-year-olds, small trampolines and equipment. We will work with each other and figure it out.

Commissioner Sigalos – thinks it looks great and will be good use of space and plenty of parking.

Commissioner Jensen – have you signed the lease? Also, you will have to do some interior work to create a wall between that the space that you're not going to do anything with, correct?

Mr. Piazza – yes, it is contingent upon permit and business license approval. It should be just a standard wall with some soundproofing to separate the space.

Commissioner Jensen – since this is a franchise, does Urban Air help you with a market study?

Mr. Hermes – I live in Arlington, and we are very familiar with the area. We have purchased the franchise agreement to open in this area. Urban Air essentially hooked us up with a realtor to figure out what is a good fit for them. We had to go through their approval process before anything, they sent architects and make sure that the ceiling height that they required and not too small or too big. An analysis as far as population or marketing, this was ranked in the top 10 percentile for all Urban Air's. So this market hits all the numbers.

Commissioner Jensen – other than Urban Air, who would be your competitors for this type of entertainment?

Mr. Hermes – the only thing that actually competes is Altitude, but they only trampolines. Urban Air is an adventure park with massive slides and tubes for younger kids, rock climbing, go carts, bumper cars, laser tag, zip lining, ropes course and an area like ultimate Ninja warrior. Will also provide summer camps.

Commissioner Jensen – since you are serving alcohol, how are you going to control who is drinking, so that you do not have kids and under age drinking?

Mr. Hermes – beer and wine is what we are planning, and it will all be done through our concessions, through our cafes a process will be followed.

Commissioner Jensen – shared his support of the project and likes to see the empty shopping mall used.

Commissioner Green – think you're going to be inundated with my grandkids, they love this stuff. The electric go karts are really cool. Please move forward with your project.

Public Comment

Unidentified male – please say “yes” tonight when you get upstairs on the Grace Terrace/Full Circle project.

RECOMMENDATION

The Conceptual Plan Review Committee encouraged the petitioner to proceed forward with their application.

Bruce Green, Chair
CONCEPTUAL PLAN REVIEW COMMITTEE
Kendra Maher, Recorder

NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLAN COMMISSION OF THE VILLAGE OF ARLINGTON HEIGHTS WILL CONDUCT A PUBLIC HEARING ON JANUARY 22, 2025, AT 7:30 P.M. in the Municipal Building, 33 South Arlington Heights Rd, Arlington Heights, Illinois to consider Petition No. 24-017 a request for a Special Use Permit for an amusement facility, large and a Special Use Permit for a restaurant within the B-2 General Business District with a parking variation on the subject property located at 30 W. Rand Road in Arlington Heights, Illinois. The PIN for the subject property is 03-17-300-006.

The subject property is legally described as follows:
LOT 1 IN FIRST NORTHWEST BANK SUBDIVISION OF PART OF SECTIONS 17 AND 18, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY ILLINOIS COMMONLY KNOWN AS: 30 W. RAND RD, ARLINGTON HEIGHTS, ILLINOIS 60004

The Plan Commission will consider any zoning and Subdivision actions or relief from Chapter 28 and 29 that may be necessary or convenient to allow development of the type described in this notice, or development that is less dense than the type described in this notice, including, without limitation, special use permits, variations, map or text amendments, or other special approvals. Complete list of all final zoning actions and staff report may be viewed at www.vah.com.

As part of said petition the applicant is requesting the following variations from Chapter 28 of the Municipal Code:

- Variation to Section 6.5-2, to permit playground equipment, which is considered an accessory structure, to be located within the required side yard.
- Variation to Section 6.13-3.a, to allow a six foot high open and six foot high solid fence in the front yard where a maximum 36 inch high open fence and prohibits solid fences in a front yard is permitted.

At the public hearing, the Plan Commission will accept and consider all testimony and evidence pertaining to the application.

All persons desiring to be heard shall be given the opportunity to be heard. Should any individual need auxiliary aid or service, such as a sign language interpreter or materials in alternative formats, please contact the Health Department at 33 South Arlington Heights Road, Arlington Heights, Illinois 60005, (847) 368-5760, TDD# (847) 368-5794.

Jay Cherwin, Chair

ARLINGTON HEIGHTS PLAN COMMISSION
Published in Daily Herald Jan. 7, 2025 (274662)

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Northwest Suburbs Daily Herald

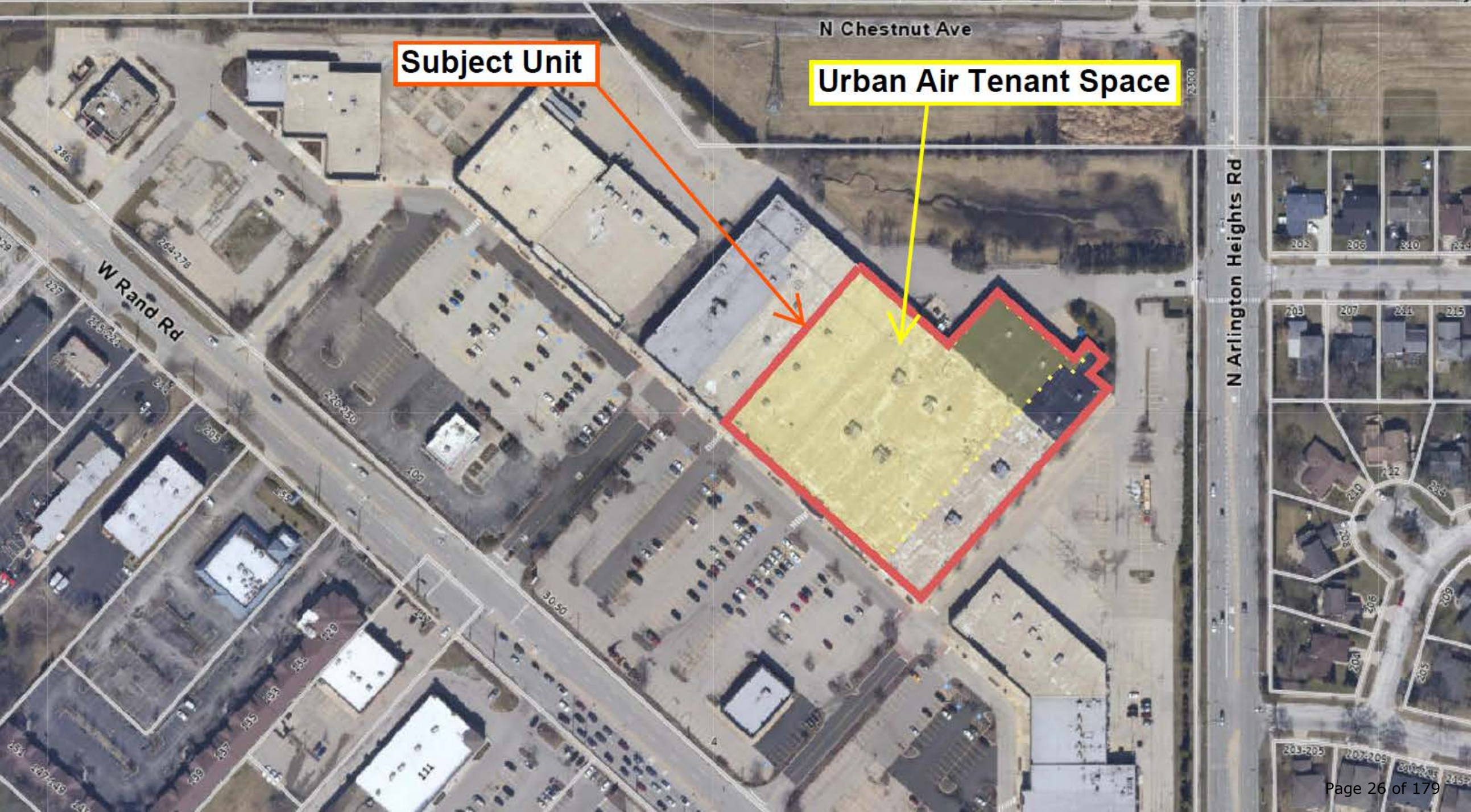
Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **Northwest Suburbs DAILY HERALD**. That said **Northwest Suburbs DAILY HERALD** is a secular newspaper, published in Arlington Heights, Cook County, State of Illinois, and has been in general circulation daily throughout Cook County, continuously for more than 50 weeks prior to the first Publication of the attached notice, and a newspaper as defined by 715 ILCS 5/5.

I further certify that the **Northwest Suburbs DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 01/07/2025 in said **Northwest Suburbs DAILY HERALD**. This notice was also placed on a statewide public notice website as required by 5 ILCS 5/2.1.

BY *Danula Baltz*
Designee of the Publisher of the Daily Herald

Control # 274662





Subject Unit

Urban Air Tenant Space

N Chestnut Ave

W Rand Rd

N Arlington Heights Rd

The Urban Air Adventure Park in Arlington Heights marks an exciting addition to the vibrant landscape of family entertainment venues in the Chicagoland area. Situated in a newly developed complex, the project entails the creation of two tenant spaces within a large commercial building: one designated for Urban Air Adventure Park and the other currently planned to remain vacant for future development.

The Urban Air Adventure Park occupies a spacious 30,000 square feet within the complex, emphasizing a blend of exhilarating activities and family-friendly attractions. The adjacent tenant space, spanning 10,000 square feet, is slated for future use and will complement the overall appeal of the development.

Urban Air Adventure Park is renowned for its dynamic indoor attractions that cater to all ages. Originating from its Texas roots, Urban Air has expanded across the United States, with notable locations in nearby Chicagoland areas such as Naperville and Schaumburg. Each location is celebrated for its thrilling rides, engaging activities, and commitment to providing a safe, fun environment for families and groups.

At the Arlington Heights location, Urban Air Adventure Park will feature an extensive array of attractions including:

- Food concessions offering a variety of snacks and refreshments.
- Alcohol sales in designated areas for adult guests.
- Laser tag arenas with state-of-the-art equipment.
- Climbing walls of varying difficulty levels.
- Dedicated party rooms for birthdays and special events.
- Virtual reality experiences and arcade games.

The park will operate on an open-access basis, welcoming walk-in visitors and offering various membership packages for frequent guests. Reservations will be available for party rooms and certain high-demand attractions to ensure optimal guest experience.

Urban Air Adventure Park in Arlington Heights anticipates hosting a range of events such as corporate team-building gatherings, competitive tournaments, and themed birthday parties complete with personalized packages and dedicated party hosts.

Guests can enjoy a selection of concessions including classic favorites like pizza, burgers, and soft drinks, along with healthier options to accommodate diverse preferences.

The park will operate seven days a week with extended hours to accommodate both daytime and evening visitors, fostering flexibility for families, groups, and corporate outings alike.

Approximately 50 employees will be hired initially, with peak shifts during weekends and holidays requiring up to 25 staff members on duty simultaneously to ensure efficient operation and guest satisfaction.

Exterior enhancements for the complex may include signage that reflects the dynamic and inviting atmosphere of Urban Air Adventure Park, enhancing its visibility and appeal within the community.

In conclusion, Urban Air Adventure Park in Arlington Heights promises to be a cornerstone of family entertainment, combining innovative attractions with a commitment to safety and customer service. Its strategic location within a growing commercial hub underscores its role as a destination for local residents and visitors seeking memorable experiences and wholesome fun.



Special Use Criteria

Revision 1: January 2, 2025

Original: December 4, 2024

Urban Air Inc. is pleased to provide the following detailed response to the Staff Development Committee (SDC) regarding its proposed adventure park at **30 W Rand Rd, Arlington Heights, IL 60004**. We appreciate your time and consideration in reviewing this project and look forward to collaborating to bring this exciting opportunity to the Arlington Heights community. Currently Urban Air is requesting a special use on Amusement, large and restaurant with a Variance on parking.

1. That said special use is deemed necessary for the public convenience at this location.

Strong communities thrive on having diverse, community-oriented leisure options, particularly those designed for families and children. Urban Air aims to fulfill this need by offering an adventure park that goes beyond traditional entertainment venues.

Urban Air, which began in 2011 as a trampoline park, has grown into a robust franchise network with over 1,400 locations, generating more than \$800 million in annual revenue. Today, Urban Air parks have transformed into full-fledged adventure parks, featuring a range of engaging and educational attractions, including:

- **Snapology:** A hands-on educational experience in science, technology, engineering, arts, and math (STEAM).
- **APEX:** A set of trampolines that extends to the wall to do tricks on
- **Mini GoKarts:** Electric Gokarts that produce very little noise and no exhaust
- **Laser Tag:** A team sport, that involves strategy and fun inside of a designated area
- **Adventure Hub-** An indoor slide park
- **Skyryder-** Zip line that flies around the park
- **Climbing walls-** Climbing one of our climbing walls is a great way to build strength, agility, and confidence – all with the safety of a harness
- **Flip Zone-** The ultimate bumper car experience
- **Leap of Faith-** Climbing to top of a platforms and then have your chance to play out your greatest super hero fantasy and leap while secured to a harness
- **Warrior Course-** For all the little Ninjas an obstacle course to test there skills



- **Unique Attractions:** There are an array of attractions such as, Go-karts, aerial and acrobatic attractions, indoor skydiving, climbing walls, ninja courses, zip lines, soft play areas, and more.
- **Eatery:** Allows patrons who paid for entry to the park to eat concessions and to make a fun family outing for the day. As well as providing food, limited menu, for birthday parties and family parties.

This variety of activities makes Urban Air more than just an amusement center—it is a destination for active family outings, school events, and birthday celebrations. The park provides a secure, supervised, and affordable environment for families, meeting the community’s need for safe and engaging recreational opportunities.

2. That such use will not, under any circumstances, be detrimental to the health, safety, morals, or general welfare of persons residing or working in the vicinity.

Urban Air is committed to ensuring that its presence will enhance the community without compromising the health, safety, morals, or general welfare of those living or working nearby. Key considerations include:

- **Safe Parking and Traffic Flow:**
The existing parking lot has adequate capacity to accommodate Urban Air’s expected traffic. Additionally, traffic patterns will align with those of neighboring businesses to minimize disruption.
- **Supervised Environment:**
Urban Air’s adventure park will be fully staffed with not only managerial staff. Urban Air operates with an average of 80 team members, primarily aged 16–21. All staff will receive safety certifications and undergo training to supervise attractions and maintain a secure environment.
- **Employment Opportunities:**
The park will provide part-time employment opportunities, offering roles in areas such as attractions supervision, front desk operations, kitchen staff, and management. These opportunities will foster responsibility and skill development among young adults.
- **Community Gathering Space:**
Urban Air provides a supervised space for children and adolescents to engage in active play and socialize, making it a valuable addition to the area.

Urban Air will comply with all local health and safety regulations, ensuring the park operates as a secure and family-friendly destination.



3. That the proposed use will comply with the regulations and conditions specified in this ordinance for such use, and with the stipulations and conditions made a part of the authorization granted by the Village Board of Trustees.

Urban Air is dedicated to maintaining full compliance with all local and state regulations, including those governing the maintenance and licensing of attractions.

Urban Air will gather all necessary permits, including but not limited to, C of O, Building, Fire alarm, Fire sprinkler, Health Department and life safety.

Urban Air is asking for a parking variance to allow for

The proposed adventure park will meet all stipulations and conditions outlined in the ordinance and will adhere to any additional requirements set forth by the Village Board of Trustees. Urban Air's strong track record of compliance across its 1,400+ locations demonstrates its commitment to maintaining the highest operational standards.

4. Urban Air is requesting a variance to the Villages parking requirement

- **Safe Parking and Traffic Flow:**

The existing parking lot has adequate capacity to accommodate Urban Air's expected traffic. Additionally, traffic patterns and times will align with those of neighboring businesses to minimize disruption.

- **Current parking with existing tenants:**

Currently in a 250 feet radius there is-

- a. Five Furniture & Outlet
- b. Formally, The Room Place, recently went out of business in the center, adjacent parking lot (Parking lot D)
- c. Formally, Olsen Rug, recently went out of business in the center
- d. Formally, Harvest Fresh Markets, recently went out of business in the center

- **Peak parking times**

- Traffic study outlines that peak traffic hours are from the hours of 6pm and 8pm during weekdays, and 1:30 – 3:30 pm on weekends.



- Max amount of spaces used per hour at an existing Urban Air is 35 max, and 29 is the mean of occupied spaces during the weekday, and max 89, and 21 is the mean of occupied spaces during the weekend.
- **Urban Air is not a destination restaurant:**
The park does not provide an option to just dine in and not attend the park amusements. The same people who will be using the amusement park will also be allowed to dine at the café. No outside guest is allowed to just use the park as an eatery.

5. The proposed use will not alter the essential character of the locality and will be compatible with existing uses and zoning of nearby property.

The proposed adventure park will be housed in an existing retail space, requiring no significant exterior modifications. The property resides in one of two larger retail buildings at the corner of Rand Rd and Arlington Heights Rd, ensuring its compatibility with the surrounding commercial area.

Key features:

- **Adequate Parking:** The parking lot has ample capacity for Urban Air's use based off the parking lot study.
- **Hours of Operation:** Business hours will align with neighboring businesses, ensuring minimal disruption.
- Hours of operation are-
 - M-Thurs – 4pm-9pm
 - Friday – 4pm-10pm
 - Saturday – 10am-10pm
 - Sunday – 10am-9pm

These hours are subjected to change around the holidays.

- **Employment Opportunities:** Local residents will benefit from part-time and management-level employment opportunities.

Urban Air will enhance the area's family-friendly appeal, providing a safe and fun destination for children while supporting local economic growth.

6. The proposed variation is in harmony with the spirit and intent of this Chapter.



Urban Air's use of the property aligns with the Chapter's goals of fostering a safe, vibrant community. By providing families with an active and engaging entertainment option, Urban Air addresses a critical need for recreational activities in Arlington Heights.

Additionally, Urban Air intends to make this its best location yet, yet understands that parking is a vital key to their success. The study shows this location has ample parking based off

7. The variance requested is the minimum variance necessary to allow reasonable use of the property.

The proposed use leverages existing infrastructure and requires minimal modifications to the retail space. Urban Air's plan to revitalize a vacant property aligns with the goals of the zoning ordinance, creating an opportunity to enhance the community's economic and recreational landscape.

A detailed floor plan is attached. While minor adjustments may be made during the plan review process, the overall layout aligns with the existing space and operational needs.

8. The plight of the owner is due to unique circumstances, which may include the length of time the subject property has been vacant as zoned.

The subject space has faced unique challenges that have contributed to its prolonged vacancy. Following the departure of the long-term tenant, the space of this magnitude is difficult to lease due to its size, layout, and the associated costs of owning and operating a business of this size. The existing grocery store next to the proposed UA has recently vacated which and now the parking center is currently missing two large anchors for the center.

The property's specific zoning and characteristics have limited its appeal to traditional retail or office tenants. Additionally, the expenses tied to maintaining and marketing the space have posed challenges for the owner in attracting suitable tenants who can fully utilize and sustain operations in this location.

Urban Air's proposed use provides a valuable solution to these challenges by bringing a vibrant, family-oriented business to the property. This use not only aligns with the community's needs but also revitalizes a commercial space that has remained underutilized, ensuring the property contributes positively to the Arlington Heights economy.



This unique combination of circumstances justifies the request for a special use permit and demonstrates the need for flexibility in leasing this property to a use that aligns with both the owner's and the community's goals.

Conclusion:

Urban Air's adventure park will bring tremendous value to the Arlington Heights community by providing a safe, family-friendly environment for recreation and development. We are excited about the opportunity to work with the Village to bring this project to life.

Thank you for your consideration. Should you require additional information or have any questions, please do not hesitate to contact us.

Sincerely,

Nino Hermes

Nino Hermes

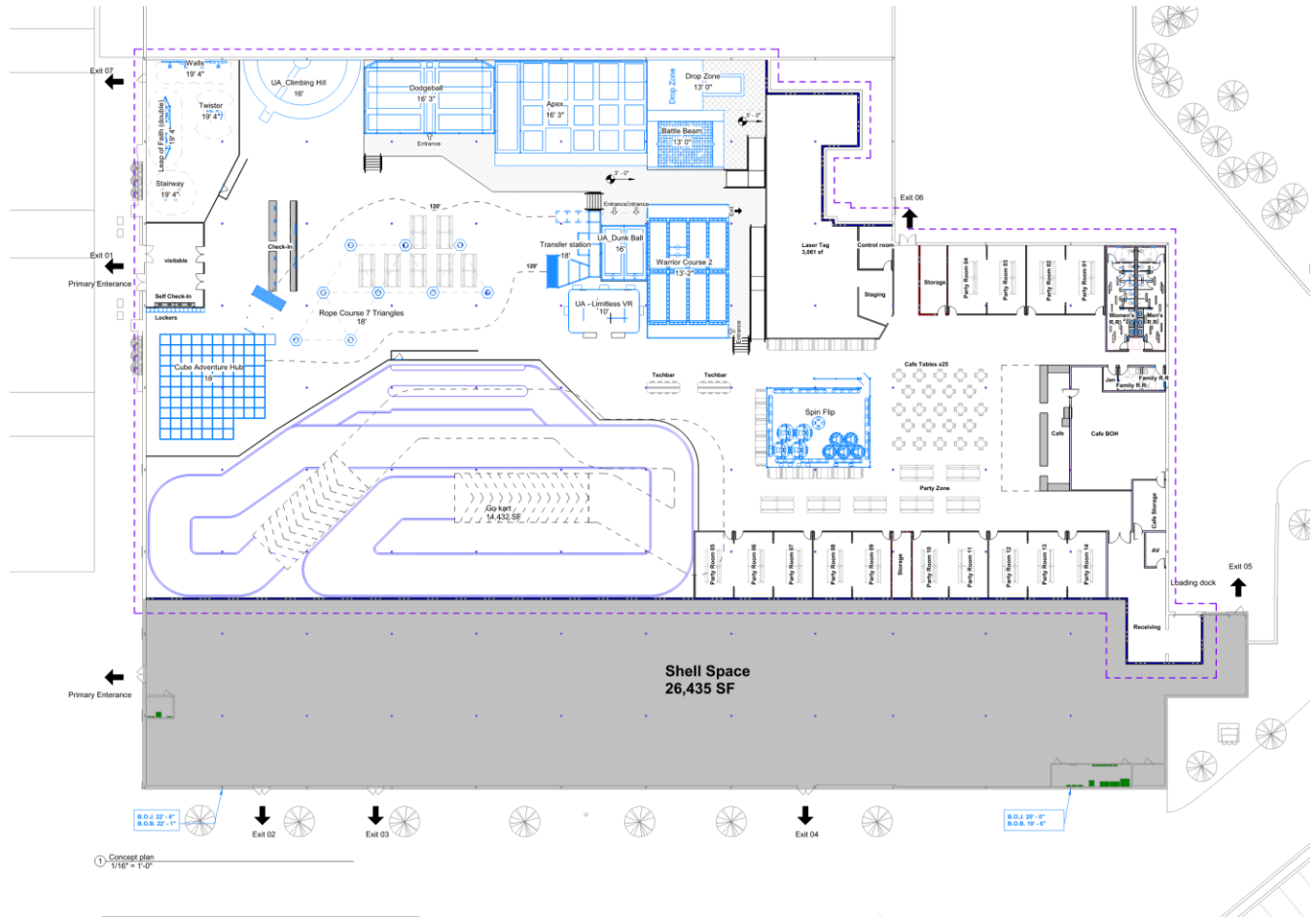
Response to Comments:

Dan Osoba
Department: Planning & Community Development
Fire Number: PC24-017
Project: Urban Air at Arlington
Review Round: Round 1
Date: 12/23/24

- 1.) Urban Air is currently seeking Special use approval for Large Amusement, Restaurant and a parking variance.
- 2.) The response has been uploaded to the portal with all necessary documentation
- 3.) A plan fee will be paid, once we receive the invoice.
- 4.) Very little noise occurs due to GoKarts, as they are electric karts and do not make any emissions,



and no noise while “running”. The loudest noise generated is due to kids playing and having fun and a 1 hour rated wall provides an STC rating of 50-55. Music for the space, is confined to the party rooms during celebrations.







Market Study: November 19th, 2024

Revised: 1/6/25

Village of Arlington Heights

Department of Planning & Community Development
33 South Arlington Heights Road
Arlington Heights, IL 60025

RE: Market Study: 30 W Rand Rd, Arlington Heights, IL 60004

Dear Department of Planning & Community Development,

Enclosed, please find comprehensive marketing information prepared by Second Elite Amusement and Urban Air franchise. This information was instrumental in evaluating the placement of an Urban Air location at 30 W Rand Rd, Arlington Heights, IL. The data presented supports our request for a **Special Use Permit** to open an Urban Air franchise at this site and highlights the potential for a complementary use of the neighboring tenant space.

Arlington Heights: A Prime Location for Urban Air

Arlington Heights has a robust population of approximately 77,000, of which 23% are under the age of 19. Surrounding suburbs, including Palatine, Mt. Prospect, Prospect Heights, Buffalo Grove, and Rolling Meadows, collectively have an estimated population of 202,000, with an average of 24% being under the age of 19. This results in an estimated 50,000–60,000 children under the age of 18 in the immediate area.

The nearest comparable family amusement park to Urban Air is located in Schaumburg, approximately 11.3 miles away, making 30 W Rand Rd a strategic location to fill the gap in family-friendly active entertainment in this region.

Supporting Demographics:

- **Population Data:**
 - Within 1 mile: 13,130
 - Within 2 miles: 55,481
 - Within 3 miles: 127,386
- **Households:**
 - Within 1 mile: 4,921
 - Within 2 miles: 22,775
 - Within 3 miles: 51,933

- **Income Levels:**
 - Average household income within 1 mile: \$164,995
 - Average household income within 2 miles: \$144,913
 - Average household income within 3 miles: \$130,039
- **Transportation Habits:**
 - Within 1 mile: 64.6% of residents drive to work
 - Within 2 miles: 63.7% of residents drive to work
 - Within 3 miles: 68.4% of residents drive to work
- **Consumer Restaurant Expenditures:**
 - Within 1 mile: \$75.89M annually
 - Within 2 miles: \$322.76M annually
 - Within 3 miles: \$674.26M annually

Competitive Landscape and Urban Air's Unique Offering

- **Existing Competitors:**
 - **Chuck E. Cheese (Arlington Heights):** Located 0.2 miles away, catering to children aged 3–6 with an arcade and ticket redemption model.
 - **Kid Empire (Palatine):** Located 3.1 miles away, catering to children aged 1–6 with attractions like an obstacle course, building blocks, a dance room, and slides.
 - **Sky High Trampoline Park (Schaumburg):** Located 11.3 miles away.

Urban Air distinguishes itself with a broader age range (5 years to high school) and an emphasis on active, engaging attractions, such as go-karts, laser tag, virtual reality, trampolines, ninja courses, zip lines, obstacle courses, rock climbing, bumper cars, ropes courses, and slides. Unlike competitors, Urban Air focuses on physical activity and experiential entertainment rather than passive or digital games.

Neighboring Tenant Space: A Versatile Opportunity

The neighboring space, comprising approximately 26,436 sq. ft. with 69 linear feet of storefront frontage, presents excellent potential for various uses under the current B-2 zoning designation. Proposed uses include a racquetball facility, fitness center, or similar concepts targeting the active adult demographic (ages 18–64), which represents 65% of Arlington Heights' population.

Competitive Landscape for Fitness/Racquetball Facilities:

- **Arlington Heights Park District:** Offers 10 courts for mixed-use racquetball and tennis.
- **Midtown Athletic Club:** Features 3 tennis courts, yoga, weightlifting, swimming, and other amenities through membership.
- **Northbrook Racquet Club (Northbrook):** Operates 8 indoor courts with lessons and memberships.
- **Glenbrook Racquet Club:** Offers 6 racquetball courts with memberships and league opportunities.

Also possible uses could include splitting to smaller spaces for small retail. Either beauty salon, or health and wellness such as waxing studio, eye lash studio, and possibility of other youth enrichment brands that fall under the Unleashed brands umbrella. Some of these ideas would include Martial arts studio, college planning(tutoring) or little gyms.

- Currently there is a strong location of Premier Martial arts in the Arlington Heights downtown and this would provide an additional studio opportunity for that franchisee.
- As well as providing the youth in the area for a close and easy to get to tutoring option. The closest tutoring option is only for the study of math, known as the Mathnasium. Unleashed brands “ Class 101 College planning for success” is an alternative option that would be a great fit for this location
- Health and Beauty, either Sola Salons studios, and or, waxing or eye lash studio would be a convenient fit that allows for smaller retail to be utilized. Currently there is a Salo Salon of Evergreen ave, and this would provide an ideal location for that is outside of the heart of the downtown.

Proposed Use Benefits:

A fitness or racquetball facility would complement existing sports and fitness facilities in the region while filling an identified gap in Arlington Heights proper. Currently, there are limited league memberships or dedicated racquetball opportunities within Arlington Heights itself. A facility of this type would provide a unique leisure/fitness option, attract an underserved segment of the population, and enhance the area’s reputation as a hub for recreational activities.

Summary of Value Proposition:

The inclusion of Urban Air and the potential fitness/racquetball facility at 30 W Rand Rd provides:

- A destination for family-friendly active entertainment, addressing a gap in the market.
- A complementary use for the neighboring space that aligns with Arlington Heights' demographic and community needs.
- Economic growth opportunities through increased consumer activity, job creation, and utilization of existing retail space.

We believe these developments align with the Village's vision for sustainable and community-centric growth.

Thank you for your time and consideration of this proposal. Should you require any additional information or have further questions, please do not hesitate to contact me.

Sincerely,

Nino Hermes

Response to Comments

Date: 1/2/25

Markey study questions:

- 1.) Would a recreational type use, such as the ones listed in the market study, be acceptable to the shopping center owner/or tenants already in the center? Given the other "health club" type uses or gyms that occupy space with Arlington Plaza.**

Answer: Currently there is no restriction for sports/club sports for the shopping center.

- 2.) Is there a possibility of further splitting the space into smaller tenant spaces? If so, would there be the possibility of other personal services such as beauty salons or commercial uses such as restaurants?**

Answer: Currently the property owner has no restrictions or exclusivity with any existing tenant for a beauty salon or restaurant. There is a real possibility of a beauty salon that has been discussed with the owner of the property and at this time there is no plan for a restaurant or possible future restaurant.

- 3.) Would there be any restrictions on types of uses allowed from the shopping center (separate from zoning requirements)? If so, please provide a list of prohibited uses for review.**

Answer: Please see below restricted uses for the center.

Arby's:

Landlord agrees, during the Term of this Lease and any Extensions thereof, and so long as Tenant is open for business using the Premises for a restaurant (excepting the closure of the Tenant's building on the Premises for reasonable repair, maintenance, alterations or other causes beyond control of Tenant), not to rent the Landlord's Tract or any portion of the Shopping Center to another tenant of five thousand (5,000) square feet or less whose primary use is the sale of roast beef sandwiches. "Primary use" is defined as a use in which more than fifty per cent (50%) of a tenant's gross sales are derived from that use. This restriction shall not apply to any existing tenants of the Landlord's Tract or the Shopping Center as of the Effective Date whose leases might permit them to violate this non-competition provision of the Lease and it shall not apply to any tenant of greater than five thousand (5,000) square feet. Furthermore, Landlord agrees, during the term of this Lease and any extensions thereof not to erect any improvements on Landlord's Tract and/or the Shopping Center which will materially interfere with access to Tenant's restaurant or the visibility of Tenant's signs to approaching automobile traffic traveling on adjoining highways or streets except if required by governmental authority.

The Room Place:

Landlord agrees not to lease to another tenant whose primary business is the sale or leasing of furniture. Primary business is defined as fifty (50%) percent or more of the floor area devoted to such business. Tenants under 5,000 square feet and existing tenants or their successors are exempt from this restriction.

America's Best:

So long as Tenant is not in default under the Lease beyond any applicable grace or cure period and so long as Tenant is operating an "America's Best Contacts & Eyeglasses" store [or a successor store (or trade name) with a substantially similar operation] in the Premises in accordance with the terms of this Lease, Landlord agrees that Landlord shall not lease any portion of the Center (including any kiosk or similar space) to another tenant whose primary use is the sale of contact lenses or eyeglasses or the provision of services by an optometrist (the "Use Restriction"). "Primary use" shall be defined as more than fifty percent (50%) of the store area of such tenant is devoted to one or any combination of the restricted uses. The Use Restriction shall not apply to any existing tenants whose leases do not contain a specific use clause (or to any assignees of any such leases) or to tenants of the Center occupying spaces of 10,000 square feet or more. The Use Restriction shall be included in the Memorandum of Lease to be recorded by Tenant pursuant to the terms of the Lease. Tenant, however, realizes that Four Eyes presently occupies a space in the Shopping Center and has exclusive use provision that will be violated by this Lease. Four Eyes Lease shall terminate on October 31, 2000. Tenant hereby agrees to indemnify and hold Landlord harmless from any and all actions, causes of action, damages

including payment of all of Landlord's costs and reasonable attorneys' fees caused by Landlord's execution of this Lease.

Zip Fitness:

So long as Tenant is open and operating as its intended use pursuant to Section 2.5 and is not in default of any obligations under the Lease, Tenant shall be the exclusive health and fitness club and tanning service provider within the Shopping Center throughout the Lease Term, and Landlord shall not enter into any new leases with other tenants in the Shopping Center allowing any of the uses as described in this section. This section shall apply to any extensions or renewals of the Lease Term except this provision does not apply for tenants occupying the Shopping Center prior to the Effective Date of this Lease with no-use clauses. This exclusive shall not apply to any ancillary uses operating separately and not a part of a health and fitness club (but does include and restricts the operation of a separate tanning service provider).

Should Landlord violate this covenant, Tenant shall have all rights and remedies available at law or in equity, provided, however that in the event another tenant at the Shopping Center breaches the restriction set forth in this Section 24.21 in violation of the provisions of its Lease, Tenant shall give Landlord written notice of such violation. If such violation is not remedied by Landlord within thirty (30) days of Landlord's receipt of such notice (provided, however that in the event another tenant at the Shopping Center breaches the restriction set forth in this Section in violation of the provisions of its lease (a "rouge tenant"), so long as Landlord files suit against the rogue tenant within thirty (30) days of notification by Tenant of a breach of the exclusive and diligently pursues this legal remedy, Tenant's rights and remedies because of the violation of its exclusive by said rouge tenant will be postponed for so long as Landlord is diligently and continuously prosecuting such suit; otherwise, then so long as such violation continues to exist, in lieu of the Minimum Monthly Rent and other charges payable to Landlord pursuant to this Lease, Tenant may elect to pay to Landlord an Alternative Minimum Monthly rent equal to fifty percent (50%) of its Monthly Minimum Rent. If this condition continues for longer than twelve (12) months, Tenant, at its option, may elect to terminate this Lease upon thirty (30) days' notice to Landlord.

In the event any portion of the Shopping Center is subsequently sold or otherwise transferred, Landlord shall ensure by written agreement with such transferee that this covenant shall continue to apply to such transferee.

Community Threads:

Landlord agrees not to lease space in the Shopping Center to any competing thrift store, and represents and warrants to Tenant that Tenant's use of the Premises as a thrift store is no

inconsistent with nor in violation of any other leases in the Shopping Center.

MEMORANDUM TO: Kayleigh Rollins
Foxfield

FROM: Kelly Pachowicz
Consultant

Luay Aboona, PE, PTOE
Principal

DATE: September 20, 2024

SUBJECT: Parking and Traffic Evaluation
Proposed Urban Air Adventure Park
Arlington Heights, Illinois

This memorandum summarizes the results of a parking and traffic evaluation prepared by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Urban Air Adventure Park to be located within the Arlington Plaza shopping center located on the north side of Rand Road (US 12) west of Arlington Heights Road. As proposed, the Urban Air will occupy the storefront previously occupied by a Burlington retail store. The shopping center provides approximately 886 parking spaces. **Figure 1** shows an aerial view of the site.

The purpose of the traffic and parking evaluation is to evaluate the adequacy of the existing parking supply in accommodating the parking demand of the proposed Urban Air Adventure Park. In order to do that, the following tasks were undertaken:

- Parking occupancy surveys were conducted by KLOA, Inc. at the Arlington Plaza shopping center on a Thursday, Friday, and Saturday from 11:00 A.M. to 8:00 P.M.
- The existing parking demand was evaluated to determine the adequacy of the current supply in meeting the existing needs of the shopping center.
- The amount of required parking for the Urban Air Adventure Park was estimated based on the following:
 - Village of Arlington Heights Municipal Code
 - Parking ratios published by the Institute of Transportation Engineers (ITE)
 - Parking observations at an existing Urban Air facility
- The existing parking demand was compared to the existing parking supply to determine the adequacy of the parking supply in accommodating the parking needs of the proposed Urban Air Adventure Park.



Aerial View of Site

Figure 1

Parking Occupancy Surveys

In order to determine the existing parking demand at the Arlington Plaza shopping center, parking occupancy surveys were conducted at the parking lots serving the Arlington Plaza on Thursday August 8, Friday August 9 and Saturday August 10, 2024 from 11:00 A.M. to 8:00 P.M. The parking occupancy surveys were collected every hour. The following are descriptions of the parking zones surveyed:

- Zone A is the surface parking lot serving the far north side of the shopping center, to the east of the proposed Urban Air building and north of the building containing The RoomPlace furniture store. This parking lot provides approximately 149 parking spaces.
- Zone B is the surface parking lot fronting the former grocery store space and The RoomPlace furniture store. This parking lot provides approximately 184 parking spaces.
- Zone C is the surface parking lot fronting the former Burlington space/proposed Urban Air Adventure Park space. This parking lot also contains a vacant outlot building which is proposed to be occupied by a coffee shop (by others). This parking lot provides approximately 294 parking spaces.
- Zone D is the surface parking lot on the far northwest side of the shopping center. This parking lot fronts the Amazon returns store, Chinese buffet restaurant, and a thrift store and also contains the Arby's fast-food restaurant outlot. This parking lot fronts Rand Road and provides approximately 259 parking spaces.

Figure 2 shows an aerial of the surveyed parking zones and the location of the proposed Urban Air Adventure Park Space.



Surveyed Parking Zones

Figure 2

The results of the surveys are summarized in **Tables A** through **C**, included in the Appendix.

The following summarizes the results of the parking occupancy surveys:

- On Thursday, the shopping center had an average parking demand of 121 vehicles, which translates into a 14 percent parking occupancy. The peak parking demand of 150 vehicles occurred at 12:00 P.M., which translates into a 17 percent occupancy. As such, and at a minimum, the shopping center has a surplus of 736 parking spaces at any given time on a Thursday.
- On Friday, the shopping center had an average parking demand of 169 vehicles, which translates into a 19 percent parking occupancy. The peak parking demand of 212 vehicles occurred at 12:00 P.M., which translates into a 24 percent occupancy. As such, and at a minimum, the shopping center has a surplus of 674 parking spaces at any given time on a Friday.
- On Saturday, the shopping center had an average parking demand of 151 vehicles, which translates into a 17 percent parking occupancy. The peak parking demand of 201 vehicles occurred at 2:00 P.M., which translates into a 23 percent occupancy. As such, and at a minimum, the shopping center has a surplus of 685 parking spaces at any given time on a Saturday.

KLOA, Inc. further looked at the Zone C parking field, which directly fronts the proposed Urban Air Adventure Park space. Based on a review of the surveys, Zone C had the following parking characteristics:

- On Thursday, Zone C had an average parking demand of 58 vehicles, which translates into a 20 percent parking occupancy. The peak parking demand of 81 vehicles occurred at 6:00 P.M., which translates into a 28 percent occupancy. As such, and at a minimum, Zone C has a surplus of 213 parking spaces at any given time on a Thursday.
- On Friday, Zone C had an average parking demand of 63 vehicles, which translates into a 21 percent parking occupancy. The peak parking demand of 77 vehicles occurred at 12:00 P.M., which translates into a 26 percent occupancy. As such, and at a minimum, Zone C has a surplus of 217 parking spaces at any given time on a Friday.
- On Saturday, Zone C had an average parking demand of 70 vehicles, which translates into a 24 percent parking occupancy. The peak parking demand of 91 vehicles occurred at 12:00 P.M., which translates into a 31 percent occupancy. As such, and at a minimum, Zone C has a surplus of 203 parking spaces at any given time on a Saturday.

Therefore, the results of the surveys indicate that on any given day, there is 75 percent or more of the shopping center parking lot available to accommodate any additional parking needs. The immediate parking area (Zone C) has 69 percent or more of the parking spaces available to accommodate any additional parking needs.

Characteristics of the Proposed Urban Air Adventure Park

As previously indicated, the proposed Urban Air Adventure Park will occupy approximately 66,615 square feet of the former Burlington space within the shopping center. Below is a breakdown of the operational characteristics of the Urban Air Adventure Park:

- Hours of Operation: Monday Through Thursday - 4:00 P.M. to 9:00 P.M.
Friday - 10 A.M. to 9:00 P.M.
Saturday - 12:00 P.M. to 8:00 P.M.
- Number of Staff: 60
- Maximum Occupancy: 838 people

Existing Urban Air Adventure Park Parking Survey

In order to determine the parking demand for parking of the proposed Urban Air Adventure Park, a parking occupancy survey at an existing Urban Air facility located in North Riverside, Illinois was conducted. The surveys were conducted on Thursday, August 22, 2024 and Friday, August 23, 2024 from 2:00 P.M. to 8:00 P.M. and on Saturday, August 24, 2024 from 10:00 A.M. to 8:00 P.M. The parking demand was collected every half hour. **Tables D** and **E** in the Appendix show the existing Urban Air Adventure Park parking demand.

Based on the surveys, the peak parking demand on a Thursday was 22 spaces occurring at 7:00 P.M., 35 spaces on a Friday at 7:00 P.M., and 89 spaces on a Saturday at 3:00 P.M. This translates into a peak parking demand of 0.37 spaces per 1,000 square feet on a Thursday, 0.59 spaces per 1,000 square feet on a Friday and 1.52 spaces per 1,000 square feet on a Saturday.

Parking Requirements per Village of Arlington Heights Municipal Code

Based on a review of the Village of Arlington Heights Municipal Code, recreational facilities are required to provide a number of parking spaces that is equal to approximately 30 percent of the maximum occupancy of the facility. Given the maximum occupancy of 838 persons, approximately 215 parking spaces are required for the Urban Air Adventure Park per Municipal Code.

Parking Requirements per ITE Rates

In reviewing parking generation data provided in the ITE *Parking Generation Manual*, 6th Edition, the manual does not have parking data specifically for a trampoline park. However, further inspection of the manual indicates that the Land-Use Code 495 (Recreational Community Center) is the closest land use to the proposed land use as it provides similar activities. Based on the ITE parking rates, the facility will have an average peak parking demand of 1.8 parking spaces per 1,000 square feet of space on Monday through Friday and a rate of 1.79 parking spaces per 1,000 square feet of space on Saturday. Therefore, and based on ITE rates, the facility is anticipated to have a peak parking demand of 120 parking spaces on a weekday and 119 parking spaces on a Saturday.

Overall Parking Evaluation

In order to determine the adequacy of the existing parking supply in meeting the additional parking demand of the Urban Air Adventure Park, an hourly shared parking analysis was conducted based on the results of the existing parking demand and utilizing the surveyed parking rates, the Village of Arlington Heights parking requirements and the ITE parking rates. The hourly distribution of the Urban Air was based on the existing Urban Air facility parking survey. **Tables FA** through **HC** in the Appendix summarize the results of the shared parking analysis for a Thursday, Friday, and Saturday. It is important to note that included in the projected parking demand is the future parking demand of the vacant grocery store space and the proposed coffee shop to occupy the vacant Olson Rug outlet. Bar graphs depicting the parking demand of the parking supply are also included in the Appendix in **Figures A** through **C**.

As can be seen, the projected parking demand by the Urban Air Adventure Park, either utilizing the Village of Arlington Heights requirements, ITE rates, or the parking surveys of the existing facility, can be easily accommodated by the existing parking supply of the shopping center. There will be a surplus of at least 483 parking spaces on a Thursday, 467 parking spaces on a Friday, and 393 parking spaces on a Saturday.

In addition, the adequacy of Zone C, located immediately adjacent to the Urban Air space was also evaluated. **Tables IA** through **KC** included in the Appendix show the parking demand for this zone. As can be seen from the tables, there will be a surplus of at least 5 parking spaces on a Thursday and 14 parking spaces on a Friday. On Saturday and utilizing the Village's parking requirements, Zone C can accommodate at least 198 spaces of the required 215. This means that Zone C can accommodate 92 percent of the required number of parking spaces with the remaining 17 spaces easily accommodated by the other adjacent parking zones. Bar graphs depicting the parking demand of the parking supply of Zone C are also included in the Appendix in **Figures D** through **F**.

Therefore, the parking supply within the Arlington Plaza shopping center will be adequate in accommodating the future parking demand that including existing and future demand as well as the proposed Urban Air Adventure Park.

Traffic Evaluation

The Arlington Plaza shopping center is currently occupied by a variety of retail uses such as a sushi restaurant, barber shop, optometrist, two furniture stores, gym, Amazon returns store, Chinese buffet restaurant, and a thrift store and two outlots. One of the outlots is currently vacant and is proposed to be redeveloped with a coffee shop. Furthermore, there is a vacant space located on the southeast end of the shopping center (approximately 26,000 square feet) that was previously occupied by a grocery store.

Access to the shopping center is provided via three signalized access drives: two off Rand Road and one off Arlington Heights Road. An additional two unsignalized access drives are provided off Rand Road and one off Arlington Heights Road.

Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed facility was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). The “Trampoline Park” (Land-Use Code 436) rate was utilized for the proposed facility. **Table 1** summarizes the estimated peak hour trips. Given the facility will not be open during the weekday morning peak period, trips were only estimated for the weekday evening and Saturday midday peak hours. It is important to note that the ITE rates are based only on one study for one location and therefore provide a significantly conservative estimate of trip generation, especially when compared to the parking observation study conducted by KLOA, Inc. in North Riverside, Illinois.

Table 1
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land-Use Code	Type/Size	Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total
436	Trampoline Park 66,615 S.F.	48	52	100	252	154	406

Trip Generation Comparison

As indicated earlier, the building was previously occupied by a Burlington retail store which was approximately 93,050 square feet in size. The proposed development (not including their storage area) will total approximately 26,435 square feet less than the Burlington. The vehicle trip generation for the former Burlington was calculated utilizing Land-Use Code 875 (Department Store).

Table 2 shows the comparison between the Burlington retail store and the proposed development during the peak hours. As can be seen within the table, the proposed development is expected to generate fewer trips during the weekday evening peak hour and slightly more trips during the Saturday midday peak hour.

Table 2
ESTIMATED TRIP GENERATION COMPARISON

Development	Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	In	Out	Total	In	Out	Total
Urban Air Adventure Park	48	52	100	252	154	406
Burlington	<u>91</u>	<u>90</u>	<u>181</u>	<u>170</u>	<u>151</u>	<u>321</u>
Difference	-43	-38	-81	+82	+3	+85

Access Evaluation

The traffic that is estimated to be generated by the proposed Urban Air Adventure Park will utilize Rand Road and Arlington Heights Road to access the site. When the projected traffic that will be generated by the proposed facility is compared to the traffic on the adjacent roadway system, the proposed facility will not have a detrimental impact on the operation of the existing access drives due to the following:

- The proposed facility will generate lower volumes of traffic compared to the previous use during the evening peak hour and slightly higher volumes during the Saturday midday peak hour.
- There are multiple signalized and unsignalized access points serving the shopping center to effectively distribute traffic to the adjacent roadway system.
- The potential additional traffic anticipated to be experienced during the Saturday midday peak hour can be accommodated with minimal impact to the operation of the shopping center and adjacent roadways given all the multiple access points.

As such, the access system will be adequate in accommodating the traffic that will be generated by the proposed Urban Air Adventure Park.

Conclusion

Based on the results of the parking surveys and the shared parking analysis, the following conclusions have been made:

- The existing parking supply adequately meets and exceeds the existing parking demand of the Arlington Plaza shopping Center.
- With the development of the Urban Air Adventure Park and either applying the Village of Arlington Heights parking code, the ITE parking rates or the parking rates from an existing Urban Air facility and based on the parking occupancy surveys, the overall parking supply will be adequate in accommodating the additional parking demand.
- Based on the parking surveys, Zone C adjacent to the proposed Urban Air adventure Park will be adequate in accommodating all of the projected parking demand and at least 92 percent of the required parking spaces per code (198 out of 215) on a Saturday with the remaining 17 spaces being easily accommodated by the other parking spaces available within the shopping center.
- When the ITE and the existing Urban Air facility parking survey rates are applied, all of the projected parking demand can be accommodated by Zone C.
- The Urban Air Adventure Park will generate traffic volumes that are consistent with the previous land use and can be accommodated by the existing access system.

Appendix

Table A

ARLINGTON PLAZA PARKING OCCUPANCY RESULTS – THURSDAY, AUGUST 8, 2024

Time	Zone				Total	Percent Occupied
	A	B	C	D		
11:00 AM	0	14	52	47	113	13%
12:00 PM	0	14	58	78	150	17%
1:00 PM	1	14	48	54	117	13%
2:00 PM	0	14	46	59	119	13%
3:00 PM	0	13	51	53	117	13%
4:00 PM	2	15	62	69	148	17%
5:00 PM	0	14	62	59	135	15%
6:00 PM	0	10	81	37	128	14%
7:00 PM	0	5	67	31	103	12%
8:00 PM	0	1	53	30	84	9%
Inventory	149	184	294	259	886	

Table B

ARLINGTON PLAZA PARKING OCCUPANCY RESULTS – FRIDAY, AUGUST 9, 2024

Time	Zone				Total	Percent Occupied
	A	B	C	D		
11:00 AM	0	15	67	113	195	22%
12:00 PM	0	15	77	120	212	24%
1:00 PM	0	16	62	128	206	23%
2:00 PM	1	14	60	125	200	23%
3:00 PM	0	19	53	98	170	19%
4:00 PM	0	15	54	90	159	18%
5:00 PM	0	14	74	93	181	20%
6:00 PM	0	8	61	74	143	16%
7:00 PM	2	6	58	57	123	14%
8:00 PM	2	1	60	34	97	11%
Inventory	149	184	294	259	886	

Table C
 ARLINGTON PLAZA PARKING OCCUPANCY RESULTS –
 SATURDAY, AUGUST 10, 2024

Time	Zone				Total	Percent Occupied
	A	B	C	D		
11:00 AM	1	18	82	76	177	20%
12:00 PM	0	19	91	85	195	22%
1:00 PM	3	15	74	94	186	21%
2:00 PM	0	14	92	95	201	23%
3:00 PM	0	16	75	80	171	19%
4:00 PM	0	12	69	74	155	17%
5:00 PM	0	6	56	64	126	14%
6:00 PM	0	5	78	72	155	17%
7:00 PM	0	2	48	43	93	10%
8:00 PM	0	1	32	14	47	5%
Inventory	149	184	294	259	886	

Table D

EXISTING URBAN AIR PARKING OCCUPANCY – WEEKDAY

Time	Thursday, August 22, 2024		Friday, August 23, 2024	
	Spaces Occupied	Percent Occupied	Spaces Occupied	Percent Occupied
2:00 P.M.	0	0%	0	0%
2:30 P.M.	1	1%	0	0%
3:00 P.M.	0	0%	0	0%
3:30 P.M.	2	1%	1	1%
4:00 P.M.	3	1%	3	1%
4:30 P.M.	9	4%	12	6%
5:00 P.M.	13	6%	18	9%
5:30 P.M.	17	8%	25	12%
6:00 P.M.	17	8%	29	14%
6:30 P.M.	20	10%	34	16%
7:00 P.M.	22	11%	35	17%
7:30 P.M.	21	10%	35	17%
8:00 P.M.	6	3%	30	14%
Inventory	207		207	

Table E

EXISTING URBAN AIR PARKING OCCUPANCY – SATURDAY

Time	Saturday, August 24, 2024	
	Spaces Occupied	Percent Occupied
10:00 A.M.	1	1%
10:30 A.M.	3	1%
11:00 A.M.	7	3%
11:30 A.M.	12	6%
12:00 P.M.	14	7%
12:30 P.M.	27	13%
1:00 P.M.	45	22%
1:30 P.M.	69	33%
2:00 P.M.	77	37%
2:30 P.M.	80	39%
3:00 P.M.	89	43%
3:30 P.M.	68	33%
4:00 P.M.	66	32%
4:30 P.M.	60	29%
5:00 P.M.	60	29%
5:30 P.M.	63	30%
6:00 P.M.	80	39%
6:30 P.M.	75	36%
7:00 P.M.	73	35%
7:30 P.M.	68	33%
8:00 P.M.	59	29%
Inventory	207	

Table FA
VILLAGE REQUIREMENTS
PROJECTED TOTAL HOURLY PARKING OCCUPANCY – THURSDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	113	58	16	0	187	21%
12:00 PM	150	75	17	0	242	27%
1:00 PM	117	76	15	0	208	23%
2:00 PM	119	81	12	6	218	25%
3:00 PM	117	83	13	11	224	25%
4:00 PM	148	80	14	60	302	34%
5:00 PM	135	83	14	146	378	43%
6:00 PM	128	87	7	181	403	45%
7:00 PM	103	68	7	215	393	44%
8:00 PM	84	34	4	58	180	20%

Table FB
VILLAGE REQUIREMENTS
PROJECTED TOTAL HOURLY PARKING OCCUPANCY – FRIDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	195	89	16	0	300	34%
12:00 PM	212	95	17	0	324	37%
1:00 PM	206	97	15	0	318	36%
2:00 PM	200	95	12	0	307	35%
3:00 PM	170	97	13	4	284	32%
4:00 PM	159	90	14	47	310	35%
5:00 PM	181	93	14	131	419	47%
6:00 PM	143	47	7	194	391	44%
7:00 PM	123	23	7	215	368	42%
8:00 PM	97	12	4	185	298	34%

Table FC

VILLAGE REQUIREMENTS

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – SATURDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	177	57	26	24	284	32%
12:00 PM	195	74	28	49	346	39%
1:00 PM	186	67	24	140	417	47%
2:00 PM	201	74	20	191	486	55%
3:00 PM	171	86	21	215	493	56%
4:00 PM	155	87	23	153	418	47%
5:00 PM	126	46	23	148	343	39%
6:00 PM	155	37	12	187	391	44%
7:00 PM	93	19	12	170	294	33%
8:00 PM	47	11	6	142	206	23%

Table GA

ITE RATES

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – THURSDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	113	58	16	0	187	21%
12:00 PM	150	75	17	0	242	27%
1:00 PM	117	76	15	0	208	23%
2:00 PM	119	81	12	4	216	24%
3:00 PM	117	83	13	6	219	25%
4:00 PM	148	80	14	34	276	31%
5:00 PM	135	83	14	82	314	35%
6:00 PM	128	87	7	101	323	36%
7:00 PM	103	68	7	120	298	34%
8:00 PM	84	34	4	32	154	17%

Table GB
ITE RATES
PROJECTED TOTAL HOURLY PARKING OCCUPANCY – FRIDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	195	89	16	0	300	34%
12:00 PM	212	95	17	0	324	37%
1:00 PM	206	97	15	0	318	36%
2:00 PM	200	95	12	0	307	35%
3:00 PM	170	97	13	2	282	32%
4:00 PM	159	90	14	26	289	33%
5:00 PM	181	93	14	73	361	41%
6:00 PM	143	47	7	108	305	34%
7:00 PM	123	23	7	120	273	31%
8:00 PM	97	12	4	103	216	24%

Table GC
ITE RATES
PROJECTED TOTAL HOURLY PARKING OCCUPANCY – SATURDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	177	57	26	13	273	31%
12:00 PM	195	74	28	27	324	37%
1:00 PM	186	67	24	77	354	40%
2:00 PM	201	74	20	106	401	45%
3:00 PM	171	86	21	119	397	45%
4:00 PM	155	87	23	84	349	39%
5:00 PM	126	46	23	82	277	31%
6:00 PM	155	37	12	104	308	35%
7:00 PM	93	19	12	94	218	25%
8:00 PM	47	11	6	79	143	16%

Table HA

EXISTING URBAN AIR SURVEY RATES

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – THURSDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	113	58	16	0	187	21%
12:00 PM	150	75	17	0	242	27%
1:00 PM	117	76	15	0	208	23%
2:00 PM	119	81	12	1	213	24%
3:00 PM	117	83	13	1	214	24%
4:00 PM	148	80	14	7	249	28%
5:00 PM	135	83	14	17	249	28%
6:00 PM	128	87	7	21	243	27%
7:00 PM	103	68	7	25	203	23%
8:00 PM	84	34	4	7	129	15%

Table HB

EXISTING URBAN AIR SURVEY RATES

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – FRIDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	195	89	16	0	300	34%
12:00 PM	212	95	17	0	324	37%
1:00 PM	206	97	15	0	318	36%
2:00 PM	200	95	12	0	307	35%
3:00 PM	170	97	13	1	281	32%
4:00 PM	159	90	14	9	272	31%
5:00 PM	181	93	14	24	312	35%
6:00 PM	143	47	7	36	233	26%
7:00 PM	123	23	7	40	193	22%
8:00 PM	97	12	4	34	147	17%

Table HC

EXISTING URBAN AIR SURVEY RATES

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – SATURDAY

Time Period	Existing Demand	Former Grocery Store	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	177	57	26	11	271	31%
12:00 PM	195	74	28	23	320	36%
1:00 PM	186	67	24	66	343	39%
2:00 PM	201	74	20	90	385	43%
3:00 PM	171	86	21	101	379	43%
4:00 PM	155	87	23	72	337	38%
5:00 PM	126	46	23	70	265	30%
6:00 PM	155	37	12	88	292	33%
7:00 PM	93	19	12	80	204	23%
8:00 PM	47	11	6	67	131	15%

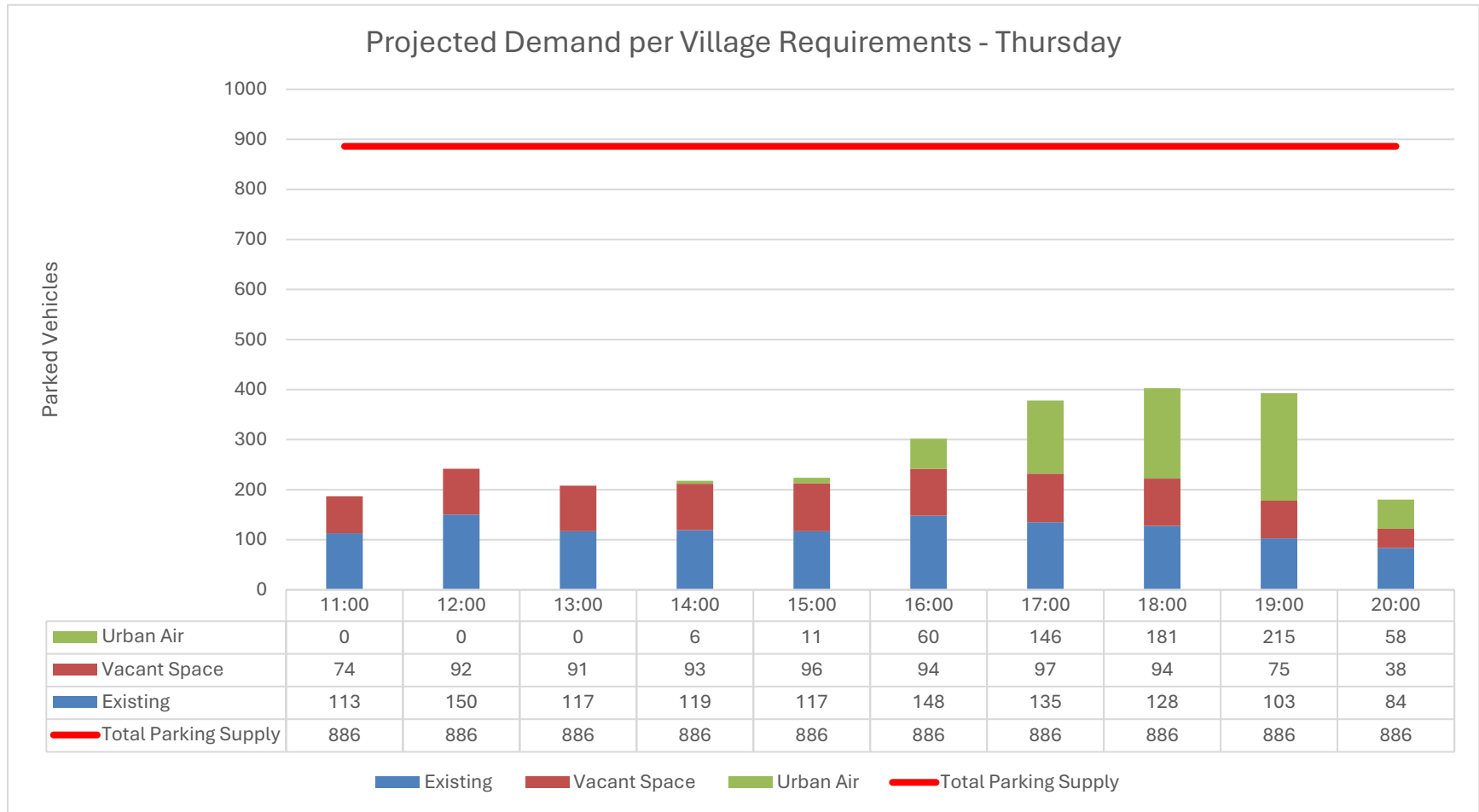


Figure A

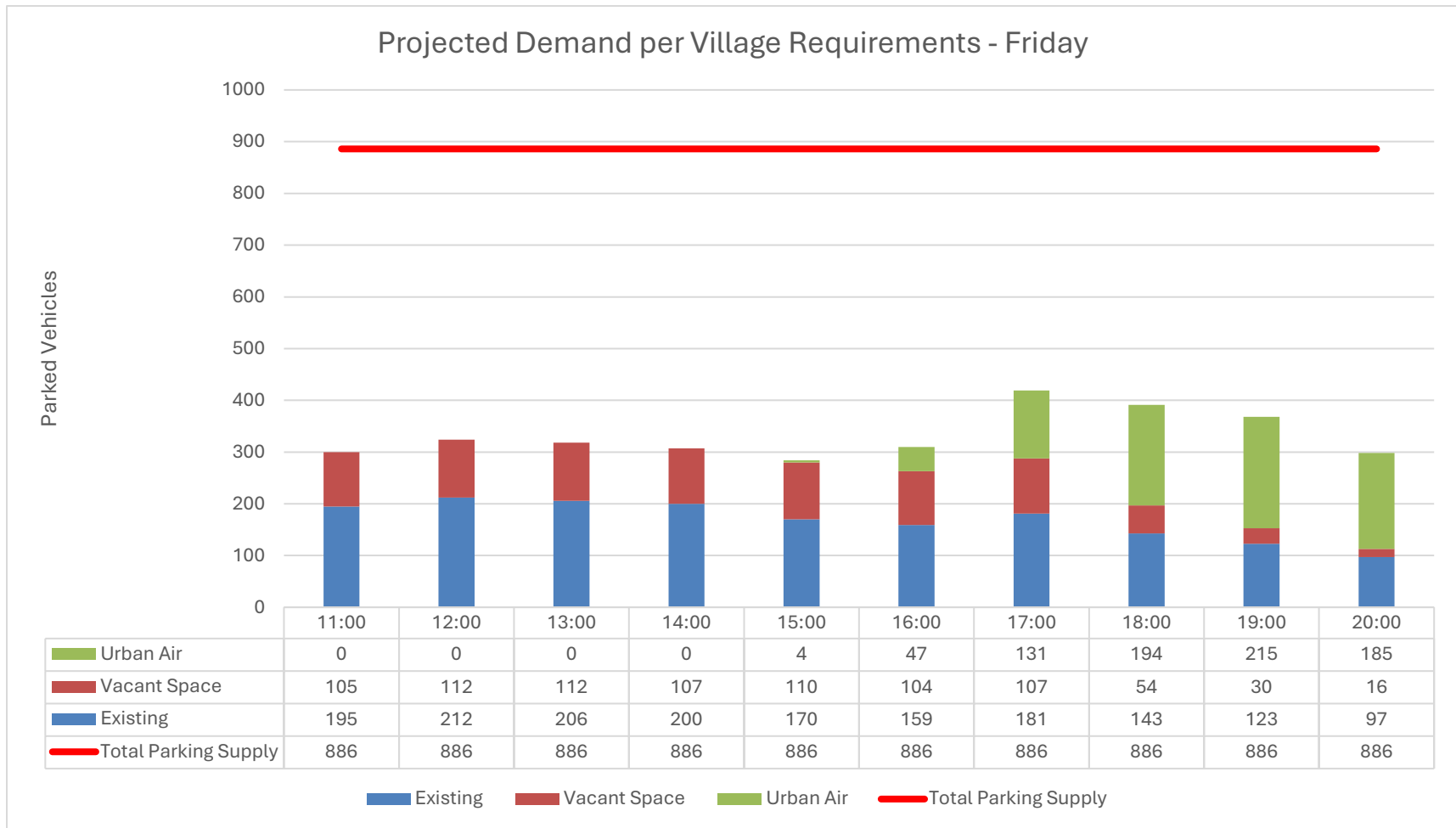


Figure B

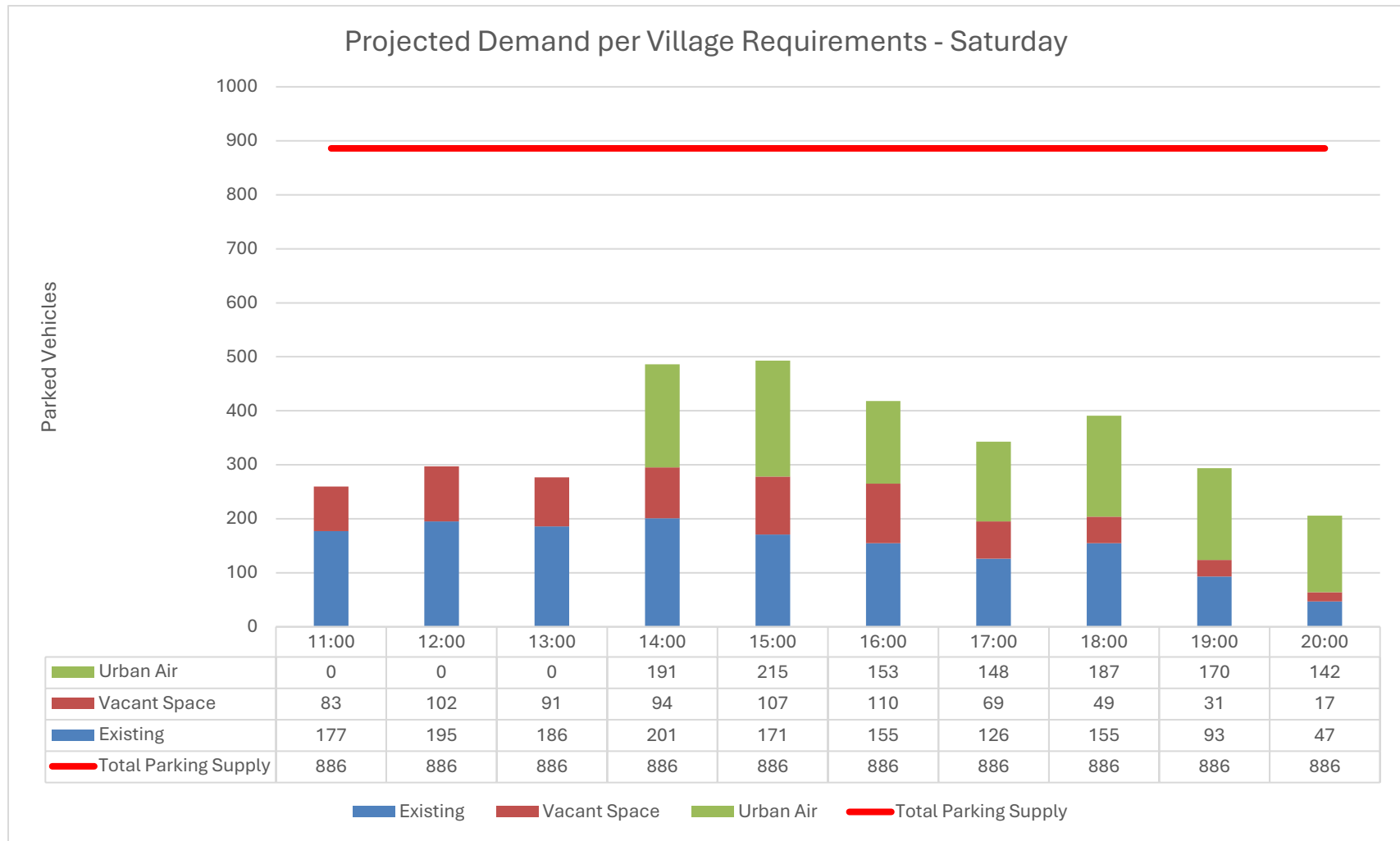


Figure C

Table IA

VILLAGE REQUIREMENTS – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – THURSDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	52	16	0	68	23%
12:00 PM	58	17	0	75	26%
1:00 PM	48	15	0	63	21%
2:00 PM	46	12	6	64	22%
3:00 PM	51	13	11	75	26%
4:00 PM	62	14	60	136	46%
5:00 PM	62	14	146	222	76%
6:00 PM	81	7	181	269	91%
7:00 PM	67	7	215	289	98%
8:00 PM	53	4	58	115	39%

Table IB

VILLAGE REQUIREMENTS – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – FRIDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	67	16	0	83	28%
12:00 PM	77	17	0	94	32%
1:00 PM	62	15	0	77	26%
2:00 PM	60	12	0	72	24%
3:00 PM	53	13	4	70	24%
4:00 PM	54	14	47	115	39%
5:00 PM	74	14	131	219	74%
6:00 PM	61	7	194	262	89%
7:00 PM	58	7	215	280	95%
8:00 PM	60	4	185	249	85%

Table IC

VILLAGE REQUIREMENTS – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – SATURDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	82	26	24	132	45%
12:00 PM	91	28	49	168	57%
1:00 PM	74	24	140	238	81%
2:00 PM	92	20	191	303	103%
3:00 PM	75	21	215	311	106%
4:00 PM	69	23	153	245	83%
5:00 PM	56	23	148	227	77%
6:00 PM	78	12	187	277	94%
7:00 PM	48	12	170	230	78%
8:00 PM	32	6	142	180	61%

Table JA

ITE RATES – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – THURSDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	52	16	0	68	23%
12:00 PM	58	17	0	75	26%
1:00 PM	48	15	0	63	21%
2:00 PM	46	12	4	62	21%
3:00 PM	51	13	6	70	24%
4:00 PM	62	14	34	110	37%
5:00 PM	62	14	82	158	54%
6:00 PM	81	7	101	189	64%
7:00 PM	67	7	120	194	66%
8:00 PM	53	4	32	89	30%

Table JB

ITE RATES – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – FRIDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	67	16	0	83	28%
12:00 PM	77	17	0	94	32%
1:00 PM	62	15	0	77	26%
2:00 PM	60	12	0	72	24%
3:00 PM	53	13	2	68	23%
4:00 PM	54	14	26	94	32%
5:00 PM	74	14	73	161	55%
6:00 PM	61	7	108	176	60%
7:00 PM	58	7	120	185	63%
8:00 PM	60	4	103	167	57%

Table JC

ITE RATES – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – SATURDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	82	26	13	121	41%
12:00 PM	91	28	27	146	50%
1:00 PM	74	24	77	175	60%
2:00 PM	92	20	106	218	74%
3:00 PM	75	21	119	215	73%
4:00 PM	69	23	84	176	60%
5:00 PM	56	23	82	161	55%
6:00 PM	78	12	104	194	66%
7:00 PM	48	12	94	154	52%
8:00 PM	32	6	79	117	40%

Table KA

EXISTING URBAN AIR SURVEY RATES – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – THURSDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	52	16	0	68	23%
12:00 PM	58	17	0	75	26%
1:00 PM	48	15	0	63	21%
2:00 PM	46	12	1	59	20%
3:00 PM	51	13	1	65	22%
4:00 PM	62	14	7	83	28%
5:00 PM	62	14	17	93	32%
6:00 PM	81	7	21	109	37%
7:00 PM	67	7	25	99	34%
8:00 PM	53	4	7	64	22%

Table KB

EXISTING URBAN AIR SURVEY RATES – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – FRIDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	67	16	0	83	28%
12:00 PM	77	17	0	94	32%
1:00 PM	62	15	0	77	26%
2:00 PM	60	12	0	72	24%
3:00 PM	53	13	1	67	23%
4:00 PM	54	14	9	77	26%
5:00 PM	74	14	24	112	38%
6:00 PM	61	7	36	104	35%
7:00 PM	58	7	40	105	36%
8:00 PM	60	4	34	98	33%

Table KC

EXISTING URBAN AIR SURVEY RATES – ZONE C

PROJECTED TOTAL HOURLY PARKING OCCUPANCY – SATURDAY

Time Period	Existing Demand Zone C	Proposed Coffee Shop	Proposed Urban Air	Total Projected Occupancy	Percent Occupied
11:00 AM	82	26	11	119	40%
12:00 PM	91	28	23	142	48%
1:00 PM	74	24	66	164	56%
2:00 PM	92	20	90	202	69%
3:00 PM	75	21	101	197	67%
4:00 PM	69	23	72	164	56%
5:00 PM	56	23	70	149	51%
6:00 PM	78	12	88	178	61%
7:00 PM	48	12	80	140	48%
8:00 PM	32	6	67	105	36%

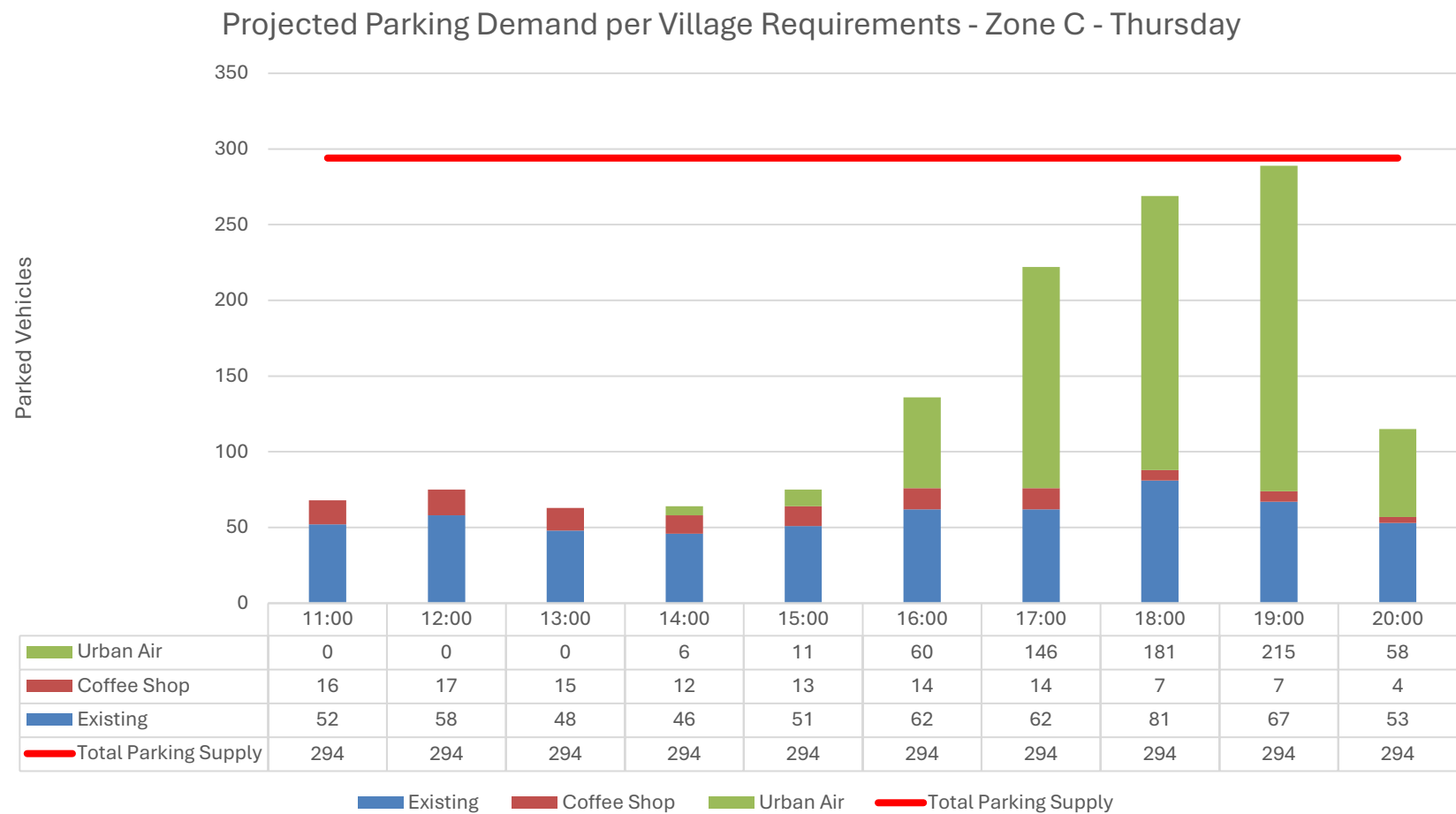


Figure D

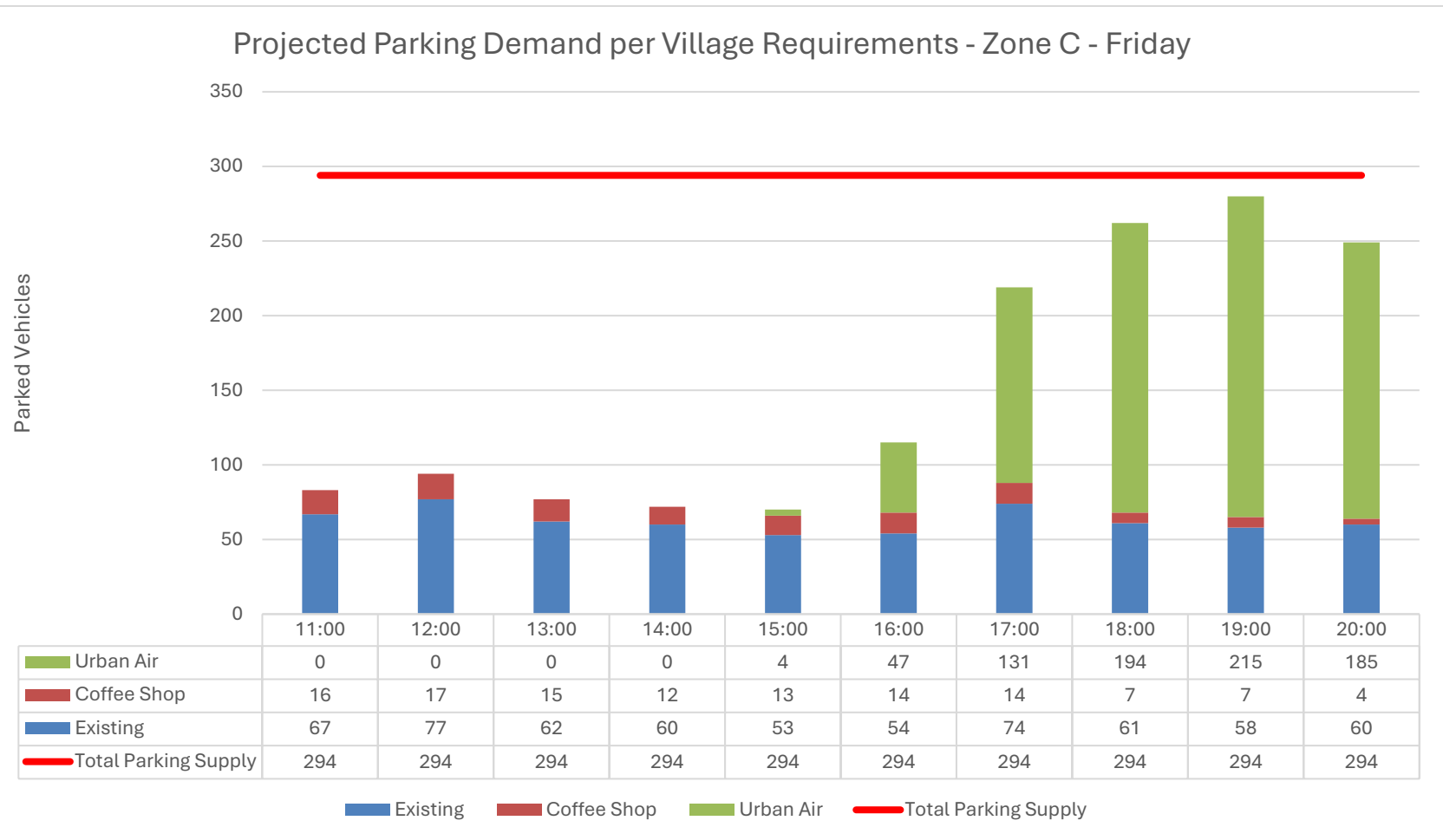


Figure E

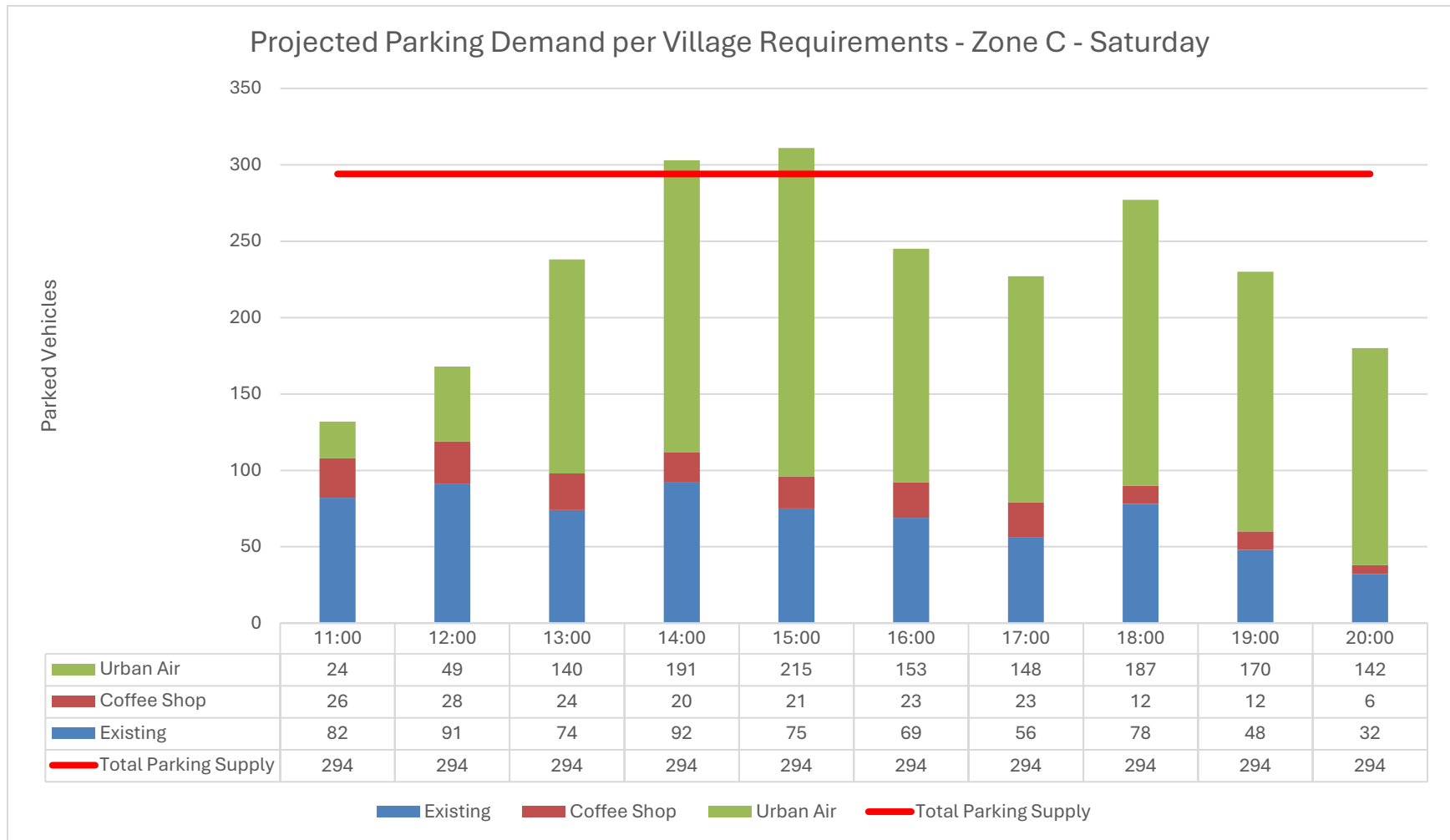
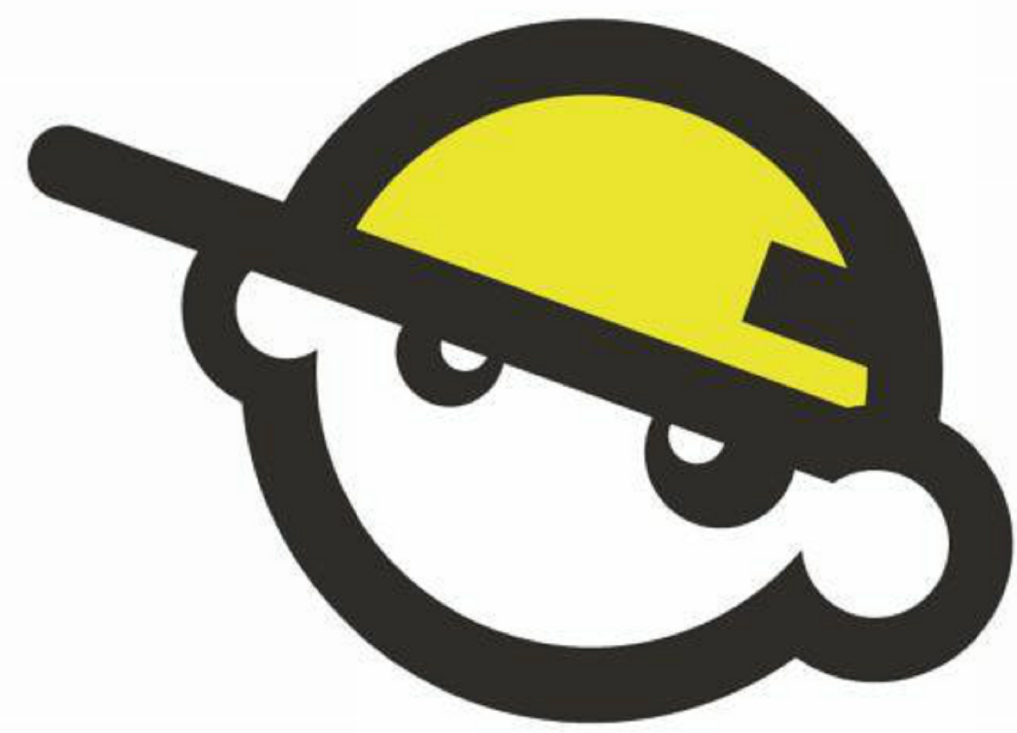


Figure F



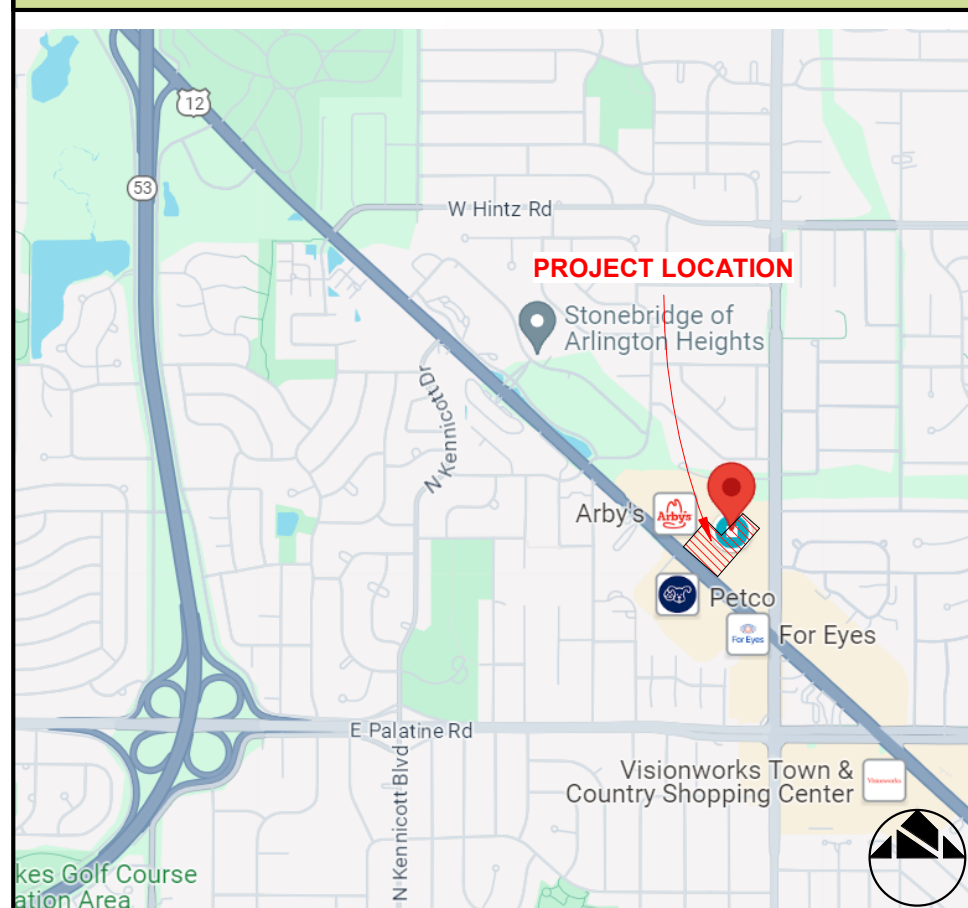
Urban Air

ADVENTURE PARK

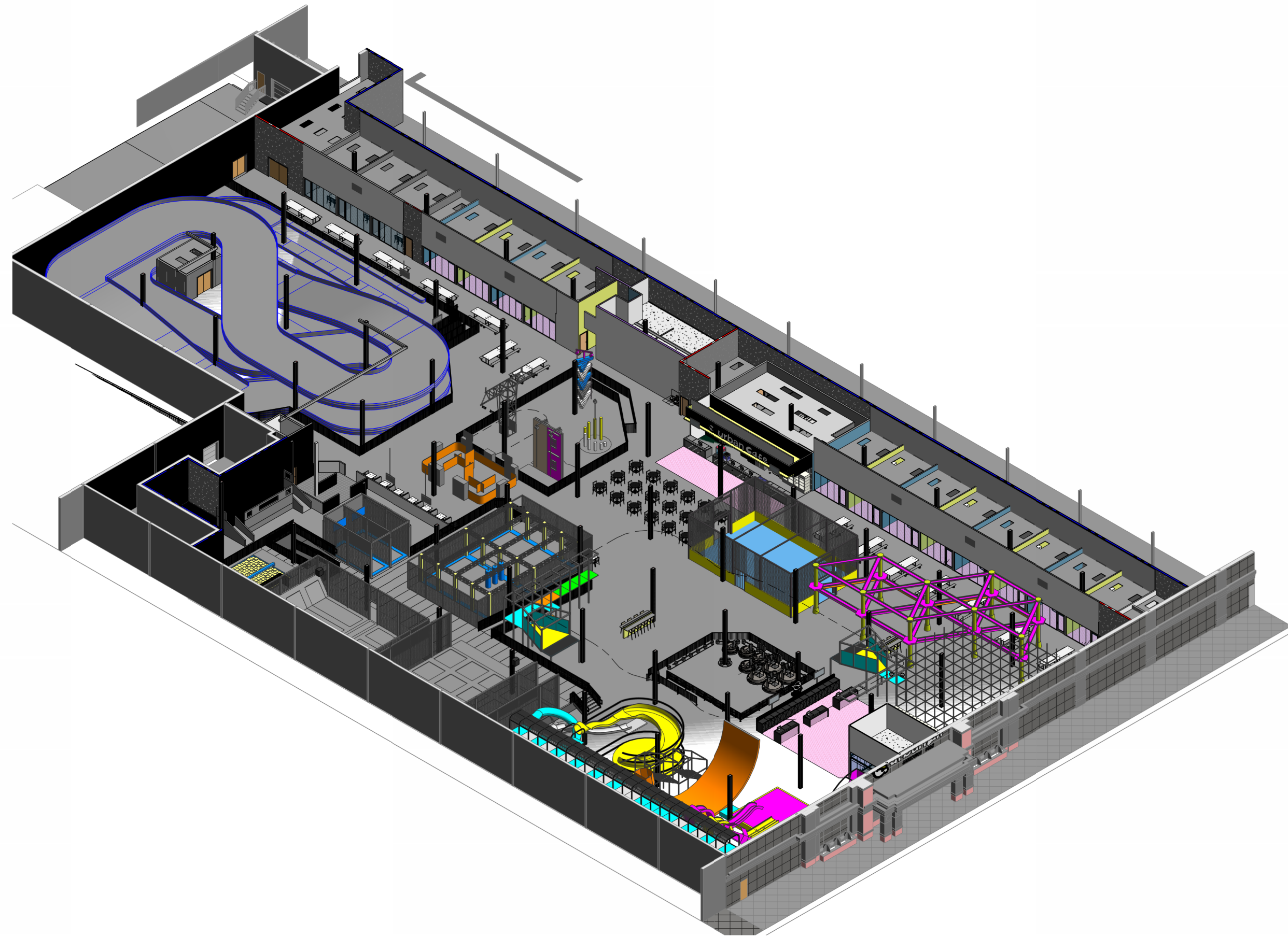
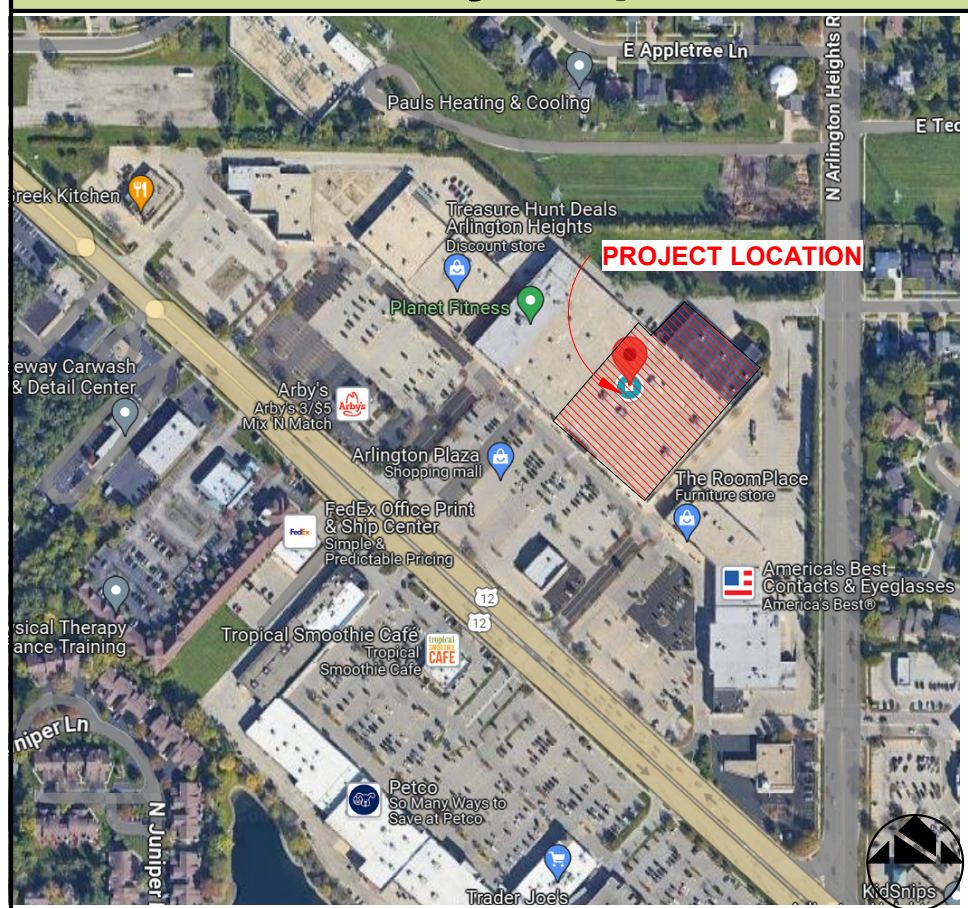
Urban Air - Arlington Heights IL

30 W Rand Rd, Arlington Heights, IL 60004

Location Map



Vicinity Map



Applicable Codes

Arlington Heights IL	
BUILDING CODE	IBC 2018 International Building Code
EXISTING BUILDING CODE	IEBC 2018 International Existing Building Code
FIRE CODE	IFC 2018 International Fire Code
PLUMBING CODE	2014 Illinois Plumbing Code
MECHANICAL CODE	IMC 2018 International Mechanical Code
ELECTRICAL CODE	NEC 2017 National Electrical Code...
ENERGY CODE	IECC 2021 Illinois Energy Conservation Code
STATE/FEDERAL CODES	
ACCESSIBILITY	2018 Illinois Accessibility Code

Code Review

Building Use / Occupancy		Previous	Proposed
Land Use		Shopping Center	Entertainment & Recreational
Occupancy Classification	(Ch. 3 - IBC)	M	A-2, A-3
Parking Calculation		N/A	252
Occupancy Load	(1004 - IBC)	N/A	836

Building Construction		Previous	Proposed
Construction Type (Changed)	(Ch. 6 - IBC)	II-A, Fully Sprinklered	
	(Ch. 9 - IBC)	Allowed	Actual
Building Height (Unchanged)		75'	33' 9"
Number of Stories (Unchanged)		1	1
Sprinklers required (Unchanged)		Yes	

Building Area Limitations		Allowed	Actual
Area Limitation/Floor (Alt) (Table 506.2 - IBC)		62,000	
Tabular allowable area for Non-Sprinklered (NS)		15,500	
Frontage Area Increase Multiplier (If)	0.34	5,270	
Total Allowable Area		67,270	66,992

Fire Resistance Rating Requirements		Rating Required	Rating Provided
(Table 601 - IBC)			
Structural Frame		1 hr	1 hr
Bearing Walls - Exterior		1 hr	2 hr
Bearing Walls - Interior		1 hr	2 hr
Non-Bearing Walls & Partitions - Exterior		0 hr	0 hr
Non-Bearing Walls & Partitions - Interior		0 hr	0 hr
Floor Construction		1 hr	1 hr
Roof Construction		1 hr	1 hr

PLUMBING FIXTURE COUNT			
(Table B - Illinois Plumbing Code)		MALE	FEMALE
PLUMBING OCCUPANT LOAD		418	418
Assembly Places:			
Male WC Factor: 4 per 401 - 800 Female WC Factor: 7 per 401 - 500		REQUIRED	PROVIDED
Male LAV Factor: 3 per 401 - 750 Female LAV Factor: 3 per 401 - 750			
WATER CLOSETS		M: 4 W: 6	M: 5* W: 8*
LAVATORIES		M: 3 W: 3	M: 3 W: 3
*Family Restrooms fixtures will be considered in total count per code (P) 2902.2.1			
URINALS SUBSTITUTED FOR WATER CLOSETS		ALLOWED	PROVIDED
Urinal for Water Closet Substitution Factor: 0.67 %		3	3
DRINKING FOUNTAINS		REQUIRED	PROVIDED
Drinking Fountain Factor: 1 per 500		2	2
SERVICE SINKS		REQUIRED	PROVIDED
1 service sink per floor		1	3

2024.12.20

Project Summary

Project Name :	Urban Air - Arlington Heights IL
Project Address:	30 W Rand Rd, Arlington Heights, IL 60004
Seismic Design Category:	B
Building Permit #:	TBD
Health Permit #:	TBD

Project Scope:
A 66,992 sq tenant improvement of an existing commercial building. The tenant work includes preparation of an indoor recreation facility, Urban Air Adventure Park, with food service on site. The program will include a new cafe, restrooms, party rooms, office and attractions. The exterior work is limited to paint and signage on the tenant's entrance.

General Notes - Cover

- For all permits and licenses required. When required by code, work shall be inspected and approved by all authorities having jurisdiction.
- Verify all existing conditions prior to the start of work. Proceeding with construction or demolition work will signify contractor's familiarity with existing conditions, acceptance of shell construction, and belief that no conditions exist which preclude execution of tenant improvements as specifically identified in the tenant improvement documents.
- Include in base bid all work required in the way of demolition, temporary shoring, utility, and fire protection relocation, and/or abandonment, repair, renovation, etc., in order to complete new tenant improvements as specifically identified in the tenant improvement documents.
- Any demolition or new construction work (subtractive or additive) related to, or impacting structural walls, slabs, foundations, framing, etc. Shall be done per explicit written instructions from a structural engineer licensed by the authority having jurisdiction.
- Verify all dimensions and conditions in the field prior to commencing work. Contractor shall pay particular attention to any potential overhead clearance issues which would preclude the installation of ceilings to heights as noted in conjunction with electrical and mechanical systems located in or directly above ceiling plenum.
- It is the general contractor's sole responsibility to coordinate the work between all trades. No additional cost or change order shall be entertained for failure by the general contractor to allow the work of one trade to adversely impact the work of other trades, when said conflict could have been reasonably identified prior to commencement of the work in question.
- The contract documents are prescriptive in nature and are intended solely to convey design intent. Contractor shall be responsible for construction means and methods, including, but not limited to, preparation of shop drawings, field verification of critical dimensions, and coordination with manufacturer's/vendor's specific requirements/recommendations for product/equipment installation, and integration with adjacent work.
- Architect/consultant review of submittals/shop drawings is for general conformance with design intent only. It is the general contractor's responsibility to verify dimensions, quantities, or to specifically bring to the architect's attention any item noted on submittal or shop drawings which is at variance with the contract documents. The architect's "review" of any submittal or shop drawing shall not be construed to be an explicit approval of any variance not specifically identified as such on submittal, or otherwise brought to the architect's attention in writing.
- If not existing, or unless directed otherwise, insulation shall be provided at roof and walls with an associated R-value required to achieve applicable envelope compliance as determined by the authority having jurisdiction. All insulation, including associated facings, shall meet all code required ratings for flame spread and smoke development. All exposed insulation to be F-S-K, faced.
- Interior wall and ceiling finishes must comply with class A fire/smoke development in spaces leading to an exit and enclosed corridors, and class A in offices. Submit records and documentation of materials fire/smoke development classification at submittal phase and for the owner's close out records.
- Any penetrations through fire-resistive rated construction shall be thoroughly sealed and/or protected by product(s) and/or system(s) compatible to said construction, and able to achieve and maintain the fire-resistive performance as required by applicable codes and authorities having jurisdiction. Fire caulking shall be performed and certified by a single source contractor for penetrations of structural, mechanical, electrical and architectural elements.
- Corridors and exit paths shall have egress lighting with emergency power back-up supply. Refer to the life safety plan, floor plan and lighting plan.
- Blocking, appropriate to the load(s) being supported, shall be provided at all wall and ceiling mounted fixtures and equipment. Blocking provided thus shall be metal or fire retardant-treated wood, unless specifically noted otherwise.
- Take all necessary precautions to protect existing work to remain.
- Always provide and maintain free and clear means of egress from working/ occupied areas during demolition and construction
- Details, notes, and finishes shall be applicable at all typical, similar conditions whether specifically referenced in all plans.
- Provide escutcheon or plate at each pipe penetration at wall surface.
- At time of rough installation, or during storage on the construction site, and until final start-up of the heating and cooling equipment, all ducts and other air distribution devices shall be covered by means acceptable to the authorities having jurisdiction to reduce dust and debris accumulation. Contractor shall reference SMACNA IAQ guidelines for best practices.
- No part of these documents supersedes the other. Any discrepancies require clarification from the architect.
- All disciplines are referenced to each other. Any discrepancies require clarification from the architect.
- Structural integrity shall not be compromised due to unforeseen conflicts with pipe, duct or conduit.
- Alternate products that are identified shall be priced separately. Pricing shall include product and installation costs for inclusion into the contract if selected by the owner.

