CHIESA LEGAL SERVICES, P.C.

ATTORNEYS AT LAW
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(734) 459-8770

MARK G. CHIESA

November 18, 2024

City of Novi
Clerk's Office
45175 W. 10 Mile Road
Novi, Michigan 48375

RE: New Liquor License
Sakura Way, Novi, Michigan 48375

Dear Clerk:

Enclosed please find the following documents:

City of Novi, Michigan Liquor License Application Questionnaires A and B
Copy of Questionnaire C
Check in the amount of $1,210.00
Copy of Application to Michigan Liquor Control Commission.

Please process this application in accordance with your regular procedures. Should you require any further information or documentation, please contact my office.

Your consideration is appreciated.

Yours very truly,

CHIESA LEGAL SERVICES, P.C.

MARK G. CHIESA
/mgc
Encl.

cityofnovi.org

CITY OF NOVI, MICHIGAN

Liquor License Application

Questionnaires A and B

Questionnaires A and B are to be completed and returned to the Novi City Clerk's Office

Licensing Policy

This article establishes an application and review process for the issuance of both new licenses and the transfer of existing licenses into the city or between or among applicants. The process is intended to ensure that the individuals and entities seeking licenses from, or charged with operating licensed establishments within, the city meet certain minimum requirements as to criminal history, past conduct, and ongoing business operation standards. It requires city council review of application information in light of certain criteria that is established for purposes of identifying the kinds of facilities that qualify for a license. It reserves to the city any and all discretion afforded it under applicable law relating to the issuance of licenses.

As a general matter of policy, applicants for a license will need to demonstrate an identifiable benefit to the city and its inhabitants resulting from the granting of the license. While all of the criteria set forth in this article are relevant to the decision whether to grant a license, an applicant must demonstrate in particular that the proposed facility:

(a) Will provide a service, product, or function that is not presently available within the city or that would be unique to the city or to an identifiable area within the city;

(b) Is of a character that will foster or generate economic development or growth within the city, or an identifiable area of the city, in a manner consistent with the city's policies; or,

(c) Represents an added financial investment on the part of a long-term business or resident with recognized ties to the city and the local community.

The weight to be given to each item of the criteria identified in this article, and the determination whether a particular applicant meets or satisfies those criteria is intended to be within the sole discretion of the city council.

Requirements and Procedures

1. Complete the Michigan Liquor Control Commission Application. Contact M.L.C.C. in Lansing at 517-322-1400 or toll free 1-866-813-0011.

2. Fully complete the **Novi Liquor License Application Questionnaires A and B** and return them to the City of Novi Clerk's Office within 30 days. Complete **Questionnaire C** and return it to the Novi Police Department within 30 days.

3. Please review and include with the applicant's initial **cover letter**, a response to the Novi Alcoholic Liquor Ordinance, Article II, Section 3.14 (a) *Facilities for which new licenses may be granted.*

4. Attach a non-refundable **application fee** of $1,000.00, plus $210.00 for each person with a financial or management interest in the application including, but not limited to, partnership partners, corporate officers and directors. Please make the check payable to the City of Novi.

5. ***Site Plan** (1 copy - signed and sealed by a registered architect/engineer). If the facility is to be located in a proposed building for which site plan approval has not yet been obtained, or in an existing building that is to be remodeled, you must submit a conceptual site plan showing the proposed building and the relationship of the building to the surrounding properties and their uses.

6. ***Building Façade Plan** (1 copy - signed and sealed by a registered architect/engineer) – all sides, including signage. If the proposed building final site plan has been previously approved by the Novi Planning and Community Development Department and there are no changes, then please submit a letter of verification stating there will be no such changes along with this application.

7. ***Interior Plan with seating arrangement** (1 copy - signed and sealed by a registered architect/engineer). If the proposed interior has been previously approved by the City of Novi Building Department and there are no changes, then please submit a letter of verification stating there will be no such changes along with this application.

8. One full copy of the **menu**.

9. **Administrative Special Land Use** (see next page).

10. Provide any other information pertinent to the applicant and operation of the proposed facility that may be required by the Novi Alcoholic Liquor Ordinance, Article II.

*No site plan, building façade plan, interior plan or any part thereof, may be changed by the applicant once they have received approval in conjunction with the liquor licensing process. Applicant must submit separate plans and fees as required by other City of Novi departments and consultants in accordance with standard review procedures, if applicable.

Administrative Special Land Use

In addition to the Liquor License procedures noted above, any new establishment serving alcoholic beverages, and/or any expansion or significant change of site plan for an existing establishment, will need to follow the administrative Special Land Use public hearing process through the Community Development Department. The following must be submitted directly to the Community Development Department when a Liquor License application is submitted.

- **Application for Site Plan and Land Use Approval** form.
- Completed **Service of Alcoholic Beverages Special Land Use Application Checklist,** along with four sets of site plans and narratives as described in the checklist.
- Special Land Use **fees** (and possibly Site Plan review fees) will be assessed to the applicant.

The applicant is asked to contact the Community Development Department Planning Division at (248) 347-0475 to determine exactly what is needed for the Special Land Use application and site plan.

The Special Land Use and public hearing process will be handled by a committee represented by members of the Community Development Department, Public Services, and Assessing Departments for any new liquor license application, or for those applications that request an amendment to a site plan. The results of the special land use consideration and the public hearing process will be forwarded to the City Council for consideration along with the consideration of the Liquor License.

Special Circumstances

Transfers that involve the following circumstances may be placed on a City Council agenda for consideration without payment of a fee and without the necessity of furnishing the information required for new licenses:

(1) The exchange of the assets of a licensed sole proprietorship, licensed general partnership, or licensed limited partnership for all outstanding shares of stock in a corporation in which the sole proprietor, all members of the general partnership, or all members of the limited partnership are the only stockholders of that corporation.

(2) The removal of a member of a firm, a stockholder, a member of a general partnership or limited partnership, or association of licensees from a license.

(3) The occurrence of any of the following events:

(a) A corporate stock split of a licensed corporation.

(b) The issuance to an existing stockholder of a licensed corporation of previously unissued stock as compensation for services performed.

(c) The redemption by a licensed corporation of its own stock.

(d) A corporate public offering.

Questionnaire A – Applicant Cover Information and Procedures for Liquor License

The Novi City Council will consider whether an applicant's proposal for a liquor license is reasonable when measured against the information contained within this completed application. Please answer each question thoroughly. All answers should be typed or printed legibly and neatly in black ink. If the space provided is insufficient for a complete answer, use additional sheets of paper, following the same format used in the questionnaire and attach to that part of the application. Failure to provide all required information or attachments could result in delay or denial of liquor license. All liquor license applications are subject to final approval by the Novi City Council. Please refer to Novi Alcoholic Liquor Ordinance, Articles I-II.

1(a). Name, address and phone number of applicant:
Seven York Inc.

1(b). Name, address and phone number of business:
The Dancing Pine
Sakura Way Novi, Building B
734-277-5270

NOTE: If the applicant is a partnership, you must include the name and address of each partner and attach a copy of the partnership agreement. If the applicant is a privately held corporation, you must include the name and address of each corporate officer, member of the board of directors and/or stockholders. Attach a copy of the articles of incorporation.

2. Type of liquor license applying for (circle all those that apply):

[X] Class C [ ] Resort [ ] Tavern [ ] Club [ ] Hotel A B [X] Quota [ ] Transfer [ ] Microbrewery/Brewpub

Theme of Proposed Business:
High end Korean BBQ Steak house

3. Street address and legal description of the property where liquor license is to be located:
Sakura Novi Building B

Questionnaire B – Administrative Background Information for Liquor License

The Novi City Council will consider whether an applicant's proposal for a liquor license is reasonable when measured against the information contained within this completed application. Please answer each question thoroughly. All answers should be typed or printed legibly and neatly in black ink. If the space provided is insufficient for a complete answer, use additional sheets of paper, following the same format used in the questionnaire and attach to that part of the application. Failure to provide all required information or attachments could result in delay or denial of liquor license. All liquor license applications are subject to final approval by the Novi City Council.

1. What is the applicant's management experience in the alcohol/liquor business?

I am a local restauranteur that grew up in Michigan. I currently own two restaurants that serve alchol / liqour. Kimchi Box Plus (Northville) and Azalea (Ann Arbor). Both restaurants serve a wide variety of wines as well as cocktails that pair with their respective menus.9

2. What is the applicant's general business management experience?

I currently own and operate 11 restaurants in Michigan. 8 Kimchi Box (Korean Fast Casual) | Azalea (Modern Asian Fusion) | Ondo Bakery

Because of the variety and quantity of the restauratns I operate, I have been able to develop and maintain a strong team that ensures the quality and efficiencies of the restaurants.

3. What is the applicant's general business reputation?

I entered the restaurant industry after a few years working as a management consultant. As a relatively young restauranteur, I have reputation as an up and coming entrepenuer in the restaurant space. Last year I was awarded the EY entrepeneur of the year award in Michigan, for my work in the expansion of Kimchi Box to 8 locations.

4. What is the applicant's financial status and ability to build and/or operate the proposed facility on which the proposed liquor license is to be located?

I am able to use my current cash flow from my restaurants to build and operate the proposed facility. We estimate around 1.2 Million dollars will go into the build out of the proposed space.

5. What are the applicant's past criminal convictions involving moral turpitude, violence or alcoholic liquors?

I do not have any criminal convictions involving moral turpitutde, violence or alcoholic liquors

6. Does the applicant use alcoholic beverages to excess?

No i do not used alchoholic beverages to excess

7. What is the effect that the issuance of a license would have upon the economic development of the surrounding area?

I am building the Dancing Pine for the Sakura Novi project with the Aikens group. Sakura Way will be Novi's newest development project. We will bring a variety of guests from Oakland, Wayne, and Washtenaw county. The Dancing Pine is a stand alone building in the middle of the development, facing the lake. Our license will be able to provide the visitors the highest quality experience and bring many people looking for a luxurious dining experience to Novi.

8. What effect would the issuance of a license have on the health, welfare and safety of the general public?

Issuing a licese to the Dancing Pine project will give the city of Novi a safe place to enjoy night life. The development will be well lit and protected. Currently for the citizens of Novi there are limited options for late night dining. The Dancing Pine will serve responsibily until almost midnight, giving the city more variety in high end dining options.

9. Has the applicant received responses from the Police Department, Building Department and/or Fire Department with regard to the proposed facility?

The Aikens group is working closely with the city to build the proposed facility. When the cold shell is turned over to me, I will also work closely with the city on the proposed facility to get the necessary approvals.

10. What is the public need or convenience for issuance of a liquor license for this facility at the proposed location?

The proposed location will be the premier new development for the city of Novi. Sakura Way, will have apartment complexes, dining, and retail. The Dancing Pine is in the center of this new development. The plaza will propel Novi forward and bring visitors from other cities as well as workers from other countries. International and local business meetings will all occur at The Dancing Pine, bringing even more companies and business into the city of Novi.

11. What is the uniqueness of the proposed facility when contrasted against other existing or proposed facilities and the compatibility of the proposed facility to surrounding architecture and land use?

The proposed facility faces the lake and the meeting auditorium in the center of the Sakura Plaza. We will be where families gather to take take strolls along the newly planted trees of the plaza. Our facility will have large windows to have clear views of the enviornment around us, for our restaurant goers to enjoy.

12. Does the facility to which the proposed liquor license is to be issued comply with the applicable building, plumbing, electrical and fire prevention codes and zoning statutes and ordinances applicable to the City of Novi? Has applicant received information from the appropriate departments?

We are working with the city to build a safe building that follows call code and zoning statuses. It has not been built or open yet, but we will be fully compliant.

13. What effect will the facility to which the proposed liquor license is to be issued have upon vehicular and pedestrian traffic in the area?

We will be Michigans first luxury Korean BBQ restaurant. Our high end cuts of steak as well as wine parings will bring more people into the Novi community. Our restaurant is off of Grand River, but it would not have significant effect on traffic in the area, because our rush hours do not coincide with local corporate hours.

14. What is the proximity of the proposed business facility to other similarly situated licensed liquor facilities?

We are in the heart of Novi so there are other facilities with similary situated liquor licenses. However the only high end food offering restaurant in the area is Bonefish Grill and Artys.

15. What is the proximity of the proposed facility to complimentary uses such as office and commercial development?

We will be very close to the Novi office and commercial development center. The restaurant will however bring in many corporations from sorrounding cities (Northville, Plymouth, Canton, Wixom) as well. My restaurant in Northville (Kimchi Box Plus) has this effect currently.

16. What effect would the proposed facility have upon the surrounding neighborhood and/or business establishments, including impacts upon residential areas, church and school districts?

It will give the residence of the area more dining options than what is currently offered in the city of Novi. Many people in the community drive to Troy, Detroit, or even Northville to dine in high end places. The Dancing Pine will bring unique flavors and a high end experience into the city of Novi.

17. What proposed or actual commitments are being made by the applicant to establish permanency in the community?

I am from Michigan and currently live in this community. I have many restaurants in Oakland County, and will permanantly be here. The Dancing Pine is one of my most important projects, and I plan to be all in on being the best restaurant in Michigan. I have commited to buying Pi distribution facility in Novi across 12 Oaks Mall, to help with the food service operations of the Dancing Pine.

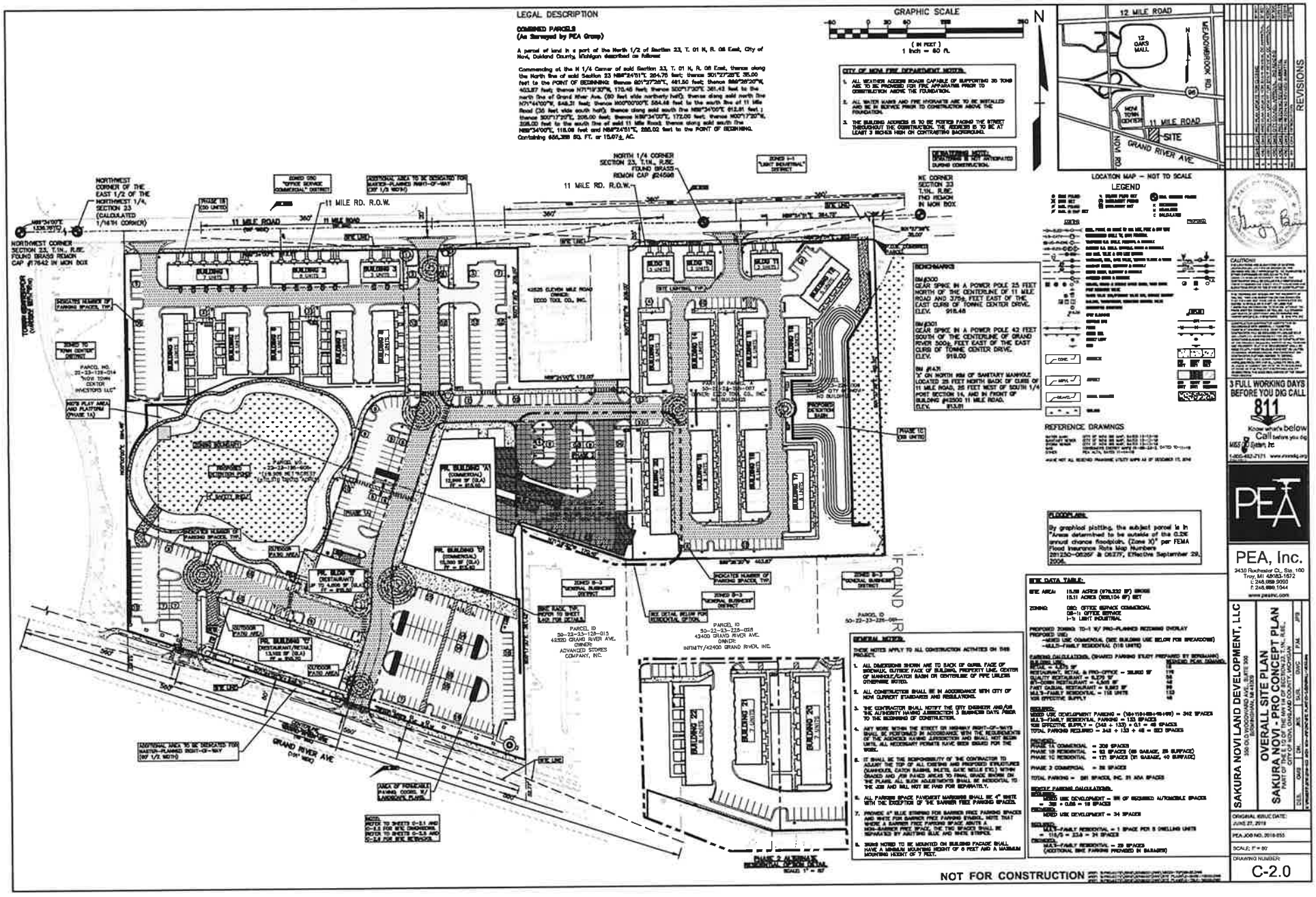
18. What utilities are available to serve the facility?

We will be utilizing Gas, energy, and water.

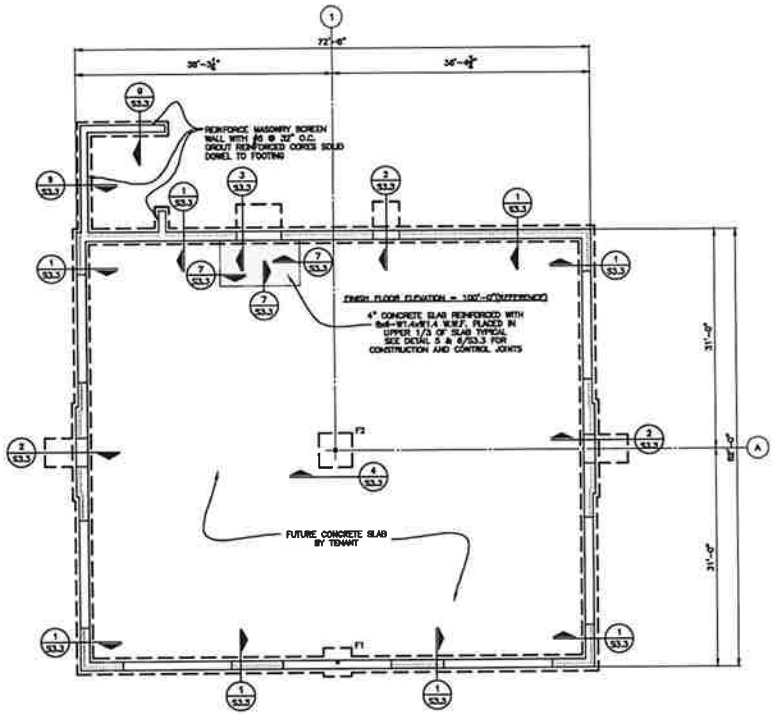
19. What other factors should the Novi City Council consider?

I grew up in Michigan and plan to live here for the rest of my life. The Dancing Pine while having a high end feel and look, will be very approachable price point. The restaurant will not price out the average person, rather I want to make a busy restaurant that brings people in from all over Michigan. Novi is in the center of Detroit, Troy, Ann Arbor.. The Dancing Pine and the Sakura Way project will bring excitement to the city of Novi and Michigan. A liquor license will greatly help The Dancing Pine reach its full potential as a premier dining experience.


DANCING PINE


LEGAL DESCRIPTION
COMBINED PARCELS
(As Surveyed by PEA Group)
A parcel of land in a part of the North 1/2 of Section 23, T. 01 N, R. 08 East, City of Novi, Oakland County, Michigan described as follows:
Commencing at the N 1/4 Corner of said Section 23, T. 01 N, R. 08 East, thence along the North line of said Section 23 N89°24'51"E, 264.76 feet; thence S01°27'28"E 35.00 feet to the POINT OF BEGINNING; thence S01°27'28"E, 461.50 feet; thence S88°26'20"W, 402.87 feet; thence N71°19'30"W, 170.48 feet; thence S00°01'30"E, 361.43 feet to the north line of Grand River Ave. (80 feet wide northerly half); thence along said north line N71°44'00"W, 648.31 feet; thence N00°00'00"E, 584.46 feet to the south line of 11 Mile Road (36 feet wide south half); thence along said south line N89°34'00"E 812.81 feet; thence S00°17'20"E, 208.00 feet; thence N89°34'00"E, 172.00 feet; thence N00°17'20"W, 208.00 feet to the south line of said 11 Mile Road; thence along said south line N89°34'00"E, 118.08 feet and N89°24'51"E, 286.02 feet to the POINT OF BEGINNING. Containing 656,388 SQ. FT. or 15.07± AC.
GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.
N
CITY OF NOVI FIRE DEPARTMENT NOTES:
1. ALL WEATHER ACCESS ROADS CAPABLE OF SUPPORTING 30 TONS ARE TO BE PROVIDED FOR FIRE APPARATUS PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
2. ALL WATER MAINS AND FIRE HYDRANTS ARE TO BE INSTALLED AND BE IN SERVICE PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
3. THE BUILDING ADDRESS IS TO BE POSTED FACING THE STREET THROUGHOUT THE CONSTRUCTION. THE ADDRESS IS TO BE AT LEAST 3 INCHES HIGH ON CONTRASTING BACKGROUND.
SIGNALIZING NOTE:
SIGNALIZING IS NOT ANTICIPATED DURING CONSTRUCTION.
12 MILE ROAD
12 OAKS MALL
NOVI TOWN CENTER
11 MILE ROAD
SITE
GRAND RIVER AVE
LOCATION MAP – NOT TO SCALE
LEGEND
BENCHMARKS
BM #300
GEAR SPIKE IN A POWER POLE 25 FEET NORTH OF THE CENTERLINE OF 11 MILE ROAD AND 3756 FEET EAST OF THE EAST CURB OF TOWNE CENTER DRIVE.
ELEV. 918.48
BM #301
GEAR SPIKE IN A POWER POLE 42 FEET SOUTH OF THE CENTERLINE OF GRAND RIVER 300± FEET EAST OF THE EAST CURB OF TOWNE CENTER DRIVE.
ELEV. 918.00
BM #431
"X" ON NORTH RIM OF SANITARY MANHOLE LOCATED 25 FEET NORTH BACK OF CURB OF 11 MILE ROAD, 25 FEET WEST OF SOUTH 1/4 POST SECTION 14, AND IN FRONT OF BUILDING #42500 11 MILE ROAD.
ELEV. 913.01
REFERENCE DRAWINGS
FLOODPLAIN:
By graphical plotting, the subject parcel is in "Areas determined to be outside of the 0.2% annual chance floodplain. (Zone X)" per FEMA Flood Insurance Rate Map Numbers 26125C-0626F & 0627F, Effective September 29, 2006.
SITE DATA TABLE:
SITE AREA: 15.09 ACRES (676,332 SF) GROSS
15.11 ACRES (658,104 SF) NET
ZONING: OSC: OFFICE SERVICE COMMERCIAL
OS-1: OFFICE SERVICE
I-1: LIGHT INDUSTRIAL
PROPOSED ZONING: TC-1 W/ PRO-PLANNED REZONING OVERLAY
PROPOSED USE:
-MIXED USE COMMERCIAL (SEE BUILDING USE BELOW FOR BREAKDOWN)
-MULTI-FAMILY RESIDENTIAL (118 UNITS)
PARKING CALCULATIONS: (SHARED PARKING STUDY PREPARED BY BIRCHLER)
BUILDING USE / MINIMUM PARKING REQUIRED / MAXIMUM PARKING ALLOWED
RETAIL = 4,000 SF
RESTAURANT, RETAIL & PRO-OFFICE – 28,800 SF
QUALITY RESTAURANT = 6,000 SF
DRIVE-THRU RESTAURANT = 1,665 SF
FAST CASUAL RESTAURANT = 6,665 SF
MULTI-FAMILY RESIDENTIAL = 118 UNITS
TOTAL EFFECTIVE SUPPLY
REQUIRED:
MIXED USE DEVELOPMENT PARKING = (186+118+183+48+48) = 342 SPACES
MULTI-FAMILY RESIDENTIAL PARKING = 133 SPACES
TOTAL EFFECTIVE SUPPLY = (348 + 133) + 0.1 = 48 SPACES
TOTAL PARKING REQUIRED = 348 + 133 + 48 = 523 SPACES
PROVIDED:
PHASE 1A COMMERCIAL = 208 SPACES
PHASE 1B RESIDENTIAL = 92 SPACES (69 GARAGE, 23 SURFACE)
PHASE 1C RESIDENTIAL = 121 SPACES (91 GARAGE, 40 SURFACE)
PHASE 2 COMMERCIAL = 58 SPACES
TOTAL PARKING = 581 SPACES, INC. 21 ADA SPACES
BARRIER FREE PARKING CALCULATIONS:
REQUIRED:
MIXED USE DEVELOPMENT = 9% OF REQUIRED AUTOMOBILE SPACES = 358 × 0.09 = 18 SPACES
PROVIDED:
MIXED USE DEVELOPMENT = 34 SPACES
REQUIRED:
MULTI-FAMILY RESIDENTIAL = 1 SPACE PER 5 DWELLING UNITS = 116/5 = 23.6 = 24 SPACES
PROVIDED:
MULTI-FAMILY RESIDENTIAL = 29 SPACES
(ADDITIONAL BIKE PARKING PROVIDED IN GARAGES)
GENERAL NOTES
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, BUILDING FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF NOVI CURRENT STANDARDS AND REGULATIONS.
3. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND ALL THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
4. ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL MEET BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND /OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND SHALL NOT BE PAID FOR SEPARATELY.
6. ALL PARKING SPACE PAVEMENT MARKINGS SHALL BE 4" WHITE WITH THE EXCEPTION OF THE BARRIER FREE PARKING SPACES.
7. PROVIDE 4" BLUE STRIPING FOR BARRIER FREE PARKING SPACES AND WHITE FOR BARRIER FREE PARKING SYMBOL. NOTE THAT WHERE A BARRIER FREE PARKING SPACE ABUTS A NON-BARRIER FREE SPACE, THE TWO SPACES SHALL BE SEPARATED BY ABUTTING BLUE AND WHITE STRIPES.
8. SIGNS NOTED TO BE MOUNTED ON BUILDING FACADE SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 6 FEET AND A MAXIMUM MOUNTING HEIGHT OF 7 FEET.
NOTE:
REFER TO SHEETS C-2.1 AND C-2.2 FOR SITE DIMENSIONS
REFER TO SHEETS C-3.0 AND C-3.1 FOR SITE GRADING
C-3.2 FOR SITE UTILITIES
NOT FOR CONSTRUCTION
3 FULL WORKING DAYS BEFORE YOU DIG CALL 811
Know what's below. Call before you dig.
MISS DIG System, Inc
1-800-482-7171 www.missdig.org
PEA, Inc.
2430 Rochester Ct., Ste. 100
Troy, MI 48083-1872
t: 248.689.9090
f: 248.689.1044
www.peainc.com
SAKURA NOVI LAND DEVELOPMENT, LLC
350 OLD WOODWARD AVE., SUITE 300
BIRMINGHAM, MI 48009
OVERALL SITE PLAN
SAKURA NOVI - PRO CONCEPT PLAN
PART OF THE E 1/2 OF THE NW 1/4 OF SECTION 23, T1N, R8E, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN
REVISIONS
ORIGINAL ISSUE DATE: JUNE 27, 2019
PEA JOB NO. 2019-055
SCALE: 1" = 60'
DRAWING NUMBER: C-2.0

FOUNDATION SCHEDULE			
	F2	F1	MARK
	4'-0"x4'-0"	4'-0"x4'-0"	SIZE
	16"	40"	THICKNESS
	7-#4	8-#4	[illegible]
			REMARKS



FOUNDATION PLAN

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

THE SOIL BELOW THE BUILDING IS TO BE IMPROVED WITH RAMMED AGGREGATE PIERS. FOOTINGS AND FLOOR SLAB SHALL BEAR ON RAMMED AGGREGATE PIERS PROVIDING A SAFE BEARING CAPACITY OF 3000 P.S.F. MINIMUM. RAMMED AGGREGATE PIERS SHALL BE DESIGNED BY RAMMED AGGREGATE PIER SUPPLIER. SIGNED AND SEALED SHOP DRAWINGS SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF MICHIGAN SHALL BE SUBMITTED FOR RECORD

BOTTOM OF EXTERIOR FOOTING ELEVATION = 98'-0" UNLESS OTHERWISE NOTED (X'-X")

TOP OF INTERIOR FOOTING ELEVATION = 99'-4" UNLESS OTHERWISE NOTED

NOTE "A": REINFORCE MASONRY WALLS WITH #5 @ 40" O.C. FULL HEIGHT VERTICAL UNLESS OTHERWISE NOTED. GROUT REINFORCED CORES SOLID, DOWEL TO FOOTING. PLACE BARS AT CORNERS AND FACE OF OPENINGS AND EACH SIDE OF CONTROL JOINTS. SEE DETAILS 1, 2, 3, 4, 5, & 6/S3.2

Shymanski & Associates, L.L.C.
STRUCTURAL ENGINEERS
3565 Pine Lake Rd.
Lake Orion, MI 48359
248.391.1414
www.shymanskiengineering.com

Woh Yee Associates
Architects & Planners
43455 GRAND RIVER AVENUE, SUITE 200
NOVI, MICHIGAN 48375
PHONE 248.489.9160

PROJECT
SAKURA NOVI
BUILDING B
Novi, MI

Date Issued

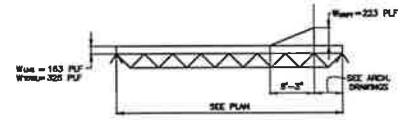
Preliminary
Not For Construction
02/25/2021 2:11:19 PM

Job Number
5240

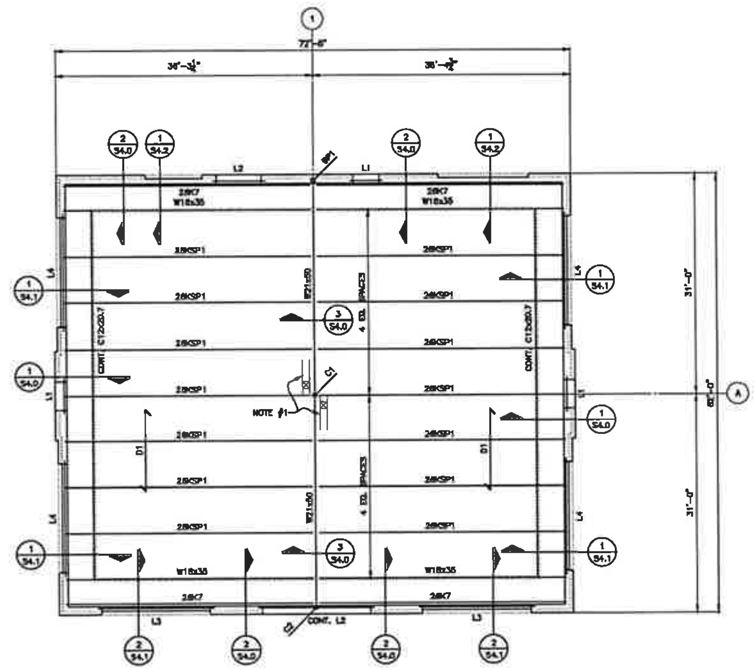
SHEET TITLE
FOUNDATION PLAN

Sheet Number
S2.1

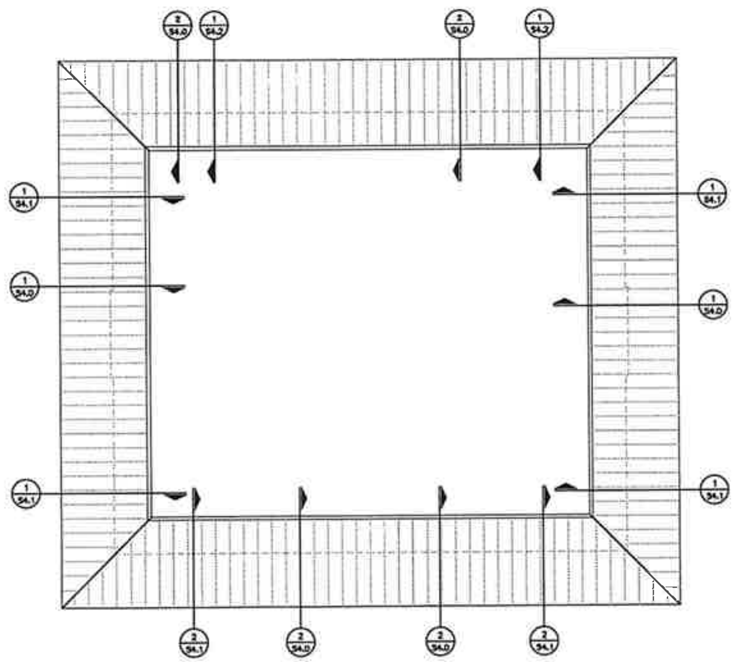
COLUMN SCHEDULE			
MARK	C1	C2	
SIZE	HSS8x8x1/4	HSS	
BASE PLATE	12"x3/4"x1'-0"	HSS8x8x3/8	
ANCHOR BOLTS	(4)3/4"Øx1'-4" HEADED ANCHOR	(4)3/4"Øx1'-4" HEADED ANCHOR	
REMARKS		EXTEND COLUMN TO UNDERSIDE OF LINTEL.	



26KSP1 LOADING DIAGRAM
NO SCALE



OVERHANG FRAMING PLAN
SCALE: 1/8" = 1'-0"



ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

D1: 1 1/2-22 GA. WIDE RIB METAL DECK (3 SPAN MINIMUM). SEE DETAIL 3/S4.1

NOTE #1: PROVIDE L3x3x1/4 ALL AROUND AT ROOF OVERFLOW DRAINS. COORDINATE LOCATION WITH ARCH. DRAWINGS

JOIST NOTES

1. JOIST SUPPLIER TO PROVIDE BRIDGING AS REQUIRED PER SJI
2. JOIST SUPPLIER TO DESIGN ALL ROOF JOISTS FOR A NET UPLIFT OF 10 PSF (.6W)

SEE SHEET S3.2 FOR LINTEL SCHEDULE

Shymanski & Associates, L.L.C.
STRUCTURAL ENGINEERS

Wah Yee Associates
Architects & Planners
42400 GRAND RIVER AVENUE, SUITE 200
NOVI, MICHIGAN 48375
PHONE 248.489.9160

PROJECT
SAKURA NOVI
BUILDING B
Novi, MI

Date Issued

Preliminary
Not For Construction

Job Number
5240

SHEET TITLE
ROOF FRAMING PLAN

Sheet Number
S2.1

GENERAL NOTES

GENERAL CONDITIONS

1. IF ANY GENERAL NOTE CONFLICTS WITH ANY DETAIL OR NOTE ON THE PLANS OR IN THE SPECIFICATIONS, THE STRICTEST PROVISION SHALL GOVERN.

2. THE STRUCTURAL DRAWINGS ARE FOR THE PLACEMENT AND SIZE OF STRUCTURAL COMPONENTS ONLY. O.S.H.A., LOCAL GOVERNMENT CODES AND SAFETY CODE REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR.

3. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES PROVIDING TEMPORARY BRACING, SHORING, GUYS OR TIE- DOWNS. THESE TEMPORARY SUPPORTS WILL REMAIN IN PLACE UNTIL ALL STRUCTURAL COMPONENTS ARE IN PLACE AND COMPLETED.

4. USE OF ENGINEERING DRAWINGS AS ERECTION DRAWINGS BY THE CONTRACTOR IS STRICTLY PROHIBITED. DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR BUILDING LAYOUT AND LOCATION. SEE ARCHITECTURAL DRAWINGS AND SITE PLAN FOR THESE PURPOSES.

5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AT THE RATE OF NO MORE THAN 80 DRAWINGS PER WEEK. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWINGS PRIOR TO SUBMITTAL. THE CONTRACTOR SHALL CHECK SHOP DRAWINGS PRIOR TO SUBMITTAL AND IS SOLELY RESPONSIBLE FOR ERRORS & OMISSION IN THE PREPARATION OF SHOP DRAWINGS TO CONFORM TO THE DESIGN DRAWINGS. SUBMIT NO MORE THAN ONE REPRODUCIBLE AND TWO PRINTS OF SHOP DRAWINGS FOR ENGINEER REVIEW. TWO COPIES WILL BE RETURNED TO THE ARCHITECT.

6. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL RELEVANT DIMENSIONS AND ELEVATIONS FOR EQUIPMENT INSTALLATIONS AGAINST PURCHASED MANUFACTURING & CERTIFIED EQUIPMENT DRAWINGS. DIMENSIONS THAT DEPEND UPON SPECIFIC EQUIPMENT SUCH AS ELEVATOR OPENINGS, MECHANICAL EQUIPMENT SUPPORTS, ETC. SHALL BE COORDINATED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. SUCH DIMENSIONS SHALL BE PROVIDED ON THE SHOP DRAWINGS BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER.

7. PRE-MANUFACTURED ITEMS SUCH AS CANOPIES, AWNINGS, SUNSHADES, ETC. SHALL BE DESIGNED BY SUPPLIER. SUPPLIER SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS BY A REGISTERED ENGINEER IN THE STATE OF MICHIGAN FOR RECORD TO ARCHITECT. SHOP DRAWINGS SHALL INDICATE ALL DESIGN LOADS AND INCLUDE ALL CONNECTIONS AND MATERIAL NECESSARY FOR INSTALLATION OF PRE-MANUFACTURED ITEMS.

FOUNDATIONS

1. FOOTINGS SHALL BEAR ON RAMMED AGGREGATE PIERS WITH A SAFE BEARING CAPACITY OF 3000 P.S.F. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE ENLARGED OR LOWERED AT THE DIRECTION OF THE ARCHITECT. VERIFY FOUNDATION SOIL BEARING PRESSURE IN FIELD BY SOILS ENGINEER.

2. PROVIDE NECESSARY SHEETING SHORING BRACING, ETC. AS REQUIRED DURING EXCAVATIONS TO PROTECT SIDES OF EXCAVATIONS.

3. COMPLY FULLY WITH REQUIREMENTS OF OSHA AND OTHER REGULATORY AGENCIES FOR SAFETY PROVISIONS.

CONCRETE

1. MINIMUM CONCRETE STRENGTH TO BE 3000 P.S.I. @ 28 DAYS, U.O.N.; SLABS SHALL BE 3500 P.S.I. MIN. U.O.N. EXPOSED CONCRETE SHALL BE 4000 PSI WITH 6% ± 1% ENTRAINED AIR U.O.N.

   A. PROVIDE 3000 P.S.I. 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.58 MAXIMUM (NON-AIR-ENTRAINED), 5.0 BAG CEMENT MIX FOR ALL FOUNDATION WORK UNLESS NOTED OTHERWISE.

   B. PROVIDE 3500 P.S.I. 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.53 MAXIMUM (NON-AIR-ENTRAINED), 5.5 BAG CEMENT MIX FOR ALL INTERIOR SLABS UNLESS NOTED OTHERWISE.

   C. PROVIDE 4000 P.S.I. 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.46 MAXIMUM (AIR-ENTRAINED), 6.0 BAG CEMENT MIX FOR ALL EXTERIOR CONCRETE UNLESS NOTED OTHERWISE.

2. FLYASH OR GROUND GRANULATED BLAST FURNACE SLAG MAY BE SUBSTITUTED UP TO 20% MAXIMUM OF MIX DESIGN CEMENT CONTENT IN NON-EXPOSED CONCRETE MIXES. DO NOT USE IN EXPOSED MIX DESIGNS.

3. ALL CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST RECOMMENDATIONS OF A.C.I.

4. ALL REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO A.S.T.M. A615 GRADE 60. REINFORCING STEEL SHALL BE CONTINUOUS AND SHALL HAVE MINIMUM 30 BAR DIAMETER LAP AND BE FABRICATED AND PLACED IN ACCORDANCE WITH A.C.I. - 315 LATEST EDITION.

5. REINFORCED CONCRETE WALL FOOTINGS SHALL HAVE CORNER BARS AT ALL INTERSECTIONS OF THE SAME SIZE AND SPACING AS THE MAIN HORIZONTAL REINFORCING.

6. ALL SLABS ON GROUND SHALL BE 4" THICK AND HAVE 6" X 6" W1.4 X W1.4 WELDED WIRE FABRIC IN THE TOP 1/3 OF THE SLAB, UNLESS OTHERWISE NOTED.

7. CONCRETE CONTRACTOR SHALL INCLUDE IN HIS COST ADDITIONAL CONCRETE QUANTITY AS REQUIRED TO COMPENSATE FOR DEFLECTIONS OF METAL DECK AND UNSHORED COMPOSITE BEAMS AND TO PROVIDE A LEVEL CONCRETE SURFACE.