Responsibility Matrix

Responsibility Item	Provided By:				Installed By:
	Urban Air	Tenant	GC	Landlord	Vendor
General					
Backlog and Blocking			X		GC
Exterior Entrances/Plaza/Parking touchups - varies by park (refer to lease)			X		Landlord
Life Safety Systems: Sprinklers & Alarms		X			GC
Lockers - V&R Locker		X		X	Locker Vendor
Railing (other than mezzanine and platforms)		X			GC
Roof Mechanical EQ and Gas Lines		X			GC
Sealed Concrete		X			GC
Attractions					
Attractions: Arcade			X		Vendor
Electrical - refer to Appendix M			X		GC
Equipment and Trampolines			X		UA Attractions
Paint			X		GC
Platform Decking (underlay and finish)		X			GC
Platform Framing and Railings by GC			X		GC
Platform Skirting and Access Door		X			GC
Ramps			X		UA Attractions
Rubber Flooring with Flc (refer to finish schedule)			X		GC
Stairs and Railings (attraction platforms)			X		UA Attractions
Audio Visual					
Lighting/Speakers				X	A/V Vendor
Security Cameras				X	A/V Vendor
TVs with and without Cable		X			GC
Cafe					
Ansul System		X			GC
Booths, 4-tops and stools			X		Kitchen Vendor
Grease Interceptor (if required)		X			GC
Kitchen Equipment			X		Kitchen Vendor
Pepsi/Soda & ICEE Machines			X		Supplier
Plumbing Floor Drains and Clean Outs		X			GC
Sign: "Urban Cafe"			X		Sign Vendor
TVs with and without Cable		X			GC
Walk-In Cooler		X		X	Kitchen Vendor/GC
Laser Tag					
FRT Plywood		X			GC
Sign: "Laser Tag" (if required)				X	Sign Vendor
Party Rooms				X	A/V Vendor
Speakers				X	Owner
Tables and Chairs (UA specific)		X			A/V Vendor
TV mounting brackets				X	A/V Vendor
TVs with and without Cable		X			GC
Signage					
Exterior Signage				X	Sign Vendor
Interior ADA required Signage			X		GC
Interior Equipment Signage		X			Urban Air
Sign: Backing & Support			X		GC

Permit set

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Separate Submittals

Fire Alarm	Yes
Fire Sprinkler	Yes
Signage	Yes



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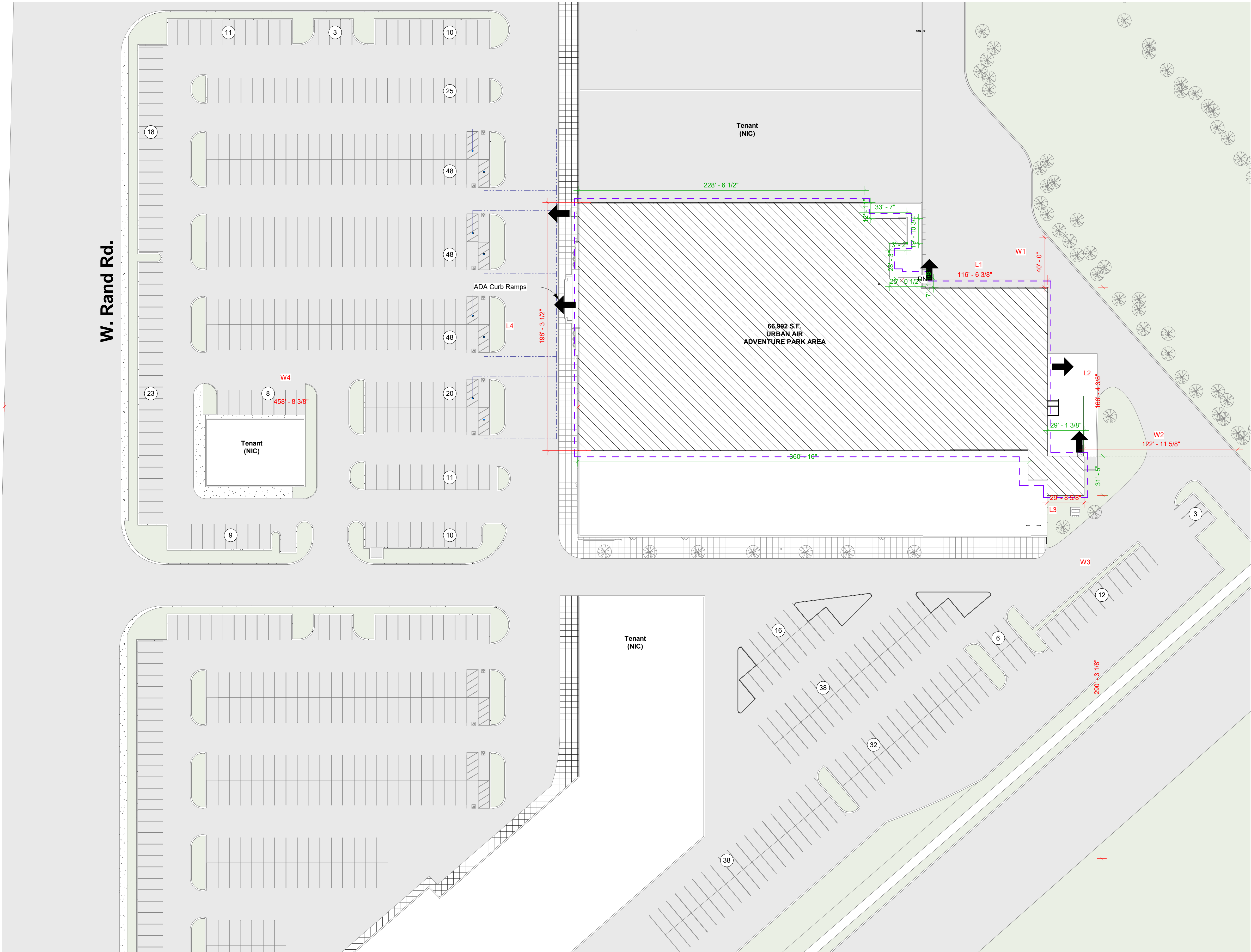


No.	Description	Date
A	Issue for Permit	2024.12.20

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CHECKED BY: BA
PRJL NO: 23-053
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Cover Sheet

A000



1 Existing Site Plan
1" = 40'-0"

Frontage Increase Calculation

506.3.2 Minimum Frontage Distance

$$W = (L1 \cdot W1 + L2 \cdot W2 + L3 \cdot W3) / F$$
$$W = (101' \times 40' + 166' \times 122' + 29' \times 290' + 198' \times 458') / 532'$$

$$W = 231' \quad \text{According to IBC Section 506.3.2 } W = 30'$$

$$If = ((F/P) - 0.25)W/30$$

$$If = ((532/893) - 0.25) / 30/30$$

$$If = ((0.59) - 0.25) / 1$$

$$If = 0.34 \quad \text{According to IBC Section 506.3.3}$$

$$Aa = At + (Ns \cdot If)$$

$$Aa = 62,000 + (15,500 \cdot 0.34)$$

$$Aa = 62,000 + 5270$$

$$Aa = 67,270 \text{ sf} \quad \text{According to IBC Section 506.2.2 - Equation 5-1}$$

General Notes - Site Plan

- 1 Project area is limited to scope of work boundary line. All other site items shown are NIC and shown for reference only unless noted otherwise.
- 2 Parking calculations are shown for accessibility requirements, code compliance and parking performance standards. The overall site should be assessed and is considered shared parking amongst the several buildings. All parking on site at a minimum meets the requirements as set forth in the <@Francis to provide Ordinance>.
- 3 The landlord is responsible for all site improvements as per the LOI. Refer to the final signed lease agreement for coordination of work. Contact the landlord.

Legend - Site Plan

- Scope of Work Boundary Line
- Existing Asphalt Paving
- Existing sidewalk
- Existing Landscape
- Existing Tree
- Parking Count Tag
- Accessible Parking
- Accessible Path of Travel
- Exit

Parking Calculations

Square Footage By Use

Commercial, Amusement Park:	65205 sf
Commercial, Office:	302 sf
Restaurant:	1485 sf
Total Square Footage:	66,992 sf

Off Street Parking Ratio Needed

Commercial / Amusement Park:	(1) space per each 300 sf used for Amusement Park
Commercial / Office:	(1) space for each 300 sf used for office purposes
Restaurant:	(1) space per each 45 sf used for Restaurant Purposes

Commercial / Amusement Park:	218 Spaces
Commercial / Office:	1,006,667 Spaces
Restaurant:	33 Spaces

Total Parking Spaces Required:	252 spaces
Total Parking Spaces Provided:	437 spaces

Accessible Spaces Requirements

Total Parking Spaces Provided:	437 spaces
Minimum Accessible Parking Spaces Required:	7 spaces
Total Accessible Parking Spaces Provided:	8 spaces

Vicinity Map



Accessible Seating

At least 5%, but not less than 1 of the dining surfaces shall be accessible. Accessible seating shall be identified by a sign or a marker.

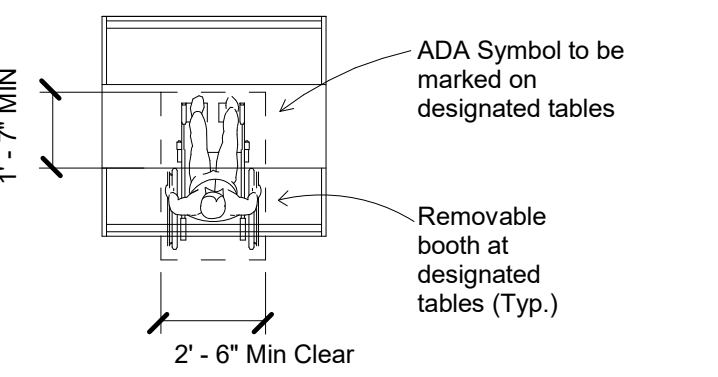
18 Round Tables x 32" = 576" / 24" = 24 * 0.05 = 2

15 Booth Tables x 48" = 720" / 24" = 30 * 0.05 = 2

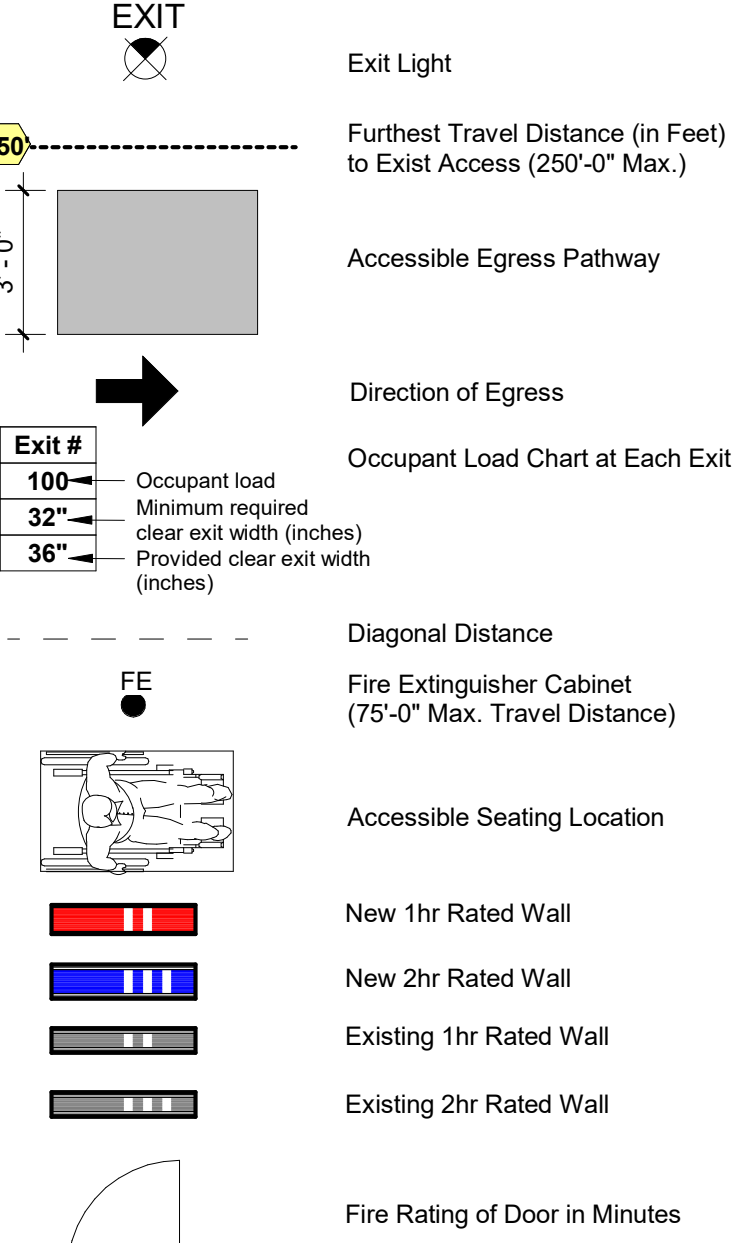
29 Party Tables x 96" = 2784" / 24" = 116 * 0.05 = 6

4 Tech Bars x 156" = 624" / 24" = 26 * 0.05 = 2

Total Accessible Tables Required: 12



Legend - Life Safety Plan



Keynotes

236	Railing
352	Raised Platform - Railing (NIC)

Means of Egress Calculations

Occupant Load (IBC - 1004)	
A-2 Occupants: (IBC - 1004.5)	9 A-2 Occupants +
A-3 Occupants:	827 A-3 Occupants =
Total Occupancy Load	836 Occupants
Required Exit Width (IBC - 1005)	
Total Occupancy Load	836 Occupants
Means of Egress Capacity Factor (IBC - 1005.3.2)	0.2 per occupant
Exit Total Width Required: (836 Occupants * 0.2)	168"
Actual Total Exit Width Provided:	Exit #1: 84" + Exit #2: 36" + Exit #3: 72" + Exit #4: 72" + Exit #5: 36" = 300"
Total Provided:	300"
Exit Access Travel Distance (IBC - 1017)	
Maximum Travel Distance to an Exit:	
A Occupancy with Sprinkler System = 250' - 0" Allowed	
A-3 Occupancy = 236' shown	

General Notes - Life Safety

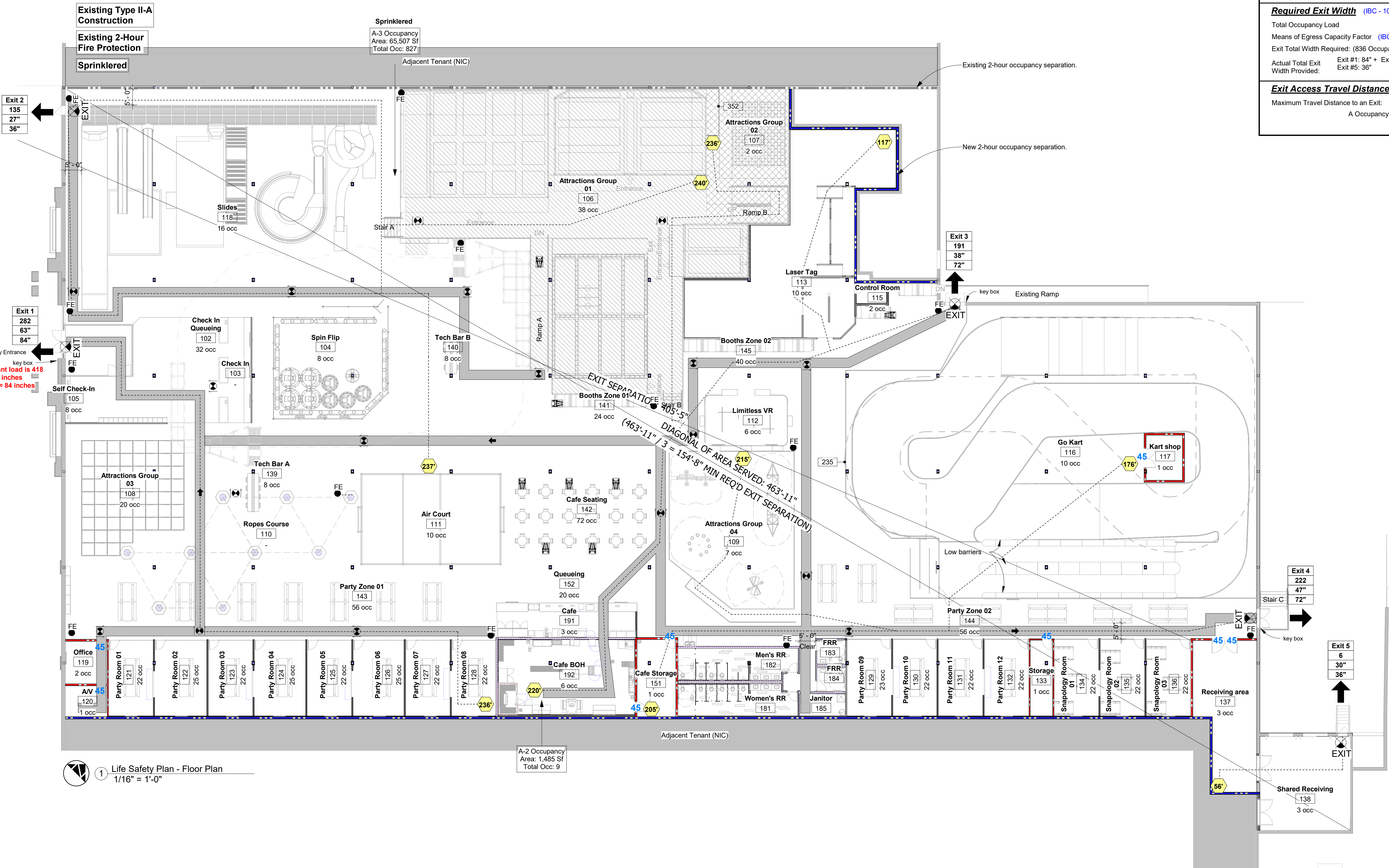
- Automatic sprinkler system to be provided throughout.
- Portable fire extinguishers to be provided per building code section 3309 (during construction) and section 906 and Fire Code 1415.1.
- Provide fire extinguishers within travel distance of 75'-0". Relocate the landlord provided fire extinguishers if acceptable by Fire Marshal.
- Distance to exit pathways are based on the tenant attractions plan as well as the FFE plan and are intended to demonstrate the general range of lengths for potential egress routes.
- Any penetrations through fire-resistive rated construction shall be thoroughly sealed and/or protected by product(s) and/or system(s) compatible to said construction, and able to achieve and maintain the fire-resistive performance as required by applicable codes and authorities having jurisdiction. Fire caulking shall be performed and certified by a single source contractor for penetrations of structural, mechanical, electrical and architectural elements.
- All insulation and associated facings shall meet all required code ratings for flame spread and smoke development.
- Exit lights and emergency lighting - refer to electrical drawings for all locations. Life Safety plans illustrate limited locations.
- Paint emergency lights and fire alarm devices to match adjacent construction as permitted by fire marshal.
- Corridors and exit paths shall have egress lighting with emergency power back-up supply. Refer to the electrical lighting plan.
- Egress paths shown do not indicate recommended or planned means of egress, but are intended to illustrate the path from a space within the allowable travel distance to exit.
- Paint all exposed gas lines per local ordinances and codes.
- Provide knock box(es) in locations as required by the Fire Marshal.
- The Fire Alarm and Fire Sprinkler system plans to be reviewed with the Fire Marshal prior to construction.
- Occupant load in A-3: Attractions occupant load shall be approved by the Fire Code Official. The attractions have a footprint that is not completely occupied and require a unique occupant load based on the unique function of each attraction. Refer to the exception in section 1004.1.2.
- Occupant load A-3: Seating is determined by the actual seat count and the count determined in section 1004.4.
- Vendors and GC to refer to 2021 IBC Section 424 and IBC Section 411 for code requirement for the play structures when installed.

Occupant Load Factor

Function of Space	Occupant Load Factor (IBC - Table 1004.1.2)
Assembly w/o Fixed Seats -Standing Space	5 square feet per occupant
Assembly w/o Fixed Seats -Unconcentrated (tables and chairs)	15 square feet per occupant
Assembly queueing lines	5 net square feet per occupant
Business Areas	150 gross square feet per occupant
Kitchen, Commercial	200 gross square feet per occupant
Mechanical Equipment Room	300 gross square feet per occupant
Storage, Stock, Shipping Area	300 gross square feet per occupant
Locker Room	50 gross square feet per occupant
Business use	50 square feet per occupant

Occupant Load Calculation

Room #	Room Name	Function of Space	Area	Occ. Load Factor	Loa d
101	Vestibule	A-3	341 SF	5 SF	0
102	Check In Queueing	A-3: Assembly queueing lines	158 SF	5 SF	32
103	Check In	A-3: Waiting Space (5 OLF)	40 SF	5 SF	8
104	Spin Flip	A-3: Fixed - Game	1174 SF	5 SF	8
105	Self Check-In	A-3: Fixed - Game	40 SF	5 SF	8
106	Attractions Group 01	A-3: Fixed - Game	7226 SF	5 SF	38
107	Attractions Group 02	A-3: Fixed - Game	934 SF	5 SF	2
108	Attractions Group 03	A-3: Fixed - Game	1277 SF	5 SF	20
109	Attractions Group 04	A-3: Fixed - Game	1783 SF	5 SF	7
110	Ropes Course	A-3: Fixed - Game	867 SF	5 SF	14
111	Air Court	A-3: Fixed - Game	1311 SF	5 SF	10
112	Limitless VR	A-3: Fixed - Game	553 SF	5 SF	6
113	Laser Tag	A-3: Fixed - Game	2034 SF	5 SF	10
114	Staging	A-3: Fixed - Game	285 SF	5 SF	10
115	Control Room	Business areas (150 OLF)	61 SF	5 SF	2
116	Go Kart	A-3: Fixed - Game	10365 SF	5 SF	10
117	Kart shop	A-3: Mech. Equipment	162 SF	5 SF	1
118	Slides	A-3: Fixed - Game	4728 SF	5 SF	16
119	Office	Business areas (150 OLF)	175 SF	5 SF	2
120	AV	A3: Storage	127 SF	300 SF	1
121	Party Room 01	A-3: Assembly (tables and chairs)	329 SF	15 SF	22
122	Party Room 02	A-3: Assembly (tables and chairs)	384 SF	15 SF	25
123	Party Room 03	A-3: Assembly (tables and chairs)	329 SF	15 SF	22
124	Party Room 04	A-3: Assembly (tables and chairs)	379 SF	15 SF	25
125	Party Room 05	A-3: Assembly (tables and chairs)	329 SF	15 SF	22
126	Party Room 06	A-3: Assembly (tables and chairs)	378 SF	15 SF	25
127	Party Room 07	A-3: Assembly (tables and chairs)	329 SF	15 SF	22
128	Party Room 08	A-3: Assembly (tables and chairs)	327 SF	15 SF	22
129	Party Room 09	A-3: Assembly (tables and chairs)	332 SF	15 SF	23
130	Party Room 10	A-3: Assembly (tables and chairs)	328 SF	15 SF	22
131	Party Room 11	A-3: Assembly (tables and chairs)	332 SF	15 SF	22
132	Party Room 12	A-3: Assembly (tables and chairs)	332 SF	15 SF	22
133	Storage	Storage (300 OLF)	167 SF	300 SF	1
134	Snapology Room 01	A-3: Assembly (tables and chairs)	331 SF	15 SF	22
135	Snapology Room 02	A-3: Assembly (tables and chairs)	331 SF	15 SF	22
136	Snapology Room 03	A-3: Assembly (tables and chairs)	331 SF	15 SF	22
137	Receiving area	A3: Storage	798 SF	300 SF	3
138	Shared Receiving	A3: Storage	836 SF	300 SF	3
139	Tech Bar A	A-3: Assembly	59 SF	5 SF	8
140	Tech Bar B	A-3: Assembly	27 SF	5 SF	8
141	Booths Zone 01	A-3: Fixed Seats	99 SF	5 SF	24
142	Cafe Seating	A-3: Assembly (tables and chairs)	1361 SF	5 SF	72
143	Party Zone 01	A-3: Assembly (tables and chairs)	1605 SF	5 SF	56
144	Party Zone 02	A-3: Assembly	1062 SF	5 SF	56
145	Booths Zone 02	A-3: Assembly (tables and chairs)	143 SF	5 SF	40
151	Cafe Storage	Storage (300 OLF)	261 SF	300 SF	1
152	Queueing	A-3: Assembly queueing lines	99 SF	5 SF	20
181	Women's RR	A-3	361 SF	0 SF	0
182	Men's RR	A-3	361 SF	0 SF	0
183	FRR	A-3	67 SF	0 SF	0
184	FRR	A-3	67 SF	0 SF	0
185	Janitor	A-3	100 SF	0 SF	0
191	Cafe	A-2: Kitchens, commercial	448 SF	200 SF	3
192	Cafe BOH	A-2: Kitchens, commercial	1015 SF	200 SF	6
					836



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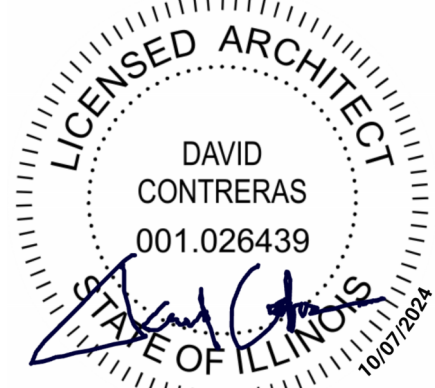
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Life Safety Plan

A003

CHAPTER 3: BUILDING BLOCKS

301 General

301.1 Scope. The provisions of Chapter 3 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

302 Floor or Ground Surfaces

302.1 General. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302. EXCEPTIONS: CRITERIA OMITTED. Not applicable to this project.

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cutout pile texture. Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 303.

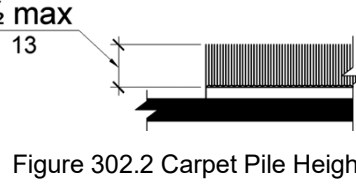


Figure 302.2 Carpet Pile Height

303 Changes in Level

303.1 General. Where changes in level are permitted in floor or ground surfaces, they shall comply with 303.

EXCEPTIONS: CRITERIA OMITTED. Not applicable to this project.

303.2 Vertical. Changes in level of

1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

303.4 Ramps. Changes in level greater than 1/2 inch (13 mm) high shall be ramped, and shall comply with 405 or 406.

304 Turning Space. 304.1 General. Turning space shall comply with 304.

304.2 Floor or Ground Surfaces. Floor or ground surfaces of a turning space shall comply with 302.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

304.3 Size. Turning space shall comply with 304.3.1 or 304.3.2.

304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

304.4 Door Swing. Doors shall be permitted to swing into turning spaces.

305 Clear Floor or Ground Space. 305.1 General. Clear floor or ground space shall comply with 305.

305.2 Floor or Ground Surfaces. Floor or ground surfaces of a clear floor or ground space shall comply with 302.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

305.3 Size. The clear floor or ground space shall be 30 inches (762 mm) minimum by 48 inches (1220 mm) minimum.

305.4 Knee and Toe Clearance. Unless otherwise specified, clear floor or ground space shall be permitted to include knee and toe clearance complying with 306.

305.5 Position. Unless otherwise specified, clear floor or ground space shall be positioned for either forward or parallel approach to an element.

305.6 Approach. One full unobstructed side of the clear floor or ground space shall adjoin an accessible route or adjoin another clear floor or ground space.

305.7 Maneuvering Clearance. Where a clear floor or ground space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearance shall be provided in accordance with 305.7.1 and 305.7.2.

305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm) wide minimum where the depth exceeds 24 inches (610 mm).

305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

306 Knee and Toe Clearance. 306.1 General. Where space beneath an element is included as part of clear floor or ground space or turning space, the space shall comply with 306.

Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear floor or ground space or turning space.

306.2 Toe Clearance. 306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.

306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.

306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (762 mm) wide minimum.

306.3 Knee Clearance. 306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.

306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.

306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.5 Width. Knee clearance shall be 30 inches (762 mm) wide minimum.

307 Protruding Objects. 307.1 General. Protruding objects shall comply with 307.

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

307.3 Post-Mounted Objects. Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) minimum and 80 inches (2030 mm) minimum above the finish floor or ground.

EXCEPTION: The sloping portions of handrails serving stairs and ramps shall not be required to comply with 307.3.

307.4 Vertical Clearance. Vertical clearance shall be 80 inches (2030 mm) high minimum. Guardsrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high.

The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground.

EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

307.5 Required Clear Width. Protruding objects shall not reduce the clear width required for accessible routes.

308 Reach Ranges. 308.1 General. Reach ranges shall comply with 308.

308.2 Forward Reach. 308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

EXCEPTIONS: 1. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear width shall be permitted for the latch side stop.

2. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

308.2.2 Obstructed High Forward Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

308.3 Side Reach. 308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

EXCEPTIONS: CRITERIA OMITTED. Not applicable to this project.

308.3.2 Obstructed High Side Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

EXCEPTIONS: CRITERIA OMITTED. Not applicable to this project.

309 Operable Parts. 309.1 General. Operable parts shall comply with 309.

309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

EXCEPTION: CRITERIA OMITTED. Not applicable to this project.

CHAPTER 4: ACCESSIBLE ROUTES

401 General. 401.1 Scope. The provisions of Chapter 4 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

402 Accessible Routes. 402.1 General. Accessible routes shall comply with 402.

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum and the clear width at the turn is 42 inches (1065 mm) minimum, the clear width at the turn shall not be required.

403.5.3 CRITERIA OMITTED. Not applicable to this project.

403.6 Handrails. Where handrails are provided along walking surfaces with running slopes not steeper than 1:20, they shall comply with 505.

404 Doors, Doorways, and Gates. 404.1 General. Doors, doorways, and gates that are part of an accessible route shall comply with 404.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with 404.2.7, 404.2.8, 404.2.9, 404.3.2 and 404.3.4 through 404.3.7.

404.2 Manual Doors, Doorways, and Manual Gates. Manual doors and doorways and manual gates intended for passenger use shall comply with 404.2.

404.2.1 Revolving Doors, Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

404.2.2 Double-Leaf Doors and Gates. At least one of the active leaves of doorways with two leaves shall comply with 404.2.3 and 404.2.4.

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening wider than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening wider than 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

EXCEPTIONS: 1. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear width shall be permitted for the latch side stop.

2. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4.1. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

EXCEPTION: Entry doors to hospital patient rooms shall not be required to provide the clearance beyond the latch side of the door.

404.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1. (as illustrated on Figures 404.2.4.1 through 404.2.4.4).

404.2.4.2 Doorways without Doors or Gates, Sliding Doors, and Folding Doors. Doorways less than 36 inches (915 mm) wide without doors or gates, sliding doors, or folding doors shall have maneuvering clearances complying with Table 404.2.4.2. (as illustrated on Figure 404.2.4.2).

EXCEPTIONS: 1. Slides not steeper than 1:48 shall be permitted.

2. Changes in level at thresholds complying with 404.2.5 shall be permitted.

404.2.5 Thresholds. Thresholds, if provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303.

EXCEPTION: Existing or raised thresholds 3/4 inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of the doors or gates swinging into the space.

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

1. Existing locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed with locks that are activated only at the top or bottom rail.

2. Access gates in barrier walls and fences protecting pools, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground provided the self-latching devices are not also self-latching devices and operated by means of a key, electronic opener, or integral combination lock.

404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.

2. Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS: 1. Sliding doors shall not be required to comply with 404.2.10.

2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch (255 mm) bottom smooth surface height requirement.

3. Doors and gates that do not extend to within 10 inches (255 mm) of the finish floor or ground shall not be required to comply with 404.2.10.

4. Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces complying with 404.2.10 provided that if added kick plates are installed, cavities created by such kick plates are capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazed panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

EXCEPTION: Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with 404.2.11.

404.3 Automatic and Power-Assisted Doors and Gates. CRITERIA OMITTED. Not applicable to this project.

405 Ramps. 405.1 General. Ramps on accessible routes shall comply with 405.

EXCEPTION: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with 405.

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

EXCEPTION: In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.4 Floor or Ground Surfaces. Floor or ground surfaces of ramp runs shall comply with 302.

Changes in level other than the running slope and cross slope are not permitted on ramp runs.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

EXCEPTION: Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

405.6 Rise. The rise for any ramp run shall be 30 inches (762 mm) maximum.

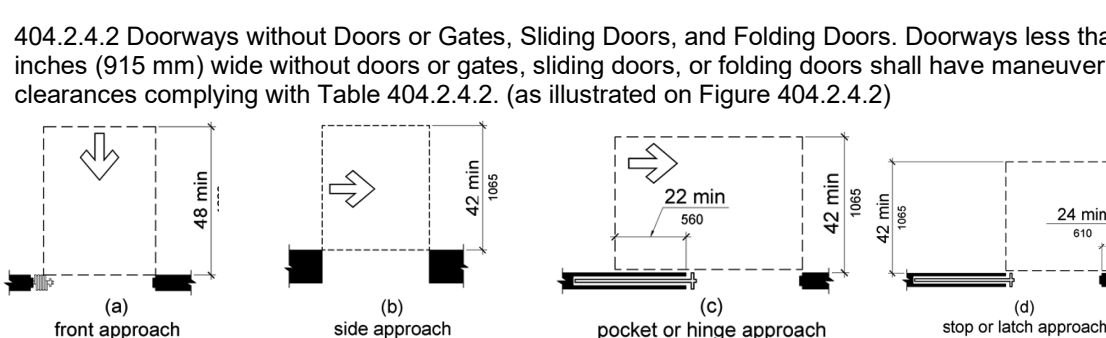


Figure 404.2.4.2 Maneuvering Clearances at Doorways without Doors, Sliding Doors, Gates, and Folding Doors

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

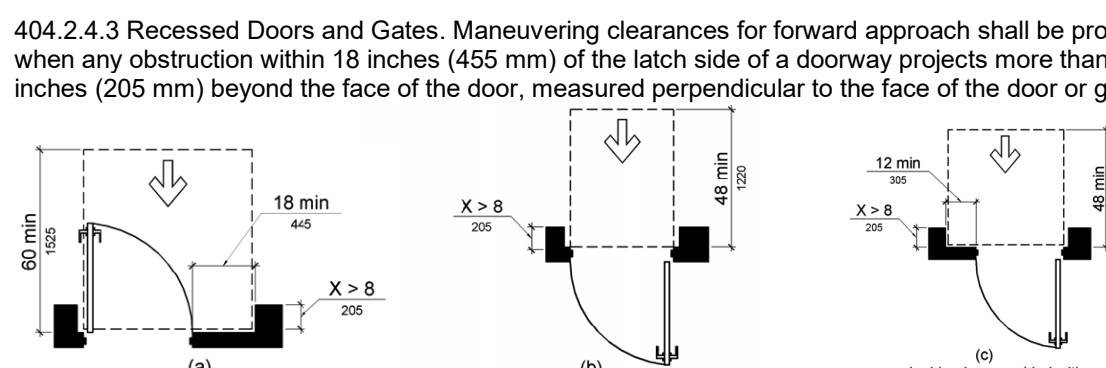


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

404.2.4.4 Floor or Ground Surface. Floor or ground surface within required maneuvering clearances shall comply with 302. Changes in level are not permitted.

1. Slopes not steeper than 1:48 shall be permitted.

2. Changes in level at thresholds complying with 404.2.5 shall be permitted.

404.2.5 Thresholds. Thresholds, if provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303.

EXCEPTION: Existing or raised thresholds 3/4 inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of the doors or gates swinging into the space.

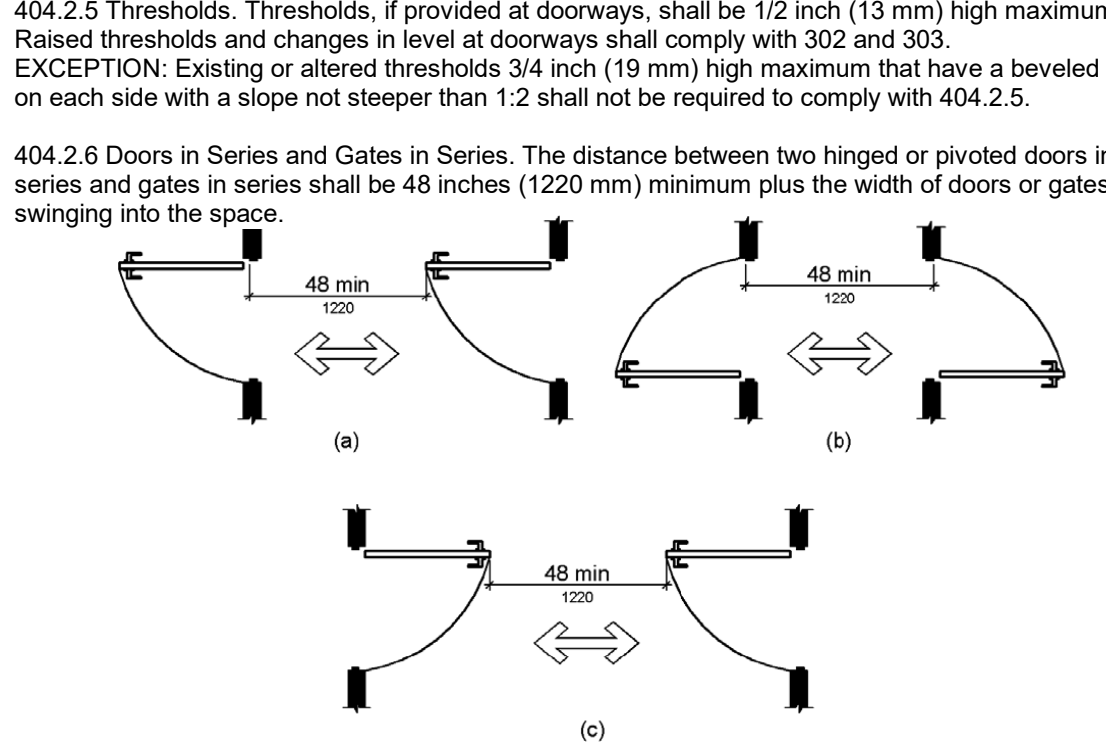


Figure 404.2.6 Doors in Series and Gates in Series

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

1. Existing locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed with locks that are activated only at the top or bottom rail.

2. Access gates in barrier walls and fences protecting pools, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground provided the self-latching devices are not also self-latching devices and operated by means of a key, electronic opener, or integral combination lock.

404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.

2. Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS: 1. Sliding doors shall not be required to comply with 404.2.10.

2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch (255 mm) bottom smooth surface height requirement.

3. Doors and gates that do not extend to within 10 inches (255 mm) of the finish floor or ground shall not be required to comply with 404.2.10.

4. Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces complying with 404.2.10 provided that if added kick plates are installed, cavities created by such kick plates are capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazed panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

EXCEPTION: Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with 404.2.11.

404.3 Automatic and Power-Assisted Doors and Gates. CRITERIA OMITTED. Not applicable to this project.

405 Ramps. 405.1 General. Ramps on accessible routes shall comply with 405.

EXCEPTION: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with 405.

405.2 Slope. Ramp runs

2010 ADA Standards for Accessible Design

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

501 General
501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces
502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.
EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.
EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

502.3 Access Aisle. Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches wide minimum.

502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

502.4 Location. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

502.5 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted.
EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

502.5 Vertical Clearance. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches minimum.

502.6 Identification. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

502.7 Relationship to Accessible Routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

503 Passenger Loading Zones
503.1 General. Passenger loading zones shall comply with 503.

503.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches wide minimum and 20 feet long minimum.

503.3 Access Aisle. Passenger loading zones shall provide access aisles complying with 503 adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

503.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches wide minimum.

503.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

503.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

503.4 Floor and Ground Surfaces. Vehicle pull-up spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the vehicle pull-up space they serve. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

503.5 Vertical Clearance. Vehicle pull-up spaces, access aisles serving them, and a vehicular route from an entrance to the passenger loading zone, and from the passenger loading zone to a vehicular exit shall provide a vertical clearance of 114 inches (2895 mm) minimum.

504 Stairways
504.1 General. Stairs shall comply with 504.

504.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

504.3 Open Risers. Open risers are not permitted.

504.4 Tread Surface. Stair treads shall comply with 302. Changes in level are not permitted.

EXCEPTION: Treads shall be permitted to have a slope not steeper than 1:48.

504.5 Nosing. The radius of curvature at the leading edge of the tread shall be 1/2 inch maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1 1/2 inches maximum over the tread below.

504.6 Handrails. Stairs shall have handrails complying with 505.

504.7 Wet Conditions. Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

505 Handrails
505.1 General. Handrails provided along walking surfaces complying with 403, required at ramps complying with 405, and required at stairs complying with 504 shall comply with 505.

505.2 Where Required. Handrails shall be provided on both sides of stairs and ramps.

EXCEPTION: In assembly areas, handrails shall not be required on both sides of aisle ramps where a handrail is provided at either side or within the aisle width.

505.3 Continuity. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

EXCEPTION: In assembly areas, handrails on ramps shall not be required to be continuous in aisles serving seating.

505.4 Height. Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

505.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1-1/2 inches (38 mm) minimum.

505.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches minimum below the bottom of the handrail gripping surface.

EXCEPTIONS:
1. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.
2. The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch for each 1/2 inch of additional handrail perimeter dimension that exceeds 4 inches.

505.7 Cross Section. Handrail gripping surfaces shall have a cross section complying with 505.7.1 or 505.7.2.

505.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1-1/4 inches minimum and 2 inches maximum.

505.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6 1/4 inches maximum, and a cross-section dimension of 2-1/4 inches maximum.

505.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

505.9 Fittings. Handrails shall not rotate within their fittings.

505.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with 505.10.

EXCEPTIONS:
1. Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.
2. In assembly areas, extensions shall not be required for ramp handrails in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles.
3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.

505.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

505.10.2 Top Extension at Stairs. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

505.10.3 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

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505.10.26 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

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505.10.41 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

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505.10.48 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

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604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches minimum to 18 inches maximum from the side wall or partition, except that the water closet shall be 17 inches minimum and 19 inches maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach. 604.3 Clearance. Clearances around water closets and in toilet compartments shall comply with 604.3.

604.3.1 Size. Clearance around a water closet shall be 60 inches minimum measured perpendicular from the side wall and 56 inches minimum measured perpendicular from the rear wall.

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches minimum and 19 inches maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

EXCEPTIONS: 1. A water closet in a toilet room for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 604.4.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

EXCEPTIONS: CRITERIA OMITTED. Not applicable to this project.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches long minimum. Located 12 inches maximum from the rear wall and extending 54 inches minimum from the rear wall.

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches long minimum and extend from the centerline of the water closet 12 inches minimum on one side and 24 inches minimum on the other side.

EXCEPTIONS:
1. The rear grab bar shall be permitted to be 24 inches long minimum, centered on the water closet, where wall space does not permit a length of 36 inches minimum due to the location of a recessed fixture adjacent to the water closet.
2. Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, then the rear grab bar shall be permitted to be split or shifted to the open side of the toilet area.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches minimum and 48 inches maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches wide minimum measured perpendicular to the side wall, and 56 inches deep minimum for wall hung water closets and 59 inches deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches wide minimum measured perpendicular to the side wall, and 59 inches deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches maximum from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches minimum above the finish floor and 6 inches deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches deep with a wall-hung water closet or 65 inches deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches deep.

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. CRITERIA OMITTED. Not applicable to this project.

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments shall comply with 604.2 through 604.8.

EXCEPTION: Water closets and toilet compartments for children's use shall be permitted to comply with 604.9.

604.9 Water Closets and Toilet Compartments for Children's Use. CRITERIA OMITTED. Not applicable to this project.

605 Urinals
605.1 General. Urinals shall comply with 605.

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches maximum above the finish floor or ground. Urinals shall be 13-1/2 inches deep minimum measured from the outer face of the urinal rim to the back of the fixture.

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for a forward approach shall be provided.

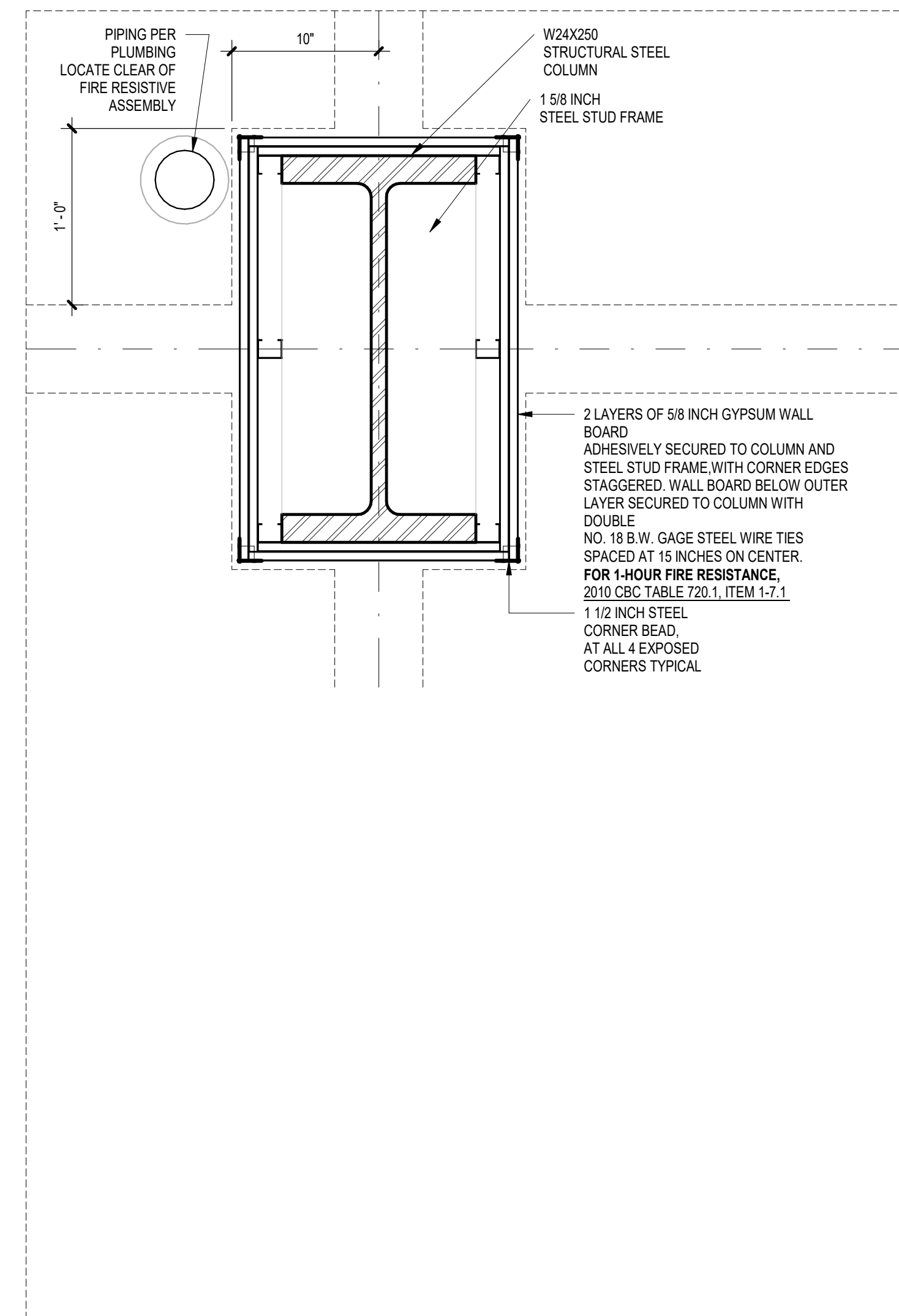
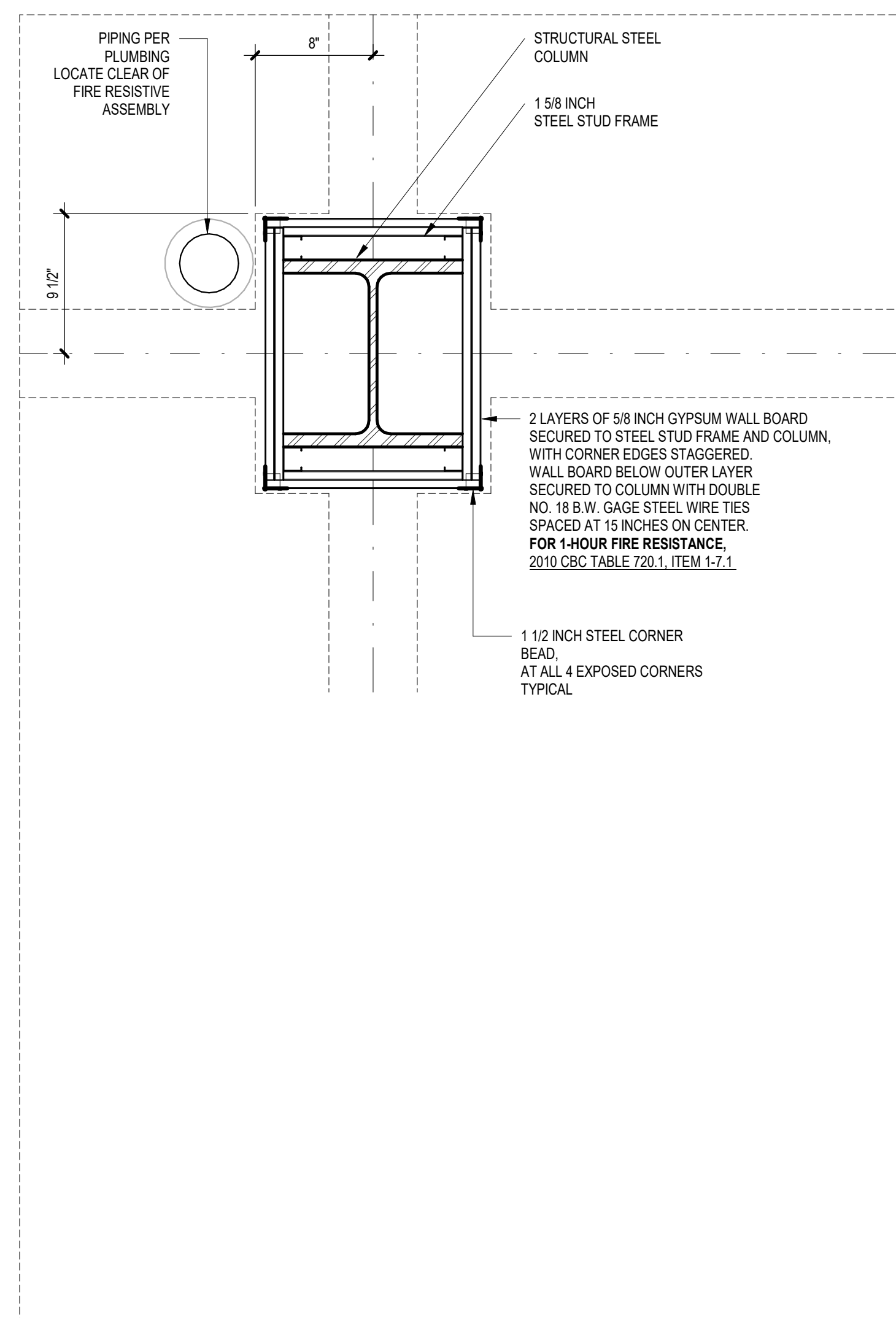
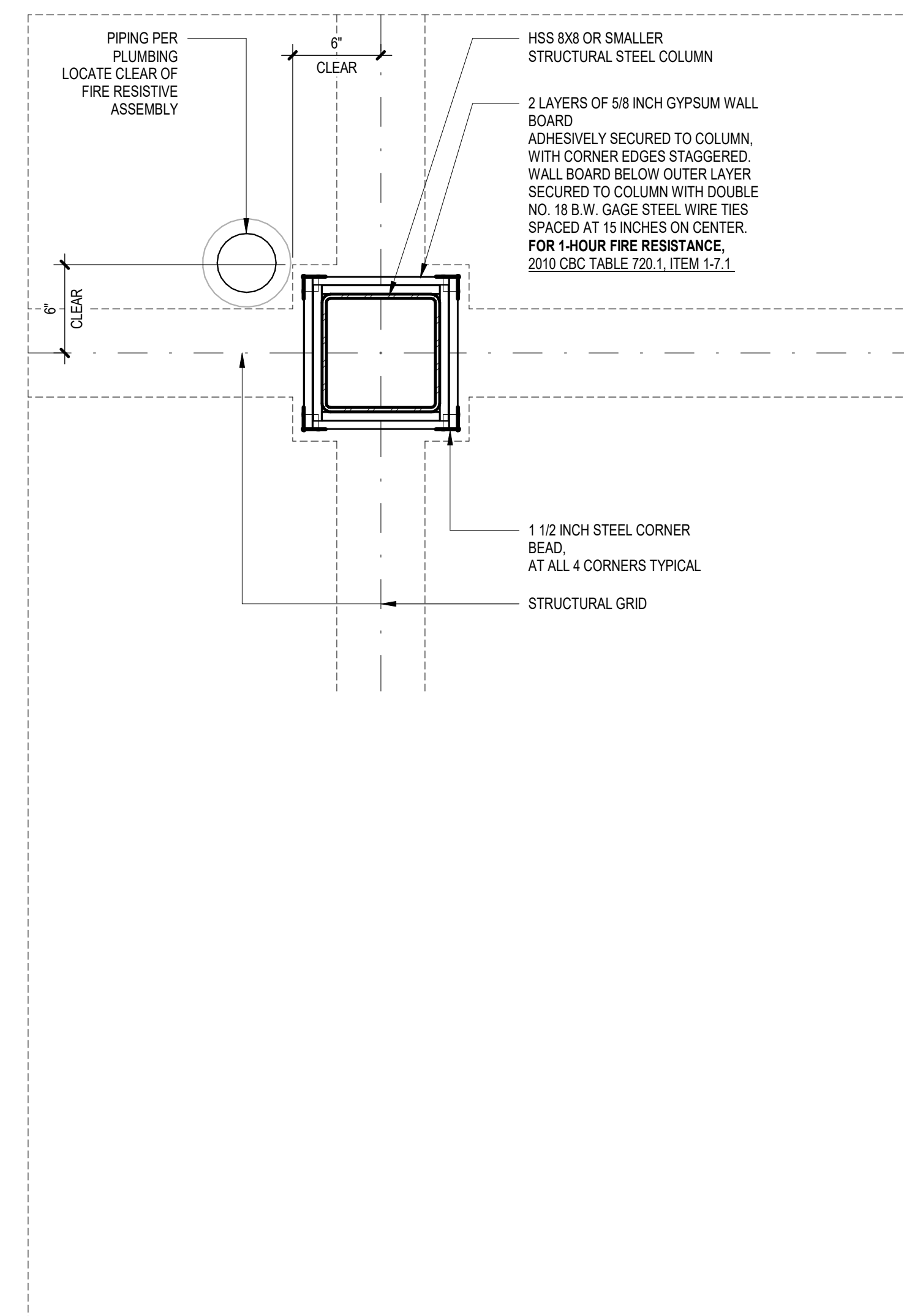
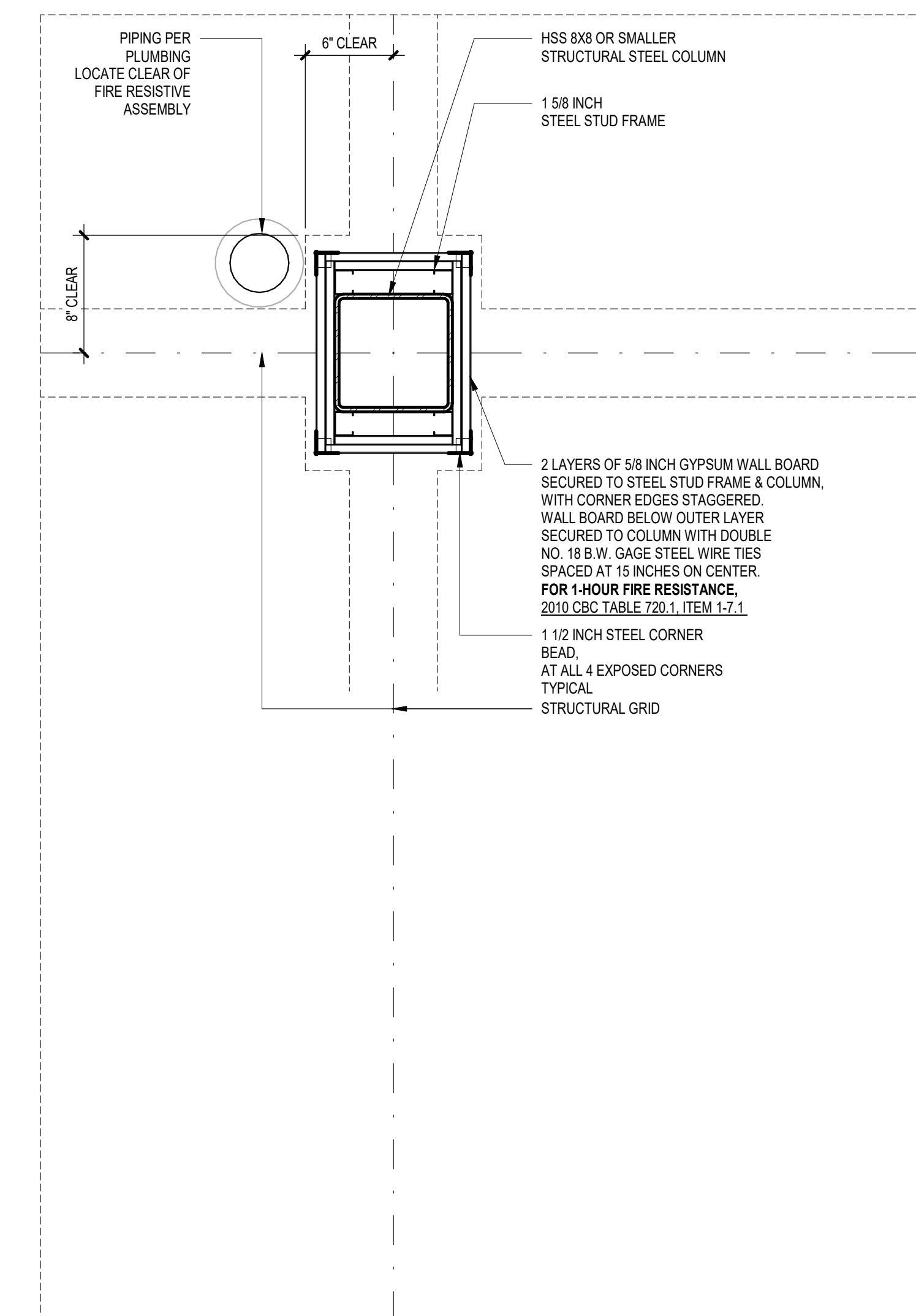
605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks
606.1 General. Lavatories and sinks shall comply with 606.

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 308 shall be provided.

EXCEPTIONS: CRITERIA OMITTED. Not applicable to this project.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.



**GENERAL NOTES -
FIRE PROTECTION AT STRUCTURE**

1. THE PURPOSE OF THESE DIAGRAMS IS TO ILLUSTRATE THE FIRE PROTECTION REQUIREMENTS OF THE PRIMARY AND SECONDARY STRUCTURAL MEMBERS REQUIRED BY 2010 CALIFORNIA BUILDING CODE TABLE 601.
2. FOR ADDITIONAL U.S. DESIGN INFORMATION, MAKE REFERENCE TO A551 THRU A555
3. FOR ADDITIONAL INFORMATION ON SPRAYED FIRE-RESISTANT MATERIALS REFER TO SPECIFICATION 07 81 00 - APPLIED FIRE PROOFING. TABLE 601 PROVIDES MINIMUM PROTECTIVE THICKNESS REQUIREMENTS PER SPECIFIC STRUCTURAL MEMBER.
4. PER CBC 704.2, ATTACHMENTS TO STRUCTURAL MEMBERS INCLUDING LUGS, BRACKETS, RIVETS AND OTHER LUGS SHALL BE PRIMARY STRUCTURAL. 1 INCH OF THE SURFACE OF THE FIRE PROTECTION.
5. PER CBC 704.11, FIRE PROTECTION IS NOT REQUIRED AT THE BOTTOM FLANGE OF I-TEELS, SHELF ANGLES AND PLATES SPANNING NOT MORE THAN 6 FEET. THE BOTTOM PART OF PRIMARY STRUCTURAL FRAME LUGS, OR NOT, AND FROM THE BOTTOM FLANGE OF SHELF ANGLES AND PLATES NOT PART OF THE PRIMARY STRUCTURAL FRAME, REGARDLESS OF SPAN.



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A	Issue for Permit	2024.12.7
No.	Description	Date

DRAWN BY: AM

CHECKED BY: BA

PROJ. NO: 23-053

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Compliance - Part 5 - Structure Fire Protection

A007

BASIS OF DESIGN
1. BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE

GENERAL STRUCTURAL NOTES

1. COORDINATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.
2. DISCREPANCIES: THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING, OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS THAT DO NOT CONFORM TO CODES, RULES AND REGULATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ENGINEER WILL SEND INSTRUCTIONS TO ALL CONCERNED. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. TYPICAL DETAILS AND NOTES ON THE SN AND ST SHEETS SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED CONDITIONS. ALL CONSTRUCTION WORK SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, REGULATIONS AND SAFETY REQUIREMENTS.
4. TRADE NAMES: WHERE AN ITEM IS IDENTIFIED BY A TRADE NAME THE SUFFIX "OR APPROVED EQUIVALENT" SHALL BE IMPLIED UNLESS SPECIFICALLY NOTED OTHERWISE.
5. STANDARDS: EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE NOTED OR SHOWN IN THE PLANS OR SPECIFICATIONS, ALL PHASES OF WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2018 IBC ADOPTED BY THE CITY OF VALPARAISO.
6. BUILDING LIVE LOADS:
SNOW LOAD 20 PSF
ROOF 20 PSF**
PLATFORM 100 PSF
**REDUCIBLE DEPENDING UPON TRIBUTARY AREA, AND SLOPE
7. INSPECTION: WHEREVER SPECIAL AND/OR CONTINUOUS INSPECTION IS CALLED FOR IN THESE NOTES OR THE BUILDING CODES, SUCH INSPECTION SHALL BE PERFORMED BY A TESTING LABORATORY EMPLOYED BY THE OWNER. JOB SITE VISITS BY THE ENGINEER SHALL NOT CONSTITUTE AN OFFICIAL INSPECTION.
8. PRE-CONSTRUCTION MEETING: PRIOR TO THE COMMENCEMENT OF THE CONSTRUCTION, THE ARCHITECT SHALL CONDUCT A MEETING TO ESTABLISH SUBMITTAL ROUTES, SCHEDULES AND SERVICING REQUIREMENTS FOR THE CONSTRUCTION ADMINISTRATION OF THE PROJECT. REPRESENTATIVES FROM THE ENGINEER, TESTING LABORATORY, BUILDING DEPARTMENT, CONTRACTOR, AND OTHER DESIGN PROFESSIONALS AS MAY BE APPROPRIATE WILL ATTEND. ("IF NECESSARY").
9. OTHER TRADES: SEE ARCHITECTURAL AND CONSULTANT DRAWINGS FOR SIZE AND LOCATION OF PIPE, OTHER DEVICES, ANCHOR BOLT REQUIREMENTS FOR EQUIPMENT AND OTHER DETAILS NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS.
10. MATERIALS AND WORKMANSHIP: THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, EQUIPMENT AND SHOWN OR INDICATED ON THESE DRAWINGS. ALL MATERIAL SHALL BE NEW MATERIALS. SUBCONTRACTORS SHALL BE SKILLED IN THEIR TRADE.
11. MATERIALS AND WORKMANSHIP WARRANTY: THE CONTRACTOR SHALL REPLACE ANY DEFECTIVE MATERIALS AND CORRECT POOR WORKMANSHIP WITH NO ADDITIONAL COSTS TO THE OWNER, AND SHALL REMEDY ANY DEFECTS IN MATERIAL OR THIS WARRANTY APPLIES TO THE WORK DONE BY THE SUBCONTRACTORS AS WELL AS THE WORK DONE BY THE EMPLOYEES OF THE CONTRACTOR.
12. SAFETY: THE CONTRACTOR SHALL ADEQUATELY PROTECT HIS WORK, ADJACENT PROPERTY AND THE PUBLIC, AND BE RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLIGENCE.
13. SIDEWALK PROTECTION: PEDESTRIAN TRAFFIC SHALL BE PROTECTED AS SPECIFIED IN SECTION 3306 OF THE 2018 IBC ADOPTED BY THE CITY OF VALPARAISO.
14. SHORING: IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING AND FORMWORK, ETC., AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING THE CONSTRUCTION OF THIS BUILDING.
15. EXCAVATION: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF NEWPORT BEACH AND WITH THE JOINING PROPERTY. THE PREMISES SHALL BE KEPT FROM ACCUMULATION OF WASTE MATERIALS, AND DEBRIS, AND AT THE END OF THE JOB THE CONTRACTOR SHALL REMOVE ALL RUBBISH, SURPLUS OF MATERIALS, AND TOOLS AND LEAVE THE BUILDING BROOM CLEAN.
16. SHOP DRAWINGS: SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST CONSTRUCTION DOCUMENTS.
17. SHOP DRAWING CHECK: THE REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL ENGINEER IS ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THIS REVIEW DOES NOT GUARANTEE THAT THE SHOP DRAWINGS ARE CORRECT NOR DOES IT IMPLY THAT THEY SUPERSEDE THE STRUCTURAL DRAWINGS.
18. SUBSTITUTIONS: BEFORE SUBSTITUTIONS FOR ANY MATERIALS OR SYSTEMS SHOWN ON THE DRAWINGS OR CALLED OUT IN THE SPECIFICATIONS WILL BE CONSIDERED, THE PERSON PROPOSING THE SUBSTITUTION SHALL SUBMIT A WRITTEN LETTER TO THE STRUCTURAL ENGINEER STATING THE FOLLOWING:
A. THE PROPOSER AGREES TO PAY THE ENGINEER FOR THE COST OF EVALUATING THE PROPOSED CHANGE.
B. THE PROPOSER AGREES TO PAY THE ENGINEER FOR THE COST OF CHANGING THE DRAWINGS AND DETAILING SHOULD THIS BE REQUIRED BY THE BUILDING DEPARTMENT OR SHOULD THE ENGINEER DECIDE IT IS NECESSARY.
C. THE NET SAVING SHALL BE PASSED ON TO THE OWNER SHOULD THE SUBSTITUTION BE APPROVED.
19. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS OR EXISTING FIELD CONDITIONS. SUCH NOTIFICATION SHALL BE GIVEN IN DUE TIME SO AS NOT TO AFFECT THE CONSTRUCTION SCHEDULE. IN CASE OF A CONFLICT BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS THE MORE RESTRICTIVE CONDITION SHALL TAKE PRECEDENCE UNLESS WRITTEN APPROVAL HAS BEEN GIVEN FOR THE LEAST RESTRICTIVE. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PRIOR TO COMMENCING ANY WORK.

CONCRETE NOTES

1. COMPRESSIVE STRENGTH: THE MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF ALL CONCRETE SHALL BE 2500 PSI MIN AT 28 DAYS, UNLESS NOTED OTHERWISE. REFER TO PLANS AND TABLE FOR THE DESIGN STRENGTH OF CONCRETE FOR SPECIFIC STRUCTURAL ELEMENTS. DESIGN OF MIXES SHALL BE BY AN APPROVED TESTING LABORATORY AND SIGNED BY A REGISTERED ENGINEER.
1. WEIGHT: ALL CONCRETE SHALL BE "NORMAL WEIGHT" UNLESS NOTED OTHERWISE.
2. CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO, BY WEIGHT, OF 0.45
3. CEMENT: CEMENT SHALL CONFORM TO THE ASTM C150-09 TYPE V.
4. AGGREGATE: AGGREGATE SHALL CONFORM TO ASTM C33-08.
5. SPECIAL INSPECTIONS: SEE THE SPECIAL INSPECTION TABLE AND THE SPECIAL INSPECTION NOTE SHEET FOR ANY INSPECTIONS REQUIRED TO BE MADE.
6. CONCRETE PLACEMENT AND QUALITY: SHALL CONFORM TO APPLICABLE RECOMMENDATIONS OF ACI SP-15. A COPY OF SP-15 SHALL BE AVAILABLE AT CONSTRUCTION SITE DURING THE PROJECT.
7. DEBRIS: REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING OF CONCRETE.
8. DOWELING: ALL WALLS AND COLUMNS SHALL BE DOWELED INTO FOOTINGS, WALLS, BEAMS, OR SLABS AS SHOWN OR NOTED ON THE DRAWINGS.
9. SPLICES: VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE BARS IN SPANDRELS, WALLS, BEAMS, GRADE BEAMS, ETC., UNLESS NOTED OTHERWISE AS FOLLOWS: TOP BARS AT MID-POINT OF SPAN, BOTTOM BARS AT THE SUPPORT. ALL REINFORCING STEEL SHALL BE SECURELY WIRED AND PROPERLY SUPPORTED ABOVE THE GROUND AND AWAY FROM FORMS AS SHOWN OR NOTED.
10. INSERTS: ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURE AND POSITIONED BEFORE PLACING OF CONCRETE.
11. CONDUIT AND PIPES: CONDUIT AND PIPES SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER OR RECORD. MAXIMUM CONDUIT AND PIPE SIZE SHALL BE 1/3 OF THE SLAB OR WALL THICKNESS AND LOCATED AT ITS MID DEPTH. MINIMUM SPACING SHALL BE 3 TIMES THE CONDUIT/PIPE DIAMETER. CONDUIT AND PIPES SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER. CONDUIT AND PIPES SHALL NOT BE ALUMINUM. CONDUIT AND PIPES SHALL NOT DISPLACE MORE THAN 4% OF THE CROSS SECTION AREA.
12. CONSTRUCTION JOINTS: SHALL HAVE ENTIRE SURFACE REMOVED TO EXPOSE CLEAN AGGREGATE SOLIDLY EMBEDDED. THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF CONSTRUCTION JOINT LOCATION IN ALL SLABS, BEAMS, AND WALLS.
13. NON-SHRINK CEMENT GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 9000 PSI. USE "SIKA GROUT 212" OR MASTERFLOW 928
14. TIEBACKS: USING DYPWIDAG PERMANENT STRAND ANCHOR SYSTEM WITH DCP (DOUBLE CORROSION PROTECTION). STRANDS ARE TO BE 6" Ø 7-WIRE, LOW RELAXATION 270KSI, CONFORMING TO ASTM A882 OR ASTM A416 AND MANUFACTURER SPECIFICATIONS. MINIMUM GROUT STRENGTH OF 4500PSI WITH A 0.45 WATER TO CEMENT RATIO. INSTALL PER MANUFACTURER SPECIFICATIONS.

REINFORCING STEEL NOTES

1. GRADE: ALL REINFORCING STEEL SHALL BE DEFORMED BARS WHICH SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF ASTM A-615 GRADE 60.
2. WELDED WIRE MESH: ELECTRIC WELDED WIRE MESH SHALL CONFORM TO ASTM A-185. SIZE SHALL BE AS SHOWN ON THE DRAWINGS. MINIMUM LAPS TO BE 12".
3. MINIMUM LAP: REINFORCING STEEL SHALL BE SPLICED WITH A MINIMUM LAP OF 48 DIAMETERS IN MASONRY, EXCEPT WHEN SHOWN OR NOTED OTHERWISE. SEE LAP/SPLICE DETAILS.
4. MINIMUM COVER: REINFORCING STEEL TO HAVE THE FOLLOWING MINIMUM COVER:
CONCRETE AGAINST EARTH (NOT FORMED) 3"
2. CONCRETE EXPOSED TO EARTH OR WEATHER (FORMED OR TROWELED)
#6 - #15 BARS 1 1/2"
#6 AND SMALLER 1"
3. GRADE @ CL OF SLAB
4. WALLS 1-1/2"
5. CONCRETE SLAB (FORMED) 1"
6. STRUCTURAL SLAB AND WALLS 1"
7. BEAMS AND COLUMNS
a. PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS) 1-1/2"
5. WELDING: LOW HYDROGEN WELDING RODS SHALL BE USED FOR ALL WELDING TO REINFORCING BAR, BUT ONLY WHERE SHOWN OR NOTED BY THE STRUCTURAL ENGINEER.
6. WELDING: GRADE 60 REBAR SHALL BE PREHEATED, WHEN WELDING, AS PRESCRIBED BY AWS D1.4 FOR VARIOUS SIZE BARS. REBAR SHALL BE ASTM A 706 GRADE 60.
7. DOWELING: DOWELS SHALL BE PROVIDED AT CONSTRUCTION JOINTS AND SHALL BE THE SAME SIZE AND SPACING AS DETAILED OR #3 @ 12" O.C. X 3'-0" LONG (MINIMUM).
8. TOLERANCE FOR REBAR PLACEMENT: TOLERANCE FOR LONGITUDINAL LOCATION OF BENDS AND ENDS OF REINFORCEMENT SHALL BE PLUS OR MINUS 2 INCHES EXCEPT AT DISCONTINUOUS ENDS OF MEMBERS WHERE TOLERANCES SHALL BE PLUS OR MINUS 1/2 INCH.
9. TEMPERATURE REINFORCEMENT: SHALL HAVE A LAP OF 48 BAR DIAMETERS BUT NOT LESS THAN 12 INCHES, AND THE SPLICE IN ADJACENT BARS SHALL BE NOT LESS THAN 5 FEET APART.

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS

1. ANCHOR MANUFACTURER: WHERE ADHESIVE ANCHORS ARE CALLED FOR ON THESE PLANS, THE CONTRACTOR SHALL USE THE "SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHOR SYSTEM" BY SIMPSON STRONG-TIE COMPANY INC. INSTALLED PER REQUIREMENTS OF ICC-ES REPORT NO. ESR-4057, DATED JULY 2020.
2. ADHESIVE REQUIREMENT: THE ADHESIVE USED WITH THESE ANCHORS SHALL BE "SIMPSON SET-3G EPOXY ADHESIVE" INSTALLATION OF WHICH SHALL PER THE ABOVE REFERENCED ICC-ES REPORT AND BE UNDER THE CONTINUOUS OBSERVATION OF A SPECIAL INSPECTOR PER THE ICC-ES REPORT.
3. ANCHOR RODS: ANCHOR RODS SHALL BE CONTINUOUSLY THREADED STEEL RODS CONFORMING TO ASTM A 193, GRADE B7.
4. INSTALLATION INFORMATION: THE CONTRACTOR SHALL OBTAIN AND RETAIN ON THE PREMISES A COPY OF THE ABOVE REFERENCED ICC-ES REPORT.
5. ANCHOR LOCATIONS: REFER TO THE DRAWING AND DETAILS FOR LOCATION AND SPECIFIC ANCHOR SIZE, SPACING AND EMBEDMENT.

STRUCTURAL STEEL NOTES

1. MATERIALS: ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING U.N.O.:

SHAPE	ASTM DESIGNATION	YIELD STRESS
A. W (WIDE FLANGE)	ASTM A992	(Fy=50KSI)
B. WT (TEE)	ASTM A992	(Fy=50KSI)
C. C (CHANNEL)	ASTM A36 OR A992	(Fy=36, 50KSI)
D. MC (MISCELLANEOUS CHANNEL)	ASTM A36	(Fy=36KSI)
E. L (ANGLE)	ASTM A36	(Fy=36KSI)
F. M, S, MT AND ST	ASTM A36	(Fy=36KSI)
G. HP (BEARING PILES)	ASTM A572 GRADE 50	(Fy=50KSI)
H. HSS RECTANGLE	ASTM A500 GRADE C	(Fy=46KSI)
I. HSS ROUND	ASTM A500 GRADE C	(Fy=46KSI)
J. STEEL PIPE	ASTM A53 GRADE B	(Fy=35KSI)
K. PLATES AND BARS	ASTM A572 GRADE 50	(Fy=50KSI)
L. MISCELLANEOUS STEEL	ASTM A572 GRADE 50	(Fy=50KSI)

2. MATERIALS: ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A992 GR. 50, AND ALL STRUCTURAL STEEL PLATES SHALL CONFORM TO ASTM A572 GR. 50 UNLESS NOTED OTHERWISE. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A-53 GRADE B. STRUCTURAL STEEL TUBE SHALL CONFORM TO ASTM A-500 GRADE B - 46KSI.

3. WELDING: ALL WELDS SHALL BE IN CONFORMITY WITH THE STAND CODE FOR ARC AND GAS WELDING OF AMERICAN WELDING SOCIETY (AWS) AND THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). ALL STRUCTURAL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS USING THE SHIELDED ELECTRIC ARC PROCESS WITH APPROVED ELECTRODES. ALL WELDS FOR LATERAL FORCE RESISTANCE COMPONENTS SHALL BE OF A NOTCH TOUGH WELD METAL (CVN 20FT#60-DEG.F. AND 40FT#70DEG.F.) AND E70XX (70KSI) ELECTRODES SUCH AS E7018 FOR SHIELDED METAL ARC WELDING OR EQUIVALENT ACCORDING TO (AWS) REQUIREMENTS. ALL OTHER WELDS SHALL BE OF MIN E70XX (70KSI) ELECTRODES.

4. SHOP WELDING: SHOP WELDING SHALL BE PERFORMED ONLY IN THE SHOP OF AN APPROVED LICENSED FABRICATOR.

5. FIELD WELDING: ALL FIELD WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL BE CONTINUOUSLY INSPECTED BY A REGISTERED SPECIAL INSPECTOR.

6. BOLTS: ALL BOLTS SHALL BE UNFINISHED BOLTS CONFORMING TO THE FOLLOWING UNO:
A. HIGH STRENGTH CONVENTIONAL ASTM F1525 GR. A325 OR GR. A490
B. HIGH STRENGTH TENSION-CONTROL ASTM F1525 GR. F1882 OR GR. F2280

7. BOLT HOLES: BOLT HOLES IN STEEL TO BE 1/16" LARGER DIAMETER THAN THE NOMINAL BOLT SIZE USED EXCEPT AS NOTED OTHERWISE.

8. NUTS AND WASHER SHALL CONFORM TO THE FOLLOWING UNO:
A. NUTS ASTM A563
B. HARDENED WASHERS ASTM F436
C. DIRECT-TENSION INDICATOR WASHER ASTM F959

9. ANCHOR RODS SHALL BE ASTM F1554 GRADE 55 S1, THREADED AND NUTTED UNLESS NOTED OTHERWISE. ANCHOR ROD WASHER MAY BE ASTM F844. STANDARD COT WASHER SHALL BE BETWEEN DOUBLE NUT AT EMBEDDED END OF ANCHOR ROD.
10. STEEL HEADED STUD ANCHORS SHALL BE ASTM A108 UNLESS NOTED OTHERWISE.
11. STEEL FRAMES: ALL STRUCTURAL STEEL FOR FRAMES SHALL CONFORM TO ASTM A992 GR. 50 PER AISC. ALL WELDS FOR STEEL FRAMES SHALL BE OF A NOTCH TOUGH WELD METAL (CVN 20FT#60-DEG.F. AND 40FT#70DEG.F.) AND E70XX (70KSI) ELECTRODES SUCH AS E7018 FOR SHIELDED METAL ARC WELDING OR EQUIVALENT ACCORDING TO (AWS) REQUIREMENTS. UNLESS OTHERWISE NOTED IN THESE DRAWINGS, COMPLETE-JOINT-PENETRATION WELDS SHALL HAVE THE BACKUP BARS REMOVED, THE EXPOSED WELD BACK GOUGED, GROUND TO SOUND BRIGHT METAL, AND FINALLY REINFORCED WITH A MINIMUM 5/16" FILLET WELD TO COMPLY WITH CURRENT STANDARDS.
12. SHOP DRAWINGS: SHOP DRAWINGS SHOULD BE SIGNED & SEALED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS.
13. DETAILING: ALL CONNECTIONS AND DETAILING PRACTICE SHALL CONFORM TO THE 14TH EDITION OF A.I.S.C. SPECIFICATIONS.
14. CERTIFICATION: AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

METAL STUD NOTES

1. STEEL STUDS, TRACKS AND GAUGE SHEET STEEL SHALL BE ASTM A1003 STRUCTURAL GRADE 33, TYPE H STEEL FOR 3/8" AND THINNER, FOR 3/4" AND THICKER, STEEL STUDS, TRACKS AND GAUGE SHEET STEEL SHALL BE ASTM A1003 STRUCTURAL GRADE 50, TYPE H STEEL.
2. COLD FORMED STEEL SIZES SPECIFIED SHALL COMPLY WITH THE STEEL STUD MANUFACTURES ASSOCIATION SIZES.
3. ALL GALVANIZED STUDS AND TRACKS SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE MINIMUM REQUIREMENTS OF 2015 A.I.S.I. STANDARDS.
4. FLAT STRAPS USED FOR PLYWOOD BLOCKING SHALL HAVE A MINIMUM THICKNESS OF 33-MILS WITH A MIN WIDTH OF 1 1/2" AND SHALL BE INSTALLED ON TOP OF BELOW THE SHEATHING TO BE BLOCK. SCREWS SHALL BE INSTALLED THROUGH SHEATHING TO THE BLOCKING.
5. WELDING OF LIGHT GAUGE FRAMING SHALL COMPLY WITH ANSIAWS D1.3. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY.
6. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS.
7. CUT FRAMING COMPONENTS, SUCH AS BRACING, SQUARELY OR AT AN ANGLE TO FIT TIGHT AGAINST ABUTTING MEMBERS. HOLD MEMBERS FIRMLY IN POSITIONS UNTIL PROPERLY FASTENED.
8. SPLICES IN ANY LIGHT GAUGE MEMBER NOT SPECIFY DETAILING IN THIS SET OF DRAWINGS ARE NOT ALLOWED WITH THE EXCEPTION OF TOP AND BOTTOM TRACKS OF WALLS. REFER TO DETAIL FOR SPICE REQUIREMENTS OF WALL TRACKS.
9. ALL METAL SCREW INDICATED ON THESE DRAWINGS ARE HILTI BRAND SELF-DRILLING/SELF-TAPPING STEEL SCREWS AS MANUFACTURED BY HILTI CORPORATION.
10. UTILITY PUNCH HOLES IN STUDS SHALL BE LOCATED AWAY FROM CONNECTIONS.
11. AXIALLY LOADED BEARING STUDS MUST BE FULLY SEATING INTO THE WALL TRACKS.
12. OPENING IN THE STUD WEBS OTHER THAN STANDARD HOLES PUNCHED BY THE MANUFACTURE ARE PROHIBITED UNLESS SPECIFICALLY DETAILED IN THIS SET OF DRAWINGS.

13. PREFABRICATED PANELS SHALL BE SQUARED AND BRACED TO AVOID RACKING. LIFT PREFABRICATED PANELS IN A MANNER SO AS NOT TO CAUSE LOCAL DISTORTION OF ANY MEMBER.
14. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS & CONNECTION CALCULATIONS SIGNED & SEALED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO THE START OF FABRICATION OR ERECTION. THESE MUST INCLUDE ALL REQUIRED CONNECTIONS TO STRUCTURE.

HARDWARE NOTES

1. UNLESS SPECIFICALLY NOTES OTHERWISE, ALL WOOD FRAMING CONNECTORS SHALL BE BY SIMPSON STRONG-TIE. ALL INSTALLATIONS SHALL FOLLOW CURRENT RECOMMENDATION OF SIMPSON AND ICC REPORTS
2. WHERE SIMPSON STRONG-TIE ALLOWS THE USE OF ALTERNATE OR ADDITIONAL FASTENERS, THE FASTENER TYPE AND AMOUNT RESULTING IN THE HIGHER CAPACITY SHALL BE USED, UNLESS NOTED OTHERWISE.
3. THE NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION SHALL BE FOLLOWED WITH RESPECT TO FABRICATION AND ASSEMBLY OF ALL FASTENERS, EDGE AND END DISTANCE REQUIREMENTS, AND MINIMUM PENETRATION REQUIREMENTS.

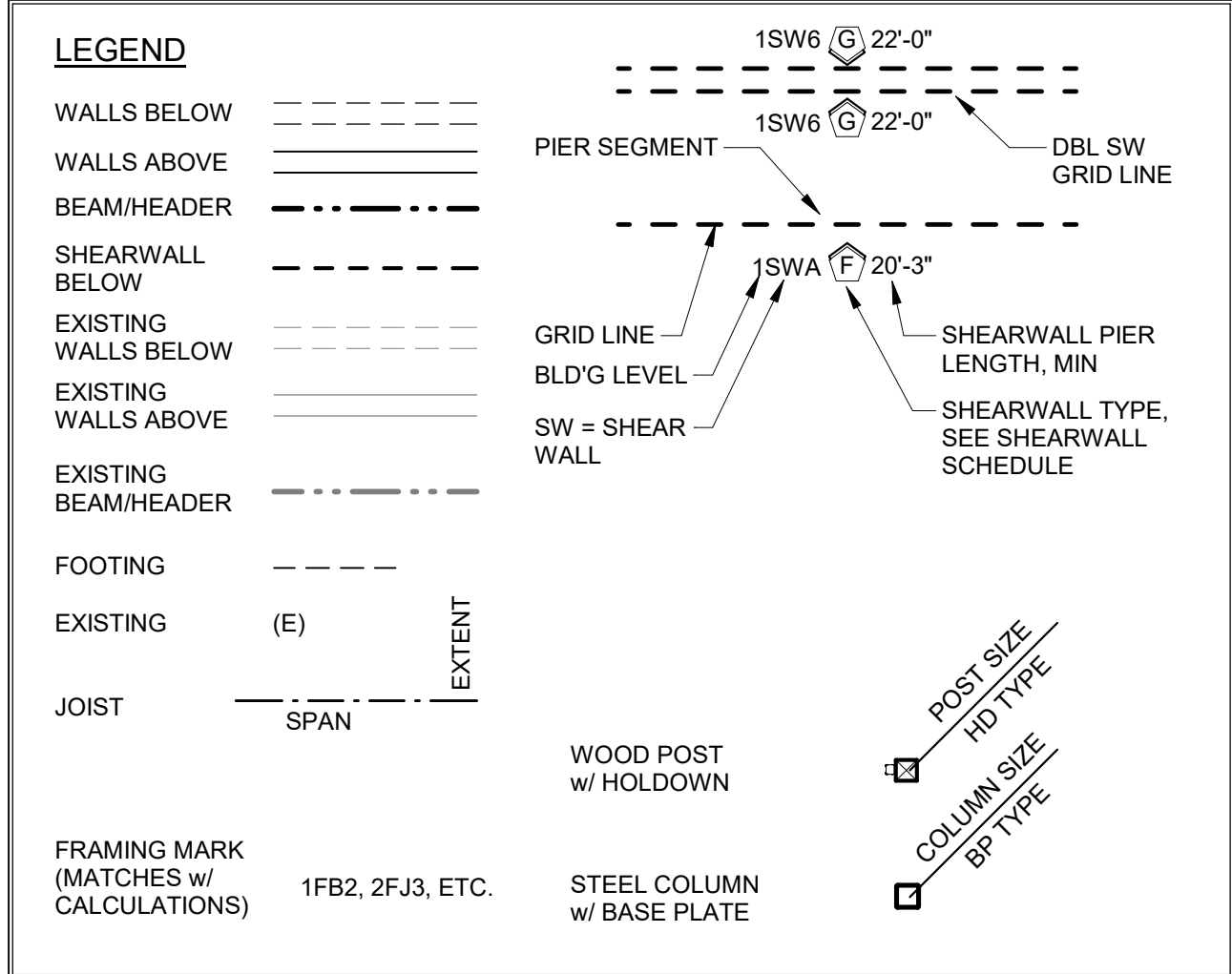
SUBSTITUTIONS

1. BEFORE SUBSTITUTIONS FOR ANY MATERIALS OR SYSTEMS SHOWN ON THE DRAWINGS OR CALLED OUT IN THE SPECIFICATIONS WILL BE CONSIDERED, THE PERSON PROPOSING THE SUBSTITUTION SHALL SUBMIT A WRITTEN LETTER TO THE STRUCTURAL ENGINEER STATING THE FOLLOWING:
A. THE PROPOSER AGREES TO PAY THE ENGINEER FOR THE COST OF EVALUATING THE PROPOSED CHANGE.
B. THE PROPOSER AGREES TO PAY THE ENGINEER FOR THE COST OF CHANGING THE DRAWINGS AND DETAILS SHOULD THIS BE REQUIRED BY THE BUILDING DEPARTMENT OR SHOULD THE ENGINEER DECIDE IT IS NECESSARY.
C. THE NET SAVING SHALL BE PASSED ON TO THE OWNER SHOULD THE SUBSTITUTION BE APPROVED.

SPECIAL INSPECTIONS

1. IN ADDITION TO STANDARD INSPECTIONS BY THE BUILDING OFFICIAL PER 2018 IBC SECTION 110, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION, FOR THE TYPES OF WORK LISTED IN THIS SECTION.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR AT LEAST 24 HOURS' NOTICE PRIOR TO PERFORMING ANY WORK REQUIRING SPECIAL INSPECTION.
4. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR THE CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPECIFICATIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER TO WORK, REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THEIR PROVIDED PLANS AND SPECIFICATIONS AND THE APPLICABLE CODE PROVISIONS.
5. INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.
6. TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:

- A. EPOXY ANCHORS IN CONCRETE - INSPECTION OF EPOXY ANCHORS IN CONCRETE SHALL BE PERIODIC UNLESS NOTED OTHERWISE. INSTALLATIONS SHALL BE PERFORMED BY A QUALIFIED PERSON TRAINED BY MANUFACTURER TO INSTALL ADHESIVE ANCHORS, AND THEY SHALL FOLLOW THE MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS (MPII). AT THE TIME OF INSTALLATION, THE CONCRETE SHALL HAVE ACHIEVED A MINIMUM AGE OF 28 DAYS, BE DRY, AND BE BETWEEN 50 DEGREES F AND 104 DEGREES F. THE HOLE SHALL BE DRILLED WITH A HAMMER DRILL TO THE DIMENSIONS LISTED IN THE MPII AND SHALL BE CLEANED USING THE BLOW-BRUSH-BLOW TECHNIQUE REQUIRED IN THE MPII. WHERE ANCHORS ARE INSTALLED INTO LIGHTWEIGHT CONCRETE, IT IS ASSUMED THAT THE CONCRETE IS CLASSIFIED AS ALL-LIGHTWEIGHT CONCRETE, AS DEFINED IN A CI 318. ANY ADHESIVE ANCHORS INSTALLED HORIZONTALLY (EXCEPT FOR ANCHORS IN A SLAB ON GRADE) OR UPWARDLY INCLINED, SHALL BE INSTALLED BY PERSONNEL WITH THE ANCHORS ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT AND SHALL BE INSTALLED WITH CONTINUOUS SPECIAL INSPECTION.
- B. EPOXY ANCHORS IN MASONRY - EPOXY ANCHORS IN MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION PERIOD. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED BY MANUFACTURER TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS (MPII).
- C. SCREW ANCHORS AND EXPANSION ANCHORS CONCRETE OR MASONRY - SCREW ANCHORS IN CONCRETE OR MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION. ANCHORS IN CONCRETE MAY BE PERIODIC. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED BY MANUFACTURER TO INSTALL SCREW/EXPANSION ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS.
7. CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH 2018 IBC SECTION 1704.



MASONRY NOTES

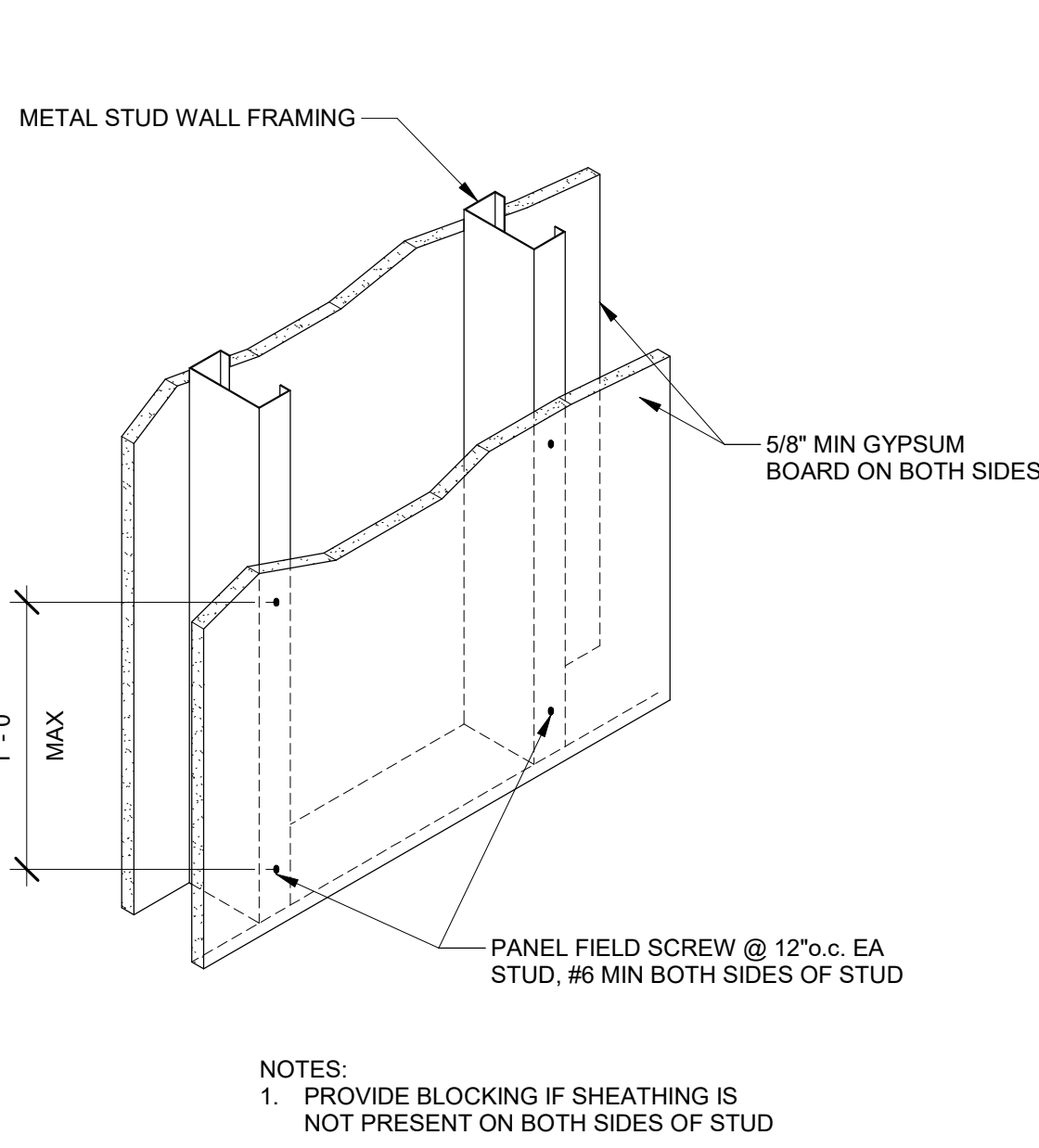
1. STRENGTH: BLOCK SHALL PERFORM TO STANDARD SPECIFICATION FOR HOLLOW CONCRETE MASONRY UNITS ASTM C90 MINIMUM COMPRESSIVE STRENGTH 2,000PSI, F'M=1500 PSI. ALL MORTAR SHALL BE TYPE S. ALL GROUT SHALL BE 2000 PSI MIN. AT 28 DAY STRENGTH. GROUT SHALL BE PLACED AT MAXIMUM 4 FT. LIFTS UNLESS NOTED OTHERWISE.
2. MASONRY UNIT TYPE: MASONRY BLOCK JOINTS SHALL HAVE AT LEAST ONE ADJACENT OPEN CELL FACE. BLOCKS SHALL HAVE AT LEAST ONE OPEN END.
3. REINFORCEMENT: ALL MASONRY REBAR SHOULD BE A MINIMUM GRADE 60.
4. MORTAR: CEMENT MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MIXED AND COMPOSED BY VOLUME OF ONE PART PORTLAND CEMENT, THREE PARTS SAND, AND A 1/4 PART LIME PUTTY UNLESS OTHERWISE NOTED OR SPECIFIED.
5. GROUT: GROUT SHALL BE FRESHLY PREPARED, UNIFORMLY MIXED, AND COMPOSED OF THE FOLLOWING RATION BY VOLUME: ONE PART PORTLAND CEMENT, TWO PARTS PEA GRAVEL, THREE PARTS SAND. SUFFICIENT WATER SHOULD BE ADDED TO PRODUCE A CONSISTENCY FOR POURING WITHOUT SEGREGATION OF GROUT CONSTITUENTS. WHERE APPROVED BY THE ENGINEER, GROUT MIX SHALL BE DESIGNED BY THE OWNER'S TESTING LABORATORY.
6. GROUTING: ALL CELLS ARE TO BE SOLID GROUTED. VERTICAL REINFORCING SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND NOT EXCEEDING 192 BAR DIAMETERS DURING GROUTING.
7. CONSOLIDATION: CONSOLIDATION SHALL BE BY MEANS OF A VIBRATOR. NO PUDDLING OR TAMING IS ALLOWED.
8. INSPECTION: SEE "INSPECTION NOTES" ON THE DRAWING AS WELL AS THE SPECIAL INSPECTION SHEET.
9. REINFORCING: ALL JAMBS, HEADS, AND SILLS HAVE TWO #5 BARS MINIMUM.

TEST LOAD (EXPANSION ANCHOR)		
BOLT DIAMETER (N)	MINIMUM EMBEDMENT (N)	INSTALLATION TORQUE (FT-LBS)
3/8"	25/16"	25
1/2"	23/8"	40
5/8"	39/16"	60
3/4"	45/16"	110

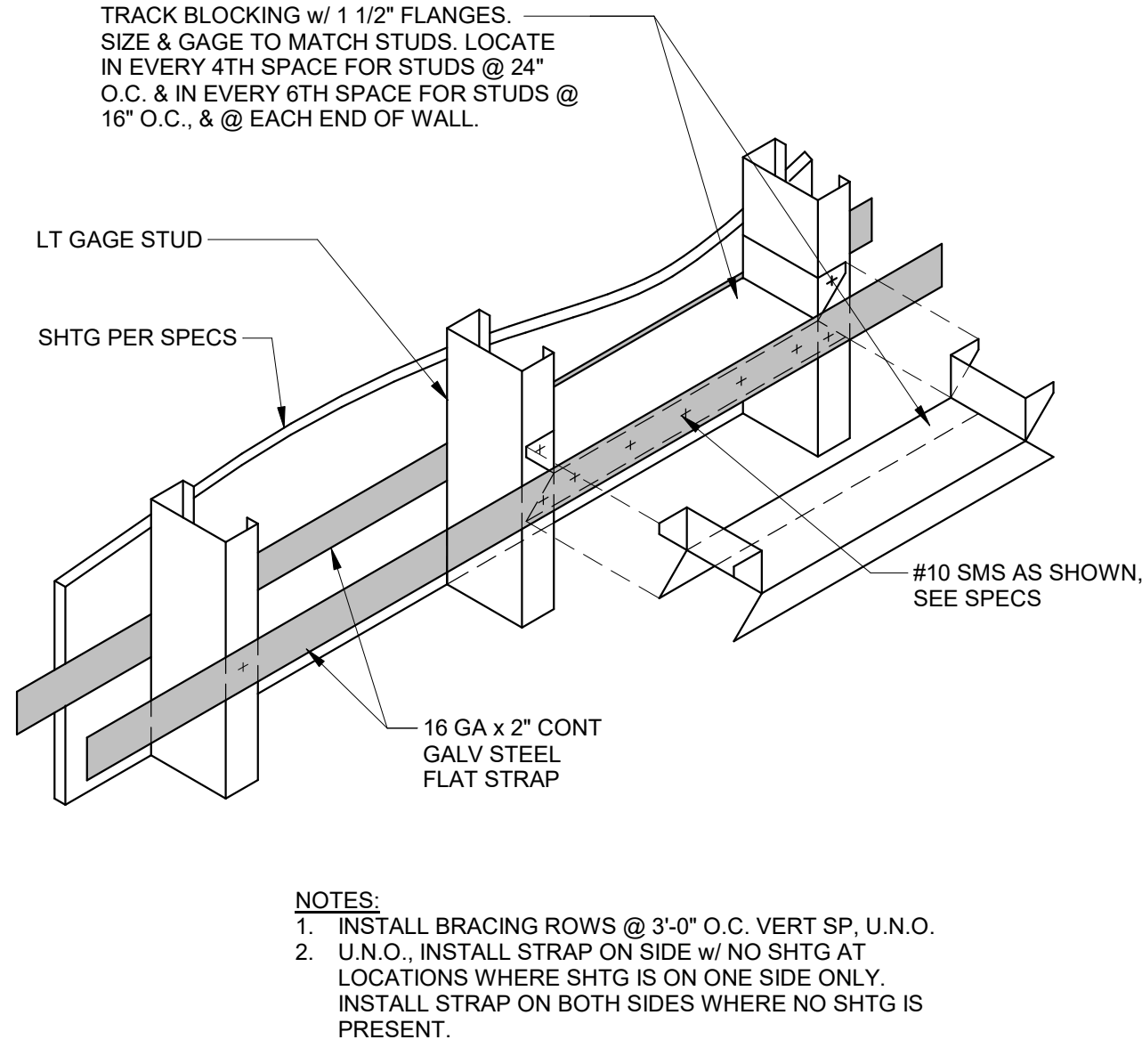
NOTE: MINIMUM EMBEDMENT CALLED OUT IS THE EQUIVALENT NOMINAL EMBEDMENT FOR HILTI K372 MECHANICAL ANCHORS.

ABBREVIATIONS

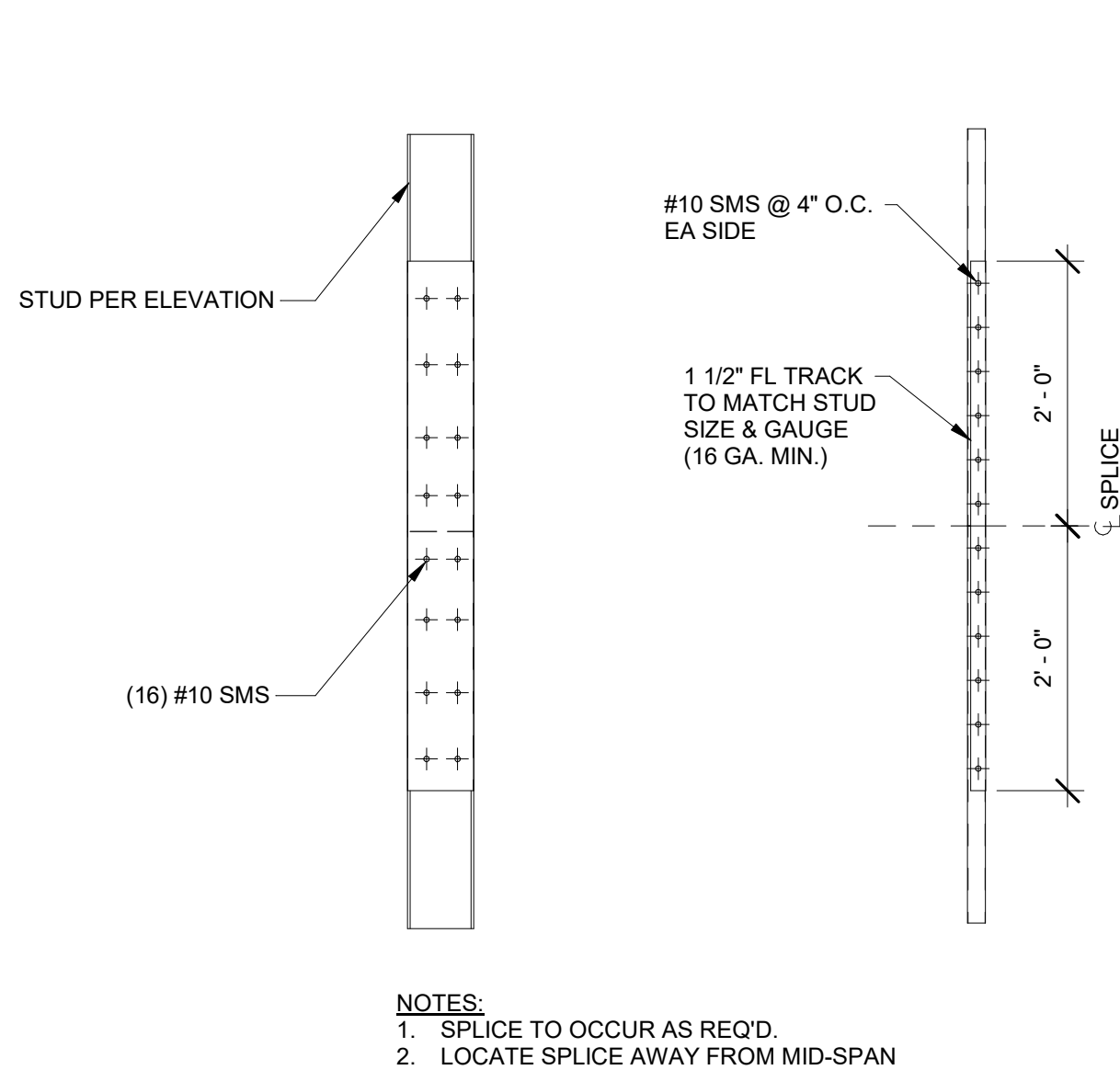
AT	L	ANGLE
ANCHOR BOLT	LAT	LATERAL
AMERICAN CONCRETE INSTITUTE	LBS / #	POUNDS
ADDITIONAL	LF	LINEAR FEET
ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	LL	LIVE LOAD
ABOVE FINISH FLOOR	LLH	LONG LEG HORIZONTAL
AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LLV	LONG LEG VERTICAL
ALTERNATE	LONG	LONGITUDINAL
AMERICAN PLYWOOD...		
APPROXIMATE		
ARCHITECTURAL		
AMERICAN SOCIETY FOR TESTING & WELDING	MAS	MASONRY
ALL-THREAD ROD	MAT'L	MATERIAL
AMERICAN WELDING SOCIETY	MAX	MAXIMUM
	MB	MACHINE BOLT
BOTTOM OF	MECH	MECHANICAL
BOUNDARY ELEMENT	MEMB	MEMBRANE
BELOW	MFR / MANUF	MANUFACTURER
BUILDING	MIN	MINIMUM
BLOCKING	MISC	MISCELLANEOUS
BEAM	MTL	METAL
BOUNDARY NAIL(ING)		
BOTTOM OF (FTG. BEAM, ETC)	(N)	NEW
BEARING	NA / NA	NOT APPLICABLE
BOTTOM	NIC	NOT IN CONTRACT
BETWEEN	NO. / #	NUMBER
	NOM	NOMINAL
CALCULATIONS	NS	NEAR SIDE
CANTILEVERED	NTE	NOT TO EXCEED
CALIFORNIA BUILDING CODE	NTS	NOT TO SCALE
CUBIC FOOT		
COLD FORMED STEEL	O/	OVER
COST-IN-PLACE	OC	ON CENTER
CONTROL JOINT	OD	OUTSIDE DIAMETER
CENTER LINE	OF / OSF	OUTSIDE FACE
CLEAR	OH	OPPOSITE HAND
CONCRETE MASONRY UNIT	OPNG	OPENING
COLUMN	OPP	OPPOSITE
CONCRETE	OPT / OPTL	OPTION / OPTIONAL
CONNECTION	OWWJ	OPEN WEB WOOD JOIST
CONSTRUCTION		
CONTINUOUS	PAR	PARALLEL
CONTRACTOR	PDA	POWDER DRIVEN ANCHOR
COORDINATE	PEN	PENETRATION
CENTER(ED)	PERP	PERPENDICULAR
COUNTERSINK	PJ	PANEL JOINT
	PL	PLATE
PENNY (NAILS)	PFL	PARALLAM BEAM
DEPTH	PFL	POUNDS PER LINEAR FOOT
DEFORMED BAR ANCHOR	PLYWD / PLY	PLYWOOD
DOUBLE	PNL	PANEL
DEMAND CRITICAL WELD	PS	POUR STRIP
DETAIL	PSF	POUNDS PER SQUARE FOOT
DOUGLAS FIR	PSI	POUNDS PER SQUARE INCH
DOUGLAS FIR/LARCH	PSL	PARALLEL STRAND LUMBER
DIAMETER	PT	PRESSURE TREATED
DIAPHRAGM		
DIMENSION	QTY	QUANTITY
DEAD LOAD		
DRAWING	REF	REFERENCE
	REFR	REINFORCING
EACH	REQ / REQ'D	REQUIRED
EACH FACE	RET	RETAINING
EXTERIOR INSULATED FINISH SYSTEM	REV	REVISION
ELECTRICAL	RND	ROUND
ELEVATION		
EDGE NAIL(ING)	SCHED	SCHEDULE
ENGINEER	SF	SQUARE FEET
EQUAL	SFRS	SEISMIC FORCE RESISTING...
EQUIPMENT	SHT	SHEET
EACH SIDE	SHTG / SHT'G	SHEATHING
EACH WAY	SIM	SIMILAR
EXISTING / (E)	SLRS	SEISMIC LOAD RESISTIVE...
EXPANSION JOINT	SLV	SHORT LEG VERTICAL
EXT	SMS	SHEET METAL SCREW
EXTERIOR	SN	SILL NAIL
FACE OF	SOG	SLAB ON GRADE
FLAT BAR	SP	SPACE (D)(S)
FOUNDATION	SPEC(S)	SPECIFICATION
FINISHED)	SQ	SQUARE
FLOOR	SS	STRUCTURAL SELECT
FIELD NAIL	S.S.	STAINLESS STEEL
FACE OF (WALL, CONC. STEEL, ETC)	STAGG	STAGGERED
FRAMING	STD	STANDARD
FAR SIDE	STIFF	STIFFENER
FEET / FOOT	STRL	STRUCTURAL
FOOTING	SY	SQUARE YARD
GAUGE	T&B	TOP & BOTTOM
GALVANIZED	T&G	TONGUE & GROOVE
GLULAM	T/	TOP OF
GLULAM BEAM	THK	THICK / THICKNESS
	THRD	THREADED
HOLLOW CLAY MASONRY	TL	TOTAL LOAD
HEADER	TN	TOE NAIL
HORIZONTAL	T.O.	TOP OF (CONC. STEEL,ETC)
HOLLOW STRUCTURAL SECTION	TRANS / TRANSV	TRANSVERSE
HEIGHT	TS	TUBE STEEL
HEATING, VENTILATION, & AIR CONDITIONING	TYP	TYPICAL
HEADED WELD STUD		
	UNO	UNLESS NOTED OTHERWISE
INTERNATIONAL BUILDING CODE		
INSIDE DIAMETER	VERT	VERTICAL
INSIDE FACE	VIF	VERIFY IN FIELD
INFORMATION		
INSPECTION / INSPECTOR		
INTERIOR	W/	WITH
INTERMEDIATE	W/O	WITHOUT
	WD	WOOD
JOIST	WF	WIDE FLANGE BEAM
	WS	WELD STUD
KIPS	W.S.	WOOD SCREWS
KIPS PER SQUARE FOOT	WP	WORK POINT
KIPS PER SQUARE INCH	WWF	WELDED WIRE FABRIC



10 TYPICAL METAL STUD WALL
1 1/2" = 1'-0"



19 STUD WALL LATERAL BRACING LOCATIONS
1 1/2" = 1'-0"



1/8"

CLIP ANGLE 2x2 (STUD WEB LESS 1/2") MATCH STUD GAUGE

1/8" 1"

BRIDGE CHANNEL

WELDED CONNECTION w/ ANGLE

CLIP ANGLE 2x2 (STUD WEB LESS 1/2") MATCH STUD GAUGE

(2) #10 SHEET METAL SCREWS CHANNEL TO CLIP ANGLE

BRIDGE CHANNEL

SCREW CONNECTION w/ ANGLE

PROVIDE SHORT BEARING TRACK OVER STUDS

ISOMETRIC VIEW

(2) #10 SMS @ 12" O.C.