8. FIELD AND SHOP TESTING OF CONCRETE WORK SHALL INCLUDE INSPECTION OF REINFORCING STEEL PLACEMENT, REBARS, NUMBER, LOCATION, AND LAP SPLICE LENGTH.

9. PROVIDE DOWELS INTO FOUNDATION TO MATCH SIZE AND SPACING OF VERTICAL REINFORCEMENT AT ALL COLUMNS AND WALLS, UNLESS OTHERWISE NOTED.

10. UNLESS OTHERWISE SHOWN, PROVIDE THE FOLLOWING COVER FOR REINFORCING STEEL:

A.	UNFORMED SURFACES IN CONTACT WITH EARTH	-3 IN.
B.	UNFORMED SURFACES OVER MOISTURE BARRIERS	-2 IN.
C.	FORMED SURFACES EXPOSED TO EARTH OR WEATHER	
	ON WATER PROOFING/DAMP PROOFING	
	#6 OR LARGER	-2 IN.
	#5 OR SMALLER	-1 1/2 IN.
D.	FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER	
	SLABS AND WALLS	-3/4 IN.
	COLUMNS	-1 1/2 IN.
	BEAMS AND GIRDERS	-1 1/2 IN.

MASONRY

1. THE MASONRY PORTIONS OF THIS STRUCTURE ARE DESIGNED ACCORDING TO THE LATEST ALLOWABLE STRESS DESIGN PROVISIONS OF THE MASONRY STANDARDS JOINT COMMITTEE (MSJC) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCE 602) INCLUDING SECTIONS 2108 AND 2107 OF CHAPTER 21 IN THE MICHIGAN BUILDING CODE. MASONRY COMPONENTS HAVE BEEN DESIGNED ACCORDING TO THE PROVISIONS FOR SEISMIC DESIGN CATEGORY B.

2. ALL STRUCTURAL MASONRY IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST MASONRY STANDARDS JOINT COMMITTEE (MSJC) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 402/ACI 530/ASCE 6) AND SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602/ACI 530.1/ASCE 6) MASONRY SUBMITTALS ARE REQUIRED BY ACI 530.1/ASCE 6/TMS 602 SECTION 1.5 MASONRY TESTING AND INSPECTIONS ARE REQUIRED BY ACI 530.1/ASCE 6/TMS 602 SECTION 1.6, TABLE 5.

3. ALL STRUCTURAL MASONRY HAS BEEN ENGINEERED IN ACCORDANCE WITH CHAPTER 2 ALLOWABLE STRENGTH DESIGN. COMPRESSION STRENGTH SHALL BE DETERMINED ACCORDING TO THE UNIT STRENGTH METHOD FOR CONCRETE MASONRY MSJC SECTION 1.4. B.2.b.

4. ALL BLOCK SHALL CONFORM TO ASTM C90, TYPE I, WITH A MINIMUM UNIT NET AREA COMPRESSIVE STRENGTH OF 2800 PSI.

5. MASONRY COMPRESSIVE STRENGTH f'm = 2000 PSI MINIMUM.

6. MORTAR SHALL BE TYPE 'S' (1800 PSI) CONFORMING TO ASTM C-270. USE MORTAR CEMENT WHERE EXTERIOR WALLS ARE UNREINFORCED.

7. PROVIDE HORIZONTAL WIRE TYPE REINFORCING WITH 9 GAUGE SIDE AND CROSS MEMBERS IN EVERY SECOND COURSE (16" O.C.), IN ALL MASONRY WALLS. WALLS WITH VERTICAL REINFORCING SHALL ONLY HAVE "LADDER" TYPE REINFORCING.

8. ALL REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO A.S.T.M. A615 GRADE 60. REINFORCING STEEL SHALL BE CONTINUOUS, FABRICATED AND PLACED IN ACCORDANCE WITH A.C.I. - 315 LATEST EDITION AND HAVE THE FOLLOWING MINIMUM LAP LENGTHS:

BAR SIZE	8" CMU	12" CMU
#3	18'	18'
#4	24'	24'
#5	30'	30'
#6	38'	36'
#7		42"
#8	PROVIDE MECH. SPLICE	

9. ALL MASONRY BEARING STEEL BEAMS AND LINTELS TO BEAR 8" MINIMUM ON 3 COURSES SOLID MASONRY, WITH 2 3/4" DIAMETER BOLTS EACH END, UNLESS OTHERWISE NOTED.

10. UNLESS OTHERWISE NOTED WHERE STEEL JOISTS BEAR ON MASONRY, PROVIDE A MINIMUM OF ONE COURSE OF SOLID BLOCK BELOW K-SERIES JOISTS AND A MINIMUM OF TWO COURSES SOLID BELOW LH SERIES JOISTS.

11. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.

12. MASONRY GROUT SHALL CONFORM TO ASTM C 476, WITH PEA GRAVEL AGGREGATE AND A MINIMUM STRENGTH OF 2000 PSI, BUT NOT LESS THAN SPECIFIED f'm.

13. UNLESS OTHERWISE NOTED, AT ALL MASONRY WALLS PROVIDE THE FOLLOWING LINTELS:

    6" WALLS

    (2) L4x3 1/2 x 5/16 LLV FOR OPENINGS UP TO 4'-0"
    (2) L5x3 1/2 x 5/16 LLV FOR OPENINGS UP TO 5'-4"
    PL6x16 + 3/8" PLATE FOR OPENINGS UP TO 8'-0"
    PL6x28 + 3/8" PLATE FOR OPENINGS UP TO 12'-4"

    12" WALLS:

    (3) L4x3 1/2 x 5/16 LLV FOR OPENINGS UP TO 4'-0"
    (3) L5x3-1/2 x 5/16 LLV FOR OPENINGS UP TO 5'-4"
    PL6x16 + 3/8" PLATE FOR OPENINGS UP TO 8'-0"
    PL6x28 + 3/8" PLATE FOR OPENINGS UP TO 12'-4"

14. ALL DOUBLE ANGLE LINTELS SHALL BE WELDED BACK TO BACK WITH A MINIMUM 2 INCH STITCH WELD EVERY 8 INCHES.

15. UNLESS OTHERWISE NOTED, PROVIDE L5 X 3-1/2 X 5/16 L.L.V. LINTEL FOR EACH 4" OF MASONRY FOR SPANS UP TO 5'-4" MAX.

16. PROVIDE DOWELS INTO FOUNDATION TO MATCH SIZE AND SPACING OF VERTICAL REINFORCEMENT AT ALL COLUMNS AND WALLS, UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL

1. STEEL DESIGN, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH THE LATEST A.I.S.C. MANUAL AND SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS. ALL WIDE FLANGE BEAMS AND COLUMNS SHALL CONFORM TO THE LATEST ASTM. SERIAL DESIGNATION A992, GR50; ALL MISCELLANEOUS STEEL PLATES, BARS, ANGLES, ETC., SHALL CONFORM TO ASTM A36; STEEL TUBING TO BE ASTM A500, GRADE B; STEEL PIPE ASTM. A-53, GRADE B. ANCHOR BOLTS TO BE ASTM F1554 GRADE 36 N3J MINIMUM UNLESS OTHERWISE NOTED

2. UNLESS OTHERWISE NOTED OR SHOWN, ALL BEAM CONNECTIONS TO HSS 6 X 6 OR SMALLER COLUMN, 5"Ø OR SMALLER COLUMN, OR ANY TUBE COLUMN REGARDLESS OF SIZE WITH A WALL THICKNESS LESS THAN 3/8" SHALL BE MADE WITH THRU PLATES WELDED TO BOTH WALLS OF COLUMN.

3. ALL WELDED CONNECTIONS SHALL BE IN ACCORDANCE WITH THE LATEST AWS CODE, ETOXX ELECTRODES, WITH WELDING PERFORMED BY QUALIFIED WELDERS.

4. BOLTED CONNECTIONS SHALL BE MADE WITH A-325 OR A-490 BOLTS. ALL BOLTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS FOR "STRUCTURAL JOINTS USING A.S.T.M. A-325 OR A-490 BOLTS," TYPICAL BOLTED CONNECTIONS ARE "BEARING TYPE" UNLESS NOTED OTHERWISE.

5. DESIGN CONNECTIONS FOR MINIMUM ONE-HALF THE TOTAL ALLOWABLE UNIFORM LOAD PER A.I.S.C. BEAM LOAD TABLES, UNLESS OTHERWISE NOTED. (MIN. 2 BOLTS EACH CONNECTION).

6. THE STRUCTURAL STEEL CONTRACTOR SHALL INCLUDE (5) TONS OF ADDITIONAL STEEL, INCLUDING FABRICATION AND ERECTION, TO BE USED AT THE DISCRETION OF THE STRUCTURAL ENGINEER. TONNAGE COST IS TO BE BASE ON TONNAGE PRICE PER JOB#. ADDITIONAL STEEL NOT USED IS TO BE CREDITED BACK TO THE OWNER. GENERAL CONTRACTOR IS TO COORDINATE WITH STEEL FABRICATOR AND OWNER.

7. THE DESIGN, CONFIGURATION & ERECTION SAFETY OF ALL STRUCTURAL STEEL CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE STRUCTURAL STEEL FABRICATOR. REVIEW AND ACCEPTANCE OF THE SHOP DRAWINGS BY THE ENGINEER SHALL CONSTITUTE APPROVAL OF THE LOAD CARRYING ADEQUACY ONLY.

8. TYPE OF CONSTRUCTION PER ASCE A2-16 TYPE 2 "SIMPLE FRAMING" UNLESS NOTED OTHERWISE.

9. TEMPORARY ERECTION SEATS SHALL BE PROVIDED AS RECOMMENDED ON PAGE 3-58 OF THE A.I.S.C. PUBLICATION 'ENGINEERING FOR STEEL CONSTRUCTION'.

10. STEEL JOISTS AND JOIST GIRDERS ARE TO BE FABRICATED BY A MEMBER OF THE STEEL JOINT INSTITUTE AND BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE S.J.I.. ROOF JOISTS AND ROOF JOIST GIRDERS SHALL BE DESIGNED FOR A MAXIMUM TOTAL DEFLECTION OF L/240. FLOOR JOISTS SHALL BE DESIGNED FOR A MAXIMUM TOTAL LIVE LOAD DEFLECTION OF L/360.

11. ALL PROVISIONS OF THE RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS AS ADOPTED BY THE STEEL JOIST INSTITUTE SHALL BE ADHERED TO.

12. STEEL JOIST BEARING ON STEEL BEAMS OR PLATES, TO BE WELDED TO STEEL WITH 2" LONG BEAD EACH SIDE OF BEARING.

13. STAGGER JOISTS AS REQUIRED TO ACHIEVE NECESSARY BEARING ON WALLS OR GIRDERS.

14. METAL DECK SHALL CONFORM TO ALL REQUIREMENTS OF "BASIC DESIGN SPECIFICATION" AS ADOPTED BY THE STEEL DECK INSTITUTE (S.D.I.). METAL ROOF DECK SHALL BE WIDE RIB WITH WELDING SIDE SEAMS OF DEPTH AND GAGE INDICATED ON THE DRAWINGS. DECK SHALL BE WELDED TO ALL SUPPORTING STEEL WITH PUDDLE WELDS (5/8" DIAMETER MINIMUM), AT 12" ON CENTER MAXIMUM SPACING AND 8" O/C (ALL FLUTES) AT END LAP SUPPORT POINTS AND BUILDING PERIMETER ATTACHMENTS. SIDE LAP CONNECTIONS SHALL BE MADE AT MAXIMUM 3'-0" ON CENTER (AT MIDPOINT OF SPAN FOR SPAN LESS THAN 6'-0" AT THIRD POINTS OF SPAN FOR SPANS GREATER THAN 6'-0") WITH #10 TEK SCREW MIN. REFER TO SPECIFICATIONS FOR ADDITIONAL ERECTION PROCEDURES.

15. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL ANGLES, PLATES, BARS, CLIPS, ETC., ATTACHED TO STRUCTURAL STEEL.

16. UNLESS OTHERWISE NOTED, ALL ROOF OPENINGS SHALL BE FRAMED WITH L 6 3 5-1/2 X 5/16 L.L.V. VERIFY EXACT SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH CONTRACTOR INVOLVED.

17. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES INCLUDING CLOSURES, "Z" CLOSURES, COLUMN CLOSURES, SCREED ANGLES AND GIRDER FILLERS AS REQUIRED.

18. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ANY ROOF DECK. ALL HANGERS FOR CEILINGS, DUCTWORK, ELECTRICAL CONDUIT, PIPING, ETC., SHALL BE HUNG DIRECTLY FROM STRUCTURAL STEEL WORK OR SUPPLEMENTARY MEMBERS.

19. MASONRY AND BRICK LINTELS SHALL BE GALVANIZED 090 PER ASTM A123.

20. PROVIDE L4X4X1/4 SEATS AT COLUMN WEBS WHERE REQUIRED FOR SUPPORT OF ROOF DECKS. PROVIDE ANGLE OUTRIGGER FROM EXTERIOR COLUMNS FOR SLAB AND ROOF EDGE PLATE SUPPORT.

21. ALL WIDE FLANGE LINTELS TO HAVE MINIMUM 7"x3/8"x9'-7" BEARING PLATE, ALL WIDE FLANGE FLOOR OR ROOF BEAMS TO HAVE MINIMUM 7"x3/8"x0'-7" BEARING PLATE UNLESS OTHERWISE NOTED

LIGHT GAGE FRAMING

1. LIGHT GAGE FRAMING SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN INDICATING ALL DESIGN LOADS AND MATERIALS INCLUDING VERIFYING ANY MEMBER SIZES SHOWN. DESIGN BY SUPPLIERS ENGINEER SHALL INCLUDE ALL CONNECTIONS AND MISCELLANEOUS MATERIALS NECESSARY FOR A COMPLETE STRUCTURE. THE FINAL MEMBER SIZES AND GAGES SHALL BE CALCULATED BY THE LIGHT GAGE ENGINEER. LIGHT GAGE SHOP DRAWINGS NOT SIGNED AND SEALED WILL BE REJECTED.

2. LIGHT GAGE MEMBERS SHALL BE DESIGNED, MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) INCLUDING ANY REQUIRED CLIPS, STIFFENERS, AND BRACING.

3. MEMBER SIZES INDICATED ON DRAWINGS ARE MINIMUM DEPTH AND GAGE REQUIRED TO MEET THE DESIGN INTENT AND ARE BASED ON THE PROPERTIES AND MATERIALS LISTED IN THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) PRODUCT CATALOG. ALTERNATE MANUFACTURERS ARE ACCEPTABLE IF THE PHYSICAL PROPERTIES ARE EQUAL OR BETTER THAN THOSE LISTED ACCEPTABLE TO THE PROJECT ARCHITECT AND ENGINEER, AND MEET OR EXCEED PERFORMANCE CRITERIA.

4. LIGHT GAGE DOCUMENTS SUBMITTED BY THE LIGHT GAGE FRAMING SUPPLIER IS A "DEFERRED SUBMITTAL" PER SECTION 107.3.4.1 OF THE MBC 2015

5. ALL LIGHT GAGE BACK UP STUDS FOR BRICK VENEER TO BE 18 GA. MINIMUM (54) AND BE DESIGNED FOR L/600 MINIMUM LATERAL DEFLECTION REQUIREMENT.

SPECIAL INSPECTION

1. WORK CONSTRUCTED SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY TO ENSURE COMPLIANCE WITH THE REQUIREMENTS SHOWN ON THE DRAWINGS. INSPECTIONS REQUIRED BY CHAPTER 17 OF THE MICHIGAN BUILDING CODE; LOCAL BUILDING DEPARTMENTS AND THE CONTRACT DOCUMENTS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. SITE VISITS BY THE DESIGN ENGINEER DO NOT CONSTITUTE OR REPLACE INSPECTION

2. THE FOLLOWING ITEMS SHALL BE INSPECTED IN ACCORDANCE WITH MBC 2015 SEC. 1704 & 1705 BY A CERTIFIED SPECIAL INSPECTOR UNLESS NOTED OTHERWISE IN REMARKS COLUMN. ALL INSPECTION SHALL BE CONTINUOUS UNLESS OTHERWISE NOTED. ALL PRODUCTS WITH ICC APPROVALS SHALL BE INSTALLED PER THE APPROVAL AND PER MANUFACTURER'S RECOMMENDATIONS. FOR MATERIAL TESTING REQUIREMENTS, SEE SPECIFICATIONS AND/OR GENERAL NOTES. TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT.

INSPECTION OF FABRICATOR'S (SEC. 1704.2.5) *

FABRICATION AND IMPLEMENTATION PROCEDURES 1704.2.5.1

*SPECIAL INSPECTION IS NOT REQUIRED FOR FABRICATOR SHOP IF CERTIFICATE OF APPROVAL SUBMITTED BY FABRICATOR'S INSPECTION AGENCY PER EXCEPTION 1704.2.5.1

TABLE 1705.2.2
REQUIRED VERIFICATION AND
INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	NOT APPLICABLE	REFERENCED STANDARD
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:				
a. IDENTIFICATION MARKING TO CONFORM TO ASTM SPECIFICATIONS AND APPROVED SUBMITTALS DOCUMENTS.	-	X	-	ASTM A325, A490, A307, A563, F436
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE.	-	X	-	
2. INSPECTION OF FABRICATION:				
a. SHOP FABRICATED STEEL ASSEMBLIES	-	X	-	AWS D1.1
b. FULL AND PART JOINT WELDS	-	X	-	
c. REINFORCING STEEL:				
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	X	-	
2) REINFORCING STEEL, INCLUDING PRESTRESSING AND ANCHORAGE, PRIOR TO PLACEMENT OF CONCRETE, FOR SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND MASONRY CONSTRUCTION.	X	-	-	AWS D1.4 ACI 318: 3.5.2, 7.8.2
3) REINFORCING STEEL	-	X	-	
4) STUD WELDING	-	X	-	

TABLE 1705.2.3
REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

TYPE	CONTINUOUS DURING ASSEMBLY	PERIODIC DURING ASSEMBLY	REFERENCE STANDARD
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.			
a. END CONNECTIONS - WELDING OR BOLTING.	-	X	ALL SPECIFICATIONS LISTED IN SECTION 2205.1.
b. BRIDGING - HORIZONTAL OR DIAGONAL.	-	X	
c. STRUCTURAL MEMBERS.	-	X	ALL SPECIFICATIONS LISTED IN SECTION 2205.1.
d. ANCHORING JOISTS AND JOIST GIRDERS TO BEARING SUPPORTS.	-	X	

TABLE NO.4-1
INSPECTION TASKS PRIOR TO WELDING

INSPECTION TASKS PRIOR TO WELDING	IN	BY	NOT APPLICABLE
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	P	P	-
MANUFACTURER CERTIFICATION FOR WELDING CONSUMABLES AVAILABLE	P	P	-
MATERIAL IDENTIFICATION (TYPE/GRADE)	P	P	-
WELDER IDENTIFICATION SYSTEM	P	P	-
FIT UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) a) JOINT PREPARATION b) DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) c) CLEANLINESS (CONDITION OF STEEL BEFORE WELDING) d) TACK WELD (TACK WELDER QUALIFICATION AND WPS USED)	P	P	-
CONFIGURATION AND FINISH OF ACCESS HOLES	P	P	-
FIT UP OF FILLET WELDS a) DIMENSIONS (ALIGNMENT, GAP AT ROOT) b) CLEANLINESS (CONDITION OF STEEL SURFACES) c) TACKING (TACK WELD QUALITY AND LOCATION)	P	P	-
BACKING WELDING CONFORMITY	P	-	-

WELDING TASKS DURING WELDING	IN	BY	NOT APPLICABLE
USE OF QUALIFIED WELDERS	P	P	-
CONTROL AND HANDLING OF WELDING CONSUMABLES a) PACKAGING b) EXPOSURE CONTROL	P	P	-
NO WELDING OVER CRACKED TACK WELD	P	P	-
ENVIRONMENTAL CONDITIONS a) WIND SPEED WITHIN LIMITS b) PRECIPITATION AND TEMPERATURE	P	P	-
WPS FOLLOWED a) SETTINGS ON WELDING EQUIPMENT b) TRAVEL SPEED c) SELECTED WELDER MATERIALS d) SHIELDING GAS TYPE/FLOW RATE e) PREHEAT APPLIED f) INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) g) PROPER POSITION (F, V, H, OH)	P	P	-
WELDING TECHNIQUE a) INITIAL AND FINAL CLEANING b) EACH PASS WITHIN PROFILE LIMITATIONS c) EACH PASS MEETS QUALITY REQUIREMENTS	P	P	-

D - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.

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PROJECT
SAKURA NOVI
BUILDING B
Novi, MI

Date Issued

Job Number
5240

SHEET TITLE
GENERAL NOTES

Sheet Number
S3.0

SPECIAL INSPECTION (CONT.)

TABLE N5.4-3
INSPECTION TASKS AFTER WELDING

INSPECTION TASKS AFTER WELDING	QC	QA	NOT APPLICABLE
WELDS CLEANED	•	•	-
SIZE, LENGTH AND LOCATION OF WELDS	•	•	-
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	•	•	-
ARC STRIKES	•	•	-
k-AREA[1]	•	•	-
[illegible]	•	•	-
[illegible]	•	•	-
[illegible]	•	•	-
[1] WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, VISUALLY INSPECT THE WEB k-AREA FOR CRACKS WITHIN 3 IN. ([illegible]) OF THE WELD.			

TABLE N5.6-1
INSPECTION TASKS PRIOR TO BOLTING

INSPECTION TASKS PRIOR TO BOLTING	QC	QA	NOT APPLICABLE
[illegible]	•	•	-
[illegible]	•	•	-
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	•	•	-
[illegible]	•	•	-
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	•	•	-
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	•	•	-
[illegible]	•	•	-

TABLE N5.6-2
INSPECTION TASKS DURING BOLTING

INSPECTION TASKS DURING BOLTING	QC	QA	NOT APPLICABLE
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND [illegible]	•	•	-
[illegible]	•	•	-
[illegible]	•	•	-
[illegible]	•	•	-

TABLE N5.6-3
INSPECTION TASKS AFTER BOLTING

INSPECTION TASKS AFTER BOLTING	QC	QA	NOT APPLICABLE
[illegible]	•	•	-

O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.

SPECIAL INSPECTION (CONT.)

REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION (LEVEL B QUALITY ASSURANCE)

[illegible]

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

[illegible]

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	NOT APPLICABLE
1. [illegible]	-	•	
2. [illegible]	-	•	
3. [illegible]	-	•	
4. [illegible]	•	-	
5. [illegible]	-	•	

DESIGN CRITERIA

[illegible]

PROJECT
SAKURA NOVI
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SHEET TITLE
GENERAL
NOTES

Sheet Number
S3.1

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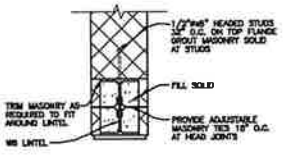
BEARING PLATE SCHEDULE		
MARK	DESCRIPTION	REMARKS
BP1	7"x3/8"x1'-0"	

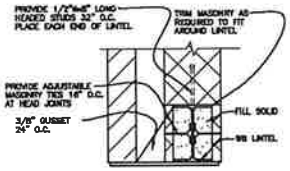
LINTEL SCHEDULE 8" BEARING EACH END--U.N.O.		
MARK	DESCRIPTION	REMARKS
L1	W8x + 3/8" PLATE	
L2	W8x + 3/8" PLATE	
L3	W16	
L4	W16	

LINTEL NOTES:

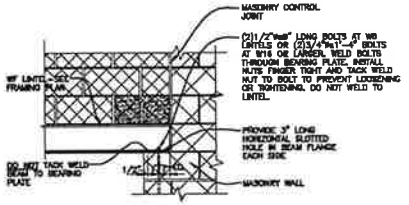
1. PLATES ON LINTELS EXTEND WIDTH OF MASONRY OPENINGS ONLY. (SEE ARCH. DRAWINGS)
2. HOLD EDGE OF PLATE ON LINTEL BACK FROM EACH FACE OF MASONRY 1/4"
3. WELD 1/2"ø@8" HEADED STUDS 32" O.C. TO TOP FLANGE OF ALL WIDE FLANGE LINTELS
4. ALL EXTERIOR LINTELS TO BE GALVANIZED G90 PER ASTM 123
5. SEE TYPICAL LINTEL DETAILS THIS SHEET



10 S3-2 TYPICAL LINTEL DETAIL AT W8 BEAM
SCALE : 1 1/2" = 1'-0"

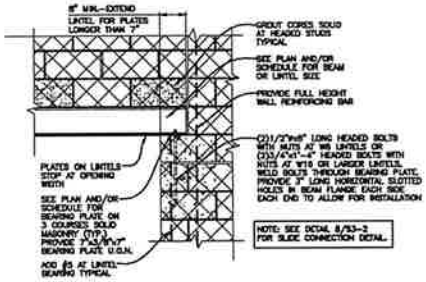


9 S3-2 TYPICAL LINTEL DETAIL AT W8 BEAM
SCALE : 1 1/2" = 1'-0" WITH BRICK VENEER



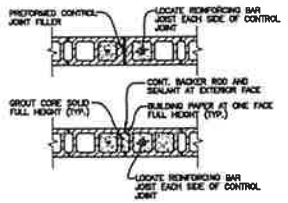
8 S3-2 TYPICAL SLIDE CONNECTION LINTEL DETAIL
SCALE : 3/4" = 1'-0"

PROVIDE ON ONE END OF LINTEL FOR LINTEL SPANS GREATER THAN 8'-0"

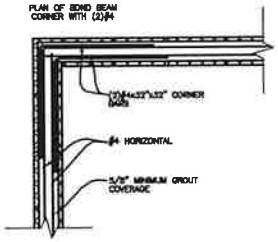


7 S3-2 TYPICAL LINTEL BEARING ON MASONRY DETAIL
SCALE : 3/4" = 1'-0" (LINTEL PARALLEL TO WALL)

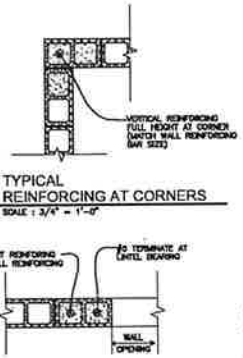
NOTE: PLACE LINTEL BEARS CENTERED IN CMU WALLS UNLESS NOTED OTHERWISE



6 S3-2 TYPICAL MASONRY WALL CONTROL JOINTS
SCALE : 3/4" = 1'-0"

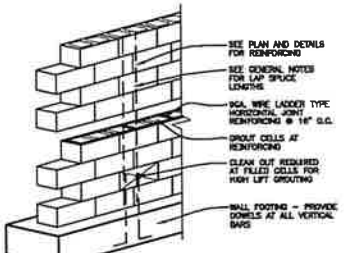


5 S3-2 TYPICAL BOND BEAM CORNER DETAIL
SCALE : 3/4" = 1'-0"



4 S3-2 TYPICAL REINFORCING AT CORNERS
SCALE : 3/4" = 1'-0"

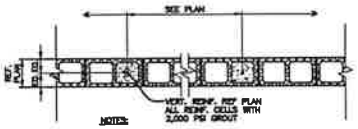
3 S3-2 TYPICAL REINFORCING ALONG SIDE OPENING
SCALE : 3/4" = 1'-0"



GROUT INSTRUCTIONS :

1. CONSTRUCT WALL TO HEIGHT OF 4'-0" - ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. INSPECT UNITS FOR ALIGNMENT, CLEAN OUT CELLS TO BE FILLED.
3. FILL CELLS TO 8" BELOW TOP COURSE WITH 2,000 PSI CONCRETE GROUT.
4. DELAY 3 - 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

2 S3-2 REINFORCED MASONRY CONSTRUCTION DETAIL
SCALE : NONE



NOTES:

1. PROVIDE CLEANOUTS AT BOTTOM OF EACH REINFORCED CELL IN ACCORDANCE WITH THE SPECIFICATIONS
2. PROVIDE HORIZONTAL JOINT REINF. PER GENERAL NOTES @ 16" O.C. MAX. U.N.O.

MASONRY REINF. LAP LENGTH		
BAR SIZE	8" WALL	12" WALL
4	24"	24"
5	30"	30"
6	36"	36"
7		42"

1 S3-2 TYPICAL WALL REINFORCING DETAIL
SCALE : 3/4" = 1'-0"

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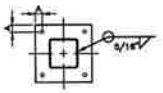
SHEET TITLE
GENERAL NOTES

Sheet Number
S3.2



A = 1 1/2" @ 3/4"ø BOLTS

8A S3.1 TYPICAL BASE PLATE DETAIL WITH OVER SIZED HOLES FOR ANCHOR BOLTS

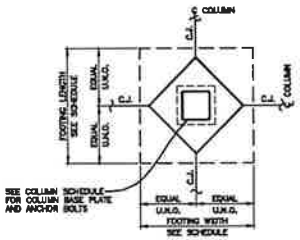
SCALE : NONE

1. PROVIDE PLATE WASHERS PER TABLE 14-2 OF THE FOURTEENTH EDITION OF STEEL CONSTRUCTION MANUAL IF USING OVER SIZED HOLES ON THE BASE PLATES FOR ANCHOR RODS.
2. IF USING OVER SIZED HOLES AT MOMENT FRAMES OR BRACED BAYS, WELD THE PLATE WASHERS TO TOP OF BASE PLATE WITH 1/4" FILLET WELD ALL AROUND.

TABLE 14-2
RECOMMENDED MAXIMUM SIZES FOR ANCHOR-ROD HOLES IN BASE PLATES

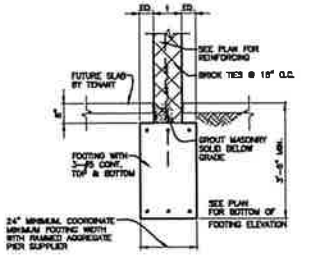
ANCHOR ROD DIAMETER, in.	NAIL HOLE DIAMETER, in.	MIN. WASHER SIZE, in.	MIN. WASHER THICKNESS
3/4	1 5/16	2	1/4
7/8	1 9/16	2 1/2	5/16
1	1 13/16	3	3/8
1 1/4	2 1/16	3	1/2

NOTES: 1. CIRCULAR OR SQUARE WASHERS MEETING THE SIZE ARE ACCEPTABLE.
2. CLEARANCE MUST BE CONSIDERED WHEN CHOOSING AN APPROPRIATE ANCHOR ROD HOLE LOCATION, NOTING EFFECTS SUCH AS THE POSITION OF THE ROD IN THE HOLE WITH RESPECT TO THE COLUMN, WELD SIZE, AND OTHER INTERFERENCES.
3. WHEN BASE PLATES ARE LESS THAN 1 1/4 in. THICK, PUNCHING OF HOLES MAY BE AN ECONOMICAL OPTION. IN THIS CASE, 3/4-in. ANCHOR RODS AND 1 1/16-in. – DIAMETER PUNCHED HOLES MAY BE USED WITH ASTM F844 (USS STANDARD) WASHERS IN PLACE OF FABRICATED PLATE WASHERS.



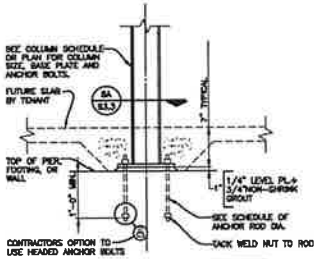
10 S3.3 SUGGESTED FUTURE ISOLATION JOINT AT COLUMN

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



9 S3.3 SECTION

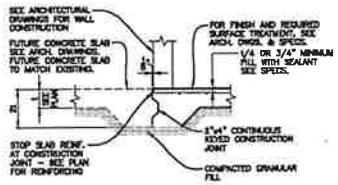
SCALE : 1/2" = 1'-0"



NOTE: ANCHOR RODS MUST BE INSTALLED WITHIN ASCI TOLERANCES BEFORE PLACEMENT OF CONCRETE

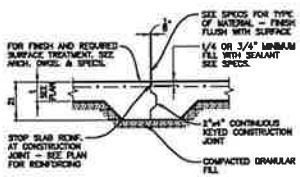
8 S3.3 TYPICAL COLUMN BASE DETAIL

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



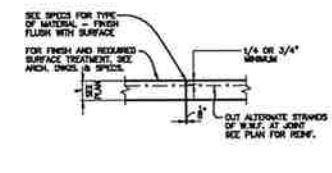
7 S3.2 TYPICAL FLOOR CONSTRUCTION JOINT

SCALE : 1" = 1'-0"



6 S3.3 SUGGESTED FUTURE FLOOR CONSTRUCTION JOINT

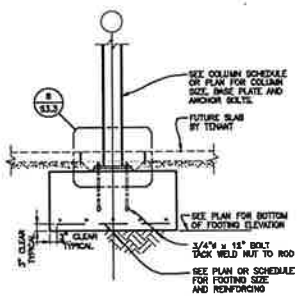
SCALE : 1" = 1'-0"



(15'-0" O.C. EACH WAY MAXIMUM)

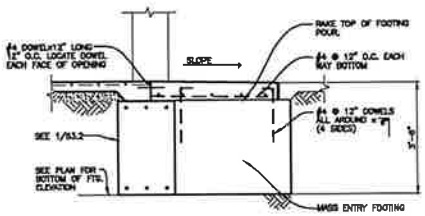
5 S3.3 SUGGESTED FUTURE FLOOR CONTROL JOINT

SCALE : 1" = 1'-0"



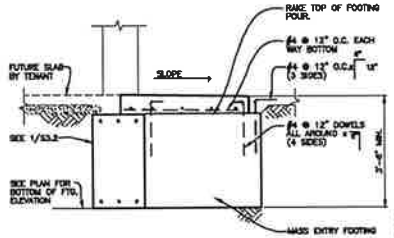
4 S3.3 TYPICAL INTERIOR COLUMN FOOTING

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



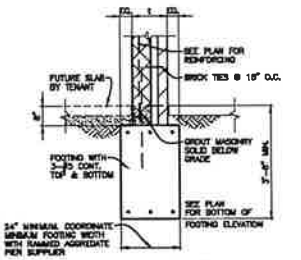
3 S3.3 TYPICAL MASS ENTRANCE SLAB

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



2 S3.3 TYPICAL MASS ENTRANCE SLAB

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



1 S3.3 TYPICAL EXTERIOR MASONRY WALL FOOTING

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

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SAKURA NOVI
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Novi, MI

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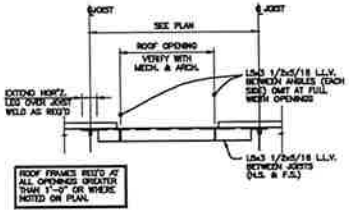
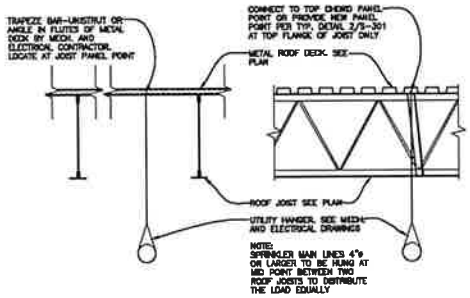
Job Number
5240

SHEET TITLE
DETAILS

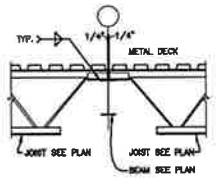
Sheet Number
S3.3



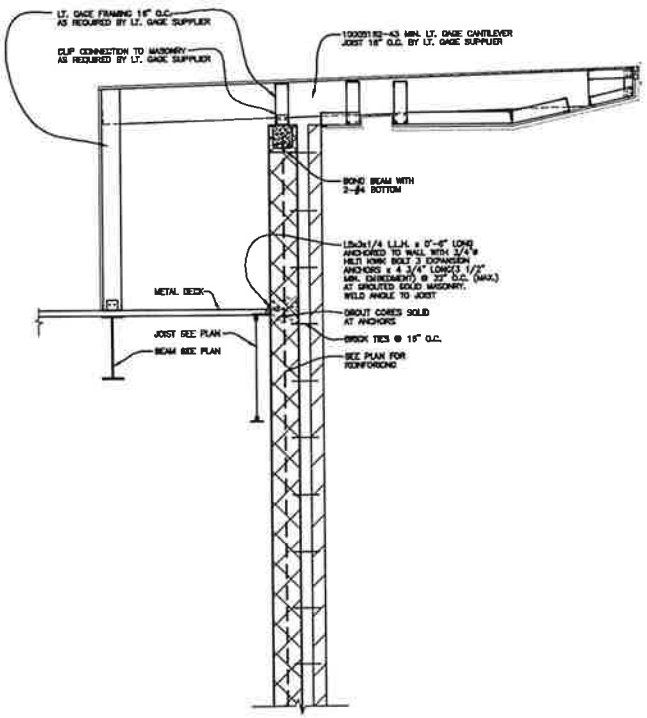
5 S4.0 TYPICAL ROOF OPENING DETAIL
SCALE : 3/4" = 1'-0"



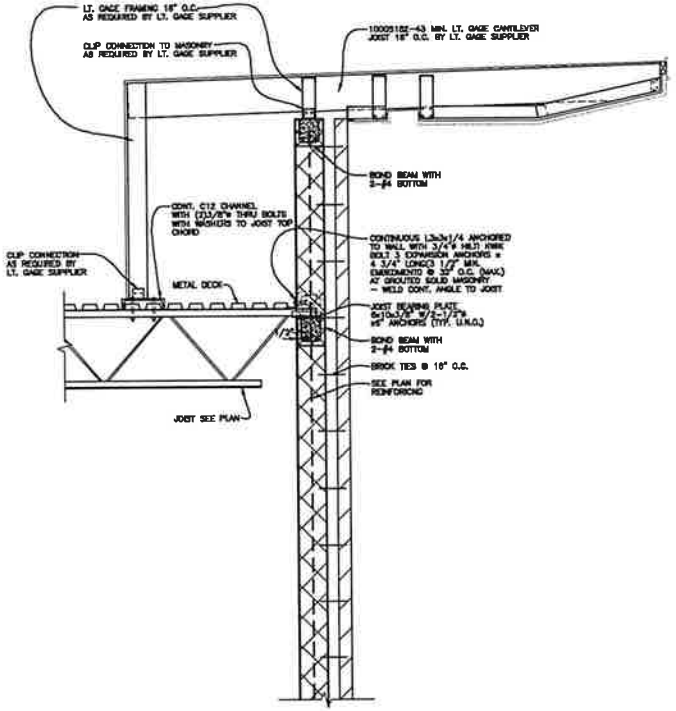
4 S4.0 MECHANICAL/ELECTRICAL PIPE HANGER SUPPORT DETAIL
SCALE : 3/4" = 1'-0"