EDGE SCREW

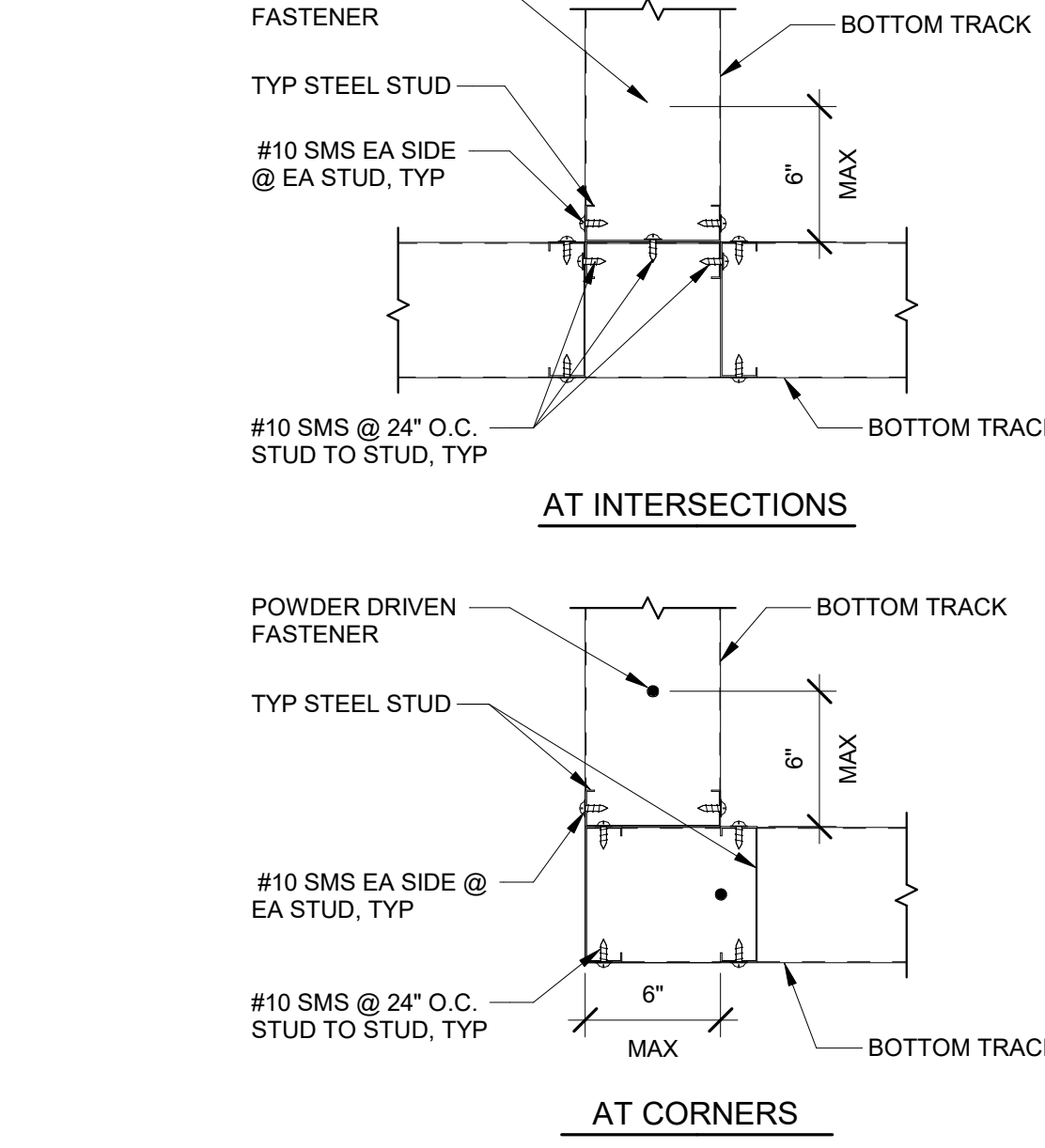
FIELD SCREW

1/8" 1-12

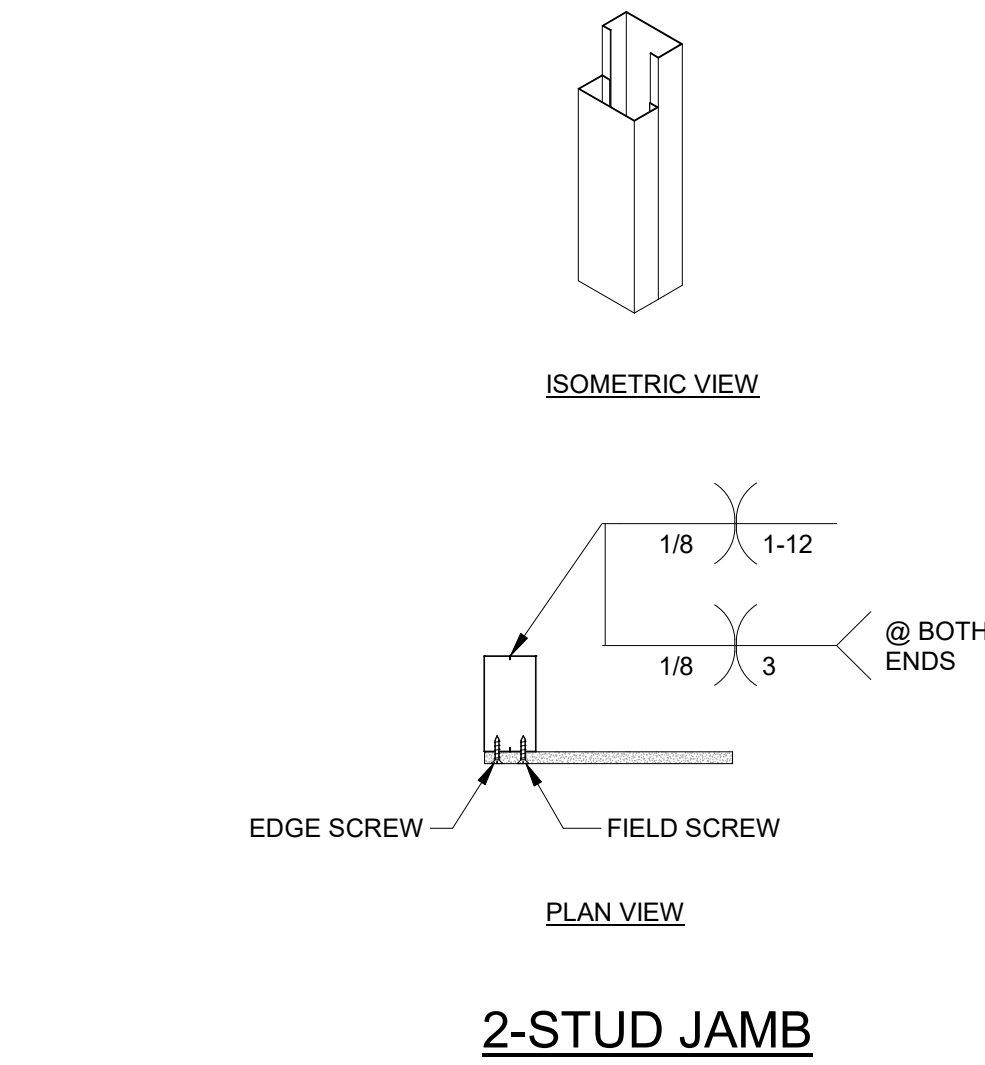
1/8" 3 @ BOTH ENDS

PLAN VIEW

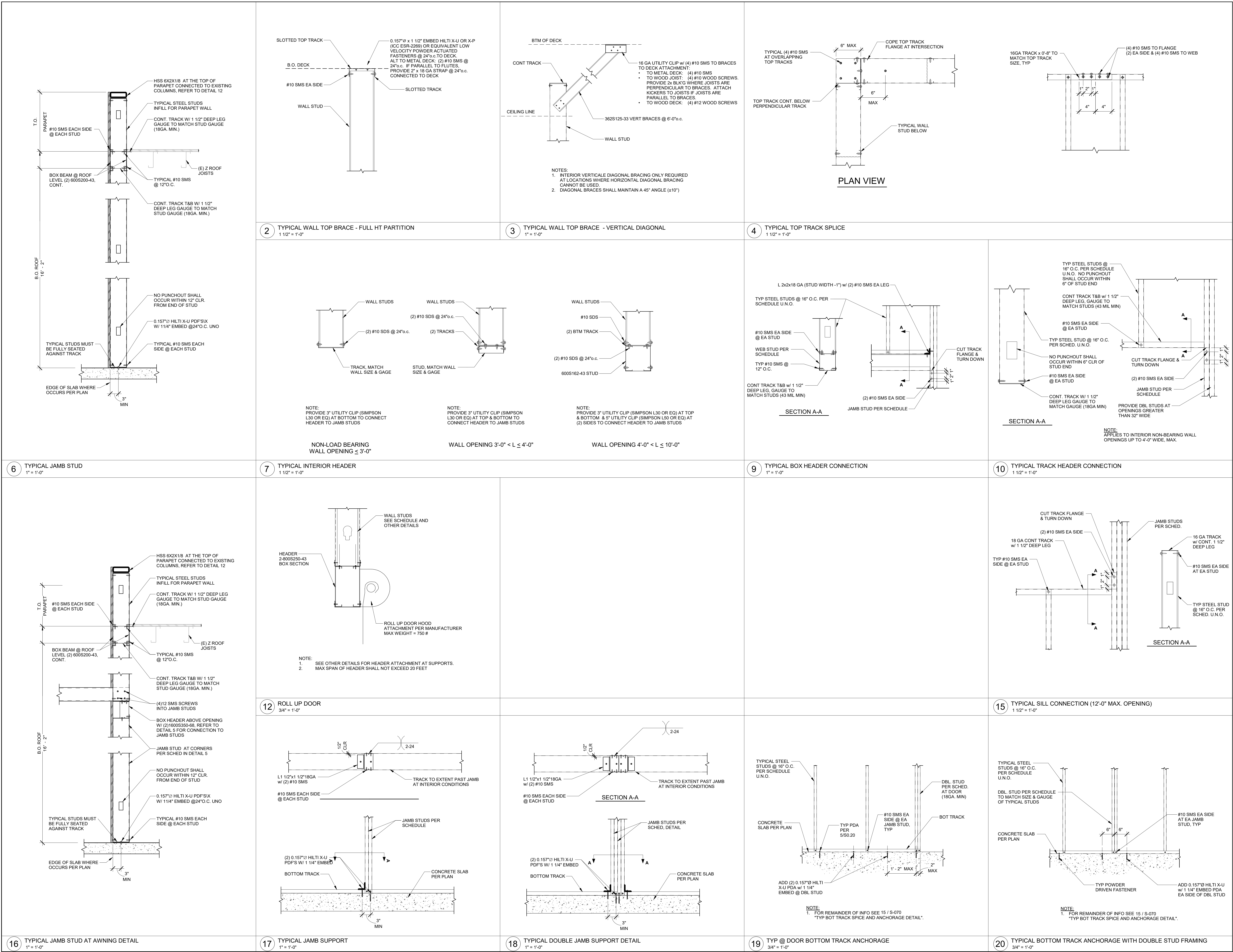
3-STUD JAMB



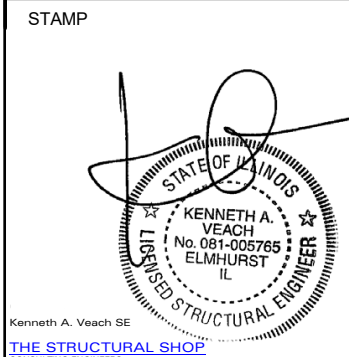
25 TYPICAL METAL STUD BRIDGING
1" = 1'-0"



20 TYP BUILT-UP JAMB
1" = 1'-0"



BURKE
STRUCTURAL
ENGINEERS, PC
151 KALMUS DRIVE,
BLDG. E-140
COSTA MESA, CA, 92626
(657) 289-0460



REVISION SCHEDULE		
Delta	Issued by	Issue Date

TYPICAL LIGHT GAGE STEEL
DETAILS

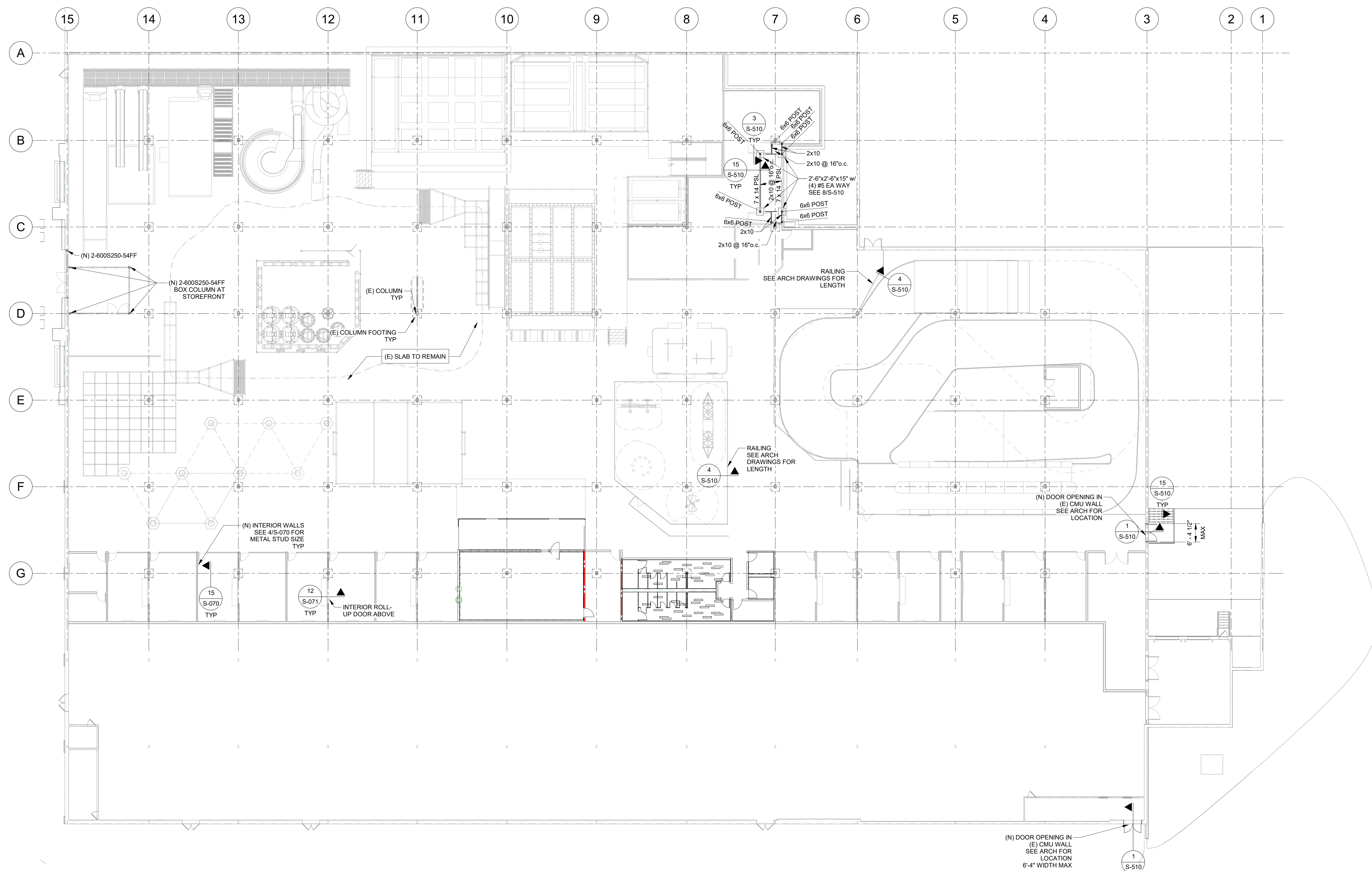
URBAN AIR ADVENTURE PARK
URBAN AIR ARLINGTON HEIGHTS
30 W RAND RD, ARLINGTON HEIGHTS, IL 60004

DATE	2024-10-30
SCALE	As Indicated
CHECKED BY:	AC
DRAWN BY:	NN
PROJECT NO.:	24080
SHEET	

S-071

FOUNDATION NOTES

1. FOR GENERAL STRUCTURAL NOTES SEE S-001
2. FOR TYPICAL STRUCTURAL DETAILS SEE S-070 AND S-071
3. DRAWINGS HAVE PREPARED BASED ON AVAILABLE KNOWLEDGE OF EXISTING CONDITIONS. IF DURING DEMOLITIONS, EXCAVATION, OR CONSTRUCTIONS, ACTUAL CONDITIONS ARE DISCOVERED TO DIFFER FROM THOSE INDICATED ON DRAWINGS, ENGINEER WILL BE NOTIFIED IMMEDIATELY. ALL GOOD STRUCTURAL MEMBERS WHICH ARE EXPOSED TO WEATHER SHALL BE PRESERVED TRFATP.



EXISTING CONDITIONS
DRAWINGS HAVE BEEN PREPARED BASED ON
AVAILABLE KNOWLEDGE OF EXISTING
CONDITIONS. IF, DURING DEMOLITION,
EXCAVATION OR CONSTRUCTION, ACTUAL
CONDITIONS ARE DISCOVERED TO DIFFER FROM
THOSE INDICATED ON DRAWINGS, THE E.O.R.
SHALL BE NOTIFIED.

VERIFY IN FIELD NOTES:

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND ASSUMPTIONS SHOWN ON THESE PLANS. NOTIFY SEOR IF FIELD CONDITIONS ARE DIFFERENT.

1 FOUNDATION PLAN
1/16" = 1'-0"





Seal of the State of Kansas, Department of Transportation, Division of Highways. The seal is circular with "STATE OF KANSAS" at the top and "DEPARTMENT OF TRANSPORTATION" at the bottom. In the center, it says "DIVISION OF HIGHWAYS". A signature is written over the seal.

[illegible]

ROOF FRAMING PLAN

URBAN AIR ADVENTURE PARK
URBAN AIR ARLINGTON HEIGHTS
30 W RAND RD, ARLINGTON HEIGHTS, IL 60004

DATE	2024-10-24
SCALE	1/16" = 1'-0"
CHECKED BY:	Chen
DRAWN BY:	Aut
PROJECT NO.:	24
SHEET	

S-103

Page 87 of 179

ROOF FRAMING NOTES

1. FOR GENERAL STRUCTURAL NOTES SEE S-001.
2. FOR TYPICAL STRUCTURAL DETAILS SEE S-070 AND S-071.
3. DRAWINGS HAVE BEEN PREPARED BASED ON AVAILABLE KNOWLEDGE OF EXISTING CONDITIONS. IF DURING DEMOLITIONS, EXCAVATION, OR STRUCTURAL MODIFICATION ACTS ARE DISCOVERED TO DIFFER FROM THOSE INDICATED ON DRAWINGS, ENGINEERS SHALL BE NOTIFIED IMMEDIATELY.
4. STRUCTURAL WOOD MEMBERS WHICH ARE EXPOSED TO WEATHER SHALL BE PRESURE TREATED.
5. SEE ARCHITECTURAL DRAWINGS FOR CONTROL ELEVATIONS.
6. COORDINATE PERIMETER CONDITIONS WITH ARCHITECTURAL.
7. SEE DETAILS FOR ADDITIONAL AXIAL LOADS REQ'D FOR GIRDERS, JOISTS, AND JOIST SEATS.
8. CONTRACTOR TO COORDINATE AND CONFIRM MECH UNIT SIZE, LOCATION, & WEIGHTS. COORDINATE AND SUPPLY ALL REQUIRED LOADING TO THE JOIST SUPPLIER.
9. CONTRACTOR TO COORDINATE W/ JOIST SUPPLIER ALL PIPING 4"Ø AND LARGER.



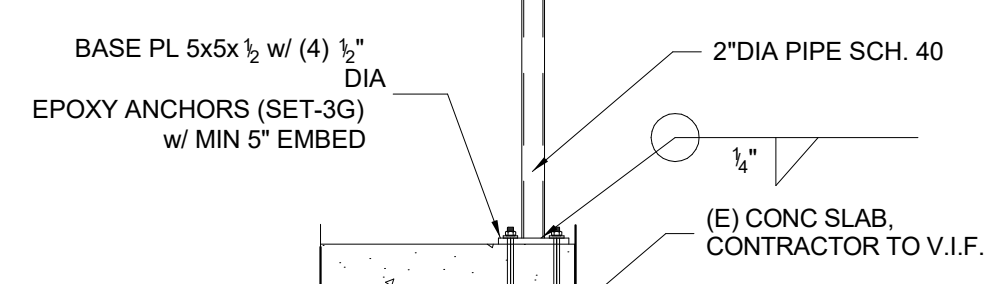
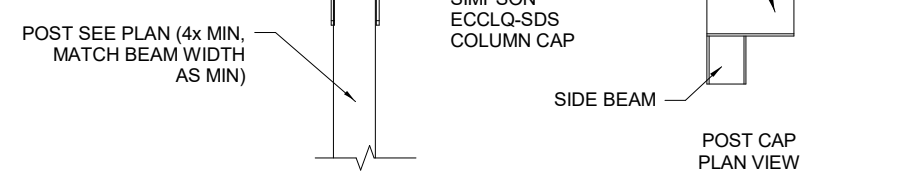
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THOSE INDICATED ON DRAWINGS, THE E.O.R.
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VERIFY IN FIELD NOTES:

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND ASSUMPTIONS SHOWN ON THESE PLANS. NOTIFY SEOR IF FIELD CONDITIONS ARE DIFFERENT

1 ROOF FRAMING PLAN
1/16" = 1'-0"

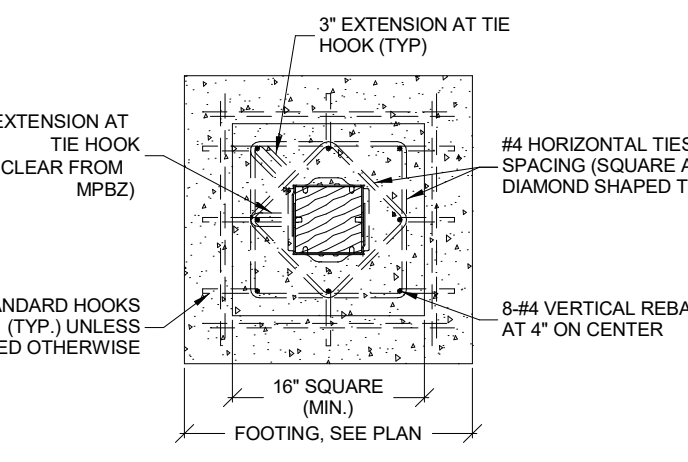




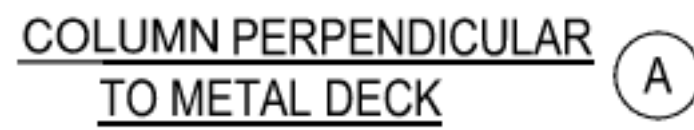
1 WALL OPENING
3/4" = 1'-0"

3 COLUMN TO BEAM
3/4" = 1'-0"

4 RAILING CONNECTION AT EXISTING SLAB
3/4" = 1'-0"

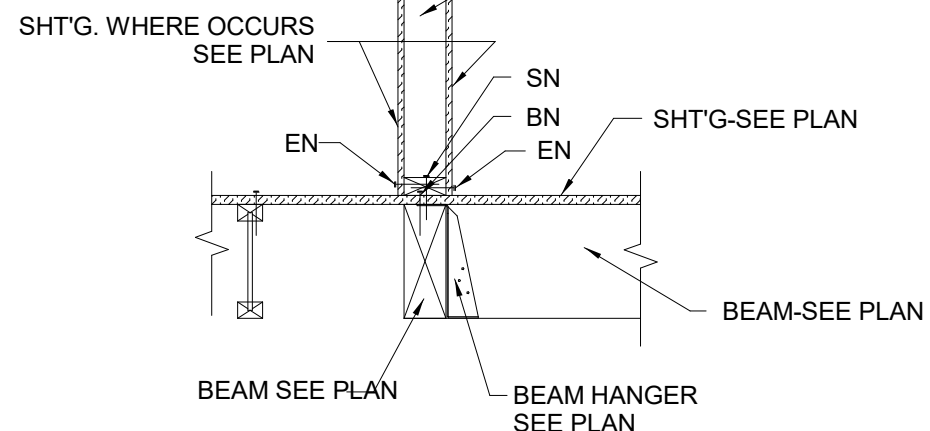


8 POST TO FOOTING
3/4" = 1'-0"



COLUMN PARALLEL
TO METAL DECK (B)

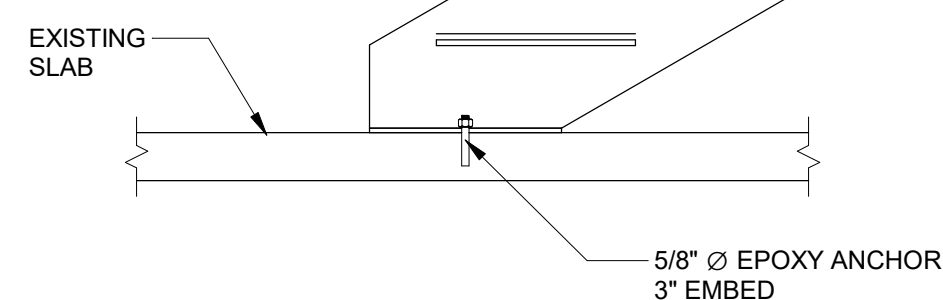
10 LASER TAG ATTACHMENT
3/4" = 1'-0"



4x4	LUS44
4x6	HU46
4x8	HGUS48
4x10	HGUS410
4x12	HGUS412
4x14	HGUS414
4x16	HGUS416

NOTE:
1. HU HANGERS SHALL USE MAXIMUM NAILING PER SIMPSON CATALOG

6x6	HU66
6x8	HGUS5.50/8
6x10	HGUS5.50/10
6x12	HGUS5.50/12
6x14	HGUS5.50/14
6x16	HGUS5.50/14



15 EXTERIOR STAIR CONNECTION
3/4" = 1'-0"

16 COLUMN CONNECTION TO ROOF
3/4" = 1'-0"

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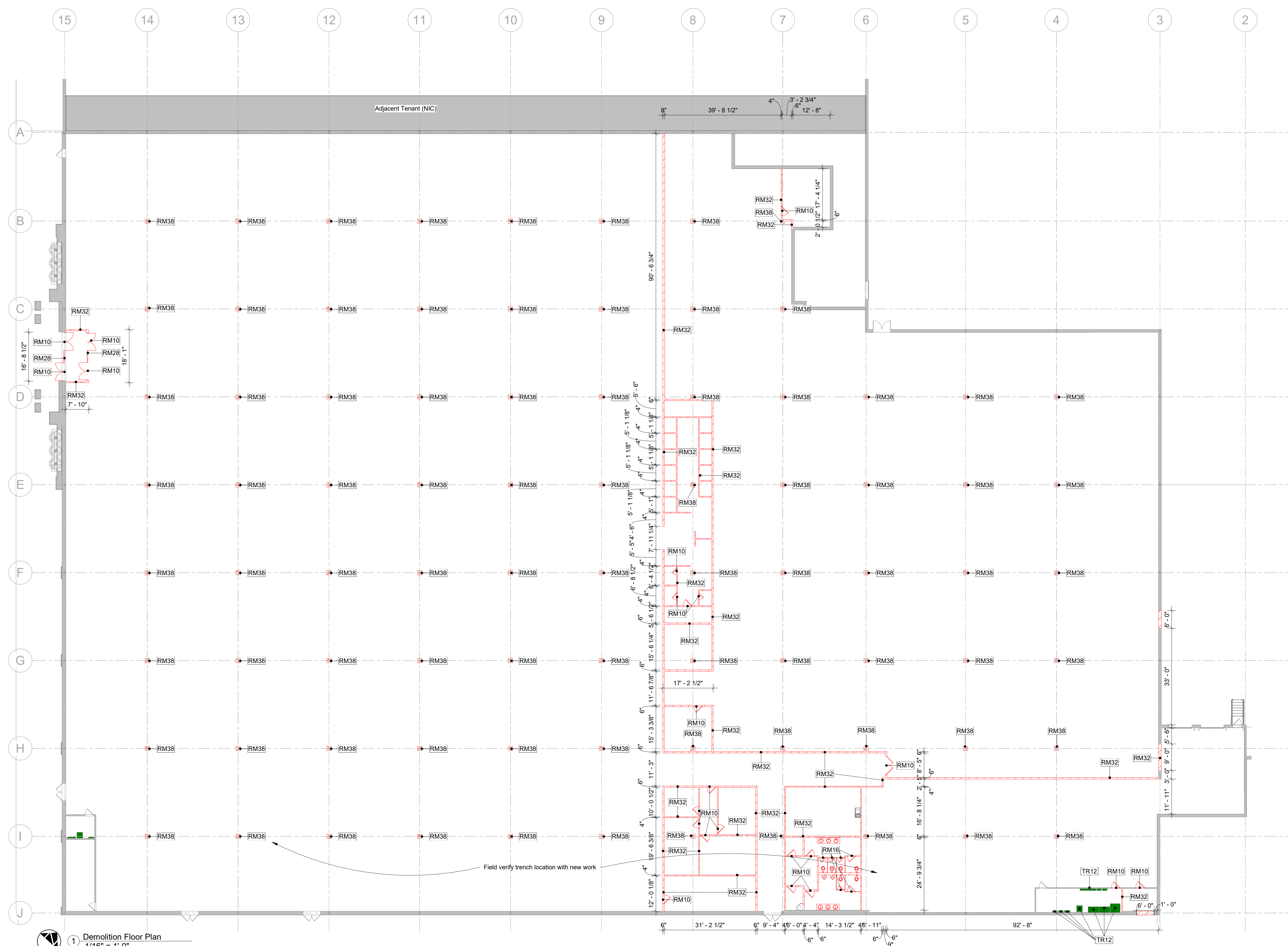
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Demolition Floor Plan

D101



Notes - Demolition

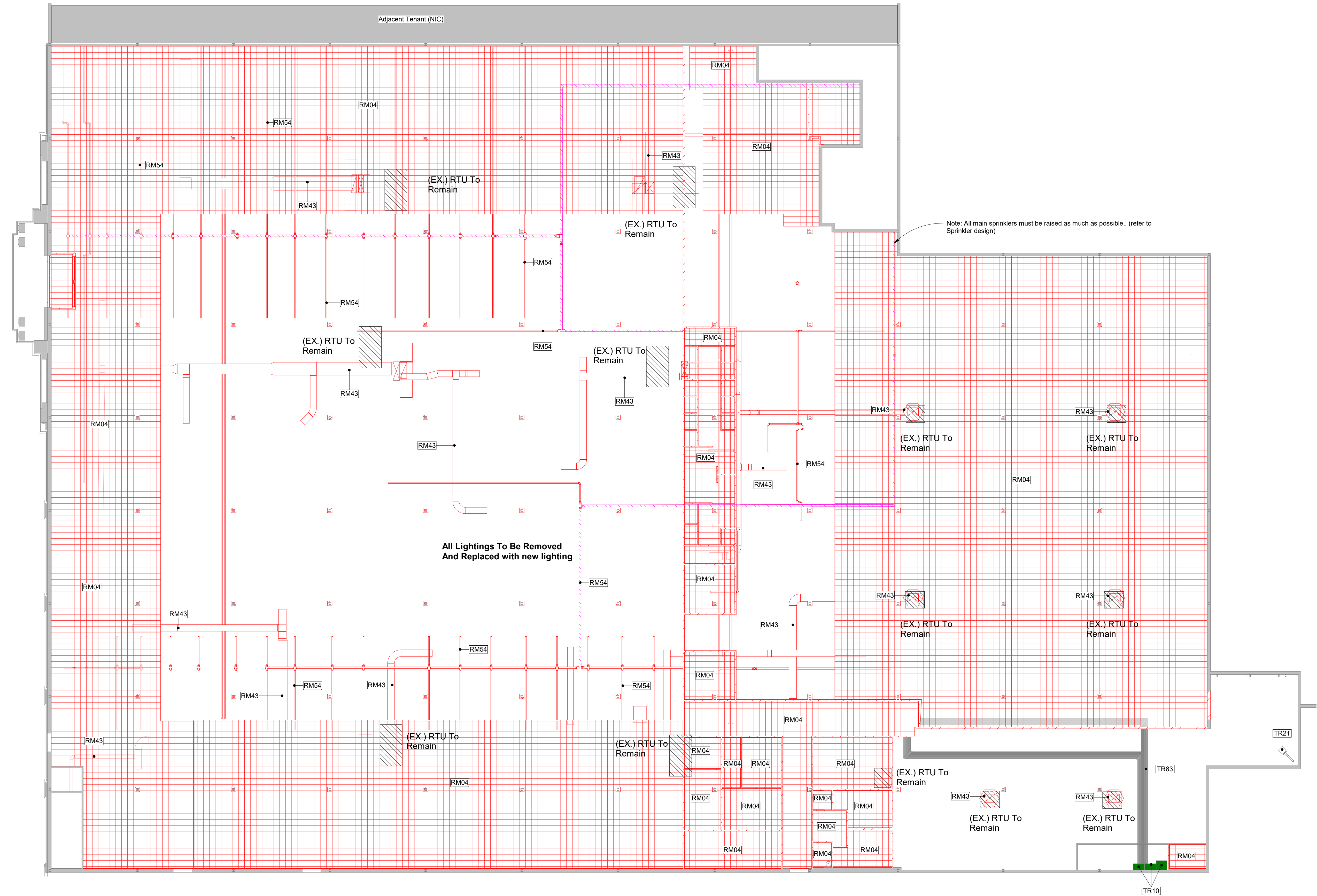
- 1 Refer to structural sheets for complete demolition scope.
- 2 Existing conditions shown are based on available documents and field observation. Notify the Architect and Construction Manager immediately if anomalies between these documents and actual conditions are discovered.
- 3 Coordinate with new work plans for design intent and final construction dimensions.
- 4 Dimensions on demolition sheets are from the face of exterior finish, face of interior gypsum board and face of CMU/Concrete rough opening unless noted otherwise.
- 5 Replace or repair any "to remain" finishes which are damaged during demolition (i.e. - ceilings, doors, etc.)
- 6 All debris and demolition refuse to be safely removed from the site and legally disposed.
- 7 X-ray prior to saw cutting the concrete slab for trench work at plumbing and electrical locations. Refer to the MEP sheets for full extent of trench work and verify all slab conditions in the field.

Legend - Demolition

- | | |
|---|-----------------------------|
|  | Existing to Remain |
|  | Demolition |
|  | Keynote Tag |
|  | Scope of Work Boundary Line |
|  | Main Sprinkler Pipes |

Keynotes

RM10	Remove Door and Frame
RM16	Remove Toilet Partition
RM28	Remove Storefront System
RM32	Remove Wall
RM38	Remove Walls Around Column
TR12	Equipment to remain



1 Demo Reflected Ceiling Plan
1/16" = 1'-0"

Notes - Demolition

- 1 Refer to structural sheets for complete demolition scope.
- 2 Existing conditions shown are based on available documents and field observation. Notify the Architect and Construction Manager immediately if anomalies between these documents and actual conditions are discovered.
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Legend - Demolition

- Existing to Remain
- Demolition
- Keynote Tag
- Scope of Work Boundary Line
- Main Sprinkler Pipes

Keynotes

RM04	Remove Ceiling
RM43	Remove Ducts
RM54	Remove Pipe
TR10	Electrical Equipment to remain
TR21	Mechanical Equipment to remain
TR83	Electrical conduit to remain



Pistil Architects IL LLC

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817.945.6505

www.pistilconsortia.com



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Contact: Thomas R Piazza II
tpiazza@foxfieldtd.com



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Demolition Reflected Ceiling
Plan

D121

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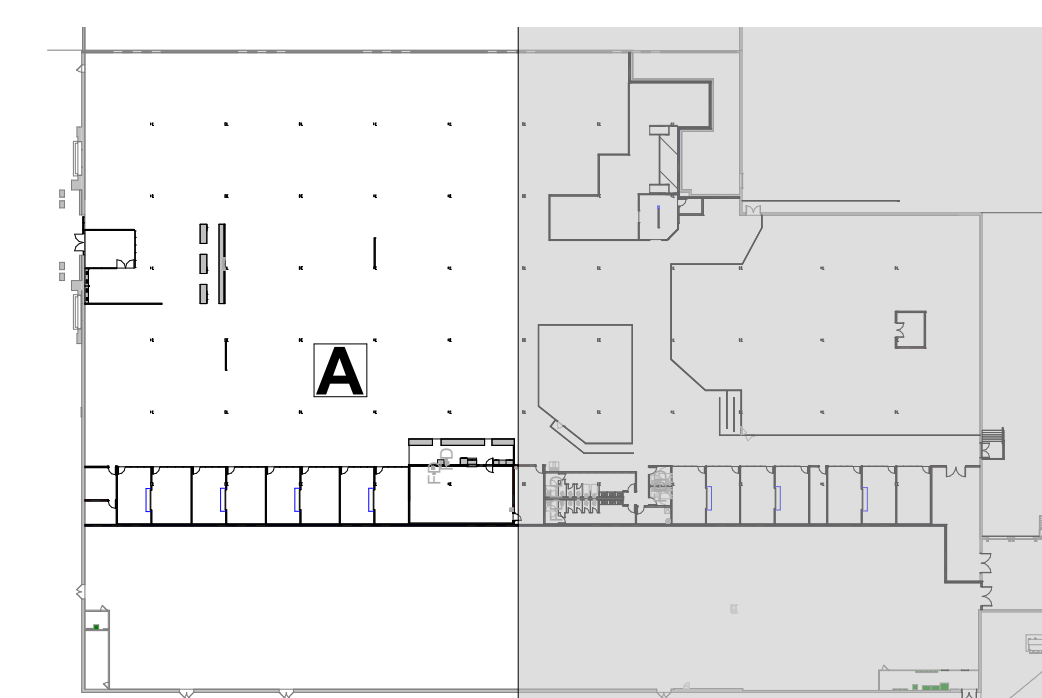
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Dimension Floor Plan Part A

A101A



Notes - Floor Plan

- 1 All dimensions are to face of stud or edge of slab unless noted otherwise. All dimensions labeled "Clear" are to face of finish.
- 2 For dimensions of doors and annotations refer to enlarged plans. Sheet location as noted on callouts.
- 3 For interior finish refer to interior elevations (A4 series) and floor finish plan (A11).
- 4 For door and window types and schedules refer to the (A5 series).
- 5 For furniture and equipment refer to FF floor plan (A601). Provide backing as necessary for wall mounted equipment (A109).
- 6 For door and window details refer to door and window details (A8 series).
- 7 All sealant and caulking shall be applied in a clean consistent bead or will be redone at contractor's cost.
- 8 All workmanship shall be, of the best quality. When the work is complete, it shall be free of blemishes, bubbles, open joints or imperfections. Seams shall be kept in accurate alignment along both coordinates.
- 9 Laser Tag platform and ramp to be design-built by selected contractor. Contractor to be responsible for the design and construction of the laser tag equipment package for additional info. Submit shop drawing submittals for architect review.
- 10 All structural support members including columns, beams and joists supporting the platform and the laser tag equipment shall be designed by the contractor.

Legend - Partitions

Note: Refer to floor plan for partition tag and sheet A109 for partition details

	New Wall
	New half height wall
	Existing Wall
	Existing One Hour Fire rated Wall
	Existing Two Hour Fire rated Wall
	New Acoustic Wall
	New One Hour Fire Rated Wall
	New Two Hour Fire Rated Wall
	New Plumbing Chase Wall

Legend - Floor Plan

	Partition Type Tag - Sheet A109
	Door Tag - A5 Series
	Storefront Tag - A5 Series
	Material Tag - A4 Series
	Spot Elevation
	Keynote Tag

Keynotes

97	Bulk CO2 Tank
----	---------------

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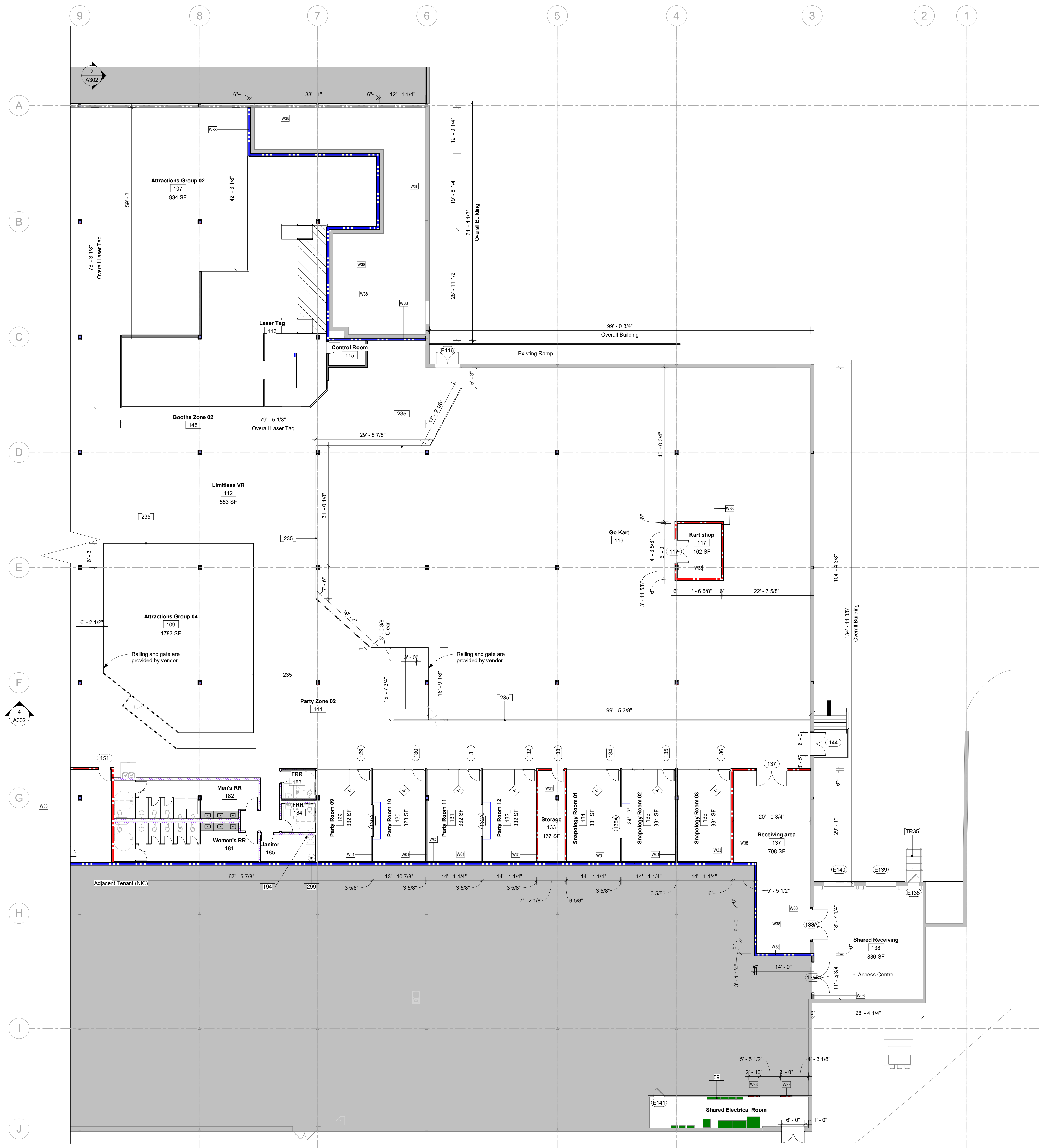


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No.	Description	Date

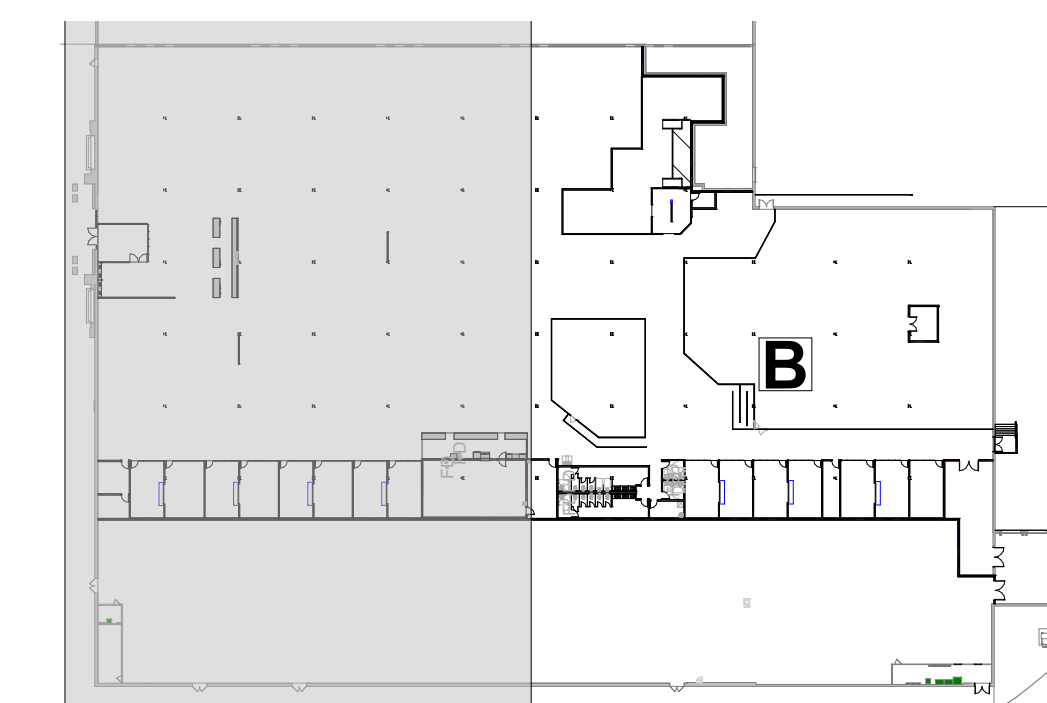
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Dimension Floor Plan Part B

A101B



 1 Dimension Floor Plan - Part B
3/32" = 1'-0"

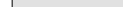


Notes - Floor Plan

- 1 All dimensions are to face of stud or edge of slab unless noted otherwise. All dimensions labeled "clear" are to face of finish.
- 2 For all dimensions and annotations refer to enlarged plans. Sheet locations as noted on callouts.
- 3 For interior finish refer to interior elevations (A4 series) and floor finish plan (A1).
- 4 For door and window types and schedules refer to the A5 series.
- 5 For furniture and equipment refer to FF for floor plan (A6/01). Provide backing as necessary for wall mounted equipment (A109).
- 6 For door and window refer to notes (A109) and details (A6 series).
- 7 All sealant and caulking shall be applied in a clean consistent bead or will be redone at contractor's cost.
- 8 All work shall be to the best quality. When the work is complete, it shall be kept free from buckles, bubbles, open joints or imperfections. Samples shall be kept in accordance alignment along both coordinates.
- 9 Laser Tag platform and ramp to be design-build by selected contractor.
- 10 Coordinate with the laser tag vendor for the laser tag vendor drawing package for additional info. Submit shop drawing submissions for architect review.
- 11 All structural support members including columns, beams and joists supporting the stage and the stage floor shall be designed for a four hour minimum fire rating.

Legend - Partitions

Note: Refer to floor plan for partition tag and sheet A109 for partition details

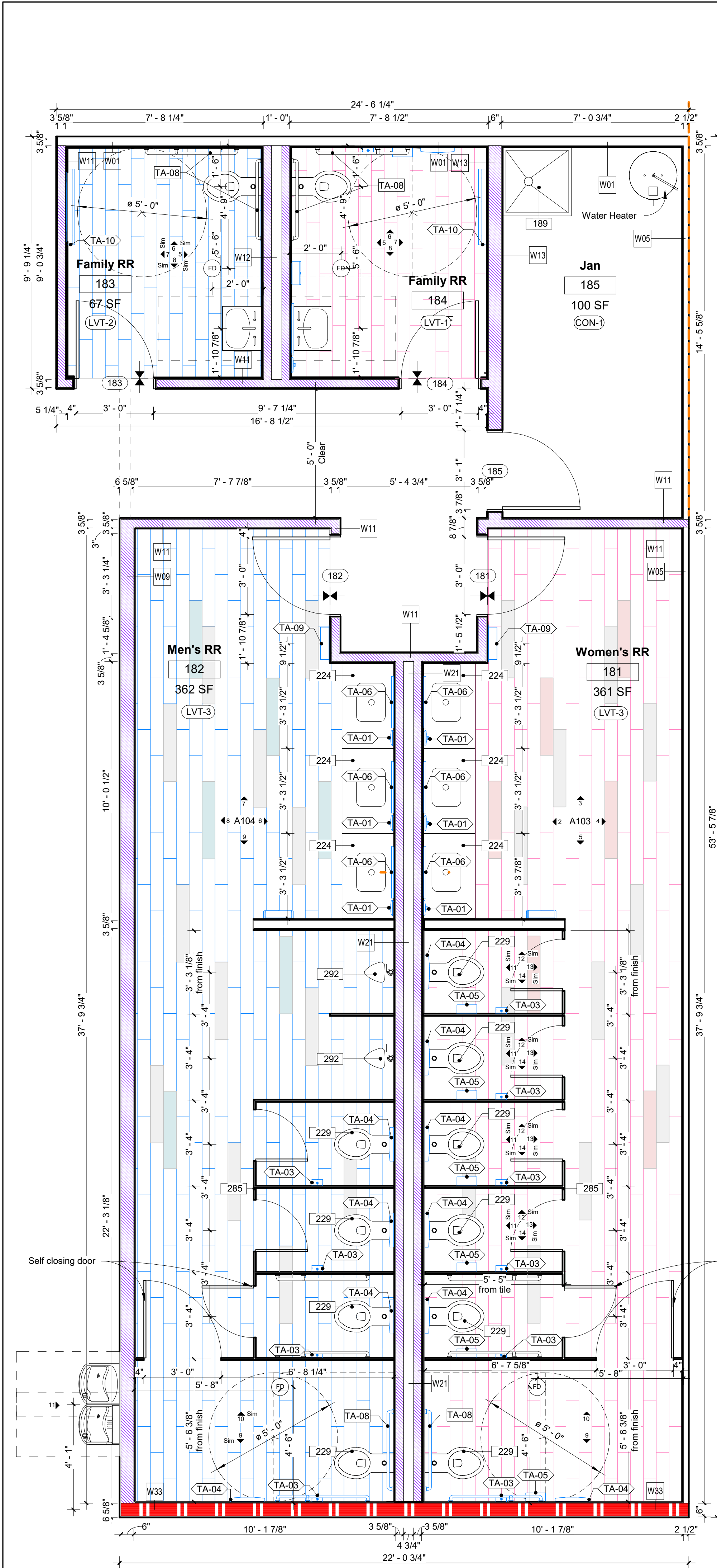
- | | |
|---|-----------------------------------|
|  | New Wall |
|  | New half height wall |
|  | Existing Wall |
|  | Existing One Hour Fire rated Wall |
|  | Existing Two Hour Fire rated Wall |
|  | New Acoustic Wall |
|  | New One Hour Fire Rated Wall |
|  | New Two Hour Fire Rated Wall |
|  | New Plumbing Chase Wall |

Legend - Floor Plan

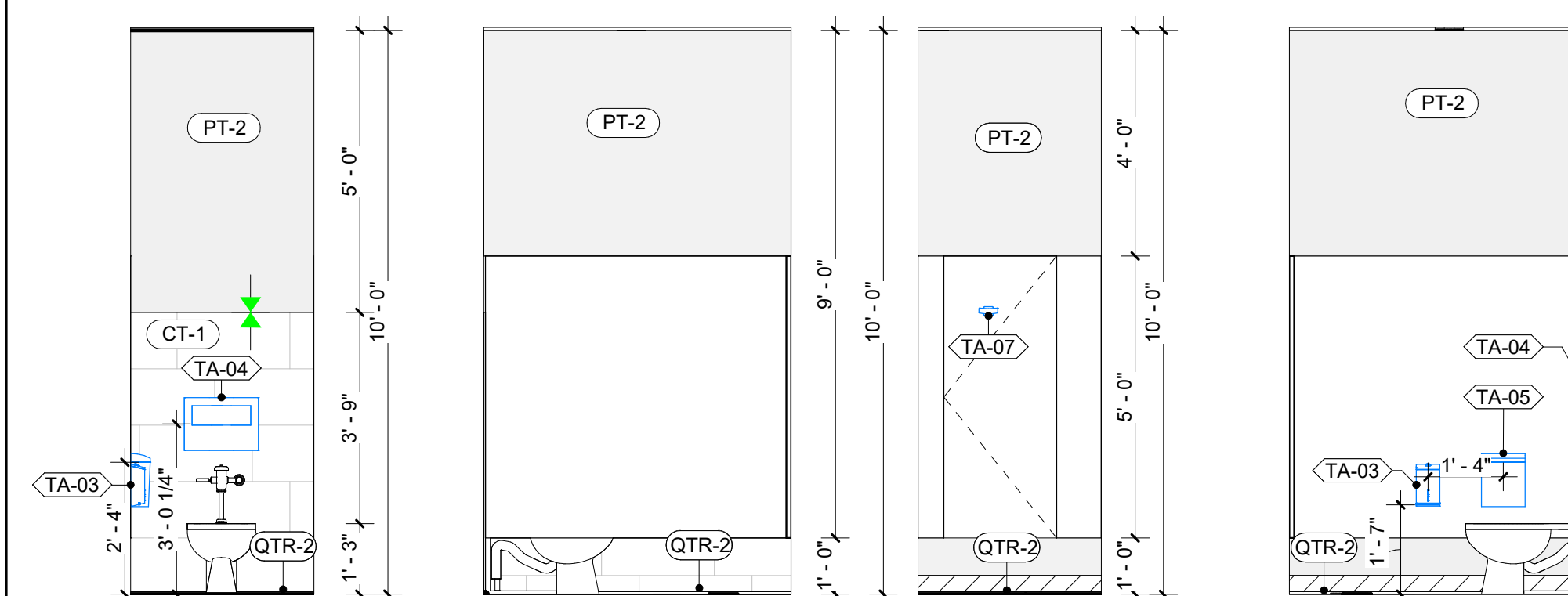
- | | |
|---|---------------------------------|
|  | Partition Type Tag - Sheet A109 |
|  | Door Tag - A5 Series |
|  | Storefront Tag - A5 Series |
|  | Material Tag - A4 Series |
|  | Spot Elevation |
|  | Keynote Tan |

.Keynotes.

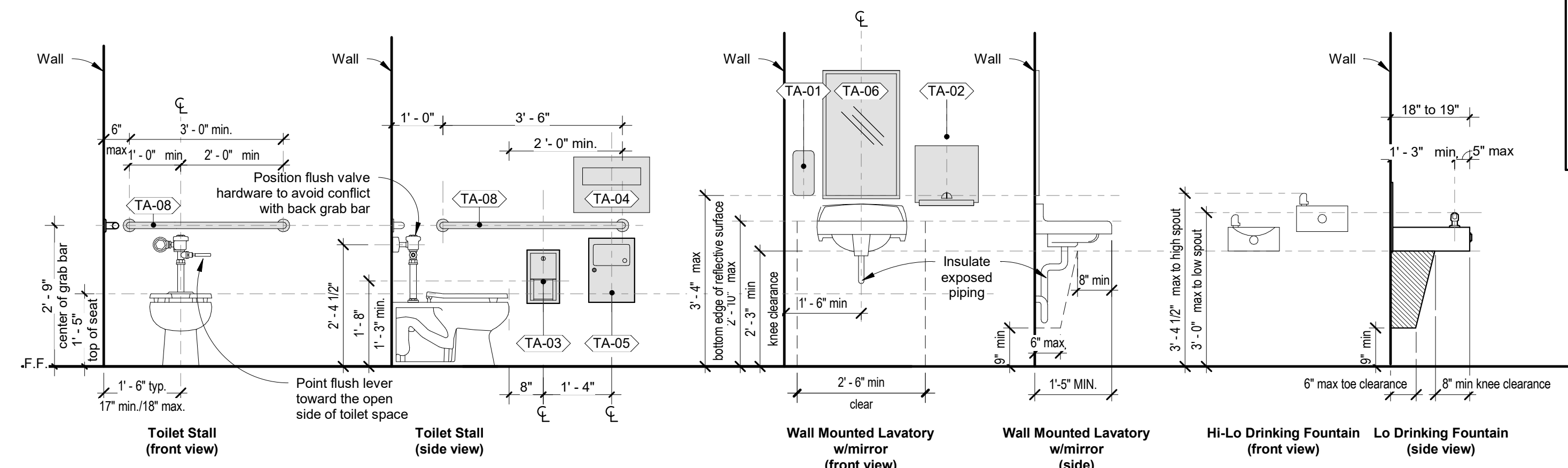
89	Electrical Panels (Ref. Electrical)
97	Bulk Co2 Tank
194	Mop Sink
235	Railing
299	Water Heater (Ref. Plumbing)
TR35	Stairs to remain



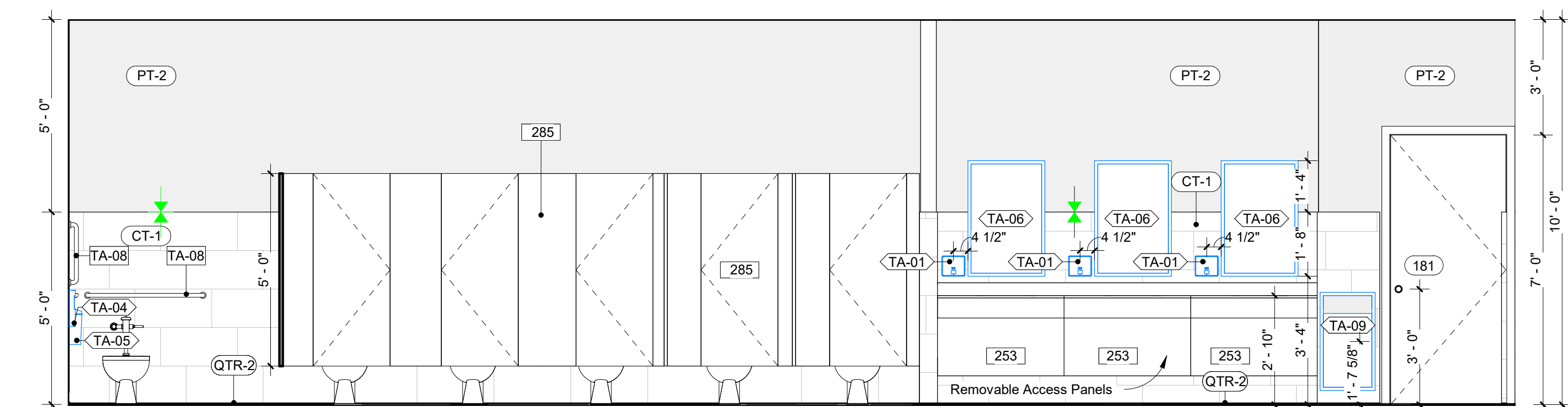
1 Enlarged Restroom Plans
3/8" = 1'-0"



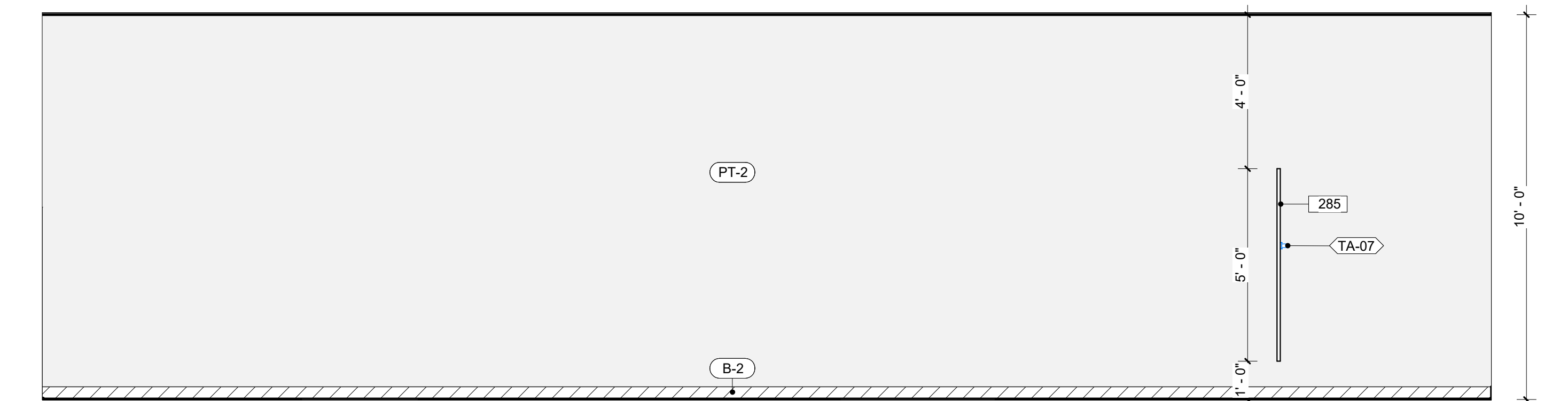
11 Restroom Elevation - TYP
3/8" = 1'-0" 12 Restroom Elevation - TYP
3/8" = 1'-0" 13 Restroom Elevation - TYP
3/8" = 1'-0" 14 Restroom Elevation - TYP
3/8" = 1'-0"



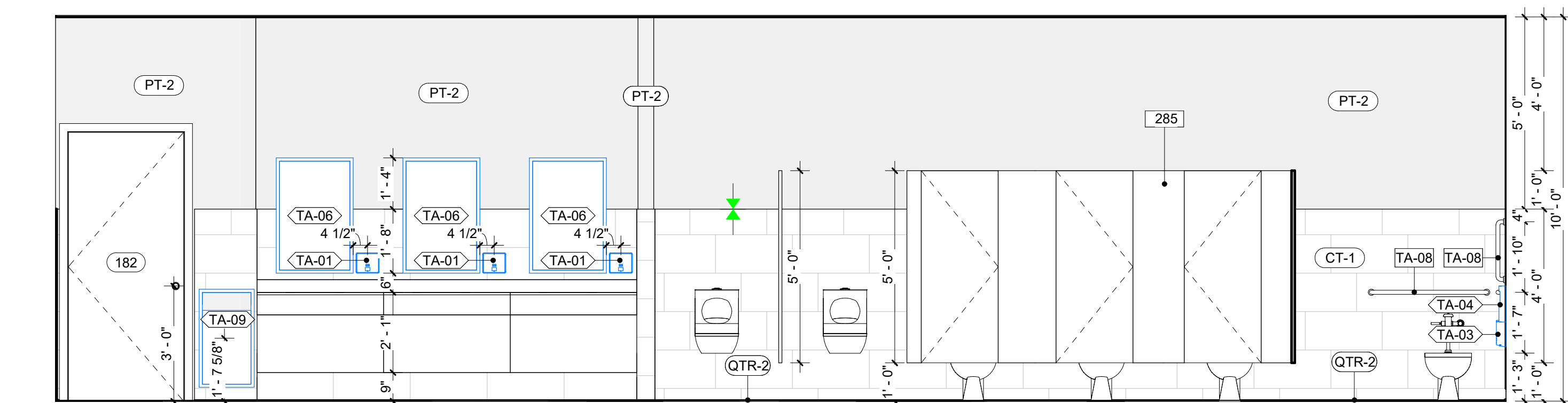
22 RR ADA Standards
1/2" = 1'-0"



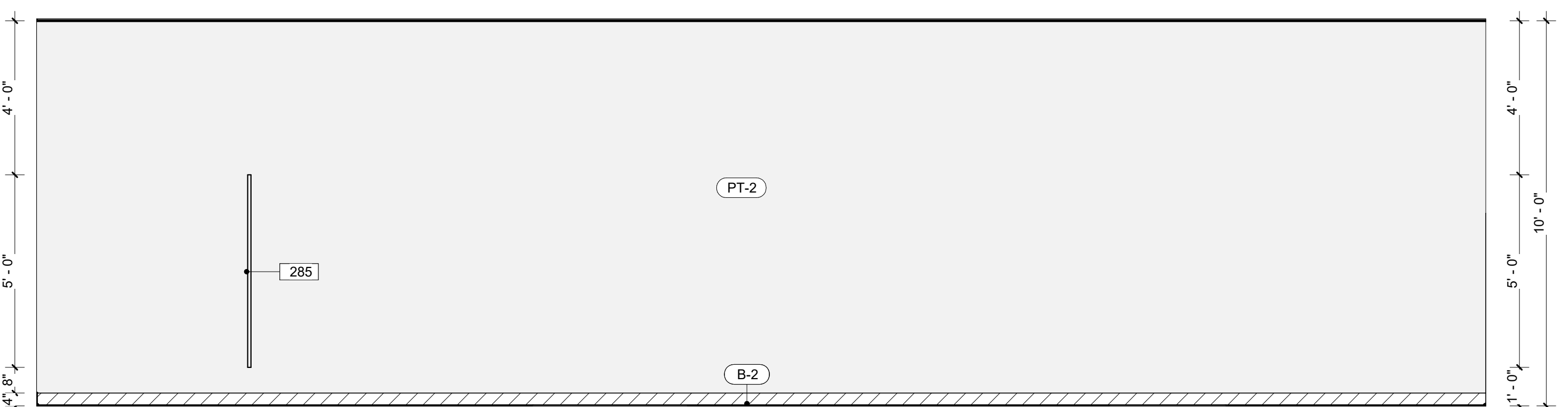
2 Women's Restroom Elevation
3/8" = 1'-0"



4 Women's Restroom Elevation
3/8" = 1'-0"



6 Men's Restroom Elevation
3/8" = 1'-0"



8 Men's Restroom Elevation
3/8" = 1'-0"

Legend - Finishes	
	Material Tag. Refer to Material Legend
	TR-1. Refer to Details on Sheet 111
	TR-2. Refer to Details on Sheet 111
	TR-3. Refer to Details on Sheet 111

Notes - Floor Plan	
1	All dimensions are to face of stud or edge of slab unless noted otherwise. All dimensions labeled "clear" are to face of finish.
2	For missing dimensions and annotations refer to enlarged plans. Sheet locations as noted on callouts.
3	For interior finish refer to finish schedule on interior elevations (A4 series).
4	For door and window types and schedules refer to the (A5 series).
5	Furniture and equipment are NIC and shown for reference only on (A6 series). Provide backing as necessary for wall mounted equipment (A109).
6	For casework, refer to interior elevations (A4 series) and details (A602).
7	All sealant and caulking shall be applied in a clean consistent bead or will be redone at contractor's cost.
8	All workmanship shall be of the best quality. When the work is complete, it shall be free from buckles, bubbles, open joints or imperfections. Seams shall be kept in accurate alignment along both coordinates.

Schedule - Toilet Accessory					
Code	Accessory	Manuf.	Model	Color	Resp.
TA-01	Soap Dispenser - Recessed	Bobrick	B-4063	Stainless	NIC
TA-02	Hand Dryer	Bobrick	B-7120	White	NIC
TA-03	Toilet Tissue Dispenser	Bobrick	B-272	Stainless	NIC
TA-04	Seat Cover Dispenser	Gamco	TSC-1	Stainless	NIC
TA-05	Sanitary Napkin Disposal	Bobrick	B-270	Stainless	NIC
TA-06	Mirror over Lavatory - 18" x 30"	Bobrick	B-294	Stainless	CFCI
TA-07	Coat Hook	Bobrick	B-6727	Stainless	CFCI
TA-08	Grab Bars (18"/36"/42")	Bobrick	B-5806	Stainless	CFCI
TA-09	Waste Receptacle surface mounted	Bobrick	B-3644	Stainless	CFCI
TA-10	Baby Changing Table surface mounted	Bobrick	KB200-01	Grey	CFCI

Legend - Toilet Accessory	
	Soap Dispenser (TA-01)
	Hand Dryer (TA-02)
	Waste Receptacle (TA-09)
	Toilet Paper Dispenser (surface mounted) (TA-03)
	Seat Cover Dispenser (TA-04)
	Sanitary Napkin Disposal (TA-05)
	Mirror (TA-06)
	Coat Hook (TA-07)
	Diaper Changing Station (TA-10)

General Notes - Interiors	
1	Ensure surfaces to receive finishes are clean, true and free of irregularities. Do not proceed with work until unsatisfactory conditions have been corrected.
2	No finish substitutions may be made without prior written authorization by Owner.
3	All finishes shall be applied in strict accordance with manufacturer's specifications.
4	Provide temporary protection for all installed finishes as work progresses.
5	Submit samples of finishes for approval prior to installation.
6	All interior wall to be painted PT-2 unless noted otherwise on interior elevations. Interior wall base to be B-1 unless noted otherwise.
7	Examine walls to ensure proper preparation before application of paint. Beginning work implies acceptance of condition.
8	All paint shall be applied in accordance with the manufacturer's specifications for that particular surface.
9	Paint finish on surfaces including: doors, door frames, guardrails, etc shall be factory finishes semi-gloss, unless noted otherwise. If painting over existing paint the surface must be prepped and primed to accept new paint.
10	Field verify existing condition of concrete subfloors receiving new finish. Contractor to include all required floor preparation in bid. Provide price to float floor where necessary to achieve tolerance of 1/2" max. in 10'-0" span.
11	All flooring transitions between rooms shall be at the center of the door. See details for all interior finish material transitions.
12	Flooring shall meet all current non-slip standards and requirements (wet and dry conditions) specified in applicable codes and/or authorities.
13	All exposed and semi exposed surfaces at casework shall receive plastic laminate finish.
14	All workmanship shall be of the best quality. When the work is complete, it shall be free from buckles, bubbles, open joints or imperfections. Seams shall be kept in accurate alignment along both coordinates.
15	Refer to the Interior Elevations for vertical finishes and dimensions.

Legend - Key Notes	
Keynote Text	Key Value
189	Mop Sink
224	Plumbing Fixture - Sink 1-compartment
229	Plumbing Fixture - Toilet
253	Sink
285	Toilet Partition
292	Urinal



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Tom@burkese.com

Construction Management:
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60103, United States
630.712.2550
Contact: Thomas R Piazza II
tpiazza@foxfelddtd.com



No.	Description	Date
A	Issue for Permit	2024.12.20

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Enlarged Restrooms

A103

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No.	Description	Date

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Enlarged Restrooms

A104

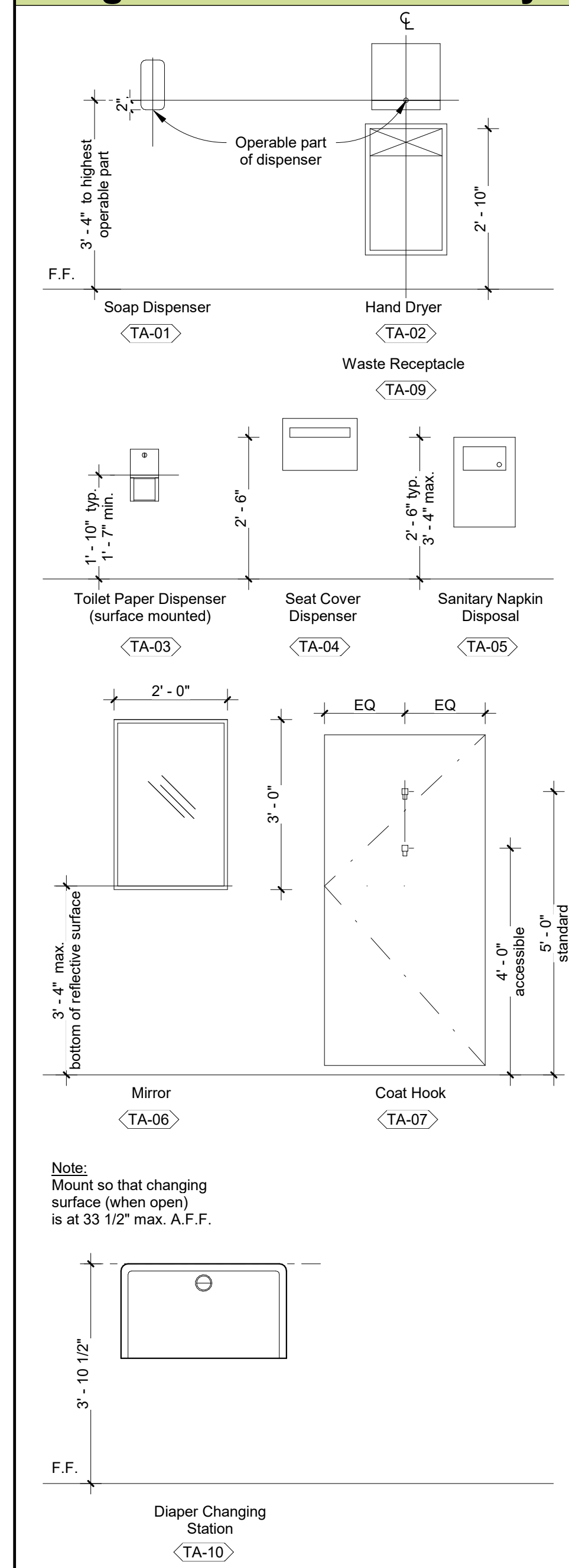
Notes - Floor Plan

- 1 All dimensions are to face of stud or edge of slab unless noted otherwise. All dimensions labeled "clear" are to face of finish.
- 2 For missing dimensions and annotations refer to enlarged plans. Sheet locations as noted on callouts.
- 3 For interior finish refer to finish schedule on interior elevations (A4 series).
For door and window types and schedules refer to the (A5 series).
- 4 Furniture and equipment are NIC and shown for reference only (A6 series). Provide backing as necessary for wall mounted equipment (A109).
- 5 For casework, refer to interior elevations (A4 series) and details (A602).
- 6 All sealant and caulking shall be applied in a clean consistent bead or will be redone at contractor's cost.
- 7 All workmanship shall be of the best quality. When the work is complete, it shall be free from buckles, blisters, open joints or imperfections. Seams shall be kept in accurate alignment along all bond coordinates.

Schedule - Toilet Accessory

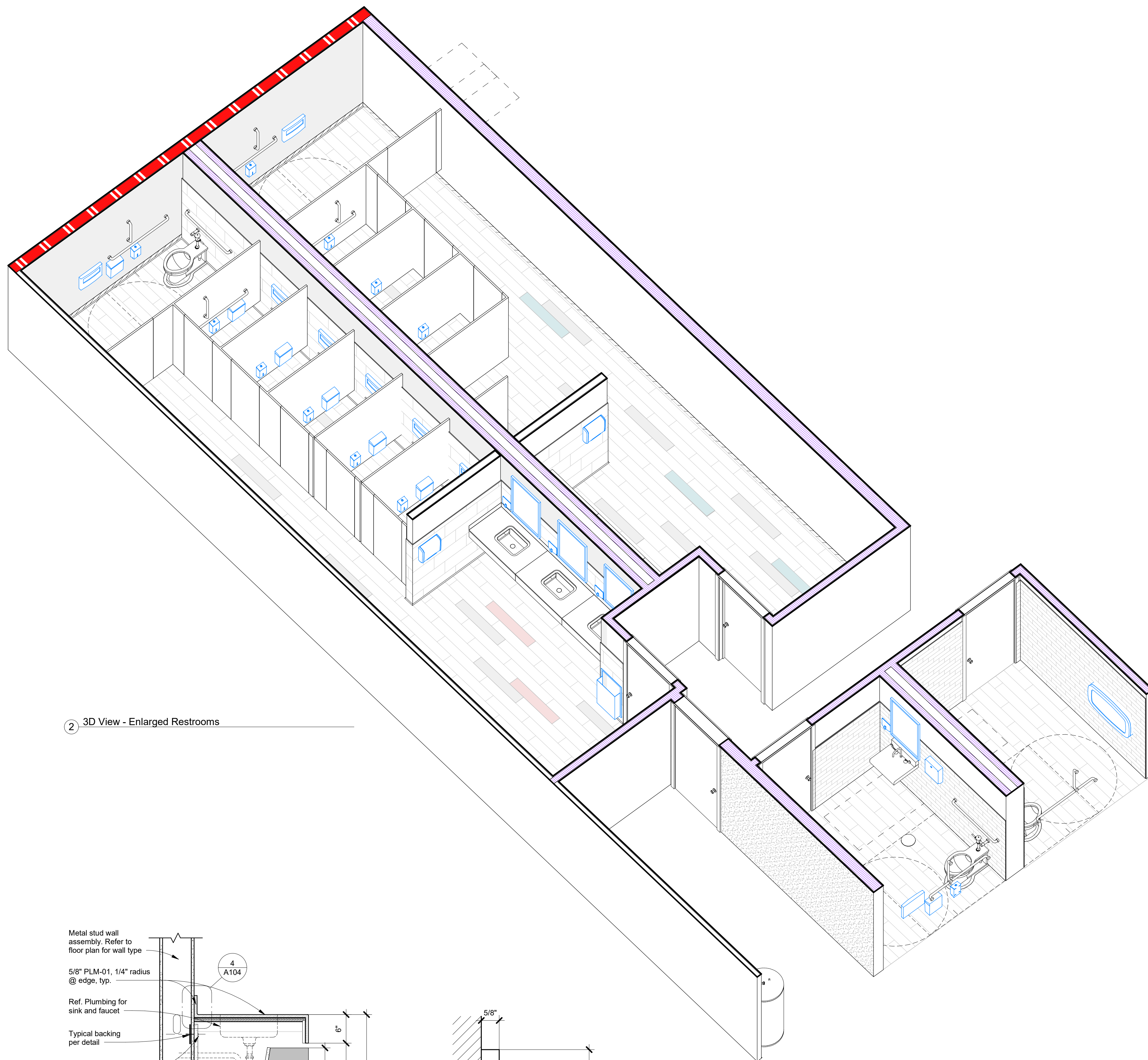
Code	Accessory	Manu.	Model	Color	Resp
TA-01	Soap Dispenser - Recessed	Bobrick	B-4063	Stainless	NIC
TA-02	Hand Dryer	Bobrick	B-7120	White	NIC
TA-03	Toilet Tissue Dispenser	Bobrick	B-272	Stainless	NIC
TA-04	Seat Cover Dispenser	Gamco	TSC-1	Stainless	NIC
TA-05	Sanitary Napkin Disposal	Bobrick	B-270	Stainless	NIC
TA-06	Mirror over Lavatory - 18" x 30"	Bobrick	B-294	Stainless	CFC
TA-07	Coat Hook	Bobrick	B-6272	Stainless	CFC
TA-08	Grab Bars - (18"/36"/42")	Bobrick	B-5806	Stainless	CFC
TA-09	Waste Receptacle surface mounted	Bobrick	B-3644	Stainless	CFC
TA-10	Baby Changing Table surface mounted	Bobrick	KB200-01	Grey	CFC

Legend - Toilet Accessory

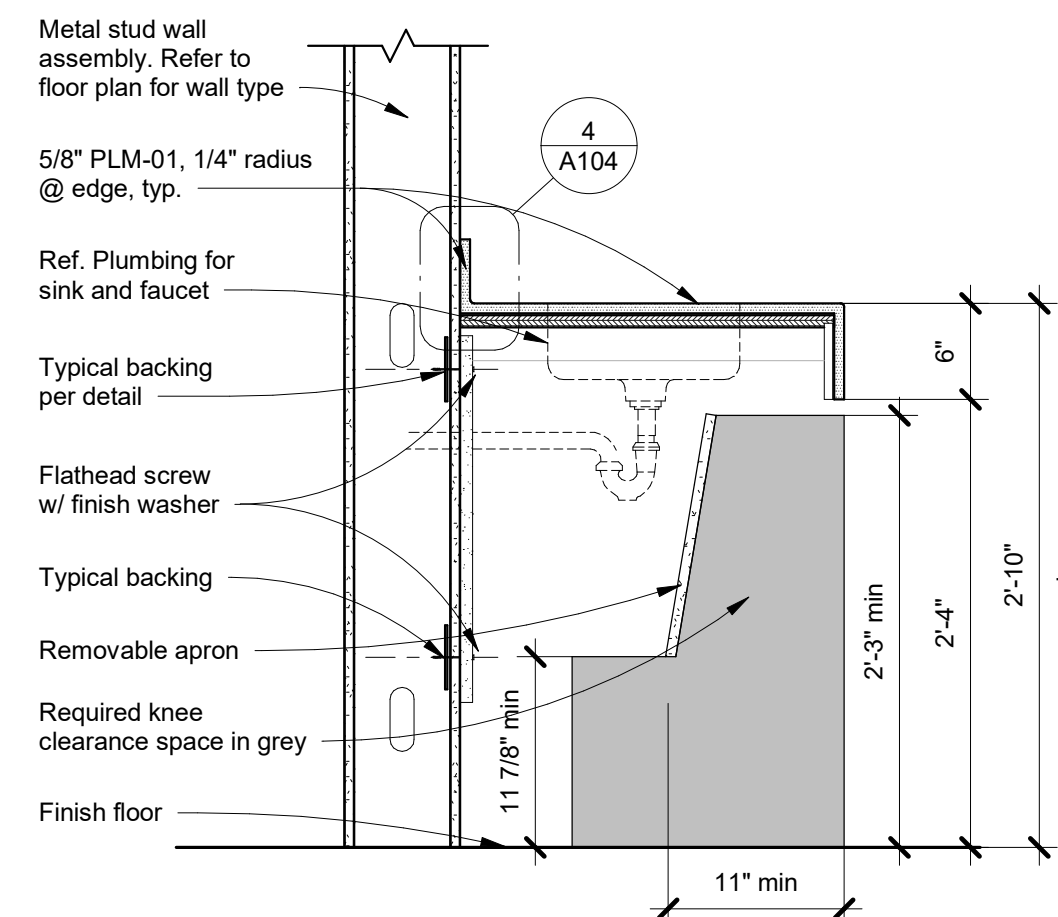


General Notes - Interiors

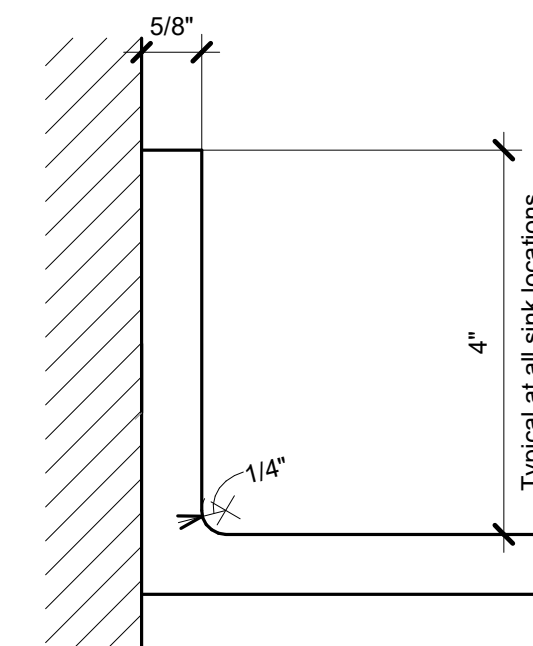
- 2 Ensure surfaces to receive finishes are clean, true and free of irregularities. Do not proceed with work until unsatisfactory conditions have been corrected.
- 3 No field work to be performed until the project has been authorized by Owner.
- 4 All finishes shall be applied in strict accordance with manufacturer's specifications.
- 5 Provide laboratory protection for all installed finishes as work progresses.
- 6 Submit samples of finishes for approval prior to installation.
- 7 All interior wall to be painted PT-2 unless noted otherwise on exterior elevations. Interior wall base to be S-1 unless noted otherwise.
- 8 Exterior wall to be masonry paint unless noted otherwise. Color of paint. Beginning work implies acceptance of condition.
- 9 All paint shall be applied in accordance with the manufacturer's specifications for proper application.
- 10 Paint finish on surfaces including: doors, door frames, guardrails, etc. shall be factory finishes semi-gloss, unless noted otherwise. If painting over existing paint, the paint shall be properly prepared and primed.
- 11 Field verify existing condition of concrete substrates receiving new finish. Contractor to include all required floor preparation in bid. Provide price to floor the entire necessary area of the project.
- 12 All flooring transitions between rooms shall be at the center of the door. See details for all interior finish material transitions.
- 13 Floor, wall, ceiling and trim surfaces to be painted and require protection (wet and dry conditions) specified in applicable codes and/or authorities.
- 14 All exposed and semi exposed surfaces at casework shall receive plastic laminates.
- 15 All workmanship shall be of the best quality. When the work is complete, it shall be free from buckles, bubbles, open joints or imperfections. Seams shall be kept as close to the joint as possible.
- 16 Refer to the Interior Elevations for vertical finishes and dimensions.



2 3D View - Enlarged Restrooms

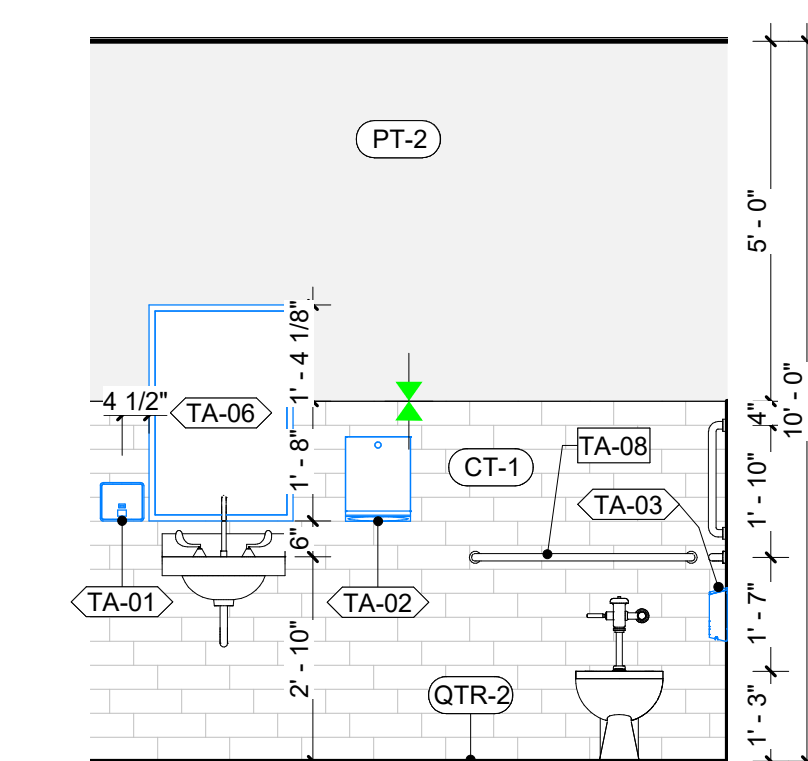


③ Sink w/ Apron
1" = 1'-0"

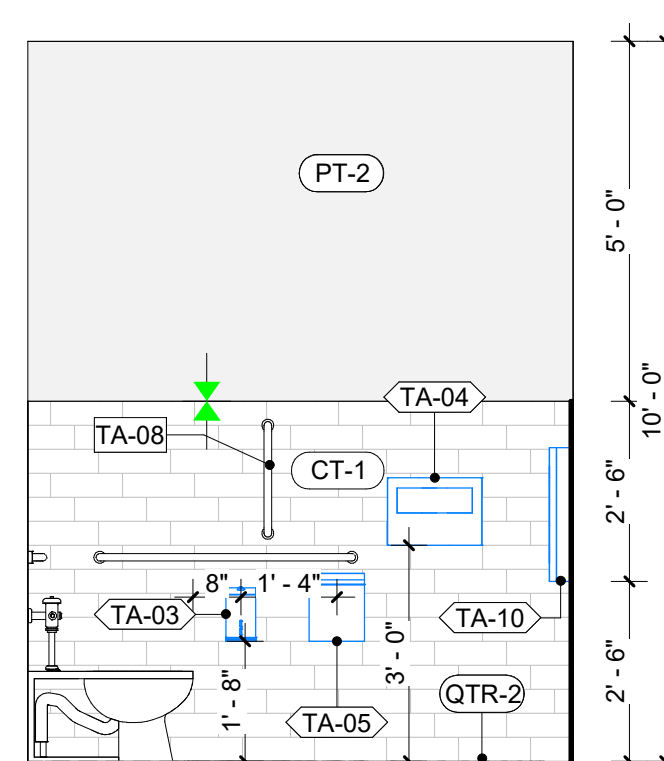


④ Splash at Sink Counter
6" = 1'-0"

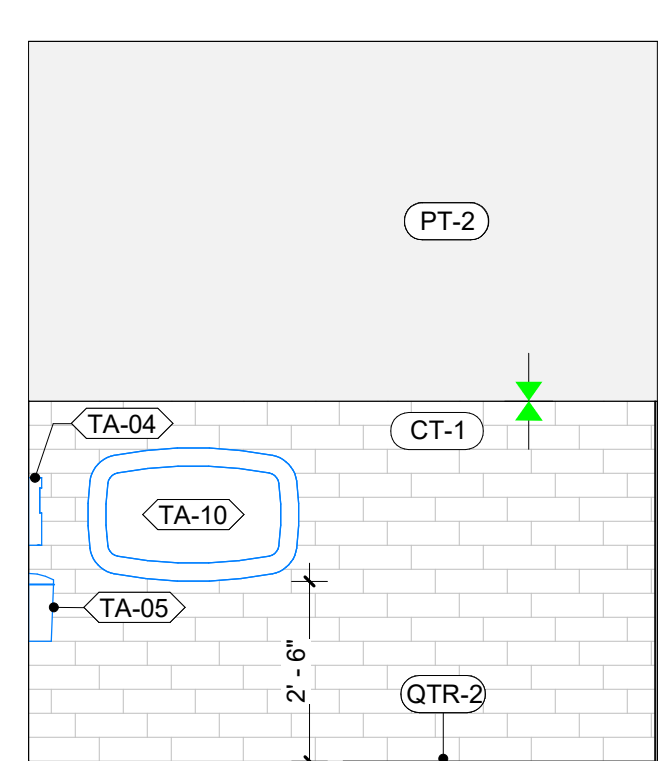
① Enlarged RCP Restrooms
3/8" = 1'-0"



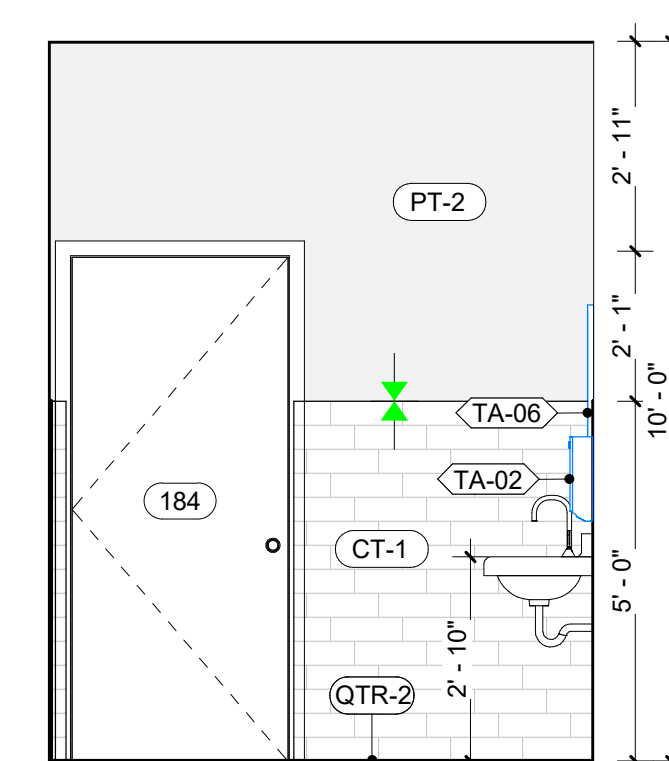
5 Family RR - Elevation a
3/8" = 1'-0"



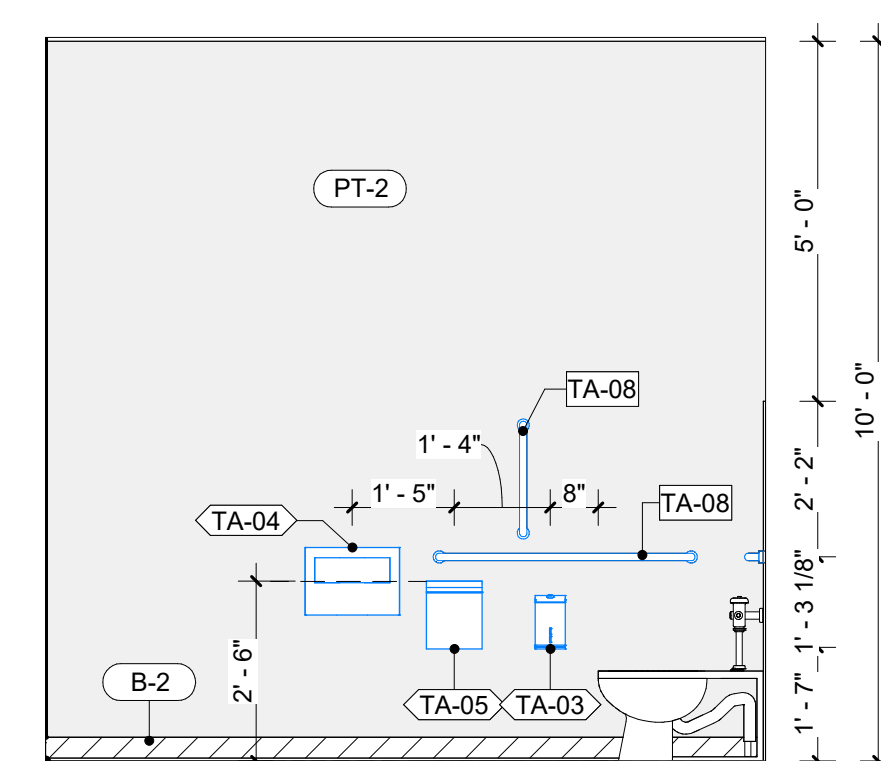
6 Family RR - Elevation b
3/8" = 1'-0"



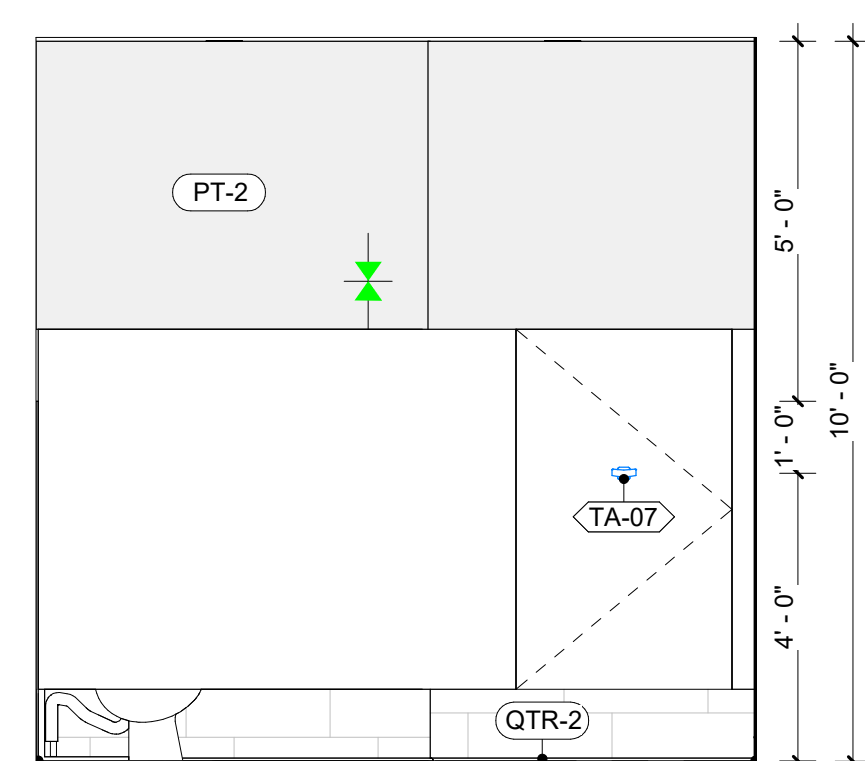
7 Family RR - Elevation c
3/8" = 1'-0"



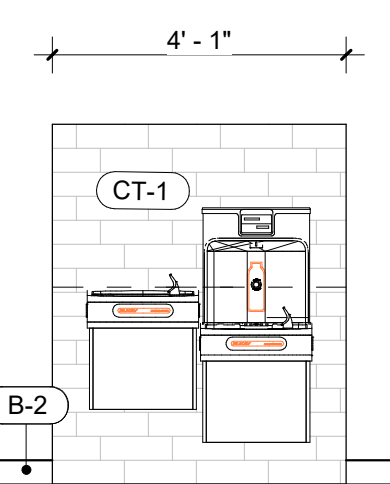
8 Family RR - Elevation of
3/8" = 1'-0"



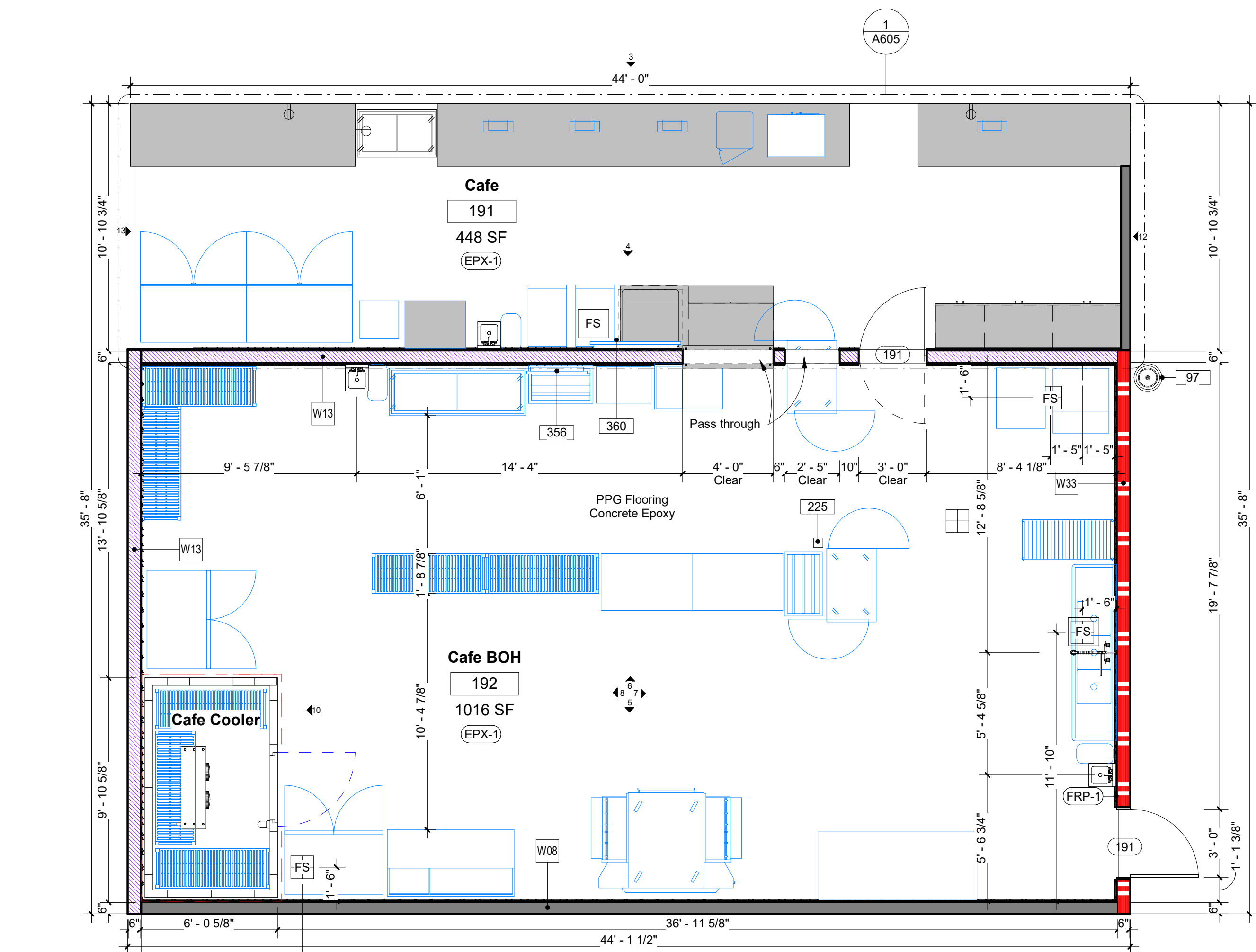
⑨ Accessible Restroom - TYP
3/8" = 1'-0"



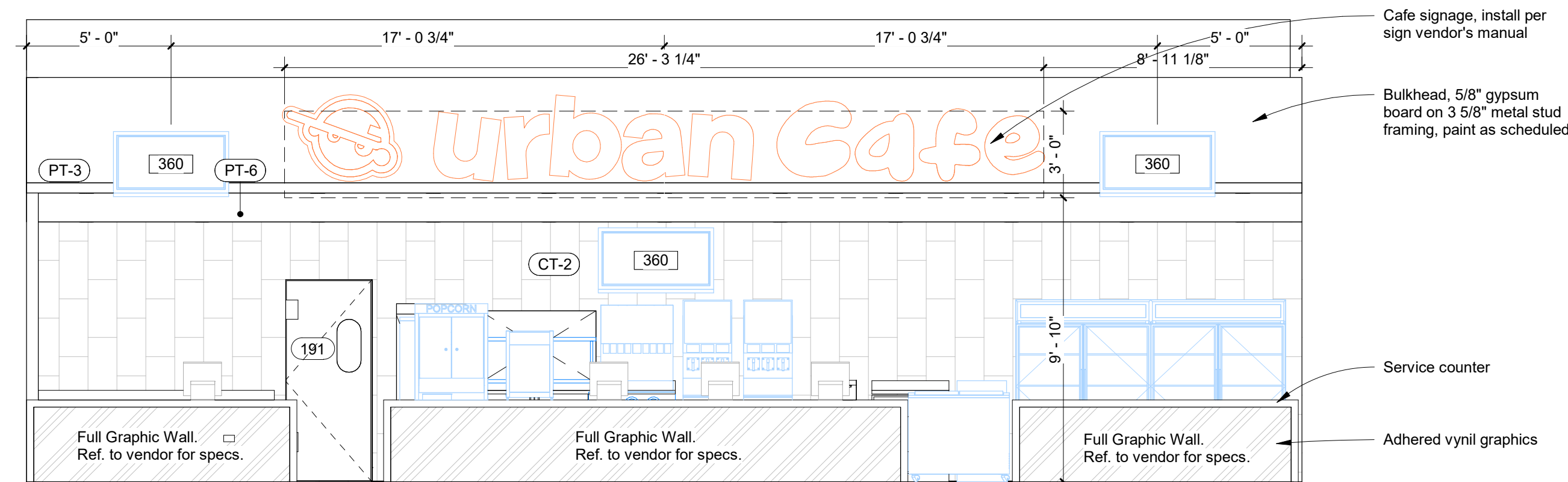
10 Accessible Restroom - TYF
3/8" = 1'-0"



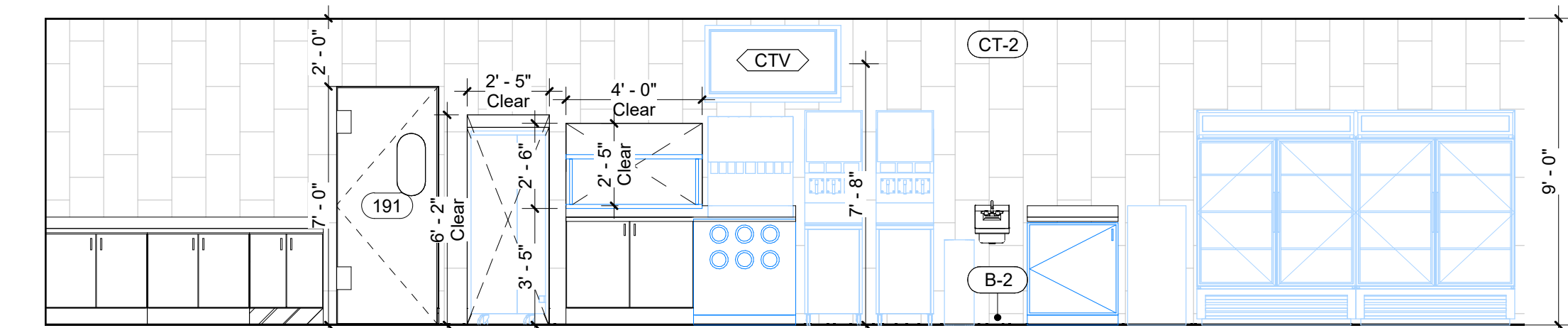
11 Elevation 1 - a
 $3/8" = 1'-0"$



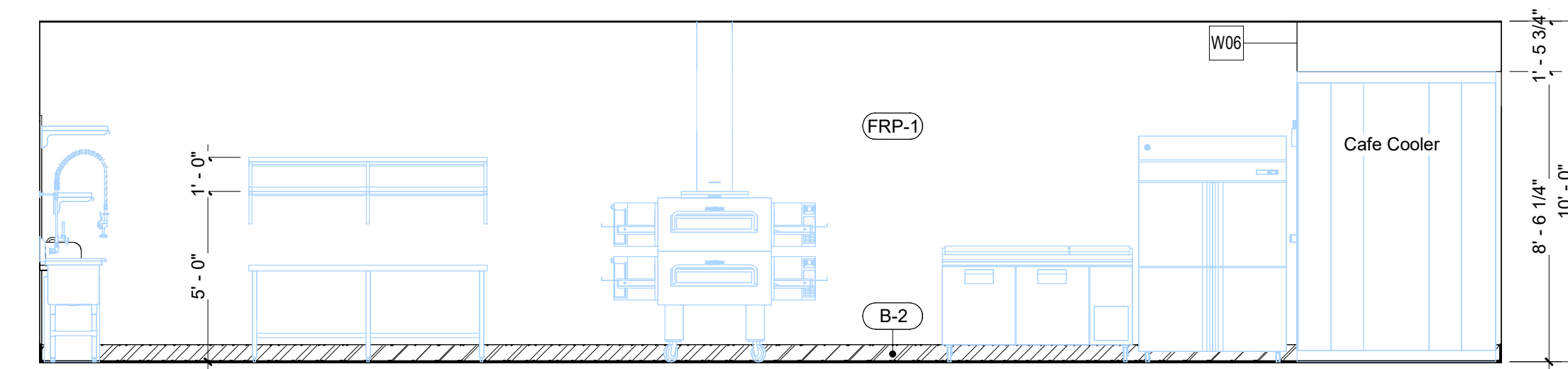
1 Enlarged Plan - Cafe
1/4" = 1'-0"