3 S4.0 SECTION
SCALE : 3/4" = 1'-0"



2 S4.0 SECTION
SCALE : 3/4" = 1'-0"



1 S4.0 SECTION
SCALE : 3/4" = 1'-0"

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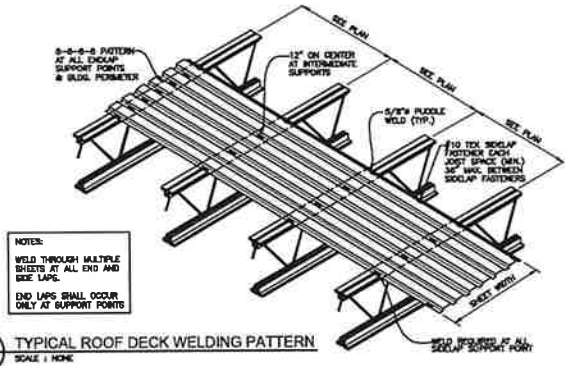
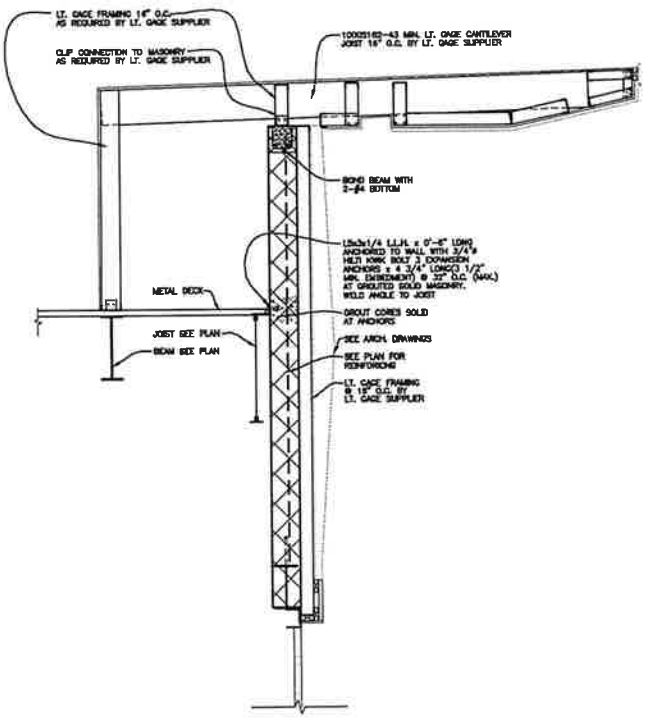
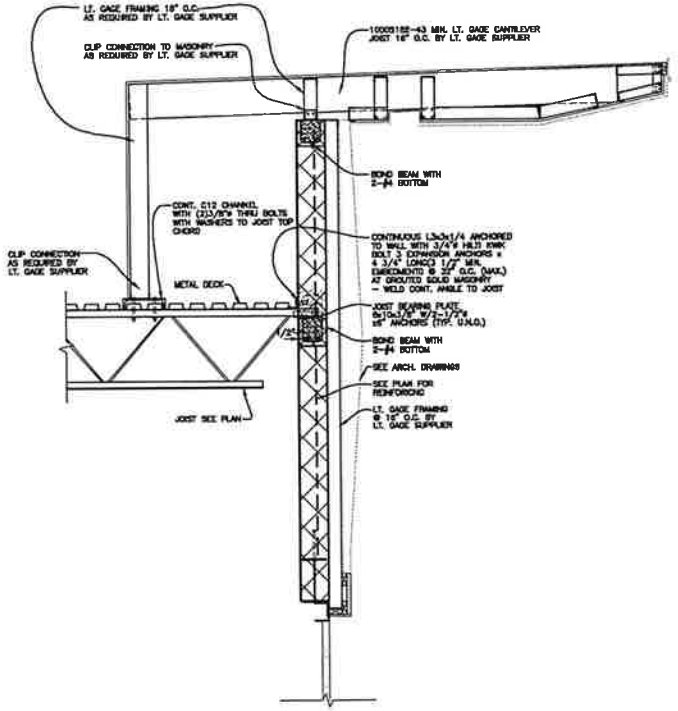


3 S4.1 TYPICAL ROOF DECK WELDING PATTERN
SCALE : NONE



2 S4.2 SECTION
SCALE : 3/4" = 1'-0"



1 S4.1 SECTION
SCALE : 3/4" = 1'-0"

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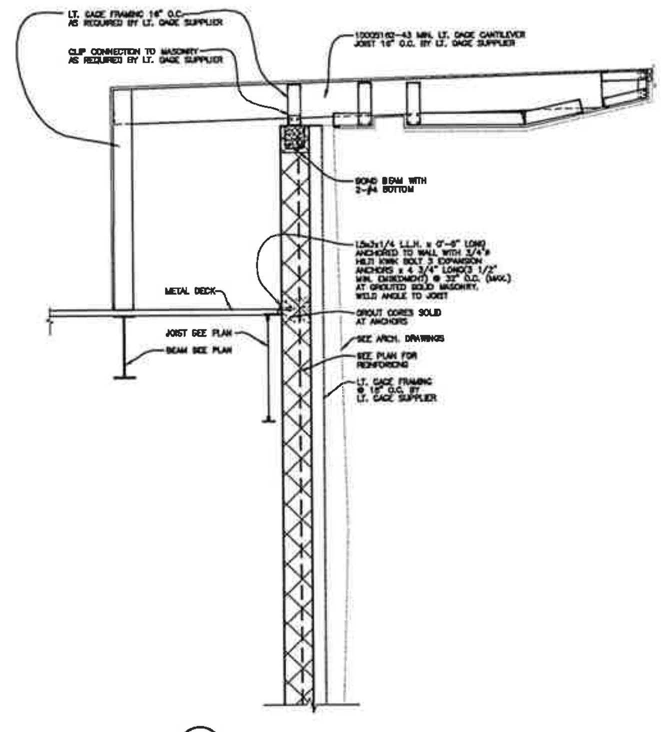

1 / S4.2 SECTION
SCALE : 3/4" = 1'-0"

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DANCING PINE

(INTERIOR RENOVATION)
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NOVI, MI 48375

ADA REQUIREMENT NOTES

TOILET PAPER DISPENSERS SHALL PERMIT CONTINOUS PAPER FLOW AND MOUNTED 4'-0" CENTER TO FINISHED FLOOR.

HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT.

THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.

IF SELF CLOSING VALVES ARE USED ON FAUCETS, FAUCETS SHALL REMAIN OPEN FOR A MINIMUM OF TEN SECONDS.

ALL STRESSES ON GRAB BARS AND COMPONENTS SHALL BE BASED 250 POUNDS.

PAPER TOWEL DISPENSER TO BE LOCATED AT A HEIGHT OF 44" ABOVE FINISHED FLOOR MAXIMUM.

PROVIDE LOOP TYPE ACCESSIBLE DOOR HARDWARE ON TOILET STALLS.

PROVIDE SIGNAGE ON RESTROOM DOORS ADJACENT TO LACH SIDE OF DOOR AT 60" ABOVE FINISHED FLOOR. USE NON-GLARE FINISH GRADE 2 BRAILLE AND RAISED LETTERS (1/32").

ALL DOOR MIN. WIDTH 2'-8" CLEAR AT 90 DEGREES OPEN.

RESTROOMS ARE EXISTING, VERIFY THE REQUIREMENT ABOVE, UPGRADE AS REQUIRED.

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	IN	INCH
ALT	ALTERNATE	INCAND	INCANDESCENT
ALUM	ALUMINUM	JAN	JANITOR
AMP	AMPERE		
&	AND	KW	KILO-WATT
@	AT		
BD	BOARD	LAV	LAVATORY
BLDG	BUILDING		
BTU	BRITISH THERMAL UNIT	MAX	MAXIMUM
		MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	MISC	MISCELLANEOUS
CO	CLEAN OUT	MTD	MOUNTED
COMB	COMBUSTION		
COMP	COMPARTMENT	NO	NUMBER
C.W.	COLD WATER	N.T.S.	NOT TO SCALE
DIA	DIAMETER	OC	ON CENTER
DIS	DISPOSAL	OPEN'G	OPENING
DISC	DISCONNECT		
DISP	DISPENSER	P	PHASE
		PH	PHASE
EF	EXHAUST FAN	PL	PLATE
ELEC	ELECTRICAL	PREP	PREPARE
EX	EXISTING		
EXSTG	EXISTING	REFR	REFRIGERATOR
		REQ'D	REQUIRED
FD	FLOOR DRAIN	RM	ROOM
FL	FLOOR	RTU	ROOF TOP UNIT
FLUOR	FLUORESCENT		
FPM	FOOT PER MINUTE	S.S.	STAINLESS STEEL
FT	FOOT, FEET	S/S	STAINLESS STEEL
		STL	STEEL
GA	GAGE		
GAL	GALVANIZED	TEMP	TEMPERATURE
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GT	GREASE TRAP		
GYP	GYPSUM	VIF	VERIFY IN FIELD
HP	HORSE POWER	W.P.	WEATHER PROTECTED
H.W.	HOT WATER	WC	WATER CLOSET

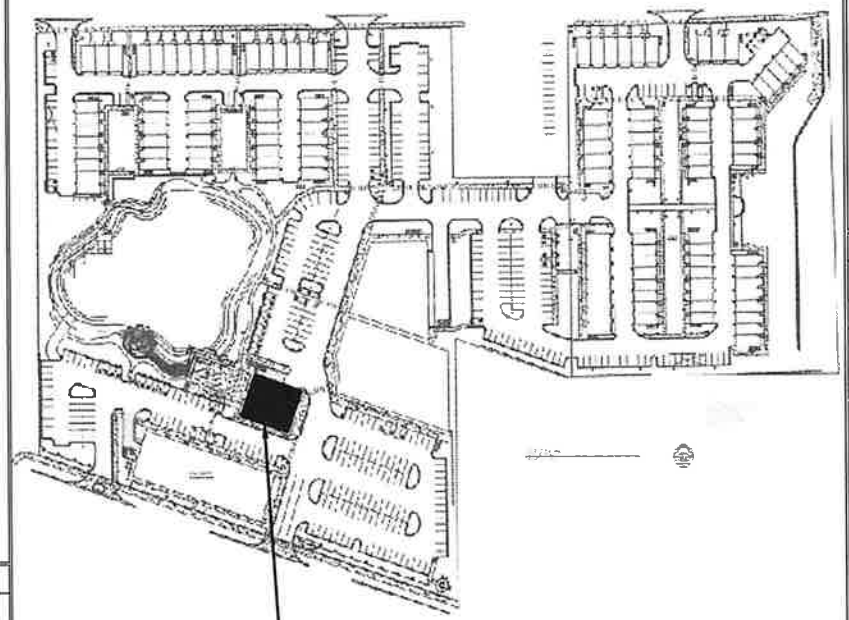
NOTES OF INTERIOR FINISH

REFER TO INTERIOR DESIGN PACKAGE FOR INTERIOR DESIGN, INCLUDING CEILING PLAN, INTERIOR ELEVATIONS, AND COLORS, ETC

SCOPE OF WORK

INTERIOR RENOVATION OF A LEASE UNIT IN AN EXISTING BUILDING TO ESTABLISH BBQ RESTAURANT

LOCATION PLAN



EXISTING LOCATION PLAN
SCALE: N.T.S.

DRAWING INDEX

EXISTING BUILDING DATA

TYPE OF CONSTRUCTION:

BUILDING: V-B, NONCOMBUSTIBLE, WITH FULLY AUTOMATIC SPRINKLER SYSTEM

USE GROUP: A-2

CODES:
MICHIGAN BUILDING CODE (MBC), 2015 EDITION
MICHIGAN MECHANICAL CODE (MMC), 2021 EDITION
MICHIGAN PLUMBING CODE (MPC), 2021 EDITION
MICHIGAN ELECTRICAL CODE BASED 2023 NEC WITH PART 8 STATE AMENDMENTS
INTERNATIONAL FUEL GAS CODE, IFGC 2015
MICHIGAN BARRIER FREE DESIGN LAW, P.A. 1966 AS AMENDED AND THE 2009 ICC/ANSI A117.1 STANDARD AS REFRENCED FROM CHAPTER 11 OF THE 2015 MICHIGAN BUILDING CODE
LOCAL ORDINANCES AS IT RELATES TO BUILDINGS
THE WORK SHALL COMPLY WITH THE CODES LISTED ABOVE

TENANT DATA

USE GROUP: A-2
GROSS AREA: 4,434 SF

SPACES	AREA (SQ FT)	OCCUPANTS	
		OCC PER TABLE 1004.1.1	ACTUAL OCC
KITCHEN	995	995/200 = 5	10
DINING ROOM (INCLUDING BAR)	2,691	2,691/15 = 180	164
VESTIBULE	80	1	1
TOTAL		186	175

FIRE SAFETY NOTES

INTERIOR FINISH MATERIAL SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF ASTM CLASS B (26-75).

SMOKE DEVELOPMENT RATINGS SHALL NOT EXCEED 450.

ALL MATERIALS UTILIZED FOR WALLS/PARTITIONS IN BUILDING SHALL BE NON-COMBUSTIBLE.

INSULATING MATERIALS SHALL HAVE A FLAME SPREAD RATING OF 75 OR LESS AND A SMOKE DEVELOPED RATING OF 450 OR LESS.

GENERAL NOTES

THE GENERAL CONTRACTOR/TENANT SHALL OBTAIN ALL PERMITS, INSPECTIONS, AND ALL FEES REQUIRED FOR THE COMPLETION OF THE PROJECT.

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENT OF APPLICABLE BUILDING CODES AND MUNICIPAL ORDINANCES.

CHECK AND VERIFY ALL DIMENSIONS ON THE JOB SITE AND REPORT ANY ERRORS, OMISSIONS, OR POSSIBLE DISCREPANCIES TO THE OWNER/TENANT PRIOR TO COMMENCING ANY WORK.

CONFIRM ALL REQUIREMENT, DIMENSIONS, MATERIAL SELECTION AND COLOR SELECTION WITH TENANT AND LANDLORD PRIOR TO COMMENCING WORK.

ONE SET OF CITY APPROVED CONSTRUCTION DOCUMENTS ARE TO BE KEPT ON SITE AT ALL TIMES THRU THE DURATION OF THE JOB.

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DANCING PINE
(INTERIOR RENOVATION)
42738 GRAND RIVER AVE
NOVI, MI 48375

10/28/2024

SHEET TITLE
TITLE SHEET

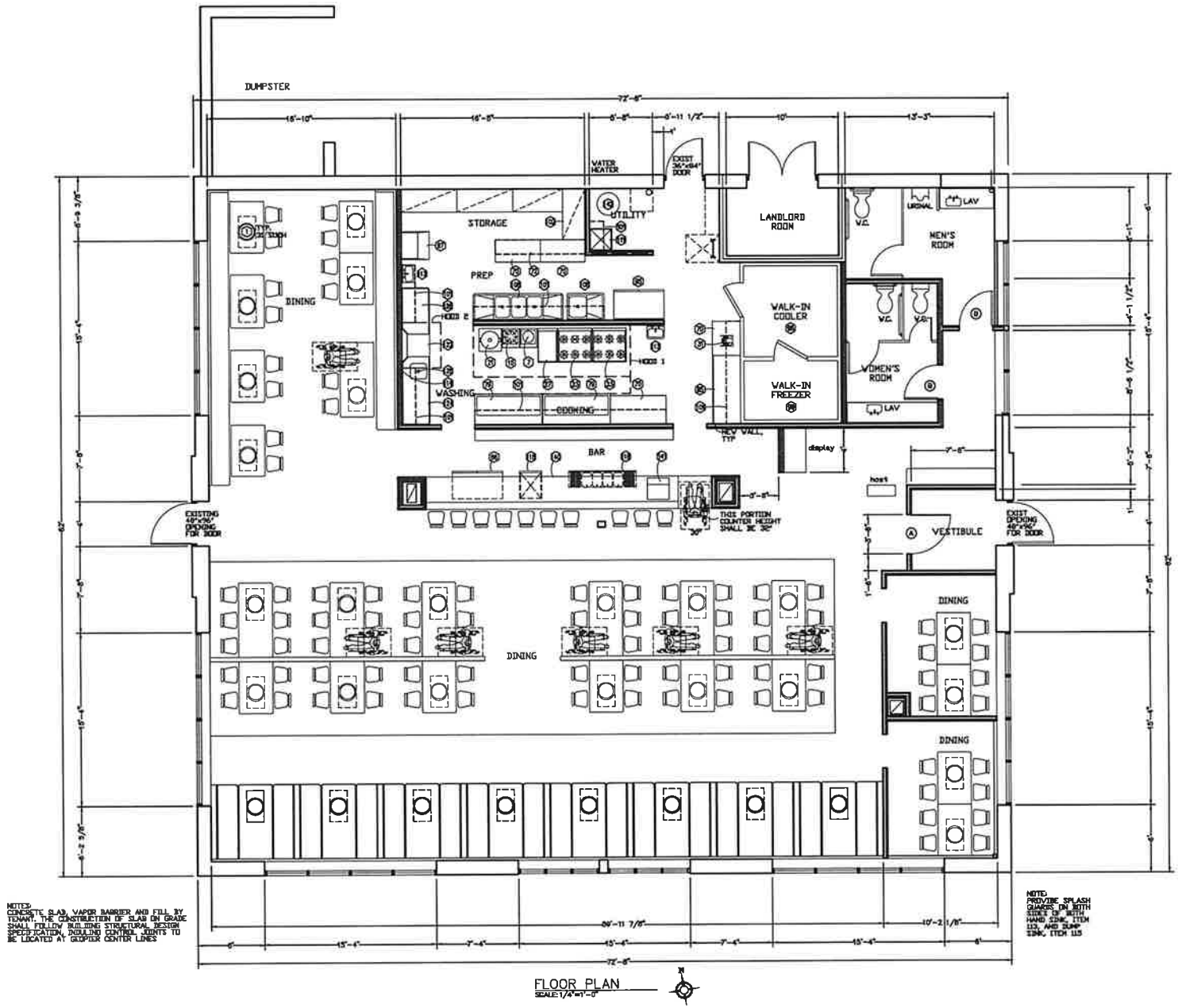
PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
APPROVED

DATE ISSUED FOR

10/28/2024 REVIEW

SHEET
T:1



NOTE:
CONCRETE SLAB, VAPOR BARRIER AND FILL BY TENANT. THE CONSTRUCTION OF SLAB ON GRADE SHALL FOLLOW BUILDING STRUCTURAL DESIGN SPECIFICATION, INCLUDING CONTROL JOINTS TO BE LOCATED AT GRIDLINE CENTER LINES

NOTE:
PROVIDE SPLASH GUARDS ON BOTH SIDES OF BOTH HAND SINK, ITEM 113, AND SLOP SINK, ITEM 115

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

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FLOOR PLAN

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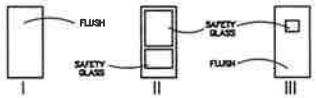
A.1a

NEW DOOR SCHEDULE

NO	OPEN'G	DOOR			FRAME		HARDWARE							
		TYPE	MATERIAL	FINISH	MATERIAL	FINISH	LOCK SET			AUTO CLOSER	KICK PLATED	PULL & PUSH PL.	THRESHOLD WEATHER STRIP	
							KEYED	PASSAGE	PRIVACY					
A	36"x80"	II	ALUM	PAINT	ALUM	PAINT		X		X		X		
B	36"x80"	I	WOOD	PAINT	WOOD	PAINT		X		X		X		
C	36"x80"	I	WOOD	PAINT	WOOD	PAINT		X		X		X		

REMARK: FRONT DOORS, AND REAR DOOR, SHALL HAVE PANIC HARDWARE. FIELD VERIFY AND UPGRADE AS REQUIRED.

DOOR TYPES



SUBMIT ENTRANCE DOORS AND FRAMES DESIGN AND DETAILS FOR APPROVAL

GENERAL NOTES

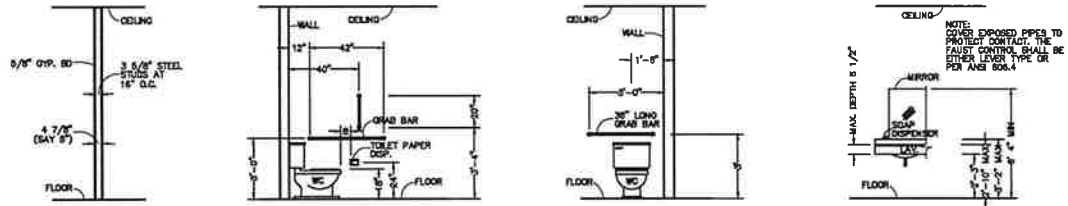
1. COMPLIANCE WITH ALL LOCAL PLUMBING, ELECTRICAL, BUILDING AND ZONING REQUIREMENT. CONSTRUCTION IS TO BE COMPLETED ACCORDING TO THE MICHIGAN BUILDING CODES. ALL PLUMBING ON FOOD SERVICE EQUIPMENT MUST BE INDIRECT AND AIR GAPPED. CONTACT THE APPROPRIATE AGENCIES FOR INSPECTION.
2. ALL RESTROOM DOORS MUST BE MADE SELF CLOSING.
3. SOAP AND TOWEL DISPENSER TO BE PROVIDED AT EMPLOYEES HANDSINKS.
4. ALL RAW WOODEN SURFACES ARE TO BE PAINTED OR FINISHED SO AS TO BE SMOOTH, EASILY CLEANABLE AND OF A LIGHT COLOR.
5. ALL MATERIALS USED SHALL BE NON-COMB. OR FIRE RETARDANT.
6. INTERIOR FINISH SHALL COMPLY TO SEC. 704-803, 804, 807.
7. FIRE OR DRAFT STOP SHALL BE IN COMPLIANCE TO SEC. 720.
8. PROVIDE PORTABLE FIRE EXTINGUISHERS FOR ALL AREA PER NFPA STANDARD #10.
9. INSTALL OF EQUIPMENT FOR THE REMOVAL OF SMOKE AND/OR GREASE LADEN VAPOR FROM COMMERCIAL COOKING EQUIPMENT TO CONFORM TO NFPA STANDARD #96 NATIONAL FIRE PREVENTION CODE, AND NATIONAL MECHANICAL CODE.
10. PROVIDE LOCK OPEN DEVICES ON ALL CIRCUIT BREAKERS PROTECTING THE EMERGENCY LIGHT CIRCUITS; ALSO IDENTIFY THESE CIRCUITS.
11. PROVIDE LOCK OPEN DEVICES ON ALL CIRCUIT BREAKERS PROTECTING ALL FIRE SUPPRESSION ALARM(S) OR POWER SUPPLIES.
12. TRADES SHALL APPLY FOR PLAN REVIEWS AND OBTAIN SEPARATE PERMITS AND FIELD INSPECTION.