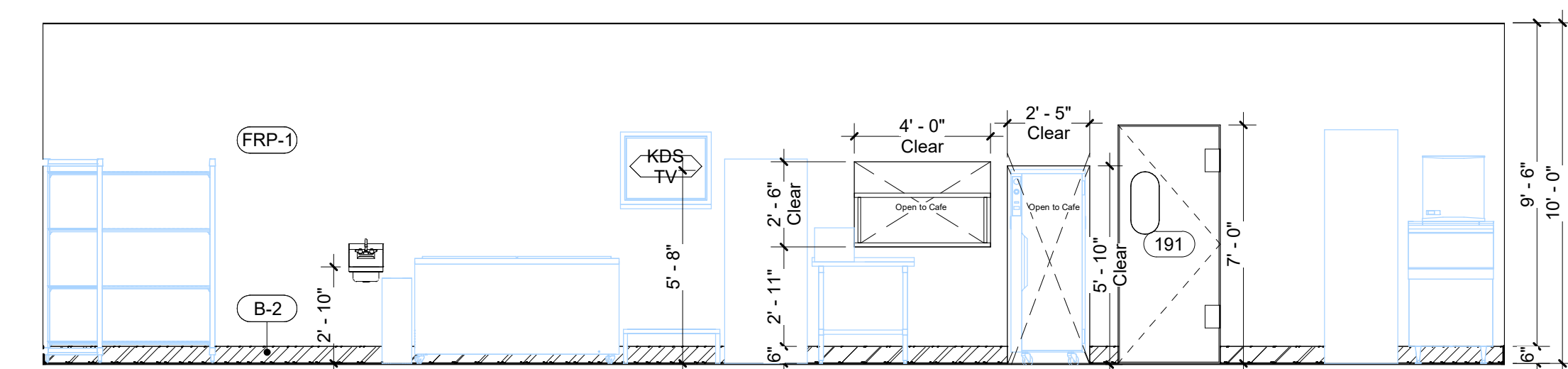
3 Cafe Front Elevation
1/4" = 1'-0"



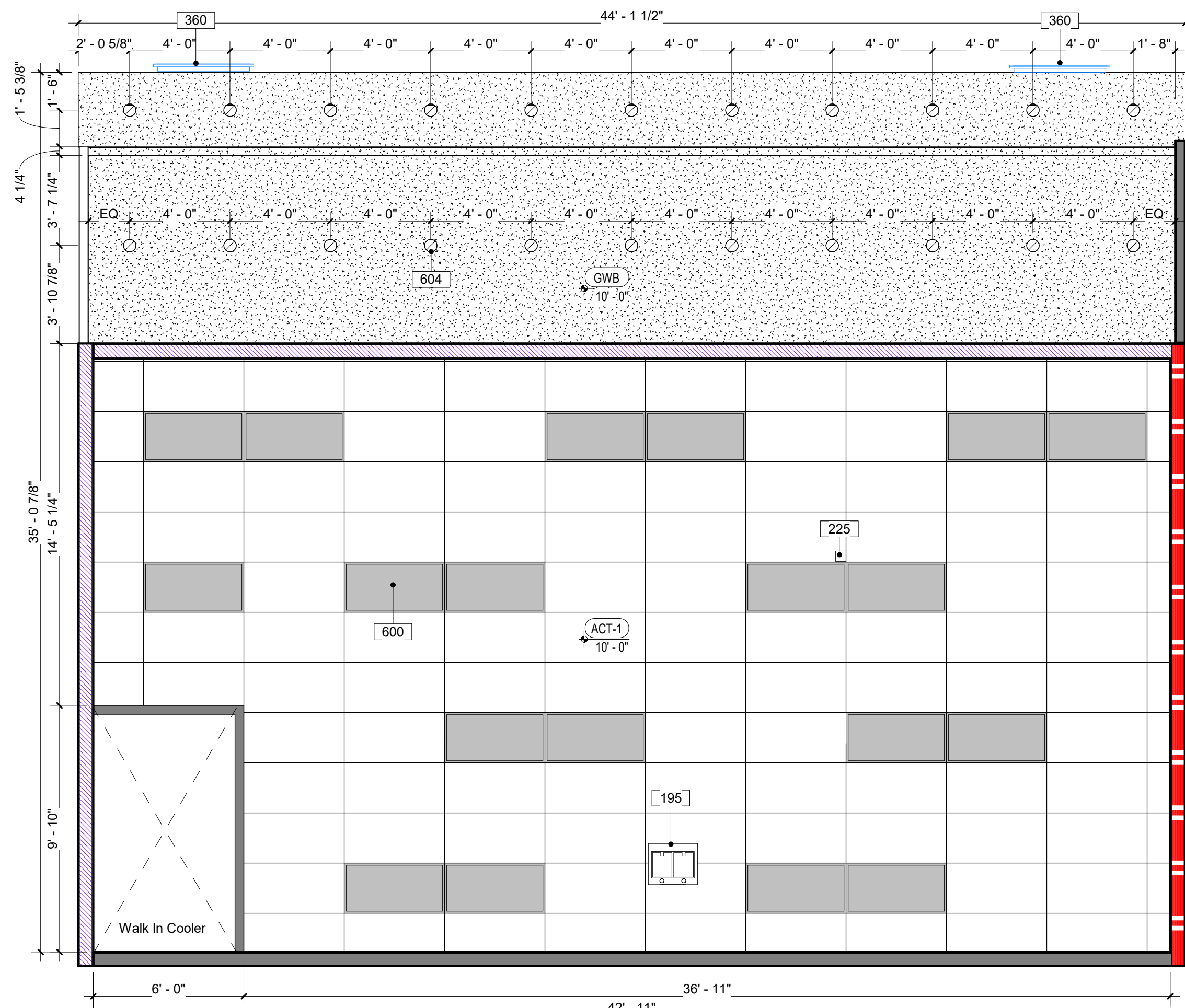
4 Cafe Rear Counters Elevation
1/4" = 1'-0"



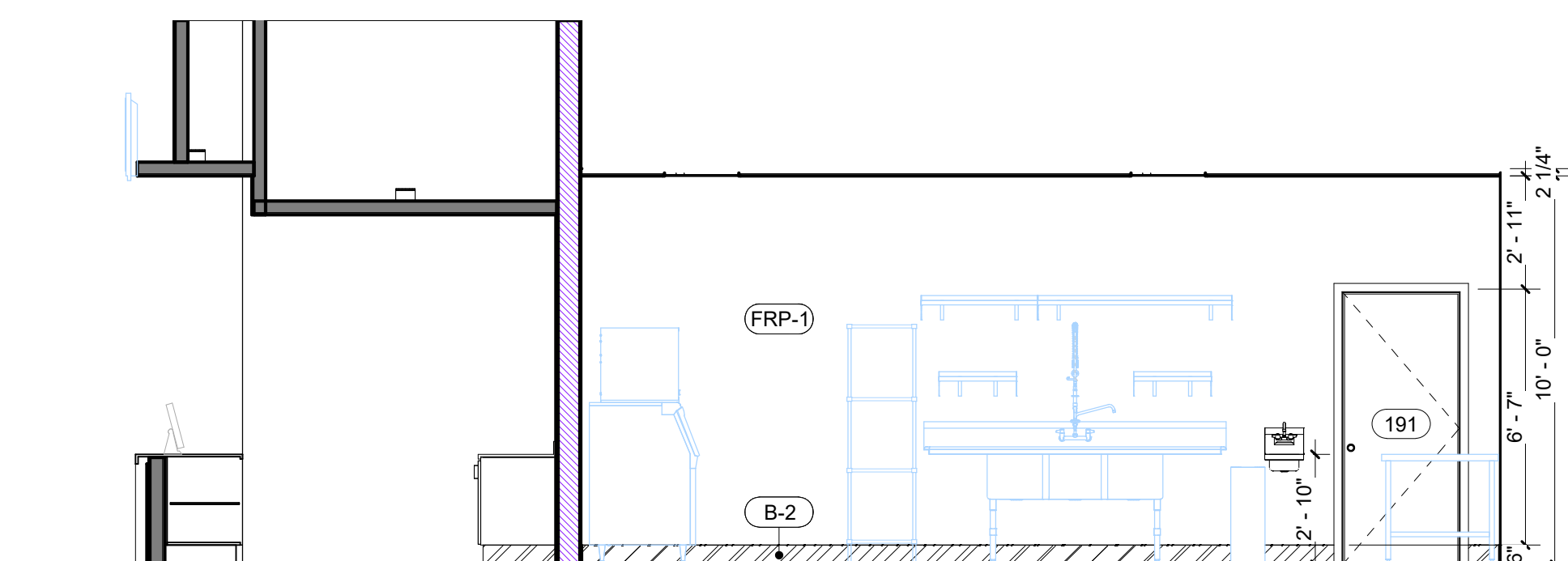
5 Cafe BOH Elevation
1/4" = 1'-0"



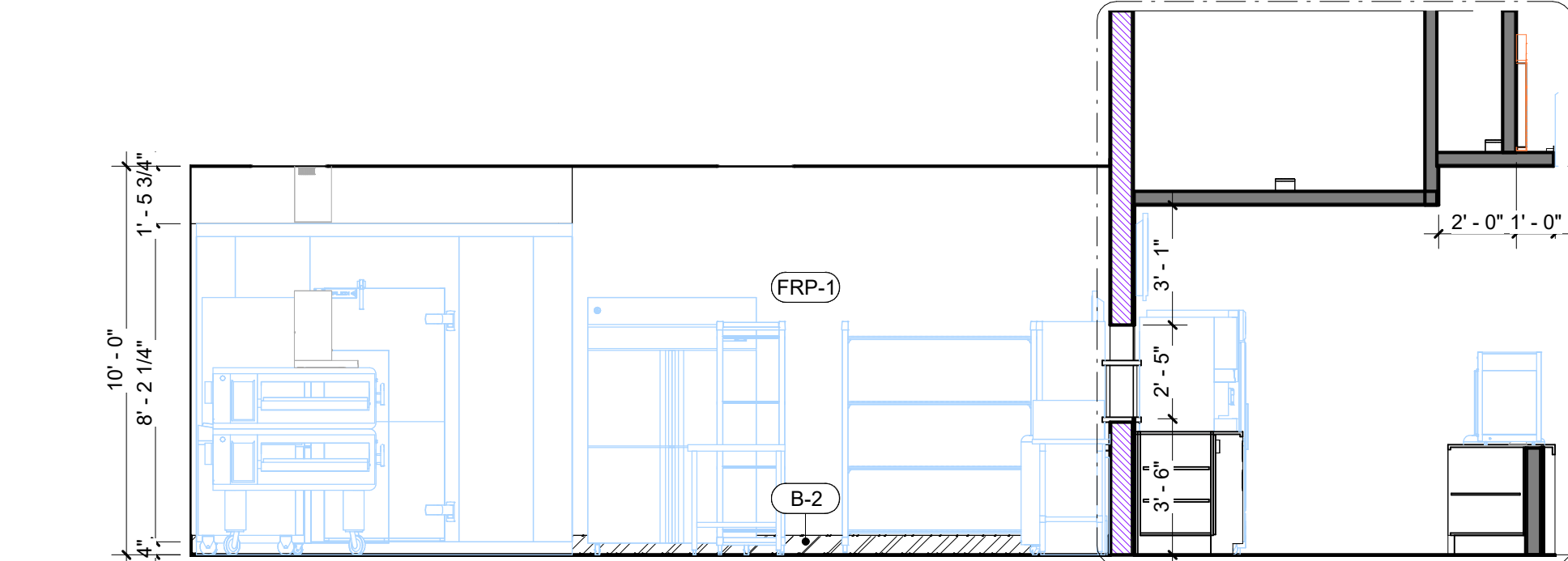
6 Cafe BOH Elevation
1/4" = 1'-0"



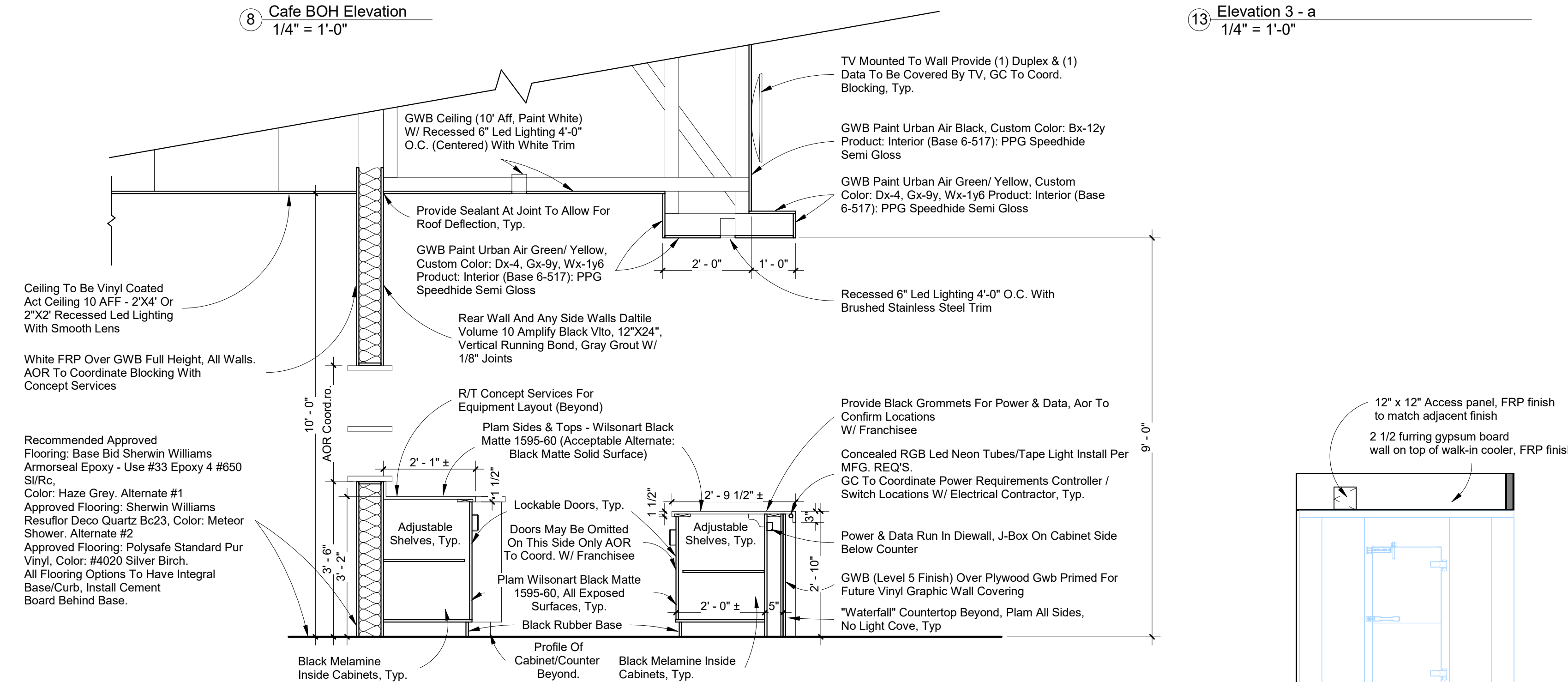
2 Enlarged Plan - RCP
1/4" = 1'-0"



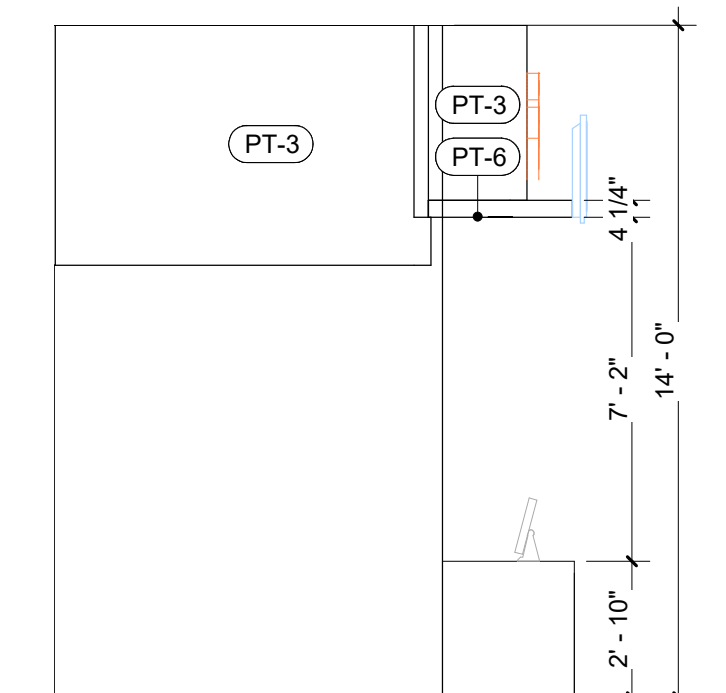
7 Cafe BOH Elevation
1/4" = 1'-0"



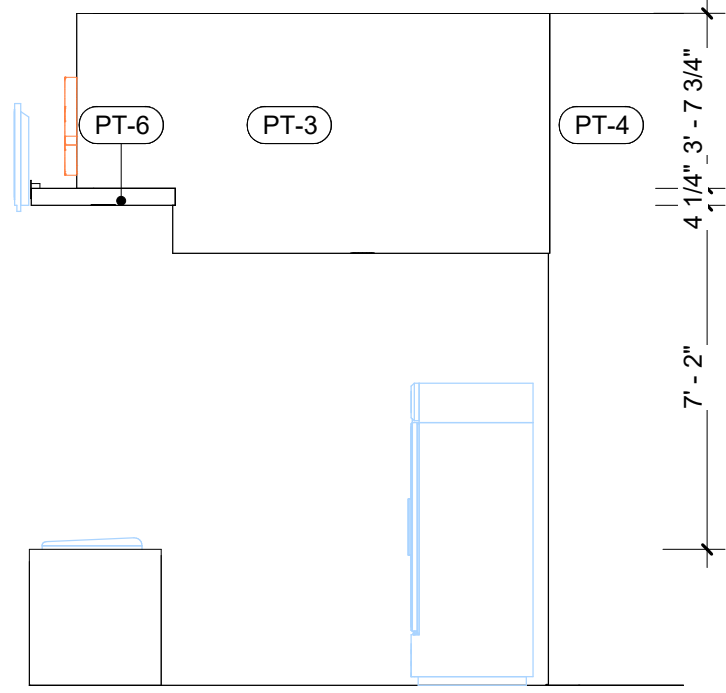
8 Cafe BOH Elevation
1/4" = 1'-0"



11 UA Cafe Section
1/2" = 1'-0"



12 Elevation 4 - a
1/4" = 1'-0"



13 Elevation 3 - a
1/4" = 1'-0"



10 Elevation 25 - a
1/4" = 1'-0"

Notes - Floor Plan

- All dimensions are to face of stud or edge of slab unless noted otherwise. All dimensions labeled "clear" are to face of finish.
- For missing dimensions and annotations refer to enlarged plans. Sheet locations as noted on callouts.
- For interior finish refer to finish schedule on interior elevations (A4 series).
- For door and window types and schedules refer to the (A5 series).
- Furniture and equipment are HIC and shown for reference only on (A6 series).
- Provide backing as necessary for wall mounted equipment (A109).
- For casework, refer to interior elevations (A4 series) and details (A602).
- All sealant and caulking shall be applied in a clean consistent bead or will be redone at contractor's cost.
- All workmanship shall be of the best quality. When the work is complete, it shall be free from buckles, bubbles, open joints or imperfections. Seams shall be kept in accurate alignment along both coordinates.

Legend - Partitions

Note: Refer to floor plan for partition tag and sheet A109 for partition details.

- New Wall
- New half height wall
- New Acoustic Wall
- New One Hour Fire Rated Wall
- New Two Hour Fire Rated Wall
- New Plumbing Chase Wall
- Existing Wall
- Existing One Hour Fire rated Wall
- Acoustic Wall

Legend - Floor Plan

- Partition Type Tag
- Door Tag
- Storefront Tag
- Material Tag
- Spot Elevation
- Keynote Tag

Legend - Interior Elevations

- Material Tag - Refer to Finish Schedule A111
- Door Tag - Sheet A501
- Toilet Accessory Tag - Sheet A103

Notes - Interior Elevations

- Refer to floor plans for horizontal controls, overall wall dimensions, door fixture and wall orientation.
- All dimensions are to face of finish unless noted otherwise.
- For toilet accessory codes refer to toilet accessory schedule on sheet (A102).
- Paint all exposed surfaces of trim including edges.
- Paint emergency lights and fire alarm devices to match adjacent construction as permitted by fire marshal.
- Paint all exposed gas lines with black.
- Coordinate with owner on all owner furnished items to facilitate proper and complete installation.
- Refer to owner's interior design package for specific finish information. This is a deferred submittal to the contractor.
- Refer to the Kitchen drawings in the (FS sheets) for specific backing requirements for wall mounted equipment.

Notes - Cafe

- Refer to Food Service or FS series for additional information from the kitchen equipment vendor. This includes the kitchen equipment, millwork, specs, blocking, MEP requirements and details.
- Refer to Food Service or FS series for stainless steel wall cladding location (behind pizza ovens). Install cement board and mineral wool insulation behind. No combustible materials allowed including gypsum wall board.
- Dedicated RTU/HVAC unit for the kitchen area with a dedicated thermostat is required. Install MFG's Type I exhaust hood over the pizza oven area to further control heat gain. Consult with mechanical engineer for final design details.
- Install walk-in cooler condenser unit in remote exterior location on roof. Coordinate the final location with kitchen vendor.
- All flooring to have integral base/curb with cement board behind base.

Keynotes

97	Bulk Co2 Tank
195	Oven Hood
225	Power Pole (Ref. Electrical)
356	TV KDS System
360	AV - 55" TV (Wall Mount)
600	Lighting - LED
604	Lighting - LED Effect Fixture (Ref. Electrical)



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MEP Engineer:

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60103, United States
630-712-2550
Contact: Thomas R Piazza II
tpiazza@foxfieldtd.com

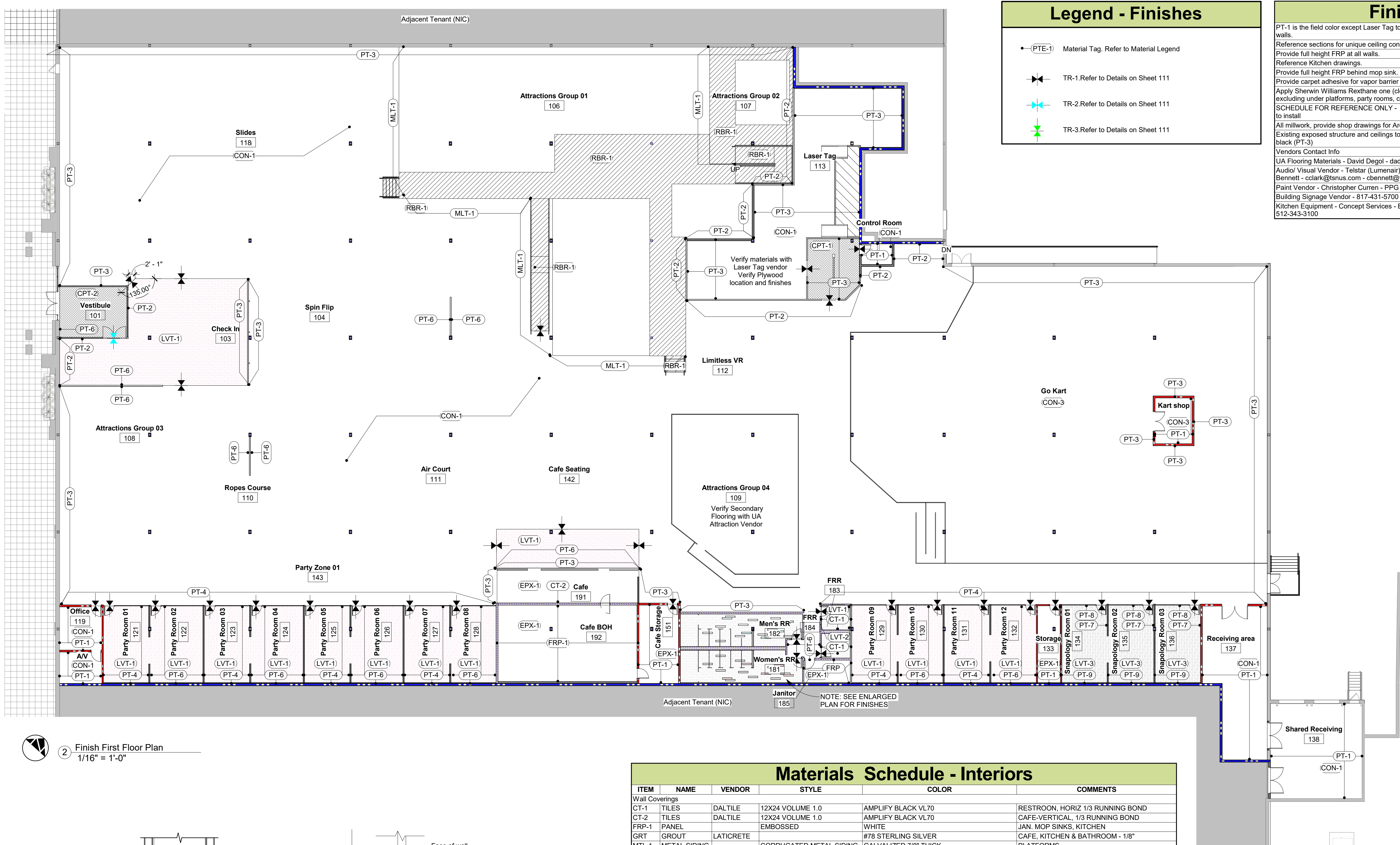


No.	Description	Date
A	Issue for Permit	2024.12.20

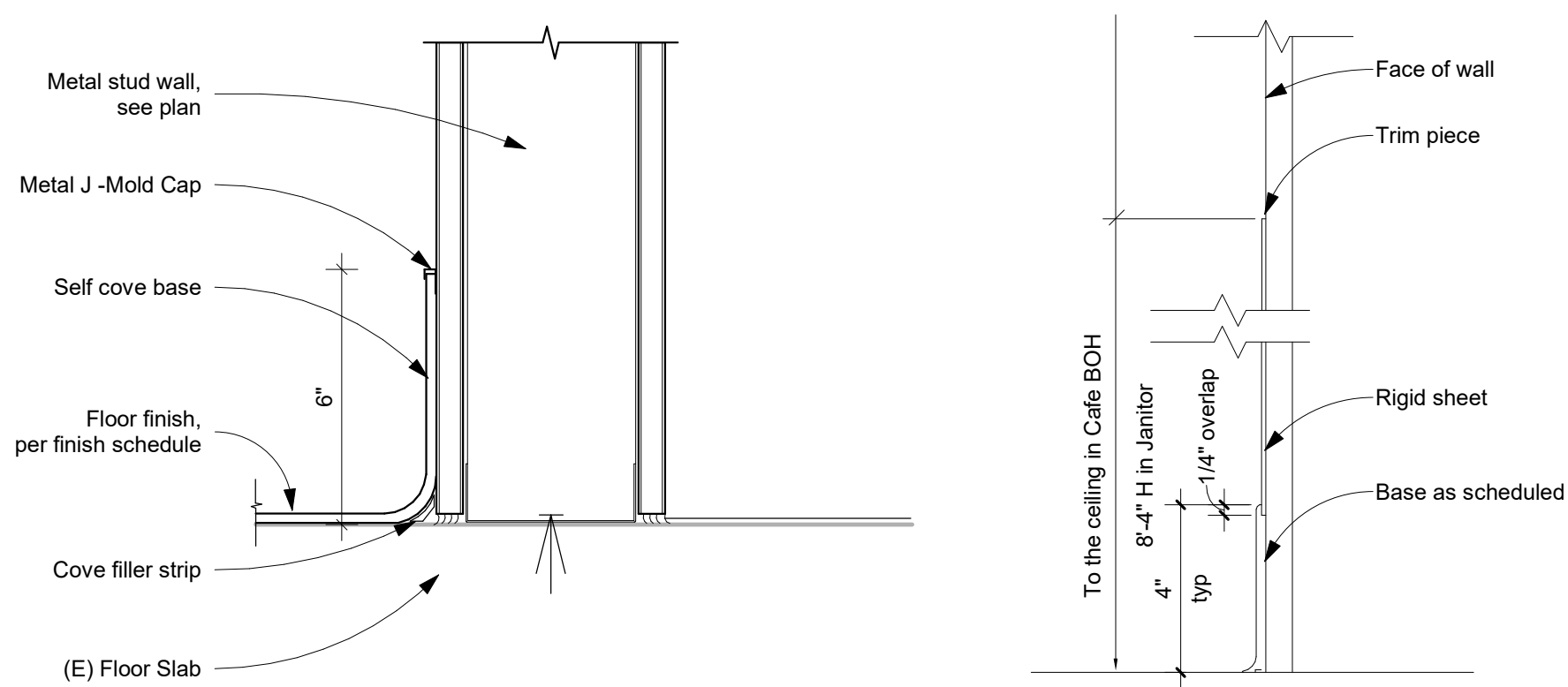
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Enlarged Cafe

A105

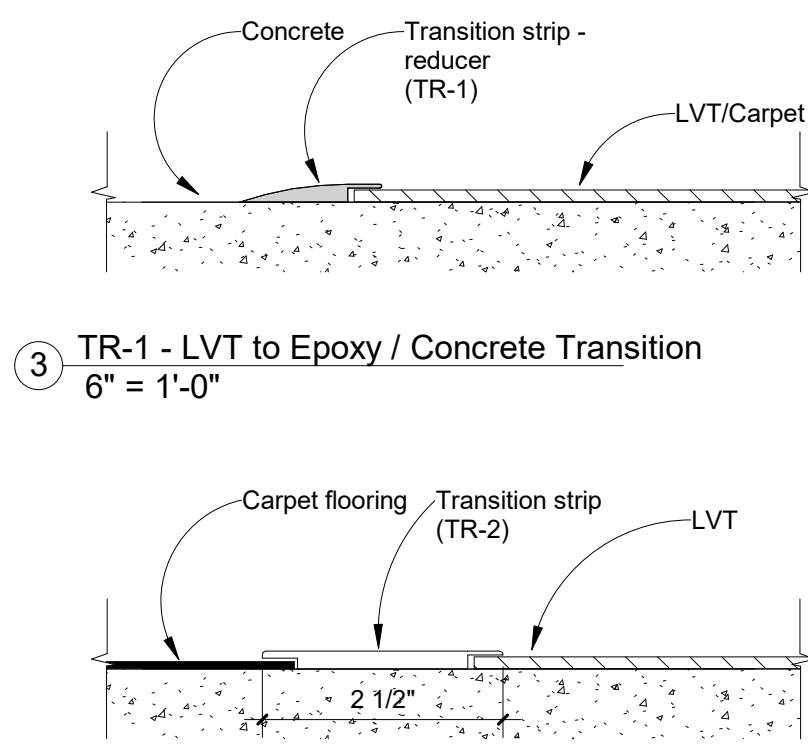


2 Finish First Floor Plan
1/16" = 1'-0"



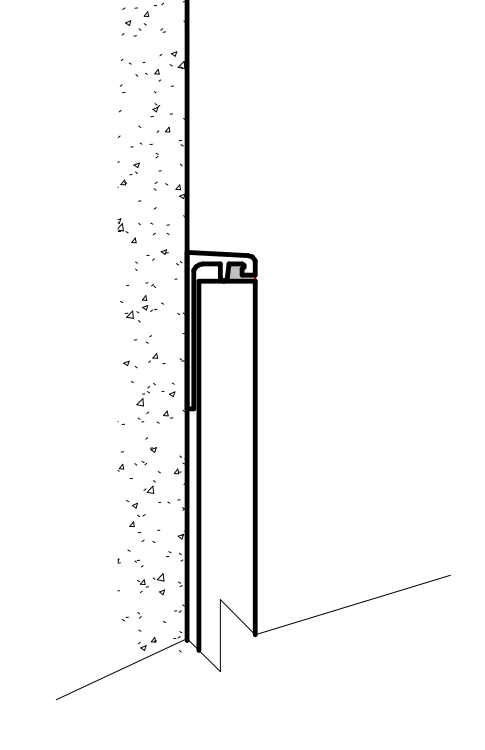
6 Wall transition - Cove Base
3" = 1'-0"

7 FRP-1 - Rigid Sheet Section
3" = 1'-0"



3 TR-1 - LVT to Epoxy / Concrete Transition
6" = 1'-0"

4 TR-2 - LVT to Carpet Transition
6" = 1'-0"



5 TR-3 - Wall Tile Transition Strip
6" = 1'-0"

Materials Schedule - Interiors					
ITEM	NAME	VENDOR	STYLE	COLOR	COMMENTS
Wall Coverings					
CT-1	TILES	DALTILE	12X24 VOLUME 1.0	AMPLIFY BLACK VL70	RESTROOM, HORIZ 1/3 RUNNING BOND
CT-2	TILES	DALTILE	12X24 VOLUME 1.0	AMPLIFY BLACK VL70	CAFE-VERTICAL, 1/3 RUNNING BOND
FRP-1	PANEL		EMBOSSED	WHITE	JAN. MOP SINKS, KITCHEN
GRT	GROUT	LATICRETE	#78 STERLING SILVER		CAFE, KITCHEN & BATHROOM - 1/8"
MTL-1	METAL SIDING		CORRUGATED METAL SIDING	GALVALIZED 7/8" THICK	PLATFORMS
MTL-2	SHEET METAL		SHEET METAL	22-24 GAUGE GALVANIZED	CAFE
Wall Base/Trim					
B-1	COVE BASE	JOHNSONITE	4"	BLACK	CHECK IN, WAIVER & TECH BAR CASEWORK
B-2	COVE BASE	JOHNSONITE	6"	BLACK	CAFE, KITCHEN & STAIR
QTR-2	QUARTER ROUND	JOHNSONITE	QTR-XX-A	-	BATHROOM
VN-1	NOSING	JOHNSONITE	DTN-40	BLACK	PLATFORM EDGE
VN-2	NOSING	JOHNSONITE	VITSN-40	BLACK WITH 55 INSERT	PLATFORM STAIRS
Transitions					
TR-1	JOHNSONITE REDUCERS - SSR 40 1/8" MATERIAL TO FLOOR	JOHNSONITE	SSR 40	BLACK	ALL LVT TO CONCRETE AND EPOXY TRANSITIONS
TR-2	JOHNSONITE CTA - XX-HT 1/4" TO 3/8" MATERIAL	JOHNSONITE	CTA - XX-HT	BLACK	ALL LVT TO CARPET TRANSITION
TR-3	NOSING	SCHLUTER	SCHIEEN AE80	SATIN ANODIZED ALUMINIUM	BATHROOM WALL TILE TO CONCRETE
Paint					
PT-1	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	WHITE PEGASUS - PPG1010-1	INTERIOR
PT-2	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	GRAY-COOL-CHARCOAL - PPG1157-6	INTERIOR
PT-3	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	URBAN AIR BLACK. FORMULA: BX-12Y	INTERIOR (BASE 6-517)
PT-4	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	BLUE COSMIC DUST - PPG115PPG7-6	INTERIOR
PT-6	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	URBAN AIR YELLOW. FORMULA: DX-4, GX-8Y, WX-1Y8	INTERIOR (BASE 6-517)
PT-7	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	COMMERCIAL WHITE	INTERIOR
PT-8	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	SOLSTICE	INTERIOR
PT-9	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	DYNAMO	INTERIOR
Millwork					
PLM-1	COUNTERTOP	WILSONART		BLACK MATTE 1595-60	ALL CASEWORK
SS-1	COUNTERTOP		MATTE BLACK SOLID SURFACE APPROVED	MATTE BLACK	CAFE & ENTRY POS (ALT)
Flooring					
CON-1	CONCRETE		GRIND LEVEL B	SALT & PEPPER FINISH, GRAY STAIN, DEN	LASER TAG
CON-2	CONCRETE		GRIND LEVEL B	REMOVE (GRIND) SHOT BLAST) TOP 4% MIN.	PREP IN TRACK AREAS - REFER TO AND COORDINATE WITH GO-KART DESIGN
CON-3	CONCRETE		REMOVE (GRIND) SHOT BLAST) TOP 4% MIN.	FUTURE RESIN/ EPOXY PROVIDED BY 360	LASER TAG (if applicable)
CPT-1	CARPET	MILLIKEN	REXIM 2.0 TRIMLINE	BLACKBEAT IN VINYL WITH FRENCH BLUE	VESTIBULE
CPT-2	CARPET TILE	VAN GELDER	CHAMPION SUPER NOP. 19.69"19.69"	HOBNAIL PATTERN - CHARCOAL	VESTIBULE
EPX-1	EPOXY	SHERWIN WILLIAMS	EPOXY-USE 33 EPOXY PRIMER SEALER AND 650 SLRC	HAZE GREY WITH ARMORSEAL REXTHANE I COATING, HIGH GLOSS	CAFE & KITCHEN, MAIN AREA
LVT-1	VINYL TILE	ARMSTRONG	CUSTOM	LVT: 90% ENGLISH GREY; 5% BLACK TEA; 5% PINK LADY	WOMEN'S BATHROOM
LVT-2	VINYL TILE	ARMSTRONG	CUSTOM	LVT: 60% ENGLISH GREY; 5% BLACK TEA; 5% BLUE HAWAIIAN	MEN'S BATHROOM
LVT-3	VINYL TILE	ARMSTRONG	CUSTOM	ENGLISH GREY	SNAPOLOGY
RBR-1	RUBBER	ECORE	COMMERCIAL 8MM	10% GREEN, PINK & GREY (CUSTOM)	PLATFORMS
SVL-1	SHEET VINYL	POLYFLOR	POLYSAFE STANDARD PUR ALT. FOR SERRA	SILVER BIRCH	CAFE & KITCHEN (ALT)
Ceilings					
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	CONFIRM STYLE w/ FRANCHISEE	WHITE	OFFICES, PARTY RM, ETC.
ACT-2	ACOUSTIC CEILING TILE	ARMSTRONG	VINYL COATED TILES, WHITE GRID	WHITE	CAFE & KITCHEN
GWB	GYPSUM CEILING		GYPSUM CEILING	PT-1 u.n.o.	

Legend - Finishes

- Material Tag. Refer to Material Legend
- TR-1. Refer to Details on Sheet 111
- TR-2. Refer to Details on Sheet 111
- TR-3. Refer to Details on Sheet 111

Finish Notes

PT-1 is the field color except Laser Tag to be in black (PT-3). Reference Finish Plan for accent walls.
Reference sections for unique ceiling conditions and heights.
Provide full height FRP at all walls.
Reference Kitchen drawings.
Provide full height FRP behind mop sink.
Provide carpet adhesive for vapor barrier protection.
Apply Sherwin Williams Rexthane one (clear) - only to be applied at the exposed concrete flooring excluding under platforms, party rooms, cafe, BOH or receiving, Utility room and Go karts Tracks
SCHEDULE FOR REFERENCE ONLY - GC verify and coordinate all finishes with tenant prior to install.
All millwork, provide shop drawings for Architect review / approval
Existing exposed structure and ceilings to be painted in White (PT-1), except Laser Tag to be in black (PT-3)
Vendors Contact Info
UA Flooring Materials - David Degol - dadegolr@degol.com - 814-937-5359
Audio/ Visual Vendor - Telstar (Lumenair) - Parts and Smarts - Courtney Clark and Caroline Bennett - cclark@snus.com - cbennett@snus.com - 512-914-3409
Paint Vendor - Christopher Curren - PPG - Christopher.curren@ppg.com - 504-418-5274
Building Signage Vendor - 817-431-5700
Kitchen Equipment - Concept Services - Blake Calvert - bcalvert@conceptserv.com, 512-343-3100

General Notes - Interiors

- Ensure surfaces to receive finished are clean, true and free of irregularities. Do not proceed with work until unsatisfactory conditions have been corrected.
- No finish substitutions may be made without prior written authorization by Architect.
- All finishes shall be applied in strict accordance with manufacturer's specifications.
- Provide temporary protection for all installed finishes as work progresses.
- Submit samples of finishes for approval prior to installation.
- All interior walls to be painted PT-1 unless noted otherwise on the finish plans and interior elevations. Interior wall base to be B-1 unless noted otherwise.
- Examine walls to ensure proper preparation before application of paint. Beginning work implies acceptance of condition.
- All paint shall be applied in accordance with the manufacturer's specifications for that particular surface.
- Paint finish on surfaces including: doors, door frames, guardrails, etc shall be factory finishes semi-gloss, unless noted otherwise. If painting over existing paint the surface must be prepped and primed to accept new paint.
- All interior handrails, guardrails and stair stringers to be painted (black).
- Field verify existing condition of concrete subfloors receiving new finish. Contractor to include all required floor preparation in bid. Provide price to float floor where necessary to achieve tolerance of 1/2" max. in 10'x4' span.
- All flooring transitions between rooms shall be at the center of the door. See details for all interior finish material transitions.
- Flooring shall meet all current non-slip standards and requirements (wet and dry conditions) specified in applicable codes and/or authorities.
- All exposed concrete to be polished and sealed unless noted otherwise. Refer to finish tag (SC-1) where applicable.
- All exposed and semi exposed surfaces at casework shall receive plastic laminate finish.
- All workmanship shall be of the best quality. When the work is complete, it shall be free from buckles, bubbles, open joints or imperfections. Seams shall be kept in accurate alignment along both coordinates.
- Refer to the Interior Elevations in the (Sheet A111 and A4 series) for vertical finishes and dimensions.

Room Finish Schedule.

Room #	Room Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish
101	Vestibule	LVT-1	-	PT-6	ES
102	Check In Queueing	LVT-1	-	-	ES
103	Check In	LVT-1	-	PT-3	ES
104	Spin Flip	EPX-1	-	-	ES
105	Self Check-in	LVT-1	-	PT-6	ES
106	Attractions Group 01	RPR-1	-	PT-3	ES
107	Attractions Group 02	RPR-1	-	PT-3	ES
108	Attractions Group 03	TBD	-	PT-3	ES
109	Attractions Group 04	TBD	-	PT-3	ES
110	Ropes Course	CONC-1	-	-	ES
111	Air Court	-	-	-	ES
112	Limitless VR	EPX-1	-	PT-1	ES
113	Laser Tag	CONC-1	-	PT-3	ES
114	Staging	OPT-1	-	PT-3	ES
115	Control Room	CONC-1	-	PT-1	ACT-1
116	Go Kart	CONC-3	-	PT-3	ES
117	Kart shop	EPX-1	-	PT-1	ACT-1
118	Slides	CONC-1	-	-	ES
119	Office	EPX-1	-	PT-1	ACT-1
120	AV	EPX-1	-	PT-1	ACT-1
121	Party Room 01	LVT-1	B-1	PT-6	ACT-1
122	Party Room 02	LVT-1	B-1	PT-4	ACT-1
123	Party Room 03	LVT-1	B-1	PT-6	ACT-1
124	Party Room 04	LVT-1	B-1	PT-4	ACT-1
125	Party Room 05	LVT-1	B-1	PT-6	ACT-1
126	Party Room 06	LVT-1	B-1	PT-4	ACT-1
127	Party Room 07	LVT-1	B-1	PT-6	ACT-1
128	Party Room 08	LVT-1	B-1	PT-4	ACT-1
129	Party Room 09	LVT-1	B-1	PT-6	ACT-1
130	Party Room 10	LVT-1	B-1	PT-4	ACT-1
131	Party Room 11	LVT-1	-	PT-6	ACT-1
132	Party Room 12	LVT-1	-	PT-4	ACT-1
133	Storage	EPX-1	B-1	PT-1	ACT-1
134	Snapology Room 01	LVT-3	B-1	PT-7/PT-8/PT-9	ACT-1
135	Snapology Room 02	LVT-3	B-1	PT-7/PT-8/PT-9	ACT-1
136	Snapology Room 03	LVT-3	B-1	PT-7/PT-8/PT-9	ACT-1
137	Receiving area	EPX-1	-	PT-1	ES
138	Shared Receiving	EPX-1	-	PT-1	ES
139	Tech Bar A	EPX-1	-	PT-6	ES
140	Tech Bar B	EPX-1	-	PT-6	ES
141	Booths Zone 01	EPX-1	-	-	ES
142	Cafe Seating	EPX-1	-	-	ES
143	Party Zone 01	EPX-1	-	-	ES
144	Party Zone 02	EPX-1	-	-	ES
145	Booths Zone 02	EPX-1	-	-	ES
151	Cafe Storage	EPX-1	B-2	PT-1	ACT-1
152	Queueing	LVT-1	-	-	ES
181	Women's RR	LVT-1	QTR-2	PT-2 / CT-1	GWB
182	Men's RR	LVT-2	QTR-2	PT-2 / CT-1	GWB
183	FRP	LVT-2	QTR-2	PT-2 / CT-1	GWB
184	FRP	LVT-1	QTR-2	PT-2 / CT-1	GWB
185	Janitor	EPX-1	B-1	PT-2 / CT-1	GWB
191	Cafe	EPX-1	B-2	CT-2	GWB
192	Cafe BOH	EPX-1	B-2	FRP-1	ACT-1



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630-712-2550
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No.	Description	Date
A	Issue for Permit	2024.12.20

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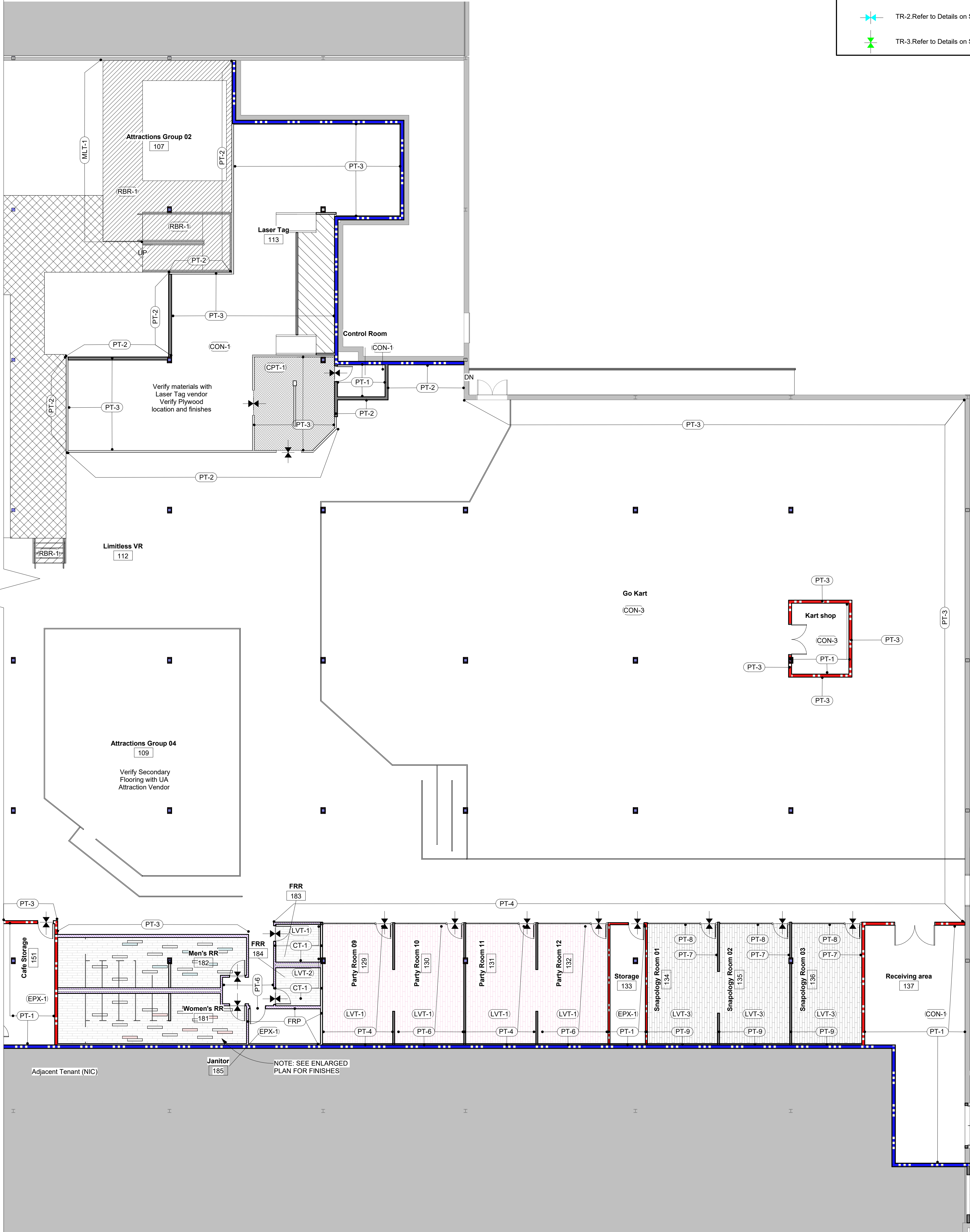
Floor Finish Plan

A111



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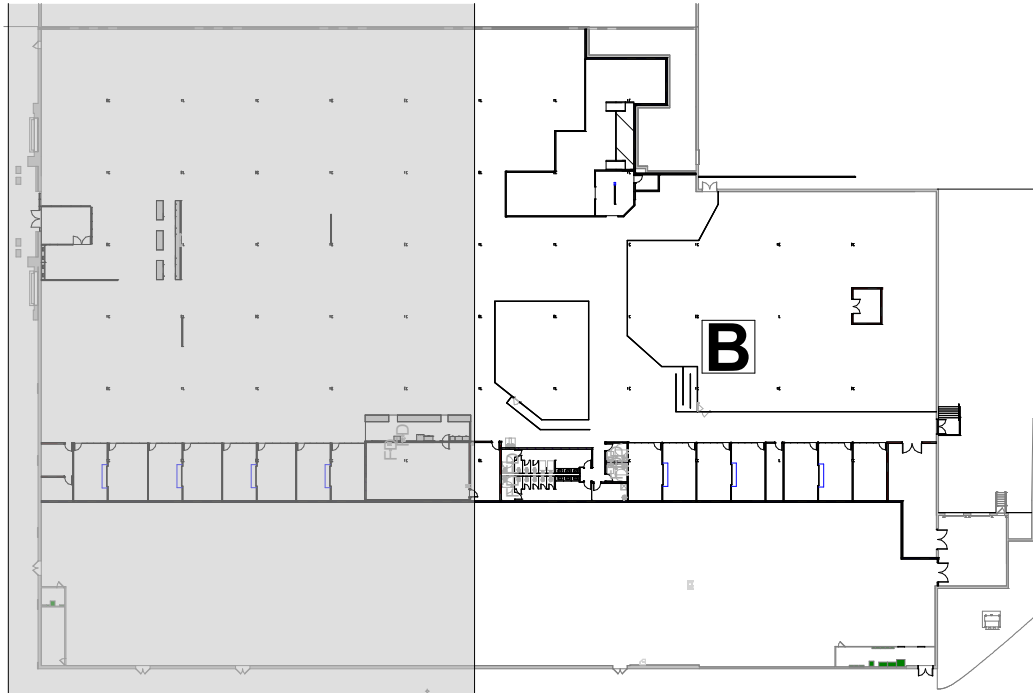
Legend - Finishes	
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	TR-3.Refer to Details on Sheet 111

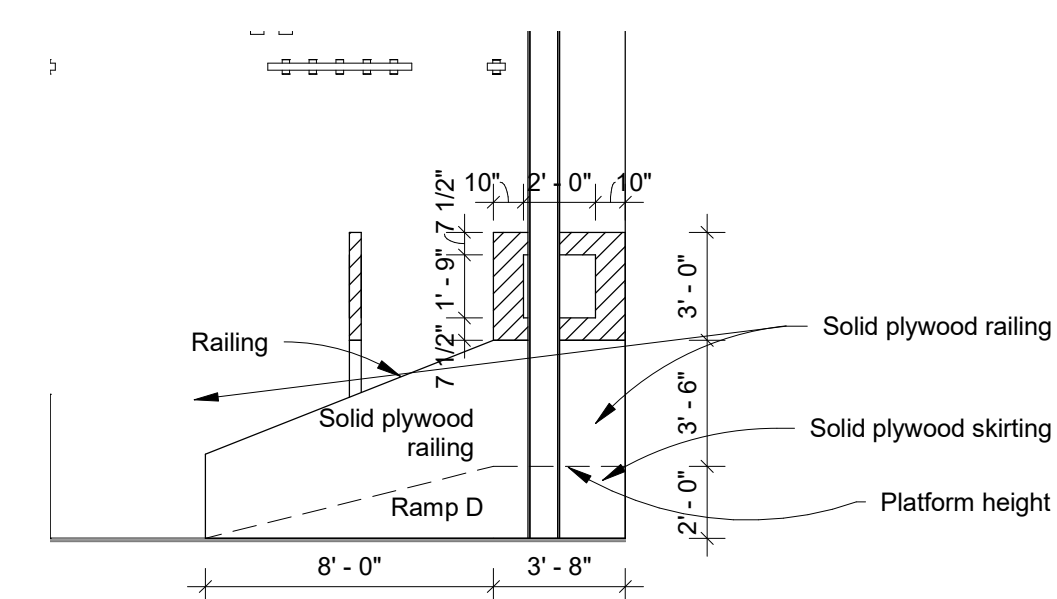
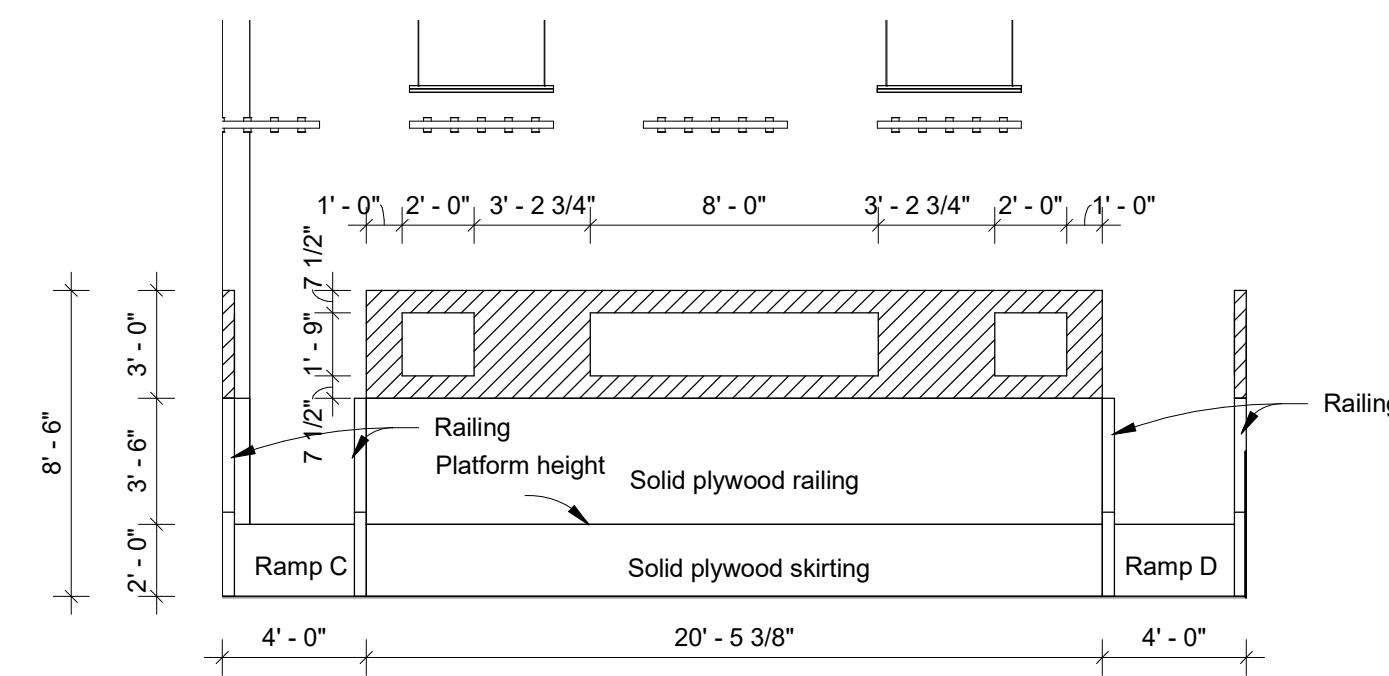
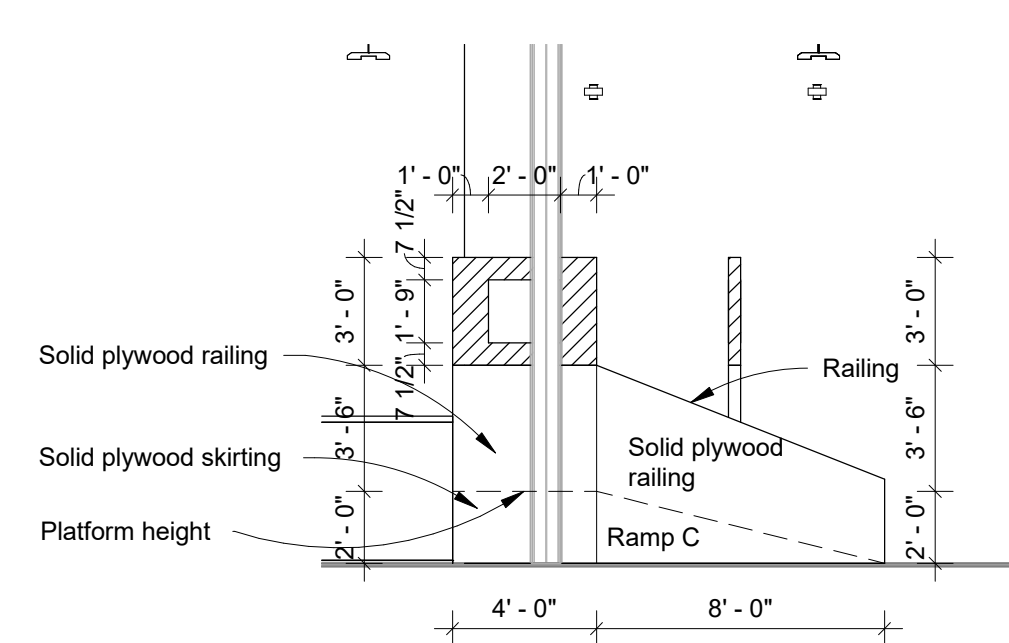
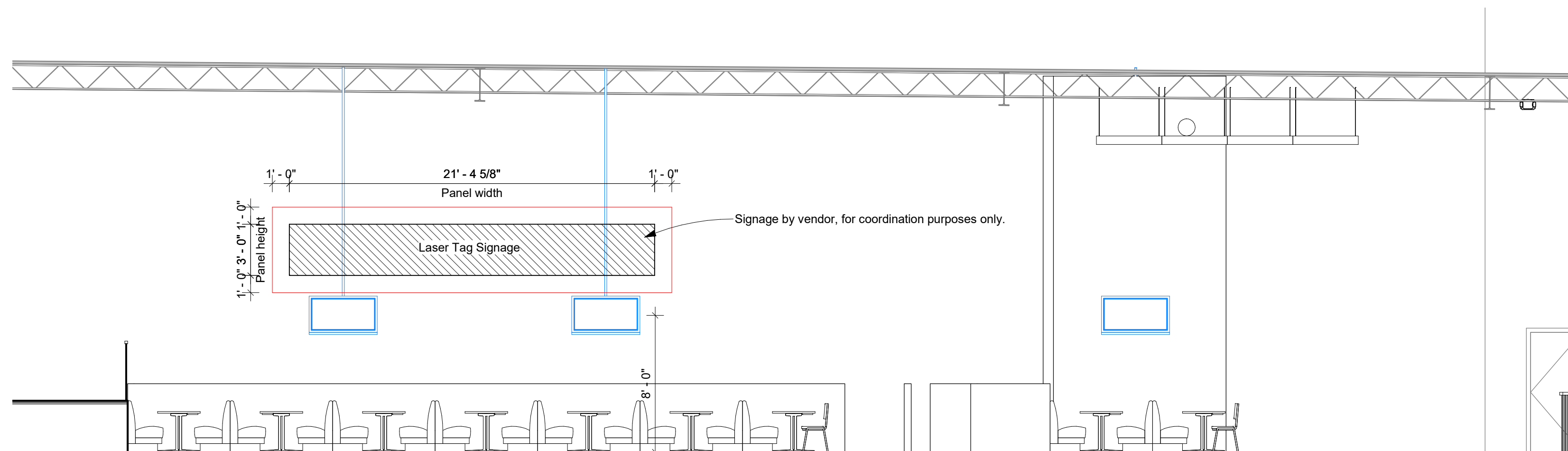
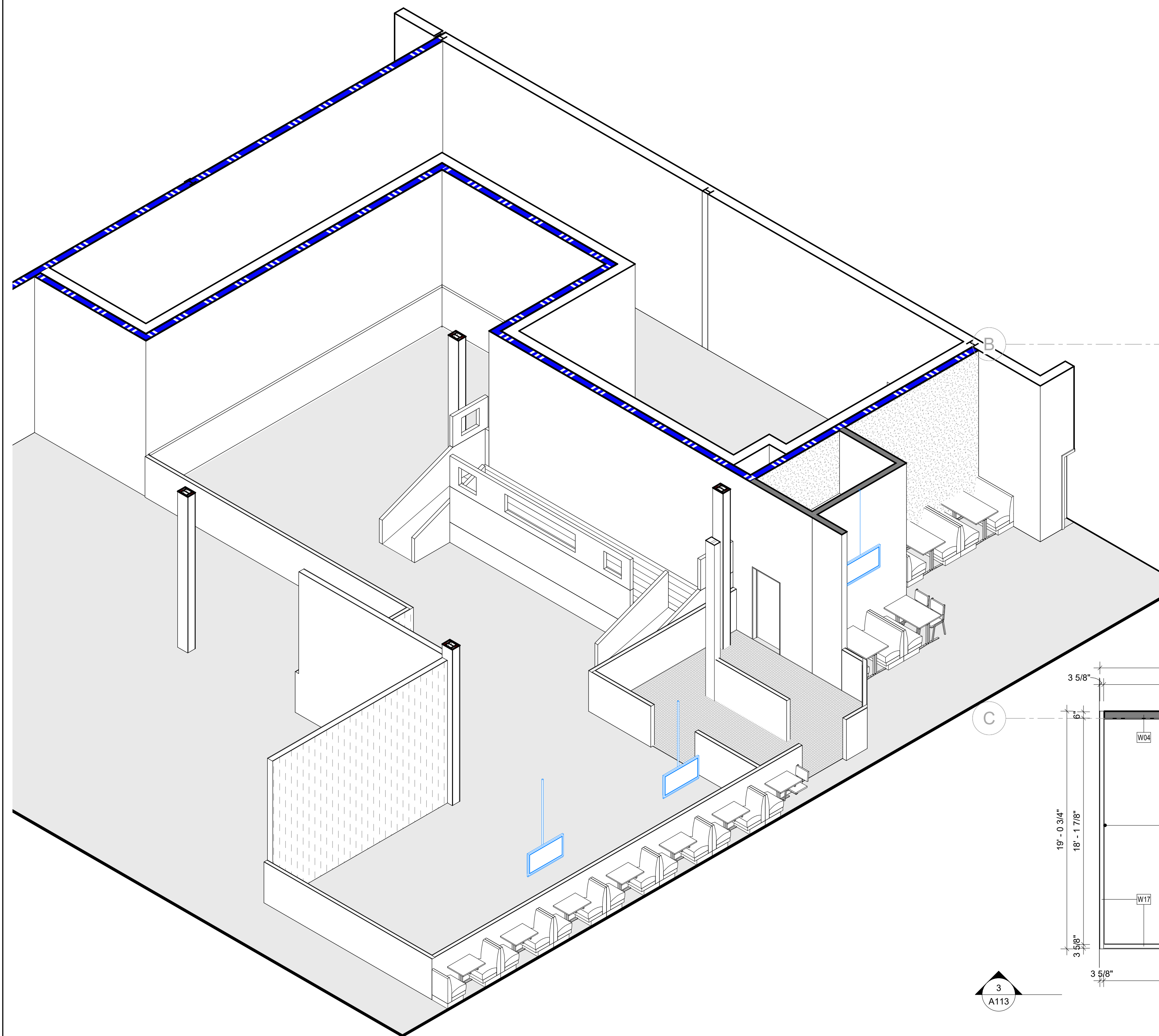
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184	FRR	LVT-1	QTR-2	PT-2 / CT-1	GWB
185	Janitor	EPX-1	B-1	PT-2 / CT-1	GWB
191	Cafe	EPX-1	B-2	CT-2	GWB
192	Cafe BOH	EPX-1	B-2	FRP-1	ACT-1

Finish Notes	
PT-1 is the field color except Laser Tag to be in black (PT-3). Reference Finish Plan for accent walls.	
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MTL-2	SHEET METAL		SHEET METAL	22-24 GAUGE GALVANIZED	CAFE
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B-2	COVE BASE	JOHNSONITE	6"	BLACK	CAFE, KITCHEN & STAIR
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VN-1	NOSING	JOHNSONITE	DTN-40	BLACK	PLATFORM EDGE
VN-2	NOSING	JOHNSONITE	VITSN-40	BLACK WITH SS INSERT	PLATFORM STAIRS
Transitions					
TR-1	JOHNSONITE REDUCERS - SSR 40 1/8" MATERIAL TO FLOOR	JOHNSONITE	SSR 40	BLACK	ALL LVT TO CONCRETE AND EPOXY TRANSITIONS
TR-2	JOHNSONITE CTA - XX-HT 1/4" TO 0.80" MATERIAL	JOHNSONITE	CTA - XX-HT	BLACK	ALL LVT TO CARPET TRANSITION
TR-3	NOSING	SCHLUTER	SCHIENE AE80	SATIN ANODIZED ALUMINIUM	BATHROOM WALL TILE TO CONCRETE
Paint					
PT-1	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	WHITE PEGASUS - PPG1010-1	INTERIOR
PT-2	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	GRAY-COOL-CHARCOAL - PPG1157-6	INTERIOR
PT-3	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	URBAN AIR BLACK FORMULA: BX-12Y	INTERIOR (BASE 6-517)
PT-4	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	BLUE COSMIC DUST - PPG115PPG7-6	INTERIOR
PT-6	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	URBAN AIR YELLOW FORMULA: DX-4; GX-8Y; WX-1Y5	INTERIOR (BASE 6-517)
PT-7	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	COMMERCIAL WHITE	INTERIOR
PT-8	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	SOLSTICE	INTERIOR
PT-9	PAINT	PPG	PPG SPEEDHIDE SEMI-GLOSS	DYNAMO	INTERIOR
Millwork					
PLM-1	COUNTERTOP	WILSONART		BLACK MATTE 1595-60	ALL CASEWORK
SS-1	COUNTERTOP		MATTE BLACK SOLID SURFACE APPROVED	MATTE BLACK	CAFE & ENTRY POS (ALT)
Flooring					
CON-1	CONCRETE		GRIND LEVEL B	SALT & PEPPER FINISH, GRAY STAIN, DEN	LASER TAG
CON-2	CONCRETE		GRIND LEVEL B	SALT & PEPPER FINISH, GRAY STAIN, CL	
CON-3	CONCRETE		REMOVE (GRIND) SHOT BLAST) TOP 4% MIN.	FUTURE RESIN/ EPOXY PROVIDED BY 360	PREP IN TRACK AREAS - REFER TO AND COORDINATE WITH GO-KART DESIGN
CPT-2	CARPET TILE	MILLKEN	REXIM 2.0 TRIMLINE	BLACK/BEAT IN VINYL WITH FRENCH BLUE	LASER TAG (if applicable)
EPX-1	EPOXY	SHERWIN WILLIAMS	CHAMPION SUPER NOP. 19.69/19.69"	HOBNAI PATTERN - CHARCOAL	VESTIBULE
LVT-1	VINYL TILE	ARMSTRONG	CUSTOM	HAZE GREY WITH ARMORSEAL REXTHANE I COATING, HIGH GLOSS	CAFE & KITCHEN, MAIN AREA
LVT-2	VINYL TILE	ARMSTRONG	CUSTOM	COATING, HIGH GLOSS	WOMEN'S BATHROOM
LVT-3	VINYL TILE	ARMSTRONG	CUSTOM	LVT: 90% ENGLISH GREY; 5% BLACK TEA; 5% PINK LADY	MEN'S BATHROOM
RBR-1	RUBBER	ECORE	COMMERCIAL 8MM	LVT: 90% ENGLISH GREY; 5% BLACK TEA; 5% BLUE HAWAIIAN	SNAPOLGY
SVL-1	SHEET VINYL	POLYFLOR	COMMERICAL 8MM	ENGLISH GREY	PLATFORMS
			POLYSAFE STANDARD PUR ALT. FOR CERA	10% GREEN, PINK & GREY (CUSTOM)	CAFE & KITCHEN (ALT)
				SILVER BIRCH	
Ceilings					
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	CONFIRM STYLE W/ FRANCHISEE	WHITE	OFFICES, PARTY RM, ETC.
ACT-2	ACOUSTIC CEILING TILE	ARMSTRONG	VINYL COATED TILES, WHITE GRID	WHITE	CAFE & KITCHEN
GWB	GYP SUM CEILING		GYP SUM CEILING	PT-1 u.n.o.	





Notes - Floor Plan

- 1 All dimensions are to face of stud or edge of slab unless noted otherwise. All dimensions are in "feet" unless noted otherwise.
- 2 All dimensions are "clear" as shown unless noted otherwise.
- 3 For missing dimensions and annotations refer to enlarged plans. Sheet locations as noted on callouts.
- 4 For interior finish refer to interior elevations (A4 series) and floor finish plan A1117.
- 5 For door and window types and schedules refer to the (A5 series).
- 6 For furniture and equipment refer to FF floor plan (A601). Provide backing as shown.
- 7 For casework, refer to interior elevations (A4 series) and details (A6 series).
- 8 All sealant and caulking shall be applied in a clean consistent bead and will be redone at contractor's cost.
- 9 All wall surfaces shall be the best quality. When the work is complete, it shall be free from blemishes, bubbles, open joints or imperfections. Seams shall be kept in accurate alignment along both coordinates.
- 10 Laser level shall be used to verify wall and ceiling flatness by selected contractor. Coordinate with the laser tag vendor. Refer to the laser tag vendor drawing package for additional info. Submit shop drawing submissions for architect review.
- 11 All structural support members including columns, beams and joists supporting the ceiling are to be in place and ready for installation of the ceiling.

Legend - Partitions

Note: Refer to floor plan for partition tag and sheet A109 for partition details.

- | | |
|---|-----------------------------------|
|  | New Wall |
|  | New half height wall |
|  | Existing Wall |
|  | Existing One Hour Fire rated Wall |
|  | Existing Two Hour Fire rated Wall |
|  | New Acoustic Wall |
|  | New One Hour Fire Rated Wall |
|  | New Two Hour Fire Rated Wall |
|  | New Plumbing Chase Wall |

Keynotes

24	Existing Column
238	Column for laser tag (Ref. Vendor)
359	AV - 55" TV (Ceiling Mount)
360	AV - 55" TV (Wall Mount)



PISTIL CONSORTIA
BOUTIQUE ARCHITECTURE

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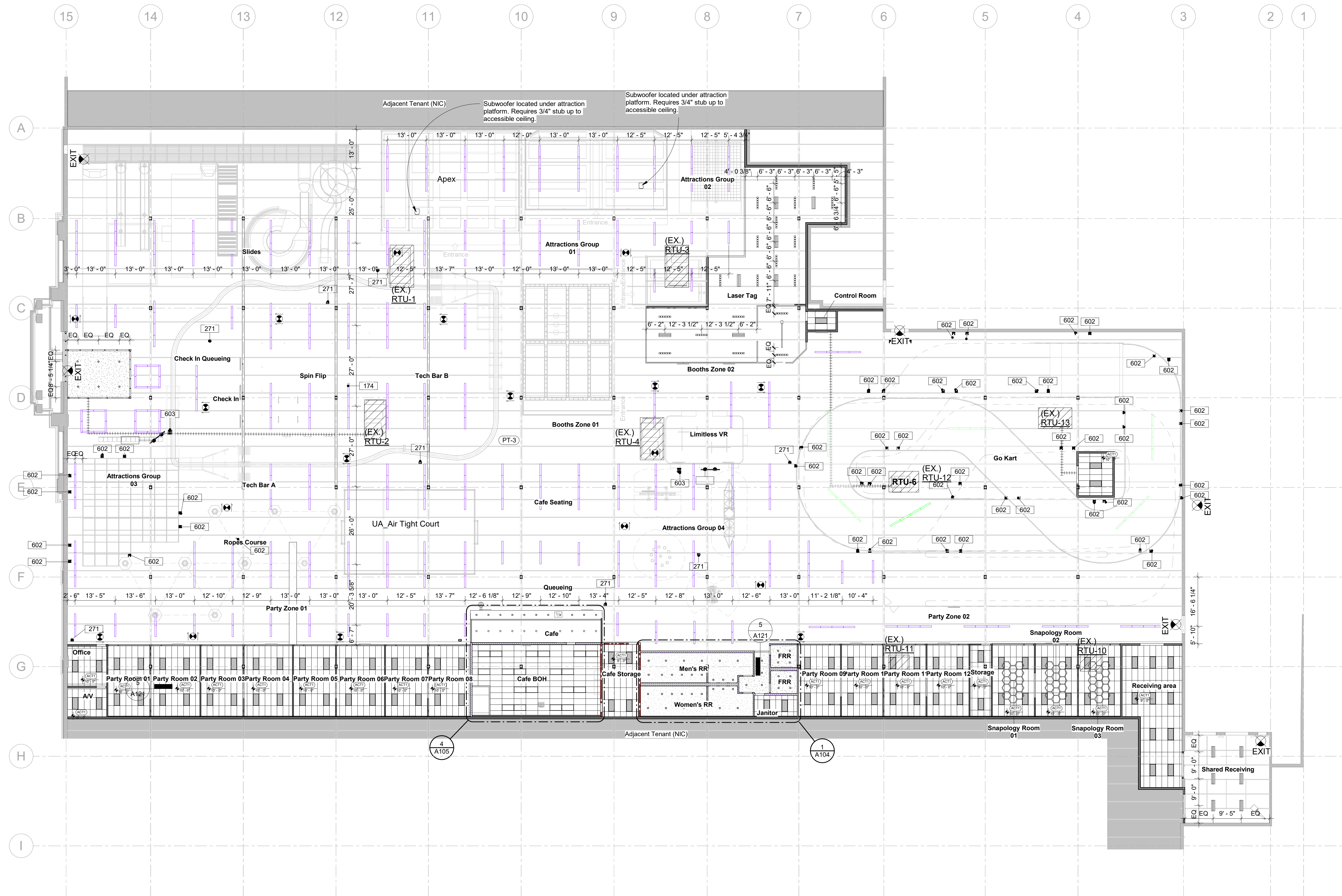
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CONTRERAS
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A	Issue for Permit	2024.1
No.	Description	Date

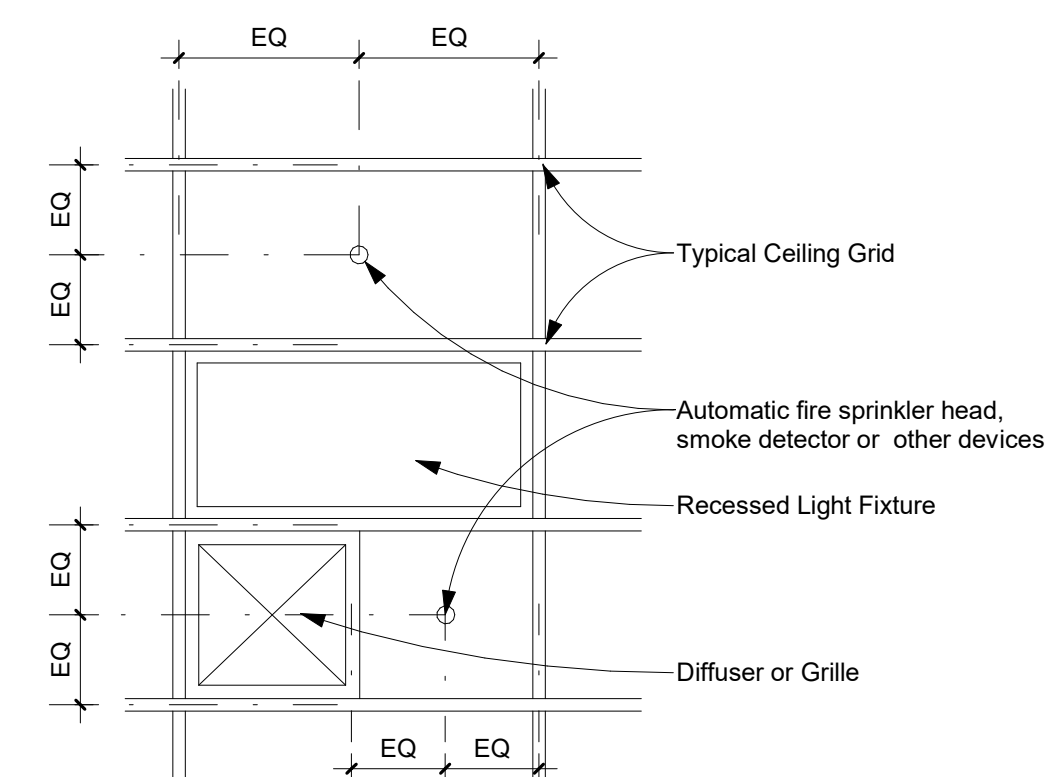
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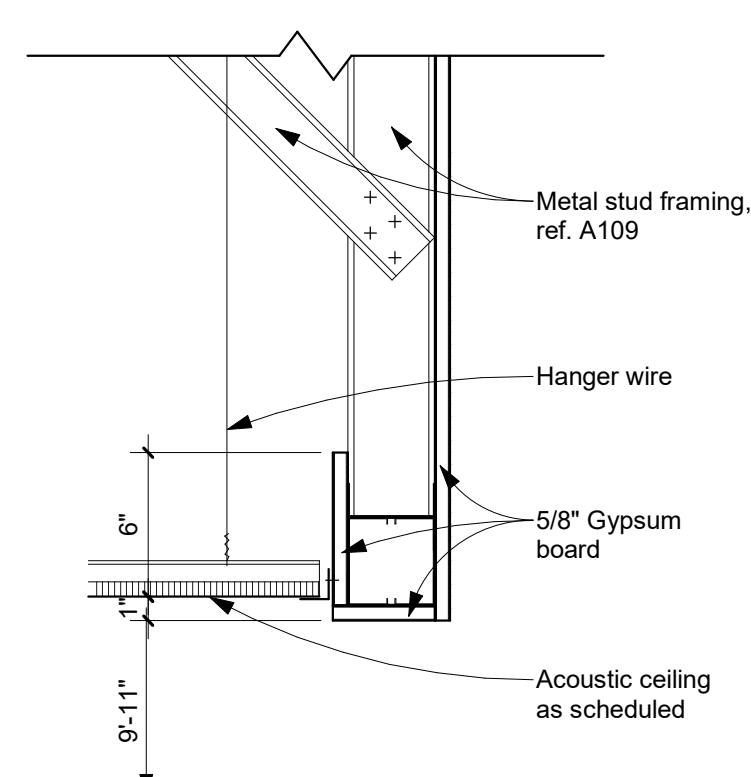
PROJ. NO: 23-053



3 Reflected Ceiling Plan
1/16" = 1'-0"



4 Detail - Ceiling Organization
3" = 1'-0"

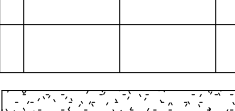
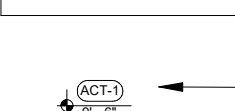
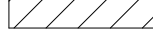


5 Bulkhead Detail
1 1/2" = 1'-0"

General Notes - Ceiling Plans

1. Ceiling heights to be 10'-0" AFF (above finished floor) UNLESS noted otherwise).
2. Paint gypsum board ceiling surfaces white (P1-1) UNLESS noted otherwise.
3. Paint exposed roof structure and the underside of floor joists (P1-1). The paint room finish schedule will typically indicate ceiling materials and finishes.
4. Do not install ceiling grid until work above ceiling is coordinated and installed within available ceiling height.
5. Locate ceiling mounted fixtures/ devices in the centers of full ceiling panels UNLESS noted otherwise.
6. Ceiling receptacles shall be mounted flush with the underside of ceiling surface and provide appropriate mounting brackets for lighting and wiring plan.
7. All room lighting shall be coordinated by occupant sensors UNLESS noted otherwise.
8. Coordinate maintenance lighting and zones with subcontractors and tenant.
9. Light fixtures in mechanical and equipment rooms are shown for quantity only. Contractor is to coordinate fixture placement with all MEP items and set final locations as required to provide clear and fully light accessible areas of the room with the quantity of fixtures shown.
10. Provide exit lighting battery powered emergency lighting per code. Refer to electrical lighting plan.
11. Specialty lighting, speakers and security system supplied and installed by the tenant's audio/visual contractor. Coordinate the work for necessary dedicated circuits. Locate lighting and speakers in accordance with 10'-0" AFF UNLESS noted otherwise. Refer to the Audio Visual room drawings for more information.
12. Install Type I Exhaust Hood per the Food Service vendor drawings.
13. Install soffit over the walk-in cooler. Coordinate with Food Service vendor and mechanical for final height, size and location. Provide access panel for maintenance.
14. All existing and new electrical, plumbing, HVAC, sprinkler must be installed as high as possible and always maintain 8'-0" minimum clear height under. This may include removal and/or relocation of existing conduit, utilities, etc.
15. All new overhead conduits, wiring, sprinkler piping, plumbing, etc. to be run tight to the underside of roof deck, if circumstances in field render this impossible then maintain a minimum of 4' below the underside of roof deck.
16. All items installed over attractions must be installed above bottom of joists UNLESS noted otherwise.
17. Field verify the existing structural systems directly above the climbing walls and along the path of travel for the skydiver. Contact the structural engineer of record for all structural measurements and calculations. Run and trace profiles so that they can engineer support details for attraction connections. Provide an allowance for the engineer to travel to the site, rent the scissor lift and take these measurements.
18. Coordinate final installation of supply diffusers, return grilles and other ceiling mounted devices to avoid conflict with installed light fixtures.
19. All HVAC and MEP items must be elevated as close as possible to the existing roof frame.
20. RTUs located to be confirmed at field

Legend - Ceiling Plan

	ACT-1 - 2'x4' Grid - Standard
	ACT-2 - 2'x4' Grid - Clean Room VL 868
	GWB - Gypsum Ceiling (PT-1) u.n.o.
	Exposed to Structure Painted when tagged as (PT-1) u.n.o.
	<u>Ceiling Tag</u> Ceiling Finish Code. Refer to Finish Schedule A111. Ceiling Height above finish floor
	Access Panel
	24" x 48" Pendant Troffer, Refer to Electrical
	24" x 48" Troffer, Refer to Electrical
	48" Shop Light, Refer to Electrical
	LV Luminaire Lighting (Refer to vendor)
	LV Luminaire Lighting fixture mounted under Go Kart Track (Refer to vendor)
	24" x 24" Ceiling Speaker
	8" Recessed Downlight, Refer to Electrical
	Exit Sign
	Keynote Tag
	Existing RTU Mechanical Equipment -Ref. Mechanical
Room name	Room Tag - name only

Keynotes

	Lighting - LED Effect Fixture
174	Light - Hanging Shop
271	Speaker
602	Lighting - LED Wash Fixture
603	Lighting - Moving Head Spotlight



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 NO: 23-053
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Reflected Ceiling Plan

A121

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Heights, IL 60004

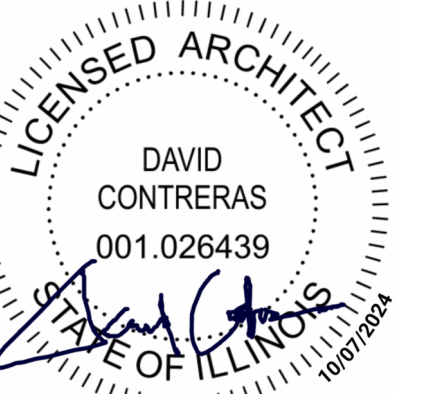
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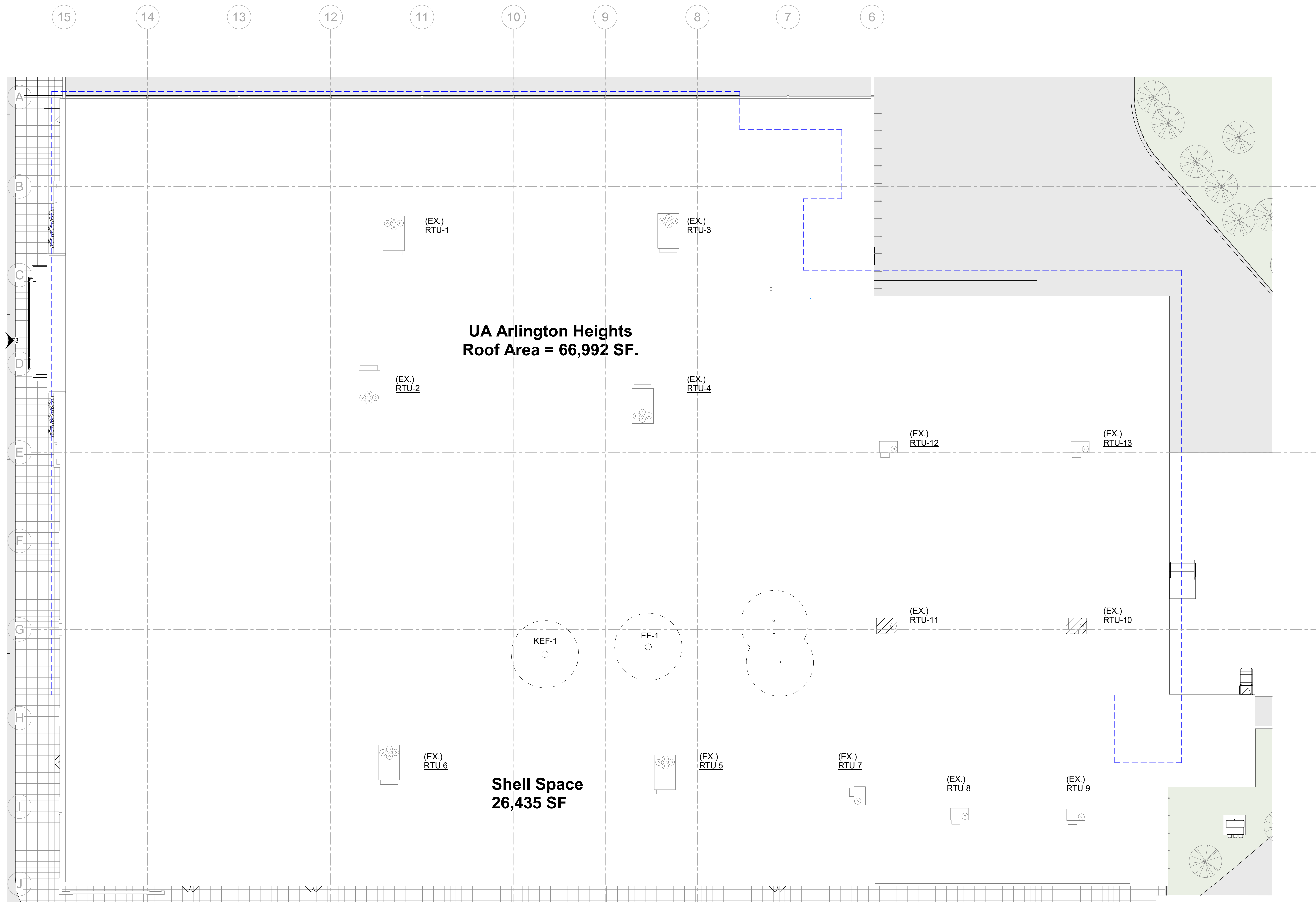
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Proof Plan

A141

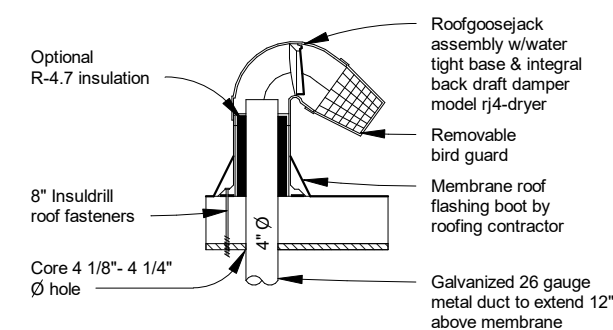


**UA Arlington Heights
Roof Area = 66,992 SF.**

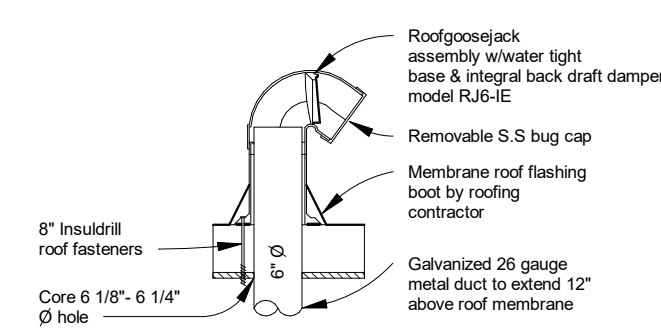
Shell Space
26,435 SF



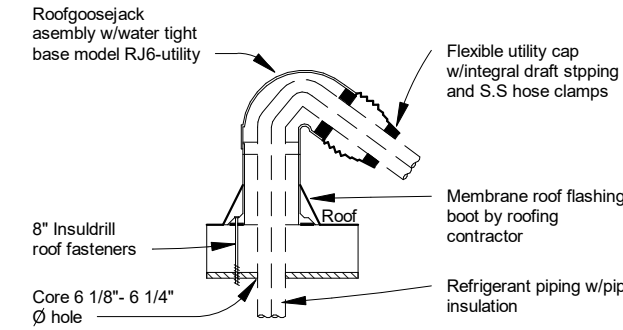
1 Roof plan
1/16" = 1'-0"



② A141 - Roof Goose Jack A
1/2" = 1'-0"



3 A141 - Roof Goose Jack B
1/2" = 1'-0"



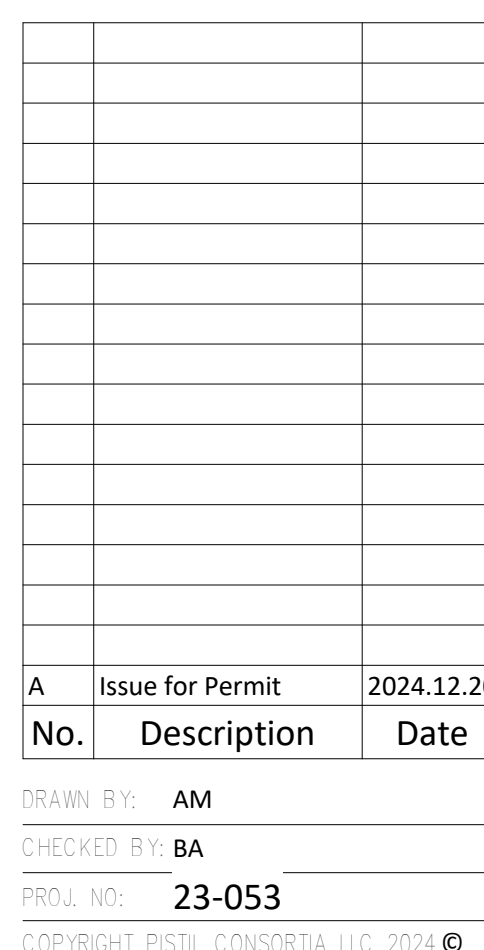
④ A141 - Roof Goose Jack C
1/2" = 1'-0"



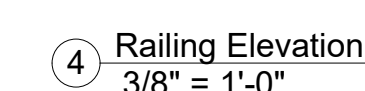
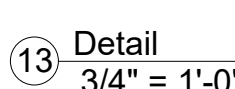
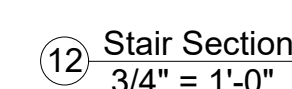
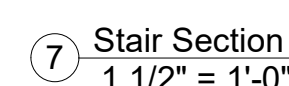
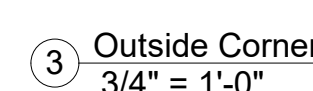
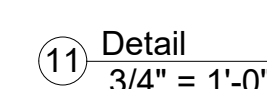
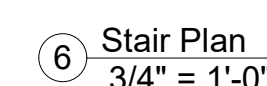
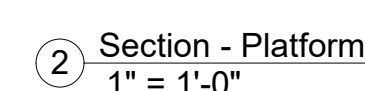
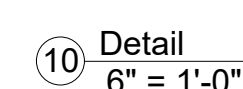
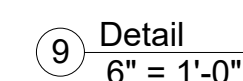
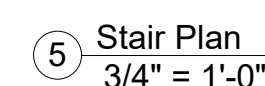
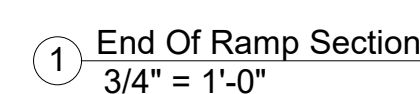
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A202







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Building Sections

A302

The image displays a series of architectural drawings for a building, including a section and four elevations.

Section A: A longitudinal section of the building, showing the interior structure, including a large open space with a curved ramp or staircase on the left, a central area with a desk and computer monitors, and a right side with a wall and a door. The section is labeled with grid lines A through H. A note indicates "For casework and furniture refer to A6 series".

Section B: A longitudinal section of the building, showing the interior structure, including a large open space with a curved ramp or staircase on the left, a central area with a desk and computer monitors, and a right side with a wall and a door. The section is labeled with grid lines A through J. A note indicates "For Platform details refer to sheet A201".

Section C: A longitudinal section of the building, showing the interior structure, including a large open space with a curved ramp or staircase on the left, a central area with a desk and computer monitors, and a right side with a wall and a door. The section is labeled with grid lines 10 through 15. A note indicates "For Platform details refer to sheet A201".

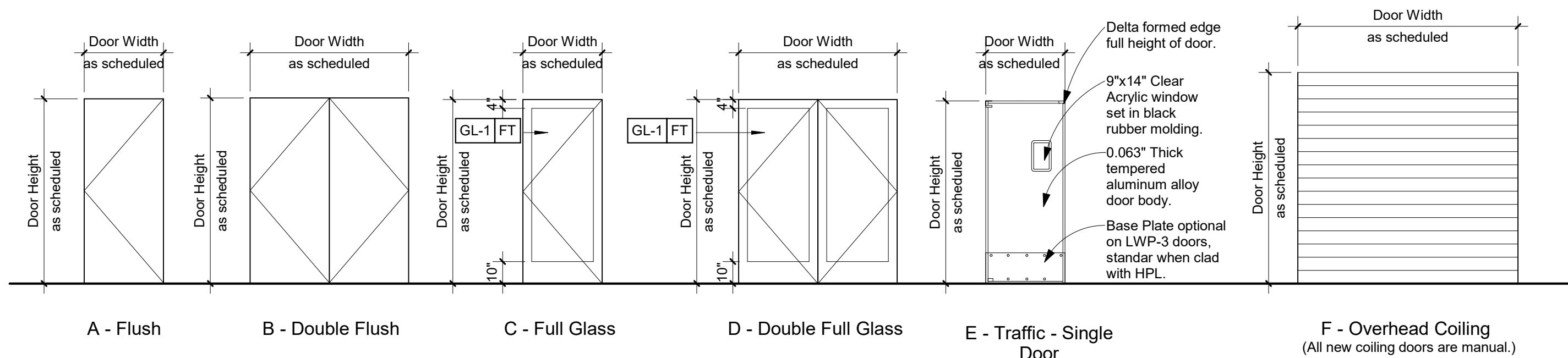
Section D: A longitudinal section of the building, showing the interior structure, including a large open space with a curved ramp or staircase on the left, a central area with a desk and computer monitors, and a right side with a wall and a door. The section is labeled with grid lines 3 through 10. A note indicates "For casework and furniture refer to A6 series".

Elevations: Four elevations of the building facade are shown, labeled 1 through 4. Elevation 1 is a side elevation showing a wall with a door and a window. Elevation 2 is a side elevation showing a wall with a door and a window. Elevation 3 is a side elevation showing a wall with a door and a window. Elevation 4 is a side elevation showing a wall with a door and a window.

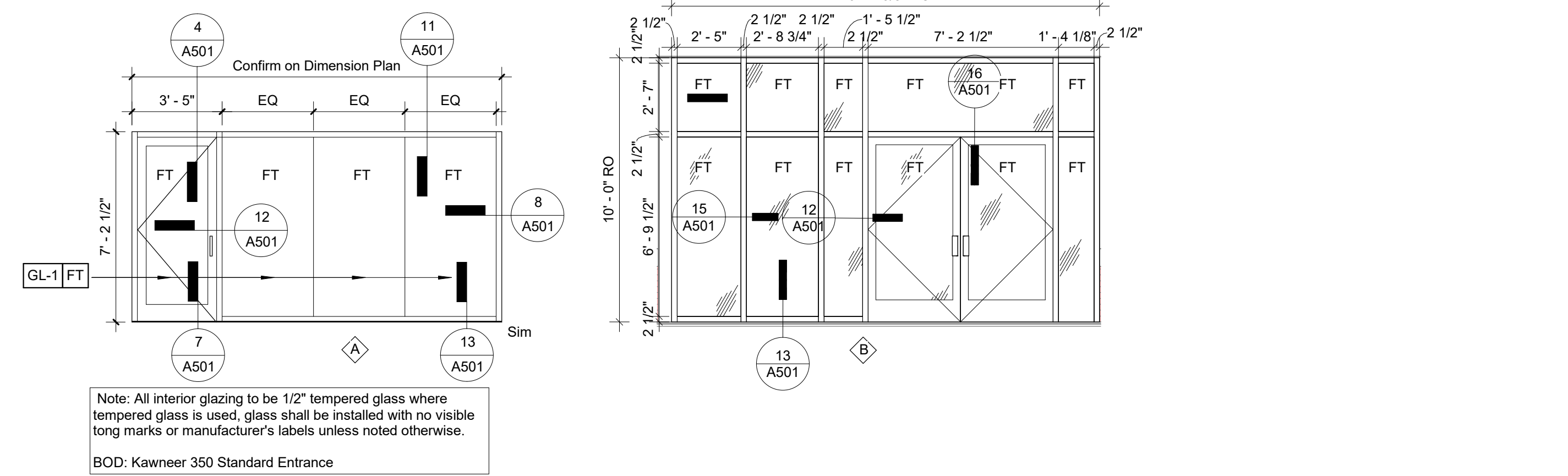
Legend - Elevations:

- (PTE-1) Material Tag - Refer to Finish Schedule
- 101 Door Tag - Sheet A501
- TA-01 Toilet Accessory Tag - Sheet A103
- ? Keynote Tag

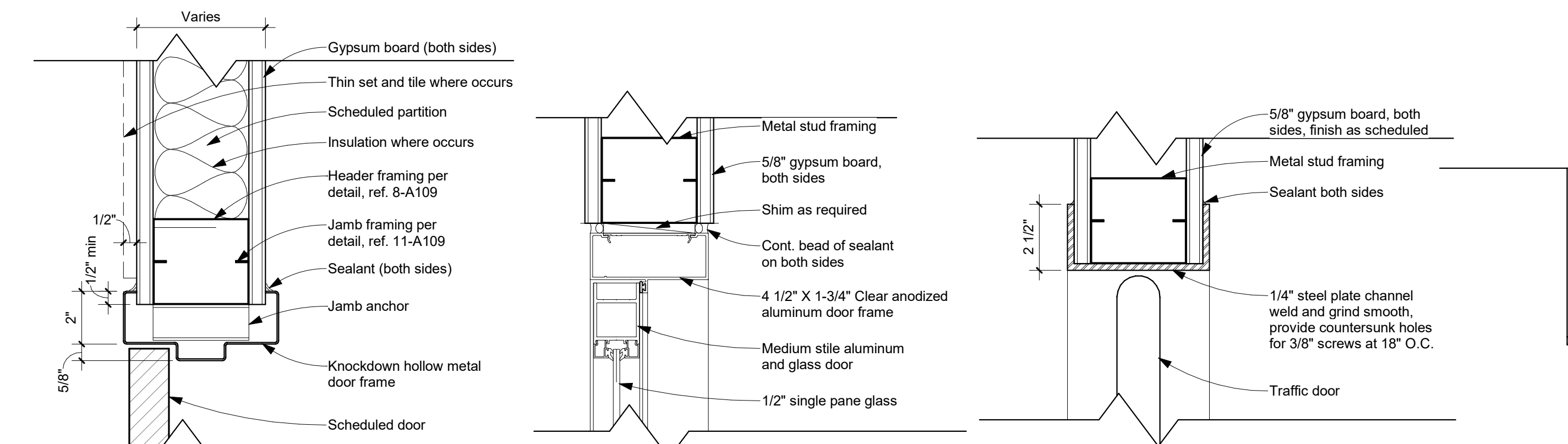
Key Plan: A plan view of the building footprint, showing the location of the sections and elevations. The plan is labeled with grid lines A through D.



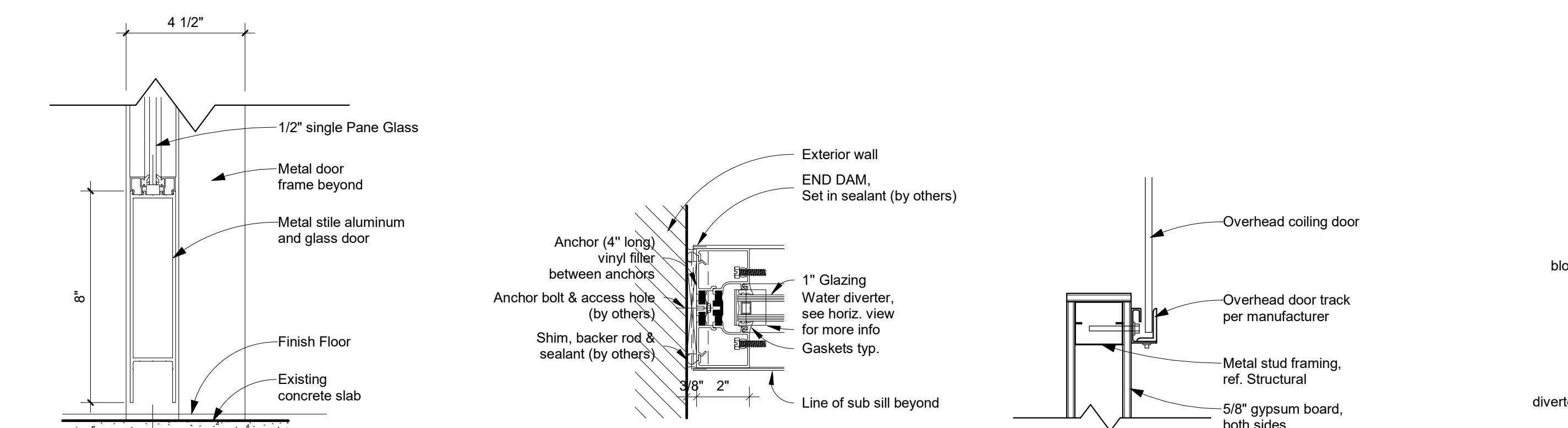
1 Door Types 1/4" = 1'-0"



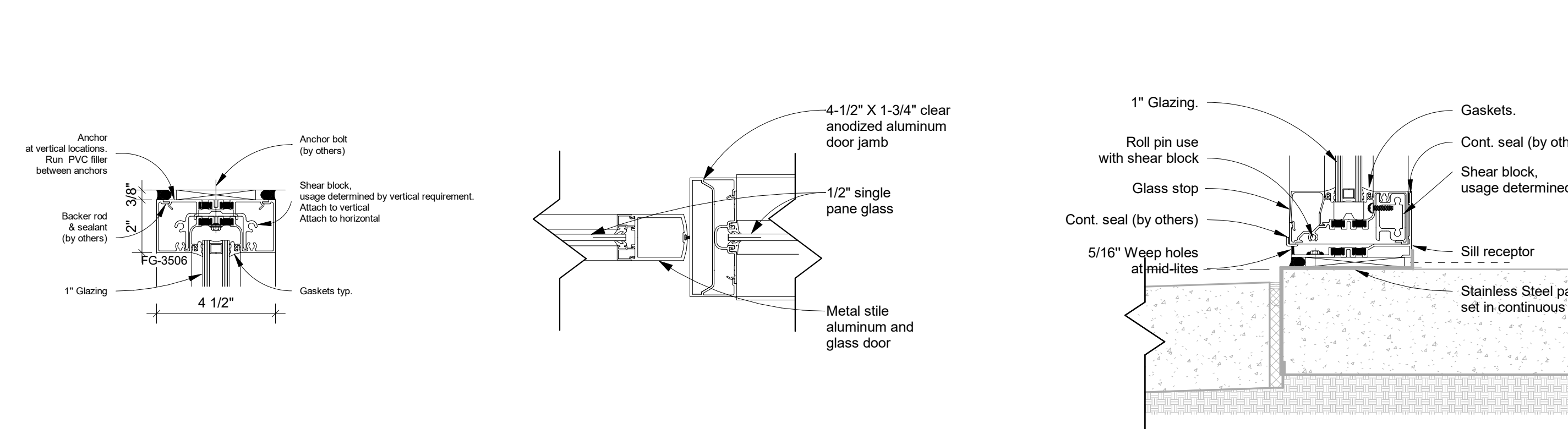
2 Storefront / Window types 1/4" = 1'-0"



3 Interior HM Door Frame - Head/Jamb 3" = 1'-0"



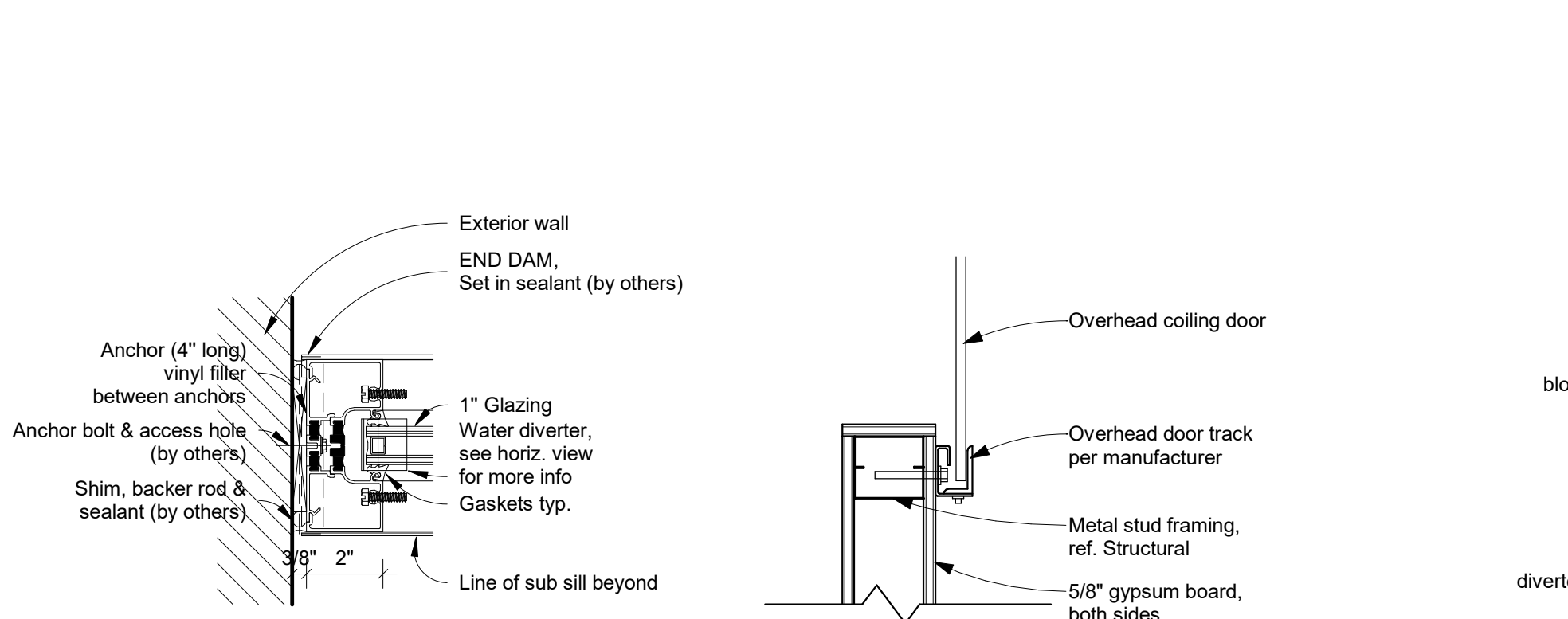
7 Interior Storefront Door - Sill 3" = 1'-0"



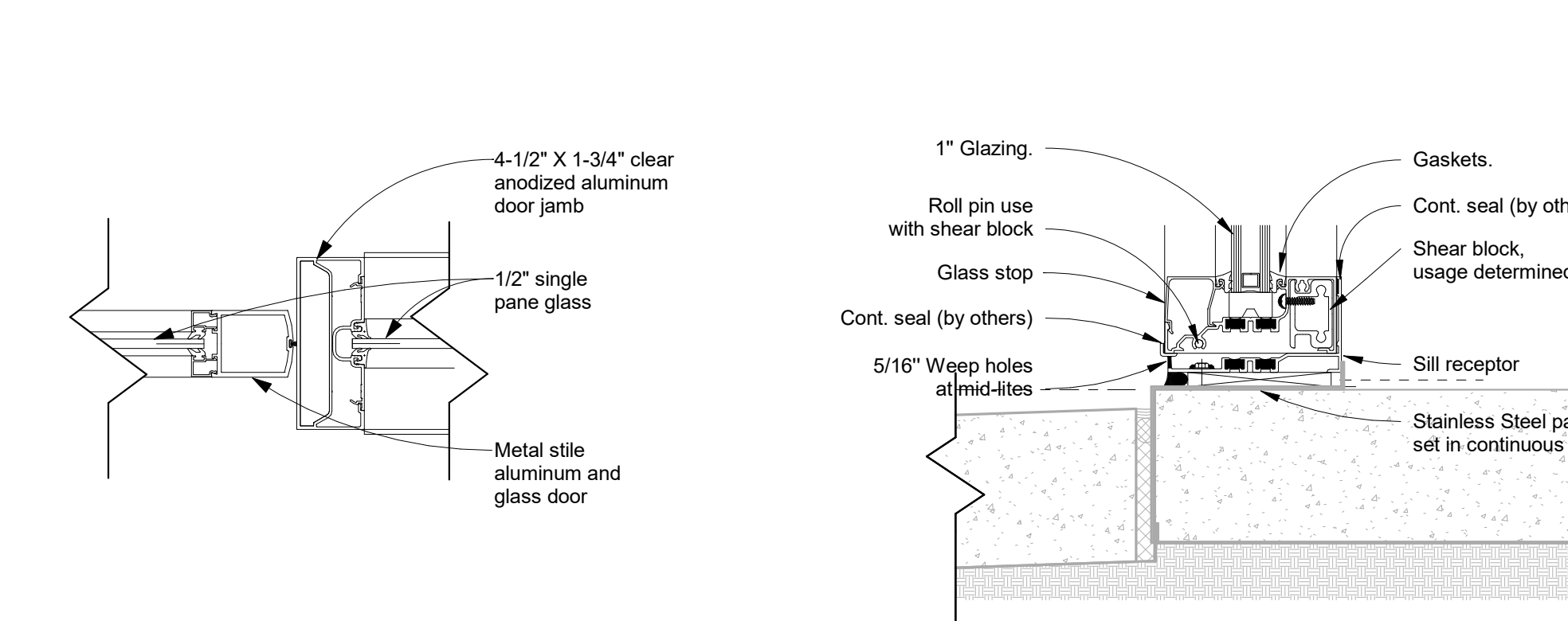
11 Exterior Storefront - Head 3" = 1'-0"



4 Exterior Storefront Door - Head 3" = 1'-0"



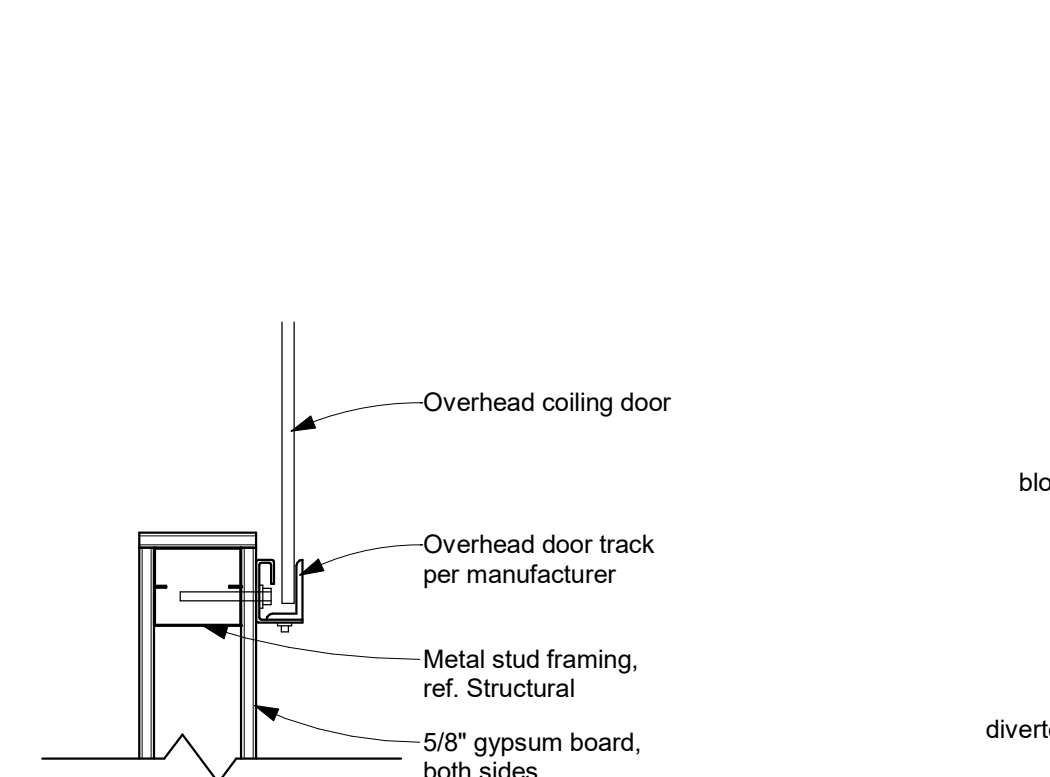
8 Exterior - Jamb 3" = 1'-0"



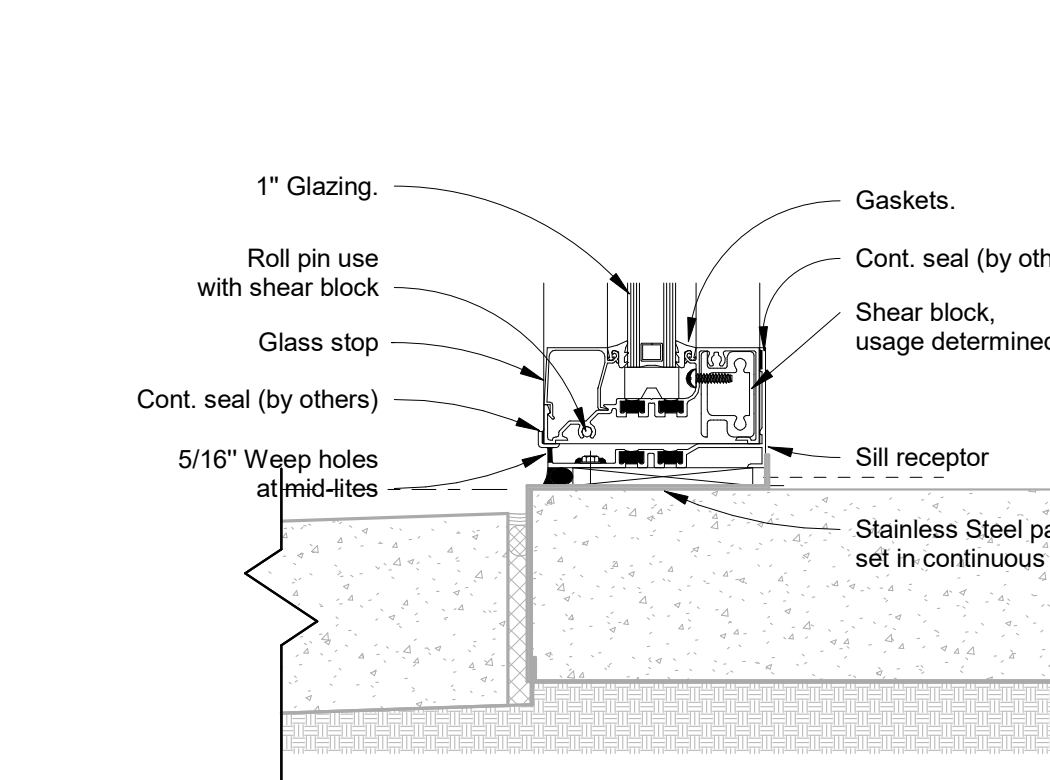
12 Exterior Storefront Door - Jamb 3" = 1'-0"



5 Traffic Door Head 3" = 1'-0"



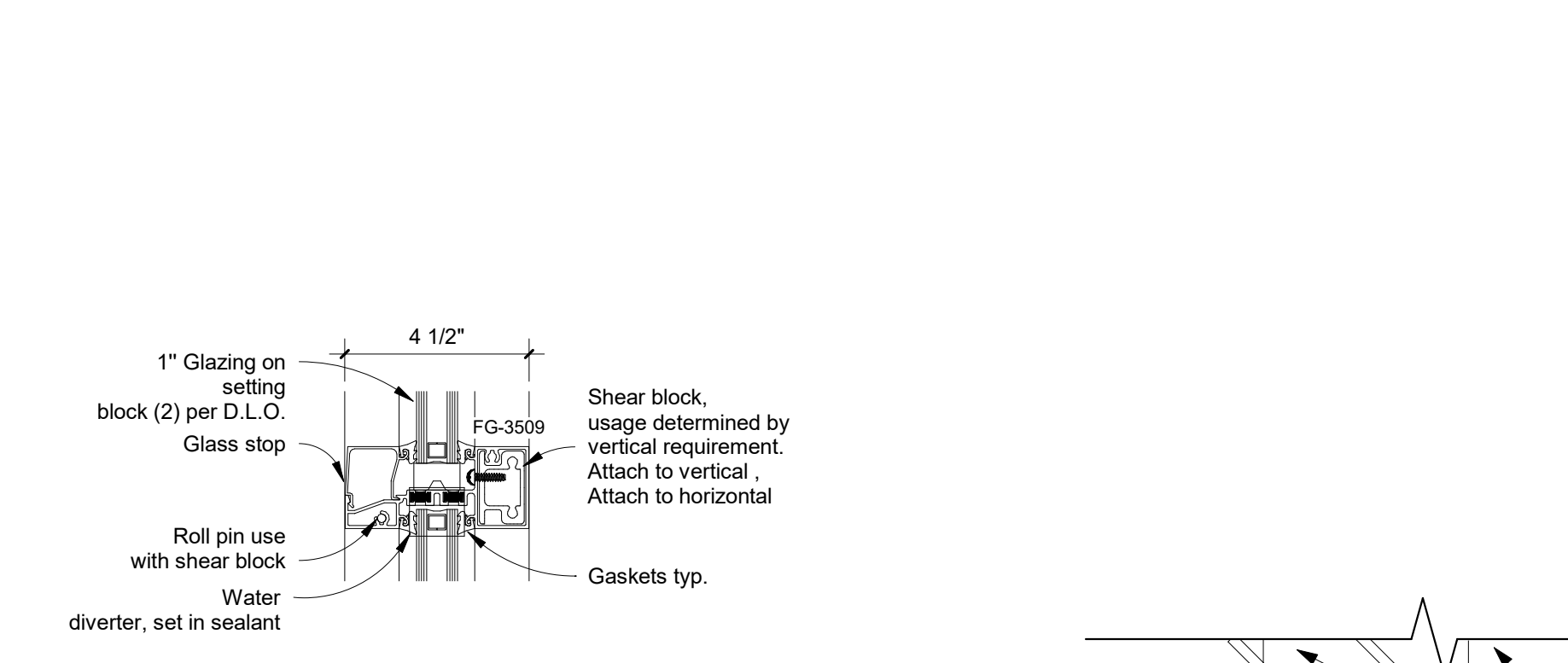
9 Overhead Coiling Door Jamb 1 1/2" = 1'-0"



13 Exterior Storefront - Sill 3" = 1'-0"



6 Overhead Coiling Door Head 1 1/2" = 1'-0"



15 Exterior Storefront - Horizontal Mullion 3" = 1'-0"



17 Interior Storefront - Head 3" = 1'-0"

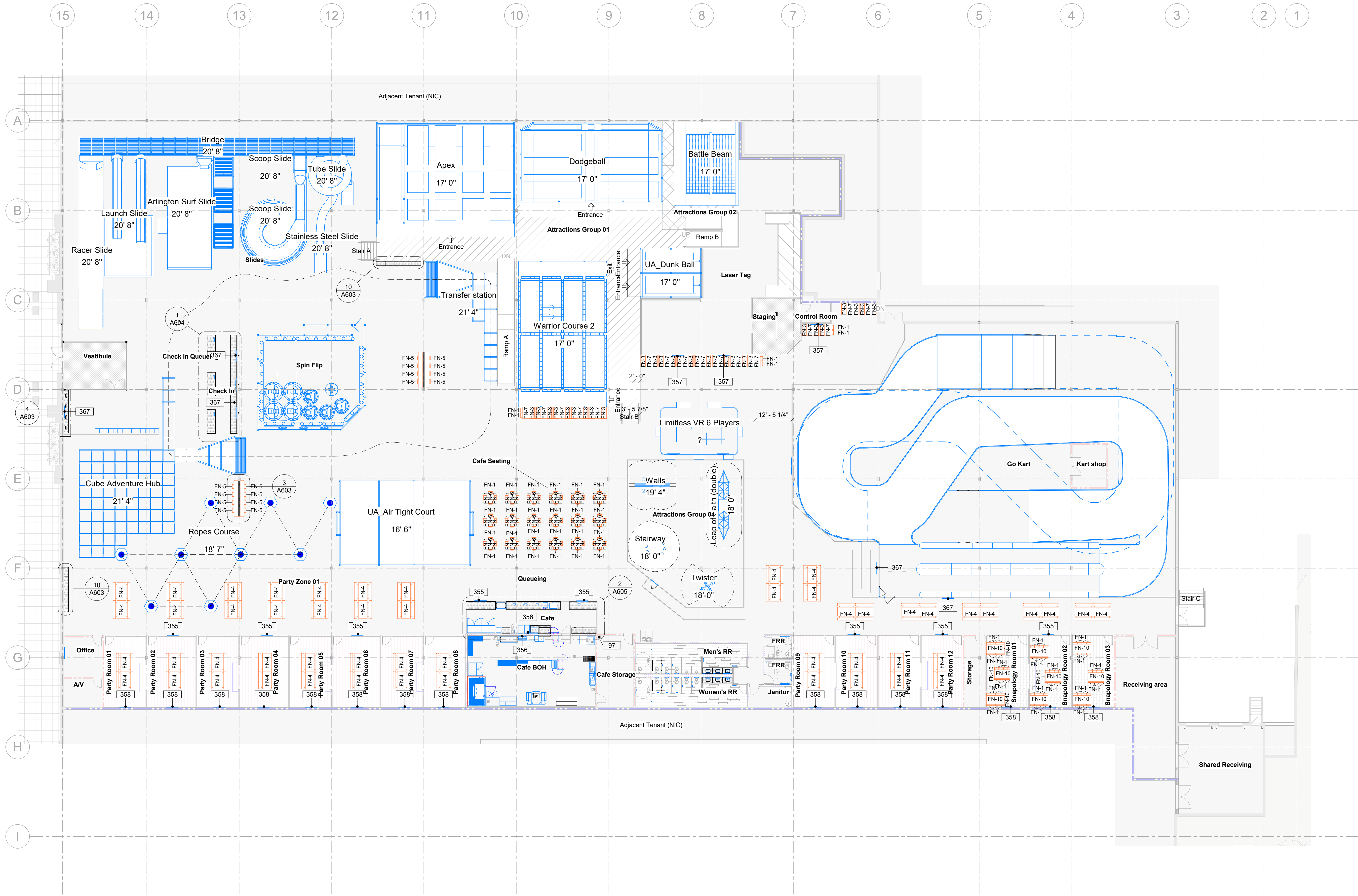


Door Schedule

					Door			Frame			
Mark	From Room: Name	Width	Height	Manufacturer	Type	Hardware	Door Material	Finish	Material	Frame	Remarks
101A	Vestibule	7'-0"	7'-0"	Kawneer	D	-	AL		AL	AL	key box
101B	Vestibule	7'-0"	7'-0"	Kawneer	D	-	AL		AL	AL	
115	Control Room	3'-0"	7'-0"		A	10	WD	PT-3	KD	PT-3	
117	Kart shop	6'-0"	7'-0"		A	9	GS	PT-3	HM	PT-3	Fire rated 45 min
119	Office	3'-0"	7'-0"		A	4	GS	PT-3	HM	PT-3	Fire rated 45 min
120	AV	3'-0"	7'-0"		A	4	GS	PT-3	HM	PT-3	Fire rated 45 min
121	Party Room 01	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
122	Party Room 02	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
122A	Party Room 02	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
123	Party Room 03	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
124	Party Room 04	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
124A	Party Room 04	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
125	Party Room 05	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
126	Party Room 06	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
126A	Party Room 06	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
127	Party Room 07	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
128	Party Room 08	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
128A	Party Room 08	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
129	Party Room 09	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
130	Party Room 10	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
130A	Party Room 10	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
131	Party Room 11	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
132	Party Room 12	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
132A	Party Room 12	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
133	Storage	3'-0"	7'-0"		A	1	GS	PT-3	HM	PT-3	Fire rated 45 min
134	Snaphology Room 01	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
135	Snaphology Room 02	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
135A	Snaphology Room 02	8'-4"	7'-6"	Overhead Door, model 610	F	-	AL	AL	AL	AL	Overhead door
136	Snaphology Room 03	3'-0"	7'-0"	Kawneer	C	7	AL	AL	AL	AL	
137	Receiving area	8'-0"	7'-0"		B	1	GS	PT-3	HM	PT-3	Fire rated 45 min
138A	Shared Receiving	8'-0"	7'-0"		B	1	WD	PT-3	KD	PT-3	
138B	Shared Receiving	8'-0"	7'-0"		B	1	WD	PT-3	KD	PT-3	
144	Exit	6'-0"	7'-0"		B	1	GS	PT-3	HM	PT-3	New exit - Panic Hardware
145	Shared Electrical Room	6'-0"	7'-0"		B	1	GS	PT-3	HM	PT-3	New exit - Panic Hardware
151	Cafe Storage	3'-0"	7'-0"		A	1	GS	PT-3	HM	PT-3	Fire rated min
181	Women's RR	3'-0"	7'-0"		A	3	WD	PT-3	HM	PT-3	
182	Men's RR	3'-0"	7'-0"		A	3	WD	PT-3	HM	PT-3	
183	Family RR	3'-0"	7'-0"		A	3	WD	PT-3	HM	PT-3	
184	Family RR	3'-0"	7'-0"		A	3	WD	PT-3	HM	PT-3	
185	Jan	3'-0"	7'-0"		A	3	WD	PT-3	HM	PT-3	
191	Cafe BOH	3'-0"	7'-0"		A	11	WD	PT-3	KD	PT-3	Fire rated 45 min
191	Exit	3'-0"	7'-0"	Elason - Model LWP-3	A	11	WD	PT-3	KD	PT-3	
E116	Exit	6'-0"	7'-0"								Existing exit - Panic Hardware
E118	Exit	3'-0"	7'-0"								Existing exit - Panic Hardware
E138	Exit	3'-0"	7'-0"								Existing exit - Panic Hardware
E139	Shared Receiving	7'-10"	7'-0"								Overhead door
E140	Shared Receiving	7'-10"	7'-0"								Overhead door
E141	Shared Electrical Room	2'-10"	7'-0"								Existing exit - Panic Hardware

Door Hardware Sets

Hardware Sets			
Set #1 - Exterior Doors, Storage			
3 Hinges	FBB191 4.5" x 4.5" NRP	320 ST	
1 Exit Device	QED111	626 SH	
1 Door Closer w/ Stop	QDC113	689 SH	
1 Kick Plate	K0050 8" x 2" LDW B4E CSK	630 TR	
1 Door Sweep	C627 A	NA	
1 Weatherstrip	700 ES	NA	
1 Drip Cap	16 A-4 ODW	NA	
1 Threshold	886 S	AL NA	
Set #2			
2 Continuous hinge	112HD	628 IVE	
2 Fire Exit Device	9447ECO-F-LBR	626 VON	
1 Astragal	445ST	630 ZER	
2 Surface Closer	4041	689 LCN	
2 Kick Plate	8400 10" x 2" LDW	630 IVE	
2 Edge Guard	180 series	630 HM	
2 Dome Stop	F5436/438 AS REQ'D	626 IVE	
2 Magnetic hold-open	Sem series	AL LCN	
1 Perimeter Seals	314AA HEAD AND JAMBS	AL ZER	
Set #3 - Family R.R.			
3 Butt Hinge	FBB179 4.5" x 4.5"	260 ST	
1 Privacy Set	45H-0.15H VIB	626 BE	
1 Door Closer	QDC111	689 SH	
1 Kick Plate	K0050 8" x 2" LDW B4E CSK	630 TR	
1 Map Plate	KW050 8" x 1" LDW B4E CSK	630 TR	
1 Wall Bumper	1270CV	626 TR	
1 Coat Hook	3072	630 TR	
1 Gasketing	5050C Head & Jambs	NA	
Set #4 - Office			
3 Butt Hinge	FBB179 4.5" x 4.5"	260 ST	
1 Office Lockset	QCL251 E LC	626 SH	
1 Core	1CM Series	626 BE	
1 Door Closer	QDC111	689 SH	
1 Wall Bumper	1270CV	626 TR	
3 Seals	1229A	GREY TR	
Set #5 - Restrooms			
3 Butt Hinge	FBB179 4.5" x 4.5"	260 ST	
1 Deadbolt	QDB287 LC	626 SH	
1 Core	1CM Series	626 BE	
1 Push Plate	1001-3	630 TR	
1 Pull Plate	1017-38-630	630 TR	
1 Door Closer	QDC111	689 SH	
1 Kick Plate	K0050 8" x 2" LDW B4E CSK	630 TR	
1 Map Plate	KW050 8" x 1" LDW B4E CSK	630 TR	
1 Wall Bumper	1270CV	626 TR	
1 Coat Hook	3072	630 TR	
1 Gasketing	5050C Head & Jam	NA	
Set #7 - Party Rooms			
3 Butt Hinge	FBB179 4.5" x 4.5"	260 ST	
1 Push/Pull Bar	1731	630 TR	
1 Door Closer	QDC111	689 SH	
1 Wall Bumper	1270CV	626 TR	
1 Seals	INTEGRAL SEALS BY FRAME MFR. BY		



1 FFE Plan
1/16" = 1'-0"

Legend - FFE	
	Casework - Refer to A605 for details
	Furniture (OFOI)
	Equipment
	Keynote Tag
	Furniture Tag

Furniture Schedule	
Type Mark	Description
FN-1	Stackable Chair
FN-3	Booth 7"
FN-4	Party tables 3' x 6' with fixed bench
FN-5	Dining chair
FN-6	32" dia table - 4 top
FN-7	Flip-Top Rect Table Squared Edge Lam T-leg 24D 48W
FN-10	Flip-Top Rect Table Squared Edge Lam T-leg 36D 72W

.Keynotes.	
97	Bulk Co2 Tank
355	TV Cafe Menu
356	TV KDS System
357	TV Laser Tag (ref. vendor sheet)
358	TV Party Rooms
367	TV



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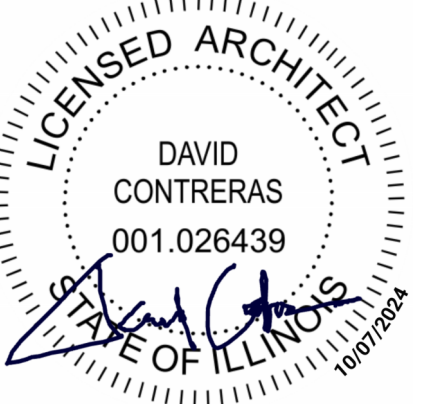
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A	Issue for Permit	2024.12.20

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FFE Floor Plan

A601



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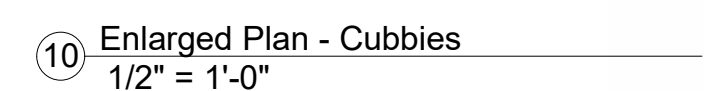
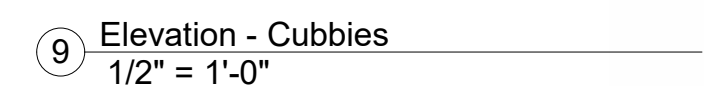
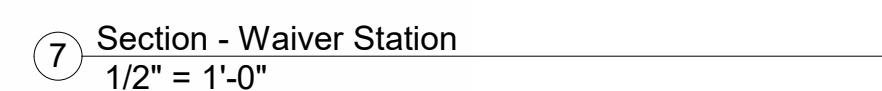
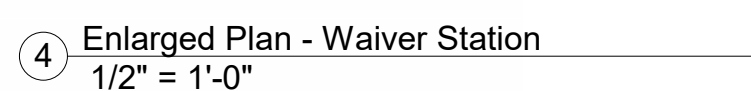
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Casework - Miscellaneous

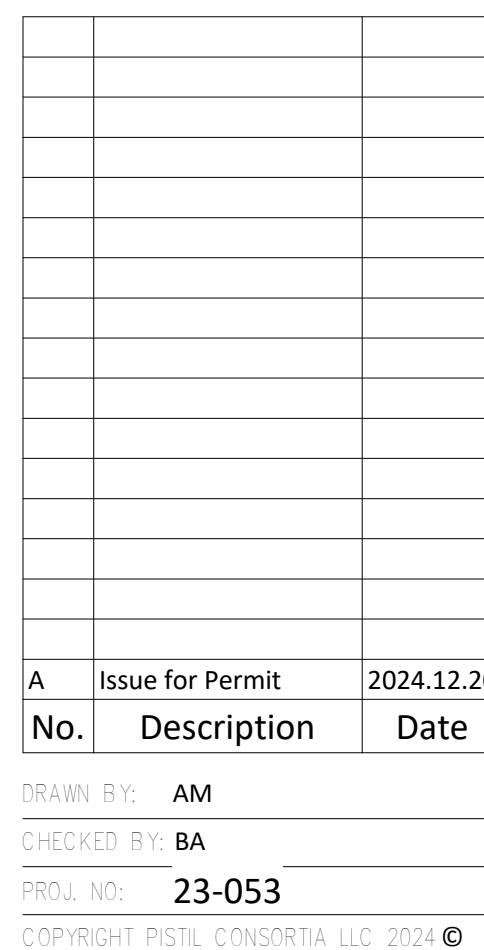
A603





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A604

1	WWI = Wood Work Institute. All casework design will follow the WWI design standards unless noted otherwise.
2	Typical height for all base cabinets is 34" to finish counter top unless noted otherwise. Refer to the interior elevations in the (A4 series) for height information.
3	Typical backsplash height is 4" at all counter tops unless noted otherwise. Scribe to wall.
4	Provide wall backing and anchor cabinet.
5	Typical facing for cabinets and counters is plastic laminate unless noted otherwise.
6	For specific interior finish information refer to the interior elevations in the (series) and finish schedule on sheet (A10).

The diagram illustrates the dimensions for the Cabinet Design Series (CDS). It features a central rectangle divided into two horizontal sections. The top section is labeled '101' and is associated with the 'CDS Code'. The bottom section is labeled '36-24' and is associated with 'Cabinet Depth (inches)'. To the left of the rectangle, the text 'Cabinet Width (inches)' is shown with an arrow pointing to the left side of the rectangle. Below the rectangle, the text '(Height shown on interior elevations)' is present.

Cabinet Design Series (CDS)

101 ← CDS Code

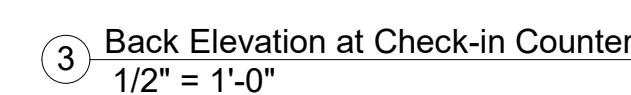
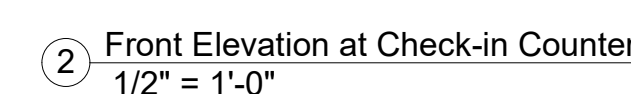
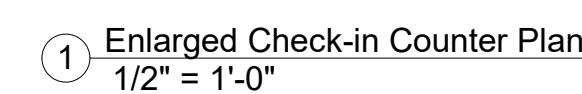
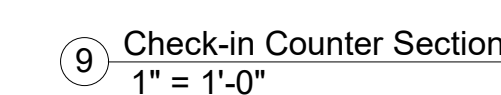
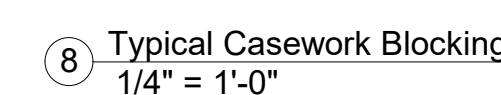
← 36-24 ← Cabinet Depth (inches)

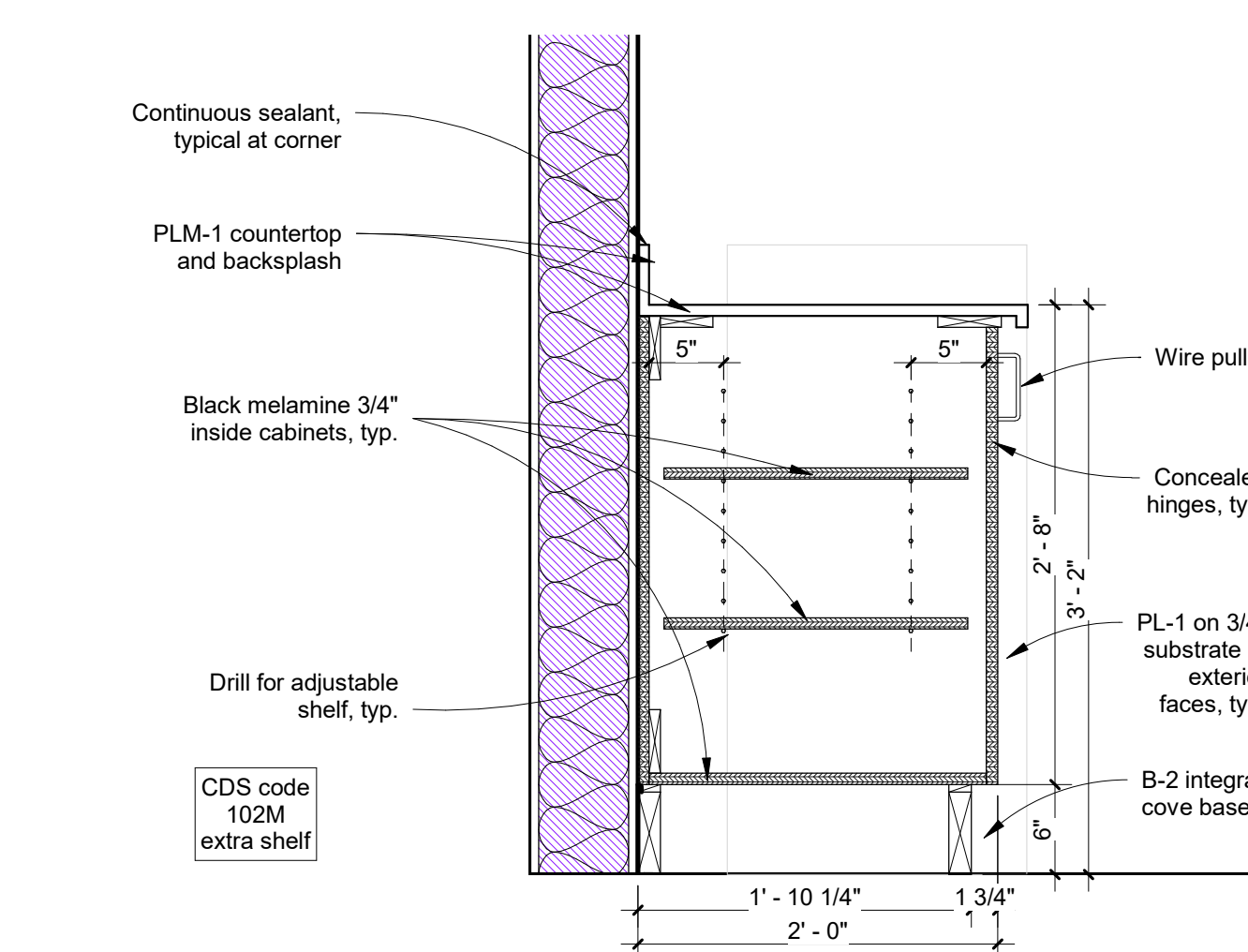
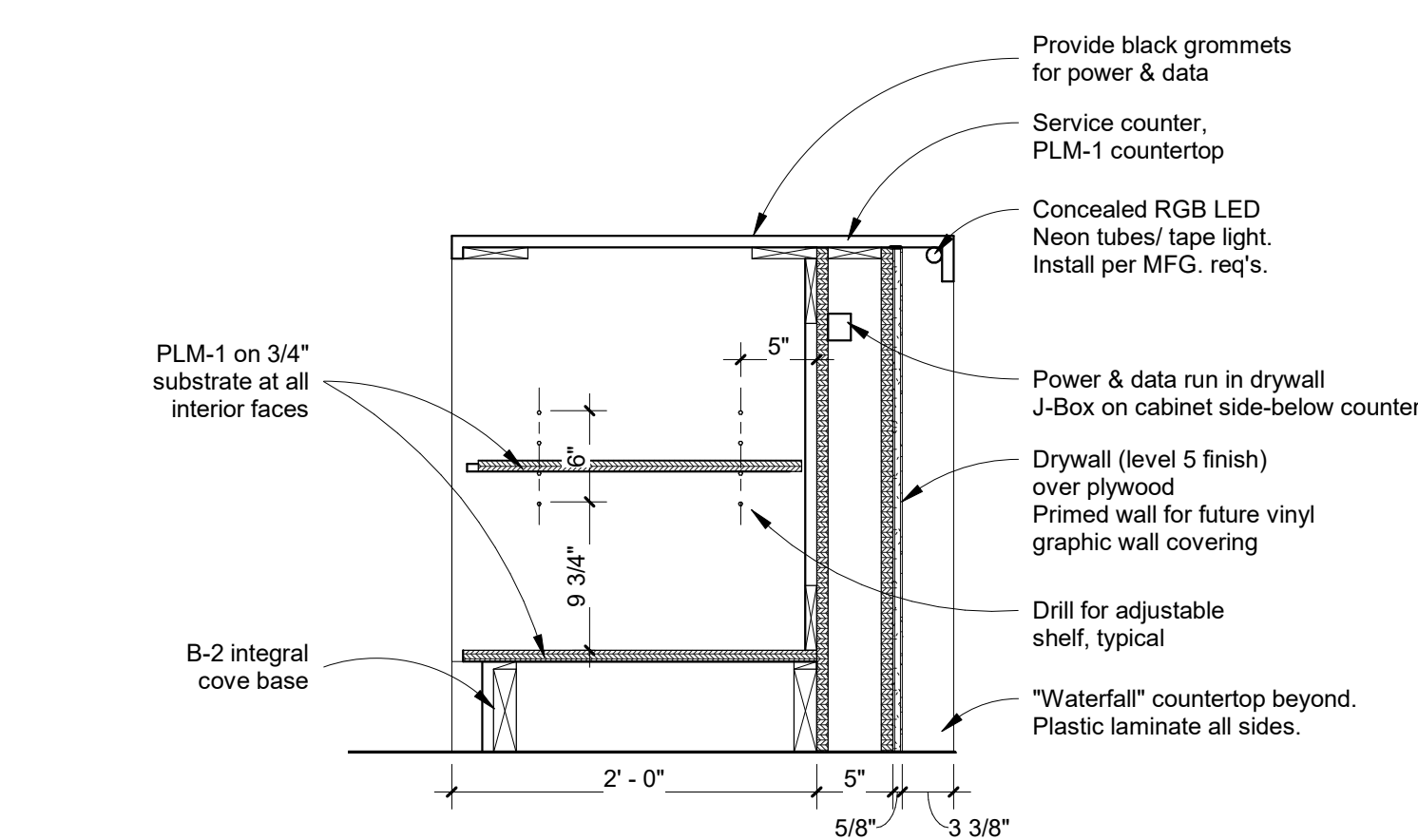
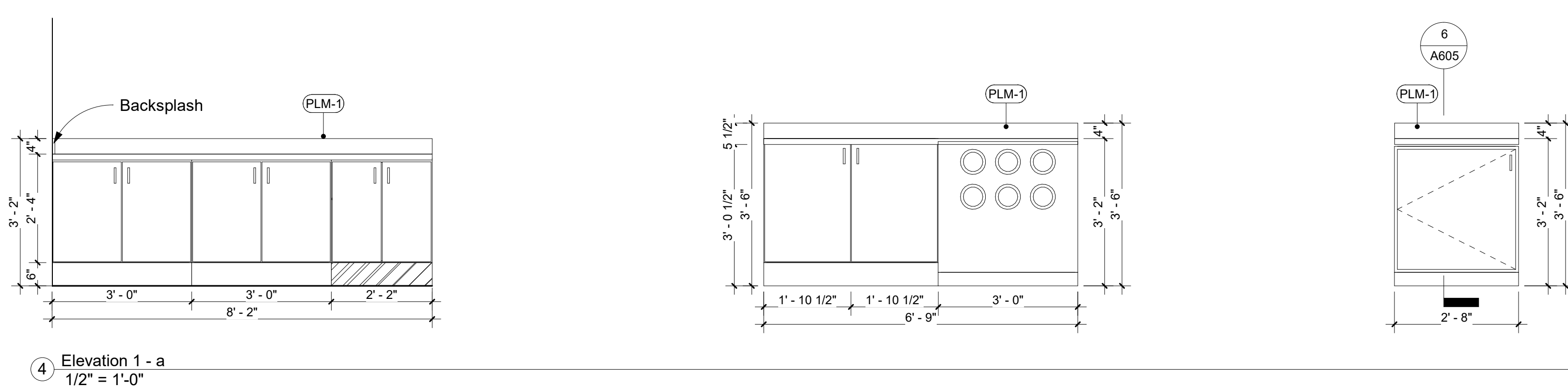
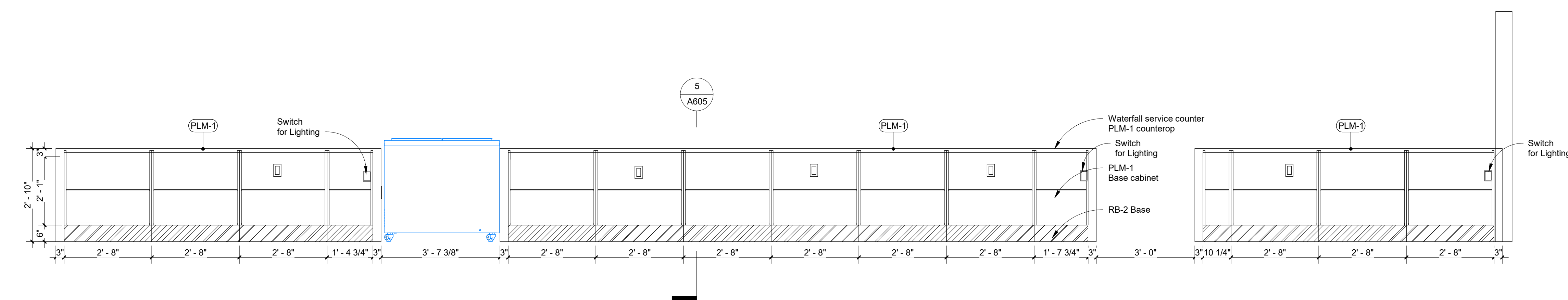
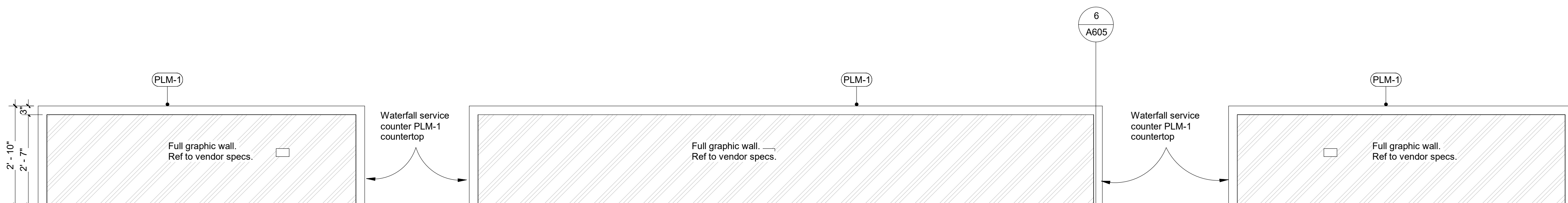
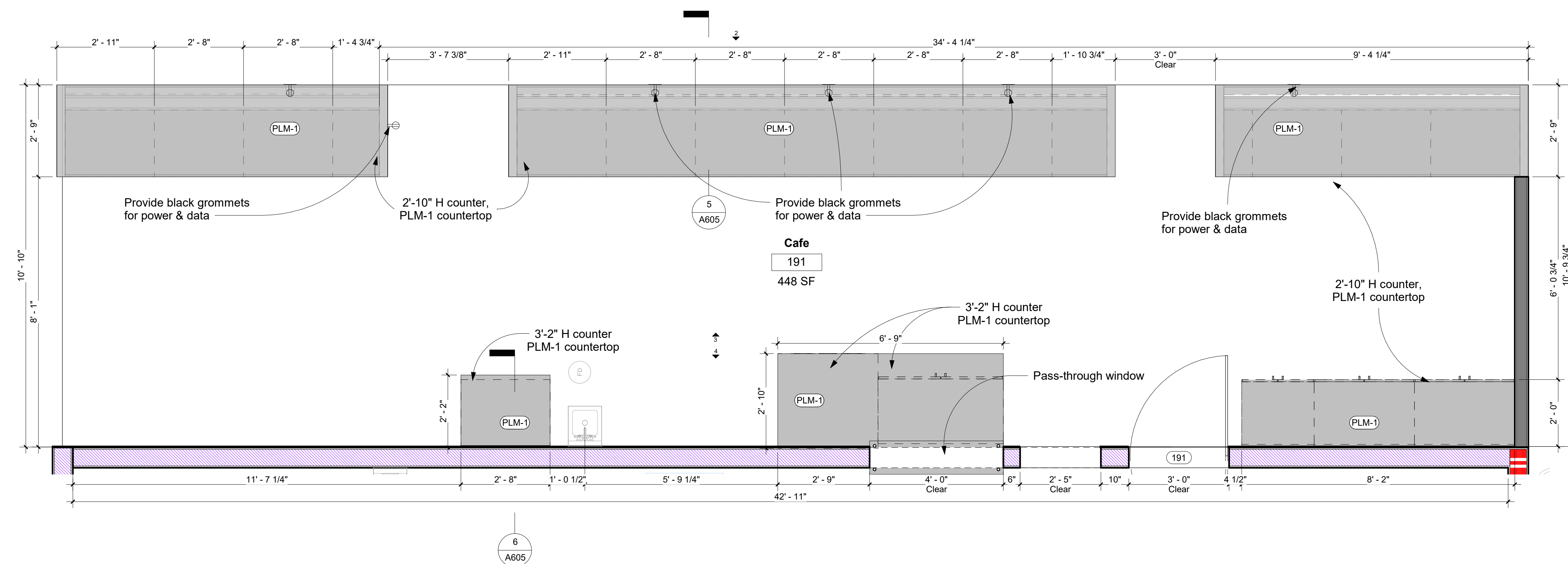
Cabinet Width (inches)

(Height shown on interior elevations)

100 SERIES = Base Cabinet W/O Drawers
 100 SERIES = Base Cabinet W/ Drawers
 300 SERIES = Wall Hung Cabinets
 400 SERIES = Tall Storage Cabinets
 500 SERIES = Wardrobe Cabinets

ADA = Accessible Sink Cabinet





ARLINGTON HEIGHTS, IL NOTE:
THIS PROJECT IS A TENANT FINISHOUT OF AN EXISTING RETAIL SPACE SINGLE STORY RETAIL STRIP CENTER THAT WAS FORMERLY A BURLINGTON.

ARLINGTON HEIGHTS, IL NOTE:
THE GENERAL CONTRACTOR SHALL PROVIDE A COMPLETE URBAN AIR EXERCISE AND ENTERTAINMENT FACILITY. THIS INCLUDES ANY ITEMS REQUIRED BY THE LOCAL INSPECTORS NOT INCLUDED IN THE DOCUMENT SET. THIS DOCUMENT SET SHALL BE USED IN CONJUNCTION WITH THE OWNER'S BRAND STANDARDS, VENDOR INSTALLATION INSTRUCTIONS AND OWNER'S GUIDANCE AS DIRECTIVE TO COMPLETE THE PROJECT.

ARLINGTON HEIGHTS, IL NOTE:
VERIFY THAT ALL JOINTS CONNECTING TO EXISTING PLUMBING LINES MEET CURRENT STANDARDS AND ARE ADEQUATE TO HANDLE THE PRESSURE.

BASE BID TO ASSUME THAT THE JURISDICTION REQUIRES CONTAINMENT BACK FLOW PREVENTION. P.C. SHALL CONFIRM WITH PLUMBING INSPECTOR IF BUILDING HAS MAIN RPZBFP AND DOES NOT REQUIRE ADDITIONAL BFP IN SPACE. THEN THE PLUMBER MAY OMIT BFP. IF JURISDICTION REQUIRES ISOLATION BFP, THE PLUMBING CONTRACTOR SHALL PROVIDE A POINT OF USE BFP AT REQUIRED FIXTURES AS APPLICABLE/AS REQUIRED AND ELSEWHERE AS DETERMINED BY THE PLUMBING INSPECTOR.

ARLINGTON HEIGHTS, IL NOTE:
THE LEASE DATED 6/4/24 STATES THAT THE SPACE WILL BE TURNED OVER IN AS-IS CONDITION.

ARTICLE 3 OF THE LEASE STATES THAT "LANDLORD WILL DELIVER BUILDING SYSTEMS INCLUDING MECHANICAL, ELECTRICAL, PLUMBING, AND HVAC SYSTEMS IN GOOD WORKING ORDER."

CONTRACTOR SHALL VERIFY ALL SYSTEMS HAVE BEEN DELIVERED IN GOOD WORKING ORDER PRIOR TO BEGINNING WORK.

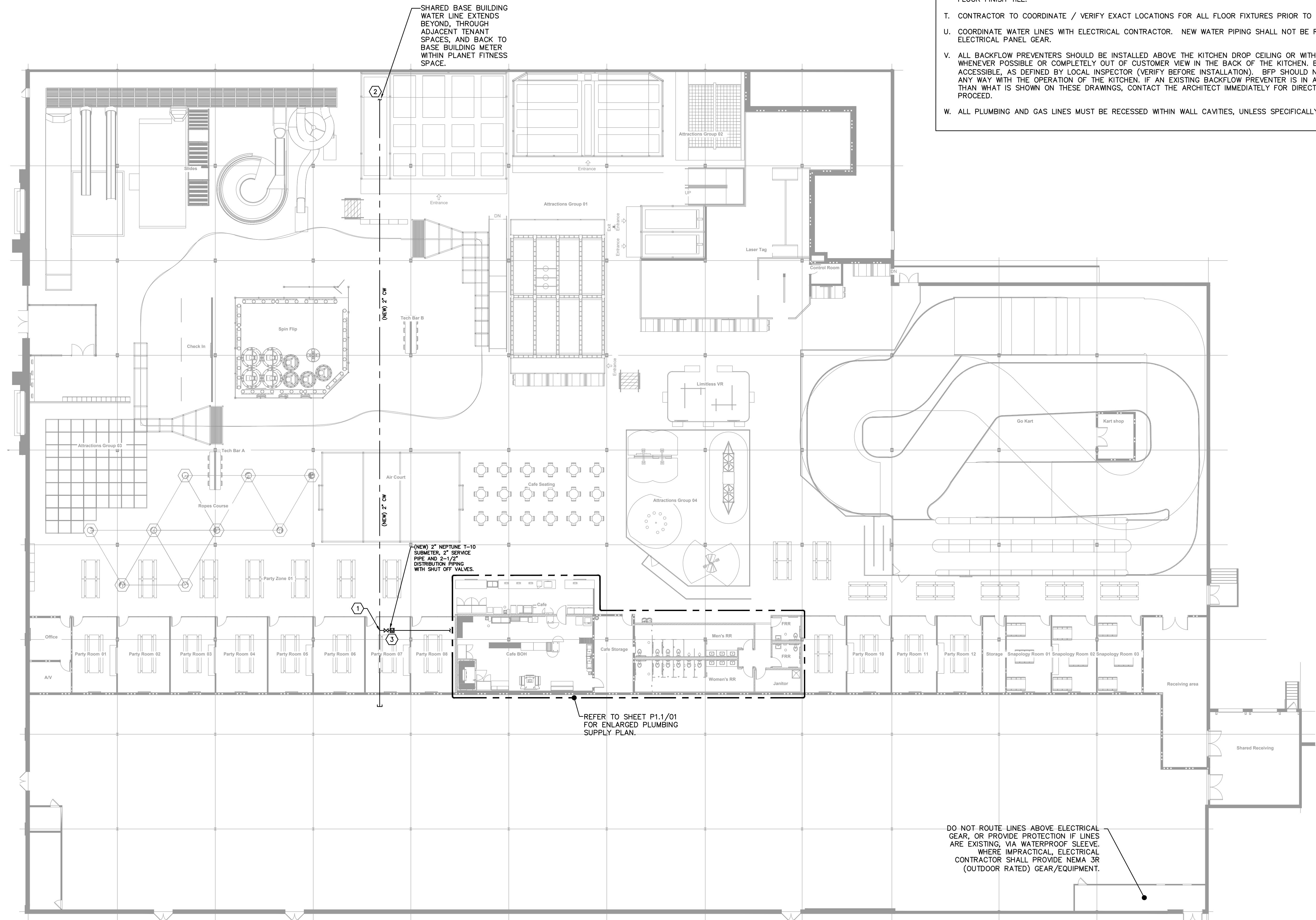
ARLINGTON HEIGHTS, IL NOTE:
ALL PLUMBING WORK SHALL COMPLY WITH 2014 ILLINOIS PLUMBING CODE AND 2021 ILLINOIS ENERGY CONSERVATION CODE.

- KEY NOTES BY SYMBOL '(#)'
- POINT OF CONNECTION (DIAGRAMMATIC) TO 2" DOMESTIC BASE BUILDING WATER LINE. VERIFY POINT OF CONNECTION AND SIZE IN FIELD. FROM POINT OF CONNECTION, ROUTE 2-1/2" C.W. PIPING ABOVE CEILING/THROUGH JOIST SPACE AS NECESSARY.
 - APPROXIMATE LOCATION OF BASE BUILDING CW MAIN ENTERING TENANT SPACE. CONTRACTOR SHALL VERIFY EXACT SIZE AND LOCATION OF CW MAIN IN FIELD. MINIMUM ACCEPTABLE SERVICE PIPE SIZE IS 2". WHERE BASE BUILDING CW MAIN IS LESS THAN 2" DIAMETER, PRIOR TO ENTERING TENANT SPACE AND/OR WITHIN TENANT SPACE, THE BASE BUILDING CW MAIN SHALL BE UPSIZED TO 2" BACK TO BASE BUILDING WATER METER. COORDINATE CONSTRUCTION PHASING FOR UPSIZE IN ADJACENT TENANT SPACES WITH LANDLORD.
 - PROVIDE NEW 2" WATER SUB-METER AND SHUT OFF VALVE. COORDINATE WITH LANDLORD FOR SPECIFIC SUB-METER MODEL WHERE REQUIRED. OTHERWISE, PROVIDE NEPTUNE E-CODER METER WITH ELECTRONIC OUTREADER (REMOTE READOUT REGISTER). VERIFY WITH OWNER'S REP FINAL PLACEMENT OF REMOTE READ OUT. OMIT IF WATER IS INCLUDED IN CAM CHARGE. VERIFY EXACT SIZE, ROUTING, DELIVERY PRESSURE, AND WATER METER/SUB-METER INSTALLATION REQUIREMENTS WITH LANDLORD AND LOCAL WATER UTILITY COMPANY PRIOR TO ANY WORK.

PLUMBING LEGEND

- HW HOT WATER SUPPLY LINE
- CW COLD WATER SUPPLY LINE
- Y" SAN SANITARY WASTE LINE
- PIPE DROP
- RISER VENT (DASHED)
- TRAP PRIMER
- CONTINUATION
- END CAP
- ISOLATION / SHUT-OFF VALVE
- EXTENT OF SAWCUTTING/ TRENCHING
- WATER SUBMETER, BETWEEN VALVE AND 1ST FIXTURE.
- REMOTE READOUT FOR SUBMETER, +54" VERIFY LOCATION WITH OWNER'S REP.
- CONNECTION OF NEW TO EXISTING.
- RPZ REDUCED PRESSURE ZONE BACK FLOW ASSEMBLY.
- CHECK VALVE
- RECIRCULATION PUMP.
- WCO WALL CLEAN OUT
- FCO FLOOR CLEAN OUT
- VTR VENT THRU ROOF
- (EX) EXISTING PIPING
- X"V VENT

- PLUMBING NOTES
- HOT AND COLD WATER PIPING SHALL BE NEW UP TO THE CONNECTION TO THE EXISTING COLD WATER MAIN LINE.
 - CONTRACTOR SHALL FURNISH AND INSTALL HANGER SUPPORTS AND ACCESSORIES REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE PLUMBING SYSTEM AS REQUIRED BY CODE.
 - CONTRACTOR SHALL FURNISH AND INSTALL SHUT-OFF VALVES AT HOT AND COLD WATER CONNECTIONS.
 - THE CONTRACTOR SHALL COORDINATE ALL NEW WORK WITH EXISTING FIELD CONDITIONS AND ALL OTHER TRADES INVOLVED.
 - HOT AND COLD WATER PIPING AND INSTALLATION SHALL COMPLY WITH LOCAL CODE REQUIREMENTS.
 - HOT AND COLD WATER PIPING AND INSTALLATION SHALL BE TESTED, INSPECTED AND APPROVED BEFORE BEING COVERED AND CONCEALED AS REQUIRED.
 - CONTRACTOR SHALL FURNISH AND INSTALL THE NECESSARY FITTINGS FOR THE CONNECTION OF THE NEW EQUIPMENT AND FIXTURES INCLUDING VACUUM BREAKERS AND BACK FLOW PREVENTERS AS REQUIRED BY CODE.
 - COLD, HOT, AND TEMPERED WATER PIPING SHALL BE INSULATED.
 - CONDENSATE AND OVERFLOW PIPING SHALL BE INSULATED.
 - INTERIOR OR PERIMETER STRUCTURAL GRADE BEAMS MAY NOT BE CUT, IF PRESENT.
 - WATER LINES IN EXTERIOR BUILDING WALLS SHALL BE ON WARM (CONDITIONED) SIDE OF BUILDING INSULATION. ALL PIPING SHALL BE CONCEALED FROM VIEW.
 - HEAT TRACE ALL PIPING IN EXTERIOR WALLS, AND AREAS SUBJECT TO FREEZING CONDITIONS.
 - FURR OUT WALLS FOR ELECTRICAL AND PLUMBING AS NEEDED, OR AS REQUIRED BY LANDLORD FOR ELECTRICAL AND PLUMBING CONNECTIONS.
 - PROVIDE ADDITIONAL CUTOFFS ABOVE CEILING IF REQUIRED BY LOCAL CODE.
 - IF DESIGN CALLS FOR NEW FLOOR DRAIN IN A RESTROOM THAT IS EXISTING AND DOES NOT HAVE A DRAIN AND IS NOT REQUIRED BY A.H.J. TO HAVE A FLOOR DRAIN, THEN THE PLUMBER CAN SKIP INSTALLING IT IN THAT ROOM.
 - BASE BID TO ASSUME THAT THE JURISDICTION REQUIRES CONTAINMENT BACK FLOW PREVENTION. P.C. SHALL CONFIRM WITH PLUMBING INSPECTOR IF BUILDING HAS MAIN RPZBFP AND DOES NOT REQUIRE ADDITIONAL BFP IN SPACE. THE PLUMBER MAY OMIT BFP. IF JURISDICTION REQUIRES ISOLATION BFP, THE PLUMBING CONTRACTOR SHALL PROVIDE A POINT OF USE BFP AT THE FIXTURES AS APPLICABLE/AS REQUIRED AND ELSEWHERE AS DETERMINED BY THE PLUMBING INSPECTOR.
 - WHERE NEW BELOW SLAB PLUMBING MODIFICATIONS ARE PROPOSED, TENANT SHALL REPLACE ANY BASE MATERIAL AND COMPACT TO MATCH EXISTING. MATCH FLOOR SLAB THICKNESS AND FINISH WITH 3,000 PSI CONCRETE. - TENANT SHALL FIRST DO TEST DEMOLITION OF SLAB OF NO MORE THAN 5 SF TO CONFIRM THAT THE EXISTING SLAB CONDITION IS NOT A STRUCTURAL SLAB. IF THE EXISTING SLAB CONDITION IS A STRUCTURAL SLAB, TENANT SHALL IMMEDIATELY STOP UNDER SLAB WORK AND PROVIDE SLAB PENETRATION/REMEDATION DRAWINGS BY A LICENSED STRUCTURAL ENGINEER, LICENSED IN THE STATE IN WHICH THE TENANT WORK IS TAKING PLACE.
 - CONTRACTOR TO USE LANDLORD/OWNER APPROVED ROOFING CONTRACTOR FOR ALL NEW TROUGH ROOF PLUMBING VENT PENETRATIONS TO MAINTAIN ROOF WARRANTY.
 - ALL FLOOR SINKS, FLOOR DRAINS, AND FLOOR CLEANOUTS SHALL BE INSTALLED SO THAT TOPS ARE FLUSH WITH FLOOR FINISH TILE.
 - CONTRACTOR TO COORDINATE / VERIFY EXACT LOCATIONS FOR ALL FLOOR FIXTURES PRIOR TO SAW-CUTTING.
 - COORDINATE WATER LINES WITH ELECTRICAL CONTRACTOR. NEW WATER PIPING SHALL NOT BE ROUTED OVER ELECTRICAL PANEL GEAR.
 - ALL BACKFLOW PREVENTERS SHOULD BE INSTALLED ABOVE THE KITCHEN DROP CEILING OR WITHIN MILLWORK WHENEVER POSSIBLE OR COMPLETELY OUT OF CUSTOMER VIEW IN THE BACK OF THE KITCHEN. BFP SHOULD REMAIN ACCESSIBLE, AS DEFINED BY LOCAL INSPECTOR (VERIFY BEFORE INSTALLATION). BFP SHOULD NOT INTERFERE IN ANY WAY WITH THE OPERATION OF THE KITCHEN. IF AN EXISTING BACKFLOW PREVENTER IS IN A LOCATION OTHER THAN WHAT IS SHOWN ON THESE DRAWINGS, CONTACT THE ARCHITECT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED.
 - ALL PLUMBING AND GAS LINES MUST BE RECESSED WITHIN WALL CAVITIES, UNLESS SPECIFICALLY NOTED OTHERWISE.



01 PLUMBING SUPPLY PLAN
SCALE: 1/16"=1'-0"



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PLUMBING SUPPLY
PLAN

P1.0

Storage Tank Water Heater Sizing Calculator						
Developed by the Plan Review Unit of the Environmental Health Services Section						
Facility Name:		URBAN AIR				
Address:		Arlington Heights, IL				
EQUIPMENT		GPH CALCULATOR				
Enter the description, and number and size of compartments for each sink below	Description	Number of compartments	(inches)			Gallons Per Hour (GPH)
			Length	Width	Depth	
			18	18	12	
Largest Sink #1	3 COMP	3				38
Enter the quantity of equipment below	Quantity					Gallons Per Hour (GPH)
	Hand Sinks	11				55
	Mop sink	1				5
Hand sinks and mop sinks are calculated at 5 GPH each, showers at 15 GPH each. Hose reels are calculated at 5 GPH, clothes washers at 6.8 GPH, other equipment at the usage entered					Total	60
Recovery Rate Needed (GPH):						98
Water Heater Input (BTU or kW) Needed:						
Gas Water Heater			Electric Water Heater			
86,000 BTU at 90°F rise			19 kW at 80°F rise			
97,000 BTU at 90°F rise			22 kW at 90°F rise			
107,000 BTU at 100°F rise			24 kW at 100°F rise			
			17.5 kW at 65°F rise			

Recovery Calc (For Tank Type Water Heater)	
Temperature Set Point =	140 °F
Incoming Water Temp =	53.9 °F
ΔT =	86.1 °F
1 Gallon water =	8.34 LB
Efficiency =	0.98
BTUH = GPH*8.34*ΔT	70,348.81 BTUH
BTUH/Efficiency	71,784.50 BTUH Required
kW = BTUH/3412.142	21.04 kW Required
24.00 kW Provided	

PUBLIC		Load Values, in WSFU			Total WSFU
Fixture	Qty	Cold	Hot	Total	WSFU
Drinking Fountain	7	0.25	-	0.25	1.75
Kitchen Sink	1	3.00	3.00	4.00	4.00
Lavatory	11	1.00	1.00	2.00	22.00
Service Sink	1	2.00	2.00	3.00	3.00
Urinal (3/4" Flush Valve)	2	5.00	-	5.00	10.00
Water Closet (Flush Valve)	12	10.00	-	10.00	120.00
*Values replicated from Illinois Admin Code 890 - Table M					Overall Total = 160.75
FROM ILLINOIS PLUMBING CODE SECTION 890 APPENDIX A, TABLE O:					
A 2" METER AND SERVICE PIPE AND 2-1/2" DISTRIBUTION PIPE CAN HANDLE 180 WSFU.					
180 WSFU > 160.75 WSFU, THEREFORE A 2" METER AND SERVICE PIPE AND 2-1/2" DISTRIBUTION PIPE WILL BE SUFFICIENT.					

*FOR THE PURPOSES OF THIS CALCULATION, THE 3-COMP WAS COUNTED UNDER "KITCHEN SINK", AND THE SODA DISPENSER, BAG-IN-BOX, ICEE MACHINES, ICE MACHINES, AND BREAKROOM FRIGDES WERE COUNTED UNDER "DRINKING FOUNTAIN".

PRESSURE AVAILABLE FOR UNIFORM LOSS CALCULATION:

ARLINGTON HEIGHTS, IL WATER PRESSURE MEASURE NOTE:

STATIC WATER PRESSURE WAS MEASURED TO BE 60 PSI AT 18" AFF ON SITE.

THE CONTROLLING FIXTURE IS THE FLUSH VALVE WATER CLOSET, REQUIRING 25 PSI MINIMUM PER FLUSH.

IF 60 PSI-A-B-C-D ≤ 25 PSI, PRESSURE IS ADEQUATE.

A=PIPE PRESSURE LOSS
B=HYDROSTATIC LOSS
C=METER LOSS
D=BFP LOSS

PIPE PRESSURE LOSS:
250'*(3.0 PSI/100') = 7.5 PSI

HYDROSTATIC LOSS:
0.434 PSI/FT*10' = 4.34 PSI

METER LOSS:
1.0 PSI, PER MANUFACTURER'S CUTSHEET (NEPTUNE T-10 OR EQUAL)

RPZ LOSS:
13 PSI, PER MANUFACTURER'S CUTSHEET (WATTS LF-009) OR EQUAL

PRESSURE REQUIRED FROM CITY:
60-7.5-4.34-1.0-13=34.16 PSI

34.16 PSI PROVIDED > 25 PSI DEMANDED.

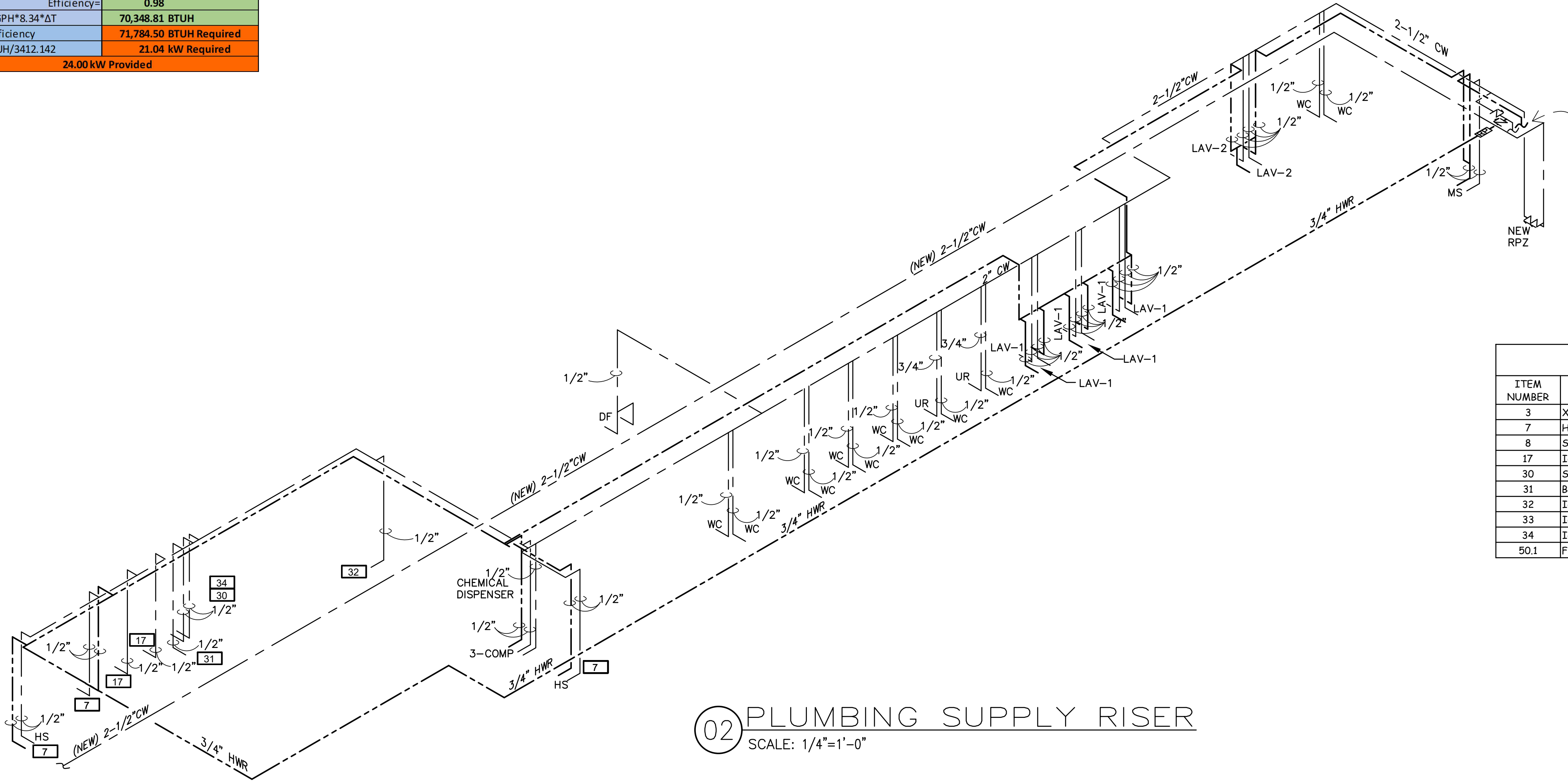
THEREFORE PRESSURE IS ASSUMED TO BE ADEQUATE

RECIRCULATION PUMP SCHEDULE							REMARKS
MARK	SERVICE	GPM	TOTAL HEAD FT.	MOTOR HP	VOLTS	PHASE	
R.P.	140° HOT WATER	5	5	1/12	115	1	60
							BELL AND GOSSETT SERIES 100, BRONZE BODY W/ JOHNSON CONTROLS AQUASTAT MODEL A19DAC-1C, PLACE ABOVE WATER HEATER OR IN UTILITY ROOM WHERE SPACE ALLOWS.

EXPANSION TANK SCHEDULE							REMARKS
MARK	TANK VOLUME	ACCEPTABLE VOLUME GALLON	HEIGHT	DIAMETER	ASTME CONST.	SERVES WATER HEATER	
ET	5	3.3	14"	10"	NO	W.H.	WATTS NO. DETA-12

BASE BID TO ASSUME THAT THE JURISDICTION REQUIRES CONTAINMENT BACK FLOW PREVENTION. P.C. SHALL CONFIRM WITH PLUMBING INSPECTOR IF BUILDING HAS MAIN RPZBFP AND DOES NOT REQUIRE ADDITIONAL BFP IN SPACE, THEN THE PLUMBER MAY OMIT BFP. IF JURISDICTION REQUIRES ISOLATION BFP, THE PLUMBING CONTRACTOR SHALL PROVIDE A POINT OF USE BFP AT REQUIRED FIXTURES AS APPLICABLE/AS REQUIRED AND ELSEWHERE AS DETERMINED BY THE PLUMBING INSPECTOR.

WATER HEATER SCHEDULE (NEW, ELECTRIC, TANK-TYPE)							DESCRIPTION
MARK	RECOVERY @ RISE	STORAGE GALLONS	LINING	FUEL	CFH	HP	
WH	SEE CALC.	80	GLASS	ELEC.	--	--	480/3P
							24
							AO SMITH DRE-80-24 OR EQUAL. SIX 4.0 KW ELEMENTS, SIMULTANEOUS OPERATION. 25.5" DIAMETER, 28" DRAIN PAN.



EXPANSION TANK ON INLET SIDE. SEE SHEET P3.0 FOR DETAILS. PROVIDE CHECK AND SHUT-OFF VALVES PER IPC SEC. 503.

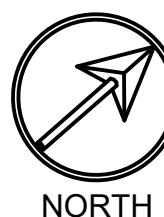
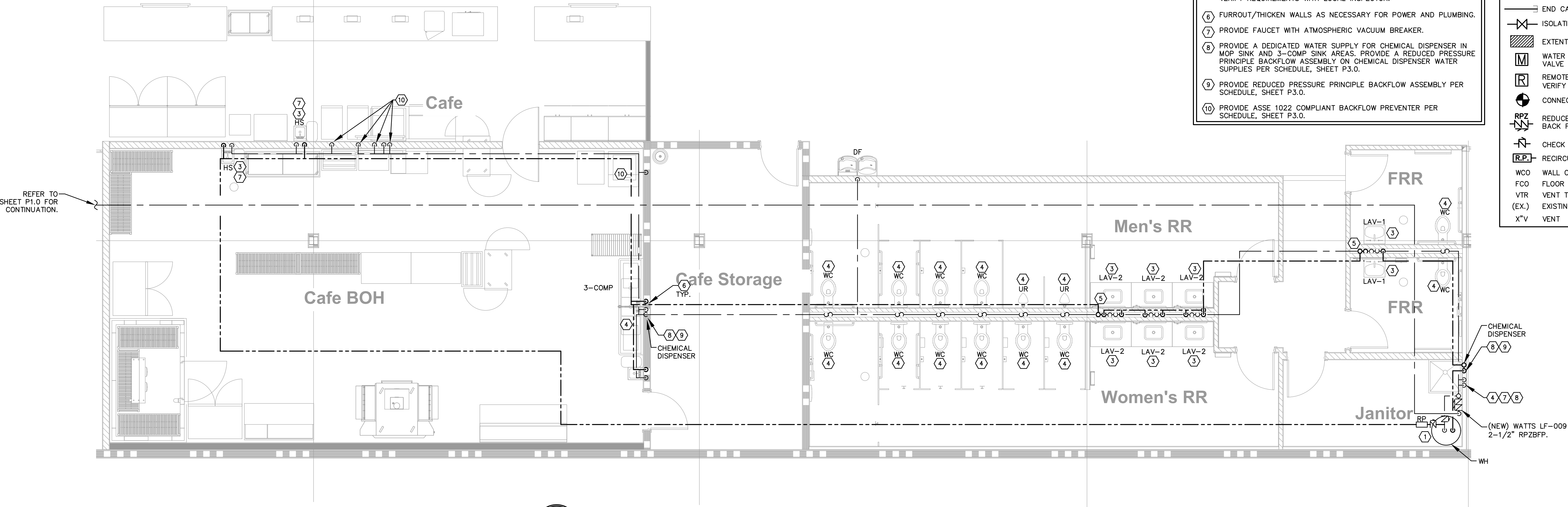
CONCESSION PLUMBING SCHEDULE											
ITEM NUMBER	EQUIPMENT DESCRIPTION	COLD WATER SIZE	COLD WATER AFF	HOT WATER SIZE	HOT WATER AFF	DIRECT DRAIN SIZE	DIRECT DRAIN AFF	INDIR DRAIN SIZE	GAS SIZE	MBTUH	PLUMBING REMARKS
3	XLT OVEN, GAS										
7	HAND SINK, WALL MOUNT	0.5"	18"	0.5"	18"	1.5"	16"				
8	SINK, NSF, 3 COMP, 18 GAUGE	0.5"	18"	0.5"	18"			1.50"			DRAIN TO FS
17	ICEE, 3 BARREL	0.5"	42"					0.75"			BY VENDOR - VERIFY ALL - DRAIN TO FS
30	SODA DISPENSER	0.5"	60"					0.75"			BY VENDOR - VERIFY ALL - DRAIN TO FS
31	BAG-IN-BOX	0.5"	42"					0.75"			BY VENDOR - VERIFY ALL
32	ICE MAKER W/O BIN	0.5"	60"					0.50"			DRAIN TO FS
33	ICE BIN							0.75"			DRAIN TO FS
34	ICE MAKER W/O BIN	0.5"	60"					0.50"			DRAIN TO FS
50.1	FREEZER, WALK-IN, REMOTE CONDENSER							1.00"			CONDENSATE DRAIN BY PC

KEY NOTES BY SYMBOL 'Ⓢ'

- NEW 80 GALLON ELECTRIC WATER HEATER GROUND MOUNTED, ON HOUSEKEEPING PAD. REFER TO 01/P3.0 FOR DETAIL. COORDINATE FINAL LOCATION IN FIELD.
- NOT USED.
- PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE AT LAVATORIES. SET AT 105°F MAXIMUM.
- PROVIDE W.H.A. ON ALL FAST CLOSING VALVES, AND WHERE ELSE INDICATED AND WHERE NECESSARY.
- ROUTE COLD AND HOT WATER PIPING DOWN TO SERVICE SINK. PROVIDE ISOLATION VALVE IN CEILING SPACE AND/OR UNDER SINK. VERIFY REQUIREMENTS WITH LOCAL INSPECTOR.
- FURROUT/THICKEN WALLS AS NECESSARY FOR POWER AND PLUMBING.
- PROVIDE FAUCET WITH ATMOSPHERIC VACUUM BREAKER.
- PROVIDE A DEDICATED WATER SUPPLY FOR CHEMICAL DISPENSER IN MOP SINK AND 3-COMP SINK AREAS. PROVIDE A REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY ON CHEMICAL DISPENSER WATER SUPPLIES PER SCHEDULE, SHEET P3.0.
- PROVIDE REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY PER SCHEDULE, SHEET P3.0.
- PROVIDE ASSE 1022 COMPLIANT BACKFLOW PREVENTER PER SCHEDULE, SHEET P3.0.

PLUMBING LEGEND

- HW HOT WATER SUPPLY LINE
- CW COLD WATER SUPPLY LINE
- X" SAN SANITARY WASTE LINE
- PIPE DROP
- RISER VENT (DASHED)
- TRAP PRIMER
- CONTINUATION
- END CAP
- ISOLATION / SHUT-OFF VALVE
- EXTENT OF SAWCUTTING/ TRENCHING
- WATER SUBMETER, BETWEEN VALVE AND 1ST FIXTURE.
- REMOTE READOUT FOR SUBMETER, +54" VERIFY LOCATION WITH OWNER'S REP.
- CONNECTION OF NEW TO EXISTING.
- RPZ REDUCED PRESSURE ZONE BACK FLOW ASSEMBLY.
- CHECK VALVE
- RECIRCULATION PUMP.
- WCO WALL CLEAN OUT
- FCO FLOOR CLEAN OUT
- VTR VENT THRU ROOF
- (EX.) EXISTING PIPING
- X"V VENT



01 ENLARGED PLUMBING SUPPLY PLAN

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



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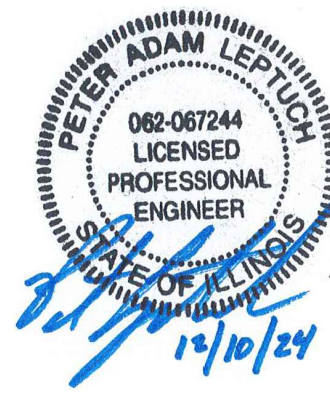
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ENLARGED
PLUMBING SUPPLY
PLAN

P1.1

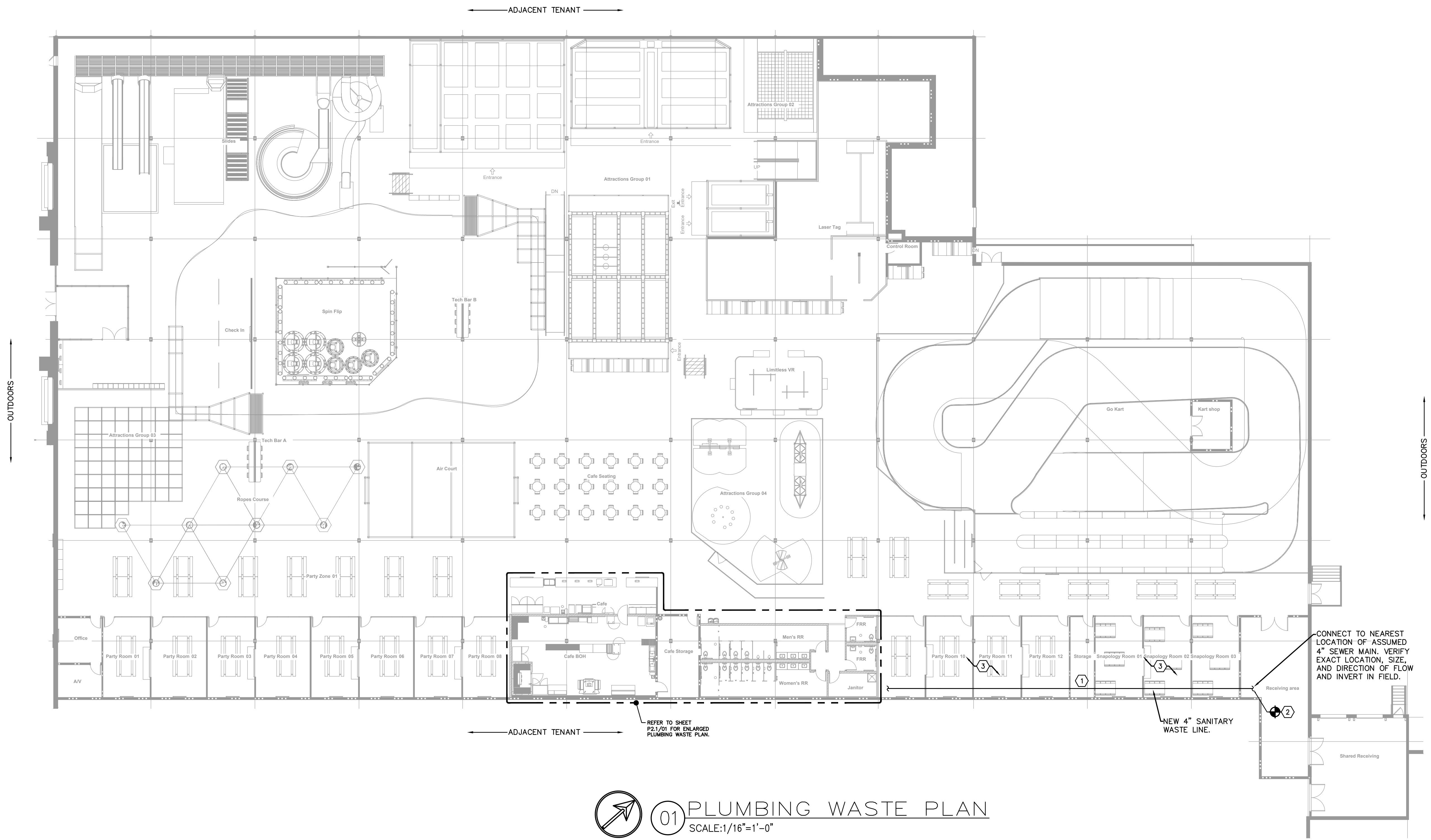
- PLUMBING NOTES**
- A. WASTE AND VENT PIPING MATERIALS INCLUDING FITTINGS AND ACCESSORIES AND INSTALLATION SHALL MEET ALL LOCAL CODE REQUIREMENTS.
- B. CONTRACTOR SHALL FURNISH AND INSTALL HANGER SUPPORTS AND ACCESSORIES AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE PLUMBING SYSTEM.
- C. FLOOR DRAINS AND FLOOR SINKS TO BE FURNISHED WITH BRASS GRATES, MIDLINE OF FLOOR SINK AT THE FACE OF EQUIPMENT HALF GRATE, TYPICAL.
- D. EACH INDIRECT WASTE LINE SHALL BE SEPARATE PIPING FROM THE EQUIPMENT OUTLET CONNECTION TO THE CORRESPONDING FLOOR SINK.
- E. PROVIDE HANGERS AND SUPPORTS FOR INDIRECT WASTE LINES.
- F. PROVIDE 2" MIN. AIR GAP AT INDIRECT WASTE DISCHARGE OF 2.5X PIPE DIAMETER, OR AS OTHERWISE REQUIRED BY CODE.
- G. CONTRACTOR SHALL COORDINATE ALL NEW WORK WITH EXISTING FIELD CONDITIONS AND OTHER TRADES.
- H. CONTRACTOR SHALL VERIFY THE LOCATION, INVERT AND ELEVATION OF THE EXISTING WASTE LINE FOR NEW CONNECTIONS AT THE JOB SITE.
- I. WASTE AND VENT PIPING INSTALLATION SHALL BE TESTED, INSPECTED AND APPROVED BEFORE BEING COVERED AND CONCEALED.
- J. FIXTURE TRAPS AND FITTINGS INSTALLATION SHALL MEET LOCAL CODE REQUIREMENTS.
- K. CONTRACTOR SHALL REFER TO FIXTURE AND EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS AND INSTRUCTIONS. CONTRACTOR SHALL FURNISH AND INSTALL ALL HARDWARE, PARTS AND ACCESSORIES REQUIRED FOR PROPER INSTALLATION AND OPERATION.
- L. KEEP EXISTING FLOOR DRAINS FROM PREVIOUS TENANT WHERE IN FOOD PREPARATION AREAS. VERIFY EXACT LOCATIONS IN FIELD.
- M. WHERE APPLICABLE, PROVIDE FACTORY AVAILABLE COLLARS (EXTENSIONS) AS NEEDED TO GET INVERT/FALL ON RECESSED GREASE TRAPS.
- N. FURROUT WALLS FOR ELECTRICAL AND PLUMBING AS NEEDED OR REQUIRED BY LANDLORD FOR ELECTRICAL AND PLUMBING CONNECTIONS.
- O. NO INFORMATION IS AVAILABLE AT TIME OF DESIGN INDICATING A LIFT SYSTEM WILL BE NEEDED. SHOULD UNEXPECTED CONDITIONS BE FOUND ON SITE, THE G.C. SHALL PREPARE A BID FOR ADDITIONAL WORK FOR THIS SCOPE.
- P. CHANGES IN DIRECTION OF FLOW FOR WASTE PIPING SHALL BE IN INCREMENTS OF NO MORE THAN 45°.
- Q. PLUMBING MAY NOT BE PERMITTED IN LANDLORD'S DEMISING WALLS. ALL PLUMBING SUPPLY, WASTE, AND VENT LINES SHALL BE INSTALLED WITHIN DEMISED SPACE. IN CASES WHERE LINES ARE SHOWN UNDER AND WITHIN DEMISING WALLS IT IS FOR DIAGRAMMATIC PURPOSES ONLY. FURROUT WALLS AS NECESSARY FOR VENT/PIPING.
- R. UNLESS SPECIFIED OTHERWISE, 2" AND 3" SANITARY WASTE LINES SHALL HAVE 1-1/2" VENT RISERS. 4" SANITARY WASTE LINES SHALL HAVE 2" VENT RISERS. NEW OVERHEAD HORIZONTAL VENTS SHALL BE NO SMALLER THAN 2". REUSE ROOF PENETRATIONS WHERE POSSIBLE.

- PLUMBING LEGEND**
- HW HOT WATER SUPPLY LINE
CW COLD WATER SUPPLY LINE
X" SAN SANITARY WASTE LINE
PIPE DROP
RISER VENT (DASHED)
TRAP PRIMER
CONTINUATION
END CAP
ISOLATION / SHUT-OFF VALVE
EXTENT OF SAWCUTTING/ TRENCHING
WATER SUBMETER, BETWEEN VALVE AND 1ST FIXTURE.
REMOTE READOUT FOR SUBMETER, +54" VERIFY LOCATION WITH OWNER'S REP.
CONNECTION OF NEW TO EXISTING.
REDUCED PRESSURE ZONE BACK FLOW ASSEMBLY.
CHECK VALVE
RECIRCULATION PUMP.
WCO WALL CLEAN OUT
FCO FLOOR CLEAN OUT
VTR VENT THRU ROOF
(EX.) EXISTING PIPING
X"V VENT

- PLUMBING PLAN KEYED NOTES 'A'**
- ① PIPING UNDER FLOOR. SLOPE 4" DRAIN PIPE AT 1/4" PER FOOT AND 3" OR SMALLER DRAIN PIPE AT 1/4" PER FOOT.
- ② CONNECT TO NEAREST EXISTING WASTE LINE. VERIFY EXACT SIZE, LOCATION, AND DIRECTION OF FLOW OF EXISTING WASTE LINE IN FIELD.
- ③ COORDINATE ROUTING OF UNDERSLAB WASTE LINES IN FIELD WITH STRUCTURAL ELEMENTS.

ARLINGTON HEIGHTS, IL NOTE:
CONTRACTOR SHALL DISCONNECT EXISTING INACTIVE PORTIONS OF SANITARY PIPING FROM ACTIVE AND REUSED PORTIONS.

- PLUMBING NOTES**
- A. EACH PLUMBING VENT SHALL TERMINATE NOT LESS THAN TEN (10) FEET FROM OR AT LEAST THREE (3) FEET ABOVE ANY WINDOW, DOOR, OPENING OR FRESH AIR INTAKE.
- B. PROVIDE TRAP PRIMERS ON ALL FIXTURES WHOSE TRAP SEALS ARE SUBJECT TO DRYING OUT.
- C. SEE RESTAURANT EQUIPMENT SCHEDULE ON THE ARCHITECTURAL PLANS FOR EQUIPMENT PROVIDED BY OTHERS. THIS CONTRACTOR SHALL CONNECT WASTE, VENT, AND WATER TO EQUIPMENT FURNISHED BY OTHERS AND THIS CONTRACTOR SHALL INSTALL FAUCETS AND MISC. FITTINGS FOR A COMPLETE INSTALLATION.
- D. ALL PLUMBING LINES MUST BE RECESSED WITHIN WALL CAVITIES UNLESS SPECIFICALLY NOTED OTHERWISE IN THE DRAWING SET.
- E. CONNECT NEW DOMESTIC WATER TO EXISTING LINE. INSTALL BALL VALVE AS SHOWN AND PROVIDE REDUCED PRESSURE BFP AT WATER SERVICE CONNECTION IF REQUIRED BY AHJ.
- F. EXTEND PLUMBING VENT UP THRU ROOF TO APPROVED VENT TERMINATION. LOCATE MINIMUM OF 10 FEET FROM ANY O.A. INTAKE AT THE ROOF-TOP UNITS.
- G. ALL EXPOSED PIPING TO PLUMBING FIXTURES SHALL BE CHROME PLATED. STOPS SHALL BE PROVIDED WITH REMOVABLE TYPE HANDLES.
- H. WHERE APPLICABLE, THE PLUMBING CONTRACTOR SHALL SEE THAT THE PROPER NEW (UPGRADE) GAS SERVICE, METER AND REGULATOR (IF REQUIRED) ARE INSTALLED BY THE UTILITY CO. AND PAY FOR ANY NEW SERVICE AND ANY FEES CHARGED FOR THE INSTALLATION OF THE METER AND SERVICE LINES. GAS LINES SHALL EXTEND FROM THE METER TO ALL EQUIPMENT REQUIRING GAS.
- I. GAS PIPING: SCREWED STANDARD WEIGHT SCHEDULE 40 BLACK STEEL CONFORMING TO ASTM A53 SPECIFICATIONS FOR GAS PIPING. PROVIDE ALL WELDING OF PIPING AS REQUIRED. PAINT ALL NEW GAS PIPING SAFETY YELLOW WITH TWO COATS OF MARINE GRADE PAINT.
- J. GAS PIPE SHALL BE PROVIDED WITH SUITABLE DRIP LEGS ON ALL MAINS AND RISERS AT EQUIPMENT CONNECTIONS. ALL EQUIPMENT CONNECTIONS WILL BE PROVIDED WITH AN AGA APPROVED BUTTERFLY VALVE. CAP WHERE REQUIRED.



01

PLUMBING WASTE PLAN

SCALE: 1/16"=1'-0"



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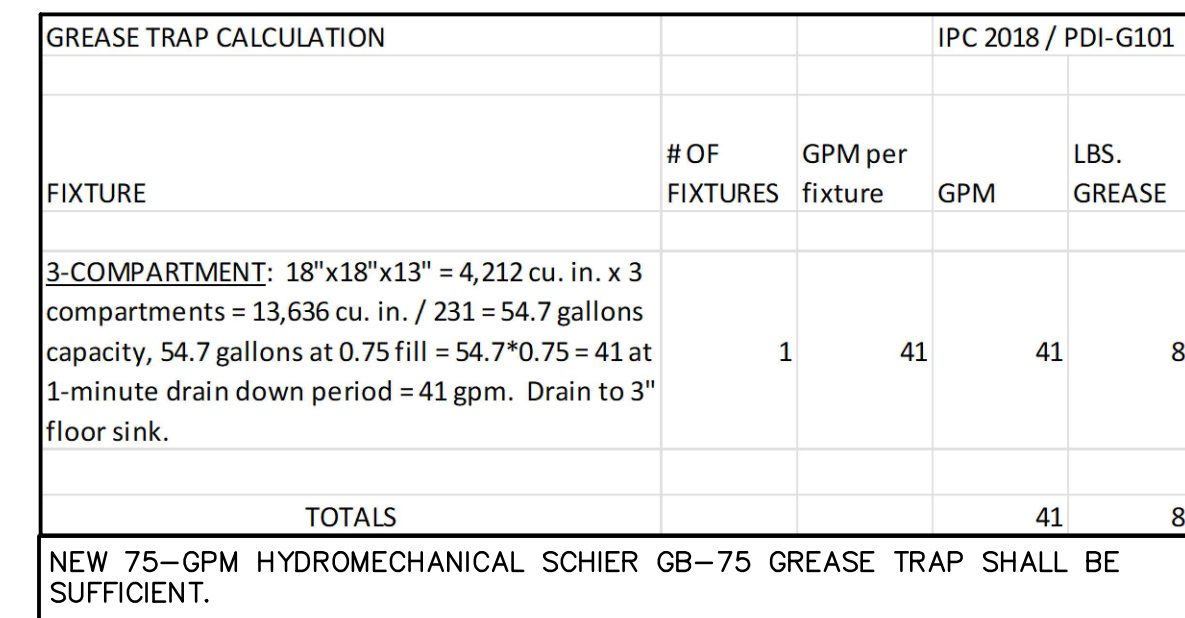
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PLUMBING WASTE PLAN

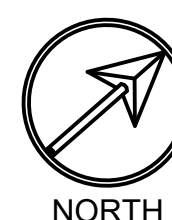
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PROVIDE TRAP PRIMERS ON ALL
FIXTURES WHOSE TRAP SEALS
ARE SUBJECT TO DRYING OUT.



SCALE: NO SCALE



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

- A. WASTE AND VENT PIPING MATERIALS INCLUDING FITTINGS AND ACCESSORIES AND INSTALLATION SHALL MEET ALL LOCAL CODE REQUIREMENTS.
- B. SHALL BE FURNISHED WITH FITTINGS AND ACCESSORIES AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE PLUMBING SYSTEM.
- C. FLOOR DRAINS AND FLOOR SINKS TO BE FURNISHED WITH BRASS GRATES.
- D. G.C. SHALL PROVIDE WASTE AND VENT PIPING FROM THE EQUIPMENT OUTLET CONNECTION TO THE CORRESPONDING FLOOR SINK.
- E. PROVIDE HANGERS AND SUPPORTS FOR INDIRECT WASTE LINES.
- F. PROVIDE MIN. AIR GAP AT INDIRECT WASTE DISCHARGE AS REQUIRED BY CODE.
- G. CONTRACTOR SHALL COORDINATE ALL NEW WORK WITH EXISTING FIELD CONDITIONS AND OTHER TRADES.
- H. CONTRACTOR SHALL VERIFY THE LOCATION, INVERT AND ELEVATION OF THE EXISTING WASTE AND VENT CONNECTIONS.
- I. WASTE AND VENT PIPING INSTALLATION SHALL BE TESTED, INSPECTED AND APPROVED BEFORE BEING COVERED AND CONCEALED.
- J. CONTRACTOR SHALL VERIFY ALL FITTINGS SHALL MEET LOCAL CODE REQUIREMENTS.
- K. CONTRACTOR SHALL REFER TO FIXTURE AND EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS AND INSTRUCTIONS. CONTRACTOR SHALL FURNISH AND INSTALL HARDWARE, PARTS AND ACCESSORIES REQUIRED FOR PROPER INSTALLATION AND OPERATION.
- L. KEEP EXISTING FLOOR DRAINS FROM PREVIOUS TENANT WHERE IN FOOD PREPARATION AREA. EXISTING FLOOR DRAIN SHALL BE MAINTAINED.
- M. PROVIDE FACTORY AVAILABLE COLLARS (EXTENSIONS) AS NEEDED TO GET INVERT/FALL ON RECESSED GREASE TRAPS.
- N. FURNISH COLLARS FOR ELECTRICAL AND PLUMBING AS NEEDED OR REQUIRED BY LANDLORD FOR ELECTRICAL AND PLUMBING CONNECTIONS.
- O. NO INFORMATION IS AVAILABLE AT TIME OF DESIGN INDICATING A LIFT SYSTEM WILL BE REQUIRED. SHOULD UNEXPECTED CONDITIONS OCCUR ON SITE, THE G.C. SHALL PREPARE A BID FOR ADDITIONAL WORK FOR THIS PROJECT.

- 1 POINT OF CONNECTION TO EXISTING 4" SANITARY LINE (DIAGRAMMATIC). CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION, DEPTH AND DIRECTION OF FLOW OF MAIN SEWER LINE PRIOR TO CONNECTING.
- 2 PIPING UNDER FLOOR. SLOPE 4" DRAIN PIPE AT 1/8" PER FOOT AND 3" OR SMALLER DRAIN PIPE AT 1/4" PER FOOT. ALL GREASE WASTE PIPING SHALL BE SLOPED AT 1/4" PER FOOT.
- 3 NOT USED.
- 4 ROUTE INDIRECT DRAIN CONDENSATE FROM FREEZER EVAPORATOR COIL TO HUB DRAIN.
- 5 PROVIDE WITH TRAP PRIMER.
- 6 ROUTE INDIRECT DRAIN LINES FROM A/C CONDENSATE TO STORM DRAIN IF CONNECTED TO CITY STORM DRAINAGE SYSTEM. OTHERWISE, ROUTE TO MOP SINK OR OTHER APPROVED RECEPTOR.
- 7 ROUTE DISCHARGE FROM 3-COMPARTMENT SINK TO FLOOR SINK, VIA INDIRECT WASTE LINE WITH 3" AIR GAP. 3-COMP. SHALL HAVE FLOW CONTROL LEVERS ON EACH SINK BASIN.
- 8 PROVIDE 3" FLOOR SINK DEDICATED TO SERVE 3-COMP. SINK.
- 9 SEPARATE VENTS UP WITHIN WALL TO MINIMUM 48". THEN COMBINE TO MAKE ONE 3" V.T.R. GREASE TRAP VENTING TO REMAIN SEPARATE FROM THE REST OF THE BUILDING VENTING SYSTEM.
- 10 COORDINATE ROUTING OF UNDERSLAB WASTE LINES IN FIELD WITH STRUCTURAL ELEMENTS.
- 11 PROVIDE GREASE TRAP BELOW SLAB, WITH U/D FLUSH WITH FINISHED FLOOR WITH SLIP-PROOF TREAD COVER. PROVIDE COLLAR EXTENSION AS NEEDED. PROVIDE VAPOR-PROOF SEAL TO INST. PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO DETAILS, SHEET P3.0. PROVIDE A VENT SYSTEM DEDICATED TO THE TRAP, BOTH THE INLET AND OUTLET REQUIRE CONNECTION TO THE VENT SYSTEM, WHICH MAY BE JOINED IN THE WALL 48" ABOVE FINISHED FLOOR.
- 12 OVERHEAD PIPING FOR COOLER CONDENSATE, HEAT TRACE SHALL BE SUBJECT TO FREEZING TEMPERATURES, ROUTE TIGHT TO COOLER WALL.



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ENLARGED

ENLARGED
PLUMBING WASTE
PLAN

P2.1

A. SANITARY PIPING:
(WHERE NOT OTHERWISE SPECIFIED THROUGHOUT THE DRAWING SET, WASTE, DRAIN AND VENT PIPING SHALL BE PER LOCAL CODE AND AUTHORITY HAVING JURISDICTION.)

1. UNDERSLAB DRAIN PIPING SHALL BE SCHEDULE 40 PVC.
2. VENT PIPING SHALL BE SCHEDULE 40 PVC. VENT PIPING ABOVE FLOOR 2" OR SMALLER MAY BE GALVANIZED STEEL.
3. CONDENSATE PIPING SHALL BE TYPE "L" HARD DRAWN COPPER TUBE WITH 95-15 TIN-ANTIMONY SOLDERED JOINTS AND WROUGHT COPPER FITTINGS WITH DIELECTRIC SEPARATION BETWEEN DISSIMILAR METALS. CONDENSATE PIPING BELOW ROOF DECK MAY BE PVC. PROVIDE SHARKBITE TRANSITION FROM PVC TO COPPER.
4. INSULATE ALL HORIZONTAL RUNS OF PIPE LOCATED IN CEILING SPACES OF TENANTS IN SPACES BELOW WHEN APPLICABLE. INSULATION TO BE AS SPECIFIED FOR WATER PIPING.
5. PROVIDE LINE-ITEM BID TO UTILIZE PVC, OBTAIN APPROVAL FROM INSPECTOR PRIOR TO INSTALLATION THAT PVC IS ALLOWED FOR THE SPECIFIC HVAC LAYOUT FOR THIS PROJECT.

B. POTABLE WATER PIPING

1. ALL HOT AND COLD WATER SUPPLY PIPING, WHEN ALLOWED BY A.H.J. AND OWNER SHALL BE CPVC OR PEX.
2. WATER PIPING IN CEILING SPACE AND WITHIN WALLS MAY BE TYPE "L" COPPER OR PEX, INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE SHARK-BITE TRANSITIONS, OR APPROVED EQUALS.
3. BELOW GRADE: TYPE "K", ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 2 INCHES AND SMALLER. BRAZE ALL JOINTS.
4. WHERE APPLICABLE, TRANSITIONS BETWEEN COPPER AND PLASTIC PIPE SHALL BE MADE BY SHARKBITE OR SIMILAR TRANSITIONS, RATED FOR USE WITH SUCH MATERIALS AS ARE BEING USED.

C. GAS PIPING

1. GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-120, WITH MALLEABLE THREADED FITTINGS FOR 2" AND SMALLER, AND WITH WELDED JOINTS FOR 2-1/2" AND LARGER.
2. GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH RUST-INHIBITING PAINT.

**THIS MATERIALS LIST REPRESENTS THE MINIMUM SPECIFICATIONS SET FORTH BY THE MEP ENGINEER. CONTACT LANDLORD'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION TO VERIFY IF THERE ARE ANY ADDITIONAL OR MORE STRINGENT REQUIREMENTS BEYOND THESE.

A. SANITARY PIPING:
(WASTE, DRAIN AND VENT PIPING SHALL BE PER LOCAL CODE AND AUTHORITY HAVING JURISDICTION.)

1. BASE BID SHALL BE FOR PVC DRAIN/WASTE/VENT PIPING, WRAPPED IN "3M FIRE BARRIER PLENUM WRAP 54+", SIZES "1" DIAMETER AND LARGER. CONFORM WITH PLUMBING AND MECHANICAL INSPECTOR THAT THIS JURISDICTION ALLOWS THIS CONFIGURATION, PRIOR TO INSTALLATION.
2. BID ALTERNATE SHALL BE FOR SERVICE WEIGHT CAST IRON DRAIN/WASTE/VENT PIPING. USE NO HUB COUPLING FITTINGS WHERE ALLOWED BY A.H.J., OTHERWISE USE BELL AND SPIGOT FITTINGS WITH LEAD-OAKUM JOINTS.

B. POTABLE WATER PIPING

1. ALL HOT AND COLD WATER SUPPLY PIPING, SHALL BE TYPE "L" COPPER.
2. BELOW GRADE: TYPE "K", ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 2 INCHES AND SMALLER. BRAZE ALL JOINTS.
3. TYPE "M" COPPER MAY BE USED FOR CONDENSATE PIPING.

C. GAS PIPING

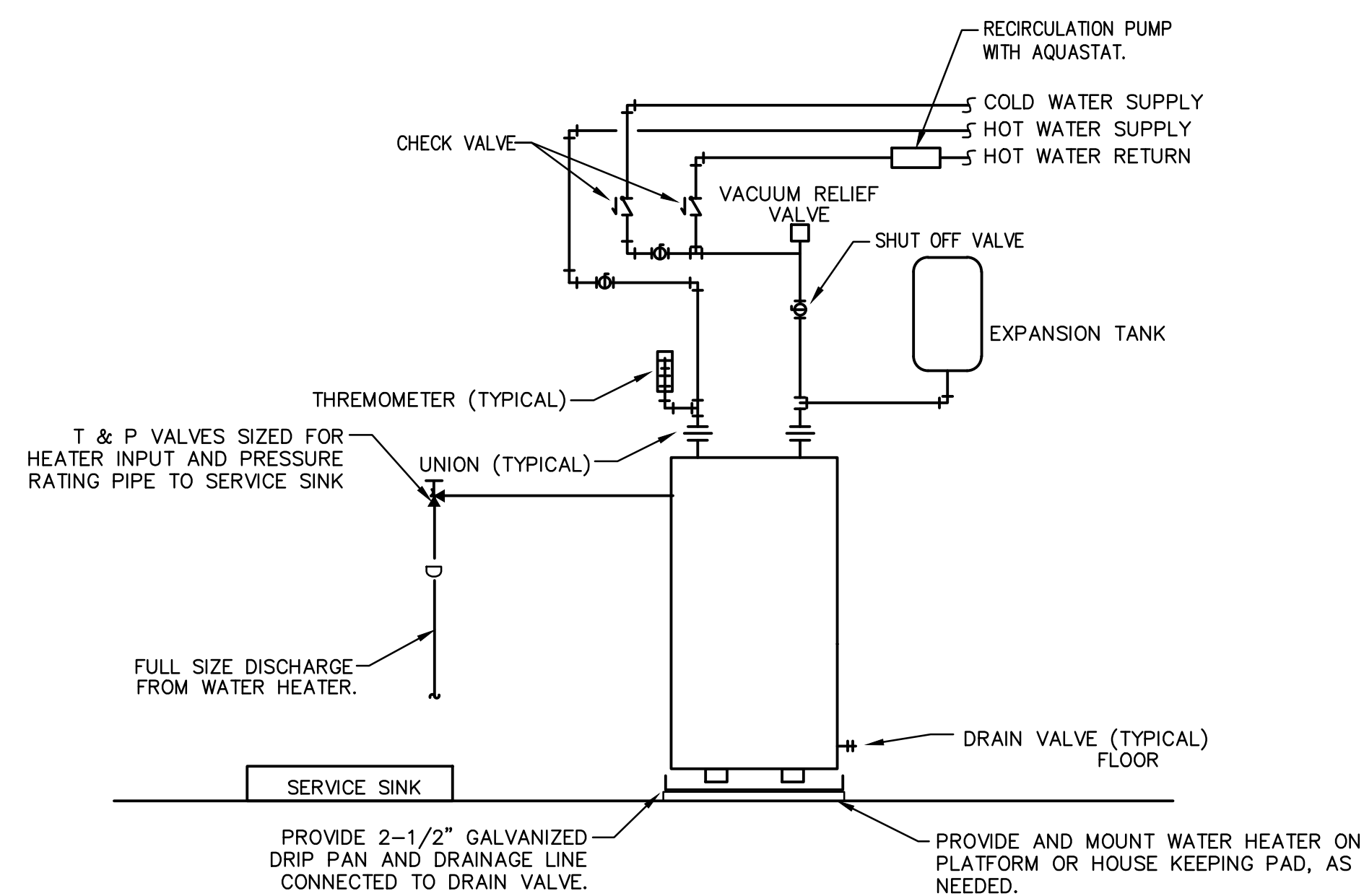
1. GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-120, WITH MALLEABLE THREADED FITTINGS FOR 2" AND SMALLER, AND WITH WELDED JOINTS FOR 2-1/2" AND LARGER.
2. GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH RUST-INHIBITING PAINT.

**THIS MATERIALS LIST REPRESENTS THE MINIMUM SPECIFICATIONS SET FORTH BY THE MEP ENGINEER. CONTACT LANDLORD'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION TO VERIFY IF THERE ARE ANY ADDITIONAL OR MORE STRINGENT REQUIREMENTS BEYOND THIS LIST.