ROOM FINISH SCHEDULE

ROOMS \ SURFACES	FLOOR	COVING	WALL	CEILING
PREPARATION	10	10	8	8
COOKING IN KITCHEN	10	10	8	8
DINING	10	10	12	10
DISHWASHING	10	10	8	8
FOOD STORAGE	10	10	8	8
RESTROOMS	11	11	13	10
WALK-IN COOLER & FREEZER	10	10	10	10
UTILITY	10	10	13	8
BAR	10	10	13	10
VESTIBULE	11	11	13	13
REMARK	SUBMIT CUSTOMER AREA DESIGN AND FINISHS FOR APPROVAL			

INTERIOR FINISHE MATERIALS

1	ENAMEL COATED STEEL
2	FLUID BLOCK WITH EPOXY PAINTED OR GLAZED SURFACE
3	COMMERCIAL GRADE VINYL COMPOSITION TILE
4	COMMERCIAL GRADE VINYL COMPOSITION SHEETS
5	FIBERGLASS REINFORCED POLYESTER PANEL PANEL
6	VINYL CLAD ACOUSTIC TILE
7	POURED SEAMLESS SEALED CONCRETE OR POURED SYNTHETIC
8	SEALED CONCRETE
9	STAINLESS STEEL
10	ALUMINUM
11	CERAMIC TILE
12	PAINTED DRYWALL
13	EPOXY PAINTED DRYWALL
14	PLASTIC LAMINATE
15	ACOUSTIC TILE
16	QUARRY TILE
17	CARPET
18	PAINTED HARDWOOD



1 WALL SECTION (A-1) SCALE: 3/8"=1'-0"
2 ELEVATION (A-1) SCALE: 3/8"=1'-0"
3 ELEVATION (A-1) SCALE: 3/8"=1'-0"
4 ELEVATION (A-1) SCALE: 3/8"=1'-0"

SCHEDULE OF NEW EQUIPMENT

ITEM	DESCRIPSION	MAKE	MODEL	SIZE	PLUMBING			GAS	ELECTRICAL					REMARK
					C.W.	H.W.	WASTE	BTU'S	VOLTS	PHASE	H.P.	AMPS	KW	
1	GRILLS (3')	SHINPO	SPRW-15	-				111,113		120	1		0.025	MIN AIR FLOW 250 CFM
7	WOK	IMPERIAL	ISP-J-W-18	18"x21"x30"				126,000						UNDER HOOD 1
18	STOCK POT	IMPERIAL	ISPA-18	18"x21"x25"				90,000						UNDER HOOD 1
21	RICE COOKER	TOWN	571.37	23"x18"x18"				31,900		-	-	-		UNDER HOOD 1
23	RANGES	SELECT	3360	36.5"x34"x59.5"				152,000						UNDER HOOD 1
27	FRYER	GLOBE	GFF80G	21"x34.5"x47.2"				180,000						UNDER HOOD 1
-	--	--	--	-										--
31	SLICER	VOLLRATH	SLM250/S	22"x23"x19"					120	1	1/2			
70	WORK TABLES	ADVANCE TABCO	VSS-30X	SEE PLAN										STAINLESS STEEL
72	DOUBLE OVERSHELF	ADVANCE TABCO	ES-12-84	SEE PLAN						-	-	-		STAINLESS STEEL
79	MEGA TOPS	TRUE	TSSU-72-24M	34"x72"					120	1	1/2			
85	WORKTOP REFRIGERATOR	BEVERAGE-AIR	WTR72	72"x30"					120	1	1/2			
88	BAR COOLER	TRUE	TBB-2	59"x28"					120	1	1/2			
87	ICE MAKER	MANITOWOC	SD-0322A	34"x72"			2" LW.		120	1	3/4			
-	--	--	--	-					-	-	-			
-	---	-	-	-					-	-	-			
95	REACH-IN FREEZER	BEVERAGE-AIR	ST48	52"x33.5"					120	1	3/4			
98	WALK-IN COOLER	KOLPAK'S MISSION	--	SEE PLAN					208	3	2.0			
99	WALK-IN FREEZER	KOLPAK'S MISSION	--	SEE PLAN					208	3	5.0			
101	OVERSHELF	EAGLE	14x2	SEE PLAN										OVER SINK, GAL STL
102	WIRE SHELVES	EAGLE	24x2	SEE PLAN										GAL STEEL WIRE
106	PREP SINK	EAGLE	PRO36-1-18R	39 1/2"x27"	1/2"	1/2"	2" LW.							STAINLESS STEEL
108	3-COMP. SINK	EAGLE	PRO84-3-18-14/3	95"x27"	1/2"	1/2"	2" LW.							STAINLESS STEEL
111	MOP SINK	ADVANCE TABCO	9-OP-40	24"x24"	1/2"	1/2"	2"							FLOOR CURB TYPE
-	---	--	-	-			-							---
113	HAND SINKS	EAGLE	HSA-10	14.5"x18.5"	1/2"	1/2"	2"							STAINLESS STEEL
114	SPRAY	ADVANCE TABCO	DTA-53	SEE PLAN	1/2"	1/2"	-							
115	DUMP SINK	ADVANCE TABCO	CPDW-18	18"x21"	1/2"	1/2"	2"							STAINLESS STEEL
118	BAR SINK	EAGLE	BAC-4-18	72"x18"	1/2"	1/2"	2" LW.							STAINLESS STEEL
122	DISH WASHER	JACKSON	CONSERVER XL	22"x22"		1/2"			120	1		12.0A		UNDER HOOD 2
124,125,139	DISH SINK, TABLES	EAGLE	--	SEE PLAN										STAINLESS STEEL
140	COUNTER TOP	CUSTOM BUILT	PLASTIC LAML	SEE PLAN										LAMINATED PLASTIC
141	CASH REGISTER								120	1	1/8			BY OWNER
142	WATER HEATER	A.O. SMITH	BTC-190		3/4"	3/4"		190,000	120	1				SEE DRAWING P-1

NOTES: ALL EQUIPMENT SHALL BEAR THE LABEL OF AN APPROVED AGENCY. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE INFORMATION ON THE LABEL AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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10/28/2024

SHEET TITLE
DETAILS, SCHEDULES & NOTES

PROJECT NO: 2309009

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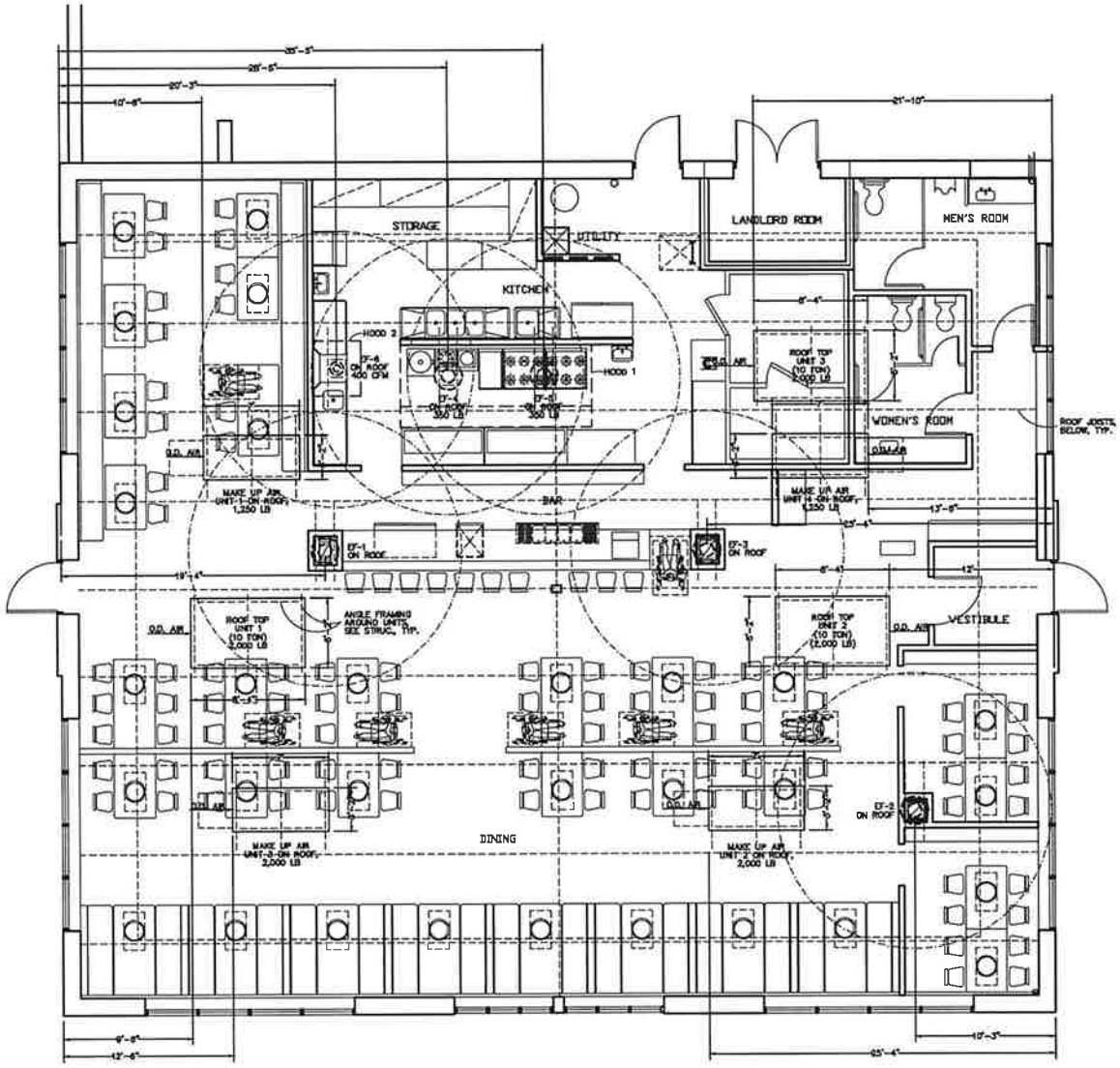
SHEET
A:2



NOTES:

1. USE DIMENSIONS SHOWN TO LOCATE FRESH AIR INTAKE SIDES OF ALL UNITS.
2. VERIFY UNIT SIZES AND WEIGHTS WITH APPROVED ROOF TOP UNIT SHOP DRAWINGS FOR FINAL SIZES AND WEIGHTS OF ALL UNITS. MAKE ANY MODIFICATION OF ANGLE FRAMING AS NEEDED.
3. ANY INTAKE SHALL BE AT LEAST 10'-0" AWAY FROM ANY EXHAUST AIR.

ROOF TOP UNIT PLAN
SCALE: 1/4"=1'-0"

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SHEET TITLE
ROOF TOP UNIT PLAN

PROJECT NO: 2309009

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SHEET
A:3

ELECTRICAL GENERAL NOTES

1. ALL WORK SHOWN ON ELECTRICAL DRAWINGS IS NEW OTHERWISE NOTED.
2. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL WIRING, CONDUIT, OUTLETS AND LIGHTING FIXTURES AS REQUIRED FOR A COMPLETE JOB AND LEAVE READY FOR OPERATION.
3. UON BUILDING WIRE TYPE SHALL BE THHN/THWN, COPPER. SIZE AS INDICATED.ALL WIRING SHALL RUN CONCEALED IN CONDUIT. UON, CONDUIT SHALL BE EMT (ELECTRICAL METTALIC TUBING) SIZE PER NEC.
4. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH LATEST NATIONAL CODE OR PREVAILING CODE. ALL ELECTRICAL EQUIPMENT SHALL BEAR "UL" LABEL.
5. ALL LIGHTING & FIXTURES AND EQUIPMENT SHALL BE GROUNDED. ALL CONVENCE RECEPTACLES SHALL BE GROUNDING TYPE.
6. PROVIDE DISCONNECTING MEANS AT ALL MOTOR LOADS. VERIFY ALL REQUIREMENTS FOR ALL KITCHEN EQUIPMENT WITH EQUIPMENT SUPPLIER.
7. CONNECT EXIT AND EMERGENCY LIGHTING FIXTURES TO SAME BRANCH CIRCUIT FOR NORMAL LIGHTING FIXTURES SERVING THAT AREA. EXIT & EMERGENCY LIGHTING FIXTURES SHALL BE WIRED AHEAD OF ANY LOCAL LIGHTING SWITCH.
8. FOR ALL METAL CONDUIT, PROVIDE A GROUNDING BUSHING AND JUMPER AT BOTH END OF CABLE.
9. ALL ELEVATIONS ARE TO THE CENTER LINE OF DEVICE AS INDICATED, UON.

EQUIPMENT OR OUTLET:	ELEVATION:
TOGGLE SWITCHES —	GENERAL 4'-0" AFF
RECEPTACLES —	GENERAL USE 1'-6" AFF
RECEPTACLES —	GFI 0'-8" ABOVE COUNTER
DISCONNECT SWITCHES —	4'-0" ABOVE GRADE
PANELS & CABINETS —	6'-0" TOP

ELECTRICAL SYMBOLS

J	JUNCTION BOX FOR CONNECTION TO EQUIPMENT FURNISHED BY OTHER TRADE.
	125V, 15A, DUPLEX RECEPTACLE, 2-POLE, 3 WIRE (NEMA 5-15R), GFI INDICTES GROUND FAULT INTERRUPTER.
	COMBINATION MANUAL STARTER.
	MANUAL MOTOR STARTER.
	ELECTRICAL MOTOR, HP SIZE AS INDICATED.
	POWER DISTRIBUTION PANELBOARD, SIZE AND RATING AS INDICATED.
S_a	125V, 15A, SINGLE POLE LIGHT SWITCH. LETTER INDICATES LUMINARS SWITCH CONTROLS.
	LED LUMAIRE, LAY-IN CEILING TYPE.
	LED DOWNLIGHT LUMINAIRE.
	BATTERY OPERATED EMERGENCY LUMINAIRE.
EXIT	EXIT SIGN WITH REMOTE OPERATED HEAD LOCATED ABOVE EXTERIOR DOOR
OS	OCUPANCY SENSOR, CEILING MOUNTED.

POWER SHEET NOTES

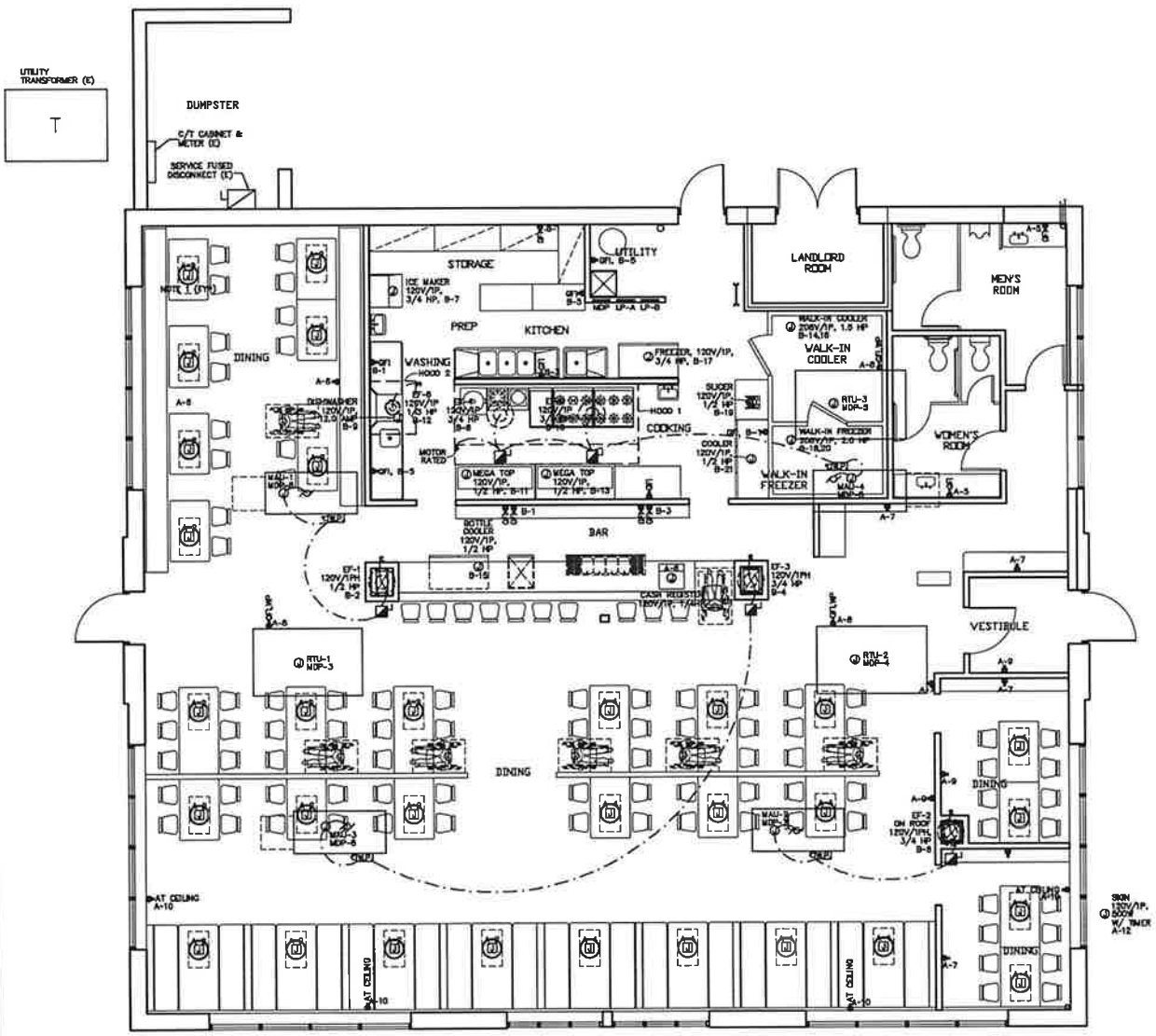
1. FLOOR MOUNTED J-BOX FOR CONNECTION TO GAS GRILL CONTROL UNIT (2.5W). COORDINATE POWER REQUIREMENT WITH THE GAS GRILL SUPPLIER.
2. EXHAUST FANS INTERLOCKING SCHEME, AS FOLLOWS:
   A. EF-1 WITH MAU-1
   B. EF-2 WITH MAU-2
   C. EF-3 WITH MAU-3
   D. EF-4, AND EF-8 WITH MAU-4

BRANCH CIRCUIT DESIGNATION KEY

NOTE: REFER TO PANEL SCHEDULES FOR BRANCH CIRCUIT REQUIREMENTS.