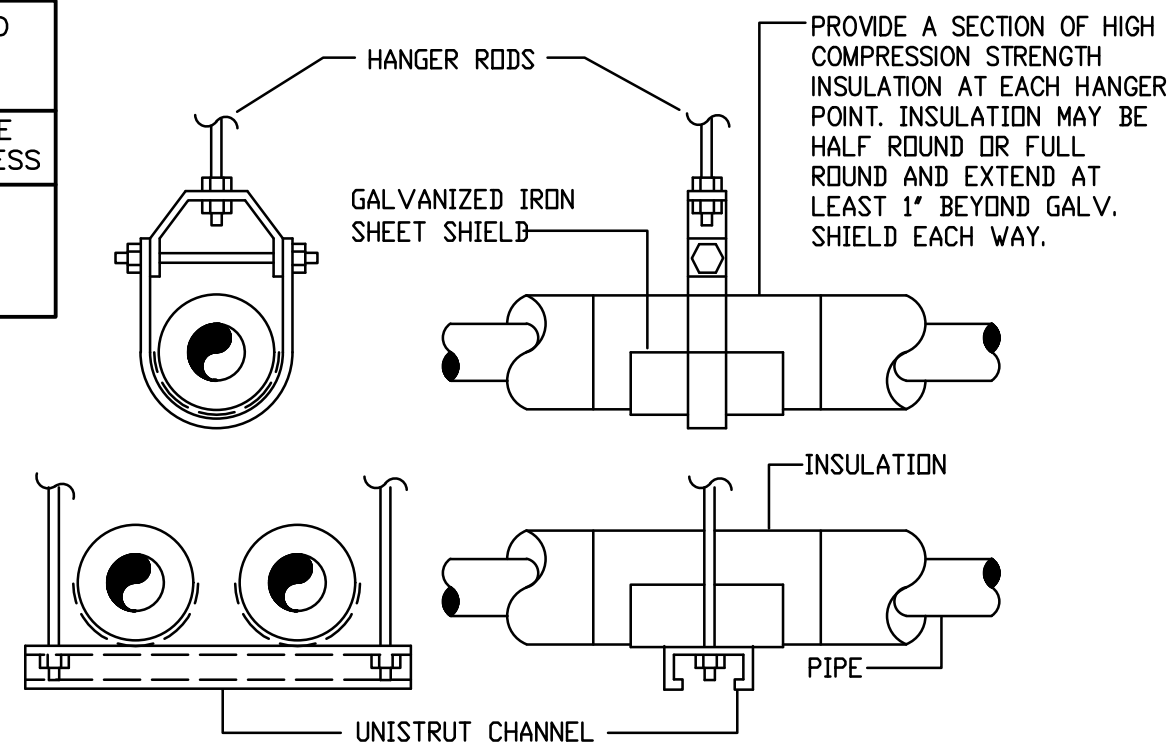
1. A HOT WATER RECIRCULATION LOOP IS REQUIRED. THE HOT WATER RECIRCULATION LOOP SHALL DROP DOWN IN THE WALLS WHERE IT SERVES PUBLIC LAVATORIES SUCH THAT THE MAXIMUM LENGTH OF SUPPLY BETWEEN THE LOOP AND THE FAUCET DOES NOT EXCEED 24" OF 1/2" PIPE. THE RUNOUT OF HOT WATER PIPE (FROM LOOP TO FIXTURE) SHALL NOT EXCEED 43' FOR 1/2" PIPE, OR 21' FOR 3/4" PIPE.
2. RECIRCULATION PUMP SHALL HAVE TIMER AND AQUASTAT PER IECC 2021, SECTION 404.6.

MARK	FIXTURE	CW	HW	W	V	ADA	DESCRIPTION
WC	WATER CLOSET	1"	--	4"	2"	YES	EXISTING TO REMAIN. REPLACE IF IN TOO POOR CONDITION WITH EQUAL. FIXTURES: AMERICAN STANDARD MADERA FLOWISE 15" HEIGHT ELONGATED FLUSHMETER TOILET (SUPPLY LINE: 1"). PROVIDE WITH ELECTRONIC SENSOR--OPERATED TOILET FLUSH VALVE, BATTERY POWERED, MODEL #0665.121.002 COLOR: WHITE SEAT: CHAMPION #5325.010
LAV-1	LAVATORY	1/2"	1/2"	2"	1-1/2"	YES	EXISTING TO REMAIN. REPLACE IF IN TOO POOR CONDITION WITH EQUAL. FIXTURE: KOHLER KINSTON K-2005 WALL-HUNG LAVATORY FAUCET: AMERICAN STANDARD, METERING, MODEL #1340.227; TWO HANDLE CENTERSET SPOUT LAVATORY FAUCET. POLISHED CHROME FINISH, 0.5 GPM. (OR EQUAL) MIXING VALVES: POWERS #LM495-1; ASSE 1070, SET AT 110F.
LAV-2	LAVATORY	1/2"	1/2"	2"	1-1/2"	YES	EXISTING TO REMAIN. REPLACE IF IN TOO POOR CONDITION WITH EQUAL. FIXTURE: AMERICAN STANDARD #0643.008 STUDIO DROP IN SINK, WITH EVERCLEAN VITREOUS PORCELAIN. FAUCET: AMERICAN STANDARD, METERING, MODEL #1340.827; TWO HANDLE CONVENTIONAL WIDESPREAD LAVATORY FAUCET. POLISHED CHROME FINISH, 0.5 GPM. (OR EQUAL) MIXING VALVES: POWERS #LM495-1; ASSE 1070 SET AT 110F.
FD	FLOOR DRAIN	--	--	3"	1-1/2"	--	3" CAST IRON FLOOR DRAIN WITH POLISHED NICKEL BRONZE TOP. ZURN Z-415-J (SQUARE) J.R. SMITH NO 2005Y-A, JOSAM3000-S OR APPROVED EQUAL. ADJUSTABLE STRAINER WITH FLASHING CLAMP DEVICE, PROVIDE TRAP PRIMER CONNECTION PER LL REQUIREMENTS.
WHA	WATER HAMMER ARRESTOR.	1/2"	--	--	--	--	PROVIDE AND INSTALL AT ALL FAST CLOSING VALVES, INCLUDING FLUSH VALVES, AND AT ELKAY FIXTURE RUNS.
DF	DRINKING FOUNTAIN	1/2"	--	2"	1-1/2"	YES	ELKAY - LZSLTBWSP BARRIER FREE BI-LEVEL DRINKING FOUNTAIN WITH FILTER AND ELKAY - EZH2O BOTTLE FILLING STATION. REFER TO ELKAY INSTALL PER ADA. WATER ROUGH-IN HEIGHT, CANE APRON, APPROX. 19" AFF. PROVIDE APRON LKAPREZL, INSTALL PER ADA.
TG	TRAP GUARD	--	--	LINE SIZED	--	--	COMMERCIAL GRADE
MS	SERVICE SINK	1/2"	1/2"	3"	1-1/2"	YES	FIXTURES: FLOOR MOUNTED MOP SINK 24"x24", MODEL -FIAT MSB2424. FAUCET: MOEN #8232 W/ ADA LEVER HANDLES. SS DOME STRAINER AND LINT BASKET. PROVIDE ATMOSPHERIC VACUUM BREAKER AT FAUCET.
UR	URINAL	3/4"	--	2"	1-1/2"	YES	EXISTING TO REMAIN. REPLACE IF IN TOO POOR CONDITION WITH EQUAL. FIXTURES: AMERICAN STANDARD WASHBROOK FLOWISE, 0.125 GPF, #0590.503; TOP SPUD 0.5 GPF FLUSH VALVES: AMERICAN STANDARD FLUSH VALVE MODEL #0400.13.002
BFP	BACKFLOW PREVENTER	LINE SIZED	--	--	--	--	WATTS SD-3 DUAL CHECK VALVES WITH ATMOSPHERIC PORT, ASSE 1022. FOR PROTECTION OF WATER SUPPLY TO CARBONATED AND NON-CARBONATED BEVERAGE FIXTURE APPLIANCES, COFFEE MACHINES, ICE MAKERS, ETC. STAINLESS STEEL BODY CONSTRUCTION AND ALL RUBBER INTERNAL COMPONENTS.
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER	LINE SIZED	--	--	--	--	WATTS LF009 REDUCED PRESSURE ZONE ASSEMBLY. FOR PROTECTION OF CHEMICAL DISPENSER AND MAIN WATER SUPPLY AS APPLICABLE.

NOTES:
1. ALL FIXTURES MAY BE SUBSTITUTED FOR APPROVED EQUALS.
2. NOT ALL FIXTURES USED ON ALL JOBS.
3. ALL FIXTURES -- PROVIDE TRAP PRIMERS/TRAP GUARDS WHERE REQUIRED BY LOCAL CODES AND/OR AHJ.
4. APPROVED EQUALS FOR ACCESSORIES: ZURN, SIOUX CHIEF, PRECISION PLUMBING PRODUCTS



MINIMUM DIMENSIONS OF GALVANIZED SHEET METAL PROTECTION SHIELDS AT PIPE HANGERS		
NOMINAL SIZE PIPE	SHIELD LENGTH (IN.)	GAUGE THICKNESS
1/2" & 3/4"	12	18
1" - 2-1/2"	12	18
3" - 4"	16	18
6"	18	16



PISTIL CONSORTIA
BOUTIQUE ARCHITECTURE

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Foxfeild



A	Issue for Permit	2024.12.20
No.	Description	Date

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P3.0

KEY NOTES BY SYMBOL '⑦'

- ① EXISTING RTU LOCATED ON EXISTING ROOF CURB ON ROOF ABOVE. FIELD VERIFY DUCT SIZES AND SUPPLY/RETURN TYPE. CONNECT NEW DUCT AS SHOWN AND ROUTE TO URBAN AIR SPACE, AS SHOWN. PROVIDE DUCT TRANSITION FROM EXISTING TO NEW, AS NEEDED. INSTALL NEW 1.5 HOUR DYNAMIC FIRE DAMPER (WITH TYPE B FRAME) AT DEMISING WALL.
- ② PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT, HONEYWELL VISION PRO 8000 WITH REMOTE SENSOR, AND AUTO CHANGEOVER AND RELATED WIRING TO CONTROL EACH UNIT. MOUNT T-STAT AT 48" AFF, SENSOR AT 96" AFF.
- ③ EXISTING RTU LOCATED ON EXISTING ROOF CURB ON ROOF ABOVE. THERE ARE EXISTING SUPPLY AND RETURN AIR DUCTS THAT ARE ROUTE ABOVE THE ROOF OVER TO A DOG HOUSE ROOF STRUCTURE. THE EXISTING DUCTS THEN DROP DOWN IN THE SPACE. INSTALL NEW CONCENTRIC SUPPLY AIR UNIT EQUAL TO TITUS MODEL TVM-4. MODIFY EXISTING SUPPLY DUCT / PROVIDE NEW TO CONNECT TO TVM-4.
- ④ 14X14 EXHAUST DUCT UP THROUGH ROOF TO NEW EXHAUST FAN ON NEW ROOF CURB.
- ⑤ ROUTE NEW SUPPLY AIR RUN OUT (INTERNALLY INSULATED EXPOSED SPIRAL DUCT) OVER TO NEW SUPPLY AIR GRILLE.
- ⑥ EXISTING RTU LOCATED ON EXISTING ROOF CURB ON ROOF ABOVE. INSTALL NEW CONCENTRIC SUPPLY AIR UNIT EQUAL TO TITUS MODEL TVM-4. MODIFY EXISTING SUPPLY DUCT / PROVIDE NEW TO CONNECT TO TVM-4.
- ⑦ ALL NEW UNITS SUPPLY 2,000 CFM OR MORE TO HAVE RETURN AIR SMOKE DETECTORS. SMOKE DETECTOR SHALL BE WIRE TO FIRE ALARM.
- ⑧ ROUTE 6" EXHAUST DUCT UP THROUGH ROOF TO ROOF VENT CAP.
- ⑨ EXISTING RTU LOCATED ON EXISTING ROOF CURB ON ROOF ABOVE. THERE ARE EXISTING SUPPLY AND RETURN AIR DUCTS THAT ARE ROUTE ABOVE THE ROOF OVER TO A DOG HOUSE ROOF STRUCTURE. THE EXISTING DUCTS THEN DROP DOWN IN THE SPACE. FIELD VERIFY DUCT SIZES AND SUPPLY/RETURN TYPE. CONNECT NEW DUCT AS SHOWN AND ROUTE TO URBAN AIR SPACE, AS SHOWN. PROVIDE DUCT TRANSITION FROM EXISTING TO NEW, AS NEEDED. INSTALL NEW 1.5 HOUR DYNAMIC FIRE DAMPER (WITH TYPE B FRAME) AT DEMISING WALL.

CONTRACTOR NOTES:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.

BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE AND LOCAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS. THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION AND COMPLIANCE WITH GOVERNING CODES / REQUIREMENTS HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN, HAD AN EXAMINATION AND CODE REVIEW BEEN MADE, WILL NOT BE ALLOWED.

HVAC SEQUENCE OF OPERATION

OCCUPIED MODE
RTUS SEQUENCE:

COOLING MODE: COMMAND FROM TEMP SENSOR RTUS SET AT 68°F, ADJUSTABLE) CALLS FOR COOLING, THE SUPPLY FAN SHALL ENERGIZE AND THE UNIT SHALL CYCLE THE CORRESPONDING REMOTE COMPRESSOR ON, AS NEEDED, TO MAINTAIN SPACE TEMPERATURE SET POINT.

HEATING MODE: COMMAND FROM TEMP SENSORS (SET AT 68°F, ADJUSTABLE) RTUS CALLS FOR HEATING, THE SUPPLY FAN SHALL ENERGIZE AND THE GAS FURNACE SHALL ENERGIZE AS NEEDED TO MAINTAIN SPACE TEMPERATURE SET POINT.

ARLINGTON HEIGHTS, IL NOTE:
PROVIDE TURNING VANES ON ALL RECTANGULAR SUPPLY DUCTS CARRYING MORE THAN 1,200 CFM OF AIR.

RETURN AIR PLENUM:
THE HVAC SYSTEM UTILIZES THE PLENUM AND OPEN SPACES AS A MEANS OF RETURN AIR PATH BACK TO RTU(S). ALL MATERIALS FROM ALL DISCIPLINES MUST BE PLENUM RATED.

ARLINGTON HEIGHTS, IL NOTE:
THE MEP DRAWINGS ARE NOT STRUCTURAL ENGINEERING. STRUCTURAL ENGINEERING IS REQUIRED FOR ADDING NEW RTUS, ETC. AND WILL BE BY OTHERS.

ARLINGTON HEIGHTS, IL NOTE:
PROVIDE VOLUME / BALANCING DAMPERS ON ALL SUPPLY AND RETURN AIR DEVICES WHETHER GRAPHICALLY SHOWN OR NOT.

ARLINGTON HEIGHTS, IL NOTE:
CONTRACTOR SHALL CONFIRM FINAL FIRE RATINGS OF SPACE AND ADD FIRE-RATED DAMPERS, DIFFUSERS, ETC. TO MEET SAID FIRE RATINGS, AS NEEDED. REFER TO FINAL ARCHITECTURAL PLANS FOR WALL AND/OR CEILING FIRE RATINGS. COORDINATE IN FIELD. DO NOT USE CORRIDORS AS RETURN AIR PATH.

ARLINGTON HEIGHTS, IL NOTE:
ALL MECHANICAL WORK SHALL COMPLY WITH 2018 INTERNATIONAL MECHANICAL CODE (IMC) AND 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC).

ARLINGTON HEIGHTS, IL
THIS PROJECT IS A TENANT FINISHOUT OF AN EXISTING RETAIL SPACE INSIDE A MALL THAT WAS FORMERLY A MOVIE THEATER.

HVAC SUMMARY:

64,956 SQ FT.
(AREA CONDITIONED)
227.5 TONS
285.5 SF/TON

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
①	THERMOSTAT @ 48" AFF
②	DUCT MOUNTED SMOKE DETECTOR
③	REMOTE ROOM TEMPERATURE SENSOR AT 96" AFF
④	GAS SENSOR
⑤	GAS SENSOR CONTROLLER
⑥	VOLUME DAMPER
⑦	MOTORIZED DAMPER WITH ACTUATOR
⑧	BAROMETRIC FLAP DAMPER
RTU	ROOF TOP UNIT
AHU	AIR HANDLING UNIT
EF	EXHAUST FAN
FD	FIRE DAMPER
CFD	CEILING FIRE DAMPER

AIR DEVICE NECK CHART

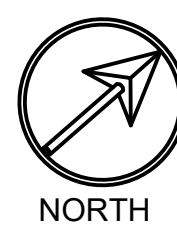
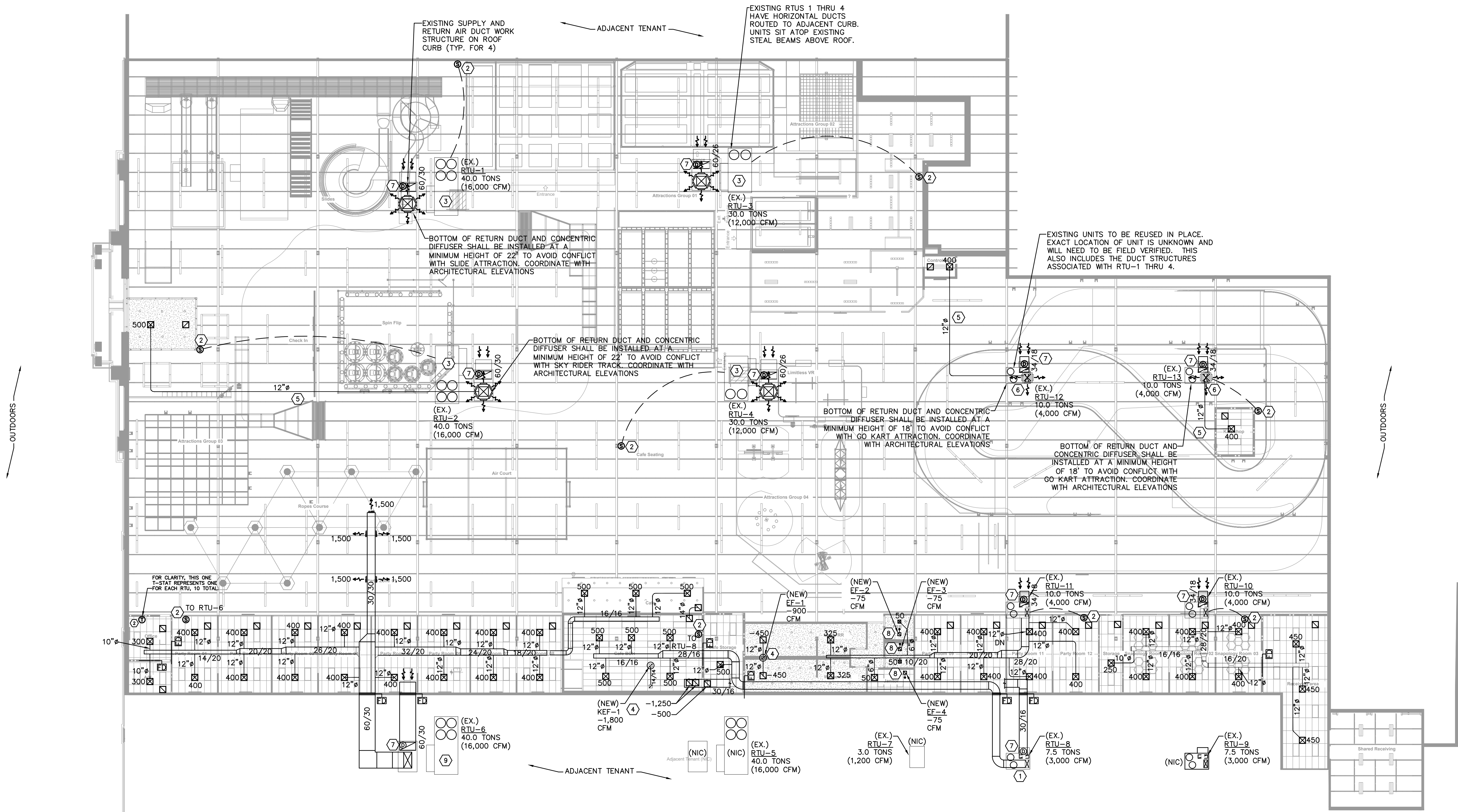
8" - 0 TO 180 CFM
10" - 185 TO 350 CFM
12" - 355 TO 550 CFM
14" - 555 TO 850 CFM
16" - 855 TO 1350 CFM
18" - 1360 TO 1750 CFM

*USE ABOVE SIZES UNLESS A LARGER SIZE IS INDICATED ON PLANS.

HVAC UNIT DROP CONFIGURATION IS SCHEMATIC ONLY. VERIFY EXACT UNIT PLACEMENT, SUPPLY AND RETURN DROP SIZE AND ORIENTATION, STRUCTURAL CLEARANCES, ETC. AND MAKE ANY FIELD NECESSARY CHANGES TO GET SUPPLY AND RETURN DROPS TO FIT THROUGH ROOF STRUCTURE. USE 24" CURB TO TRANSITION ABOVE ROOF DECK WHERE NECESSARY - AND WHERE IT DOES NOT POSE A LINE-OF-SIGHT ISSUE.

MANDATORY TEST AND BALANCE REPORT BY LICENSED 3RD PARTY TO BE PROVIDED TO OWNER AND ARCHITECT UPON COMPLETION OF HVAC WORK.

FINAL PLACEMENT OF THERMOSTAT TO BE SELECTED BY CONSTRUCTION MANAGER OR OWNER'S REPRESENTATIVE AND MAY NEED TO BE MODIFIED DUE TO FIELD CONDITIONS.



01

MECHANICAL PLAN

SCALE: 1/16"=1'-0"



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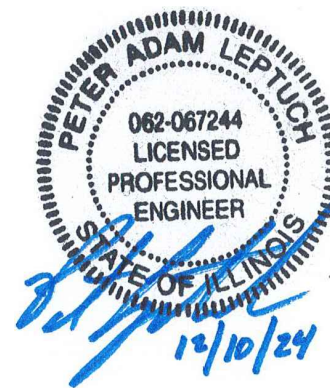
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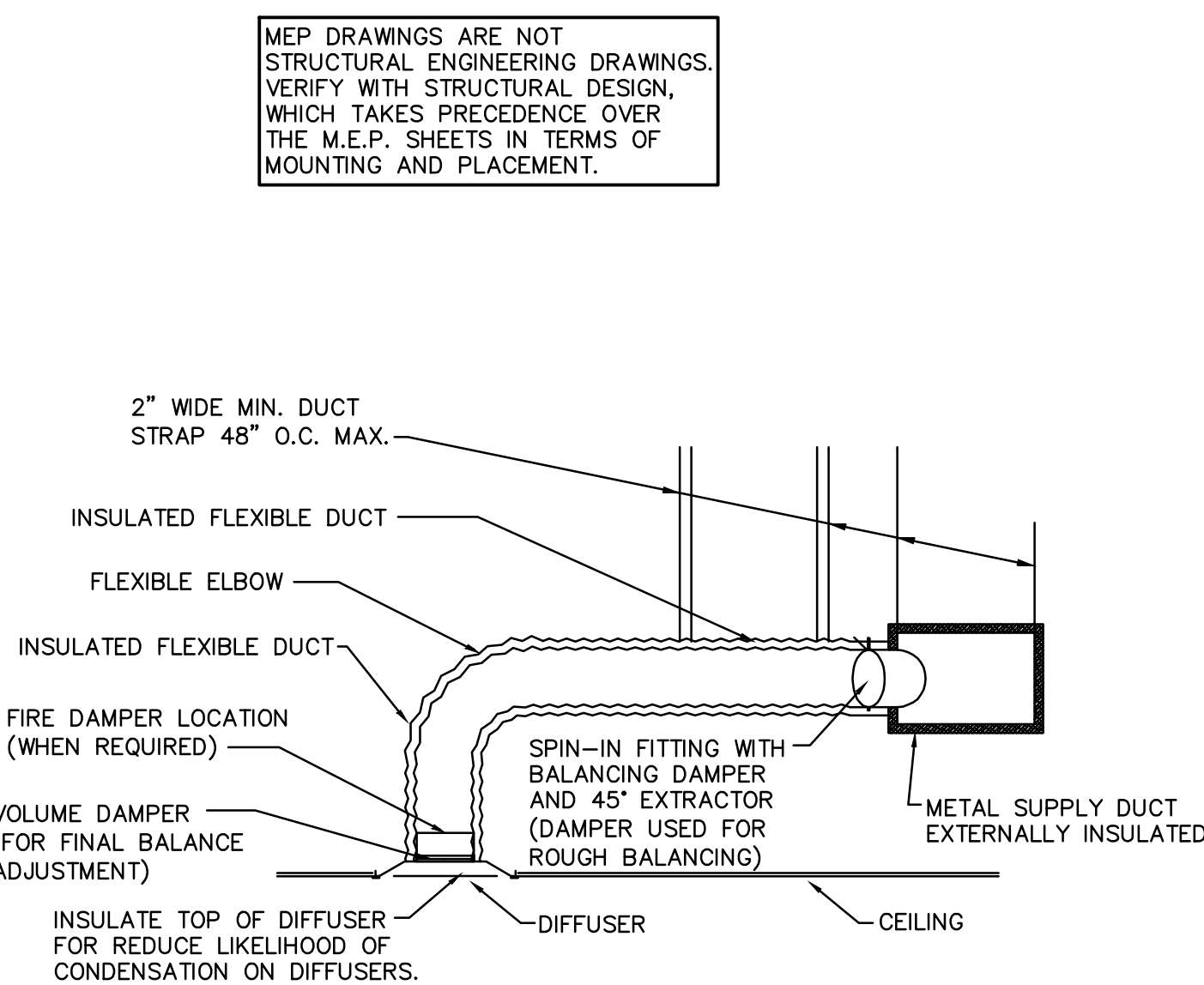
MECHANICAL PLAN

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HVAC Load Calculation - Entire Space		9/12/2024	Urban Air - Arlington Heights, IL	23,381
Cooling Load Analysis:			ASHRAE DESIGN: DB =	92
Sensible Heat:			(BASIS OF DESIGN: Chicago, IL) WB =	74
			Design Indoor temp	68
H_sensible, O.A. = 1.08 * cfm * delta T			H_sensible_OA =	BTUH 435844.80 TONS 36.32
H_sensible, lighting = watts / 3.413			H_sens_lgtg=	598576.04 49.88
H_sensible, people = 450 * # people			H_sens_ppl =	246566.40 20.72
H_sensible, walls = A*u*dT			H_sens_wall =	17379.69 (dT = 30F), 1.45
H_sensible, floor = A*u*dT			H_sens_floor =	32478.00 (dT = .5F) 2.71
H_sensible, roof = A*u*dT			H_sens_roof =	103929.60 (dt=40F) 8.66
H_sensible, window conductance = A_glass*U*dT			H_sens_glass =	28472.64 2.37
H_sensible, window transmittance = A_glass*SHGC*Et			H_sens_solar gain =	126441.00 10.54
H_latent, O.A. = 0.68 * q*delta w_grains			H_latent_OA =	272133.96 22.68
H_latent, people = 450 * # people			H_latent_ppl=	248666.40 20.72
DT = Outside Air - 68F	24 F			
Lighting & Equipment Load (watts)	175381.2			
Occupant Load	553			
Grains I.A. =	96	<<<< update per site		
Grains I.A. =	72.2	(72.2 Is for saturated air at 58F)		
Outside Air Ventilation =	16815	(Auto Populate - from ventilation calculation)		
Roof / Floor Area =	64956	(Auto Populate - from ventilation calculation)		
Wall Height - Average	20	<<<< update per site		
Perimeter (unconditioned)	439	<<<< update per site		
Wall Area =	8780			
Window Length =	56	<<<< update per site		
Window Height =	22.3	<<<< update per site		
Window Area =	1248.8			
Shading Factor =	0.4	(0 = none, 1.0 = fully shaded)		
R-value Walls [R_net] =	13 Wall	<<<< update on heating chart		
U-value Walls =	0.0769231	Average Wall		
R-floor = [R_net] =	1	<<<< update on heating chart		
U-floor =	1			
R-roof = [R_net] =	25 Roof			
U-roof =	0.04	<<<< update per site		
U-glass	0.76 Glass			
SHGC	0.75 Glass			
I-t incident solar radiation	225	(assume peak daily, btu/hr p.s.f. Solar constant is 442 BTUH/hr at top of atmos, 317 at sfc.)		
Total Cooling Load:				211258.53 BTUH
Safety Factor (15%)				2429476.81 BTUH
Space Load - Tonnage Required				202.5 Tons
Tonnage Provided				207.5 Tons

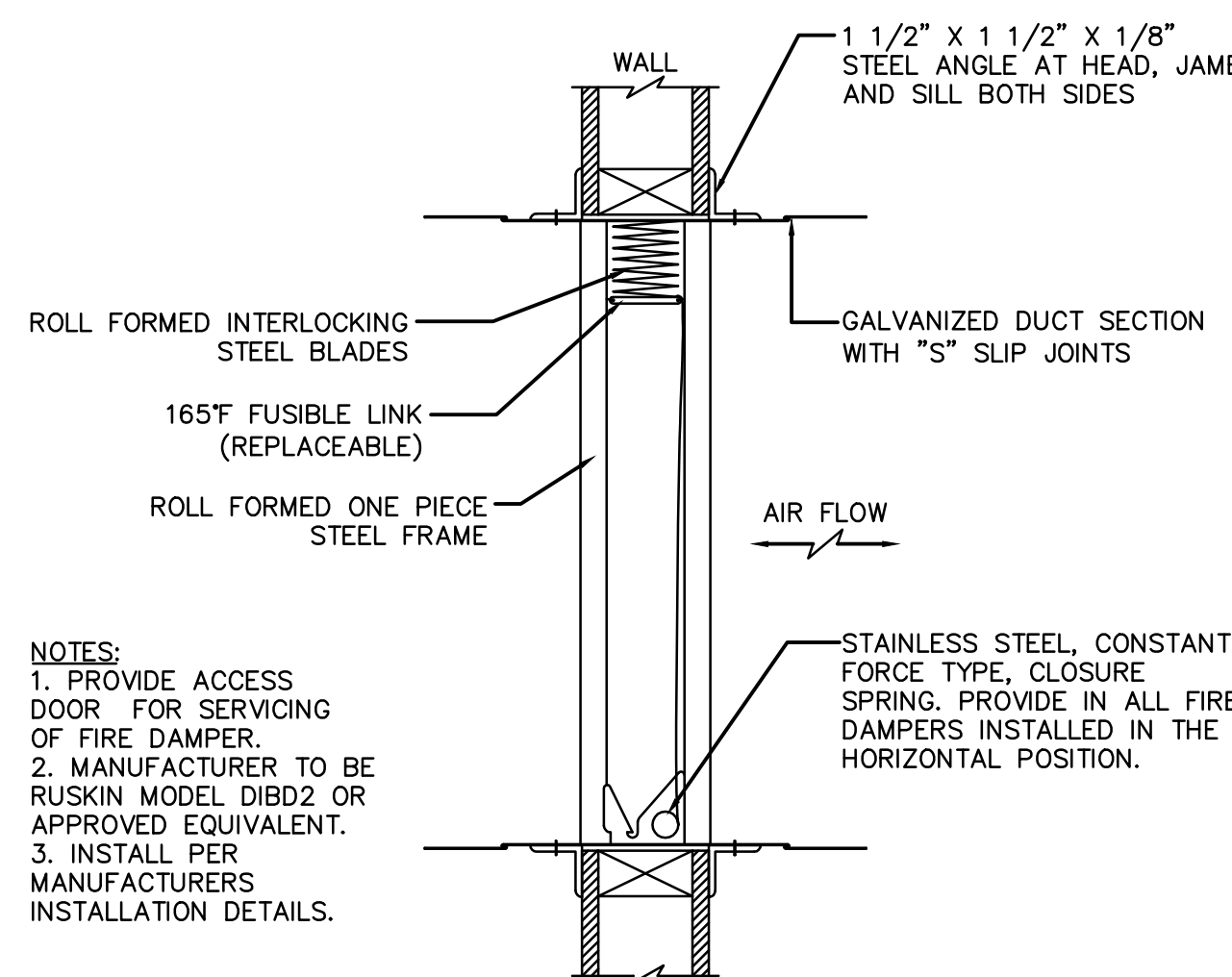
HVAC Load Calculation - Entire Space		9/12/2024	Urban Air - Arlington Heights, IL		23.381
Heating Load Analysis:		ASHRAE DESIGN:	DB=	-6	
Sensible Heat Loss:		Design Temp		70 F	
			BUTH	TONS	
H_sensible, O.A. = 1.08 * cfm * delta T		H_sensible_OA =	-1380175.2	-115.01	
H_sensible, O.A. = 1.08 * cfm * delta T		H_sensible_OA = Intrusion	-49248.0	-4.10 (=0 if no MAU)	
H_sensible, walls = A * u * dT		H_sens_wall =	-35120.0	-2.93	
H_sensible, floor = A * u * dT		H_sens_floor =	-2390.0 (dT = 2F)	-0.20	
H_sensible, roof = A * u * dT		H_sens_roof =	-3632.8	-0.30	
H_sensible, window conductance = A_glass * U * dT		H_sens_glass =	-72130.7	-6.01	
delta T					
Outside Air, ventilation =	56815	(Auto Populate - from IMC calculation)			
Outside Air, Intrusion =	600	(from open doors on windy winter days)			
Outside Air =	17415				
Roof / Floor Area =	1195	(Auto Populate - from ventilation calculation)			
Wall Height - Average	20	<----- update on cooling chart			
Perimeter (unconditioned)	439	<----- update on cooling chart			
Wall Area =	8780				
Window length =	56	<----- update on cooling chart			
Window height =	22.3	<----- update on cooling chart			
Window Area =	1248.8				
Shading Factor =	0.4	<----- update on cooling chart			
R-value Walls = (R_net) =	19	New Wall			
U-value Walls =	0.052631579	Average Wall			
R-floor = (R_net) =	1				
U-floor	1				
R-roof = (R_net) =	25	<----- update on cooling chart			
U-roof	0.04	<----- update on cooling chart			
U-glass	0.76	<----- update on cooling chart			
Total Heating Load:			-1542697 BTHU		
Space Load - Heating Required			452.01 KW		
Space Load - Heating Provided			780.00 KW		

IMC 2018 Ventilation Comparison				9/12/2024										Urban Air - Arlington Heights, IL				23.38	
Zone Identification				Standard Case: IMC 2018 Verification Rate Procedure										Design Case					
Zone	Occupancy Category	Area (sf) (A _z)	Table 403.3.1.1 People Outdoor Air Rate (cfm/person) (R _o)	Table 403.3.1.1 Area Outdoor Air Rate (cfm/sf) (R _a)	Table 403.3.1.1 Expected Occupant Density (#/1000 sf)	Zone Population (# persons) (P _z)	Breathing Zone Outdoor Air Flow (CFM) (V _{bz})	Table 403.3.1.1.2 Zone Air Distribution Effectiveness (E _z)	Zone Outdoor Air Flow (CFM) (V _{oz})	Zone Primary Air Flow (CFM) (V _{pz})	Factor Z _{ps} V _{ad} /V _{ps} (Z _o)	Table 403.3.1.2.3.2 System Ventilation Efficiency (E _s)	Outdoor Air Intake Flow (CFM) (V _{ao})	Total Outdoor Airflow provided by HVAC equip. (CFM)	Design Airflow provided by HVAC equip. (CFM)	Design % by which Outside Air Design Flow Exceeds Standard			
Cafe	Kitchens (Cooking)	1829	7.5	0.12	20	6	264.5	0.8	330.6	1	330.6	1	330.6	335	0	1.3%			
Restrooms	Toilet Rooms + Public	962	-	-	-	-	-	-	-	-	-	-	-	0	-	-			
IDF / Elec Rms	Storage	514	-	0.06	-	-	30.8	0.8	38.6	1	38.6	1	38.6	40	0	3.8%			
Office	Office	175	5.0	0.06	25	4	32.4	0.8	40.5	1	40.5	1	40.5	45	0	11.2%			
Breakroom	Office	0	5.0	0.06	25	0	0.0	0.8	0.0	1	0.0	1	0.0	0	0	#DIV/0!			
Corridors	Corridors	14383	-	0.06	-	-	863.0	0.8	1078.7	1	1078.7	1	1078.7	1100	0	2.0%			
Receiving	Shipping & Receiving	806	10.0	0.12	2	2	112.8	0.8	141.1	1	141.1	1	141.1	145	0	-			
Go Karts	Shipping & Receiving	10426	10.0	0.12	1	10	1355.4	0.8	1694.2	1	1694.2	1	1694.2	1700	0	0.3%			
Play Areas	Gym, stadium, arena (play area)	23197	20.0	0.18	7	162	7423.0	0.8	9278.8	1	9278.8	1	9278.8	9300	0	0.2%			
Storage	Storage	170	-	0.06	-	-	10.2	0.8	12.8	1	12.8	1	12.8	15	0	17.6%			
Party Rooms	Conference	5154	5.0	0.06	50	258	1597.7	0.8	1997.2	1	1997.2	1	1997.2	2000	0	0.1%			
Seating Area	Sales	7340	7.5	0.12	15	110	2133.2	0.8	2133.2	1	2133.19	1	2133.2	2135	0	0.1%			
	Total	64956				553					Total Required OA (CFM):	16745.5	16815	0					
V _{RE} = R _o *P _z + R _a *A _z																			
V _{RE} = the total airflow provided by the HVAC equipment (Outdoor + Recirculated).																			
V _{RE} = V _{ad} /E _s																			
Z _{ps} = V _{ad} /V _{ps}																			
	Kitchen Required Exhaust =		0.7 * sf =	1280.3 CFM	as required by Table 403.3.3.1.1 minimum exhaust rates.														
	Mop Sink Exhaust =		50 * Sink	50 CFM	as required by Table 403.3.3.1.1 minimum exhaust rates.														
	Restroom Exhaust =		70 * WC/UR	840 CFM	as required by Table 403.3.3.1.1 minimum exhaust rates.														
	Total Exhaust Required =			2170.3 CFM	as required by Table 403.3.3.1.1 minimum exhaust rates.														
	Total Exhaust Provided =			2775 CFM															
Note: The kitchen area is open to the dining area and air is free to move across zones.																			
Terminology has been adopted from IMC 2018, refer to Chapter 4 of that code for additional terminology, equations, etc.																			

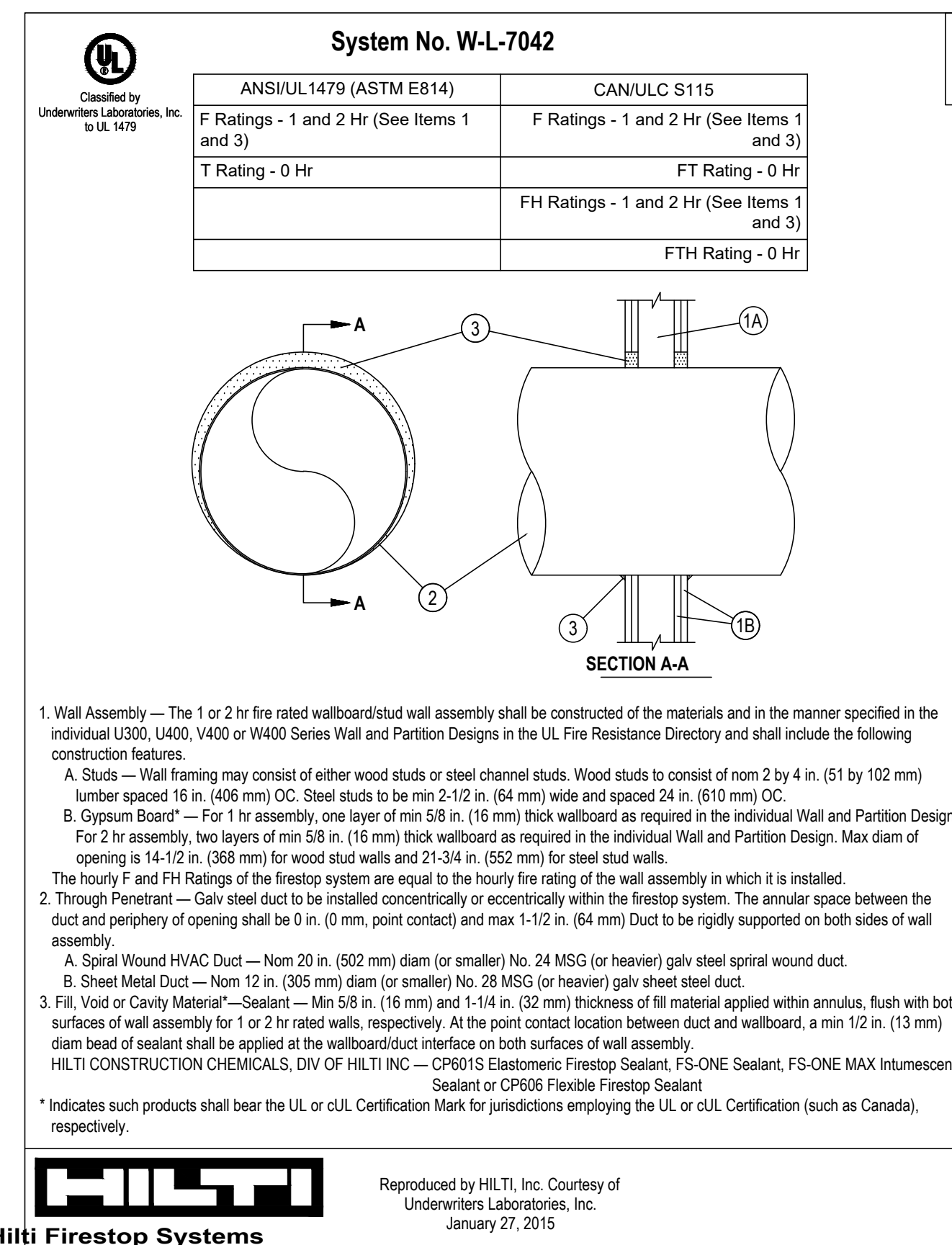


—*REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR COMPONENT AND DEVICE SPECIFICATIONS.—

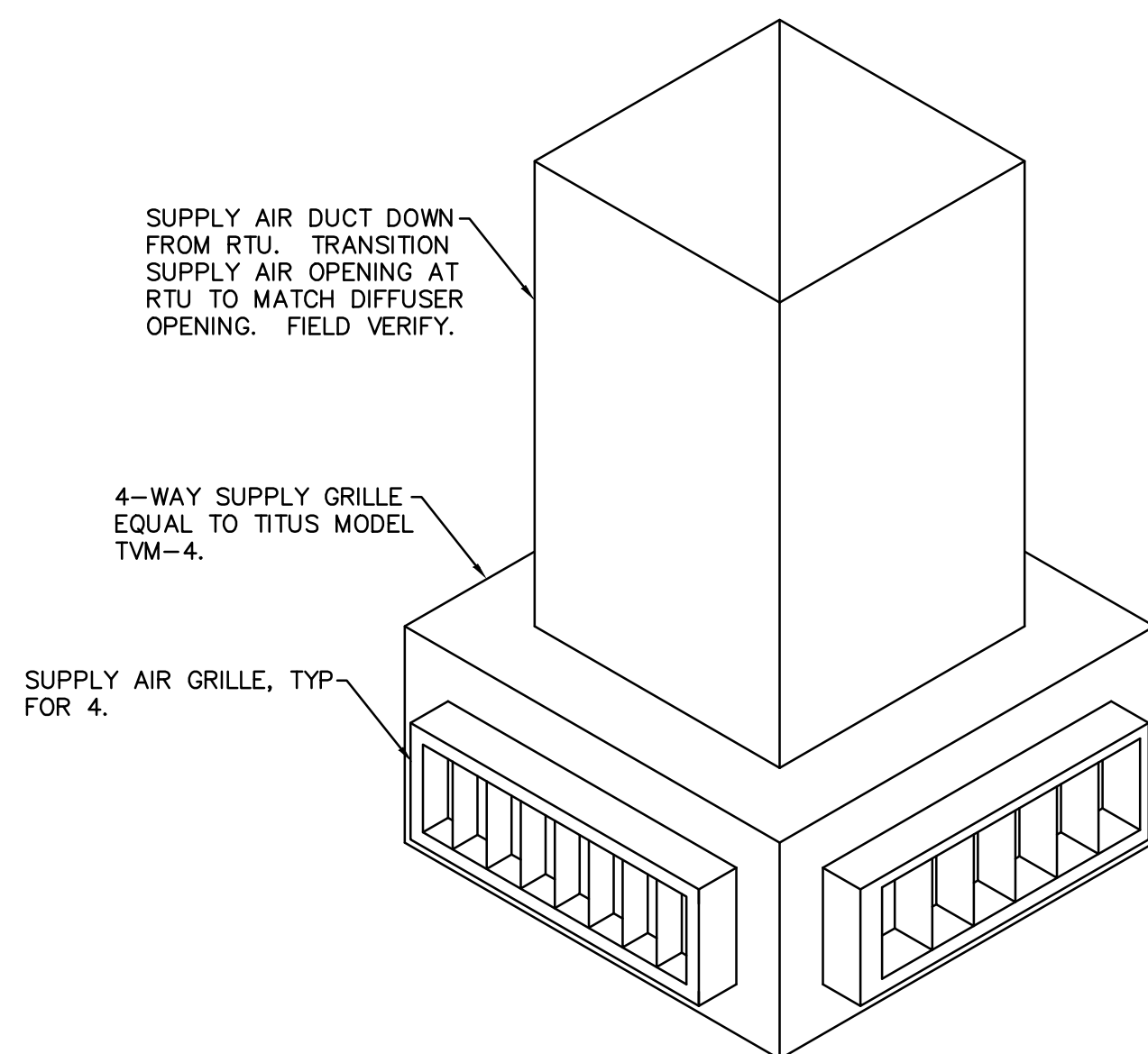
01 HVAC DUCTWORK DETAIL
SCALE: NOT TO SCALE



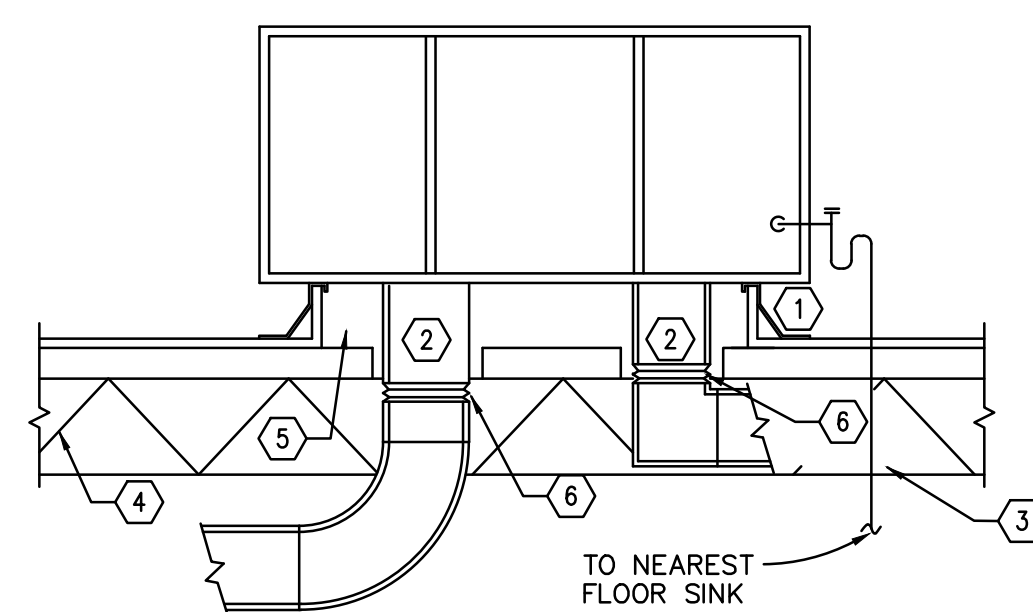
05 FIRE DAMPER DETAIL
SCALE: NOT TO SCALE



04 DUCT PENETRATIONS THRU FIRE RATED WALL DETAIL
SCALE: NOT TO SCALE



03 CONCENTRIC 4-WAY SUPPLY AIR UNIT DETAIL
SCALE: NOT TO SCALE



02 ROOF-TOP UNIT DETAIL
SCALE: NOT TO SCALE

1. SET ROOF CURB ON STRUCTURAL STEEL - SHIM DEAD LEVEL. SECURE ROOF CURB TO METAL DECK AND A/C UNIT TO ROOF CURB.
2. TRANSITION TO CONNECTION SIZES IN DUCT RISE, REFER TO PLANS FOR SIZES.
3. 1" ACOUSTIC LINING IN SUPPLY AND RETURN DUCTS FROM FAN DISCHARGE TO POINT INDICATED ON MECHANICAL DRAWINGS (10"-07" MIN.). DUCT SIZES INDICATED ON PLAN ARE INTERIOR AND DO NOT INCLUDE LINING. PAINT EXPOSED DUCTWORK TO MATCH CEILING. REFER TO ARCHITECTURAL DRAWINGS FOR COLOR SCHEME.
4. THE MECHANICAL ENGINEER DOES NOT PROVIDE STRUCTURAL ENGINEERING SERIES, AND RECOMMENDS TO THE OWNER THAT ANY ADDITIONAL LOAD PLACED ON THE ROOF BE APPROVED BY A STRUCTURAL ENGINEER.
5. INSULATED ROOF CURB. PROVIDE MINIMUM OF 14" HIGH RTU CURBS. CURB MUST BE PLACED ON THE STRUCTURAL FRAMING.
6. FLEXIBLE CONNECTION - TYPICAL.



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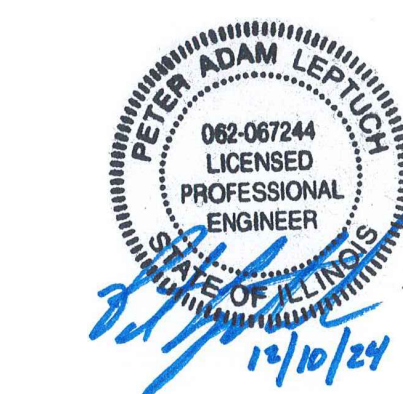
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MECHANICAL LOAD & DETAILS

M2.0

ROOF-TOP UNIT SCHEDULE - 480V (GAS HEAT) (EXISTING)

MARK	MANUFACTURER/ MODEL NUMBER	NOMINAL TONS	FAN HP	CFM	OUTSIDE AIR CFM	IEER SEER EER		COOLING CAPACITY (MBH)			HEATING	ELECTRICAL			UNIT WEIGHT (LBS)	MFG DATE	NOTES
						TOTAL	SENSIBLE	DRY BULB/ WET BULB °F	GAS INPUT (MBH)	(VOLTS/PH/HZ)	UNIT MCA	UNIT MGCP					
RTU-1	CARRIER 48A4D040Q621EQ	40.0	20.0	16,000	3,000	--	--	480.0	360.0	80/67	400	460/3/60	117.0	125.0	--	2014	1,11,12
RTU-2	CARRIER 48A4E040Q662AEQ	40.0	20.0	16,000	3,000	--	--	480.0	360.0	80/67	800	460/3/60	110.0	125.0	--	2018	1,11,12
RTU-3	CARRIER 48A4D030N621EQ	30.0	10.0	12,000	2,215	--	--	360.0	270.0	80/67	350	460/3/60	72.0	80.0	--	2014	1,11,12
RTU-4	CARRIER 48A4D030N621EQ	30.0	10.0	12,000	2,215	--	--	360.0	270.0	80/67	350	460/3/60	72.0	80.0	--	2014	1,11,12
RTU-6	CARRIER 48A4D040Q662AEQ	40.0	20.0	16,000	3,000	--	--	480.0	360.0	80/67	400	460/3/60	110.0	125.0	--	2018	1,11,12
RTU-8	CARRIER 48HCED08J2A6A2	7.5	--	3,000	425	--	--	90.0	67.5	80/67	180	460/3/60	23.0	25.0	--	2018	1,11,12,16
RTU-10	CARRIER 48HCED12J2A6A2	10.0	--	4,000	740	--	11.5	120.0	90.0	80/67	224	460/3/60	30.0	35.0	--	2018	1,11,12,16
RTU-11	CARRIER 48HCED12J2A6A2	10.0	--	4,000	740	--	11.5	120.0	90.0	80/67	224	460/3/60	30.0	35.0	--	2018	1,11,12,16
RTU-12	CARRIER 48HCED12J2A6A2	10.0	--	4,000	740	--	11.5	120.0	90.0	80/67	224	460/3/60	30.0	35.0	--	2018	1,11,12,16
RTU-13	CARRIER 48HCED12J2A6A2	10.0	--	4,000	740	--	11.5	120.0	90.0	80/67	224	460/3/60	30.0	35.0	--	2018	1,11,12,16

- NOTES:
- LABEL EACH RTU AND EXHAUST FAN WITH "URBAN AIR" AND UNIT NUMBER.
 - COOLING CAPACITY IS BASED ON 80°F EDB AND 67°F EWB CONDITIONS.
 - PROVIDE PROGRAMMABLE ROOM THERMOSTAT, HONEYWELL T6 PRO SERIES WIFI COMPATIBLE WITH LOCKOUT.
 - PROVIDE UNWIRED CONVENIENCE OUTLET (ELECTRICIAN SHALL FIELD WIRE TO 208V PANEL) AND 14" ROOF CURB.
 - VERIFY VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING NEW UNITS. OBTAIN STRUCTURAL APPROVAL PRIOR TO PLACING UNIT. ADJUST BREAKERS/WIRE SIZES FOR ACTUAL EQUIPMENT DELIVERED TO THE JOB SITE, IF DIFFERENT THEN SHOWN.
 - UNIT PROVIDED WITH DUAL COMPRESSORS/2-STAGE COOLING.
 - PROVIDE FACTORY ELECTROFIN OR EQUAL ANTI-CORROSION COATING ON OUTDOOR COILS.
 - WEIGHT DOES NOT INCLUDE ACCESSORIES.
 - ORDER WITH ACCESSORIES INCLUDING: CURB, ECONOMIZER, HAIL GUARD, 2-POSITION DAMPER, DUAL ENTHALPY SENSORS, DUCT DETECTORS, BAROMETRIC RELIEF, ETC.
 - MCA BASED ON MEDIUM STATIC FAN.
 - LANDLORD TO FULLY SERVICE AND WARRANTY FOR ONE(1) YEAR.
 - BRING EXISTING UNIT TO LIKE NEW OPERATING AND PERFORMANCE CONDITIONS. COMB OUT FINS, CHANGE BELTS, BRING TO FACTORY SPEC REFRIGERANT LEVELS.
 - HUMID-MIZER
 - VERIFY VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING ANY NEW EQUIPMENT.
 - ECONOMIZER SHALL HAVE CAPABILITY TO RUN DOWN BELOW 40°F OUTSIDE TEMPERATURE (LOW AMBIENT CAPABILITY).
 - IT IS UNKNOWN IF EXISTING UNIT UTILIZES POWERED EXHAUST. WHERE EXISTING UNIT DOES NOT UTILIZE POWERED EXHAUST, PROVIDE 30A 3-POLE BREAKER IN LIEU OF 35A 3-POLE BREAKER.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	DRIVE	AIRFLOW (CFM)	EXT. SP (IN W.C.)	V, PH, HZ	POWER	SERVICE	APPROXIMATE WEIGHT (LBS)	INSTALL LOCATION	NOTES
KEF-1 (NEW)	ACME	PDURG135RG	DIRECT	1,800	1.00"	208/3/60	1/2 (HP)	PIZZA OVEN	21.0	ROOF	4,5
EF-1 (NEW)	GREENHECK	G-099-VG	DIRECT	900	0.50"	120/1/60	1/4 (HP)	RESTROOMS	41.0	ROOF	1,4,6
EF-2 (NEW)	GREENHECK	SP-B110	DIRECT	75	0.30"	120/1/60	80 (WATTS)	RESTROOM	11.0	CEILING	1,2,3
EF-3 (NEW)	GREENHECK	SP-B110	DIRECT	75	0.30"	120/1/60	80 (WATTS)	RESTROOM	11.0	CEILING	1,2,3
EF-4 (NEW)	GREENHECK	SP-B110	DIRECT	75	0.30"	120/1/60	80 (WATTS)	RESTROOM	11.0	CEILING	1,2,3

- PROVIDE WITH BACKDRAFT DAMPER.
- CEILING MOUNTED EXHAUST FAN, PROVIDE WITH ROOF VENT CAP.
- INTERLOCK FAN WITH LIGHT SWITCH.
- PROVIDE WITH 12" ROOF CURB.
- FAN PROVIDED WITH PIZZA OVEN HOOD. COORDINATE WITH VENDOR FOR FINAL SPECIFICATION.
- FAN TO BE CONTROLLED BY TIME CLOCK.

AIR DEVICE SCHEDULE

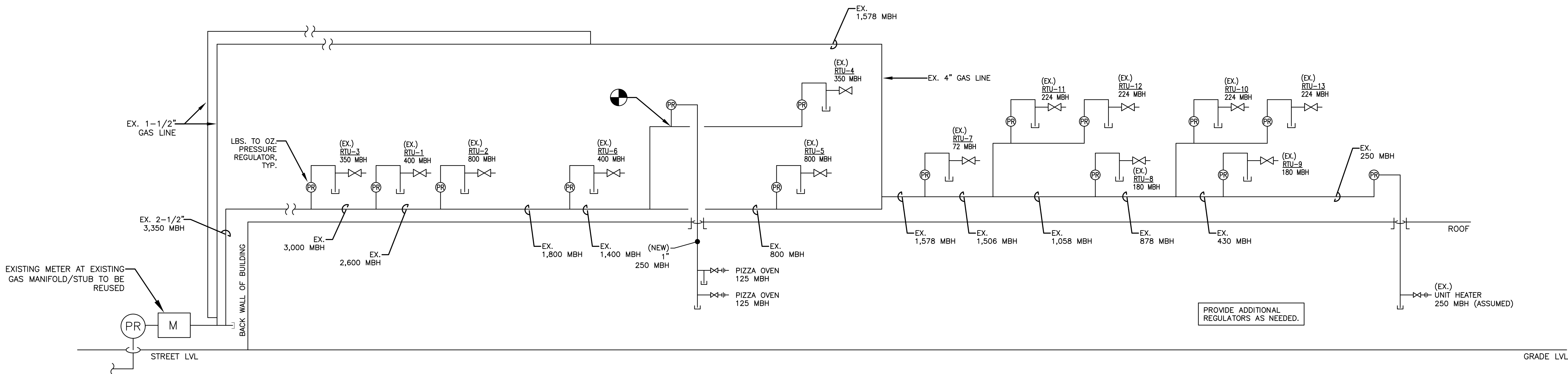
SYMBOL	TAG	MANUF.	CATALOG #	FIXTURE DESCRIPTION	NECK SIZE	REMARKS
	A	TITUS	TMS	24x24 SUPPLY GRILLE/ 12x12 SUPPLY GRILLE	SEE PLAN	ALUMINUM, BORDER TYPE 1 IN GYP. BD. CLG. PAINTED BLACK TO MATCH CEILING WHERE CEILING IS NOT WHITE, REF ARCH. SHEETS.
	B	NAILOR	51EC	12x24 RETURN GRILLE	SEE PLAN	EGGCRATE, BORDER TYPE 1
	C	NAILOR	51EC	24x24 RETURN GRILLE/ 12x12 RETURN GRILLE	SEE PLAN	EGGCRATE, BORDER TYPE 1, PROVIDE FILTER-TYPE RETURN GRILLES WHERE INSTALLED IN THE KITCHEN.
	D	NAILOR	61DV-0	SIDEWALL SUPPLY, 1/2" WIDTH, WHITE.	---	SURFACE MOUNT, EACH SHALL HAVE NECK VOLUME DAMPER.
	E	TITUS	350FL	SIDEWALL RETURN	---	LOUVERED, BLADES PARALLEL TO LONG DIMENSION. REFER TO PLANS FOR GRILLE SIZE.
	F	TITUS	TMV-4	CONCENTRIC DIFFUSER	---	4 DIRECTIONAL CONCENTRIC DIFFUSER.
	G	TITUS	TMV-6	CONCENTRIC DIFFUSER	---	6 DIRECTIONAL CONCENTRIC DIFFUSER.
	H	TITUS	TMSA-FR	24x24 SUPPLY GRILLE	SEE PLAN	FIRE RATED, BUTTERFLY DAMPER IN NECK
	J	TITUS	PAR-FR	24x24 RETURN GRILLE	SEE PLAN	FIRE RATED, BORDER TYPE 1
	K	TITUS	DL	25x15 SUPPLY DRUM LOUVER	25X15	HIGH CAPACITY, LONG THROW, DUCT MOUNTED SUPPLY AIR LOUVER.

- NOTE:
- ALL GRILLES IN GYP BOARD CEILING SHALL BE ORDERED WITH INTEGRAL BALANCING DAMPERS.
 - PROVIDE RECTANGULAR TO ROUND ADAPTERS WHEREVER NECESSARY.
 - NOT ALL DEVICES USED ON ALL JOBS.
 - TRANSITION NECK SIZE ON SUPPLY AND RETURN AS NEEDED TO ENSURE SAME SIZE (WITHIN 2") SUPPLY AND RETURN REGISTERS FOR UNIFORM APPEARANCE.
 - PROVIDE INSULATED BACKING ON ALL AIR DEVICES.

AIR BALANCE SCHEDULE

UNIT	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST	PRESSURE	AREA SERVED
RTU-1	16,000	13,000	3,000	—	+3,000	PLAY AREA
RTU-2	16,000	13,000	3,000	—	+3,000	PLAY AREA
RTU-3	12,000	9,785	2,215	—	+2,215	PLAY AREA
RTU-4	12,000	9,785	2,215	—	+2,215	PLAY AREA
RTU-6	16,000	13,000	3,000	—	+3,000	PARTY RMS/ PLAY
RTU-8	3,000	2,575	425	—	+425	KITCHEN
RTU-10	4,000	3,260	740	—	+740	PLAY AREA
RTU-11	4,000	3,260	740	—	+740	PLAY AREA
RTU-12	4,000	3,260	740	—	+740	PLAY AREA
RTU-13	4,000	3,260	740	—	+740	PLAY AREA
KEF-1	---	---	---	1,800	-1,800	PIZZA OVEN
EF-1	---	---	---	900	-900	RR
EF-2	---	---	---	75	-75	RR
EF-3	---	---	---	75	-75	RR
EF-4	---	---	---	75	-75	RR
TOTAL	91,000	74,185	16,815	2,925	+13,890	---

*NEW UNITS SHALL BE EQUIPPED WITH ECONOMIZER WITH FULL SIZE BAROMETRIC RELIEF.



01 GAS RISER DIAGRAM
SCALE: NOT TO SCALE

LINE SIZES SHOWN HERE ARE BASED ON MEDIUM PRESSURE GAS PIPE (2 PSI) AND 850' TOTAL DEVELOPED LENGTH. THESE SIZES REPRESENT MINIMUM LINE SIZES. NOTIFY ENGINEER FOR RESIZING IF ANY OTHER EQUIPMENT IS SERVED BY EXISTING LINES BEYOND WHAT IS SHOWN HERE, OR IF TOTAL DEVELOPED LENGTH EXCEEDS 850' FOR RESIZING OF LINES. PROVIDE POUNDS TO OUNCES REGULATORS AT EACH UNIT.



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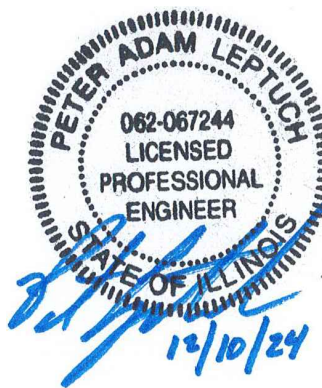
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MECHANICAL
SCHEDULES

M3.0

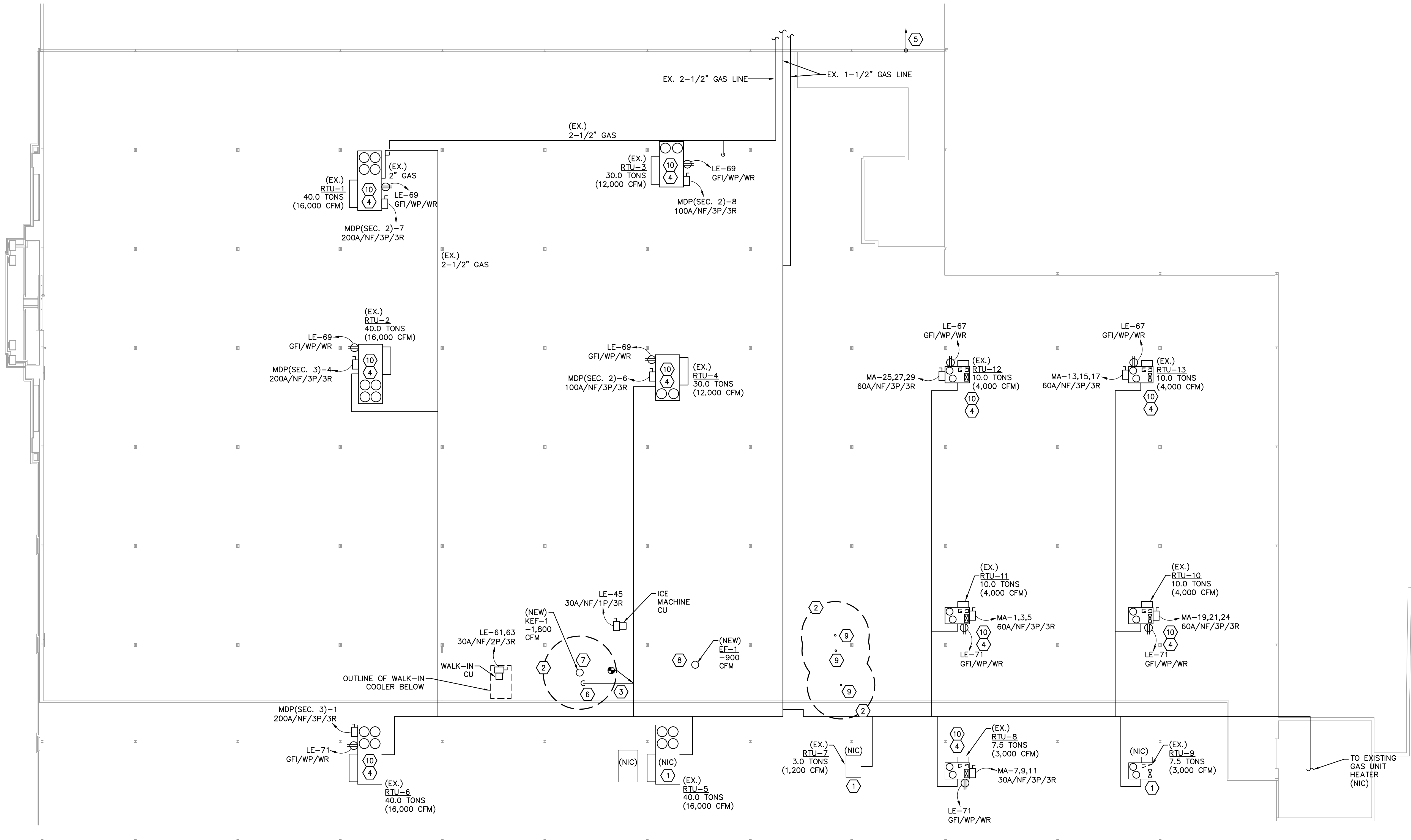
1. ELECTRICAL CONTRACTOR SHALL REFER TO ALL MECHANICAL, PLUMBING AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND CHARACTERISTICS OF ALL EQUIPMENT LISTED BELOW, ANY MODIFICATION AND/OR ADDITIONAL WORK NECESSARY SHALL BE INCLUDED IN THE BASE BID.
2. ELECTRICAL CONTRACTOR SHALL CHECK THE ROTATION OF ALL THREE PHASE MOTORS AND CORRECT THE ROTATION IF REVERSED.
3. ALL TEMPERATURE CONTROL AND INTERLOCK WIRING SHALL BE BY HVAC CONTRACTOR UNLESS NOTED OTHERWISE.
4. ELECTRICAL CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF CATALOG CUTS FOR ALL SCHEDULED EQUIPMENT FURNISHED BY THIS CONTRACTOR FOR ARCHITECT/ENGINEER REVIEW.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE THE ROUTING OF POWER WIRING TO ROOF-MOUNTED EQUIPMENT WITH MECHANICAL PIPE CURB ASSEMBLY. NO SEPARATE ROOF PENETRATIONS WILL BE PERMITTED UNLESS OTHERWISE SPECIFIED BY LANDLORD'S NEW ROOFING WARRANTY.
6. ELECTRICAL CONTRACTOR SHALL FURNISH AND WIRE DUCT SMOKE DETECTORS IN THE RETURN AND SUPPLY AIR PLENUM AND A FAN SHUT DOWN RELAY FOR ALL AIR SUPPLY UNITS. DETECTORS TO BE INSTALLED BY MECHANICAL CONTRACTOR.
7. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A WEATHER PROOF, GROUND FAULT INTERRUPTER TYPE RECEPTACLE, AT AN ACCESSIBLE LOCATION FOR SERVICING ON ROOFTOP HEATING AND AIR CONDITIONING EQUIPMENT. THIS RECEPTACLE SHALL BE LOCATED WITHIN 25 FEET AND AT THE SAME LEVEL OF THIS EQUIPMENT.

REFER TO SHEET
M3.0 FOR GAS RISER.

REFER TO SHEET
M3.0 FOR GAS RISER.

- 1 EXISTING RTU - NOT IN SCOPE OF WORK.
- 2 MAINTAIN 10'-0" BETWEEN OUTSIDE AIR INTAKES AND ALL EXHAUST SOURCES. MECHANICAL CONTRACTOR SHALL PROVIDE OFFSETS AS NEEDED TO ENSURE EXHAUST FANS ARE 10'-0" AWAY FROM NEIGHBORING TENANT'S FRESH AIR INTAKE.
- 3 PROVIDE ROOF GAS PIPE SUPPORT EVERY 10'-0" ON CENTER AND AT EVERY CHANGE IN DIRECTION.
- 4 PROVIDE / REPLACE AS NEEDED. CONDENSATE SHALL RUN FROM TO APPROX RECEPTOR. CONDENSATE SHALL BE INSTALLED WHERE INSTALLED WITHIN BUILDING. REROUTE TO NEW APPROVED RECEPTOR AS NEEDED.
- 5 ROOF ACCESS VIA ROOF HATCH LOCATED IN THE PLANET FITNESS SPACE, APPROXIMATELY 250 FT. FROM THIS POINT.
- 6 GAS PIPE DOWN THROUGH ROOF TO PIZZA OVEN.
- 7 14X14 PIZZA HOOD EXHAUST DUCT UP THROUGH ROOF FAN AND ROOF CURB. FLASH AND COLLAR ROOF PENETRATION. FAN SERVES THE COMBO PIZZA OVEN / HOOD.
- 8 14X14 EXHAUST DUCT UP THROUGH ROOF TO NEW FAN ON NEW ROOF CURB. FLASH AND COLLAR ROOF PENETRATION
- 9 NEW 6" Ø EXHAUST DUCT UP THROUGH ROOF TO ROOF CAP. FLASH AND COLLAR ROOF PENETRATION.
- 10 EXISTING RTU TO REMAIN.

1. CONTRACTORS AND SUB CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS TO BE OBTAINED THROUGHOUT THE CONSTRUCTION AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERRING THE COMPLETE DOCUMENT SET.
2. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER AND CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.
3. ALL ROOFING WORK (CURBS, REPAIRS, SPUD WORK, ETC.) SHALL BE PERFORMED BY THE LANDLORD'S APPROVED ROOFING CONTRACTOR.
4. DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC SHOWING THE GENERAL LOCATION, EQUIPMENT TYPE AND LAYOUT, THE DRAWINGS SHALL NOT BE SCALE. CURB MEASUREMENTS BY LANDLORD, MANUFACTURERS STANDARD BE DONE. GENERAL DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM. SUBMIT SHOP DRAWINGS PER THE SPECIFICATIONS.
5. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION INCLUDING APPLICABLE SECTIONS OF NFPA, OSHA, BOCA, NEC AND IBC OR ANY INTERIM CODES IN EFFECT AT THE TIME OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE WORK AND OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
6. FLEXIBLE DUCT SHALL NOT EXCEED 5" IN LENGTH, ONLY ONE 90 DEGREE ELBOW ALLOWED IN FLEXIBLE DUCTWORK. FLEXIBLE DUCTWORK SHALL BE INSTALLED FREE OF ANY KINKS OR RESTRICTIONS THAT WOULD REDUCE AIRFLOW. FLEX DUCT ALLOWED ONLY ABOVE CONCEALED CEILINGS.
7. WHERE APPLICABLE, UNITS SHALL USE SAME ROOF PENETRATION IF POSSIBLE. IF CURB REQUIREMENT BY LANDLORD, MANUFACTURERS STANDARD BE DONE SHALL BE BY LANDLORD-APPROVED ROOFING CONTRACTOR. ANY NEW RTU LOCATIONS SHALL BE APPROVED BY STRUCTURAL ENGINEER.
8. WHERE SPECIFIED, TENANT'S G.C. SHALL PROVIDE TEST AND BALANCE REPORT (BY NEBB/AAEC CONTRACTOR) TO OWNER PRIOR TO COMPLETION OF WORK TO ENSURE PROPER SUPPLY, RETURN AND OUTSIDE AIRFLOWS.
9. TENANT IS NOT TO SUSPEND ANY ITEMS FROM THE BOTTOM OF THE ROOF DECK. TENANT IS NOT TO SUSPEND ANY ITEMS FROM THE BOTTOM ROOF JOIST OR JOIST TO GIRDER CHORDS WITHOUT WRITTEN APPROVAL OF THE BUILDING DEPARTMENT/STRUCTURAL ENGINEER OF RECORD. TENANT IS TO SUBMIT PROPOSED DETAILS, FOR ITEMS TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF DECK, FOR REVIEW BY THE STRUCTURAL ENGINEER. IN GENERAL, NO DUCT WORK, CONDUTS, PIPES, BANNERS, SIGNAGE, OR CURTAIN/SUSPENDED DURT-DOWNS OR WALLS ARE TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF STRUCTURE, WITHOUT APPROVAL AND TENANT FINISH-OUT WORK IS TO BE SUSPENDED FROM ANY OTHER LOCATION. NO SIGNAGE OR LIGHT BRIDGING OR FROM X-BRACING OR FROM THE BOTTOM OF THE ROOF DECK. SUSPENDED TEE GRID CEILING AND LIGHT FIXTURES SHALL BE SUSPENDED FROM THE BOTTOM OF THE ROOF DECK AND BOTTOM OF THE GIRDER CHORDS. IN MAXIMUM WEIGHTS OF SEVENTY-FIVE (75) POUNDS AT BOTTOM CHORD JOIST PANEL POINTS, WITHOUT ADDED STEEL ANGLE REINFORCING UP TO TOP JOIST CHORDS. SUSPENDED CEILING AND LIGHT FIXTURES ARE NOT TO BE SUSPENDED FROM THE BOTTOM OF THE ROOF DECK.
10. CONTRACTOR MAY ADJUST VENT LINE LOCATIONS AND REUSE EXISTING VTR(S) WHERE VENT IS NOT WITHIN 10"-0" OF AN EXISTING OR PROPOSED FRESH AIR INTAKE.
11. THE MEP PANS SHALL NOT BE STRUCTURAL ENGINEERING STANDARDS. OBTAIN STRUCTURAL APPROVAL PRIOR TO SETTING ANY NEW EQUIPMENT ON ROOF, AND PRIOR TO USING ANYTHING TO STRUCTURE THAT MAY IMPACT THE STRUCTURAL INTEGRITY OF THE SPACE.
12. MAINTAIN 3'-0" CLEAR SPACE AROUND ALL EQUIPMENT FOR MAINTENANCE AND SERVING.
13. ADD PRESS REG. REGULATORS AS NEEDED WHERE 2 PSI GAS IS EXISTING AT THE GAS METER BANK. VENT REGULATOR TO OUTDOORS.



01 MEP ROOF PLAN
SCALE: 1/16"=1'-0"



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MEP ROOF PLAN

MEP1.0

ELECTRICAL SPECIFICATIONS

16010 WORK INCLUDED

- 1.1 CONTRACTOR SHALL PROVIDE THE FOLLOWING:
- a. LABOR
 - b. SUPPLIES
 - c. MATERIALS
 - d. SHOP DRAWINGS
 - e. PERMITS AND INSPECTION FEES
 - f. CERTIFICATION OF FINAL INSPECTION AND APPROVAL
 - g. ONE YEAR GUARANTEE
- 1.2 CONTRACTOR SHALL PERFORM THE FOLLOWING:
- a. INSTALLATION OF ALL ELECTRICAL EQUIPMENT.
 - b. COORDINATE WITH OTHER TRADES OF ELECTRICAL EQUIPMENT INSTALLATION.
 - c. MATERIAL PROTECTION DURING CONSTRUCTION
 - d. TEST OF ENTIRE SYSTEM IN PRESENCE OF OWNER OR HIS REPRESENTATIVE AND CORRECT ANY DEFICIENCIES DISCOVERED.
 - e. COORDINATION OF ELECTRICAL SERVICE AND METERING WITH LOCAL POWER COMPANY.
 - f. COORDINATION OF TELEPHONE SERVICE WITH LOCAL TELEPHONE COMPANY.
- 1.3 GOVERNING CODES SHALL BE THE FOLLOWING:
- a. LOCAL MUNICIPALITY ELECTRICAL CODE.
 - b. PER LATEST NATIONAL ELECTRICAL CODE (NEC)
 - c. UTILITY COMPANY REGULATIONS
 - d. AMERICANS WITH DISABILITY ACT
 - e. CURRENT APPLICABLE BUILDING CODES
 - f. LOCAL BUILDING CODES AND ORDINANCES
 - g. THE NATIONAL MANUFACTURER'S ASSOCIATION STANDARDS (NEMA)
 - h. UNDERWRITER LABORATORIES INCORPORATED STANDARD(S)
 - i. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
 - j. THE MANUFACTURER'S RECOMMENDATION
- 1.4 MATERIAL WILL BE:
- a. NEW
 - b. UL LISTED

16110 RACEWAYS

- 1.1 USE AND TYPES
- a. SERVICE ENTRANCE – RIGID STEEL
 - b. FEEDERS – RIGID STEEL EXCEPT ABOVE 8'-0" AND INDOOR THEN EMT
 - c. BRANCH CIRCUIT, TELEPHONE OR COMMUNICATIONS – EMT
 - d. IN EARTH OR CONCRETE – SCHEDULE 40 PVC
 - e. RECESSED LIGHTING FIXTURES – FLEXIBLE STEEL CONDUIT (SHORT BUT MAXIMUM 72")
 - f. OUTDOOR FINAL CONNECTION TO EQUIPMENT OR IN WET LOCATIONS – LIQUID TIGHT FLEXIBLE STEEL CONDUIT (MAXIMUM 36")
 - g. ALL RACEWAYS, UNLESS SPECIFICALLY INDICATED TO BE EXPOSED, SHALL BE CONCEALED IN WALLS, CEILING OR FLOORS.
 - c. PAINT ALL EXPOSED RACEWAYS COLOR AS DIRECTED BY ARCHITECT.
- 1.2 CONDUIT BUSHING.
- a. PROVIDE INSULATED CONDUIT BUSHING AT EACH END OF EVERY CONDUIT RUN.

16120 WIRES AND CABLES 600 VOLTS

- 1.1 COLOR CODING 208Y/120V 480Y/277V
- | | | |
|---------|-------|--------|
| PHASE A | BLACK | BROWN |
| PHASE B | BLUE | YELLOW |
| PHASE C | RED | ORANGE |
| NEUTRAL | WHITE | WHITE |
| GROUND | GREEN | GREEN |
- 1.2 INSULATED, THHN, THWN, XHHW 75 DEGREE C (THWN OR BETTER, WET-RATED FOR BELOW GRADE).
- 1.3 PROVIDE COPPER WIRING UNLESS ALUMINUM IS SPECIFICALLY SOWN ON THE DRAWINGS. WHEN ALUMINUM CONDUCTORS ARE UTILIZED – PROVIDE COMPRESSION LUG FITTINGS.
- 1.4 FIXTURE WIRE, 600 VOLTS, 200 DEGREE C, #14 AWG MINIMUM STRANDED, TINNED COPPER WITH SILICONE RUBBER INSULATION AND AN OVERALL JACKET OF GLASS BRAID, AND RATED AS NEC TYPE "SF"-2

16130 BOXES

- 1.1 ATTACHED SECURELY TO BUILDING CONSTRUCTION OR SUPPORT FROM SAME
- 1.2 MASONRY BOXES SHALL BE RACO OR STEEL CITY
- 1.3 EXPOSED BOXES SHALL BE CAST TYPE SIMILAR TO GROUSE HINDS TYPE FS
- 1.4 ALL OTHERS SHALL BE STAMPED STEEL

16140 WIRING DEVICES

- 1.1 RECEPTACLES
- DUPLEX – 20 AMPS, 125V. AC GROUNDED UNO
- SINGLE – 20 AMPS, 125V. AC GROUNDED UNO
- COORDINATE COLOR OF DEVICE WITH ARCHITECT.
- COORDINATE FINISH AND COLOR OF COVER PLATE WITH ARCHITECT.
- 1.2 WALL SWITCHES
- SINGLE POLE – 20 AMPS, SINGLE THROW, QUIET TYPE, GROUNDED
- COORDINATE COLOR OF DEVICE WITH ARCHITECT.
- COORDINATE FINISH AND COLOR OF COVER PLATE WITH ARCHITECT.
- 1.3 TIME CLOCK
- FURNISH AND INSTALL A TWENTY-FOUR (24), SEVEN (7) DAY TIME CLOCK INCLUDING ALL INTEGRAL WIRING AND LOAD BALANCING (PANEL) FOR CONTROLLING THE STOREFRONT SIGN AND SHOW WINDOW LIGHTING, WHETHER SUCH WORK IS OR IS NOT SHOWN ON PLANS OR SPECIFICATIONS

16170 PANEL BOARDS

- 1.1 PANEL BOARDS SHALL HAVE, BUT NOT BE LIMITED TO THE FOLLOWING:
- A. THREE PHASE, 4 WIRE, COPPER BUSING, NEMA 1 ENCLOSURE FOR INDOOR, NEMA 3R FOR OUTDOOR.
 - a. GROUND BUS WITH SET SCREW CONNECTIONS
 - b. SOLID NEUTRAL, 100% RATED WITH SET SCREW CONNECTION
 - c. SWITCH RATED BOLT-ON BREAKERS
 - d. TYPE WRITTEN DIRECTORY
 - e. PLAQUE, BLACK WITH 1" HIGH WHITE LETTERS TO INDICATE PANEL NAME
 - f. SQUARE D, GENERAL ELECTRIC OR SIEMENS
 - B. EXCEPT, SINGLE PHASE PANELS SHALL BE USED FOR PROJECTS THAT HAVE SINGLE-PHASE POWER AND FOR SUB-PANELS ON DELTA HI-LEG PROJECTS.

16190 GROUNDING

- 1.1 FEEDERS AND BRANCH CIRCUITS
- PROVIDE A GREEN INSULATED GROUND CONDUCTOR, SIZED PER THE NEC IN EACH RACEWAY

16200 LIGHTING FIXTURES

- 1.1 COORDINATE FIXTURE TRIMS WITH CEILING IN/ON WHICH IT IS BEING INSULATED.
- 1.2 MATCH VOLTAGE OF FIXTURE TO CIRCUIT TO CIRCUIT TO WHICH FIXTURE IS SHOWN CONNECTED
- 1.3 PROVIDE LOW TEMPERATURE HIGH EFFICIENCY ELECTRONIC BALLASTS IN FLUORESCENT FIXTURES
- 1.4 PROVIDE THERMAL OVERLOAD PROTECTION IN BOTH FLUORESCENT AND INCANDESCENT FIXTURES
- 1.5 NARRATIVE DESCRIPTION IN LIGHTING FIXTURE SCHEDULE TAKES PRECEDENCE OVER CATALOG NUMBER
- 1.6 PROVIDE INTEGRAL DISCONNECTING MEANS FOR ALL FLUORESCENT FIXTURES PER THE NEC
- 1.7 ORDER DIMMABLE VERSION OF FIXTURES WITH COMPATIBLE DIMMERS WHERE INDICATED AND WHERE NECESSARY TO COMPLY WITH ENERGY CODE.

PROTOTYPICAL "NO SURPRISE" MEP BID NOTE:
EACH SET OF DRAWINGS IS INDIVIDUALLY ASSEMBLED AND AN ATTEMPT IS MADE TO INCLUDE LEASE SCOPE IN THE DRAWING SET. HOWEVER, THE CONTRACTOR SHALL VISIT THE SITE TO CONFIRM WHAT IS LISTED AS EXISTING BY LANDLORD, OR SIMILAR IS ACTUALLY THERE, AND IF IT IS NOT, THE CONTRACTOR SHALL PROVIDE ITEMIZED BID TO COMPLETE SUCH GAP WORK TO ENSURE ALL WORK THAT WILL BE REQUIRED BY CONTRACTOR IS INCLUDED IN THE CONTRACTOR'S SCOPE. IF THE CONTRACTOR PROVIDES A BULK BID OR SINGLE PRICE BID, IT WILL INCLUDE EVERYTHING REQUIRED TO BUILD A COMPLETE STORE, INCLUDING ANY WORK "BY OTHERS" THAT IS NOT PRESENT.

16210 EXISTING CONDITION

- 1.1 VISIT SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS IN AND AROUND THE BUILDINGS

16220 TELEPHONE SERVICE

- 1.1 SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE, 600 OR 250 VOLT, WITH NUMBER OF POLES REQUIRED. FUSED SAFETY SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK MECHANISM, VISIBLE BLADES WITH REJECTION TYPE FUSE CLIPS AND NEMA CLASS "LPJ" FUSES, THE SWITCHES SHALL BE NEMA 3R FOR OUTDOOR. ALL SWITCHES SHALL BE LOCKABLE.

PLUMBING SPECIFICATIONS

SECTION 15-A – PLUMBING

15A-01 GENERAL

ALL PLUMBING WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE, COUNTY, CITY, LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. INCORPORATE ALL REQUIREMENTS WITH THIS WORK, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT. ADVISE ARCHITECT IF REQUIREMENTS ARE CONTRARY TO THESE PLANS. IT IS INTENDED THAT THE CONTRACTOR SHALL PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.

THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS AND FEES REQUIRED OR RELATED TO HIS WORK.

CONTRACTOR SHALL DETERMINE THE LOCATION OF EXISTING WATER SUPPLY AND DRAIN LINES AND MAKE PROPER CONNECTION THERETO, INCLUDING VENTS.

ALL MATERIALS SHALL BE NEW AND SHALL FIT THE SPACE AVAILABLE. VERIFY ALL DIMENSIONS AT THE SITE.

ALL VALVES, CLEANOUTS, ETC., SHALL BE SO LOCATED AND INSTALLED TO PERMIT ACCESS FOR SERVICE WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIAL.

ALL PLUMBING EQUIPMENT AND WORK SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY LANDLORD AND TENANT.

UNLESS NOTED OTHERWISE, THE BASELINE DESIGN ASSUMES THAT A GRAVITY FLOW SYSTEM MAY BE ACHIEVED. NOTIFY ARCHITECT IF INVERTS ARE TOO SHALLOW AND A LIFT STATION IS REQUIRED.

ALL PLUMBING EQUIPMENT AND WORK SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY LANDLORD AND TENANT.

UNLESS NOTED OTHERWISE, THE BASELINE DESIGN ASSUMES THAT A GRAVITY FLOW SYSTEM MAY BE ACHIEVED. NOTIFY ARCHITECT IF INVERTS ARE TOO SHALLOW AND A LIFT STATION IS REQUIRED.

15A-02 MATERIALS

REFER TO SHEET P2.0 FOR PLUMBING MATERIALS TABLES
REFER TO PLANS FOR SCHEDULES OF EQUIPMENT AND FIXTURES. AMERICAN STANDARD, KOHLER AND CRANE ARE CONSIDERED ACCEPTABLE AS EQUALS. ALL PLUMBING EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SANITARY PIPING

WHERE NOT OTHERWISE SPECIFIED THROUGHOUT THE DRAWING SET, WASTE, DRAIN AND VENT PIPING SHALL BE PER LOCAL CODE AND AUTHORITY HAVING JURISDICTION. VENT PIPING ABOVE FLOOR 2" OR SMALLER MAY BE GALVANIZED STEEL.

PROVIDE LINE-ITEM BID TO UTILIZE PVC, OBTAIN APPROVAL FROM INSPECTOR PRIOR TO INSTALLATION THAT PVC IS ALLOWED FOR THE SPECIFIC HVAC LAYOUT FOR THIS PROJECT.

INSULATE THE TRAP, SANITARY AND SUPPLY PIPES UNDER LAVATORY WITH 1/2" ARMSTRONG "ARMAFLEX" PIPING INSULATION OR TUBEROG MODEL 102W "HANDI LAV GUARD" INSULATION KIT.

CLEAN-OUTS AND FLOOR DRAINS SHALL BE INSTALLED PER LOCAL CODES.

CONDENSATE PIPING SHALL BE TYPE "L" HARD DRAWN COPPER TUBE WITH 95-5 TIN-ANTIMONY SOLDERED JOINTS AND WROUGHT COPPER FITTINGS WITH DIELECTRIC SEPARATION BETWEEN DISSIMILAR METALS. CONDENSATE PIPING BELOW ROOF DECK MAY BE PVC. PROVIDE SHARKBITE TRANSITION FROM PVC TO COPPER.

ANY WASTE PIPING EXPOSED IN PARKING AREAS SHALL BE PROTECTED FROM MECHANICAL DAMAGE. PROVIDE WITH FREEZE PROTECTION (HEAT TAPE & INSULATION) WHERE SUBJECT TO POSSIBLE FREEZING CONDITIONS.

POTABLE WATER PIPING

WATER PIPING IN CEILING SPACE AND WITHIN WALLS MAY BE TYPE "L" COPPER OR PEX, INSTALLED PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SHARK-BITE TRANSITIONS, OR APPROVED EQUALS.

BELOW GRADE: TYPE "K", ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 2 INCHES AND SMALLER. BRAZE ALL JOINTS.

WHERE APPLICABLE, TRANSITIONS BETWEEN COPPER AND PLASTIC PIPE SHALL BE MADE BY SHARKBITE OR SIMILAR TRANSITIONS, RATED FOR USE WITH SUCH MATERIALS AS ARE BEING USED.

PIPING OF DISSIMILAR METALS MUST BE DI-ELECTRICALLY SEPARATED.

INSULATE ALL HOT WATER, COLD WATER AND CONDENSATE PIPING WITH 1" THICK (K=0.23 @ 75°F) PIPE INSULATION WITH AN ALL-SERVICE JACKET TO MEET LOCAL CODES AND UL FLAME SPREAD AND SMOKE DEVELOPED RATINGS. OWENS-CORNING OR EQUAL.

INSTALL AIR CHAMBER SHOCK ABSORBERS IN BOTH HOT AND COLD LINES OF PIPING SYSTEM TO PREVENT NOISE AND DAMAGE DUE TO WATER HAMMER. J.R. SMITH 5000 SERIES ALL STAINLESS STEEL "HYDROTROLS" OR EQUAL, INSTALLED IN AN UPRIGHT POSITION.

ALL BRANCH PIPING SYSTEMS SHALL HAVE ACCESSIBLE SERVICE VALVE. PROVIDE SHUT OFF VALVES ON THE SUPPLY PIPING TO EVERY FIXTURE. PROVIDE ACCESS DOORS WHERE NECESSARY.

INSTALL ALL NECESSARY PIPE HANGERS, SADDLES AND CARRIERS TO PROPERLY SUPPORT ALL PIPING AND FIXTURES. HANGERS SHALL SUIT TYPE OF PIPING AND SEISMIC BRACING WHERE REQUIRED BY CODES.

STERILIZE WATER SYSTEM IN ACCORDANCE WITH LOCAL CODES PRIOR TO BEGINNING USE.

ESCUTCHEONS SHALL BE CHROME PLATED, SIZE AS REQUIRED AND PLACE AT ALL PIPE PENETRATIONS AT WALL, FLOORS AND CEILINGS IN FINISHED AREAS.

LEAKAGE TESTS SHALL BE PER LOCAL CODES.

FLASHING SHALL BE SEALED WATERTIGHT AND PERFORMED IN ACCORDANCE TO THE LANDLORD'S CRITERIA. USE LANDLORD APPROVED ROOFING CONTRACTOR WHERE APPLICABLE.

GAS PIPING

PROVIDE A COMPLETE GAS PIPING SYSTEM IF APPLICABLE. REFER TO PLANS TO DETERMINE IF A GAS SYSTEM IS REQUIRED. GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-120, WITH MALLEABLE THREADED FITTINGS FOR 2" AND SMALLER, AND WITH WELDED JOINTS FOR 2 1/2" AND LARGER.

PROVIDE A GAS COCK, DIRT LEG, AND UNION CONNECTION TO EACH PIECE OF EQUIPMENT.

PITCH PIPING AT A UNIFORM GRADE OF 1/4" IN 15 FEET UPWARD IN DIRECTION OF FLOW. SUPPORT PIPING EVERY 5 FEET. SUPPORT AS REQUIRED BY LANDLORD CRITERIA, AS DETAILED ON DRAWINGS, OR BY STANDARD INDUSTRY PRACTICE, WHICHEVER IS MORE STRINGENT.

GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH TWO COATS OF RUST-INHIBITING PAINT.

GAS PIPING INSTALLED IN RETURN AIR PLENUMS SHALL BE SLEEVED AND VENTED OR WELDED IN ACCORDANCE WITH THE LOCAL GAS COMPANY, LOCAL CODE AND APPLICABLE NFPA 54 CODES. TESTING AND PURGING OF GAS PIPING SHALL BE DONE PER THE REQUIREMENTS OF THE LOCAL GAS COMPANY, LOCAL CODES AND APPLICABLE NFPA 54 CODES.

CONTACT AND COORDINATE GAS SERVICE AND METER REQUIREMENTS WITH THE LOCAL GAS COMPANY PRIOR TO BID. INCLUDE INSTALLATION OF GAS METER COSTS IN BID. PROVIDE REGULATORS AS NEEDED.

*PROPANE
WHEN PROPANE GAS IS USED, PROVIDE TANK. VERIFY LOCATION ON SITE. COORDINATE PIPE PATH TO BUILDING.

MECHANICAL SPECIFICATIONS

SECTION 15-C – HEATING, VENTILATION, AIR CONDITIONING

15C-01 GENERAL

ALL WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE, COUNTY, CITY CODES AND ORDINANCES, SAFETY AND HEALTH CODES NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. INCORPORATE ALL REQUIREMENTS INTO THIS WORK, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT. ADVISE ARCHITECT IF REQUIREMENTS CONTRADICT THESE PLANS. IT IS INTENDED THAT THE CONTRACTOR SHALL PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.

THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO THEIR WORK.

ALL MATERIALS SHALL BE NEW AND SHALL FIT THE SPACE AVAILABLE. VERIFY ALL DIMENSIONS AT THE SITE PRIOR TO ORDERING OR FABRICATING DUCTWORK.

ALL VALVES, DAMPERS, ETC., SHALL BE SO LOCATED AND INSTALLED TO PERMIT ACCESS FOR SERVICE WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIALS.

ALL EQUIPMENT AND WORK SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY LANDLORD AND TENANT.

LABEL ALL RTUS WITH RTU# AND TENANT'S NAME.

15C-02 MATERIALS

REFER TO PLANS FOR SCHEDULES OF EQUIPMENT. ALL EQUIPMENT SHALL BE COMPLETE IN EVERY RESPECT WITH ALL DEVICES, APPURTENANCES, AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL AIR CONDITIONING EQUIPMENT MUST BE TRAPPED IN ACCORDANCE WITH MANUFACTURERS DATA.

BASE BID SHALL BE FOR RIGID METAL DUCTWORK.

FABRICATE AND INSTALL RECTANGULAR AND ROUND DUCTWORK IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" OF THE LATEST EDITION.

INSTALL TURNING VANES IN ALL RIGHT ANGLE ELBOWS OF 1200 CFM OR MORE.

INSTALL RIGID ROUND AND RECTANGULAR WITH SUPPORT SYSTEMS INDICATED IN SMACNA STANDARDS.

PROVIDE SWAY AND SEISMIC BRACING AS REQUIRED BY STATE AND LOCAL CODES OR BY LANDLORD.

ALL JOINTS AND SEAMS SHALL BE SEALED. TOTAL LEAKAGE SHALL NOT EXCEED 5% FOR THE SYSTEM.

ALL DUCTWORK SHALL BE INSTALLED WITH INSIDE CLEAR DIMENSIONS AS NOTED ON DRAWINGS. UPSIZE DUCTWORK AS NEEDED WHEN INTERNAL INSULATION IS NEEDED (E.G. DOUBLE-WALL SPIRAL DUCTWORK). WHERE DUCTWORK SIZE IS LARGER THAN CONNECTED DEVICE SMOOTH DUCT TRANSITIONS ARE TO TAKE PLACE JUST PRIOR TO DEVICE CONNECTIONS.

FLEXIBLE COLLARS AT EQUIPMENT SHALL BE PROVIDED IN ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT AND DUCTS OR CASINGS. FLEXIBLE CONNECTIONS SHALL CONSTRUCTED OF NEOPRENE-COATED FLAMEPROOF FABRIC. PROVIDE ADEQUATE JOINT FLEXIBILITY TO ALLOW FOR MOVEMENT AND PREVENT THE TRANSMISSION OF VIBRATION.

FLEXIBLE AIR DUCT AT AIR DEVICES SHALL BE 1" INSULATED CLASS 1 AND RATED FOR THE OPERATING PRESSURE OF THE SYSTEM. DUCT CONSTRUCTION MATERIAL MUST ADHERE TO LOCAL CODES AND LANDLORD'S REQUIREMENTS.

PROVIDE MANUAL LOCKING QUADRANT VOLUME CONTROL DAMPERS WITH HANDLE OPERATORS IN EACH BRANCH DUCT AND AS SHOWN ON PLANS TO FACILITATE AIR BALANCING. ALL RECTANGULAR DAMPERS IN OUTSIDE AIR, RELIEF AIR, EXHAUST OR RETURN AIR DUCTS ARE TO BE OF OPPOSED BLADE TYPE.

PROVIDE PRIMARY FIRE DAMPERS WHERE INDICATED OR REQUIRED BY CODES. FIRE DAMPERS SHALL BE UL LABELED. FIRE DAMPERS SHALL HAVE THE BLADES OUT OF THE AIRSTREAM AND A TEST FUSIBLE LINK, TYPE B, AS MINIMUM.

DUCTWORK INSULATION

WHERE SPIRAL DUCTWORK IS EXPOSED IN CONDITIONED SPACE, PER GUIDANCE FROM SEB BRANDS, THIS DUCT SHALL NOT HAVE INSULATION. CONTRACTOR SHALL ADJUST DUCTWORK SO THAT IT DOES NOT RUN DIRECTLY ABOVE EGRESS PATH WHERE DRIPPING CONDENSATION COULD CAUSE A SLIP AND FALL HAZARD.

INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A.

DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. ALL SUPPLY AND RETURN AIR RECTANGULAR DUCTWORK SHALL BE INSULATED. WHERE INTERNAL INSULATION IS USED, UPSIZE DUCTWORK AND PROVIDE 1" THICK, 1 1/2" LB. DENSITY LINER (C=0.28 @ 75°F.). LINER IS TO HAVE A COATED SURFACE EXPOSED TO AIRSTREAM TO PREVENT EROSION.

APPLY ADHESIVES AND MECHANICAL FASTENERS AS RECOMMENDED BY SMACNA AND THE MANUFACTURER TO PREVENT LINER SEPARATION FROM THE DUCT. ALL TRANSVERSE EDGES TO BE COATED WITH ADHESIVE.

WHERE EXTERNAL INSULATION IS USED, PROVIDE WITH A MINIMUM OF 1 1/2" THICK, #1 DENSITY (R=5.6) DUCT WRAP. ALL JOINTS MUST BE TAPED TO THAT NO INSULATION FIBER IS VISIBLE. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND SIMILAR PENETRATIONS.

CONCEALED DUCTWORK SHALL BE INSULATED. RETURN AIR DUCTWORK SHALL HAVE 10' OF INTERNAL INSULATION BEGINNING AT DROP FROM UNIT. EXHAUST DUCT MAY BE UNINSULATED. OUTSIDE AIR DUCTS SHALL BE INSULATED FOR RESTAURANT, FITNESS, OR OTHER PROJECTS GENERATING A LARGE AMOUNT OF MOISTURE.

ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NO MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM C 411, OR AS REQUIRED BY LOCAL CODES.

*WHERE APPLICABLE, GREASE DUCT SHALL BE WELDED BLACK IRON AND SHALL HAVE UL-LISTED GREASE DUCT WRAP, 2 LAYERS, INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL PER NFPA 96.

*DRYER DUCTS, WHEN USED, SHALL BE GALVANIZED SHEET METAL WITH 1" INSULATION.

TESTING, ADJUSTING AND BALANCING

BASE BID SHALL BE FOR THE TESTING, ADJUSTING AND BALANCING OF ALL WORK TO BE MADE BY AN INDEPENDENT CONTRACTOR WHO IS A CURRENTLY LICENSED ASSOCIATED AIR BALANCING COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCE BUREAU (NEBB) BALANCING CONTRACTOR. ALL BALANCING WORK MUST BE COMPLETE AND DONE IN ACCORDANCE WITH THE MOST RECENT STANDARDS OF THEIR SOCIETY. PAYMENT OF ALL COSTS FOR TESTING AND BALANCING SHALL BE INCLUDED IN THE BID.

BALANCE AIR AND WATER QUANTITIES TO WITHIN +/- 5% OF THAT INDICATED ON THE DRAWINGS. ANY REQUIRED CHANGES IN SHEAVES, BELTS, PULLEYS OR THE ADDITION OF DAMPERS REQUIRED TO ACHIEVE SPECIFIED FLOW RATES SHALL BE PERFORMED BY THE HVAC CONTRACTOR WITH NO ADDITIONAL COST TO THE TENANT.

FOUR COPIES OF THE BALANCE REPORT SHALL BE SUBMITTED TO TENANT AND LANDLORD FOR APPROVAL.

RECORD DRAWINGS

AT THE END OF THE PROJECT THIS CONTRACTOR SHALL SUBMIT 4 COPIES OF RECORD DRAWINGS SHOWING EXACT LOCATIONS OF UNITS, DUCTS, DIFFUSERS, ETC.

ECONOMIZER

GENERALLY, AN ECONOMIZER IS REQUIRED BY THE LATEST VERSIONS OF IECC IN ALL JURISDICTIONS EXCEPT SOUTH FLORIDA (CLIMATE ZONE 1). THE MECHANICAL CONTRACTOR SHALL ORDER ALL NEW ROOF-TOP HVAC UNITS WITH ECONOMIZERS. THE MECHANICAL CONTRACTOR SHALL ORDER ALL SPLIT SYSTEMS, FAN COIL UNITS, WATER SOURCE HEAT PUMPS, OR OTHER MECHANICAL UNITS THAT ARE TO BE OPERATED MORE THAN 20 HOURS PER WEEK WITH ECONOMIZERS, FACTORY INSTALLED WHERE POSSIBLE OR WITH CAPABILITY FOR ECONOMIZER WHERE CONTROLS ARE TO BE FIELD INSTALLED, AND TO INSTALL ALL COMPONENTS – SUCH AS OUTSIDE AIR DUCTS AND DUAL ENTHALPY SENSORS, CONTROLS, ETC. THE CONTRACTOR SHALL VERIFY WITH THE LOCAL INSPECTOR WHAT VERSION OF ENERGY CODE IS ENFORCED IN THE JURISDICTION OF THE PROJECT AND FOR UNITS OTHER THAN PACKAGED ROOFTOP UNITS MAY OMIT THE ECONOMIZER PACKAGE WHERE THE AHJ DOES NOT REQUIRE IT. ON BUILDINGS WITH LESS THAN 25 TONS OF INSTALLED HVAC, WHERE UNITS ARE 4.5 TONS OR SMALLER, THE ECONOMIZER EXEMPTION MAY BE USED UNDER SOME CIRCUMSTANCES. VRF SYSTEMS TYPICALLY DO NOT REQUIRE ECONOMIZERS.

HVAC UNIT SEQUENCE OF OPERATION – CO2 SENSOR & ECONOMIZER

FAN CONTROL:
THE SUPPLY FAN IS TO RUN CONTINUOUSLY DURING THE OCCUPIED MODE AND CYCLE ON AND OFF DURING THE UNOCCUPIED MODE BASED ON A CALL FOR HEATING OR COOLING. THE UNOCCUPIED SET POINT FOR COOLING WILL BE 85° FAHRENHEIT AND 60° FAHRENHEIT FOR HEATING.

THERMOSTAT:
THE ADJUSTABLE ROOM THERMOSTAT WITH AUTOMATIC HEATING / COOLING CHANGEOVER SHALL CONTROL THE SPACE TEMPERATURE BASED ON SET POINT. THE CONTROL OF THE OCCUPIED / UNOCCUPIED SETBACK MODE SHALL BE THROUGH THE THERMOSTAT. PROVIDE 24/7 CONTROLLABLE TYPE. THERMOSTATS SHALL HAVE AUTOMATIC CHANGEOVER, 5 DEGREE DEADBAND (TEMPERATURE SET-POINT OVERLAP RESTRICTIONS) AND SHALL ALLOW AUTOMATIC RESTART AND TEMPORARY OPERATION AS REQUIRED FOR MAINTENANCE, PER ENERGY CODE.

SAFETIES:
THE UNIT SHALL BE TOTALLY DISABLED WHEN THE DUCT MOUNTED SMOKE DETECTOR IS ACTIVATED. PROVIDE REMOTE TEST STATION/ALARM AT A REGULARLY OCCUPIED LOCATION WHEN REQUIRED BY CODE. PROVIDE LANDLORD REQUIRED SEQUENCE OR INTERFACE AS REQUIRED.

COOLING CONTROL:
UPON A CALL FOR COOLING, THE FIRST STAGE OF COOLING WILL BE ENABLED AND WILL OPERATE UNTIL THE SPACE TEMPERATURE IS SATISFIED. IF THE SPACE TEMPERATURE CONTINUES TO INCREASE THEN THE SECOND STAGE OF COOLING WILL BE ENABLED (IF APPLICABLE.)

HEATING CONTROL:
UPON A CALL FOR HEATING, THE FIRST STAGE OF HEATING WILL BE ENABLED AND WILL OPERATE UNTIL THE SPACE TEMPERATURE IS SATISFIED. IF THE SPACE TEMPERATURE CONTINUES TO DECREASE THEN THE SECOND STAGE OF HEATING WILL BE ENABLED (IF APPLICABLE.)

VENTILATION/ECONOMIZER CONTROL:
(WHERE REQUIRED BY A.H.J., OR WHERE CALLED FOR ELSEWHERE IN THE DRAWING SET):
THE OUTSIDE AIR DAMPER SHALL BE OPEN DURING THE OCCUPIED HEATING AND COOLING MODES FOR CODE REQUIRED MINIMUM OUTSIDE AIR VENTILATION AND SHALL REMAIN CLOSED DURING THE UNOCCUPIED MODE. IN THE OCCUPIED MODE THE CO2 SENSOR SHALL MODULATE THE OUTSIDE AIR DAMPER WHEN THE UNIT IS OPERATING BETWEEN THE MINIMUM OUTSIDE AIR MODE AND 50% OUTSIDE AIR.

THE ECONOMIZER MODE IS ENTHALPY CONTROLLED AND WILL BE OPERATIONAL WHENEVER COOLING IS REQUIRED AND THE OUTSIDE AIR ENTHALPY IS 41 OR BELOW THE RETURN AIR ENTHALPY. THE POWER EXHAUST (WHERE SPECIFIED) SHALL OPERATE WHENEVER THE OUTSIDE AIR DAMPER IS OPEN MORE THAN 60%.

FIRE PROTECTION SYSTEM (AS NEEDED)

SPRINKLER SYSTEM TO BE NFPA 13 AND SPRINKLER MONITORED WITH OCCUPANCY NOTIFICATION COMPLYING WITH H.C. AMENDMENTS – 903.4.

FIRE SPRINKLER AND FIRE ALARM WORK SHALL BE DONE UNDER A SEPARATE PERMIT (DESIGN/BUILD) BY LICENSED FIRE SPRINKLER AND FIRE ALARM CONTRACTORS.

16270 FIRE ALARM SYSTEM

- 1.1 FURNISH AND INSTALL FIRE ALARM POWER BOOSTER TO EXISTING BUILDING FIRE ALARM PANEL AS INDICATED ON DRAWINGS. THE FIRE ALARM SYSTEM NEW DEVICES SHALL BE FORMALLY PLANNED BY A LICENSED FIRE ALARM CONTRACTOR WHO SHALL SUBMIT SIGNED AND SEALED DRAWINGS, IF REQUIRED FOR PERMIT, AND SHALL SUPERVISE AND CERTIFY THE INSTALLATION. FIRE ALARM SYSTEM CONTRACTOR SHALL REVIEW THE MECHANICAL DRAWINGS AND PROVIDE AND INSTALL DUCT SMOKE DETECTORS AS REQUIRED IN THE STANDARD MECHANICAL CODE AND BY THE LOCAL FIRE MARSHALL. DESIGN SHALL COMPLY WITH NFPA 72. PROVIDE VOICE EVACUATION MODULES WITH ALL NECESSARY APPURTENANCES WHERE NECESSARY.

- 1.2 REMOTE ANNUNCIATOR
PROVIDE AN ALPHANUMERIC ANNUNCIATOR WITH INTEGRAL ALPHANUMERIC DISPLAY, SYSTEM CONTROL/TEST SWITCHES, KEY OPERATED ENABLED SWITCH AND BACK BOX. COORDINATE LOCATION WITH AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN.

- 1.3 MANUAL STATIONS
PROVIDE ANALOG ADDRESSABLE MANUAL STATIONS WITH PROTECTIVE COVERS (WITH INTEGRAL HORN AND 9V BATTERY) AS SHOWN ON THE PLANS.

- 1.4 SYSTEM SMOKE DETECTORS
PROVIDE ANALOG ADDRESSABLE PHOTOELECTRIC SMOKE DETECTORS WITH BASES AS SHOWN.

- 1.5 DUCT MOUNTED SMOKE DETECTORS
PROVIDE DUCT MOUNTED ANALOG ADDRESSABLE PHOTOELECTRIC SMOKE DETECTORS WITH SAMPLING TUBES AND ADDRESSABLE CONTROL RELAYS AS SHOWN ON THE PLANS AND AS REQUIRED TO COMPLY WITH THE MECHANICAL CODE. WHERE DUCT SMOKE DETECTORS ARE INSTALLED IN CONCEALED LOCATIONS MORE THAN 10 FEET ABOVE THE FINISHED FLOOR, OR AN ARRANGEMENT WHERE THE DETECTORS ALARM OR SUPERVISORY INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM OR SUPERVISORY INDICATION IN A LOCATION ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION. ADDITIONALLY, LABEL REMOTE ALARMS TO INDICATE BOTH THEIR FUNCTION AND THE AIR HANDLING UNIT(S) ASSOCIATED WITH EACH DETECTOR.

- 1.6 ADDRESSABLE MONITOR MODULES
PROVIDE ADDRESSABLE MONITOR MODULES AS SHOWN ON THE PLANS TO MONITOR SPRINKLER FLOW SWITCHES, SPRINKLER VALVES, SUPERVISORY SWITCHES AND SPRINKLER FIRE PUMP (AS REQUIRED).

- 1.7 ADDRESSABLE CONTROL MODULES
PROVIDE ADDRESSABLE CONTROL MODULES AS REQUIRED FOR INTERFACE WITH THE ELEVATOR CONTROLS, ELEVATOR POWER CONTROLS (WHERE APPLICABLE) AND HVAC CONTROLS (AS REQUIRED).

- 1.8 ALARM SIGNALS
PROVIDE 15/75-WW SPEAKER/STROBE ALARM SIGNALS AS SHOWN ON THE PLANS FOR ALL PUBLIC AREAS. PROVIDE 15/75-WW STROBE VISUAL ALARM SIGNALS FOR ALL STROBE ONLY LOCATIONS AS SHOWN ON THE PLANS, 110 CANDELA.

- 1.9 WIRING
WIRING SHALL BE CONCEALED IN CONDUIT. PROVIDE WIRING AND CONDUIT AS DIRECTED BY THE MANUFACTURER'S AUTHORIZED DISTRIBUTOR.

- 1.10 APPLICABLE CODES AND STANDARDS
ALL EQUIPMENT SHALL BE UL LISTED FOR ITS INTENDED USE. INSTALL PER CODE AND PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

ALL RACEWAYS AND WIRING SHALL BE INSTALLED IN COMPLIANCE WITH NFPA STANDARD 70 (NATIONAL ELECTRIC CODE)

NFPA STANDARDS 71 AND 72

NFPA 101 (LIFE SAFETY CODE)

AMERICANS WITH DISABILITIES ACT (ADA)

INTERNATIONAL BUILDING CODE (IBC), UNIFORM BUILDING CODE (UBC), STATE BUILDING CODE, OR TITLE-24, AS APPLICABLE

APPLICABLE LOCAL AND NATIONAL CODES AND AUTHORITIES HAVING JURISDICTION

- 1.11 SYSTEM OPERATION
ACTUATION OF ANY FIRE ALARM INITIATING DEVICE SHALL IMMEDIATELY CAUSE THE FOLLOWING ACTIONS TO BE INITIATED:
- a. IDENTIFY THE TYPE OF ALARM, SPECIFIC DEVICE AND LOCATION ON THE BACK LIT LCD DISPLAY AT THE BUILDING FIRE ALARM CONTROL PANEL AND AT THE REMOTE ANNUNCIATORS
 - b. CAUSE THE SYSTEM ALARM LED TO FLASH AT THE FIRE ALARM CONTROL PANEL
 - c. CAUSE ALL SYSTEM HORNS TO SOUND
 - d. CAUSE ALL VISUAL ALARMS SIGNALS TO FLASH
 - e. ACTIVATE THE DIGITAL COMMUNICATOR TO REPORT THE TYPE OF ALARM AND LOCATION TO THE REMOTE CENTRAL MONITORING STATION. COORDINATE CONNECTIONS WITH OWNER'S REPRESENTATIVE.
 - f. ACTIVATE SIGNALS TO THE BUILDING DOOR LOCK CONTROLS TO DEACTIVATE LOCKS
 - g. ACTIVATE SIGNALS TO THE HVAC CONTROLS TO INITIATE SHUT DOWN OR REROUTING OF AIR HANDLING SYSTEMS
- 1.12 ACTIVATION OF ANY SPRINKLER VALVE SUPERVISORY SWITCH SHALL AUTOMATICALLY:
- a. CAUSE THE SYSTEM SUPERVISORY LED TO FLASH AND AN AUDIBLE INDICATOR TO SOUND AT THE CONTROL PANEL AND REMOTE ANNUNCIATOR
 - b. IDENTIFY THE SUPERVISORY CONDITION, SPECIFIC DEVICE AND LOCATION ON THE BACK LIT LCD DISPLAY AT THE SYSTEM CONTROL PANEL AND

KEY NOTES BY SYMBOL 'Ⓢ'

- CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS AND QUANTITY FOR ELECTRICAL AND BLOCKING/MOUNTING WITH SIGN PROVIDER AND PROVIDE AS NECESSARY PRIOR TO ROUGH-IN. CONTRACTOR SHALL FIELD VERIFY EXISTING SIGN CIRCUIT COMPLIES WITH ALL LOCAL AND NATIONAL CODES AND IS PROVIDED WITH ALL REQUIRED DISCONNECTING MEANS PER NEC. PROVIDE INTERIOR ACCESS PANELS FOR SIGN CIRCUIT AS NECESSARY. REUSE EXISTING SIGN CIRCUIT IF EXISTING AND SUITABLE FOR REUSE. EXTEND TO BUILDING FASCIA AS NEEDED.
- DODGEBELL: PROVIDE DUPLEX RECEPTACLE FOR CLOCK MOUNTED 18 FT. UP FROM FLOOR ALONG WALL CENTERED ON DODGEBELL ATTRACTION. PROVIDE LOW VOLTAGE WIRING BACK TO DOORBELL AT REAR MAN DOOR. PROVIDE LOW VOLTAGE TRANSFORMER AS NEEDED.
- WALL CLIMB: PROVIDE DEDICATED CIRCUIT FOR WALL CLIMB AREA. INSTALL A DUPLEX AT EACH WALL FOR LIGHTS/BUZZER CONNECTION.
- ADVENTURE HUB: (2) DUPLEX RECEPTABLES SHALL BE INSTALLED WITHIN ATTRACTION FOR LED INVERTER AND LIGHTS AND (1) DUPLEX RECEPTACLE AT ROPES COURSE. RECEPTABLES/J-BOXES SHALL ALWAYS BE LOCATED TO HAVE THE LEAST ACCESS POSSIBLE FROM PARTICIPANTS.
- SKY RIDER-ADVENTURE HUB: (1) DUPLEX RECEPTACLE FOR LED LIGHT INVERTER, (1) DUPLEX RECEPTACLE FOR GREEN/RED LIGHT, (1) DUPLEX RECEPTACLE FOR MAGNET LOCK (RECTANGLE) IN THE HUB, AND (1) DUPLEX RECEPTACLE FOR LIGHTING.
- SKY RIDER-TRANSFER STATION: (1) DUPLEX RECEPTACLE FOR GREEN/RED LIGHT, (1) DUPLEX RECEPTACLE FOR MAGNET LOCK (ROUND) ON THE NON-RETURN RAIL, AND (1) DUPLEX RECEPTACLE FOR MAGNET LOCK (RECTANGLE) IN THE HUB. PROVIDE CEILING MOUNTED J-BOX FOR ATTRACTION LIGHTING.
- ROPES COURSE: PROVIDE (1) DUPLEX FOR LED LIGHT INVERTER.
- PROVIDE MASTER ATTRACTION SWITCH CAPABLE OF CONTROLLING POWER TO ALL ATTRACTIONS AND ATTRACTION LIGHTING.
- SPIN/FLIP ZONE: PROVIDE (1) DEDICATED CIRCUIT FOR EACH SPIN CART CHARGER, (1) DEDICATED CIRCUIT (208V) FOR EACH FLIP CART CHARGER, (1) DEDICATED CIRCUIT FOR LIGHTS, (1) DEDICATED CIRCUIT FOR CONTROLLER, AND (1) DEDICATED CIRCUIT FOR SOUND. ALL J-BOXES SHALL BE MOUNTED ON ATTRACTION RAILING ADJACENT TO WALL OR COLUMN. REFER TO SPIN/FLIP VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE 20A 120V DEDICATED CIRCUITS REQUIRED FOR HIGH BAY 24V DC POWER SUPPLIES, 80" AFF. TIE TO EMERGENCY POWER/INVERTER
- PROVIDE (2) 1" CONDUITS FOR POWER/LIGHTING AND DATA, ROUTED BELOW GRADE TO FLOOR-MOUNTED RECEPTACLE AND DATA OUTLET LOCATED BELOW CHECK-IN COUNTER.
- PROVIDE (1) DUPLEX RECEPTACLE AND (1) DATA OUTLET FOR EACH SELF-CHECK IN STATION AND TV MONITOR, TYPICAL.
- PROVIDE USB/OUTLET COMBO FOR TECH BAR, AT +36" A.F.F. LEVITON T5632 W/ ONE 110V PLUG. 3.6A MAX DRAW PER PLUG. TWO USE PORTS. (SEE DETAIL 02/E1.0).
- PROVIDE DUPLEX OUTLET FOR SUBWOOFER LOCATED UNDER ATTRACTION PLATFORM. REFER TO LATEST TELSTAR TECHNOLOGY PLANS FOR MORE INFORMATION. MAINTAIN ACCESS.
- LOCATION OF ELECTRICAL EQUIPMENT, REFER TO SHEETS E3.0 FOR ADDITIONAL INFORMATION.
- VERIFY EXACT RECEPTACLE LOCATION CONFIGURATION WITH ADVENTURE HUB VENDOR. PROVIDE ONE 110V DUPLEX RECEPTACLE AT EACH HOUSING LOCATION.
- PROVIDE (1) 120V DOUBLE GANG RECEPTACLE AT EACH HOUSING LOCATION. ROUTE LED LIGHTING POWER TO TWO J-BOXES. LOCATED ABOVE ATTRACTION FOOTPRINT, CENTERED ON EXIT. EACH TO BE PROVIDED WITH A 1000 WATT INVERTER WITH 6 AMP CONNECTED LOAD. DROP POWER FROM CEILING. ONE POWER CIRCUIT WILL POWER ONE DUPLEX RECEPTACLE CENTERED ON THE EXIT SIDE OF LANES 1 AND 2 AND ONE DUPLEX RECEPTACLE ON THE ENTRY SIDES OF LANES 1 AND 2 FOR ONE CONTROL BOX. THE SECOND POWER CIRCUIT WILL POWER ONE DUPLEX RECEPTACLE CENTERED ON THE EXIT SIDE OF LANES 3 AND 4 AND ONE DUPLEX RECEPTACLE ON THE ENTRY SIDE OF LANES 3 AND 4 FOR ONE CONTROL BOX. OUTLET LOCATIONS SHOWN ON PLAN ARE DIAGRAMMATIC. USE THIS DESCRIPTION FOR PLACEMENT. VERIFY WITH WARRIOR COURSE VENDOR.
- VIRTUAL REALITY: PROVIDE (2) QUADPLEX RECEPTABLES AND CAT 6 DATA CABLE FOR PROPER VIRTUAL REALITY OPERATION. COORDINATE MOUNTING AND ELECTRICAL REQUIREMENT WITH LATEST VENDOR SITE PREP PACKET.
- PROVIDE FIRE ALARM RELAY AT LIGHTING CONTROLS. LIGHTS SHALL TURN ON TO FULL BRIGHTNESS UPON FIRE ALARM SYSTEM ACTIVATION. COORDINATE REQUIREMENTS WITH AV VENDOR.
- MAINTAIN 36" CLEAR SERVICE SPACE IN FRONT OF ELECTRICAL GEAR/PANELS, PER NEC.
- EX. CONDUIT AND CONDUCTORS ROUTED TO EX. 1,600A 277/480V, 3ϕ, 4 WIRE MAIN DISTRIBUTION SWITCHGEAR. REFER TO SHEET E3.0 FOR ADDITIONAL INFO.
- PROVIDE SWITCHBANK (RELAY STATION) TO DIM/SHUTOFF ALL MAIN OPEN AREA LIGHTING.
- FURROUT WALLS FOR POWER AND PLUMBING (SUPPLY, WASTE, AND VENT) LINES AS NECESSARY.
- LASER TAG: PROVIDE RECEPTABLES AND DATA FOR LASER TAG CONTROL DESK AND LASER TAG GAMING AREA. COORDINATE FINAL ELECTRICAL REQUIREMENTS WITH LASER TAG VENDOR PRIOR TO CONSTRUCTION. G.C. SHALL REFER TO VENDOR DRAWINGS AND CONTACT ARCHITECT FOR NEEDED INSTALLATION GUIDANCE, AS NEEDED. PRELIMINARY DESIGN ASSUMES (3) DEDICATED QUAD RECEPTABLES AND (3) TRIPLEX DATA RECEPTABLES (DIAGRAMMATIC). LASER TAG ELECTRICAL COVER PLATES SHALL BE BLACK. PROVIDE CEILING-MOUNTED OUTLETS FOR LED BLACK LIGHTS, AS NEEDED. PROVIDE LOCAL SWITCHING AS NEEDED. REFER TO LASER TAG VENDOR DRAWINGS. SWITCH SEPARATELY FROM REGULAR (WHITE) LIGHTS. REFER TO DETAIL 02/E2.0 FOR LASER TAG SWITCH BANK DETAIL. CONTRACTOR SHALL CONTACT CREATIVE WORKS PRIOR TO BEGINNING WORK FOR ADDITIONAL CLARIFICATION.
- PROVIDE TWO (2) DUPLEX RECEPTABLES AT 96" AFF FOR LASER TAG TV POWER, CEILING MOUNTED.
- COORDINATE LOCATION OF RECEPTACLE FOR INTERIOR SIGNS WITH OWNER PRIOR TO ROUGH-IN. VERIFY MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS/OWNER'S REP.
- PROVIDE LOW-VOLTAGE FOR LASER TAG AREA PER CREATIVE WORKS SHOP DRAWING E2.1.

GENERAL NOTES

- GENERAL RECEPTABLES INSTALLED AT +15" TO BOTTOM OF BOX A.F.F.
- VERIFY GFI REQUIREMENTS PRIOR TO BID. ALL RECEPTABLES WITHIN 6'-0" OF A SINK OR WASH BASIN SHALL BE GFI RATED.
- COORDINATE COLOR OF RECEPTABLES AND COVER PLATES WITH ARCHITECTURAL PLANS.
- SMOKE DETECTORS, FIRE ALARM SYSTEM, STROBES, HORNS, SPRINKLERS, ETC. SHALL BE DESIGNED AND INSTALLED WHERE REQUIRED BY A LICENSED FIRE SPRINKLER / FIRE PROTECTION CONTRACTOR (DESIGN-BUILD) UNDER A SEPARATE PERMIT, WHERE REQUIRED.
- HVAC CONVENIENCE OUTLET(S) AND DISCONNECT(S) SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, SIZE TO MATCH BREAKERS ON PANEL AND/OR NAMEPLATE.
- DISCONNECT SHALL BE RATED FOR VOLTAGE OF ORIGINATING PANEL.
- WHERE APPLICABLE, ALL ELECTRICAL OUTLET SWITCHES IN SOUND WALL, AND ALL CONDUIT AND PIPE PENETRATIONS SHALL BE INSTALLED WITH SOUND BLOCKING PUTTY PADS (TYP.).

ARLINGTON HEIGHTS, IL NOTE:

THE GENERAL CONTRACTOR SHALL PROVIDE A COMPLETE URBAN AIR EXERCISE AND ENTERTAINMENT FACILITY. THIS INCLUDES ANY ITEMS REQUIRED BY THE LOCAL INSPECTORS NOT INCLUDED IN THE DOCUMENT SET. THIS DOCUMENT SET SHALL BE USED IN CONJUNCTION WITH THE OWNER'S BRAND STANDARDS, VENDOR INSTALLATION INSTRUCTIONS AND OWNER'S GUIDANCE AS DIRECTIVE TO COMPLETE THE PROJECT.

ARLINGTON HEIGHTS, IL NOTE:

WHEREVER REQUIRED BY A.H.J., THE ELECTRICAL/LOW VOLTAGE CONTRACTOR SHALL PULL A LOW VOLTAGE PERMIT. LOW VOLTAGE WIRING SHALL BE SHIELDED.

ARLINGTON HEIGHTS, IL NOTE:

ALL ELECTRICAL WORK SHALL COMPLY WITH 2017 NATIONAL ELECTRICAL CODE AND 2021 ILLINOIS ENERGY CONSERVATION CODE.

ARLINGTON HEIGHTS, IL NOTE:

THIS PROJECT IS A TENANT FINISHOUT OF AN EXISTING RETAIL SPACE THAT WAS FORMERLY A RETAIL STORE.

URBAN AIR MASTER ATTRACTION NOTE: Ⓢ

E.C. SHALL PROVIDE MASTER OVERRIDE SWITCH/SWITCH BANK TO TURN OFF ATTRACTIONS INCLUDING LIGHTING AND OTHER KEY ELEMENTS OF CERTAIN ATTRACTIONS: PROVIDE TIMECLOCK(S), CONTACTORS, RELAYS, ETC. AS NEEDED. COORDINATE WITH URBAN AIR CORPORATE FOR EXACT MASTER ATTRACTION SWITCH REQUIREMENTS.

PROTOTYPICAL NOTE:

JURISDICTIONS VARY AS TO WHO CAN MAKE FINAL CONNECTION OF SIGN TO BUILDING POWER. SOME JURISDICTIONS REQUIRE SPECIAL SIGN PERMITS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN ACCESSIBLE J-BOX AT BUILDING PERIMETER FOR EACH SIGN LOCATION ON ALL JOBS WITH MEANS OF DISCONNECT AND CONDUCTOR BACK TO THE PANEL, PER NEC. THE SIGN CONTRACTOR SHALL PROVIDE ALL SIGNS WITH A SINGLE WHIP POKING THROUGH THE BACK OF THE SIGN OR SIGN RACEWAY FOR EACH SIGN LOCATION. FINAL CONNECTION (INCLUDING ANY CONDUIT ABOVE METAL AWNING/ STRUCTURE OR OTHER SPECIAL 'GAP' SITE CONDITIONS) SHALL BE BY ELECTRICAL CONTRACTOR UNLESS THE A.H.J. REQUIRES THIS CONNECTION TO BE BY THE SIGN CONTRACTOR.

PROTOTYPICAL NOTE:

THE G.C. SHALL PROVIDE A SWITCH TO TURN OFF ALL ATTRACTIONS. INSTALL AT MANAGER'S OFFICE IN THE FORM OF A NORMAL TOGGLE SWITCH. PROVIDE CONTRACTORS AS NEEDED. SWITCH SHALL ALSO CONTROL ATTRACTION LIGHTING.

CONTRACTOR NOTES:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.

BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE AND LOCAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS. THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION AND COMPLIANCE WITH GOVERNING CODES / REQUIREMENTS HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN, HAD AN EXAMINATION AND CODE REVIEW BEEN MADE, WILL NOT BE ALLOWED.

PROTOTYPICAL NOTE:

REFER TO TELSTAR DRAWINGS FOR LOW VOLTAGE ITEMS INCLUDING BUT NOT LIMITED DATA, SPEAKERS/MUSIC HIGH BAY LIGHTING, LED EFFECT LIGHTING, SPOT LIGHTING, COAXIAL, CATS/CAT6, AND SPECIALTY EQUIPMENT LOW VOLTAGE POWER SUPPLY.

REVIEW AND APPROVAL BY THE A.H.J. SHALL NOT RELIEVE THE APPLICANT OF THE RESPONSIBILITY OF COMPLIANCE WITH ALL APPLICABLE CODES.

VERIFY SIGN LOCATION AND QUANTITY WITH SEPARATELY PERMITTED SIGN PACKAGE. REUSE EXISTING CIRCUITS AND DISCONNECTS AS APPLICABLE.

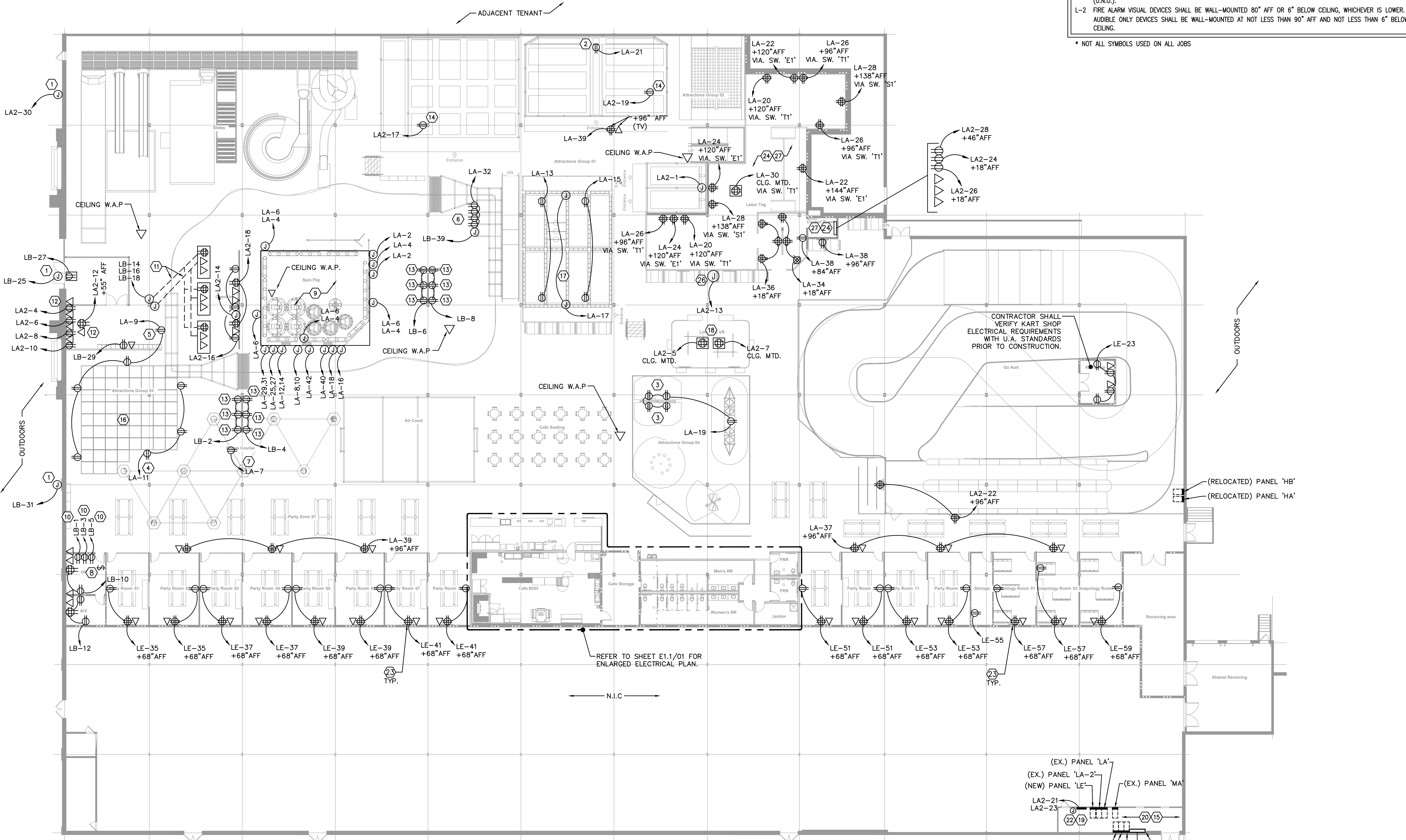
ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	HEIGHT (U.N.O.)
\$	SINGLE POLE SINGLE THROW TOGGLE SWITCH (NOTE L-1)	44"
\$ ₃ /\$ ₄	THREE-WAY TOGGLE SWITCH/FOUR-WAY TOGGLE SWITCH (NOTE L-1)	44"
\$ _W	MASTER INDICATOR SWITCH	
\$ _D	DIMMER SWITCH (NOTE L-1)	44"
Ⓢ / Ⓢ	DUPLEX / QUAD RECEPTACLE OUTLET (NOTE L-1)	15" (BOTTOM)
Ⓢ	OTHER RECEPTACLE, AS NOTED.	
Ⓢ	DUPLEX RECEPTACLE OUTLET - CEILING MOUNTED/FLOOR MOUNTED	
(#)	THE NUMBER IN PARENTHESIS IS THE CONVENIENT OUTLET COUNT FOR THE CIRCUIT.	
Ⓢ / Ⓢ	JUNCTION BOX, CEILING / FLOOR MOUNTED	SEE PLAN
▽ / ▽	TELEPHONE OUTLET, WALL MOUNTED / FLOOR MOUNTED	SEE PLAN
▽ / ▽	DATA OUTLET, WALL MOUNTED/FLOOR MOUNTED	SEE PLAN
Ⓢ	TELEVISION OUTLET WALL MOUNTED	SEE PLAN
Ⓢ	CURRENT TRANSFORMER	
Ⓢ	POWER METER AND SOCKET	
Ⓢ	RACEWAY/CABLE CONCEALED IN WALL AND/OR ABOVE CEILING	
Ⓢ	GROUNDING CONNECTION (SYSTEM AND/OR EQUIPMENT)	
Ⓢ	ARROWHEAD INDICATES HOMERUN. X-1,3,5 INDICATES HOMERUN TO PANEL 'X', CIRCUIT NUMBERS 1,3, AND 5.	
Ⓢ	MOTOR	
Ⓢ	PANELBOARD - WALL MOUNTED (RECESSED/SURFACE MOUNTED)	
Ⓢ	DISCONNECT SWITCH, RATING/FUSE RATING/POLES/NEUA ENCLOSURE	
Ⓢ	DUCT SMOKE DETECTOR	
Ⓢ	THERMAL DETECTOR, WALL MOUNTED	96" AFF
Ⓢ	THERMOSTAT, WALL MOUNTED	48" AFF
Ⓢ	CONNECT NEW TO EXISTING	
N.I.C.	NOT IN CONTRACT	
Ⓢ	TIMECLOCK	
Ⓢ	WALL MOUNTED SPEAKERS	

L-1 MOUNTING HEIGHTS NOTED ARE TO THE CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE (U.N.O.).

L-2 FIRE ALARM VISUAL DEVICES SHALL BE WALL-MOUNTED 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER. AUDIBLE ONLY DEVICES SHALL BE WALL-MOUNTED AT NOT LESS THAN 90" AFF AND NOT LESS THAN 6" BELOW CEILING.

* NOT ALL SYMBOLS USED ON ALL JOBS



02 USB/OUTLET COMBO
SCALE: NO SCALE

01 POWER PLAN
SCALE: 1/16"=1'-0"



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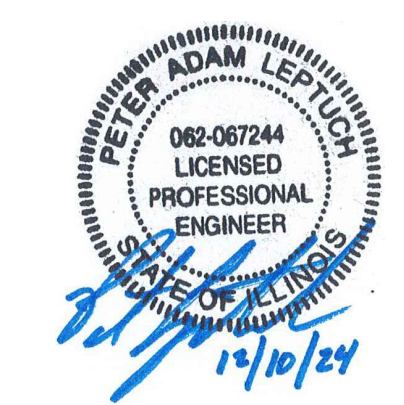
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No.	Description	Date
A	Issue for Permit	2024.12.20

DRAWN BY: AM

CHECKED BY: BA

PROJ. NO: 23-053

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POWER PLAN

E1.0

LIGHTING SCHEDULE						
KEY	TYPE	MANUFACTURER	MODEL NO.	LAMPS	VOLTS	
A	RGB LED HIGH BAY	TELSTAR	LUMENAIR	4.6W/FT. RGB LED	24V	LOW VOLTAGE LIGHT FIXTURES FURNISHED BY AV VENDOR. FIXTURES ARE 4.6 W / LINEAR FT. COORDINATE LOCATIONS, QUANTITIES, LENGTHS AND REQUIREMENTS WITH VENDOR. PROVIDE REQUIRED WIRING FROM POWER SUPPLIES/CONTROLS TO FIXTURES.
B	2'X4' RECESSED ACRYLIC LENS LED TROFFER, SPECIFICATION GRADE.	CLI	#CLI--NAUARC	38W LED	120V	
BE	2'X4' RECESSED ACRYLIC LENS LED TROFFER, SPECIFICATION GRADE.	CLI	#CLI--NAUARC	38W LED	120V	WITH INTEGRAL 90 MIN. BATTERY BACKUP
C	RECESSED LED DOWNLIGHT	CLI	#CLI--NAUARA	19W LED	120V	
C2	RECESSED LED DOWNLIGHT	CLI	#CLI--NAUARB	24W LED	120V	
D	SURFACE MOUNT ADJUSTABLE LED MONOPOINT	HALO	#M-815MED-10-WF-927-MB	12.7W LED	120V	
EM	EMERGENCY EGRESS LIGHT	EXITRONIX	NFT-HO-W-G2	(2) 5.4W LED	120V	WITH INTEGRAL 90 MIN. BATTERY BACKUP. COORDINATE ALL LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT SO THAT LIGHTS ARE NOT OBSTRUCTED BY ATTRACTIONS.
EM2	EXTERIOR EMERGENCY EGRESS LIGHT	COOPER SURE-LIGHTS	BATTERY UNIT: SELMR13SD WITHOUT HEADS REMOTE HEADS: SRP25DBK	(2) 2.5W LED	120V	WITH INTEGRAL 90 MIN. BATTERY BACKUP. COORDINATE ALL LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT.
F	4' LINEAR STRIP	CLI	#CLI--NAUAPC	24W LED	120V	
FE	4' LINEAR STRIP	CLI	#CLI--NAUAPC	24W LED	120V	WITH INTEGRAL 90 MIN. BATTERY BACKUP.
P	PENDANT	CLI	#CLI--NAUAPA	11W LED	120V	
X1	EMERGENCY EXIT LIGHT	CLI	#CLI--NAUAEXIT	2.5W LEDM	120V	WITH INTEGRAL 90 MIN. BATTERY BACKUP
X2	COMBO EMERGENCY EGRESS AND EXIT LIGHT	CLI	#CLI--NAUACombo	4W LEDM	120V	WITH INTEGRAL 90 MIN. BATTERY BACKUP
T	TAPE LIGHT FOR MILLWORK	OPTIC ARTS	#FLEX CC 44 RGBA/W	4.4W/FT. LED	24V	WITH MANUFACTURER'S ELECTRONIC DRIVER W/ DMX MODULE

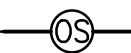
NOTES:
-LIGHT FIXTURES MAY BE SUBSTITUTED WITH FIXTURES OF EQUAL QUALITY AND SPECS - VERIFY WITH OWNER PRIOR TO PURCHASE AND INSTALLATION.
-VERIFY FINAL LOCATIONS OF ALL LIGHT FIXTURES WITH OWNER PRIOR TO INSTALLATION.
-COORDINATE LOCATION OF LIGHT FIXTURES WITH ELECTRICAL, DRYWALL, MECHANICAL AND OTHER TRADES AS REQUIRED.
-REFER ELECTRICAL DRAWINGS FOR ELECTRICAL CONNECTIONS AND ADDITIONAL INFORMATION.
-REFER MECHANICAL DRAWINGS FOR HVAC DUCTWORK, GRILLE LOCATIONS (NOT SHOWN) AND ADDITIONAL INFORMATION.
-VERIFY ALL COUNTS WITH FINAL ROP LAYOUT.
-PROVIDE SUBMITTAL TO OWNER TO REVIEW AND APPROVE.
-THE G.C. SHALL ORDER ALL LIGHT FIXTURES AS DIMMABLE AND SHALL INSTALL ALL COMPATIBLE DIMMING SWITCHES FOR ALL GENERAL AREA LIGHTING FOR 50% UNIFORM REDUCTION IN LIGHT LEVELS (ENERGY CODE REQUIREMENT) AND FOR ACCENT LIGHTING AS DIRECTED BY OWNER'S REP.
-THE INTENT OF THE DESIGN IS FOR THE LIGHTING SUPPLIER TO PROVIDE A COMPLETE, COORDINATED LIGHTING PACKAGE. THE PACKAGE SHALL INCLUDE FIXTURES, SENSORS, SWITCHES, DIMMERS, POWER PACKS, RGB AND DMX DRIVERS AND CONTROLLERS, ETC. FOR A COMPATIBLE, CODE-COMPLIANT, AND FULLY FUNCTIONAL SYSTEM.
-NOT ALL FIXTURES USED ON ALL JOBS
-CONTACT JACKSON POLAKOV WITH COMMERCIAL LIGHTING INDUSTRIES, 760-777-2007 JACKSON@COMMERCIAL-LIGHTING.NET FOR PRICING AND INFORMATION.

GENERAL NOTES	
A.	LIGHTING SHALL BE CIRCUITED EXACTLY AS SHOWN ON PLANS.
B.	SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION AND QUANTITY OF LIGHTING FIXTURES.
C.	EMERGENCY AND EXIT LIGHTS SHALL BE INSTALLED AND CIRCUITED PER THE LATEST NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES. ALL EMERGENCY AND EXIT FIXTURES SHALL BE DUAL VOLTAGE (120/277 VOLT INPUT) WITH 90 MINUTE BATTERY BACKUP.
D.	ELECTRICAL SUB-CONTRACTOR IS RESPONSIBLE FOR ALL REFLECTED CEILING PLAN NOTES ON ARCHITECTURAL DRAWINGS.
E.	ALL FLUORESCENT LIGHTING SHALL BE PROVIDED WITH INTEGRAL DISCONNECTING MEANS PER NEC.
F.	EXTERIOR LIGHTS ARE EXISTING BY LANDLORD, TO REMAIN.
G.	"NL" DESIGNATES NIGHT LIGHT- 24/7 OPERATION ON SWITCH-RATED BREAKER. (NOT USED ON ALL JOBS.)
H.	THE DIRECTION OF THE BUILDING OFFICIAL REGARDING THE QUANTITY, LOCATION, ORIENTATION AND TYPE OF EXIT/EGRESS LIGHTS REQUIRED SHALL TAKE PRECEDENCE OVER WHAT IS SHOWN IN THIS DOCUMENT SET. COORDINATE WITH THE BUILDING OFFICIAL ONCE ALL ATTRACTIONS ARE INSTALLED. SUPPLEMENT AS NEEDED.

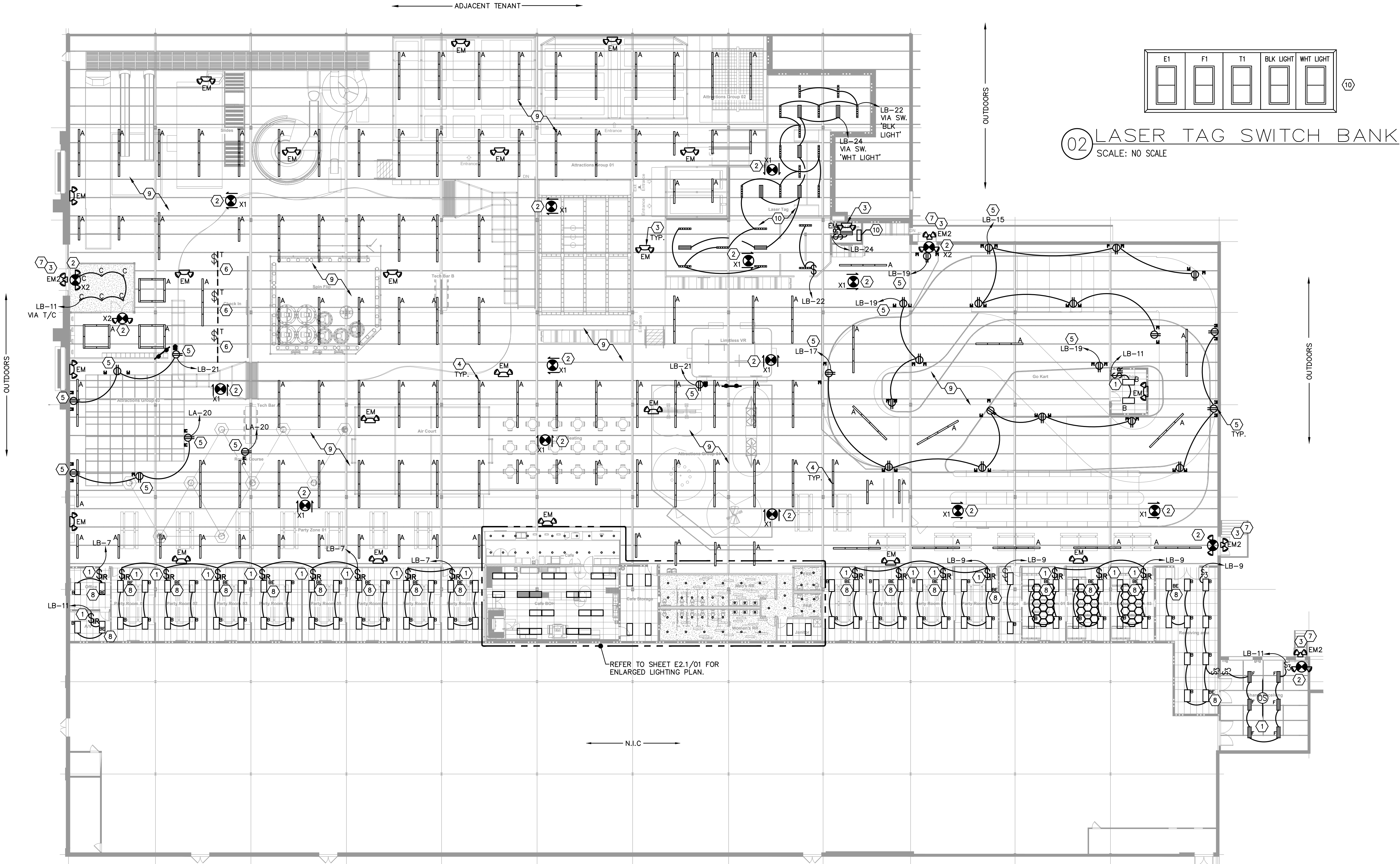
KEY NOTES BY SYMBOL 'E'	
1	PROVIDE OCCUPANCY SENSOR PER SCHEDULE.
2	EXIT LIGHT SHALL BE CIRCUITED TO LB-41. PROVIDE CHEVRONS AS NEEDED. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO ARCHITECTURAL PLANS FOR PATH OF EGRESS.
3	EMERGENCY EGRESS LIGHT SHALL BE CIRCUITED TO LB-41. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. CONTRACTOR SHALL VERIFY LIGHTS PROVIDE ADEQUATE LIGHT LEVELS AND MODIFY/SUPPLEMENT AS NEEDED.
4	RGB HIGH BAY FIXTURE, 24V INPUT. REFER TO SHEET E1.0 FOR POWER TO CONTROLS/POWER SUPPLIES. PROVIDE LOW VOLTAGE WIRING AS NEEDED.
5	PROVIDE DUPLEX OUTLET FOR ATTRACTION LIGHTING. REFER TO POWER PLAN, SHEET E1.0 AND LATEST TELSTAR TECHNOLOGY PLANS FOR MORE INFORMATION.
6	PROVIDE SWITCH MOUNTED IN MILLWORK FOR RGB LED MILLWORK LIGHTING. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MILLWORK INSTALLER. REFER TO SHEET E1.0 FOR POWER TO MILLWORK LIGHTING.
7	CONTRACTOR SHALL FIELD VERIFY THE EXISTENCE OF THE EMERGENCY EXTERIOR EGRESS LIGHTING. IF FOUND TO EXIST DO NOT PROVIDE NEW FIXTURES. BASE BID SHALL ASSUME EXISTING DOORS HAVE COMPLIANT LIGHTS.
8	PROVIDE LIGHT FIXTURE WITH BATTERY BACKUP FOR EMERGENCY EGRESS. REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFO. PROVIDE AUTOMATIC SWITCHOVER.
9	COMMON AREA LIGHT SHALL BE SWITCHED THROUGH TIME CLOCK (OVERRIDE). LOCATE TIME CLOCK ADJACENT TO ELECTRICAL PANELS. PROVIDE CONTACTORS AS NEEDED.
10	PROVIDE SWITCHING FOR LASER TAG LIGHTING AND EFFECTS IN LASER TAG CONTROL ROOM. COORDINATE FINAL ELECTRICAL REQUIREMENTS WITH LASER TAG VENDOR PRIOR TO CONSTRUCTION. ASSUME ONE 5-GANG SWITCH BANK TO HAVE A DEDICATED SWITCH FOR LASER TAG EFFECTS, TARGETS, GENERAL LIGHTING AND BLACK LIGHTS. REFER TO LASER TAG SWITCHBANK DETAIL, THIS SHEET.

FIXTURE SCHEDULE NOTES	
1.	VERIFY ALL LUMINAIRES COLORS, TRIMS, LENGTHS, ETC. WITH THE ARCHITECT PRIOR TO PLACING FINAL PURCHASE ORDERS. SUBMISSION OF SHOP DRAWINGS WILL BE INTERPRETED AS HAVING BEEN COORDINATED WITH THE ARCHITECTURAL DRAWINGS.
2.	PROVIDE LENGTHS, FEEDS, ACCESSORIES, CONNECTORS, WIRING, POWER SUPPLIES, DRIVERS, ETC. FOR COMPLETE INSTALLATION. THE E.C. SHALL VERIFY THE COMPLETE BILL OF MATERIAL WITH MANUFACTURER'S REPRESENTATIVE AND ENSURE ALL EQUIPMENT IS INCLUDED IN BID PRICE. COORDINATE INSTALLATION WITH ARCHITECTURAL DETAILS.
3.	VERIFY LUMINAIRE LOCATIONS WITH OTHER CEILING MOUNTED EQUIPMENT SUCH DIFFUSERS, FIRE SPRINKLER & ALARMS DEVICES, SPEAKERS, ETC. WITH ARCHITECTURAL REFLECTED CEILING PLANS AND IN FIELD.
4.	VERIFY EXACT MOUNTING HEIGHT AND LOCATIONS OF ALL WALL MOUNTED AND PENDANT MOUNTED LUMINAIRES WITH ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO ROUGH-IN.
5.	ANY PROPOSED ALTERNATE LUMINAIRES SHALL BE APPROVED BY THE ARCHITECT PRIOR TO FINAL BID PRICING. SHOULD THE CONTRACTOR PROPOSE TO FURNISH MATERIALS, EQUIPMENT, AND DEVICES OTHER THAN THOSE SPECIFIED AND LISTED, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR SUBSTITUTIONS, TO THE ENGINEER AT LEAST TEN (10) BUSINESS DAYS PRIOR TO BID OPENING. THE REQUEST SHALL BE AN ALTERNATE TO THE ORIGINAL BID AND SHALL INCLUDE A COMPLETE SPECIFICATION CUT SHEET SUBMITTAL AS OUTLINED IN THE SPECIFICATIONS, COMPLETE WITH DESCRIPTIVE (MANUFACTURER, BRAND NAME, CATALOG NUMBER, ETC.) AND TECHNICAL DATA (VOLTAGE, INPUT WATTS, ETC.) FOR ALL ITEMS. INDICATE ANY ADDITIONS OR DEDUCTIONS TO THE CONTRACT PRICE WITH THE SUBSTITUTION SUBMITTAL AND ON THE BID FORM.
6.	ALL EXIT SIGNS AND EMERGENCY LIGHT FIXTURES ARE TO BE STRICT ACCORDANCE WITH THE LOCAL FIRE PREVENTION CODE AUTHORITY. ANY MODIFICATIONS TO UPGRADE SYSTEM SHALL BE INCLUDED IN THE BASE BID. ALL EXIT SIGNS ARE TO BE INSTALLED IN A VISIBLE LOCATION. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL WHERE NECESSARY TO DROP A SIGN BELOW AN OBSTRUCTION.
7.	ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THE NECESSARY CLIPS, SCREWS, RIVETS, TIES/BRACING ETC., TO SECURELY FASTEN RECESSED LAY-IN LIGHTING FIXTURES TO CEILING FRAMING GRID WORK.
8.	ALL LIGHTING FIXTURES SHALL BEAR THE APPROPRIATE UL LABEL FOR THE APPLICATION AND UNION LABEL WHERE REQUIRED.
9.	ALL LIGHTING FIXTURES SHALL BE SHATTER PROOF OR COMPLETELY SHIELDED/COVERED IN KITCHEN.
10.	CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, EQUIPMENT, S.E.S., AND EXTENT OF ELECTRICAL ITEMS. PROVIDE AND INCLUDE IN BID ALL REQUIRED ITEMS TO ENSURE PROPER SCOPE OF WORK. UPGRADE METERING EQUIPMENT AS NEEDED.

ARLINGTON HEIGHTS, IL NOTE: WHERE EMERGENCY LIGHTING IS SUPPLIED BY LOW-VOLTAGE HIGH BAY LIGHTING, THE OPEN AREA FROG-EYE EMERGENCY EGRESS LIGHTS MAY BE OMITTED. CONFIRM FOOT CANDLE REQUIREMENTS ALONG EGRESS PATH ARE MET PRIOR TO TURNOVER.	REFER TO SHEET E2.1 FOR ADDITIONAL LIGHTING LEGENDS. SIGNAGE SHALL COMPLY WITH PERMITTED SIGN PACKAGE. ADJUST WHAT IS SHOWN HERE (QUANTITY AND LOCATION) TO MATCH SIGNAGE SET. TYPICAL UNDER A SEPARATE PERMIT. REFER TO SHEET E1.0 FOR CIRCUIT.
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SENSOR/CONTROL SCHEDULE (OR EQUAL)							
DESCRIPTION	SYMBOL	MODEL NUMBER	UNOBSTRUCTED RATED COVERAGE	MOUNTING	WATTAGE/ VOLTAGE	TIME DELAY	NOTES
PASSIVE INFRARED SWITCH		WATTSTOPPER DW-100	300 SF	WALL	800W/120V 1200W/277V	5/15/30 MIN	1
PROVOLT CEILING SENSOR		LEVITON 06004-IDW	---	CEILING	—	—	1
LOW VOLTAGE DIMMER		LEVITON 6615-POW	---	WALL	LOW	—	—
NOTES: 1. SENSOR REQUIRES POWER PACK (INSTALL IN ACCESSIBLE LOCATION) 2. SWIVEL MOUNTING BRACKET INCLUDED. 3. CONTACT BRAD KENNON FOR SPEC, REQUIRES 24V CONTROL WIRING. 4. INSTALL RELAY SWITCH; SEIMANS 75 LOC - 12V. 5. DIMMERS TO BE PROVIDED BY GRAYBAR AND INSTALLED BY G.C. -APPROVED ALTERNATES*: PASS & SEYMOUR, LEVITON *ALTERNATE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS INCLUDING SCALED FLOOR PLANS OF DEVICE LOCATIONS AND CUT SHEETS OF DEVICES.							

ELECTRICAL SYMBOL LEGEND		
SYMBOL	DESCRIPTION	HEIGHT (U.N.O.)
	SINGLE POLE SINGLE THROW TOGGLE SWITCH (NOTE L-1)	44"
	THREE-WAY TOGGLE SWITCH(NOTE L-1)	44"
	DIMMER SWITCH (NOTE L-1)	44"
	PASSIVE INFRARED SWITCH	44"
	FAN SPEED CONTROL SWITCH	31"/38"
L-1 MOUNTING HEIGHTS NOTED ARE TO THE CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE (U.N.O.).		
*NOT ALL SYMBOLS USED ON ALL JOBS.		



01 LIGHTING PLAN
SCALE: 1/16"=1'-0"



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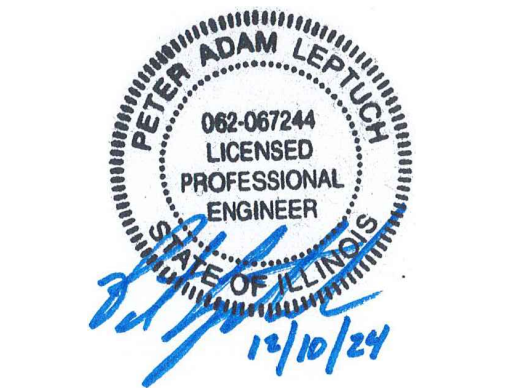
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Construction Management:
Foxfield



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LIGHTING PLAN

E2.0

1. REFER TO MECHANICAL FOR EXACT NUMBER, TYPE AND LOCATION OF SUPPLY, RETURN AND EXHAUST FIXTURES.
2. REFER TO ELECTRICAL FOR EXACT NUMBER, TYPE AND LOCATION OF OUTLETS.
3. G.C. WILL COORDINATE THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE CLEARANCES FOR FIXTURES, DUCTS, PIPING, CEILING SUSPENSION SYSTEMS, ETC., NECESSARY TO MAINTAIN THE FINISHED CEILING HEIGHTS INDICATED ON ARCHITECTURAL DRAWINGS.
4. PROVIDE CEILING ACCESS AS REQUIRED FOR EQUIPMENT AND SYSTEM MAINTENANCE. VERIFY MANUFACTURER RECOMMENDATIONS.
5. ALL SWITCHES AND DIMMERS SHALL BE LOCATED 46" ABOVE FINISHED FLOOR, TO CENTER OF SWITCHES AND 6" FROM DOOR FRAME U.N.O. MULTIPLE SWITCHES AT ONE LOCATION SHALL BE GANGED TOGETHER AND FINISHED WITH AN OVER PLATE.
6. CONTRACTOR TO NOTIFY ARCHITECT OF ANY CONFLICT OF LIGHT FIXTURE LOCATIONS WITH MAIN RUNNERS, DUCTS, ETC., PRIOR TO INSTALLATION.
7. FURNISH AND INSTALL UNDERWRITERS LABORATORY, INC (UL) LABELED DEVICES THROUGHOUT

- U. SWITCHES FOR LIGHTING CONTROL SHALL BE INDUSTRIAL GRADE. DEVICES AND PLATES TO MATCH WALLS, WHITE DEVICES WITH STAINLESS PLATES IN THE KITCHEN AND RESTROOMS. UNLESS NOTED AS OTHERWISE, RELATE TO ARCHITECTURAL FINISH SHEETS. WIRE ONLY, TWENTY (20) AMP, ONE HUNDRED TWENTY-TWO HUNDRED SEVENTY-SEVEN (120/277) VOLT.
- V. DUPLEX RECEPTABLES SHALL BE INDUSTRIAL GRADE, THREE (3) WIRE GROUNDING, WHITE COLOR, FINDER GROOVE, TWENTY (20) AMP, NEMA 5-20R 125 VAC.
- W. PLATES SHALL BE FURNISHED AND INSTALLED FOR ALL WIRING DEVICES, TELEPHONE OUTLETS, JUNCTION BOXES, ETC. MATCH SWITCH/PLATE COVERS AS LAID OUT ABOVE.
- X. E.C. SHALL BE RESPONSIBLE FOR PROPERLY BALANCING ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM, REGARDLESS OF CIRCUITING INDICATED.
- Y. ALL DUPLEX RECEPTABLES INSTALLED IN KITCHEN, BEVERAGE, AND PREPARATION AREA ARE TO BE GFCI RATED, WHERE NOT PROTECTED BY A GFCI CIRCUIT BREAKER.
- Z. THERE WILL BE NO MC RUNNING HORIZONTALLY OVER 12" IN LENGTH IN ANY EXPOSED AREA OR AREAS VISIBLE TO THE CUSTOMER. ANY HORIZONTAL CONDUIT MUST BE LEVEL.

JURISDICTIONS VARY AS TO WHO CAN MAKE FINAL CONNECTION OF SIGN TO BUILDING POWER. SOME JURISDICTIONS REQUIRE SPECIAL SIGN PERMITS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ACCESSIBLE J-BOX AT BUILDING PERIMETER FOR EACH SIGN LOCATION ON ANY JOBS WITH MEANS OF DISCONNECT AND CONDUCTOR BACK TO THE PANEL, PER NEC. THE SIGN CONTRACTOR SHALL PROVIDE ALL SIGNS WITH A SINGLE WHIP POKING THROUGH THE BACK OF THE SIGN OR SIGN RACEWAY FOR EACH SIGN LOCATION. FINAL CONNECTION (INCLUDING ANY CONDUIT ABOVE MECHANICAL STRUCTURE OR OTHER SPECIAL CASE SITE CONDITIONS) SHALL BE BY ELECTRICAL CONTRACTOR UNLESS THE A.H.J. REQUIRES THIS CONNECTION TO BE BY THE SIGN CONTRACTOR.

B. AT TIME OF ORDER OF LIGHT FIXTURES, CONFIRM ALL NEW FIXTURES ARE DIMMABLE.

C. BACK OF HOUSE SWITCHES SHALL BE DUAL TECHNOLOGY VACANCY SENSOR TYPE.

D. E.C. SHALL COORDINATE FULLY WITH OTHER CONTRACTORS ASSOCIATED WITH THIS PROJECT TO VERIFY ALL EQUIPMENT LOCATIONS, CONNECTION REQUIREMENTS, ELEVATIONS AND LOCATIONS OF PIPES, CONDUITS AND DUCTS TO PREVENT CONFLICTS DURING CONSTRUCTION. ANY RELOCATION OR REROUTING OF EQUIPMENT, PIPES, CONDUITS, DUCTS OR MATERIALS RESULTING FROM A LACK OF COORDINATION BETWEEN CONTRACTORS WILL BE AT THE CONTRACTORS EXPENSE.

E. EQUIPMENT ROUGH-INS SHOWN ARE ACCURATE TO THE BEST OF DESIGNER'S KNOWLEDGE, HOWEVER, IN SOME INSTANCES, THE OWNER OR SUPPLIER MAY SUBSTITUTE OR THE EQUIPMENT ITEM MAY VARY FROM WHAT SHOWN. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND THE CONTRACTOR SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION DIRECTLY UPON THE CONTRACTOR.

F. E.C. SHALL FURNISH AND INSTALL ALL REQUIRED DISCONNECT SWITCHES AND MOTOR STARTERS TO ALL EQUIPMENT.

G. E.C. SHALL REVIEW OWNER AND SIGNAGE MANUFACTURER, REQUIREMENTS AND LOCATION OF BUILDING SIGNAGE PRIOR TO CONSTRUCTION AND PROVIDE 120VAC CONNECTION AS REQUIRED.

H. E.C. SHALL PROVIDE AS-BUILT DRAWINGS AT JOB COMPLETION TO ARCHITECT.

I. ALL WORK SHALL BE INSTALLED PER ALL GOVERNING CODES.

J. SUBCONTRACTOR IS TO SUPPLY AND INSTALL ALL BLOCKING REQUIRED TO HANG/MOUNT LIGHTS INCLUDING RESTROOM FIXTURES. BLOCKING IS TO BE FIRE RATED IF REQUIRED BY LOCAL CODES.

K. SUBCONTRACTOR IS TO SUPPLY AND INSTALL UNISTRUT AND 3/8" THREADED ROD TO HANG/SUPPORT LIGHTING.

L. RACEWAY SYSTEMS: ALL BRANCH CIRCUIT WIRING SHALL BE ROUTED IN EMT, RIGID OR ELECTRICAL METALLIC TUBING. USE STEEL SET SCREW TYPE FITTINGS ON ALL EMT.

M. CONDUIT SHALL BE SUPPORTED AT INTERVALS PER NEC REQUIREMENTS AND SHALL BE SECURELY FASTENED TO BUILDING WITH AN APPROVED FASTENING SYSTEM.

N. ALL NEW CONDUIT TO BE CONCEALED IN WALLS, PATCH/PAIN IF NECESSARY, WRING, WRING DEVICES, PLATES AND GROUNDING

O. ALL WIRING SHALL CONSIST OF COPPER CONDUCTORS WITH THERMOPLASTIC INSULATION RATED FOR SIX HUNDRED (600) VOLTS. ALL WIRING INSULATION SHALL BE HEAT AND MOISTURE RESISTANT TYPES THW, THWN, OR THHN FOR INTERNAL AND DRIVE LOCATIONS. WIRE COLOR SHALL FOLLOW NEC STANDARDS, PER VOLTAGE.

P. MINIMUM CONDUCTOR SIZE SHALL BE NO. 12 AWG FOR ALL BRANCH CIRCUITS (I.E. RECEPTACLES, LIGHTING, EQUIPMENT POWER, ETC.). MINIMUM CONDUCTOR SIZE SHALL BE NO. 10 AWG FOR ALL FEEDER CIRCUITS TO MECHANICAL EQUIPMENT (I.E. U-1, CONDENSERS, ETC.)

Q. ALL SPLICED OR CONNECTIONS SHALL BE MADE IN OUTLET BOXES, JUNCTION BOXES OR EQUIPMENT WHERE ACCESSIBLE, AND NOT BELOW GRADE.

R. CONDUCTORS SHALL BE PULLED WITHOUT THE USE OF OIL OR GREASE. WIRE PULLING LUBRICANTS WHICH ARE APPROVED FOR USE WITH CONDUCTOR INSULATION MAY BE USED. CARE SHALL BE TAKEN IN AVOIDING DAMAGE TO THE WIRE FROM EXCESSIVE PULLING TENSION OF WIRE IS NOT EXCEEDED. WIRING WITH DAMAGED CONDUCTORS OR INSULATION WILL NOT BE ACCEPTED.

	CL-G-1 - 2'x4' Grid - Second Look
E5	Exposed to Structure. Painted where tagged as u.n.o.
	Ceiling Tag Ceiling Finish Code. Refer to Finish Schedule A111. Ceiling Height above finish floor
	Supply Diffuser, Refer to Mechanical
	24" x 48" Troffer, Refer to Electrical
	Pole mounted Television (OFCI) with cable service. QTY: 15.
	TV without cable service (menu, pricing, training, Laser Tag) QTY: 12
	Exit Sign
	Emergency Egress Frog-Eye
	Exterior Emergency Egress Frog-Eye

24v DC, DMX-controlled, 8 lamp, 8ft. x 8ft. fixture

24v DC, DMX-controlled, 2 lamp, 8ft. fixture

24v DC, DMX-controlled, 4 lamp, 16ft. fixture

24v DC, DMX-controlled, 4 lamp, 16ft. fixture mounted under Mezzanine (Go Kart)

LED Wash Fixture 18 W, 0.3 A @ 120 V - Mounted at ceiling

Moving Head Spotlight
-Moving head spot fitted with a 90 W LED and custom Urban Air GOBO
186 W, 1.7 A @ 120 V, 60 Hz

Linear LED Wash Fixture
57 W, 0.5 A @ 120 V
(includes Mezzanine)

	Wireless access point. Power over ethernet.
	Category 6 network access point. Includes keystone ethernet jack with wall plate.

- INTERIOR 4MP Bullet Camera Power over ethernet Category 6 cable
- EXTERIOR 4MP Bullet Camera Power over ethernet Category 6 cable
- 120v 5-15r quad receptacle required. See above for power consumption.

 70v 2' x 2' Tile Replacement Speaker with volume controller. Passive. No electrical outlet needed.

 10" 3 way high output indoor/outdoor speaker Passive. No electrical outlet needed.

 18" Powered Sub-Woofer 2 A @ 120 V

 120v 5-15r duplex receptacle required. See above for power consumption.

 120v 5-15r quad receptacle required. See above for power consumption.

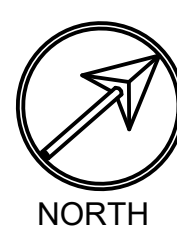
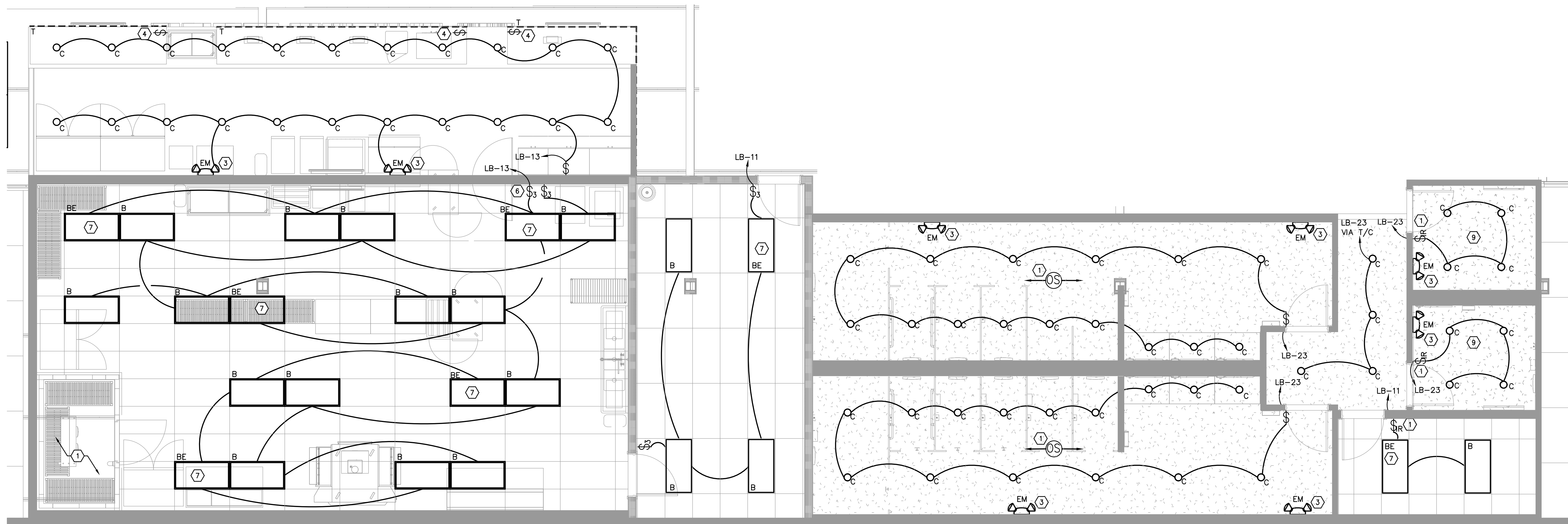
- 1 WALK-IN LIGHTING SHALL BE ORDERED WITH WALK-IN COOLER AND BE INSTALLED BY THE TENANTS G.C. SUPPLEMENT AS NEEDED TO REPAIR HEALTH DEPARTMENT FOOT CANDLE LEVELS, IF NECESSARY.
- 2 NOT USED.
- 3 EMERGENCY EGRESS LIGHT SHALL BE CIRCUITED TO THE INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4 PROVIDE SWITCH MOUNTED IN MILLWORK FOR RGB LED MILLWORK LIGHTING. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MILLWORK INSTALLER. REFER TO SHEET E.1.1 FOR POWER TO MILLWORK LIGHTING.
- 5 NOT USED.
- 6 CONTRACTOR SHALL PROVIDE DUAL SWITCHING FOR BACK OF HOUSE LIGHTING. DUAL SWITCHING SHALL CONSIST OF EACH SWITCH CONTROLLING EVERY OTHER FIXTURE OR INBOARD/OUTBOARD LAMPS FOR A 50% REDUCTION IN LIGHTING. PROVIDE ADDITIONAL LIGHTING BALLAST FOR EACH FIXTURE IF INBOARD/OUTBOARD CONTROLS ARE UTILIZED. COORDINATE SWITCHING CONTROLS WITH OWNER.
- 7 PROVIDE LIGHT FIXTURE WITH BATTERY BACKUP FOR EMERGENCY EGRESS. REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFO. PROVIDE AUTOMATIC SWITCHOVER.



PISTIL CONSORTIA
BOUTIQUE ARCHITECTURE



E2.1



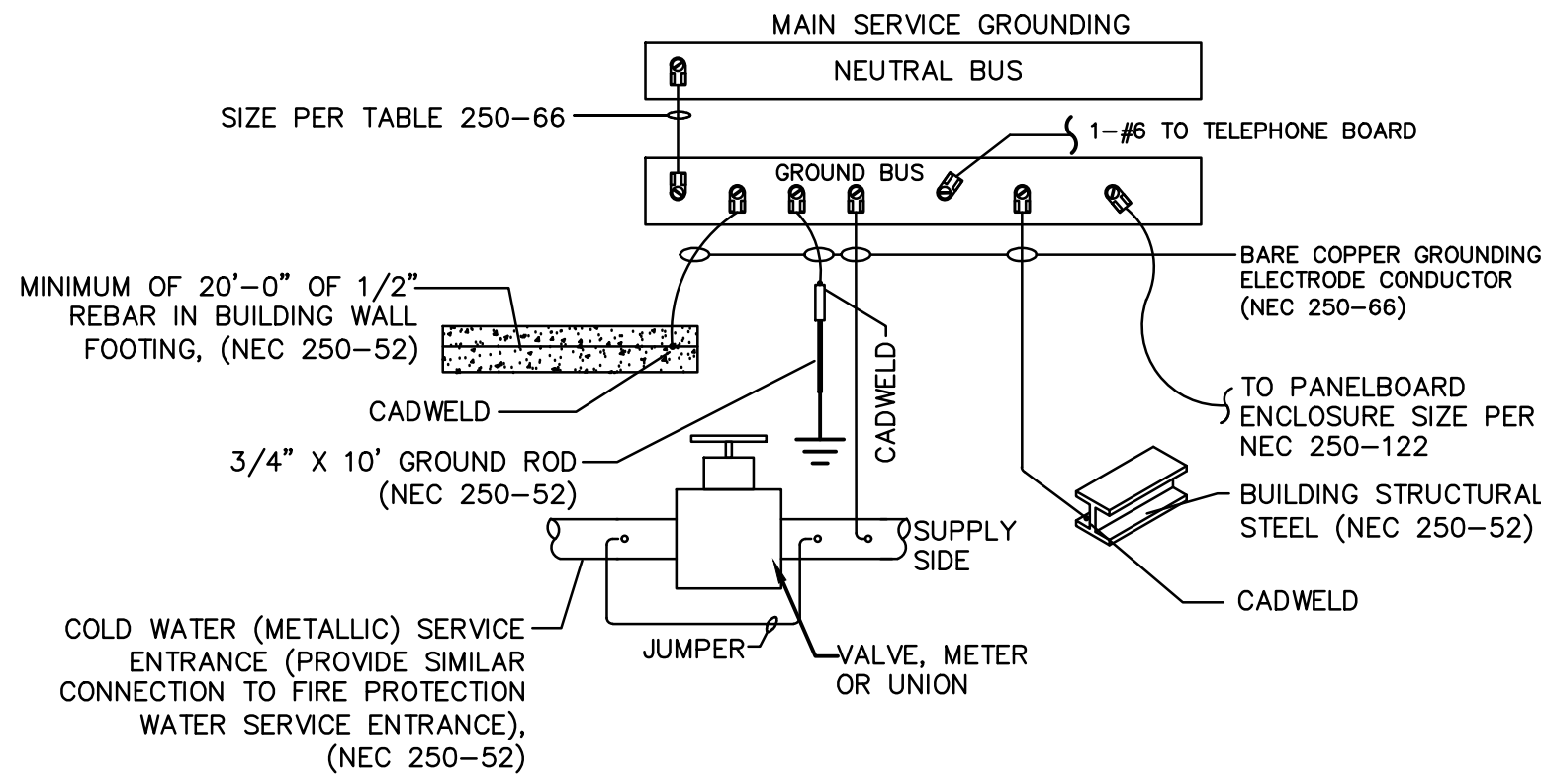
01 ENLARGED LIGHTING PLAN
SCALE: 1/4"=1'-0"

- ONE-LINE RISER NOTES:**
1. PROVIDE A DISCONNECT AND OVERCURRENT PROTECTION MEANS FOR THE ELECTRICAL SERVICE. PROVIDE GFI MAIN BREAKER WHERE REQUIRED BY A.H.J. BASE BID SHALL BE FOR COPPER FEEDERS.
 2. PROVIDE FEEDER FOR TENANT SERVICE. VERIFY LOCATION OF UTILITY XFMR. IN FIELD.
 3. E.C. SHALL VERIFY LENGTH OF FEEDERS PRIOR TO (AND INCLUDE PRICING IN) BID
 4. ALL PANELS AND SUB-PANELS SHALL HAVE LOCKS. ALL PANELS SHALL BE SQUARE D / EATON / CUTLER-HAMMER & SUB-PANELS AND PANELS 600A OR LESS SHALL FIT INTO A 6" STUD WALL WITH LOCKING FLUSH MOUNT COVERS.
 5. G.C. SHALL CONFIRM VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING ANY NEW HVAC EQUIPMENT OR ELECTRICAL GEAR. NOTIFY ENGINEER IF VOLTAGE IS DIFFERENT THAN AS SHOWN.
 6. HVAC BREAKER SIZES SHALL BE CONFIRMED WITH UNITS AND/OR EQUIPMENT THAT ARRIVE ON SITE. BREAKER SIZES AND WIRE SIZES SHALL BE ADJUSTED AS NECESSARY.
 7. PROVIDE LOCK-ON BREAKERS FOR ALL NL/EM AND SECURITY/PHONE CIRCUITS, REFRIGERATION EQUIPMENT, DUCT DETECTORS, AND TIME CLOCK OR OTHER EQUIPMENT REQUIRED TO HAVE POWER 24/7 WITHOUT INTERRUPTION.
 8. ON 480V JOBS, AS NEEDED, PROVIDE SECONDARY DISCONNECT (FUSED) WITHIN 10' OF THE STEP DOWN TRANSFORMER WHERE SECONDARY CONDUCTOR DISTANCE IS >25' OR AS REQUIRED ELSEWHERE BY THE TAP RULE.
 9. ELECTRICAL PANELS SHALL BE SERIES RATED WITH COORDINATED BREAKERS. WHERE POSSIBLE, ORDER ALL PANELS FROM ONE MANUFACTURER FOR A COMPLETE COORDINATED PACKAGE.
 10. PROVIDE ANCILLARY POWER AS NEEDED FOR ITEMS SUCH AS FLUSH SENSORS, DUCT DETECTORS, CAMERA/MUSIC SYSTEMS, ETC.
 11. ALL ELECTRICAL CIRCUITS UNDER TYPE 1 HOODS SHALL BE EQUIPPED WITH SHUNT TRIP BREAKERS FOR AUTOMATIC SHUTDOWN OF COOKING ENERGY SOURCE UPON RECEIPT OF A SIGNAL FROM THE HOOD CONTROLLER. (WHERE APPLICABLE)
 12. AREA SMOKE DETECTORS AND DUCT SMOKE DETECTORS SHALL BE INSTALLED AND CIRCUITED TO AVAILABLE CIRCUIT ON PANEL.
 13. VERIFY FAULT DUTY (SCCR) OF EX. PANEL, SUB-PANEL TO MATCH OR SHALL HAVE SERIES RATED BREAKER FROM SAME MANUFACTURER AS MAIN PANEL.
 14. ELECTRICAL CONTRACTOR SHALL VERIFY AVAILABLE FAULT WITH UTILITY CO. PRIOR TO ORDERING GEAR AND ENERGIZING SERVICE AND SHALL LABEL GEAR WITH SCCR RATING AND AVAILABLE FAULT AT EACH PIECE OF EQUIPMENT AND DATE CALCULATIONS WERE MADE.
 15. DISCONNECTS SHALL BE RATED FOR VOLTAGE OF EQUIPMENT SERVED.DISCONNECTS SHALL BE RATED AT VOLTAGE OF EQUIPMENT SERVED. CONFIRM VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING EQUIPMENT.
 16. ALL WIRING IS COPPER, SIZED FOR 75° C THWN.
 17. FEEDER CONDUIT SHALL BE RIGID METALLIC CONDUIT, OR PVC SUITABLE (RATED) FOR ELECTRICAL USE.
 18. PROVIDE ARCFLASH HAZARD WARNING LABELS ON ALL GEAR AS REQUIRED BY N.E.C.
 19. WHERE CONTRACTORS ARE ADDING SUB-PANELS TO A PROJECT, THE SUB-PANELS SHALL BE SCCR RATED AT 10 KAIC AND SAME MANUFACTURER AS THE EXISTING PANEL(S) AND SHALL BE FEED FROM A SERIES RATED BREAKER. OTHERWISE SUB-PANELS SHALL BE FULLY RATED WITH SAME SCCR AS ORIGINATING PANEL.
 20. ALL HVAC AND REFRIGERATION EQUIPMENT SHALL HAVE HACR TYPE BREAKERS.
 21. ALL 20A/1P AND 15A/1P KITCHEN, GARAGE AND OUTDOOR OUTLETS TO BE GFI PROTECTED.
 22. ALL WRING, INSULATION, ETC. IN AN ENCLOSED PLENUM SPACE SHALL BE PLENUM RATED.
 23. PROVIDE SINGLE-POINT CONNECTION FOR HVAC UNITS WHERE POSSIBLE. OTHERWISE ADD AN 18"-SPACE SUB-PANEL FOR EXTRA BREAKER SPACES.

URBAN AIR PROTOTYPICAL NOTE:
WHERE REQUIRED BY THE AHJ, AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM, WHICH IS ALSO ALLOWED TO SERVE AS A PUBLIC ADDRESS SYSTEM, SHALL BE INSTALLED IN ACCORDANCE WITH NFPA-72. PROVIDE SHUNTS AS NEEDED TO SHUT DOWN GAMES AND MUSIC SYSTEMS.

EXISTING ELECTRICAL SERVICE:
277/480V, 3 PH, 4 WIRE.

- DETAIL NOTES:**
1. ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 250-50 OF THE NATIONAL ELECTRICAL CODE.
 2. ALL GROUNDING CABLES SHALL BE #3/0 UNLESS OTHERWISE SPECIFIED.



02 GROUNDING ELECTRODE SYSTEM DETAIL

SCALE: NOT TO SCALE

BRANCH CIRCUIT WIRING SCHEDULE				
OCBP AMPS	1P-2W+G, 2P-2W+G	2P-3W+G & 3P-3W+G	3P-4W+G	
15	2#12, 1#12G, 3/4"C	3#12, 1#12G, 3/4"C	4#12, 1#12G, 3/4"C	
20	2#12, 1#12G, 3/4"C	3#12, 1#12G, 3/4"C	4#12, 1#12G, 3/4"C	
25	2#10, 1#10G, 3/4"C	3#10, 1#10G, 3/4"C	4#10, 1#10G, 3/4"C	
30	2#10, 1#10G, 3/4"C	3#10, 1#10G, 3/4"C	4#10, 1#10G, 3/4"C	
35	2#8, 1#10G, 3/4"C	3#8, 1#10G, 3/4"C	4#8, 1#10G, 3/4"C	
40	2#8, 1#10G, 3/4"C	3#8, 1#10G, 3/4"C	4#8, 1#10G, 3/4"C	
45	2#6, 1#10G, 3/4"C	3#6, 1#10G, 3/4"C	4#6, 1#10G, 1"C	
50	2#6, 1#10G, 3/4"C	3#6, 1#10G, 3/4"C	4#6, 1#10G, 1"C	
60	2#4, 1#10G, 3/4"C	3#4, 1#10G, 1"C	4#4, 1#10G, 1 1/4"C	
70	2#4, 1#8G, 3/4"C	3#4, 1#8G, 1"C	4#4, 1#8G, 1 1/4"C	
80	2#3, 1#8G, 1"C	3#3, 1#8G, 1"C	4#3, 1#8G, 1 1/4"C	
90	2#2, 1#8G, 1"C	3#2, 1#8G, 1 1/4"C	4#2, 1#8G, 1 1/4"C	
100	2#1, 1#8G, 1 1/4"C	3#1, 1#8G, 1 1/4"C	4#1, 1#8G, 1 1/2"C	

NOTE:
1. CONTRACTOR TO INCREASE WIRE SIZING FOR LONG RUNS OF WIRING FOR VOLTAGE DROP ALLOWANCE. VOLTAGE DROP SHALL NOT EXCEED 3 PERCENT.

ARLINGTON HEIGHTS, IL NOTE:
INSTALL PER NEC 2017-THE ELECTRICAL MUST BE INSTALLED BY A LICENSED ELECTRICAL CONTRACTOR WITH AN ELECTRICAL PERMIT AND AN INSPECTION BY THIS DIVISION. AIC RATING IN ACCORDANCE WITH NEC 110.24 SHALL BE POSTED PER NEC BEFORE RELEASE TO LOCAL UTILITY. THIS INCLUDES PARTIAL FINAL, TEMPORARY CUT-IN AND FINAL INSPECTION. THE FIELD INSPECTOR WILL REVIEW FOR COMPLIANCE WITH NEC DURING THE INSPECTION.

ARLINGTON HEIGHTS, IL NOTE:
LINK ALL PERMITS OF EACH TRADE INCLUDING LOW VOLTAGE, WITH THE CORRECT BUILDING PERMIT.

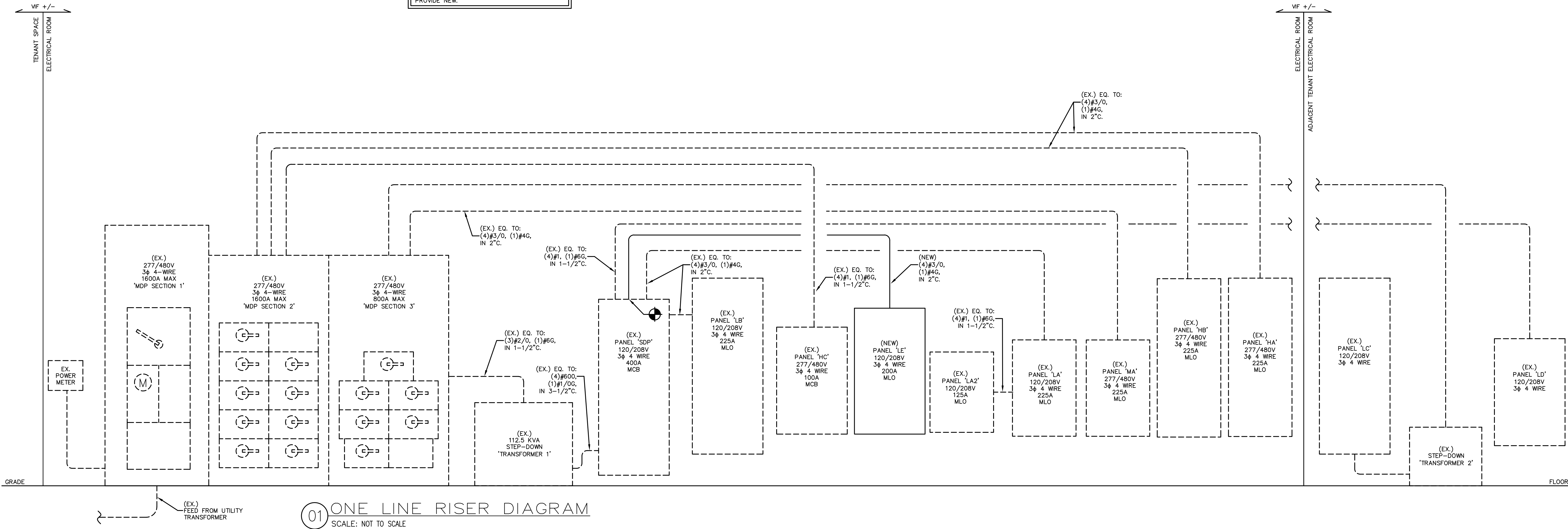
ARLINGTON HEIGHTS, IL NOTE:
SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. NEC 110.24(A)

HOMERUNS AND BRANCH WIRING FOR 20 AMP CIRCUITS SHALL BE AS FOLLOWS:			
LENGTH	CIRCUIT WIRE SIZE	HOMERUN WIRE SIZE	
1FT TO 50FT	NO.12 AWG	NO.12 AWG	
51FT TO 75FT	NO.12 AWG	NO.10 AWG	
76FT TO 120FT	NO.10 AWG	NO.8 AWG	
121FT TO 190FT	NO.10 AWG	NO.6 AWG	
191FT TO 300FT	NO.10 AWG	NO.4 AWG	

ARLINGTON HEIGHTS, IL NOTE:
NOT ALL EXISTING PANELS ARE BEING REUSED IN THIS FINISHOUT. ALL PANELS NOT BEING UTILIZED SHALL BE LEFT IN THE OFF POSITION. OWNER SHALL COORDINATE WITH G.C. IF THE DEMOLITION OF UNUSED PANELS IS DESIRED.

ARLINGTON HEIGHTS, IL NOTE:
CONTRACTOR MAY REUSE PORTIONS OF CONDUITS AND CONDUCTORS WHERE PRACTICAL AND WHERE ADEQUATE IN SIZE, CONDITION, AND CAPACITY.

ARLINGTON HEIGHTS, IL NOTE:
INTENT OF DESIGN IS TO REUSE EXISTING SERVICE ENTRY GEAR AND REUSE/RELOCATE DISTRIBUTION GEAR AND PANELS. EXISTING PANELS, BREAKERS, WIRING, CONDUITS, DISCONNECTS, ETC. INTENDED FOR REUSE SHALL BE REFURBISHED AND BROUGHT TO LIKE-NEW CONDITION. WHERE IN TOO POOR CONDITION FOR REUSE, CONTRACTOR SHALL PROVIDE NEW.



01 ONE LINE RISER DIAGRAM

SCALE: NOT TO SCALE



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Construction Management:
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No.	Description	Date
A	Issue for Permit	2024.12.20

DRAWN BY: AM
CHECKED BY: BA
PROJ. NO: 23-053
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ELECTRICAL RISER DIAGRAM

E3.0

OVERALL MDP LOAD																	
MAIN 1600A					VOLTAGE: 480/277				PHASE: 3				WIRE: 4				
MTG: FLOOR					A/C: EX				NOTES:								
CIRCUIT BREAKER					LOAD (KVA)								PHASE				
OKT	#	FRAM	TRIP	POLE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	A	B	C		
-	-	-	-	-	MDP SECTION 2	0.0	0.7	0.0	72.3	0.0	0.0	43.2					
-	-	-	-	-		0.0	0.4	0.0	72.3	0.0	0.0	43.2					
-	-	-	-	-		1.1	0.7	0.0	72.3	0.0	0.0	43.2					
-	-	-	-	-	MDP SECTION 3	4.8	14.8	0.0	83.4	0.0	23.7	10.2					
-	-	-	-	-		6.6	17.3	0.0	83.4	0.0	23.2	10.6					
-	-	-	-	-		4.8	20.8	0.0	83.4	0.0	20.1	10.6					
-	-	-	-	-		17.4	54.8	0.0	467.0	0.0	71.1	160.9					
CONNECTED LOAD (KVA):						771.2		PHASE A 928.1								257.1	
DEMAND LOAD (KVA):						723.9		PHASE B 928.0								257.0	
CONNECTED LOAD (AMPS)						927.6		PHASE C 927.9								257.0	
DEMAND LOAD (AMPS):						870.7		AMPS								KVA	
AMPACITY REQUIRED:						876.0											
NOTES:																	

AMPACITY REQD CALCS

LIGHTING	17.41	KVX	X	125	%	=	21.8 KVA
RECEPTACLE TOTAL	54.76	KVA					
1ST	10.00	KVX	X	100	%	=	10.0 KVA
REMAIN	44.76	KVX	X	50	%	=	22.4 KVA
MOTORS	TOTAL	0.00	KVX	X	100	%	=
LARGEST							0.0 KVA
REMAIN	0.00	KVX	X	100	%	=	0.0 KVA
A/C	467.04	KVX	X	100	%	=	467.0 KVA
HEATING	0.00	KVX	X	100	%	=	0.0 KVA
LOCKED-OUT LOAD		KVX	X	100	%	=	0.0 KVA
KITCHEN	71.06	KVX	X	65	%	=	46.2 KVA
MISCELLANEOUS	160.92	KVX	X	100	%	=	160.9 KVA
TOTAL						=	728.3 KVA

MAIN SWITCHGEAR SCHEDULE -MDP-3 SECTION 3'														
MAIN 800A					VOLTAGE: 480/277					PHASE: 3				
MTG: FLOOR					A/C: EX					WIRE: 4				
CIRCUIT BREAKER					NOTES:					LOAD (KVA)				
CKT #	FRAME	TRIP	POLE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	A	B	C
1	-	200	3	SPARE:										
-	-	-	-											
2	-	200	3	TRANSFORMER 2 (OFF POSITION)										
-	-	-	-											
3	-	200	3	PANEL MA	0.0	0.0	0.0	52.9	0.0	0.0	2.7			
-	-	-	-		0.0	0.0	0.0	52.9	0.0	0.0	2.7			
-	-	-	-		0.0	0.0	0.0	52.9	0.0	0.0	2.7			
4	-	125	3	RTU-2				30.5						
-	-	-	-					30.5						
-	-	-	-					30.5						
5	-	200	3	PANEL 'SDP'	4.8	14.8	0.0	0.0	0.0	27.7	7.5			
-	-	-	-	VIA TRANSFORMER 1	6.6	17.3	0.0	0.0	0.0	23.2	7.9			
-	-	-	-		4.8	20.8	0.0	0.0	0.0	20.1	7.9			
6	-	60	3	SPARE:										
-	-	-	-											
7	-	-	-	SPACE										
-	-	-	-											
-	-	-	-											
					16.3	53.0	0.0	250.1	0.0	71.1	31.3			
CONNECTED LOAD (KVA):					421.8					PHASE A 508.6				
DEMAND LOAD (KVA):					375.4					PHASE B 509.7				
										PHASE C 504.3				
CONNECTED LOAD (AMPS):					507.3					AMPS 139.7				
DEMAND LOAD (AMPS):					451.6					KVA 140.9				
AMPACITY REQUIRED:					456.5									
NOTES:														

AMPACITY REQD CALCS

LIGHTING	16.29	KVX	X	125	%	=	20.4 KVA
RECEPTACLE TOTAL	52.96	KVA					
1ST	10.00	KVX	X	100	%	=	10.0 KVA
REMAIN	42.96	KVX	X	50	%	=	21.5 KVA
MOTORS	TOTAL	0.00	KVX	X	100	%	=
LARGEST							0.0 KVA
REMAIN	0.00	KVX	X	100	%	=	0.0 KVA
A/C	250.15	KVX	X	100	%	=	250.1 KVA
HEATING	0.00	KVX	X	100	%	=	0.0 KVA
LOCKED-OUT LOAD		KVX	X	100	%	=	0.0 KVA
KITCHEN	71.06	KVX	X	65	%	=	46.2 KVA
MISCELLANEOUS	31.32	KVX	X	100	%	=	31.3 KVA
TOTAL						=	378.5 KVA

MAIN SWITCHGEAR SCHEDULE -'MDP SECTION 2'														
MAIN 1600A				VOLTAGE: 480/277				PHASE: 3				WIRE: 4		
MTG: FLOOR				A/C: EX				NOTES:						
CKT #	CIRCUIT BREAKER		POLE	DESCRIPTION	LOAD (KVA)						PHASE			
	FRAME	TRIP			LTG	REC	MTR	A/C	HTG	KIT	MISC	A	B	C
1	-	30	3	SPARE										
-	-	-	-	-										
2	-	-	3	SPACE										
-	-	-	-	-										
3	-	200	3	PANEL HA	0.0	0.0	0.0	0.0	0.0	0.0	21.6			
-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	21.6			
4	-	200	3	PANEL HB	0.0	0.7	0.0	0.0	0.0	0.0	21.6			
-	-	-	-	-	0.0	0.4	0.0	0.0	0.0	0.0	21.6			
5	-	200	3	SPARE	1.1	0.7	0.0	0.0	0.0	0.0	21.6			
-	-	-	-	-										
6	-	80	3	RTU-4					19.9					
-	-	-	-	-					19.9					
7	-	125	3	RTU-1					32.4					
-	-	-	-	-					32.4					
8	-	80	3	RTU-3					19.9					
-	-	-	-	-					19.9					
9	-	100	3	SPARE					19.9					
-	-	-	-	-										
10	-	100	3	PANEL HC	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
-	-	-	-	-	1.1	1.8	0.0	216.9	0.0	0.0	129.6			
CONNECTED LOAD (KVA):				349.4					PHASE A				419.6	116.2
DEMAND LOAD (KVA):				349.4					PHASE B				418.3	115.9
CONNECTED LOAD (AMPS):				420.3					PHASE C				423.6	117.3
DEMAND LOAD (AMPS):				420.3					AMPS					KVA
AMPACITY REQUIRED:				420.6										

*BALANCE ALL PANELS TO WITHIN 10%

**COORDINATE FINAL EQUIPMENT BREAKER SIZES WITH NAMEPLATES OF EQUIPMENT DELIVERED TO JOB SITE.

AMPACITY REQD CALCS

LIGHTING	1.12	KVX	X	125	%	=	1.4 KVA
RECEPTACLE TOTAL	1.80	KVA					
1ST	10.00	KVX	X	100	%	=	1.8 KVA
REMAIN	0.00	KVX	X	50	%	=	0.0 KVA
MOTORS	TOTAL	0.00	KVX	X	100	%	=
LARGEST							0.0 KVA
REMAIN	0.00	KVX	X	100	%	=	0.0 KVA
A/C	216.89	KVX	X	100	%	=	216.9 KVA
HEATING	0.00	KVX	X	100	%	=	0.0 KVA
LOCKED-OUT LOAD		KVX	X	100	%	=	0.0 KVA
KITCHEN	0.00	KVX	X	65	%	=	0.0 KVA
MISCELLANEOUS	129.60	KVX	X	100	%	=	129.6 KVA
TOTAL						=	349.7 KVA

PANELBOARD SCHEDULE - 'HA' (EX.)																																	
MAIN: 225A MCB					VOLTAGE: 480/277										PHASE: 3					WIRE: 4					MOUNTING: SURFACE					A/C:		EX	
CKT #	TRIP POLE	DESCRIPTION	LOAD (KVA)					PHASE					LOAD (KVA)					DESCRIPTION	TRIP POLE	CKT #													
			LTG	REC	MTR	A/C	H/O	A/B	C	LTG	REC	MTR	A/C	H/O	A/B	C																	
1	3/0/3	GO-KART CHARGER						2.7							2.7	GO KART CHARGERS	30/3	2															
3	-	-						2.7							2.7	-	-	4															
5	-	-						2.7							2.7	-	-	6															
7	3/0/3	GO-KART CHARGER						2.7							2.7	GO KART CHARGERS	30/3	8															
9	-	-						2.7							2.7	-	-	10															
11	-	-						2.7							2.7	-	-	12															
13	3/0/3	GO-KART CHARGER						2.7							2.7	GO KART CHARGERS	30/3	14															
15	-	-						2.7							2.7	-	-	16															
17	-	-						2.7							2.7	-	-	18															
19	3/0/3	GO-KART CHARGER						2.7								SPARE	20/1	20															
21	-	-						2.7								SPARE	20/1	22															
23	-	-						2.7								SPARE	20/1	24															
25	3/0/3	GO-KART CHARGER						2.7								SPARE	20/1	26															
27	-	-						2.7								SPARE	20/1	28															
29	-	-						2.7								SPARE	20/1	30															
31	20/1	SPARE														SPACE	-	32															
33	20/1	SPARE														SPACE	-	34															
35	20/1	SPARE														SPACE	-	36															
37	20/1	SPARE														SPACE	-	38															
39	-	SPACE														SPACE	-	40															
41	-	SPACE														SPACE	-	42															
LIGHTING (KVA):			0.0					0.0					0.0					24.3					CONNECTED LOAD (KVA):					64.8					
RECEPTACLES (KVA):			0.0					0.0					0.0					0.0					DEMAND LOAD (KVA):					64.8					
MOTORS (KVA):			0.0					PHASE A					22					78.0															
A/C (KVA):			0.0					PHASE B					22					78.0					CONNECTED LOAD (AMPS):					77.9					
HEATING (KVA):			0.0					PHASE C					22					78.0					DEMAND LOAD (AMPS):					77.9					
KITCHEN (KVA):			0.0										KVA					AMPS															
MISCELLANEOUS (KVA):			64.8																				AMPACITY REQUIRED:					77.9					
NOTE: BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH A PAD-LOCK DEVICE SO THAT CIRCUITS CAN BE DISCONNECTED SIMULTANEOUSLY.																																	
(a) - PROVIDE 'HACR' TYPE CIRCUIT BREAKER																																	

[illegible][illegible]

PANELBOARD SCHEDULE - 'LB' (EX.)																								
MAIN: 225A MLO				VOLTAGE: 208/120										PHASE 3: WIRE 4				MOUNTING: RECESSED		A/C		E/K		
CKT #	TRIP	POLE	DESCRIPTION	LOAD (KVA)										LOAD (KVA)		DESCRIPTION	TRIP	CKT #						
				LTG	REC	MTR	A/C	HTG	KIT	MISC	A/B	C	LTG	REC	MTR				A/C	HTG	KIT	MISC		
1	20/1		HIGH BAY LIGHTS	1.5															TECH BAR 1-1	20/1	2			
3	20/1		HIGH BAY LIGHTS	1.5															TECH BAR 1-2	20/1	4			
5	20/1		HIGH BAY LIGHTS	1.5															TECH BAR 2-1	20/1	6			
7	20/1		PARTY ROOM LIGHTING	1.4															TECH BAR 2-2	20/1	8			
9	20/1		PARTY ROOM LIGHTING	1.5															OFFICE RECEP.TS.	20/1	10			
11	20/1		GENERAL LIGHTING	1.0															AV RECEP.TS.	20/1	12			
13	20/1		GENERAL LIGHTING	1.2															P.O.S. RECEPTACLE & LIGHTING	20/1	14			
15	20/1		ATTRACTION LIGHTING	1.1															P.O.S. RECEPTACLE & LIGHTING	20/1	16			
17	20/1		ATTRACTION LIGHTING	1.1															P.O.S. RECEPTACLE & LIGHTING	20/1	18			
19	20/1		ATTRACTION LIGHTING	0.9															ATTRACTION LIGHTING	20/1	20			
21	20/1		ATTRACTION LIGHTING	0.7															LASER TAG BLACK LTG	20/1	22			
23	20/1		RESTROOM LIGHTING	0.8															LASER TAG WHITE LTG	20/1	24			
25	20/1		EXTERIOR SIGNAGE		0.2														SPARE	20/1	26			
27	20/1		SW REC.		0.2														SPARE	20/1	28			
29	20/1		LOCKER PAY STATION		0.2														SPARE	20/1	30			
31	20/1		EXTERIOR SIGNAGE		0.2														SPARE	20/1	32			
33	20/1		DRINKING FOUNTAIN		0.2														SPARE	20/1	34			
35	20/1		RESTROOM REC.		0.4														SPARE	20/1	36			
37	20/1		RESTROOM REC.		0.4														SPARE	20/1	38			
39	20/1		SKYDRIVER LIGHTS		1.9														SPARE	20/1	40			
41	20/1		EMERGENCY LIGHTS		0.5														SPARE	20/1	42			
LIGHTING (KVA):				15.7															CONNECTED LOAD (KVA):	24.5				
RECEPTACLES (KVA):				8.8	14.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.2	0.0	0.0	0.0	0.0	DEMAND LOAD (KVA):	24.5				
MOTORS (KVA):				0.0															CONNECTED LOAD (AMPS):	67.9				
A/C (KVA):				0.0															DEMAND LOAD (AMPS):	67.9				
HEATING (KVA):				0.0																				
KITCHEN (KVA):				0.0																				
MISCELLANEOUS (KVA):				0.0															AMPPACITY REQUIRED:	75.8				
NOTE BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH A PAD-LOCK DEVICE SO THAT CIRCUITS CAN BE DISCONNECTED SIMULTANEOUSLY.																								
(a) - PROVIDE HACR TYPE CIRCUIT BREAKER																								
TOTAL																				=	28.4 KVA			

[illegible]

*BALANCE ALL PANELS TO WITHIN 10%
 **INTENT OF DESIGN IS TO REUSE EXISTING PANEL SUB-FEED BREAKERS SHOWN AS-IS, WHERE-IS. BREAKER LOCATIONS SHOWN ARE DIAGRAMMATIC. V.I.F.
 ***COORDINATE ALL EQUIPMENT BREAKER AND WIRE SIZES WITH NAMEPLATES OF EQUIPMENT DELIVERED TO JOBSITE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NEEDED.

PANELBOARD SCHEDULE - 'SDP' (EX.)																																																		
MAIN		400A MCB										VOLTAGE 308/120						PHASE L WIRE 4				MOUNTING SURFACE		A/C.		EX																								
CKT #	TRIP POLE	DESCRIPTION	LOAD (KVA)							PHASE LOAD (KVA)									A/C.	TRIP POLE	CKT #																													
			LGT	REC	MTR	A/C	HOT	KIT	MISC	LGT	REC	MTR	A/C	HOT	KIT	MISC	DESCRIPTION																																	
1	100/3	PANEL LD (OFF POSITION)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20Y1	2	AMPACITY REQD CALCS																							
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4																								
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6																								
7	200/3	PANEL LE	1.2	3.4	1.6	0.0	0.0	19.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20Y1	8																								
9	-	VIA SUBFEED	0.2	5.6	2.0	0.0	0.0	13.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10		LIGHTING	20.80	KVA X 125 % =	26.0 KVA																			
11	-	-	0.0	7.1	0.0	0.0	0.0	14.5	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12																								
13	-	SPACE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14		RECEPTACLE TOTAL	51.46	KVA																				
15	200/3	PANEL LB	5.5	2.4	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16		IST	10.00	KVA X 100 % =	10.0 KVA																			
17	-	VIA SUBFEED	5.1	3.9	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18		REMAIN	41.46	KVA X 50 % =	20.7 KVA																			
19	-	-	5.1	2.4	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20																								
21	-	SPACE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	MOTORS	TOTAL	3.52	KVA X 100 % =	0.0 KVA																			
23	200/3	PANEL LA	1.2	11.3	0.0	0.0	0.0	0.0	7.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	LARGEST	KVA X 125 % =	0.0 KVA																					
25	-	VIA SUBFEED	0.0	8.4	0.0	0.0	0.0	0.0	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	REMAIN	3.52	KVA X 100 % =	3.5 KVA																				
27	-	-	2.5	6.9	0.0	0.0	0.0	0.0	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28																								
29	-	SPACE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	A/C	0.00	KVA X 100 % =	0.0 KVA																				
LIGHTING (KVA):			20.8	20.8	51.5	3.5	0.0	0.0	47.4	24.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	CONNECTED LOAD (KVA):				147.5	31	HEATING	0.00	KVA X 100 % =	0.0 KVA																				
RECEPTACLES (KVA):			51.5																		DEMAND LOAD (KVA):				110.2	32	LOCKED-OUT LOAD		KVA X 100 % =	0.0 KVA																				
MOTORS (KVA):			3.5																		PHASE A				59	414.5																								
A/C (KVA):			0.0																		PHASE B				47	389.6																								
HEATING (KVA):			0.0																		PHASE C				51	425.3																								
KITCHEN (KVA):			47.4																						KVA	AMPS	305.9			KITCHEN	47.41	KVA X 65 % =	30.8 KVA																	
MISCELLANEOUS (KVA):			24.3																										AMPCITY REQUIRED:	320.3			MISCELLANEOUS	24.34	KVA X 100 % =	24.3 KVA														
NOTE BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH A PAD-LOCK DEVICE SO THAT CIRCUITS CAN BE DISCONNECTED SIMULTANEOUSLY.																																																		
(g) - PROVIDE "HACR" TYPE CIRCUIT BREAKER																																																		
TOTAL																																															=		115.4 KVA	



PISTIL CONSORTIA
BOUTIQUE ARCHITECTURE

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Construction Management:
Foxfeild



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ELECTRICAL PANELS

E3.2

[illegible]

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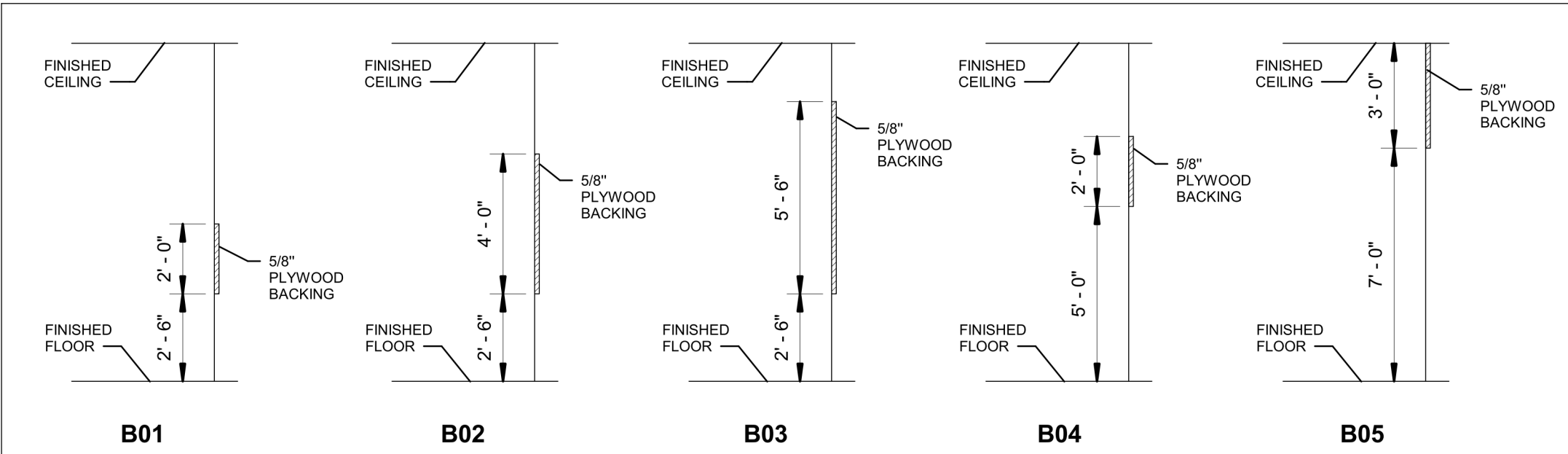
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REVISION	DATE
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SCALE: 1/4" = 1'-0"	DATE: 08/27/2024

SPECIAL CONDITIONS

FS102



IN-WALL BACKING DETAILS

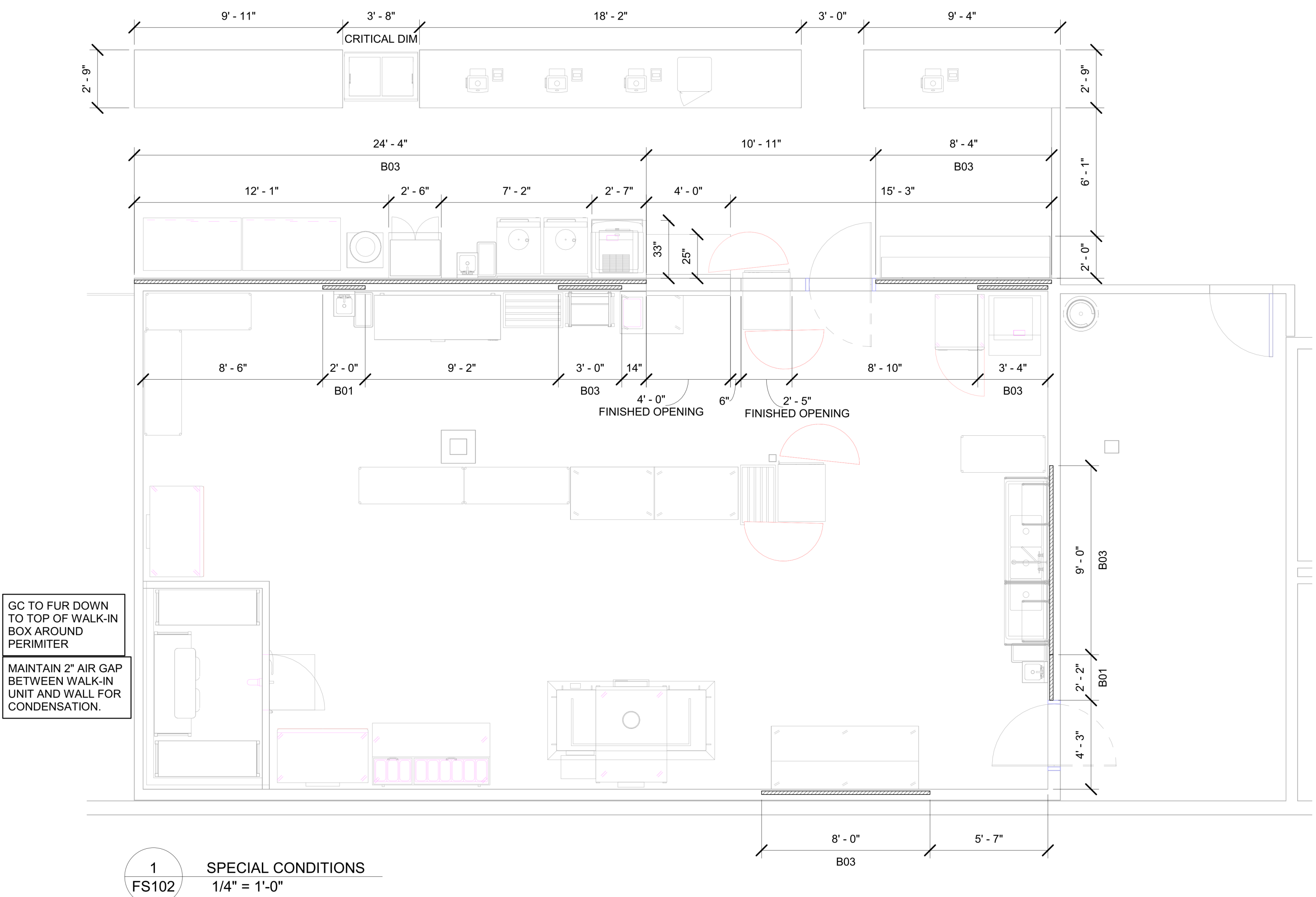
NOTE! GENERAL CONTRACTOR TO PROVIDE AND INSTALL ALL WALL BACKING.

NOTE! ALL CRITICAL DIMENSIONS ARE TO FINISHED WALL

MEP ENGINEER TO CALCULATE BTU LOADS PRODUCED BY COOKING AND REFRIGERATION EQUIPMENT AND ADJUST HVAC IN BOH CAFE TO COMPENSATE.