MDP – 2
- 2 — BRANCH CIRCUIT NUMBER
- MDP — PANELBOARD IDENTIFICATION (PNL.-"MDP")

A – 1
- 1 — BRANCH CIRCUIT NUMBER
- A — PANELBOARD IDENTIFICATION (PNL.-"LP-A")



ELECTRICAL – POWER PLAN
SCALE: 1/4"=1'-0"

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SHEET TITLE
ELECTRICAL POWER PLAN

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
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DATE	ISSUED FOR
10/28/2024	REVIEW

SHEET
E:1

PANELBOARD: MDP
VOLTAGE: 208Y/120V, 3 PHASE, 4 WIRE
MAINS 800 AMP M.L.O.
NEUTRAL BUS: 100%
LOCATION: UTILITY ROOM/WALL

BREAKER No	Pole	TRIP	Load Description	kW Conn	kW Dem	Amps Conn	Amps Dem	WIRE SIZE
1	3	175	LP-A	63	47	180	135	1/0
2				28.8	16.8	144	84	1/0
3	3	100	RTU-1, 10 TON	23.6	21.2	98.4	88.4	3
4				23.0	23.8	95.4	99.0	3
5	3	100	RTU-2, 10 TON	21.9	21.1	91.1	88.1	3
6				23.9	21.9	99.4	91.3	3
7	3	60	MUA-1, 3 TON + 2HP	13.0	12.8	41.9	41.4	6
8				13.0	12.8	38.2	40.5	4
9	3	60	MUA-2, 3 TON + 2HP	13.0	12.8	38.2	40.5	4
10				13.6	12.8	40.0	40.5	4
11	3	20	MUA-3, 2HP	5.0	3.6	14.1	11.1	12
12	3		SPARE					
13			SPARE					
14	3		SPACE					
TOTALS				171	139	475	382	

PANELBOARD: PANEL LP-A
VOLTAGE: 208Y/120V, 3 PHASE, 4 WIRE
MAIN: 125A M.L.O.
LOCATION: UTILITY ROOM/WALL

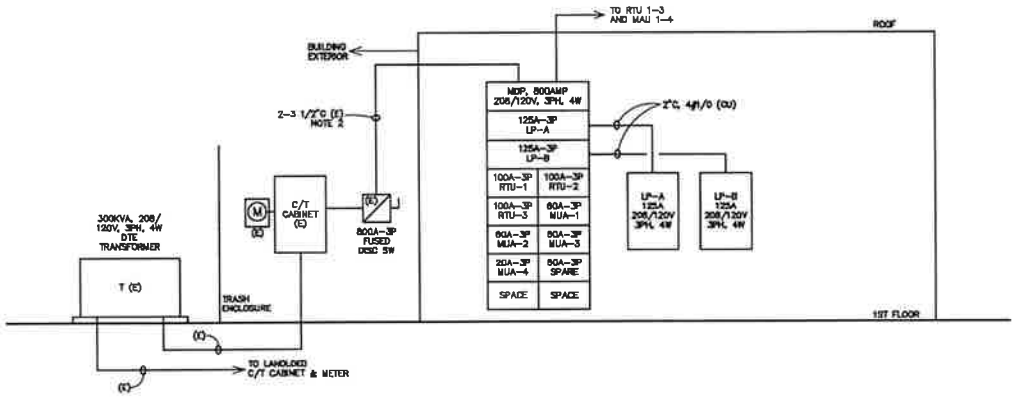
Ckt No	Breaker Pole	Breaker Trip	Load Description	Connected Watts Phase A	Phase B	Phase C	WIRE SIZE
1	1	20	LIGHTING-KITCHEN, RESTAURANT AND TV'S	1,500			12
2	1	20	LIGHTING-WASHING, BR, 2F, 2G & 4F		1,500		12
3	1	20	RECEPTACLES-RESTROOMS			1,080	12
4	1	20	RECEPTACLES	360			12
5	1	20	RECEPTACLES		900		12
6	1	20	SPARE				
7	1	20	SPARE				
8	1	20	SPARE				
9	1	20	SPARE				
10	1		SPACE				
11	1		SPACE				
12	1		SPACE				
13	1		SPACE				
14	1		SPACE				
15	1	20	FAN COIL CONTROL UNIT (1F,2F,3F)	420			12
16	1	20	FAN COIL CONTROL UNIT (4,2,5,6)		336		12
17	1	20	CASH REGISTER			900	12
18	1	20	REFRIGERATOR	1,440			12
19	1	20	RECEPTACLES-MENU		1,200		12
20	1	20	VOID			360	12
21	1		SPACE				
22	1		SPACE				
23	1		SPACE				
24	1		SPACE				
25	1		SPACE				
26	1		SPACE				
27	1		SPACE				
28	1		SPACE				
CONNECTED KW: 4 DEMAND KW: 3 Phase Watts				3,720	3,036	2,700	1/0
CONNECTED AMPS: 24 DEMAND AMPS: 13							

MAIN: 125A M.L.O.
LOCATION: UTILITY ROOM/WALL

Ckt No	Breaker Pole	Breaker Trip	Load Description	Connected Watts Phase A	Phase B	Phase C	WIRE SIZE
1	1	20	RECEPTACLES-KITCHEN	900			12
2	1	20	RECEPTACLES-KITCHEN		900		12
3	1	20	RECEPTACLES-KITCHEN			720	12
4	1	20	VOID				
5	1	20	VOID				
6	2	20	CONDENSING UNIT	1,500			12
7	1	20	EVAPORATOR-1/2 AMP		1,500		12
8	1	20	MEDIA FOR 1/2 HP			1,500	12
9	1	20	MEDIA FOR 1/2 HP	1,500			12
10	1	20	BOTTLE COOLER-1/2 HP		1,200		12
11	1	20	FREEZER 3/4 HP			1,500	12
12	1	20	WATER 1/2 HP	1,200			12
13	1	20	COOLER 1/2 HP		1,200		12
14	1	20	SPARE				
15	1	20	SPARE				
16	1	20	SPARE				
17	1	20	SPARE				
18	1	20	SPARE	1,200			12
19	1	20	RTU-1 1/2 HP		1,500		12
20	1	20	RTU-2 3/4 HP			1,500	12
21	1	20	RTU-3 3/4 HP	2,500			12
22	1	20	RTU-4 3/4 HP		1,500		12
23	1	20	EF-A 1/2 HP			600	12
24	1	20	WALK IN COOLER 1/2 HP	1,200			12
25	1	20	WALK IN COOLER 2 HP		1,800		12
26	1	20	WALK IN COOLER 2 HP			1,800	12
27	1	20	SPARE	1,500			12
28	1	20	SPARE				
29	1	20	SPARE				
30	1	20	SPARE				
31	1	20	SPARE				
32	1	20	SPARE				
CONNECTED KW: 27 DEMAND KW: 19 Phase Watts				10,200	7,500	5,700	1/0
CONNECTED AMPS: 74 DEMAND AMPS: 53							

ELECTRICAL SERVICE CALCULATIONS PER NEC ART. 220 & TABLE 220-20		
LOAD	CONNECTED	DEMAND
LIGHTING (KW)	3.5	3.5
RECEPTACLES (KW)	7.5	7.5
HVAC (KW)	142.0	120.7
EQUIPMENT (KITCHEN)	12.7	8.0
TOTAL PROPOSED LOAD	165.7	139.7
TOTAL (KW)	165.7	139.7
TOTAL (AMP)	459.0	387.0

ELECTRICAL RISER DIAGRAM



ELECTRICAL RISER NOTES:
1. UON, ALL ELECTRICAL EQUIPMENT AND MATERIALS SHOWN ARE NEW, EXISTING IS INDICATED WITH SUFFIX (E).
2. RUN 2 SETS OF 4#600 KCMIL (CU) IN EXISTING 2-3 1/2"C TO MAIN DISTRIBUTION PANEL "MDP". EXTEND EXISTING CONDUIT RUNS WITH NEW CONDUIT IF REQUIRED.
2. REFER TO PANEL SCHEDULES FOR ALL BRANCH CIRCUITING INFORMATION.
3. REFER TO PLAN FOR LOCATION OF ALL EXISTING AND NEW PANELS.

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10/28/2024

SHEET TITLE
ELECTRICAL PANEL SCHEDULES & RISER

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
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DATE ISSUED FOR

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LUMINAIRES SCHEDULE (COORDINATE SELECTION WITH THE OWNER)

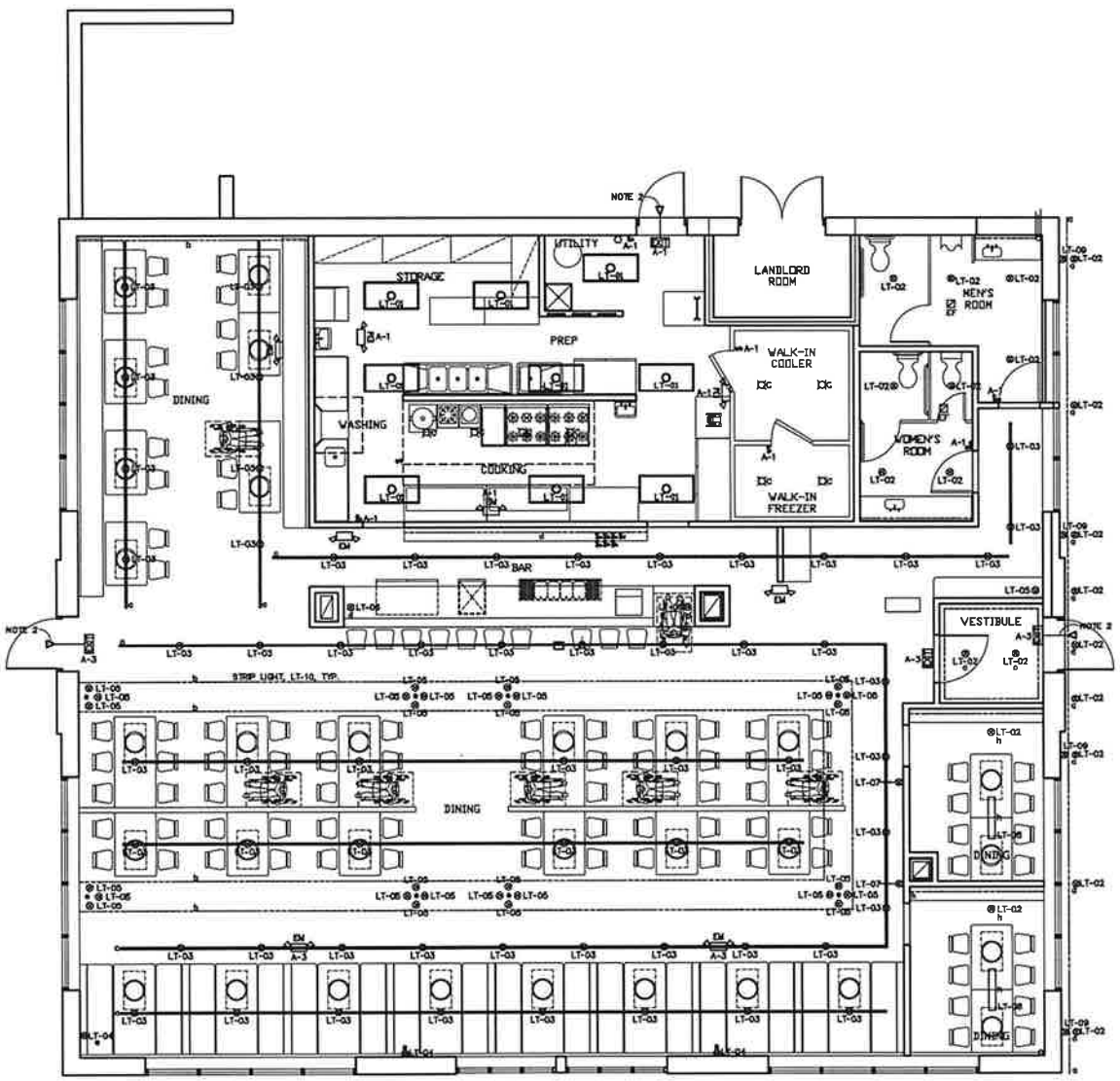
LT-01	2x4 LENSED TROFFER, 36W, 4500 LUMEN, 4000K, CEILING MOUNTED WITH PLASTIC PRISMATIC LENSES.
LT-02	6 INCH, 9W RECESSED, 900, 3000K, LUMEN LED DOWNLIGHT.
LT-03	DECORATIVE CEILING LED, 800 LUMEN PAR 20 TRACK HEAD AND TRACK, 3000K, 7W DAIMMABLE DRIVE DISTRIBUTION, BRUSHED ALUMINUM FINISH. TRACK HEADS AS SHOWN, OR AS REQUIRED BY THE OWNER.
LT-04	WALL MOUNTED LED SCONCE, 8W, 3000K, ADJUSTABLE DIMMING DRIVER WITH SETTINGS AT 130/180/380 LUMENS.
LT-05	6" LED RECESSED DOWNLIGHT, 900 LUMENS, 9W, 3000K WITH BLACK TRIM.
LT-06	DECORATIVE LED LIGHT, TABLE MOUNTED, DIMMABLE DRIVER 218-230 LUMENS, 8W, 3000K.
LT-07	WALL MOUNTED LED SCONCE, BLACK FINISH, DIMMABLE DRIVER 70-120 LUMENS, 30W, 3000K
LT-08	PENDUNT LED LINEAR LIGHT, BLACK FINISH, DIMMABLE DRIVER 170-1100 LUMENS, 5W, 3000K
LT-09	WALL MOUNTED LED UPLIGHT, BLACK FINISH, DIMMABLE DRIVER 80-200 LUMENS, 8W, 3000K
LT-10	LED CONTINUOUS LINEAR LIGHT, 3W/FOOT, 3000K.
C	6 INCH, LED, 1000 LUMENS, 15W VAPOR-PROOF SHIELDED, SHATTERPROOF.
EM	EMERGENCY LIGHTS WITH CHARGER & BATTERY PACK.
EXIT	EXIT LIGHT & SIGN WITH CHARGER & BATTERY PACK & REMOTE HEAD.
SIGN	30,000 LUMEN LED, 5000K, 500W MAX SIGNAGE ASSEMBLY.

EMERGENCY LIGHTING NOTES

1. EMERGENCY AND EXIT LIGHT FIXTURES SHALL BE WIRED TO THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES.
2. COMBINATION EXIT/EMERGENCY LIGHTING FIXTURE AND REMOTE HEAD TO BE MOUNTED OUTSIDE ABOVE DOOR AS SHOWN. UNIT SHALL BE CAPABLE OF PROVIDING CONTINUOUS ILLUMINATION FOR 90 MINUTES. TYP. SUBMIT FIXTURE FOR LANDLORDS APPROVAL.
3. EMERGENCY LIGHTING SYSTEM LISTED PER UL924, MAY NOT PROVIDE REQUIRED LEVELS OF ILLUMINATION WHEN ALL POWER IS OUTAGE. ALL EMERGENCY LIGHTING ALONG THE PRESCRIBED PATH OF EGRESS SHALL PROVIDE A MINIMUM AVERAGE OF ONE FOOT-CANDLE AT THE WALKING SURFACE.
4. EMERGENCY LIGHTING TEST SHALL BE PERFORMED PRIOR TO FINAL INSPECTION APPROVAL AND ANY DEFICIENCIES IN LISTED SYSTEM SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO PROVIDE THE REQUIRED AVERAGE OF ONE FOOT-CANDLE THROUGHOUT THE PATH OF EGRESS.

LIGHTING SHEET NOTES

1. COORDINATE LIGHTING CONTROL AND ZONING WITH THE OWNER.



ELECTRICAL – LIGHTING PLAN
SCALE: 1/4"=1'-0"

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10/28/2024

SHEET TITLE
ELECTRICAL LIGHTING PLAN

PROJECT NO: 2308009

DRAWN J.S.
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SHEET
E:3

GAS REQUIREMENT CALCULATION

EQUIPMENT	BTU REQ'D
ROOF TOP UNIT 1	200,000 (V.I.F.)
ROOF TOP UNIT 2	200,000
ROOF TOP UNIT 3	200,000
MAKE UP AIR UNIT 1	110,000
MAKE UP AIR UNIT 2	180,000
MAKE UP AIR UNIT 3	180,000
MAKE UP AIR UNIT 4	270,000
WATER HEATER	199,000
KITCHEN COOKING EQUIPMENT	700,900
GRILLS	344,565
TOTAL	2,804,465
USE	2,780,000 BTU/H

HOT WATER REQUIREMENT (100 D.F. RISE)

EQUIPMENT	NUMBER OF FIXTURES	GPH PER FIXTURE	TOTAL GPH NEEDED	WATER TEMP. REQ'D(F)	GPH CONVERSION FROM 140 PRIMARY WITH MIXING VALVE	GPH TOTAL
HANDSINKS	2	5.0	10.0	110	10.0 x 0.70	= 7.0
RESTROOM SINKS	2	5.0	10.0	110	10.0 x 0.70	= 7.0
PREP SINK	1	15.0	15.0	110	15.0 x 0.70	= 10.5
3-COMP SINK	1	46.0	46.0	140	46.0 x 1.00	= 46.0
MOP SINK	1	15.0	15.0	140	15.0 x 1.00	= 15.0
DUMP SINK	1	5.0	5.0	110	5.0 x 0.70	= 3.5
BAR SINK	1	25.0	25.0	110	25.0 x 0.70	= 17.5
SPRAY	1	46.0	46.0	110	46.0 x 0.70	= 31.5
DISH WASHER	1	50.0	50.0	140	50.0 x 1.00	= 50.0
				TOTAL		= 187.0

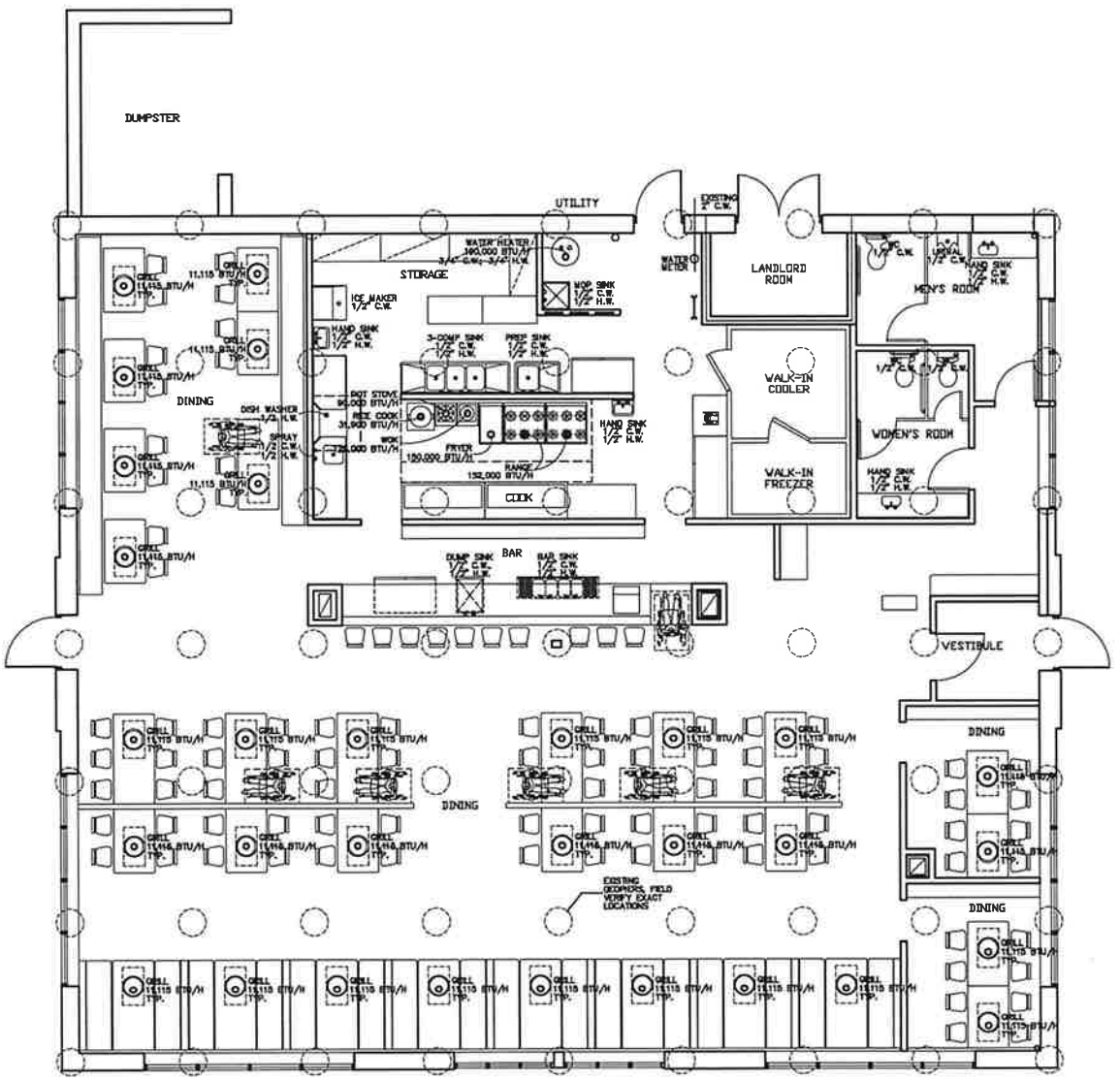
BTU REQ'D = $\frac{187.0 \text{ GPH} \times (140-40) \times 8.33 \text{ LB/GAL}}{60\text{M}}$ = 184,713 BTU/H

USE (1) WATER HEATER BY LOCHINVAR, MODEL CHN199-100

STORAGE: (1) x 100 GAL = 100 GAL
RECOVERY: (1) x 184 = 184 GAL/HR @ 100 DEGREE RISE > 187.0 G/HR
GAS INPUT: (1) X 199,000 = 199,000 BTU/H > 184,713 BTU/H