NOTE: KITCHEN DROP CEILING HEIGHT TO BE 10'-0" AFF.

NOTE: HVAC ENGINEER TO ACCOUNT FOR HEAT LOADS IN KITCHEN.



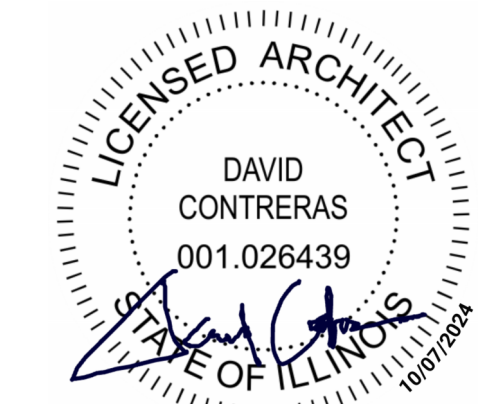
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DUCTWORK, ANSUL SYSTEM, AND ANY ROOF PENETRATIONS SUPPLIED AND INSTALLED BY GC.



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Electrical Rough-Ins & Schedule

FS103

ELECTRICAL CONNECTION SYMBOLS		
	DR	DUPLEX RECEPTACLE
	JB	JUNCTION BOX
	SR	SINGLE RECEPTACLE
	QR	QUAD RECEPTACLE
	DR	DUPLEX RECEPTACLE WITH USB PORT
		SWITCH
	CS	CONDUIT STUB-UP
	CO	CONVENIENCE OUTLET

INSTALLATION OF ACCESSORIES AND FITTINGS PROVIDED
DOOR WITH FOODSERVICE EQUIPMENT - BY ELECTRICAL
CONTRACTOR

CONNECTION TO ALL EQUIPMENT - BY ELECTRICAL CONTRACTOR

11. PROVIDE GFCI PROTECTION FOR 125V 15A AND 20A RECEPTACLES LOCATED WITHIN 6' OF SINKS. GFCI PROTECTION MUST BE READILY ACCESSIBLE.



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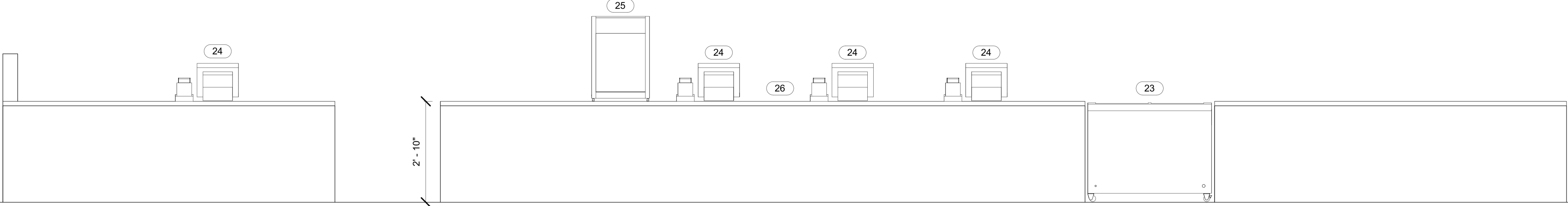
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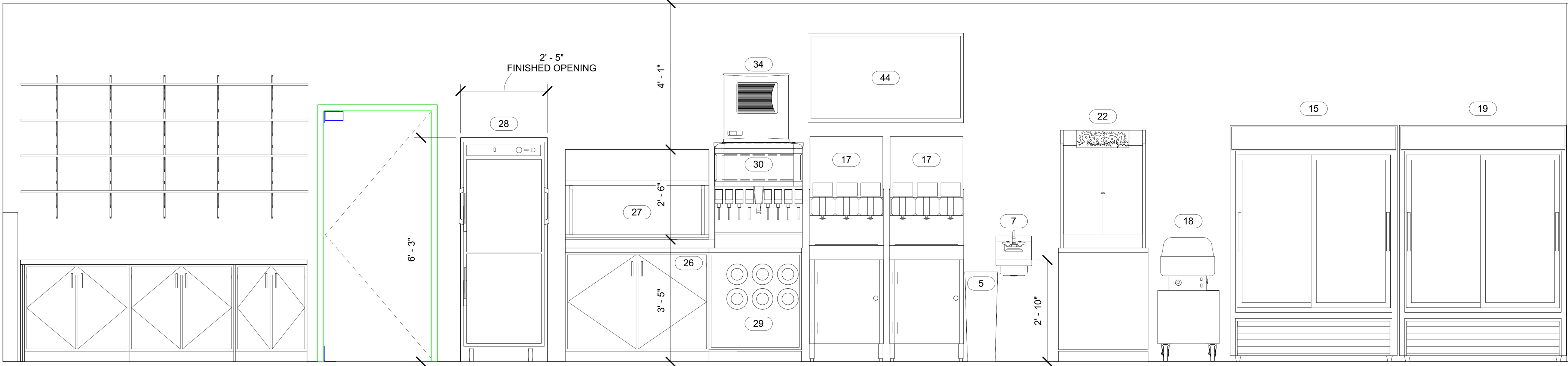
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H	SB
SCALE:	DATE:
1/4" = 1'-0"	08/27/2024

ELECTRICAL ROUGH-INS & SCHEDULE

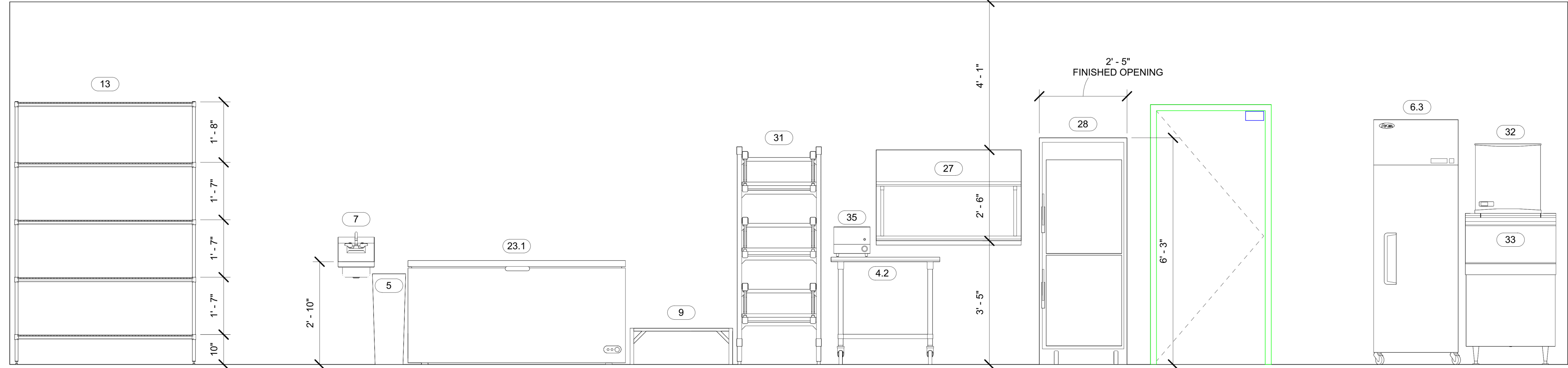
FS103



1 FRONT COUNTER
1/2" = 1'-0"



2 BACK COUNTER
1/2" = 1'-0"



3 ICE BIN & MACHINE
1/2" = 1'-0"

NOTE: HOOD CANOPY, ROOF CURB AND FAN SUPPLIED BY KEC, INSTALLED BY GC.
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ELEVATION

FS105



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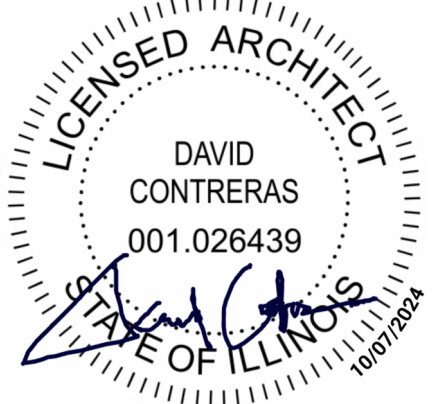
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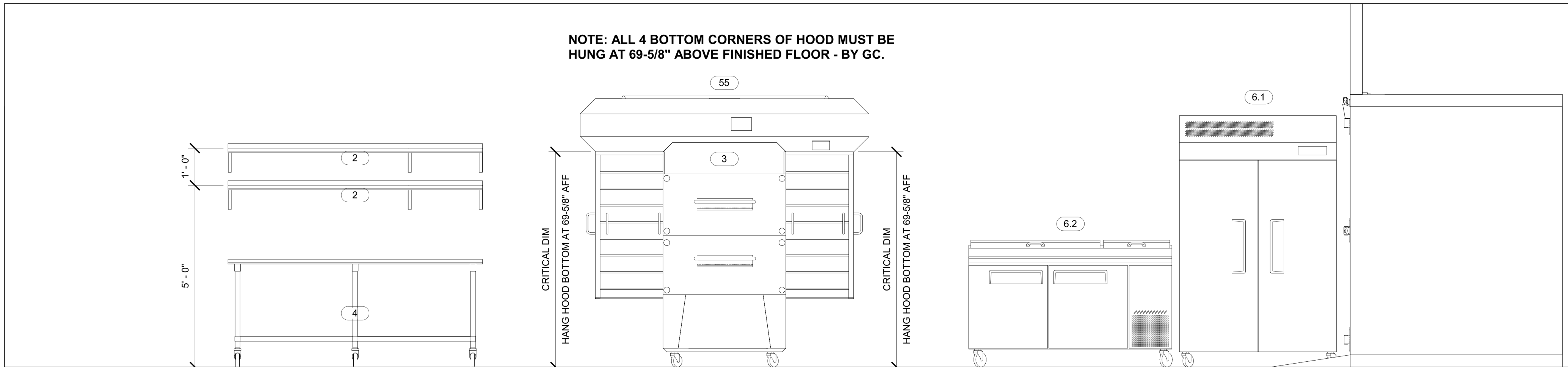
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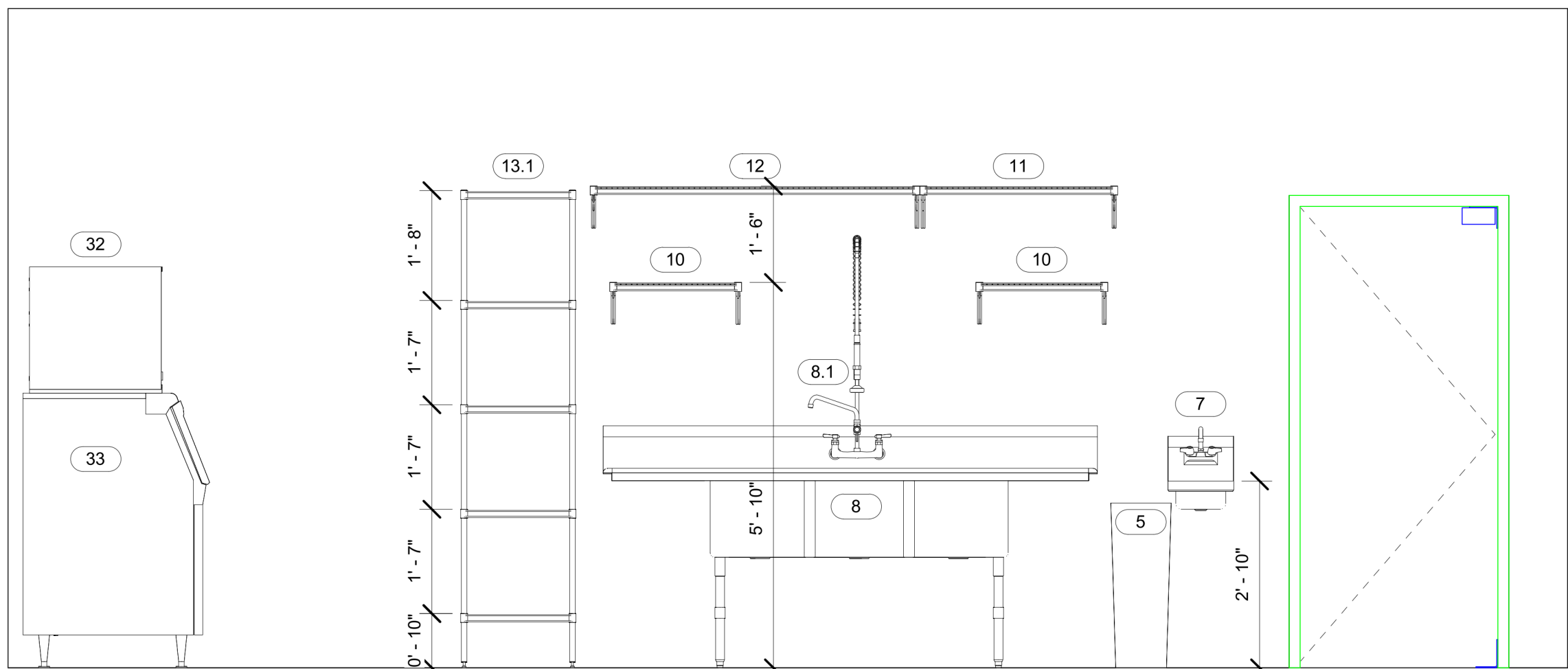
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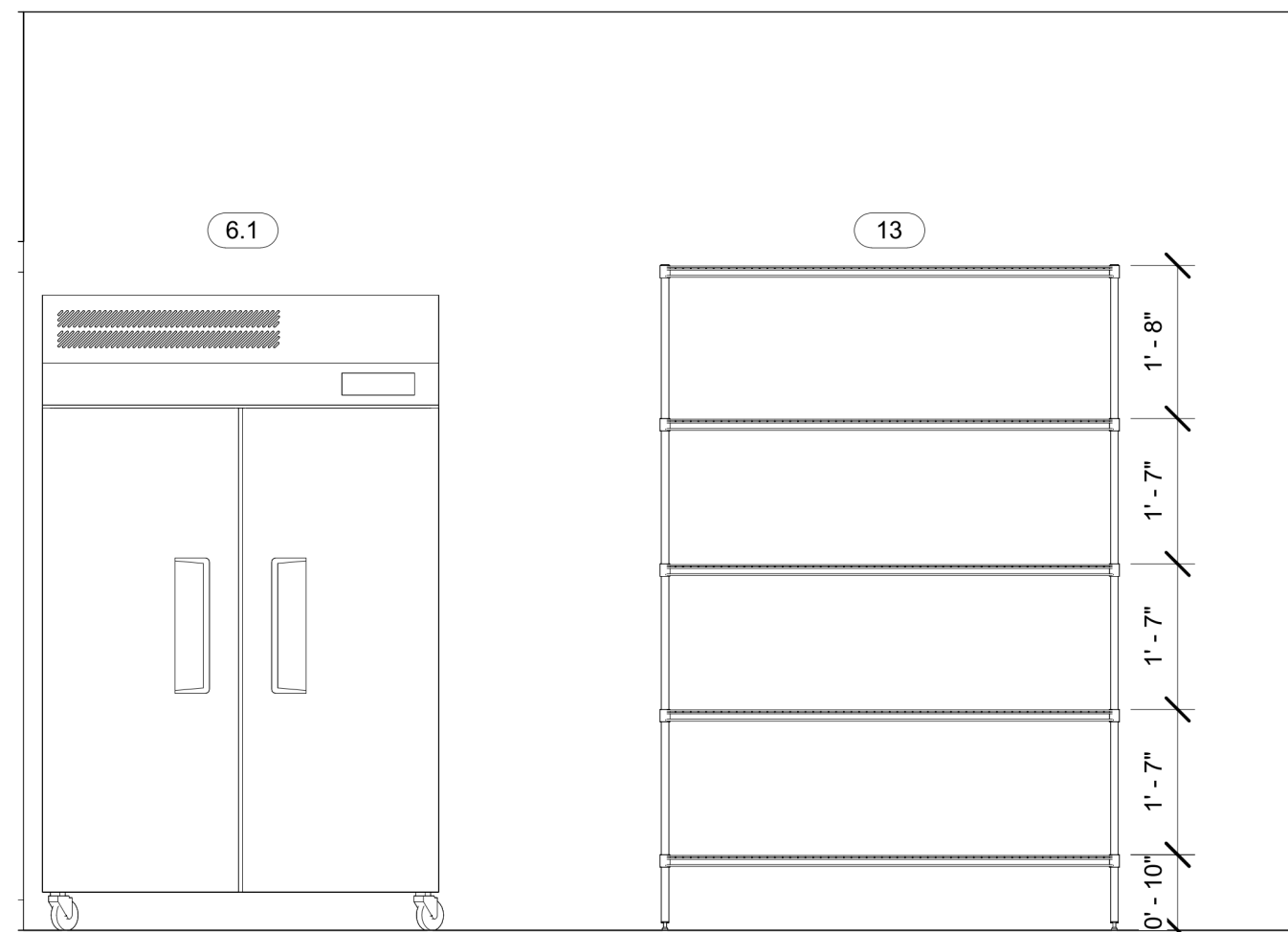
FS105



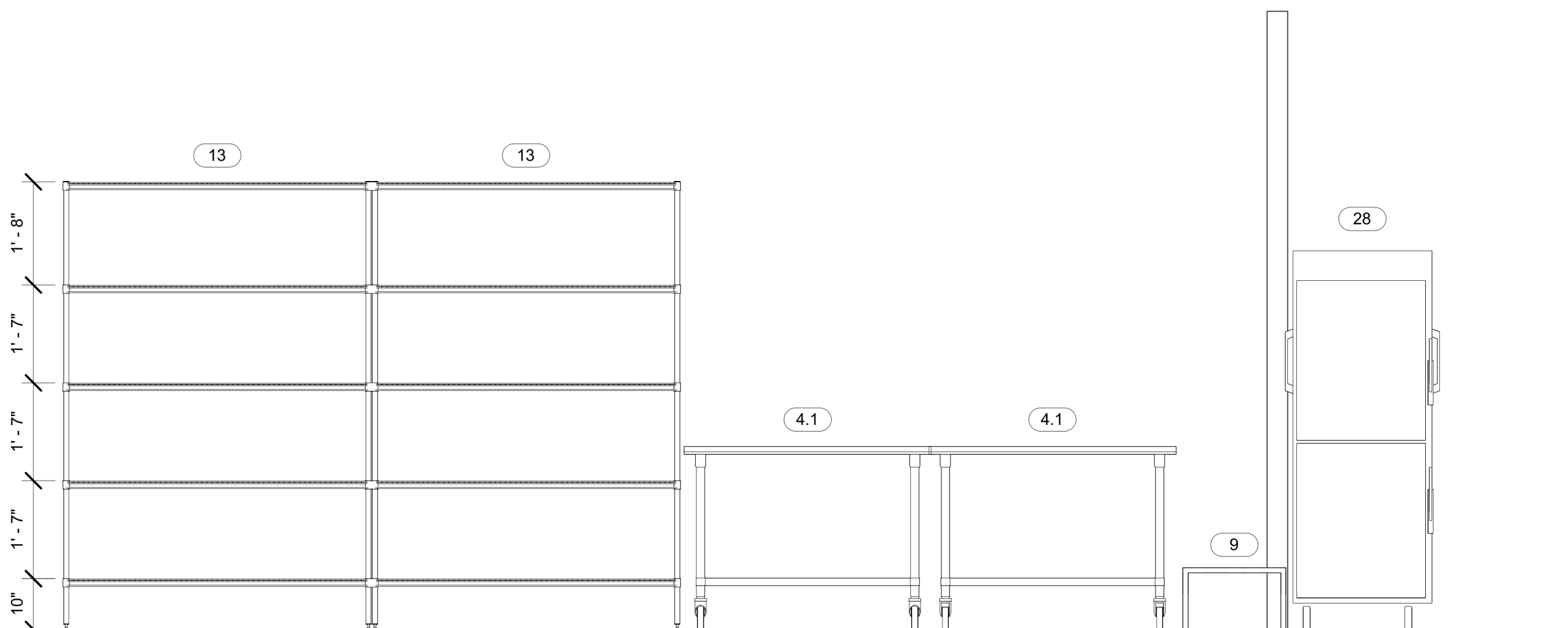
4 XLT OVEN GAS
FS105.1 1/2" = 1'-0"



5 3 COMP SINK
FS105.1 1/2" = 1'-0"



6 REFRIGERATOR, REACH-IN & SHELVING
FS105.1 1/2" = 1'-0"



7 EXPO
FS105.1 1/2" = 1'-0"

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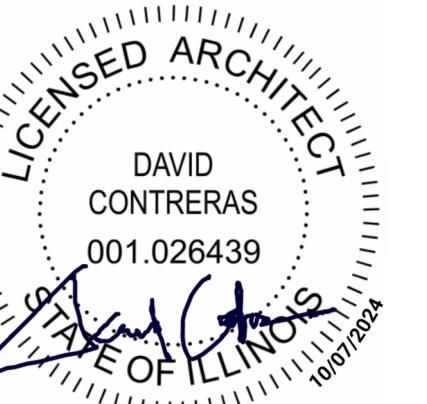
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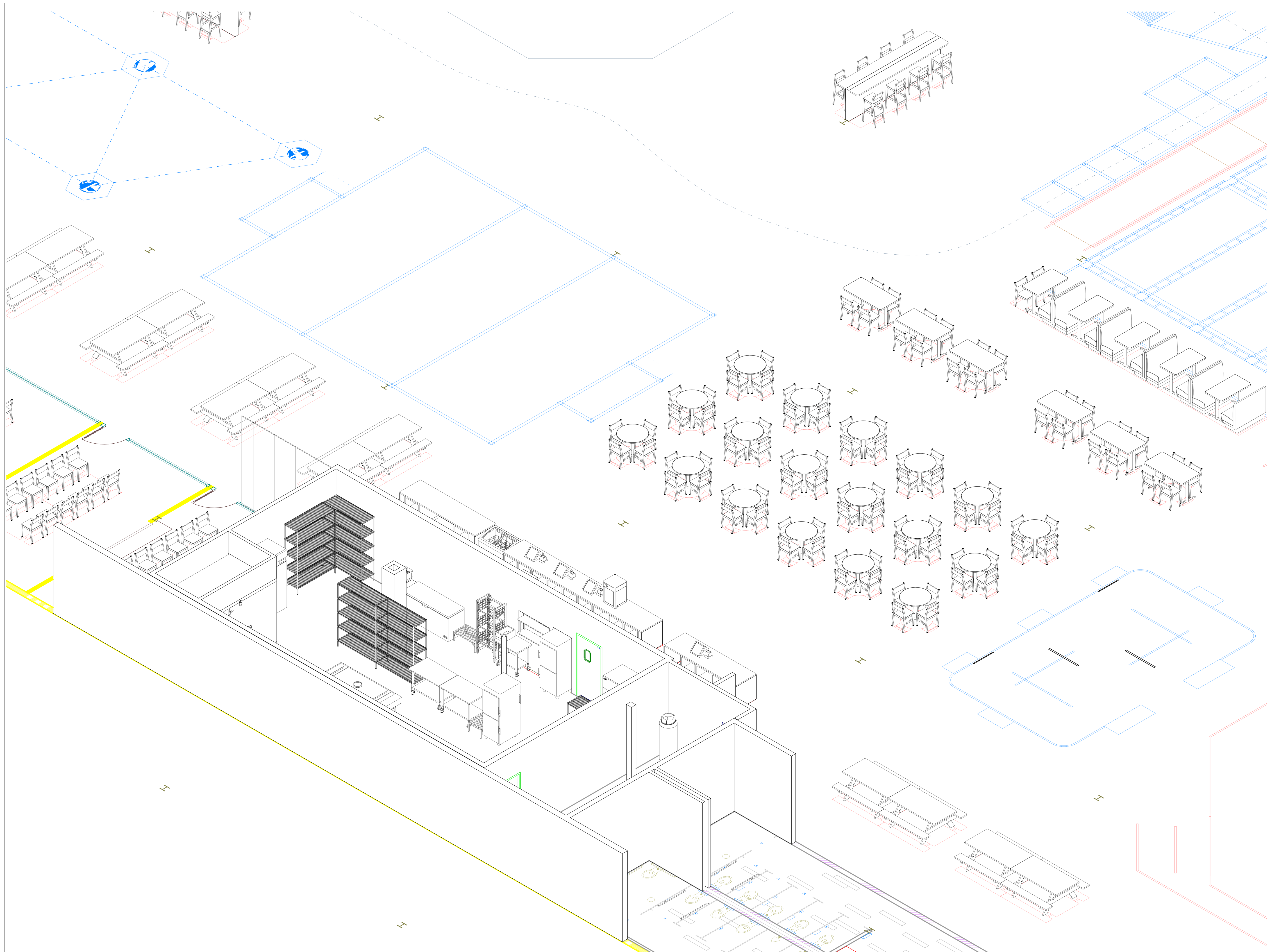
Instruction Management:
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 tpiazza@foxfieldltd.com

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ISO

FS106



Technology Plan | UA Chicago Arlington Heights

30 W Rand Rd

Arlington Heights, IL 60004

General Contractor/Installation Notes:

LumenAir Lighting:
GC to provide 4x8 sheet of plywood for the installation of LumenAir Power Supplies. Plywood to be painted to match wall or fire treated based on the AHJ - Plywood to be installed prior to TSN Phase 1

LumenAir fixtures mounted at 16'-18" AFF, at the same elevation across the park. Adjust as needed to achieve attraction clearance

LumenAir Power Supplies and LUNAs located in the same room with a Cat6 cable to AV Rack

Fire Alarm Interface for Audio Mute and Lighting turning White:

Fire Alarm Contractor to provide a set of dry contacts "Normally Open" on the wall or ceiling of the AV Rack location "MDF" if Control Laptop in MDF. Fire Alarm Relay to be located at Control Laptop. TSN will wire from these contacts to our rack and system. TSN requires a pre-test with Fire Alarm contractor prior to AHJ inspection. We prefer minimum of 24 hours prior to AHJ inspection.

Themed Lighting:
All Themed Lighting fixtures are mounted at a height below bottom of joists at 22' from finished floor with the exception of party room light bars, which are mounted above party room TVs approx. 86" above floor.

Themed lighting cable should be installed separately, and with as much distance as possible, from all other low voltage cables to avoid interference.

Audio:
Party room speakers are either pendant or ceiling tile replacement, based on ceiling type.
Ceiling tile speakers replace 2'x2' section of ceiling tile. Ceiling grid installers should leave 2'x2' space for speaker location. Each party room includes wall-mounted independent volume control.

Party Room Volume Controls require single gang box with conduit stub into ceiling and are installed next to light switch.

Sub woofers are installed on floor below attraction platforms.

Main speaker are ceiling or column mounted at a height below bottom of joists approx 22' from finished floor unless otherwise indicated.

Speakers to be set to 70V at each individual unit

TV:
GC to provide wood backing for TVs of at least 3/4" thick. Backing 2' above electrical box & 2' below electrical box. For concrete/cinderblock walls, a 2' surface mounted 2'x4' board in vertical orientation is required, approximately 8" to the left of the power receptacle, and 8" to the right of the receptacle.

TV location includes mount, cable, and hanging TV on mount ONLY

TVs to be mounted at height as indicated on plans or per architect notes. When TV height is listed, **the bottom of the TV bracket should be mounted at the listed height.** Power receptacles should be placed where the **bottom of the receptacle is roughly 5"-6" above listed TV height, and not visible once TV is mounted.**

TSN does not provide Television sets, electrical access. TSN does not configure equipment received from your cable/satellite provider.

Subcontractor Resource Line: (830)499-7198 ext13

Sheet Index:

- 1 - Cover
- 2 - Lumen Air Drawing
- 3 - Audio & Themed Lighting Drawing
- 4 - CCTV, Network, and TV Drawing

Electrical Contractor Notes:

TelStar National is NOT responsible for any electrical work including but not limited to electrical circuits, receptacles, etc. All electrical work is the responsibility of the GC/EC Team

MDF/ISP Demarc Location in AV Room; LumenAir Power Supplies located in Electrical room with Cat6 connection to AV room. All LUNAs to be located with Power Supplies and connected to AV rack. Control laptop and CCTV monitor located in Shared Office, connected to MDF via Cat6.

Circuits:
2x 120v 20amp dedicated circuits required at 18" AFF for electronics rack at MDF Location

3x 120v 20amp dedicated circuits required for high bay 24v DC power supplies. 80" AFF tied to Emergency Lighting Panel

Outlets:
120v 20amp dedicated outlet for TV in Office.

Quad outlets, with 3/4" EC stub ups and back boxes for TVs and Light Bars

120v 20amp outlets for Subwoofers

120v 20amp outlets for Themed Lighting

(1) 120v Double Gang receptacle will be required inside of each housing location for Attraction Lighting (Warrior Course, Adventure Hub, Sky Rider, including at each Transfer Station)

All electrical receptacles are mounted in ceilings on joists unless otherwise indicated.

All TVs require 120V quad receptacle. See drawing for mounting height of most TVs. TVs without height indication are to be installed per owner and architect

Conduit:
3/4" ECstub ups and back boxes for ALL Data Drops

3/4" EC stub ups and back boxes for Party Room Volume Control

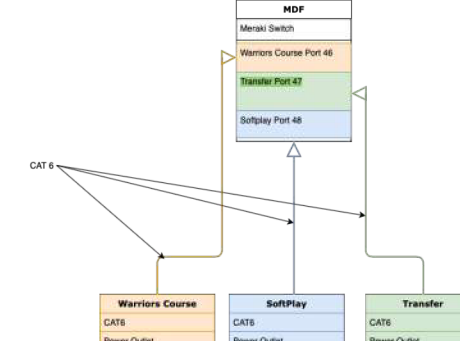
3/4" EC stub ups and back boxes for TVs and Light Bars

Attraction Lighting:

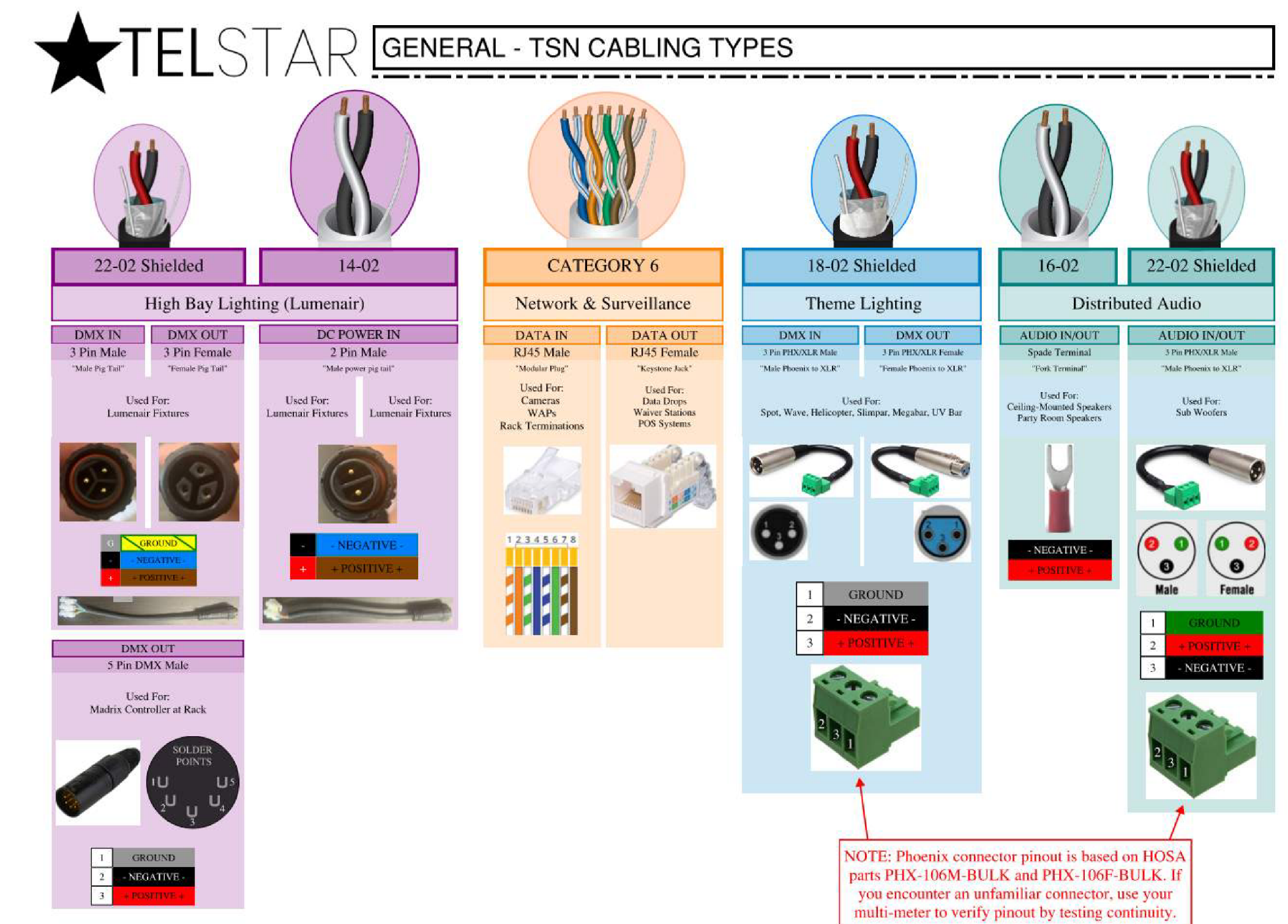
Low voltage contractor is responsible for a 22/2 shielded wire pull from AV Rack to each Attraction Lighting Universe (Warrior Course, Wing Lights, Tape Light Main, Tape Light Landing (Adventure Hub)). ***Applicable to Attraction Lighting Integration upgrade only**

Attraction Team/Urban Air is responsible for the lighting as well as running cabling on the attractions to the Attraction Lighting housing.

(1) 120v Double Gang receptacle will be required inside of each housing location



Cable Legend:



Optional Upgrades Selected:

- ☐ TelStar Control
- ☐ Attraction Lighting Integration
- ☐ UV Flood Light
- ☐ Laser Tag UV Blacklight



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Vendor - Audio Visual
Technology plan

AV-01



LumenAir and Go Kart Track Lighting Plan
UA Chicago Arlington Heights
30 W Rand Rd
Arlington Heights, IL 60004



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940.244.4484
Contact: Thomas Burke, PE
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60103, United States
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Contact: Thomas R Piazza II
tpiazza@foxfieldctd.com



No.	Description	Date
A	Issue for Permit	2024.12.20

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Vendor - Audio Visual
Lighting

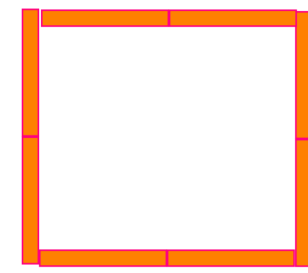
AV-02

LUMENAIR LIGHTING

24v DC, DMX-controlled, 2 lamp, 16ft. fixture x79

24v DC, DMX-controlled, 2 lamp, 16ft. fixture mounted under Go Kart Track x6

24v DC, DMX-controlled, 1 lamp, 8ft. fixture x28



24v DC, DMX-controlled, 4 lamp, 8ft. x 8ft. fixture x3

Total Fixtures= 116

Total 8" Lamps= 201

Total Universe Count= 52

Universe Layout completed once

lighting plan is finalized.

LumenAir lamps are supplied in 8'

segments and connected onsite

per layout

LumenAir Power Requirements :

3x 120v 20amp dedicated circuits required for high bay

24v DC power supplies. 80" AFF tied to Emergency

Lighting Panel. See field notes for location.

All LUNAs to be located in same room as power supplies

with a Cat6 cable for each LUNA to AV Rack Room.

Installation Notes:

All LumenAir fixtures need to be oriented in the same

direction, with all 90° pigtail connections on the same side.

LumenAir fixtures are recommended to be mounted 16-18'

AFF for required brightness.

All lighting and equipment to be mounted as high as

possible throughout space

Adjust locations as necessary to avoid HVAC, other

overhead utilities, and attraction supports

Fire Alarm Interface for Audio Mute and Lighting

turning White:

Fire Alarm Contractor to provide a set of dry contacts

"Normally Open" on the wall or ceiling of the AV Rack

location "MDF". TSN will wire from these contacts to our

rack and system. TSN requires a pre-test with Fire Alarm

contractor prior to AHJ inspection. We prefer minimum of

24 hours prior to AHJ inspection.

Emergency/Egress Lighting:

LumenAir lights may not qualify for Emergency/Egress

lighting, per local egress lighting requirements. TSN is not

responsible for providing Emergency/Egress lighting and

this should be coordinated with GC/EC team.

2x 120v 20amp dedicated
circuits required for AV rack.
18" AFF tied to Emergency
Lighting Panel.

Control Laptop Location with
(2) Cat6 connections to AV
rack.

Fire Alarm Relay located next
to Control Laptop

3x 120v 20amp dedicated
circuits required for high bay
24v DC power supplies. 80"
AFF tied to Emergency
Lighting Panel.

All LUNAs to be located in
same room as power
supplies with a Cat6 cable
for each LUNA to AV Rack
Room.

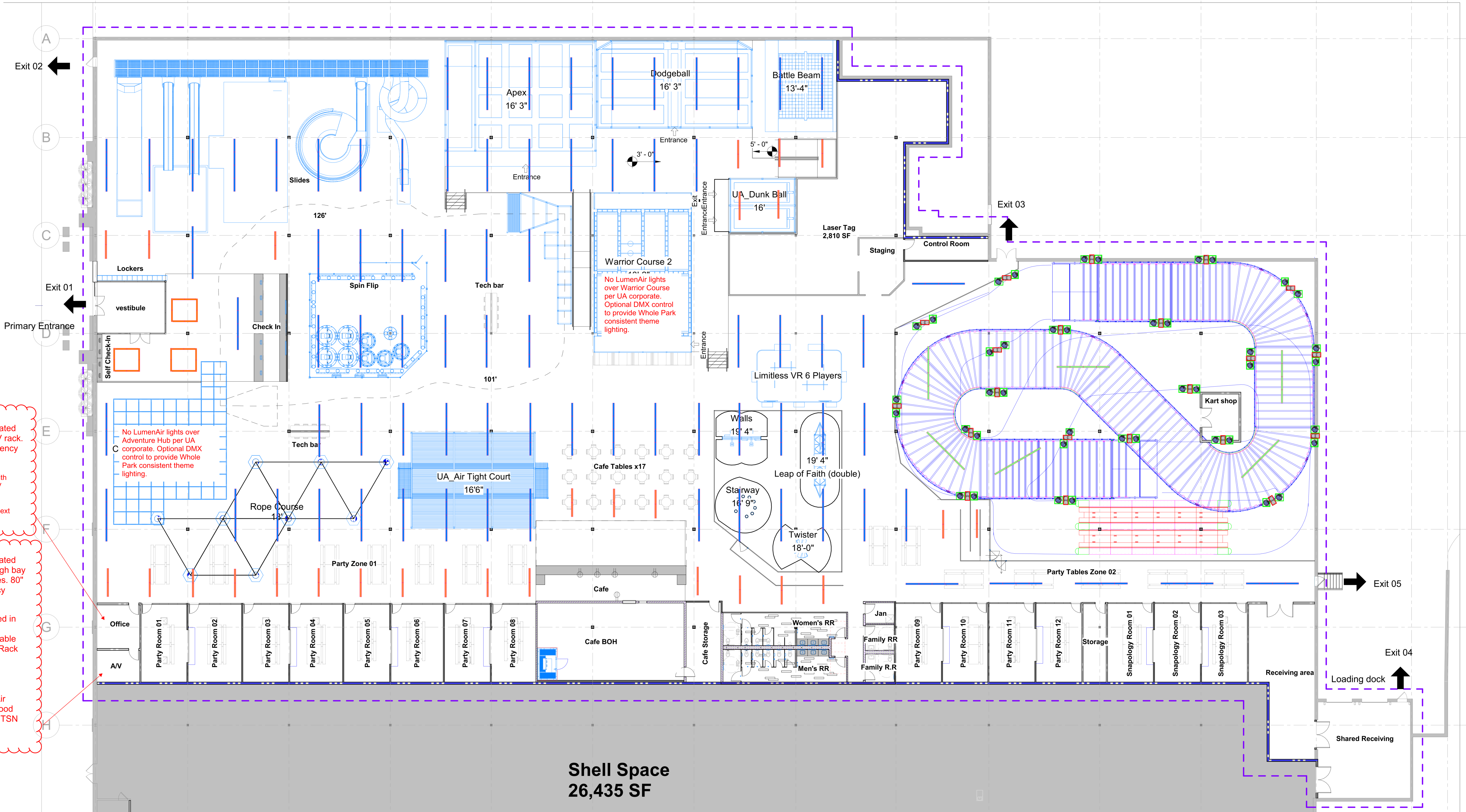
4x8 sheet of Plywood
mounted to wall for
installation of LumenAir
Power Supplies. Plywood
to be installed prior to TSN
Phase 1

GO KART TRACK LIGHTING:



LED Wash Fixture 18 W, 0.3 A @ 120 V - Mounted at ceiling

x42



Shell Space
26,435 SF



Themed Lighting and Audio Plan
UA Chicago Arlington Heights
30 W Rand Rd
Arlington Heights, IL 60004



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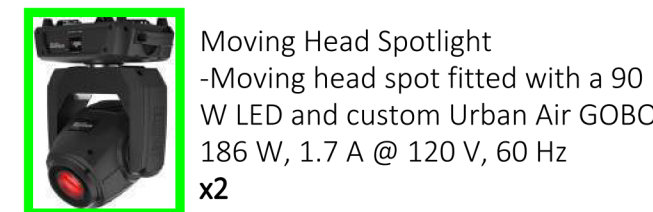
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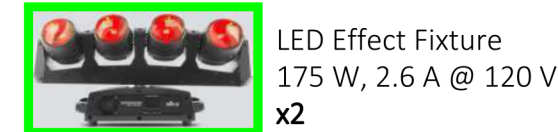
Vendor - Audio Visual
Theme Lighting and Audio
Plan

AV-03

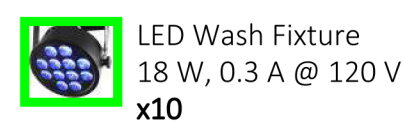
THEMED LIGHTING



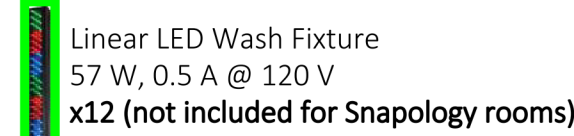
Moving Head Spotlight
Moving head spot fitted with a 90
W LED and custom Urban Air GOBO
186 W, 1.7 A @ 120 V, 60 Hz
x2



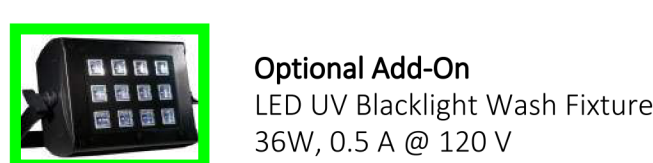
LED Effect Fixture
175 W, 2.6 A @ 120 V
x2



LED Wash Fixture
18 W, 0.3 A @ 120 V
x10



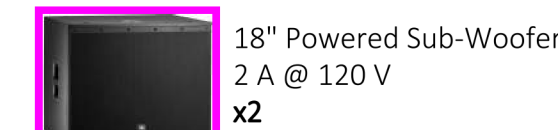
Linear LED Wash Fixture
57 W, 0.5 A @ 120 V
x12 (not included for Snapology rooms)



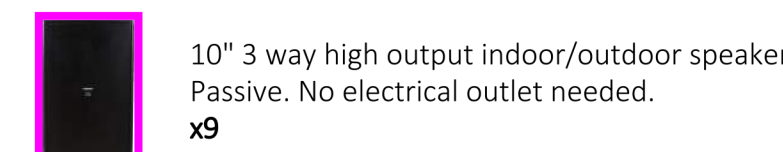
Optional Add-On
LED UV Blacklight Wash Fixture
36W, 0.5 A @ 120 V

Optional Add-On: Attraction Lighting Integration - DMX
control to provide Whole Park consistent theme lighting.

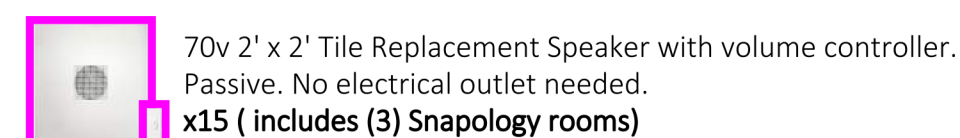
AUDIO



18" Powered Sub-Woofers
2 A @ 120 V
x2

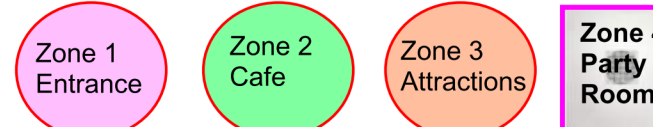


10" 3 way high output indoor/outdoor speaker
Passive. No electrical outlet needed.
x9

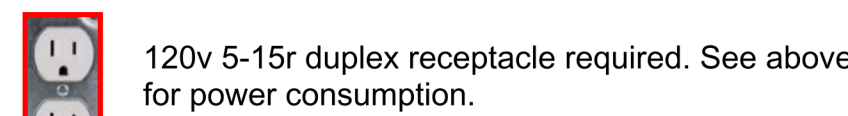


70v 2' x 2' Tile Replacement Speaker with volume controller.
Passive. No electrical outlet needed.
x15 (includes (3) Snapology rooms)

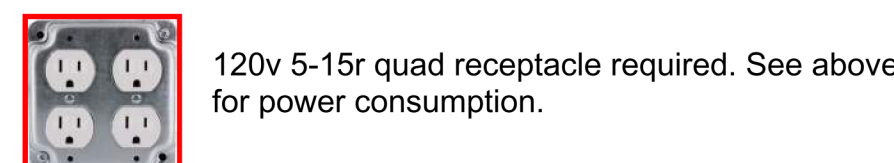
Party Room Volume Controls require single gang box with
conduit stub into ceiling and are installed next to light switch.



ELECTRICAL



120v 5-15r duplex receptacle required. See above
for power consumption.

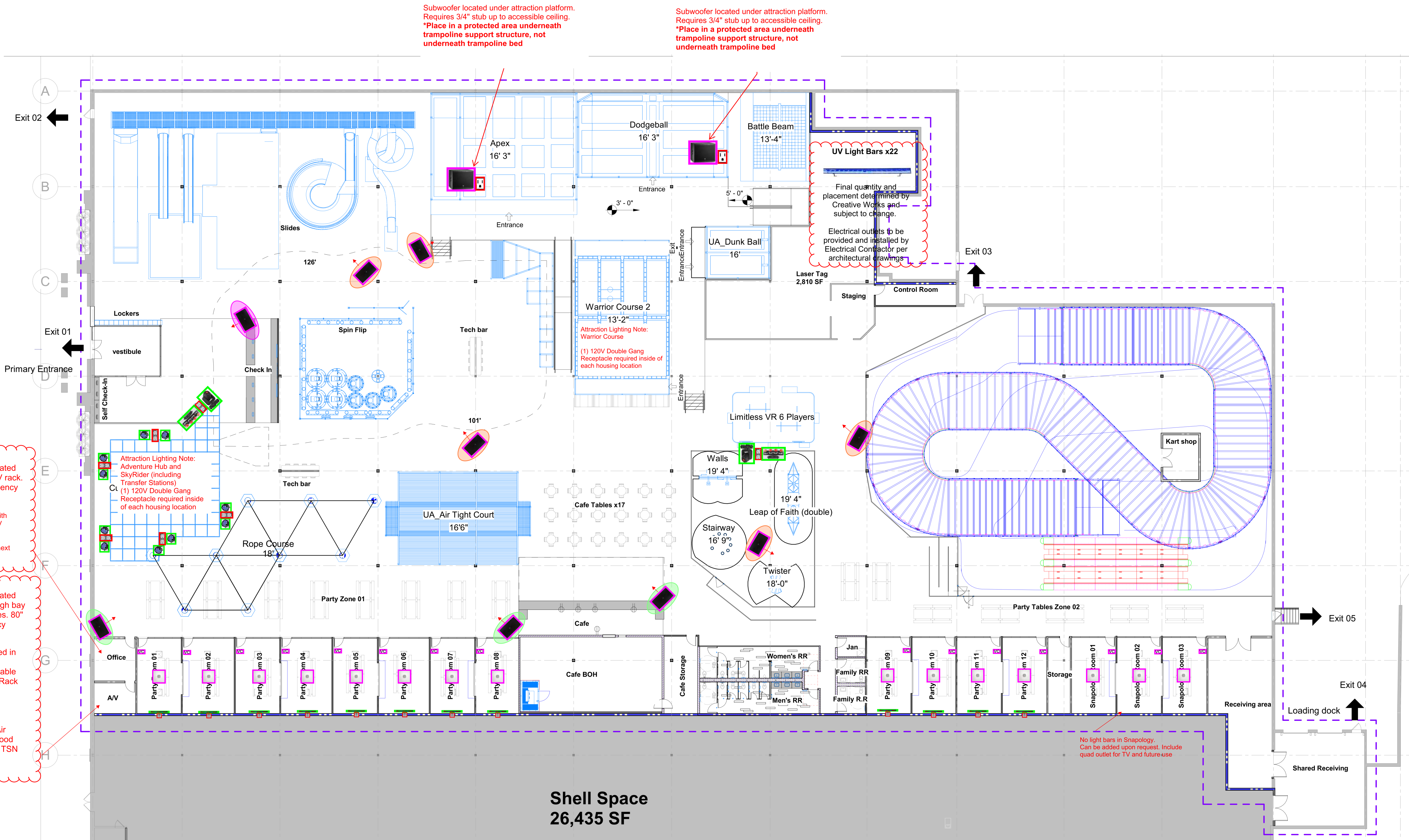


120v 5-15r quad receptacle required. See above
for power consumption.

MAIN DISTRIBUTION FRAME

- 1.) 28U Electronics Rack 20x20x49"
- 2.) Wireless Microphone (300' range)
- 3.) 10 outlet power distribution box
- 4.) Main audio mixer
- 5.) Main audio amplifier
- 6.) Managed router
- 7.) Managed 48port POE Switch
- 8.) NVR

*Requires (2) dedicated 120VAC 20amp
circuit-duplex receptacle at 18" AFF tied
to Emergency Lighting Panel



Shell Space
26,435 SF



CCTV, Network, and Television Plan
UA Chicago Arlington Heights
30 W Rand Rd
Arlington Heights, IL 60004



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PM: Constanza G. Wybert
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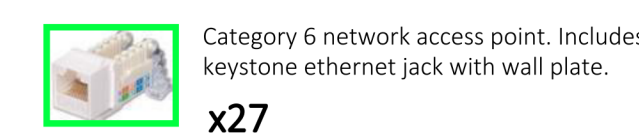
Vendor - Audio Visual CCTV,
Network and TV Plan

CCTV - includes Mezzanine qty



TSN provides a standard 64 channel NVR. Additional cameras will require the purchase of an additional NVR.
8079 of NVR storage will hold approximately 10-12 weeks of footage. Subject to change based on recording settings and park activity

NETWORK



ALL Data Drops require 3/4" stub ups and back boxes

TELEVISION

TV location with cable service.
RG6/Coaxial cable AND Cat6 cable.
x23
TV without cable service (menu, pricing, training, Laser Tag).
x10
Installation note: TVs to be mounted at height as indicated on plans or per architect notes. When TV height is listed, the bottom of the TV bracket should be mounted at the listed height. Provided TV brackets are 4" tall, therefore power receptacles should be placed where the bottom of the receptacle is roughly 5"-6" above listed TV height.

Suggested TV heights are indicated on plans whenever possible.
Final TV height to be determined by electrical receptacle placement, per recommendation of architecture team.

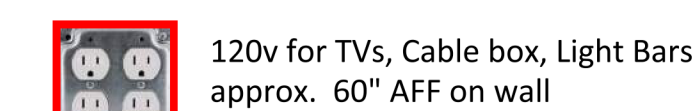
x4 Ceiling Mount

TV SIZES

55" = 32

32" = 1

ELECTRIC



MAIN DISTRIBUTION FRAME

- 28U Electronics Rack 20x20x45"
- Wireless Microphone (300' range)
- 30 outlet power distribution box
- Main audio mixer
- Main audio amplifier
- Managed router
- Managed 48port POE Switch
- NVR

*Requires (2) dedicated 120VAC 20amp circuit-duplex receptacle at 18" AFF tied to Emergency Lighting Panel



(2) 55" pricing TVs ceiling mounted above Front Desk Check In. TV height is site specific and should be determined by architect.

(1) 55" pricing TVs wall mounted above Self Check In. TV height is site specific and should be determined by architect.

2x 120v 20amp dedicated circuits required for AV rack. 18" AFF tied to Emergency Lighting Panel.
Control Laptop Location with (2) Cat6 connections to AV rack.
Fire Alarm Relay located next to Control Laptop

3x 120v 20amp dedicated circuits required for high bay 24v DC power supplies. 80" AFF tied to Emergency Lighting Panel.

All LUNAs to be located in same room as power supplies with a Cat6 cable for each LUNA to AV Rack Room.

4x8 sheet of Plywood mounted to wall for installation of LumenAir Power Supplies. Plywood to be installed prior to TSN Phase 1

(3) 55" Cafe viewing TV above Party Room entrance mounted at approx. 96" AFF

Party room TVs wall mounted approx. 68" AFF

(1) 55" CCTV monitor wall mounted in Mgr Office approx. 68" AFF

(1) 32" Articulating TV wall mounted for KDS. TV to be mounted by expo window approx 68" AFF.
Electrical Note: KDS System Needs HDMI plate at 68" AFF, down to another HDMI plate at 6" above counter. Both HDMI plates require duplex power next to them.

(1) 55" Landscape TV wall mounted at 78" for Cafe menu specialty pricing. TV must include capabilities for displaying jpeg files

Shell Space
26,435 SF



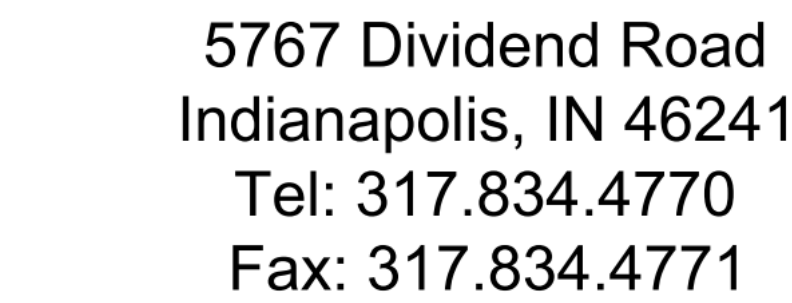
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Vendor - Go Kart Layout

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URBAN AIR OPEN CONCEPT – ATTRACTION PACKET SHEET INDEX		
A0.1 COVER SHEET A0.2 GENERAL NOTES A1.1 ATTRACTION PLAN A1.2 FLOOR PLAN A1.3 BLOCK PLAN	A2.1 ASA/PLATFORM STRUCTURE PLAN A3.1 REFLECTED CEILING PLAN A4.1 ASA REFLECTED CEILING PLAN D0.1 ASA HEIGHT REQUIREMENTS D0.X DETAIL, VESTING RACK RAILING	D0.5 DETAIL, CONTROL ROOM D0.6 OPEN WALL ELEVATION D0.7 ADDITIONAL NOTES E0.1 ELECTRICAL NOTES E1.1 ELECTRICAL PLAN E2.1 LOW VOLTAGE PLAN
TYPICAL SHEETS INCLUDED IN ATTRACTION PACKET. ACTUAL SHEETS MAY VARY.		



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AFF	Above Fixed Floor
ASA	Area of Sports Activity
CWI	Creative Works Inc.
DN	Down
DWG	Drawing
EA	Each
IBC	International Building Code
MAX	Maximum
MEP	Mechanical, Electrical, Plumbing
MIN	Minimum
MTD	Mounted
NTS	Not to Scale
SPEC	Specifications
TBD	To Be Determined
TYP	Typical

06	VERSION 6	9.7.2023
05	VERSION 5	11.22.2022
04	VERSION 4	12.15.2021
03	VERSION 3	4.12.2021
02	VERSION 2	3.5.2021
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No.	Revision	Date

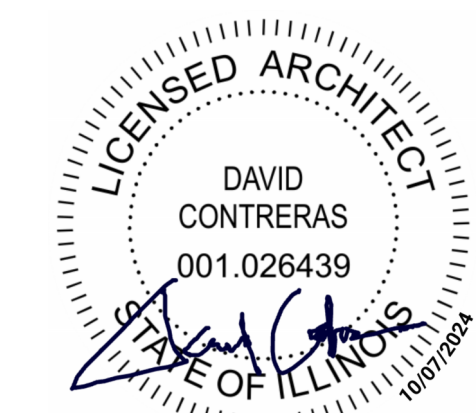
Drawing Name:

A0.1

COVER SHEET



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Vendor - Laser Tag Cover Sheet

A0.1

THESE NOTES REFLECT SPECIFIC INFORMATION RELATED TO THE LASER TAG ATTRACTION BASED ON THE ITEMS PURCHASED BY THE CLIENT FOR THIS LOCATION. THEY MAY NOT CONTAIN ALL RELEVANT LOCAL AND STATE CODE INFORMATION NECESSARY FOR THE SPACE AND SHOULD BE USED AS AN ADDITION TO ANY OTHER PERTINENT INFORMATION DEEMED APPROPRIATE BY THE ARCHITECT OF RECORD TO SATISFY BUILDING REQUIREMENTS.

1. IF FIRE RETARDANT MATERIALS ARE REQUIRED, NOTIFY CWI PROJECT MANAGEMENT AS SOON AS POSSIBLE.

1. AROUND THE PERIMETER OF THE ATTRACTION (ARENA, BRIEFING AND VESTING AS APPLICABLE INCLUDING ANY ELEVATED AREAS THAT TOUCH THE DRYWALL), USE 4' X 8' X 1/2" SMOOTH ONE (1) SIDED, FIRE TREATED (IF REQUIRED) PLYWOOD SHEETS. PLYWOOD SHOULD BE MOUNTED TO THE WALLS TO COVER 8' OF WALL SPACE FROM THE FLOOR TO MINIMIZE DAMAGE CAUSED BY NORMAL GAME PLAY. ALL PLYWOOD WALL FINISHES SHOULD BE TIGHT BUTT JOINTS WITHOUT TAPE AND MUD. IF CINDER BLOCK WALLS PLYWOOD IS NOT REQUIRED, BUT MUST BE PAINTED FLATBLACK.

2. ALL DRYWALL FINISHES SHOULD BE SMOOTH WITH MUDDERED JOINTS ABOVE 8'

1. **ALL PEREIMTER WALLS IN ARENA AND STAGING TO BE PAINTED FLAT BLACK.**
2. EXIT SIGNS, ALARMS AND STROBE INDICATORS SHOULD REMAIN THEIR NATURAL COLORS.
3. SEMI-GLOSS FINISH BLACK PAINT ON ALL INTERIOR ATTRACTION DOOR SURFACES IS REQUIRED.
4. **PREP WHITE LIGHT SPACE FOR MURALS ACCORDING TO CWI MURAL CONCEPT.**

1. CARPET PADDING IS RECOMMENDED IN AREA WHERE THE LASER TAG EQUIPMENT IS STORED (I.E. VESTING AREA ONLY) FOR MINIMIZING DAMAGE TO DROPPED EQUIPMENT. ONLY ROLLED CARPET SHOULD BE USED. CARPET SQUARES TEND TO SHIFT OVER TIME.
2. **FINISHED POLISHED CONCRETE IN LASER TAG ARENA MUST BE SMOOTH AND FINISHED WITH NO DIVOTS, IMPRESSIONS, OR OTHER IMPERFECTIONS THAT COULD CREATE TRIPPING HAZARDS. CONCRETE FLOORS SHOULD BE SEALED WITH A NONSKID EPOXY SEALANT THAT IS LIGHT GRAY IN COLOR.**

1. IF DOING OPEN CONCEPT WITH OPENINGS INSTEAD OF DOORS, OPENINGS MUST BE FULLY FRAMED AND/OR HAVE PROTECTIVE COVERING.

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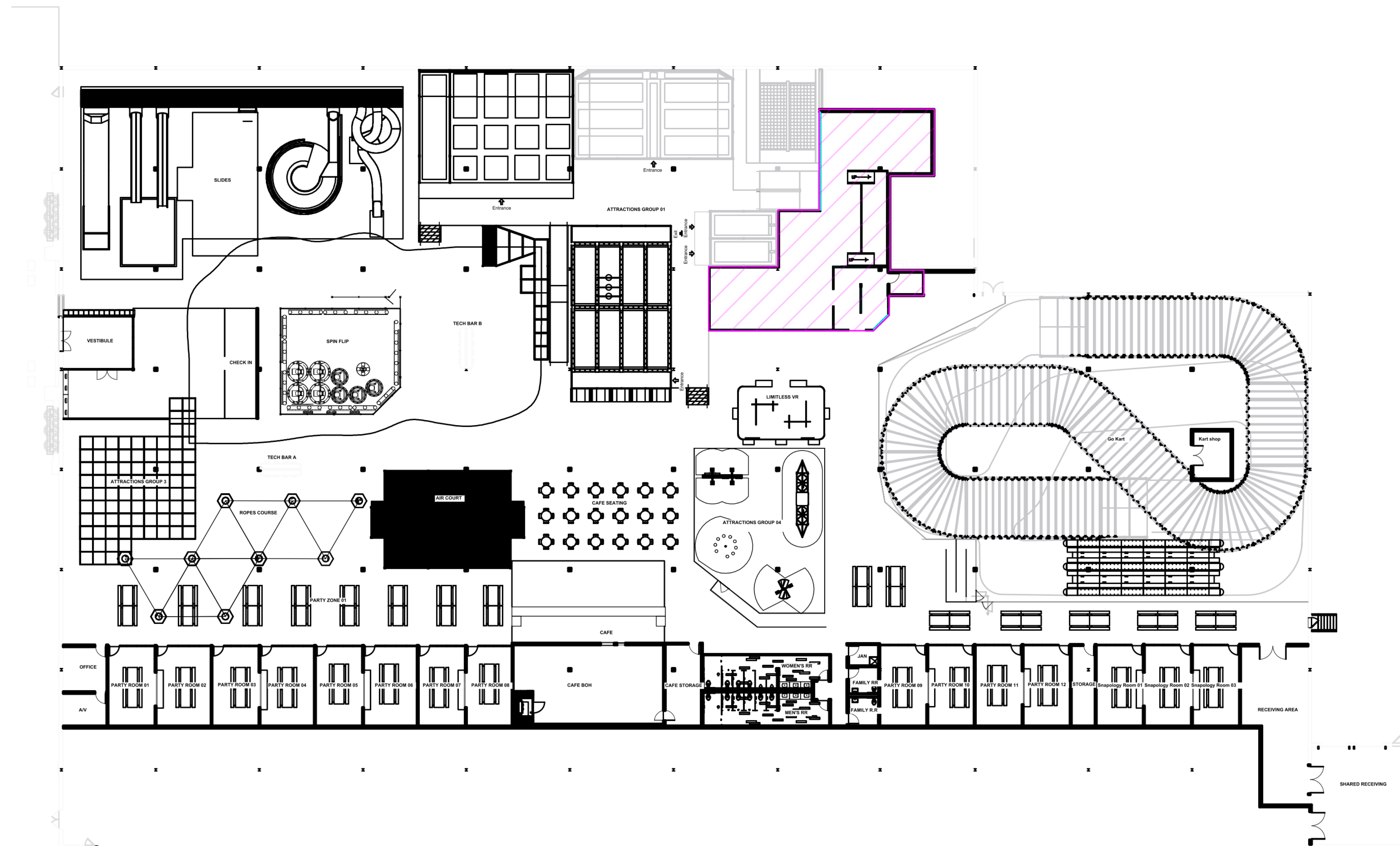
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EA	Each
IBC	International Building Code
MAX	Maximum
MEP	Mechanical, Electrical, Plumbing
MIN	Minimum
MTD	Mounted
NTS	Not to Scale
SPEC	Specifications
TBD	To Be Determined
TYP	Typical

Drawing Name:

Page 149 of 179

 = ATTRACTION LOCATION

1. HIGHLIGHTED AREA TO DESIGNATE CWI PROVIDED ATTRACTION WITHIN FACILITY.



**CREATIVE
WORKS**



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General Notes:

Approx Space sq. ft.

LL Arena:	1799 ft ²
UL Arena:	263 ft ²
Staging:	288 ft ²
Control:	66 ft ²

CLIENT
SIGNATURE: _____

DATE OF SIGNATURE: _____

No.	Revision	Date

Project Location and Name:

URBAN AIR
ARLINGTON HEIGHTS, IL
LASER TAG

Designed By: JD

Date: **SEPTEMBER 26, 2024**

Scale: N.T.S.

Drawing Name: _____

A1.1 ATTRACTION LOCATION

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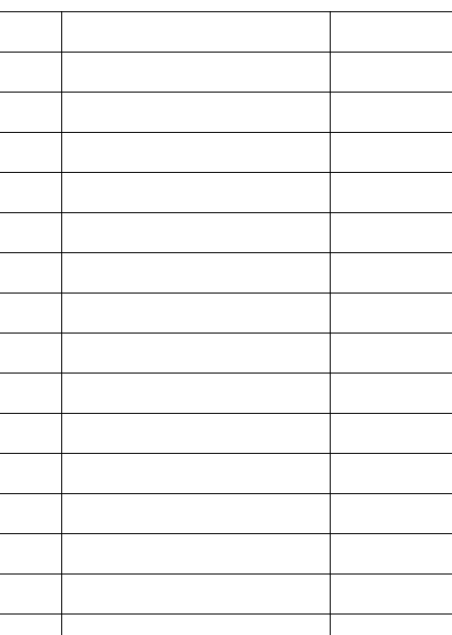
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Vendor - Laser Tag
Attraction Location

A1.1



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Vendor - Laser Tag Block
Plan



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BY: **Author**
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Indoor - Laser Tag Vesting
Rack Rail

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01	VERSION 1	9.23.2020
No.	Revision	Date

Drawing Name:

D0.3

VESTING RACK RAIL

DELTA STRIKE GENESIS

- | | |
|------|----------------------------------|
| AF | Above Fixed Floor |
| ASA | Area of Sports Activity |
| CWI | Creative Works Inc. |
| DN | Down |
| DWG | Drawing |
| EA | Each |
| IBC | International Building Code |
| MAX | Maximum |
| MEP | Mechanical, Electrical, Plumbing |
| MIN | Minimum |
| MTD | Mounted |
| NTS | Not to Scale |
| SPEC | Specifications |
| TBD | To Be Determined |
| TYP | Typical |



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Frisco, TX 75034
972.244.4484
Contact: Thomas Burke, PE
tburke@burkese.com

Construction Management:
Foxfield
245 Humbracht Cir, Bartlett, IL
60103, United States
80-712-2550
Contact: Thomas R Piazza II
tpiazza@foxfieldltd.com



5767 Dividend Road
Indianapolis, IN 46241
Tel: 317.834.4770
Fax: 317.834.4771

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AFF	Above Fixed Floor
ASA	Area of Sports Activity
CWI	Creative Works Inc.
DN	Down
DWG	Drawing
EA	Each
IBC	International Building Code
MAX	Maximum
MEP	Mechanical, Electrical, Plumbing
MIN	Minimum
MTD	Mounted
NTS	Not to Scale
SPEC	Specifications
TBD	To Be Determined
TYP	Typical

Drawing Name:

Drawing Name:

D0.6
OPEN WALL ELEVATION

[illegible]

RAWN BY: **Author**

HECKED BY: BA

ROJ. NO: 23-053

Vendor - Laser Tag Open
Wall Elevation

D0.6

URBAN AIR OPEN CONCEPT – ADDITIONAL NOTES

THESE NOTES REFLECT SPECIFIC INFORMATION RELATED TO THE LASER TAG ATTRACTION BASED ON THE ITEMS PURCHASED BY THE CLIENT FOR THIS LOCATION. THEY MAY NOT CONTAIN ALL RELEVANT LOCAL AND STATE CODE INFORMATION NECESSARY FOR THE SPACE AND SHOULD BE USED AS AN ADDITION TO ANY OTHER PERTINENT INFORMATION DEEMED APPROPRIATE BY THE ARCHITECT OF RECORD TO SATISFY BUILDING REQUIREMENTS.

GENERAL NOTES:

1. AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM, WHICH IS ALSO ALLOWED TO SERVE AS A PUBLIC ADDRESS SYSTEM, SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72, AND SHALL BE AUDIBLE THROUGHOUT THE ENTIRE SPECIAL AMUSEMENT BUILDING. (IBC SECTION 411 AND 907.2.12.2-SPECIAL AMUSEMENT BUILDINGS).
2. CLIENT IS RESPONSIBLE FOR ADHERING TO LOCAL CODES. **NOTE:** THE USE OF SHUNTS MAY BE REQUIRED TO SHUT DOWN GAME AND SOUND SYSTEMS IN CASE OF EMERGENCY WITHIN FACILITY.

DOORS:

1. COMMERCIAL KICK PLATES, PUSH PLATES AND CLOSURES ARE NEEDED ON ALL DOORS. ALL DOORS SHOULD BE SOLID CORE FOR DURABILITY.
2. IF DOING OPEN CONCEPT WITH OPENINGS INSTEAD OF DOORS, OPENINGS MUST BE FULLY FRAMED AND/OR HAVE PROTECTIVE COVERING.

AREA OF SPORT ACTIVITY (OPTIONAL AREAS FOR ELEVATED PLAY):

WHEN UTILIZING AN AREA OF SPORT ACTIVITY (ASA), REFERENCE THE 2009 ANSI A117.1 INFORMATION FOR CLARIFICATION. THIS IS THE AMERICAN NATIONAL STANDARDS INSTITUTE INFORMATION THAT CLASSIFIES THIS STRUCTURE AS SUCH

IF APPLICABLE AND BEING CONSTRUCTED BY ANOTHER PARTY OTHER THAN CREATIVE WORKS:

1. THE ASA STRUCTURE MUST BE PAINTED FLAT BLACK; COLUMN SUPPORTS SHOULD BE PAINTED A LIGHTER COLOR (I.E. WHITE OR YELLOW) FOR BETTER VISIBILITY.
2. THE FLOORING AND RAMPS SHOULD BE COVERED IN CARPET (SEE FLOORING SPECS ABOVE).
3. THE UNDERSIDE OF ALL RAMPS MUST BE ENCLOSED TO PREVENT ACCESS UNDERNEATH; SPRINKLER(S) MAY BE REQUIRED WITHIN THIS SPACE.
4. ASA'S ARE TO HAVE A MINIMUM CLEARANCE OF 8'-4" UNDER AND ABOVE. SEE PAGE A-505.1 FOR DETAILS.
5. THE HEIGHT OF THE STRUCTURE AS WELL AS RAILINGS AND HANDRAILS IS IMPORTANT AND SHOULD BE VERIFIED FOR COMPLIANCE WITH LOCAL AND STATE CODE.
6. AFTER INSTALLATION OF THIS STRUCTURE, BOTH POWER AND SPRINKLER REQUIREMENTS WILL BE NECESSARY AND NEED COMPLETED BY THE GENERAL CONTRACTOR PRIOR TO CWI INSTALLATION TEAM ARRIVAL.
7. PROTECTIVE FOAM COLUMN PADS ARE AVAILABLE AND RECOMMENDED FOR BETTER SAFETY. CONTACT CWI PROJECT MANAGEMENT FOR MORE INFORMATION.
8. FINAL DIMENSIONS AND COLUMN PLACEMENT MUST BE PROVIDED TO CWI PROJECT MANAGER NO LATER THAN 60 DAYS BEFORE INSTALLATION DATE.

GENERAL ELECTRICAL:

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES RELATING TO WORK TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED. MAINTAIN HEADROOM AND MINIMUM CODE REQUIRED WORKING CLEARANCES AT ALL TIMES.
2. MAINTENANCE PLUGS ARE NOT SHOWN BUT SHOULD BE ADDED TO EACH OUTSIDE WALL AT 18" AFF IN THE LASER TAG ARENA. ANY OTHER AREAS (I.E. BRIEFING AND/OR VESTING) SHOULD HAVE ONE PLUG CENTRALLY LOCATED FOR MAINTENANCE USE.

LIGHTING FIXTURES:

1. ALL FIXTURE HOUSINGS SHOULD MATCH THE PAINT COLOR OF ITS SURROUNDINGS. (I.E. BLACK WALLS OR CEILINGS = BLACK PAINTED FIXTURES).
2. FIXTURES LOCATED IN ARENA AREA SHALL COMPLY WITH IBC SECTION 907.2.12. "SYSTEM RESPONSE" FOR SPECIAL AMUSEMENT BUILDINGS AND ANY OTHER CODE REQUIREMENTS FOR THIS TYPE OF AREA.
3. CLIENT MAY CHOOSE TO USE EITHER FLUORESCENT LAMPS OR LED BLACK LIGHT FIXTURES.
4. BLACK LIGHT LAMPS ARE REQUIRED TO BE F32T8BLB WITH UL RATING; "BLACK LIGHT BLUE" BULB (DARK PURPLE IN COLOR) ; THE BLACK LIGHT FLUORESCENT FIXTURES SPECIFIED FOR THIS PROJECT SHOULD BE FREE AND CLEAR OF ANY ACRYLIC LENSES OR TUBES COVERING THEM DUE TO THE FILTERING OF THE UV RAYS CAUSED BY THEM. IF CALLED FOR BY CODE, TO PROTECT THE BULBS, AN ALTERNATIVE METHOD MUST BE USED SUCH AS WIRE GUARDS AFFIXED TO THE FIXTURE.
5. LED BLACK LIGHTS WILL REQUIRE CLIENT TO PURCHASE POWER CORDS. REFER TO PAGES A-103.1 AND A-104.1 FOR QUANTITY AND SIZE. EXAMPLE POWER CORD:
[HTTPS://WWW.MONOPRICE.COM/PRODUCT?P_ID=5279](https://www.monoprice.com/product?P_ID=5279)

CONTRACTORS ARE TO CONTACT CREATIVE WORKS FOR FURTHER DETAILS OR CLARIFICATION.



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Abbreviations:

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TYP	Typical

06	VERSION 6	9.7.2023
05	VERSION 5	11.22.2022
04	VERSION 4	12.15.2021
03	VERSION 3	4.12.2021
02	VERSION 2	3.5.2021
01	VERSION 1	9.23.2020
No.	Revision	Date

Drawing Name:

D0.7

ADDITIONAL NOTES



PISTIL CONSORTIA
BOUTIQUE ARCHITECTURE

Pistil Architects IL LLC

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[illegible]

OWN BY: Author

CHECKED BY: BA

UJ. NO: 23-053

Vendor - Laser Tag
Additional Notes

D0.7

URBAN AIR OPEN CONCEPT – GENERAL ELECTRICAL & LOW VOLTAGE NOTATIONS

THESE NOTES REFLECT SPECIFIC INFORMATION RELATED TO THE LASER TAG ATTRACTION BASED ON THE ITEMS PURCHASED BY THE CLIENT FOR THIS LOCATION. THEY MAY NOT CONTAIN ALL RELEVANT LOCAL AND STATE CODE INFORMATION NECESSARY FOR THE SPACE AND SHOULD BE USED AS AN ADDITION TO ANY OTHER PERTINENT INFORMATION DEEMED APPROPRIATE BY THE ARCHITECT OF RECORD TO SATISFY BUILDING REQUIREMENTS.

ALL AREAS:

1. ALL DIMENSIONS REFER TO CENTER OF RECEPTACLE.
2. **RECEPTACLES SHALL HAVE 4 OUTLETS UNLESS OTHERWISE INDICATED.**
3. **OUTLETS, COVER PLATES AND SWITCH PLATES MUST BE BLACK.**
4. LOCATION OF LOCAL WALL SWITCHES IS SUBJECT TO MODIFICATIONS. AT OR NEAR DOORS, INSTALL SWITCHES ON SIDE OPPOSITE TO DOOR HINGES, VERIFY FINAL HINGE LOCATION IN FIELD PRIOR TO ANY WORK.
5. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION, SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE.

ARENA AREA:

1. **CONDUIT CAN BE EXPOSED BUT MUST BE PAINTED BLACK.**
2. NO EXPOSED CONDUIT SHOULD RUN BELOW 11' AFF.
3. EMERGENCY LIGHTING AND LIGHTED EXIT SIGNS NEED TO BE PLACED AS REQUIRED BY CODE; HOWEVER, DUE TO THE ARENA PROP PIECES PLACED IN THE SPACE, BUILDING OFFICIALS MAY REQUIRE ADDITIONAL SIGNS OR PHOSPHORESCENT ARROW AND TEXT MARKINGS ALONG FLOOR OR ON PROPS TO HELP SUBSTANTIATE EXITING UPON THEIR FINAL INSPECTION.

LIGHTING FIXTURES:

1. THE DRAWING SHOWS A CERTAIN NUMBER OF BLACK AND WHITE LIGHT LAMPS. THE NUMBER WILL RESULT IN AN OUTPUT LUMINATION TYPICAL FOR THIS ATTRACTION AND SHOULD BE ADHERED TO EVEN IF ADJUSTMENTS ARE MADE TO PLACEMENT OR ORIENTATION (I.E. ADDITIONAL SPACE OR A NEED TO PLACE LIGHTS PERPENDICULAR).
2. **BLACK LIGHTS MUST BE INSTALLED PER CWI PROVIDED PLANS.PLEASE CONTACT TELSTAR FOR ADDITIONAL INFORMATION.**
3. LED BLACK LIGHTS WILL REQUIRE CEILING MOUNTED OUTLETS. REFER TO E-101.X RCP ELECTRICAL PAGE.
4. LIGHT FIXTURE PLACEMENT IS DEPENDENT ON THE INTERIOR HEIGHT OF EACH ROOM. THE ARENA AREA SHOULD HAVE FIXTURES MOUNTED AT 18' AFF OR TO CEILING IF LOWER FOR OPTIMAL OUTPUT. THE BRIEFING AND VESTING AREA (IF EITHER ARE PRESENT) SHOULD HAVE FIXTURES MOUNTED AT 12' AFF OR TO CEILING IF LOWER FOR OPTIMAL OUTPUT.
5. **ARENA BLACK LIGHTS SHOULD BE ON THEIR OWN CIRCUIT WITH A DEDICATED SWITCH. ARENA WHITE LIGHTS SHOULD BE ON A SEPARATE CIRCUIT WITH A DEDICATED SWITCH**

ELECTRICAL OUTLETS:

1. ALL OUTLETS FOR EACH LABEL E1, T1, SHOULD BE ON A DEDICATED SWITCH (20 AMP OR AS REQUIRED BY CODE).
2. ALL E1, T1 CIRCUITS HOME RUN TO THE CORRESPONDING SWITCH LOCATED IN THE CONTROL AREA.
3. V1 OUTLETS ARE TO CHARGE VESTING RACKS. THEY SHOULD BE ON THEIR OWN CIRCUIT AND ALWAYS ON.

LOW VOLTAGE:

1. ALL ARENA SPEAKER WIRES AND SHIELDED CAT 6 HOME RUNS TO CONTROL AREA.
2. **3 CONDUIT SPEAKER WIRE REQUIRED.**
3. ON EITHER END OF LOW VOLTAGE WIRING (SPEAKER AND CAT 6), PROVIDE AN ADDITIONAL 6' OF SLACK.
4. WHEN OUTLETS AND NETWORK ARE AT THE SAME LOCATION THEY ARE TO BE INSTALLED SIDE BY SIDE.
5. CONTROL AREA HOME RUNS TO CENTRAL BUILDING NETWORK.
6. ALL LOW VOLTAGE RUNS TO BE TERMINATED.

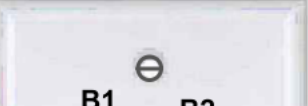
CONTRACTORS ARE TO CONTACT CREATIVE WORKS FOR FURTHER DETAILS OR CLARIFICATION.

LOCATED IN CONTROL ROOM - EXAMPLE ONLY

EXAMPLE SWITCH BANK

SWITCH BANK			
E1	T1	BLK LIGHT	WHT LIGHT
\$	\$	\$	\$

SITE SPECIFIC CAT6 - LINES MAY VARY



LOW VOLTAGE KEY
 B1 - BASE 1
 B2 - BASE 2
 CP - CENTER PROP
 SC - SCORE BOARD

06	VERSION 6	9.7.2023
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01	VERSION 1	9.23.2020
No.	Revision	Date

Drawing Name:

E0.1

ELECTRICAL NOTES



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60103, United States
630-712-2550
Contact: Thomas R Piazza II
tpiazza@foxfieldltd.com



A	Issue for Permit	2024.12.20
No.	Description	Date

DRAWN BY: **Author**

CHECKED BY: **B**

PROJ. NO: 23-053

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Vendor - Laser Tag Electrical
Notes

E0.1



Village of Arlington Heights

Interoffice Memorandum

To: Planning and Community Development Dept.
From: Div. Chief Dave Roberts
Department: Fire Department
File Number: PCA00017-2024
Project: 30 W Rand Rd
Review Round: Round 1
Date: December 16th, 2024

GENERAL COMMENTS:

1. **IFC 1018 1104.19 Exit access travel distance.** Exits shall be located so that the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed path of egress travel, does not exceed the distances given in Table 1104.18. *Please provide documentation showing compliance to this requirement.*
2. **IFC 2018 1104.20 Common path of egress travel.** The common path of egress travel shall not exceed the distances given in Table 1104.18. *Please provide documentation showing compliance to this requirement.*
3. Ensure fire protection systems and/or fire alarm systems are operational and tested.
4. Ensure key boxes (Knox box) are fully operational and keys are up to date for Fire Department access.



Village of Arlington Heights
Interoffice Memorandum

To: Michael Lysicatos, Assistant Director of Planning & Community
Ron Weber, AIA, MCP - Director Building & Life Safety

From: Elliot Eldridge, CBO - Assistant Building Official

Department: Building & Life Safety Department

File Number: Commission File Number

Project: SDC Review – Urban Air at Arlington Plaza at 30 W. Rand Rd.

Review Round: Round 2 Review

Date: December 16, 2024

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING?

	YES	NO
1. VILLAGE BUILDING CODE	☐	☐
2. PRESENT ZONING USE	☐	☐
3. REQUESTED ZONING USE	☐	☐
4. SUBDIVISION REQUIRED	☐	☐
5. SIGN CODE	☐	☐

6. GENERAL COMMENTS: The Building & Life Safety Department has reviewed the above referenced Plan Commission application comprised of the project's background info, the propose floor plan, and zoning analysis dated May 31, 2024 for 30 W. Rand Rd. At this time, the BLS has no objections to the proposed Special Use Permit to allow a Large Amusement Facility, Restaurant, and Parking Variation on the subject property. An interior build-out permit will be required for any alteration improvements.

7. Any alteration improvements shall comply with the following adopted codes:

- a. 2018 International Building Code with amendments
 - b. 2018 International Fire Code with amendments
 - c. 2018 International Fuel Gas Code with amendments
 - d. 2018 International Mechanical Code with amendments
 - e. 2018 Illinois Accessibility Code
 - f. 2021 Illinois Energy Conservation Code with amendments
 - g. 2017 National Electrical Code with amendments
 - h. 2014 Illinois Plumbing Code
- Submittal is missing this information.

8. Restroom shall provide adequate fixtures for the occupant load of the space. Please provide a plumbing occupant load calculation to verify adequate plumbing per the State of Illinois Plumbing Code 2014. The plans do not appear to conform to this requirement.
9. Means of egress sizing shall be based on the occupant load of the entire space. No total occupant load is provided. Provide an analyzation showing the minimum number of required means of egress exits.
10. Information on fire alarm and/or fire suppression systems not provided. If they exist and changes are required, separate permits are required. Submittal is missing this information.
11. If not existing, provide a key box (Knox Box) and it shall contain keys to gain necessary access as required by the fire code official. Code: 2018 IFC 506.1 Submittal is missing this information.
12. If not already provide, a separate fire permit is required for a kitchen (type 1) grease hood, as well as a fire alarm permit and sprinkler permit if applicable. Submittal is missing this information.
13. If not already provide, provide a Grease interceptors and automatic grease removal devices to receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Submittal is missing this information.
14. The occupant load may require panic hardware on the doors leading to the exterior of the building. The plans do not appear to conform to this requirement.
15. If table / chairs and lockers are provided, a portion must be accessible. 5% of all tables / lockers or at least 1 must be wheelchair accessible. All accessible tables must be provided at a height between 28 inches and 34 inches measured from the floor to the top of the surface. There should be a clear floor area of 30 inches by 48 inches provided at each accessible seating location. The plans do not appear to conform to this requirement.
16. Provide info on accessible transaction counters. Accessible transaction counters have a maximum height of 36 inches. Service counters must have a clear floor space in front of the accessible surface that permits a customer using a wheelchair to pull alongside. This space is at least 30 inches by 48 inches and may be parallel or perpendicular to the counter. It is also connected to the accessible route which connects to the accessible entrance and other areas in the business where services are provided. Submittal is missing this information.
17. Provide the width of the corridors. Information was not provided.
18. Where drinking fountains are provided, access is required for both people who use wheelchairs and for standing persons. Information was not provided.

19. Provide the location of the mop basin. Information was not provided.
20. An occupancy certificate will be required prior to occupying the space.
21. Note: "A transmittal letter detailing all the changes from the initial review will be required for any additional reviews".
22. Separate permits are required for any of the following alterations:
 - A. Fire Alarm
 - B. Fire Suppression

Supervisor



Village of Arlington Heights
Interoffice Memorandum

To: Planning Staff Liaison
From: Nanci Julius, P.E., Senior Civil Engineer
Department: Public Works & Engineering Department
File Number: PCA00017-2024
Project: 30 W Rand Rd, Urban Air
Review Round: 1
Date: December 20, 2024

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING?

1. PUBLIC IMPROVEMENTS REQUIRED:

	YES	NO	COMMENTS
a. Underground Utilities			
i. Water.....	☐	☒	_____
ii. Sanitary Sewer	☐	☒	_____
iii. Storm Sewer.....	☐	☒	_____
b. Surface Improvement			
i. Pavement	☐	☒	_____
ii. Curb& Gutter.....	☐	☒	_____
iii. Sidewalks.....	☐	☒	_____
iv. Street Lighting.....	☐	☒	_____
c. Easements			
i. Utility & Drainage....	☐	☒	_____
ii. Access.....	☐	☒	_____

2. PERMITS REQUIRED OTHER THAN VILLAGE

a. MWRDGC.....	☐	d. IEPA.....	☐
b. IDOT.....	☐	e. CCHD.....	☐
c. ARMY CORP...	☐	f. OTHER.....	☐ _____

3. R.O.W. DEDICATIONS..... YES ☐ NO ☒ _____
4. SITE PLAN ACCEPTABLE..... YES ☐ NO ☐ N/A _____
5. PRELIMINARY PLATE ACCEPTABLE..... YES ☐ NO ☐ N/A _____
6. TRAFFIC STUDY ACCEPTABLE..... YES ☒ NO ☐ _____
7. STORMWATER DETENTION REQUIRED..... YES ☐ NO ☒ _____
8. CONTRIBUTION ORDINANCE EXISTING..... YES ☐ NO ☒ _____
9. FLOOD PLAIN OR FLOODWAY EXISTING... YES ☐ NO ☒ _____
10. WETLAND EXISTING..... YES ☐ NO ☒ _____

ADDITIONAL COMMENTS ARE ATTACHED.

PLAN COMMISSION PCA00017-2024
Urban Air
30 W Rand Rd
Round 1

11. The petitioner is notified that these comments are being provided to ensure that the project meets the requirements for submittal to the Plan Commission. Approval by the Plan Commission is not an endorsement or approval of these documents to obtain the required building permits, engineering approval, or permits required by other government or permitting agencies for construction. Detailed plan review with associated comments will be provided upon submittal of plans for a building permit. The petitioner shall acknowledge that they accept this understanding.
12. The Public Works & Engineering Department have no further comments.

Nanci Julius

Michael L. Pagones, P.E.
Village Engineer

12/20/2024

Date

Village of Arlington Heights

Interoffice Memorandum



To:

From: Dan Osoba

Department: Planning & Community Development

File Number: PC24-017

Project: Urban Air at Arlington Plaza

Review Round: Round 1

Date: December 20, 2024

	<u>YES</u>	<u>NO</u>
1. COMPLIES WITH COMPREHENSIVE PLAN:	☐	☒
2. COMPLIES WITH THOROUGHFARE PLAN:	☒	☐
3. VARIATIONS NEEDED FROM ZONING REGULATIONS:	☒	☐
4. VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS:	☐	☒
5. SUBDIVISION REQUIRED:	☐	☒
6. SCHOOL/PARK DISTRICT CONTRIBUTION REQUIRED:	☐	☒

Zoning:

7. The following zoning approvals have been requested based on a review of the plans. Please acknowledge these in your response to comments letter:
- Special Use Permit to allow an Amusement Facility, Large on the subject property.
 - Special Use Permit to allow a Restaurant on the subject property.
 - Additional zoning actions may be identified based on a response to these comments.
8. Specifically list the variation being requested in your Justification Letter. Respond to the four criteria for approval for variations, not the proposed land use. The Justification Letter responds to how Urban Air is consistent with the variation criteria, which is not applicable in this application. Revise the Justification Letter to identify and justify the variation request specifically. The variation identified by staff based on this review are as follows:
- Variation to Chapter 28, Section 10.4-4 to reduce the parking requirement. Parking requirement to be verified with an updated tenant list. The petitioner

shall provide information to staff to verify parking requirements (see the Parking section below).

General:

9. Per the Petitioner's Checklist, please provide a list of property owners within 250-feet of the property lines of this development, which excludes the rights-of-way. Staff will provide a list of PINs received from the township to you so the list can be verified by the petitioner.
10. Update the Project Narrative to ensure the details provided match the other plans submitted with this petition. The Narrative indicates the space is 30,000 square-feet and is not consistent with other details. For clarity, please review all documents for consistency.
11. A Plan Commission application fee will be invoiced after this review is sent and must be paid prior to acceptance of the second review.
12. Your response to these comments must be uploaded to the CSS portal, along with all the revised plans. Once the entire resubmittal has been uploaded, please email Dan Osoba at dosoba@vah.com to notify that a resubmittal has been uploaded.

Business Operations/Floor Plan:

13. Provide dimensions for seating areas for the purpose of calculating parking requirements for the "Restaurant" portion of your application. The fixed seating table areas need to be dimensioned along with the back of house kitchen area. The leftover square-footage will be used to calculate the amusement facility. Please also provide dimensions for specified play areas and party rooms.
14. Provide more detailed information in the Narrative document on the types of play areas highlighted in the floor plan. For example, what does the area called out as "APEX" include. More detailed information on the types of amusement devices proposed is needed and would be helpful background for the Plan Commission and Village Board.
15. Provide information on any noise generating devices or play areas that may produce noise. Staff has concerns on the noise generated from go-karts within an enclosed space in a shopping center. The B-2 District requires that all uses, operations or products shall not be objectionable due to odor, dust, smoke, noise, vibrations or similar causes. This response should be added to the Project Narrative document.

Market Study

16. In order to fully validate possible options for the 26,000 square-foot space, staff is requesting additional analysis on potential land uses. Please provide a response in the market study to the following questions:
 - a. Would a recreational type use, such as the ones listed in the market study, be acceptable to the shopping center owner and/or tenants already in the

- center? Given the other “health club” type uses or gyms that occupy space within Arlington Plaza.
- b. Is there a possibility of further splitting that space into smaller tenant spaces? If so, would there be the possibility of other personal service uses such as beauty salons or commercial uses such as restaurants? Verify this could be acceptable with the property owner and provide a response in the market study.
 - c. Would there be any restrictions on types of uses allowed from the shopping center (separate from zoning requirements)? If so, please provide a list of prohibited uses for review.

Building & Design

17. A separate building permit will be required for any associated signage.

18. Please indicate if any exterior alterations outside of signage are proposed with this application.

Parking & Traffic

19. The required parking for this proposal is shown below. Provide an updated tenant list (including the proposed Qargo Coffee at 4 W. Rand Road) with your next submission so staff can verify the required parking and possible parking deficit. Based on preliminary analysis using data from July 2024, it appears the shopping center may be slightly in deficit. Note that these square-footages are estimates based on the scaled drawings provided; please confirm the square-footages are accurate.

Tenant	Address	Use	Square Footage/Eating Area	Parking Ratio	Parking Required
Urban Air	30 W Rand Rd	Recreational Facility	16,253	30% of Occupancy	98
		Amusement Device Arcade	18,016	1 space per 300 sq. ft.	60
		Restaurant	7,820	1 space per 45 sq ft. of eating area	174
TBD	New Tenant Space	Vacant	26,435	1 space per 300 sq. ft.	88
PARKING REQUIRED					419
PARKING PROVIDED					
SURPLUS / (DEFICIT)					

Village of Arlington Heights
Interoffice Memorandum



To: Dan Osoba, Planner
From: Derek Mach, Landscape Planner
Department: Planning & Community Development Department
File Number: PC 24-017
Project: 30 W. Rand Road
Review Round: Round 1 Review
Date: December 18, 2024

	<u>YES</u>	<u>NO</u>
1. COMPLIES WITH TREE PRESERVATION ORDINANCE:	N/A	☐
2. COMPLIES WITH LANDSCAPE PLAN ORDINANCE:	☒	☐
3. PARKWAY TREE FEE REQUIRED:	☐	☒

Landscape Comments

1) No Comments

Village of Arlington Heights

Interoffice Memorandum



To:

From: Dan Osoba

Department: Planning & Community Development

File Number: PC24-017

Project: Urban Air at Arlington Plaza

Review Round: Round 2

Date: January 15, 2025

- | | <u>YES</u> | <u>NO</u> |
|--|-------------------------------------|-------------------------------------|
| 1. COMPLIES WITH COMPREHENSIVE PLAN: | ☒ | ☐ |
| 2. COMPLIES WITH THOROUGHFARE PLAN: | ☒ | ☐ |
| 3. VARIATIONS NEEDED FROM ZONING REGULATIONS: | ☒ | ☐ |
| 4. VARIATIONS NEEDED FROM SUBDIVISION REGULATIONS: | ☐ | ☒ |
| 5. SUBDIVISION REQUIRED: | ☐ | ☒ |
| 6. SCHOOL/PARK DISTRICT CONTRIBUTION REQUIRED: | ☐ | ☒ |

Zoning:

7. The following zoning approvals have been requested based on a review of the plans. Please acknowledge these in your response to comments letter:
- Special Use Permit to allow an Amusement Facility, Large on the subject property.
 - Special Use Permit to allow a Restaurant on the subject property.
 - Additional zoning actions may be identified based on a response to these comments.
 - The petitioner has acknowledged these requests. **Complete**
8. Specifically list the variation being requested in your Justification Letter. Respond to the four criteria for approval for variations, not the proposed land use. The Justification Letter responds to how Urban Air is consistent with the variation criteria, which is not applicable in this application. Revise the Justification Letter to identify and justify the variation request specifically. The variation identified by staff based on this review are as follows:
- Variation to Chapter 28, Section 10.4-4 to reduce the parking requirement. Parking requirement to be verified with an updated tenant list. The petitioner

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shall provide information to staff to verify parking requirements (see the Parking section below).

- i. The petitioner has provided an updated justification to the criteria for approval. **Complete**

General:

9. Per the Petitioner's Checklist, please provide a list of property owners within 250-feet of the property lines of this development, which excludes the rights-of-way. Staff will provide a list of PINs received from the township to you so the list can be verified by the petitioner.
 - a. The petitioner did not provide a list of property owners with this submittal. Staff worked with the petitioner to obtain the list and ensure all notification requirements were met. **Complete with resolved issues**
10. Update the Project Narrative to ensure the details provided match the other plans submitted with this petition. The Narrative indicates the space is 30,000 square-feet and is not consistent with other details. For clarity, please review all documents for consistency.
 - a. The petitioner did not update the narrative details for consistency. Staff acknowledges this and referred to data in the preliminary construction plans. It should be noted that the project narrative square-footages are incorrect. **Complete with resolved issues**
11. A Plan Commission application fee will be invoiced after this review is sent and must be paid prior to acceptance of the second review.
 - a. The petitioner has paid the fee in full. **Complete**
12. Your response to these comments must be uploaded to the CSS portal, along with all the revised plans. Once the entire resubmittal has been uploaded, please email Dan Osoba at dosoba@vah.com to notify that a resubmittal has been uploaded.
 - a. The petitioner included a response to the Building & Life Safety and Fire Departments comments. No other responses were included in the submittal. Planning Staff reviewed plans submitted with this submittal to determine if comments have been resolved. **Complete with resolved issues**

Business Operations/Floor Plan:

13. Provide dimensions for seating areas for the purpose of calculating parking requirements for the "Restaurant" portion of your application. The fixed seating table areas need to be dimensioned along with the back of house kitchen area. The leftover square-footage will be used to calculate the amusement facility. Please also provide dimensions for specified play areas and party rooms.
 - a. The petitioner provided a dimensioned plan with square-footages for each area and occupancy. **Complete**
14. Provide more detailed information in the Narrative document on the types of play areas highlighted in the floor plan. For example, what does the area called out as "APEX" include. More detailed information on the types of amusement devices

proposed is needed and would be helpful background for the Plan Commission and Village Board.

- a. The petitioner did not provide a response or provide clarity on this item. Staff researched other Urban Air facilities to determine the actual usage of spaces called out in the preliminary construction plans. **Complete with resolved issues**

15. Provide information on any noise generating devices or play areas that may produce noise. Staff has concerns on the noise generated from go-karts within an enclosed space in a shopping center. The B-2 District requires that all uses, operations or products shall not be objectionable due to odor, dust, smoke, noise, vibrations or similar causes. This response should be added to the Project Narrative document.

- a. The petitioner did not provide a response to this comment. **Complete with a recommended condition of approval to require sound proofing if noise complaints occur**

Market Study

16. In order to fully validate possible options for the 26,000 square-foot space, staff is requesting additional analysis on potential land uses. Please provide a response in the market study to the following questions:

- a. Would a recreational type use, such as the ones listed in the market study, be acceptable to the shopping center owner and/or tenants already in the center? Given the other "health club" type uses or gyms that occupy space within Arlington Plaza.
 - i. The petitioner provided alternative uses for the remainder tenant space in the market study that demonstrate its viability. **Complete**
- b. Is there a possibility of further splitting that space into smaller tenant spaces? If so, would there be the possibility of other personal service uses such as beauty salons or commercial uses such as restaurants? Verify this could be acceptable with the property owner and provide a response in the market study.
 - i. The petitioner provided alternative uses for the remainder tenant space in the market study that demonstrate its viability. **Complete**
- c. Would there be any restrictions on types of uses allowed from the shopping center (separate from zoning requirements)? If so, please provide a list of prohibited uses for review.
 - i. The petitioner did not provide information on use restrictions in the shopping center. Staff reviewed documentation on file with the Village to determine if there were usage restrictions that may limit what could go into the vacant tenant space. **Complete with resolved issues**

Building & Design

17. A separate building permit will be required for any associated signage.

- a. The petitioner acknowledged that a separate building permit would be required for signage. **Complete**

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18. Please indicate if any exterior alterations outside of signage are proposed with this application.

- a. The petitioner acknowledged that no exterior alterations are proposed with this application. **Complete**

Parking & Traffic

19. The required parking for this proposal is shown below. Provide an updated tenant list (including the proposed Qargo Coffee at 4 W. Rand Road) with your next submission so staff can verify the required parking and possible parking deficit. Based on preliminary analysis using data from July 2024, it appears the shopping center may be slightly in deficit. Note that these square-footages are estimates based on the scaled drawings provided; please confirm the square-footages are accurate.

- a. The petitioner provided updated occupancy information to allow staff to determine parking requirements. The parking requirements are listed below.
Complete

Unit	Use	Square Area	Parking Square Footage	Divider	Parking Required
1	L Electronics	900	900	300	3
2	Shiny Nail	900	900	250	4
3	Barks in Style Pet Grooming	1,200	1,200	300	4
4	Lions Tae Kwon Do	3,000	1,500	50	30
5	Foot Nirvana	3,000	3,000	250	12
6	Sandra Rossi Beauty School	9,800	9,800	1/emp; 0.5/student	58
7	Community Threads	22,100	22,100	300	74
8	China Buffet	6,750	3,240	45	72
9,10	Treasure Hunt Deals	17,875	17,875	300	60
11A	Planet Fitness	22,002	22,002	250	88
11B	Five Star Furniture and Outlet	45,300	45,300	600	76
11C	Proposed Urban Air*	66,992	66,992	30% occupancy of Recreational Facility; 1 space per 45 of restaurant; 1 space per 300 s.f. of amusement device arcade	332
11D	VACANT	26,435	26,435	300	88
12 --21	Harlem Furniture	27,700	27,700	600	46
22	America's Best Vision Center	4,000	4,000	300	13

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23	Harvest Fresh Grocery & Café	23,472	23,472	300	78
24	North Arlington Barber Shop	900	900	250	4
25	Fifth Ave. Sushi	2,100	902	45	20
	Village Bank and Trust	7,896	7,896	300	26
28	VACANT	4,000	4,000	300	13
29	Big Chicken	2,614	1,287	45	29
30	Available (Pad)		0	45	0
31	Proposed Qargo Coffee**	5,000	5,000	300	17
	TOTAL	303,936			1,146
	Parking Provided				1,139
	Parking Surplus/(Deficit)				(7)
Arlington Plaza					
<i>*Urban Air is evaluated with an overall occupancy of 298 (838 total occupancy - 556 occupancy of seating areas - 16 occupancy of amusement device arcade)</i> <i>Restaurant is 1 per 45 s.f., Amusement Device Arcade is 1 per 300 s.f.</i>					
<i>**To be evaluated under a separate Plan Commission application; parking rate is vacant (1 space per 300 s.f.) for the purposes of Urban Air</i>					

23-053 - UA Chicago (Arlington Heights) IL

Jan 2, 2025 Revision Letter

Project Address 30 W Rand Rd, Arlington Heights, IL 60004

Project Owner Nino Hermes & Charlie Oraham

Project Number #23-053

Project Name Urban Air Arlington Heights

Permit Number

A. This addendum shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Addendum shall govern and take precedence.

B. Bidders are hereby notified that they shall make any necessary adjustments in their estimate as a result of this Addendum. It will be construed that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

SUP Comments

1. **IFC 1018 1104.19 Exit access travel distance.** Exits shall be located so that the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed path of egress travel, does not exceed the distances given in Table 1104.18. Please provide documentation showing compliance to this requirement.

Answer:Refer to sheet A003.

2. **IFC 2018 1104.20 Common path of egress travel.** The common path of egress travel shall not exceed the distances given in Table 1104.18. Please provide documentation showing compliance to this requirement.

Answer:Refer to sheet A003.

3. Ensure fire protection systems and/or fire alarm systems are operational and tested.

Answer: Understood.

4.Ensure key boxes (Knox box) are fully operational and keys are up to date for Fire Department access.

Answer:Refer to Sheet A003.

DO EXISTING STRUCTURES, IF ANY, MEET MINIMUM REQUIREMENTS OF THE FOLLOWING?

	YES	NO
1. VILLAGE BUILDING CODE	☒	☐
2. PRESENT ZONING USE	☒	☐
3. REQUESTED ZONING USE	☒	☐
4. SUBDIVISION REQUIRED	☒	☐
5. SIGN CODE	☒	☐

6. GENERAL COMMENTS: The Building & Life Safety Department has reviewed the above referenced Plan Commission application comprised of the project's background info, the propose floor plan, and zoning analysis dated May 31, 2024 for 30 W. Rand Rd. At this time, the BLS has no objections to the proposed Special Use Permit to allow a Large Amusement Facility, Restaurant, and Parking Variation on the subject property. An interior build-out permit will be required for any alteration improvements.

Answer:

7. Any alteration improvements shall comply with the following adopted codes:

- a. 2018 International Building Code with amendments
 - b. 2018 International Fire Code with amendments
 - c. 2018 International Fuel Gas Code with amendments
 - d. 2018 International Mechanical Code with amendments
 - e. 2018 Illinois Accessibility Code
 - f. 2021 Illinois Energy Conservation Code with amendments
 - g. 2017 National Electrical Code with amendments
 - h. 2014 Illinois Plumbing Code
- Submittal is missing this information.

Answer:Refer to sheet A000.

8. Restroom shall provide adequate fixtures for the occupant load of the space. Please provide a plumbing occupant load calculation to verify adequate plumbing per the State of Illinois Plumbing Code 2014. The plans do not appear to conform to this requirement.

Answer: Refer to sheet A000.

9. Means of egress sizing shall be based on the occupant load of the entire space. No total occupant load is provided. Provide an analysis showing the minimum number of required means of egress exits.

Answer: Refer to sheet A003.

10. Information on fire alarm and/or fire suppression systems not provided. If they exist and changes are required, separate permits are required. Submittal is missing this information.

Answer: Understood.

11. If not existing, provide a key box (Knox Box) and it shall contain keys to gain necessary access as required by the fire code official. Code: 2018 IFC 506.1 Submittal is missing this information.

Answer: Refer to Sheet A003.

12. If not already provide, a separate fire permit is required for a kitchen (type 1) grease hood, as well as a fire alarm permit and sprinkler permit if applicable. Submittal is missing this information.

Answer: Understood.

13. If not already provide, provide a Grease interceptors and automatic grease removal devices to receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Submittal is missing this information.

Answer: Refer to sheet P2.1

14. The occupant load may require panic hardware on the doors leading to the exterior of the building. The plans do not appear to conform to this requirement.

Answer: Refer to sheet A501.

15. If table / chairs and lockers are provided, a portion must be accessible. 5% of all tables / lockers or at least 1 must be wheelchair accessible. All accessible tables must be provided at a height between 28 inches and 34 inches measured from the floor to the top of the surface. There should be a clear floor area of 30 inches by 48 inches provided at each accessible seating location. The plans do not appear to conform to this

requirement.

Answer: Refer to sheet A601, A603,A604, A605 for Millwork and FFE details.

16. Provide info on accessible transaction counters. Accessible transaction counters have a maximum height of 36 inches. Service counters must have a clear floor space in front of the accessible surface that permits a customer using a wheelchair to pull alongside. This space is at least 30 inches by 48 inches and may be parallel or perpendicular to the counter. It is also connected to the accessible route which connects to the accessible entrance and other areas in the business where services are provided. Submittal is missing this information.

Answer:Refer to sheet A601, A603,A604, A605 for Millwork and FFE details.

17. Provide the width of the corridors. Information was not provided.

Answer:Refer to sheet A003.

18. Where drinking fountains are provided, access is required for both people who use wheelchairs and for standing persons. Information was not provided.

Answer:Refer to sheet A104/11.

19. Provide the location of the mop basin. Information was not provided.

Answer: Refer to sheet A101.

20. An occupancy certificate will be required prior to occupying the space.

Answer: Understood, this will be applied for prior to opening the park

Answer: Understood. A building permit, Fire permit and occupancy will be applied for obtained prior to occupying the space.

21. Note: "A transmittal letter detailing all the changes from the initial review will be required for any additional reviews".

Answer: Understood.

22. Separate permits are required for any of the following alterations:

A. Fire Alarm

B. Fire Suppression

Answer: Understood.

7. Provide dimensions for seating areas for the purpose of calculating parking requirements for the “Restaurant” portion of your application. The fixed seating table areas need to be dimensioned along with the back of house kitchen area. The leftover square-footage will be used to calculate the amusement facility. Please also provide dimensions for specified play areas and party rooms.

Answer: Refer to Sheet A001.

End of SUP Comments.