PLUMBING GENERAL NOTES

1. ALL PLUMBING SHALL COMPLY WITH THE STATE OF MICHIGAN PLUMBING CODES, AND LOCAL PLUMBING & HEALTH DEPARTMENT REQUIREMENT.
2. INSULATE ALL HOT & COLD WATER LINES ABOVE GRADE WITH 3/4" GLASS FIBER PIPE INSULATION, WITH VAPOR BARRIER.
3. VERIFY ALL FINAL CONNECTIONS TO KITCHEN EQUIPMENT WITH EQUIPMENT SUPPLIERS. VERIFY ROUTH-IN REQUIREMENT WITH SAME.
4. MATERIAL SHALL BE AS FOLLOWS:
   A. WATER PIPING TO BE TYPE 'K' COPPER BELOW GRADE AND TYPE 'L' COPPER ABOVE GRADE. WASTE PIPING TO BE CAST IRON, GALVANIZED STEEL OR PVC PLASTIC PIPE.
   B. VENTS TO BE CAST IRON, GALVANIZED STEEL OR PVC PLASTIC PIPE. GAS PIPING TO BE SCHEDULE 40, BLACK STEEL PIPE. PROVIDE
   C. AUTOMATIC GAS SHUT-OFF VALVE IN COOKING EQUIPMENT SUPPLY MAIN
   D. AS REQUIRED FOR COOKING EQUIPMENT FIRE PROTECTION SYSTEM. VERIFY & CO-ORDINATE WITH KITCHEN EQUIPMENT SUPPLIERS. INDIRECT WASTES FROM WALK-IN BLOWER COILS MAY BE PVC PLASTIC PIPE.
   E. ALL INDIRECT WASTES EXCEEDING 24" IN LENGTH SHALL BE TRAPPED.
5. PROVIDE CLEANOUTS AS REQUIRED, AND AT THE BASE OF ALL STACKS.
6. ALL MATERIAL USED WITHIN RETURN AIR PLENUMS SHALL BE APPROVED FOR SUCH USE.
7. PROVIDE FIXTURE STOPS AT ALL PLUMBING FIXTURES.
8. PROVIDE ALL FITTINGS AND ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
9. HOT WATER SUPPLIED TO LAVATORY FIXTURE SHALL NOT EXCEED 120 DEGREE F. USE MIXING VALVES AS REQUIRED.
10. HANDICAP PLUMBING FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE STATE OF MICHIGAN BARRIER FREE REQUIREMENTS AND 'ADA' REQUIREMENTS.
11. CO-ORDINATE ALL WORK IN FIELD WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL TRADES.
12. VERIFY ALL EXISTING JOB CONDITIONS AND ACCOMMODATE AS REQUIRED FOR A COMPLETE INSTALLATION.
13. CONFIRM ALL UTILITY REQUIREMENTS AND LOCATIONS WITH TENANT AND EQUIPMENT CONTRACTOR PRIOR TO START OF WORK.
14. CONFIRM ALL EXISTING UTILITIES AND BUILDING ELEMENTS LOCATED BELOW CONCRETE FLOOR SLAB PRIOR TO BREAKING-SAW CUTTING FLOOR SLAB. REPLACE CONCRETE FLOOR SLAB AS REQUIRED AND EQUAL TO OR BETTER THAN EXISTING CONSTRUCTION.
15. COMPLY WITH ALL CODE REQUIREMENTS.



NOTE:
DO NOT RUN THE UNDERFLOOR GAS PIPING THROUGH THE GREASE TRAPS.

PLUMBING - SUPPLY PLAN
SCALE: 1/4"=1'-0"

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10/28/2024

SHEET TITLE
PLUMBING SUPPLY PLAN

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
APPROVED

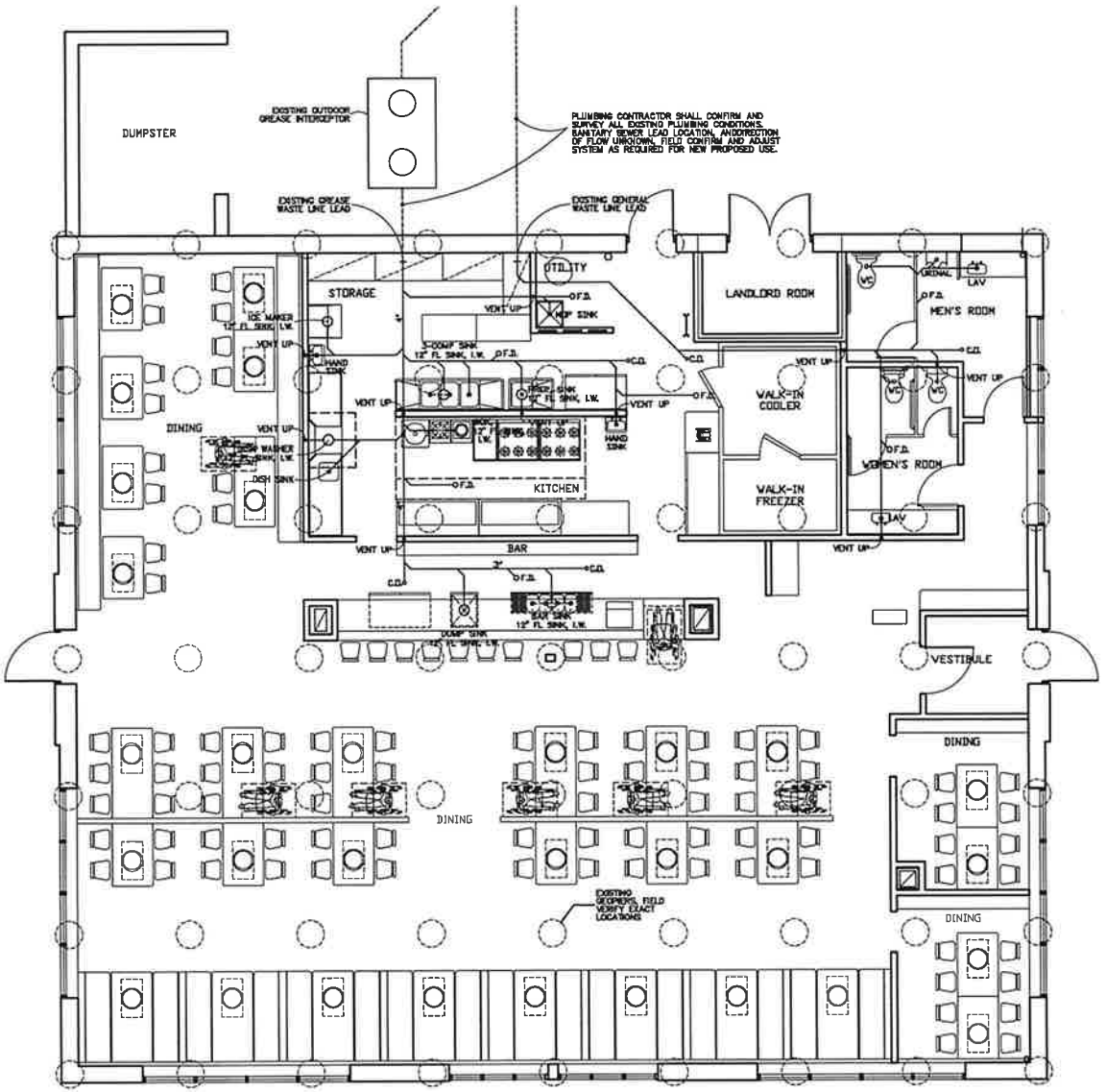
DATE	ISSUED FOR
10/28/2024	REVIEW

SHEET
P.1

PLUMBING CROSS-CONNECTION TABLE

FIXTURE	SEWAGE DISPOSAL			WATER SUPPLY							REMARK
	AIR GAP	AIR BREAK	DIRCET CONN.	AVB	PVB	PRZ	ASSCA	HOSE BIBB	AIR GAP	ASSE1022	
DISHWASHER	X			X						X	
ICE MACHINE	X								X		
MOP SINK FAUCET									X		
3 COMP SINK	X								X		
PREP SINK	X								X		
—	-			-							
BEVERAGE DISPENSER	X									X	
WALK-IN FLOOR DRAIN	X										
WOK RANGE	X					X					
WATER CLOSETS			X				X				
URINAL			X	X							
—	-										
OVERHEAD SPRAY RINSE			X						X		
—	-			-					—		
BAR SINK	X	-		-					X		

AVB = ATMOSPHERIC VACUUM BREAKER
PVB = PRESSURE VACUUM BREAKER
RPZ = REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
DC w/ AV = DOUBLE CHECK VALVE WITH AN ATMOSPHERIC VENT
ASSCA = APPROVED ANTI-SIPHON BALLCOCK ASSEMBLIES



NOTE:
DO NOT RUN THE UNDERFLOOR WASTE PIPING THROUGH THE GEOPIERS.

PLUMBING – WASTE PLAN
SCALE: 1/4"-1'-0"

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10/28/2024

SHEET TITLE
PLUMBING WASTE PLAN

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
APPROVED

DATE ISSUED FOR

10/28/2024 REVIEW

SHEET
P:2

GENERAL MECHANICAL NOTES

ALL DUCTWORK TO COMPLY WITH A.S.H.R.A.E. CONSTRUCTION STANDARDS, NFPA-96 AND STATE OF MICHIGAN VENTILATION STANDARDS FOR FOOD SERVICE ESTABLISHMENTS, WHERE APPLICABLE.

DIFFUSERS TO BE ALUMINUM CONSTRUCTION, 4 WAYTHROW, ADJUSTABLE PATTERN AND VOLUMN. PRUEDIER OR APPROVED, (FLUSH TYPE).

ROUND FLEXIBLE DUCT MAY BE USED FOR DIFFUSER BRANCH CONNECTION PROVIDED FLEXIBLE CONNECTION DOES NOT EXCEED (7) SEVEN FEET IN LENGTH.

CONTROLS, FURNISHED COMPLETE WITH EQUIPMENT, TO BE INSTALLED AND WIRED BY THIS CONTRACTOR. EXHAUST HOOD FANS SHALL BE INTERLOCKED WITH ANY EXISTING RTU FAN AND NEW AMU, TO OPERATE SIMULTANEOUSLY. EXISTING RTU SHALL PROVIDE 400CFM DURING "OCCUPIED" MODE.

INSULATION TO BE 1.5" FOIL FACED ON ALL DUCT WORK OUTSIDE THE CONDITIONED SPACE.

PROVIDE A CERTIFICATED AIR BALANCE FOR THE ENTIRE AIR HANDING SYSTEM.

CLASS 'B' FLUE TO HAVE BREIDERT CAP, EXTENDING (2) TWO FEET ABOVE ROOF EXIT POINT.

PROVIDE CURBS, SLEEVES, PITCH BOXES FOR ALL MECHANICAL ROOF PENETRATIONS.

BY OTHER: ROOF SUPPORTS, ELECTRICAL POWER WIRING, GAS PIPING, COOKING HOOD, FIRE PROTECTION SYSTEM.

LOCATE THERMOSTAT AT LEAST 48" ABOVE FINISHED FLOOR TO CENTER OF THERMOSTAT.

PROVIDE NIGHT SET-BACK THERMOSTAT AS REQUIRED.

VERIFY ALL EXISTING JOB CONDITIONS AND ACCOMMODATE AS REQUIRED FOR A COMPLETE INSTALLATION.

KITCHEN EQUIPMENT CONTRACTORS SHALL DESIGN COOKING HOODS VENTILATION SYSTEM AND PREPARE SHOP DRAWINGS FOR APPROVAL BY THE TENTANT AND/OR BUILDING OWNER AND BUILDING DEPARTMENT. ALL SYSTEM SHALL COMPLY WITH HEALTH DEPARTMENT AND ENGINEERING DEPARTMENT OF THE CITY.

EXHAUST DUCTS UP TO EXHAUST FAN TO BE 16 GAUGE METAL MINIMUM, WELD LIQUID TIGHT. DUCT SIZE TO BE DETERMINED BY VENTILATION CONTRACTOR.

FIRE EXTINGUISHING NOTES

FIRE EXTINGUISHING SYSTEM IS TO BE PROVIDED FOR COOKING EQUIPMENT HOOD.

FIRE EXTINGUISHING SYSTEM SHALL CONFORM IN ALL RESPECTS TO NFPA #17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEM. NUMBER OF NOZZLES, LOCATION OF NOZZLES, METHOD OF ACTUATION AND ALL DETAILS OF THE SYSTEM SHALL CONFORM TO NFPA #17A & UL 300 REQUIREMENTS.

INSTALL FAN FROM HOOD TO BE INTERCONNECTED WITH FIRE DETECTION DEVICE TO AUTOMATICALLY SHUT DOWN IN CASE OF FIRE IN HOOD, AS REQUIRED BY FIRE DEPARTMENT.

COOKING EQUIPMENT, HOOD, EXHAUST DUCT, FAN AND CHEMICAL EXTINGUISHING SYSTEM SHALL FORM AN INTEGRATED SYSTEM CONFORMING TO NFAP STANDARDS. SUPPLIER, FABRICATOR, AND INSTALLER OF EQUIPMENT SHALL BE THOROUGHLY FAMILIAR WITH NFPA STANDARDS AND CONTRACTOR SHALL FURNISH SUBSTANTIATION NFPA, AND/OR UL CERTIFICATION OF SYSTEM COMPONENTS AND IF REQUIRED SHALL CONDUCT A TEST OF SYSTEM IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.

PROVIDE AUTO-SHUT OFF GAS PIPING VALVE AS REQUIRED.

INSTALL CONTRACTOR FOR THE SYSTEM SHALL BE LICENSED BY THE WET CHEMICAL EQUIPMENT MANUFACTURER, SUBMIT SHOP DRAWING AND SECURE A PERMIT AS REQUIRED, FROM BUILDING FIRE DEPARTMENT.

NOTES

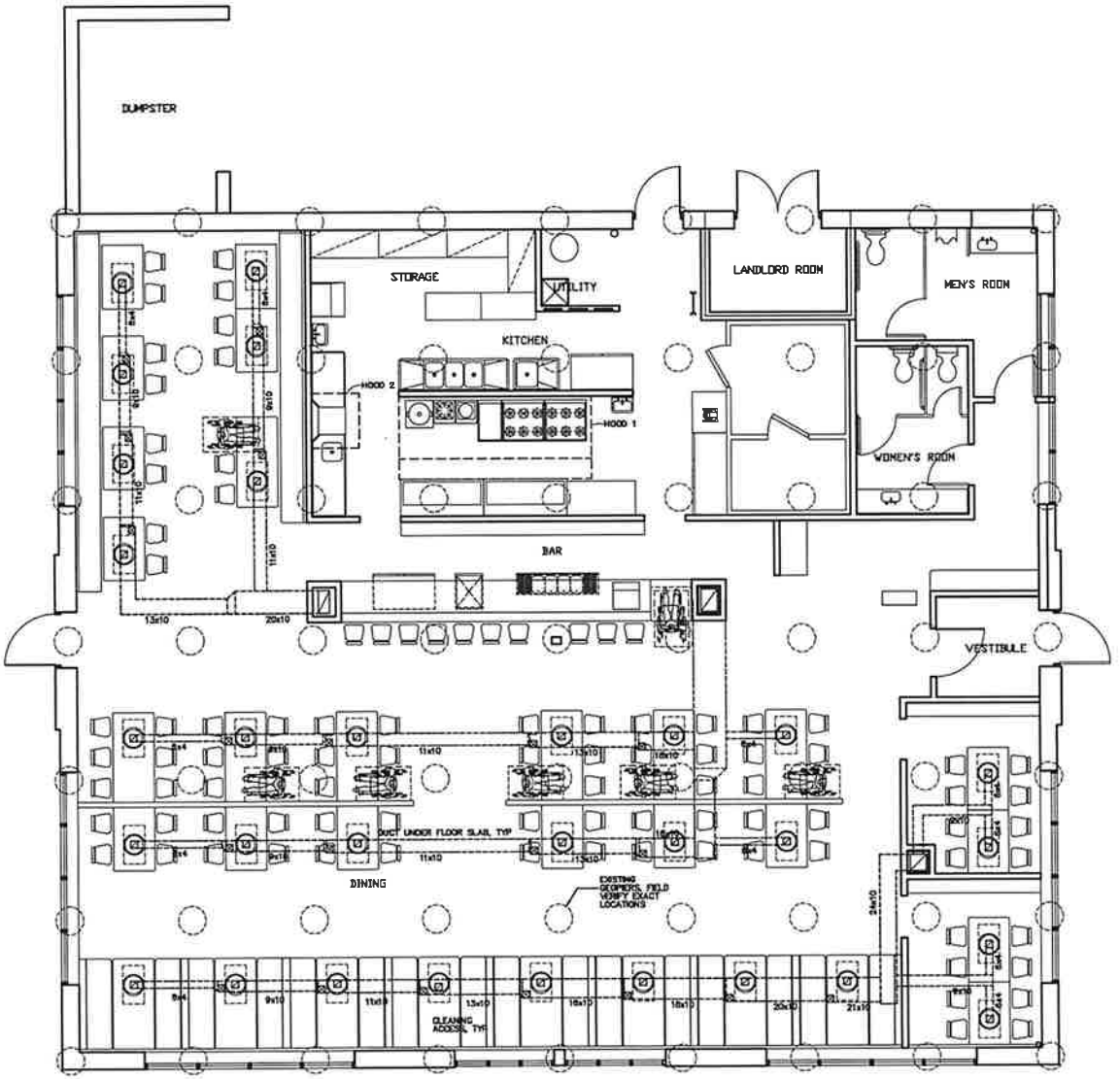
1. KITCHEN HOOD EXHAUST FANS SHALL REMAIN ON DURING AN APPLIANCE FIRE, (WHEN THE EXTINGUISH SYSTEM IS ON). THE MAKE-UP-AIR UNIT SHALL BE SHUT DOWN.
2. AIR BALANCE REPORT SHALL BE SUBMITTED TO THE CITY FOR ITS APPROVAL.
3. A HEAT SENSOR, OR SENSORS, OR BY MEANS OF OTHER APPROVED METHODS ARE INSTALLED TO TURN THE MAKEUP AIR ON WHEN THE GAS FIRED EQUIPMENT IS STARTED.
4. AN AUTO-SHUTOFF GAS VALVE IS REQUIRED.
8. HVAC SYSTEM IN DINING ROOM IS EXISTING TO REMAIN.

NOTES

RETURN AIR DUCT SMOKE DETECTION, KEYPAD, AND STROBE ARE REQUIRED

PROVIDE A SERVICE DUPLEX WITHIN 25 FEET OF THE ROOF TOP EQUIPMENT PER E 3901.12

PROVIDE CITY A CERTIFICATE OF EQUIPMENT DEMONSTRATING THAT THE EQUIPMENT IS IN GOOD WORKING CONDITION, FILTERS CHANGED, HEAT EXCHANGE SAFE, ECONOMIZER OPERATIONAL, AIR CONDITIONING PRESSURE CORRECT, AND THERMOSTAT IS A 7 DAY SET FOR FAN OPERATION DURING WORKING HOURS.



NOTE:
DO NOT RUN THE UNDERFLOOR DUCTWORK THROUGH THE GEOPIERS.

UNDERGROUND DUCTWORK PLAN
SCALE: 1/4"=1'-0"

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NOVI, MI 48375

10/28/2024

SHEET TITLE

UNDER GROUND EXHAUST DUCTWORK PLAN

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
APPROVED

DATE ISSUED FOR

10/28/2024 REVIEW

SHEET

M.1

GENERAL MECHANICAL NOTES

ALL DUCTWORK TO COMPLY WITH A.S.H.R.A.E. CONSTRUCTION STANDARDS, NFPA-96 AND STATE OF MICHIGAN VENTILATION STANDARDS FOR FOOD SERVICE ESTABLISHMENTS, WHERE APPLICABLE.

DIFFUSERS TO BE ALUMINUM CONSTRUCTION, 4 WAYTHROW, ADJUSTABLE PATTERN AND VOLUMN, TRUEGER OR APPROVED, (FLUSH TYPE).

ROUND FLEXIBLE DUCT MAY BE USED FOR DIFFUSER BRANCH CONNECTION PROVIDED FLEXIBLE CONNECTION DOES NOT EXCEED (7) SEVEN FEET IN LENGTH.

CONTROLS, FURNISHED COMPLETE WITH EQUIPMENT, TO BE INSTALLED AND WIRED BY THIS CONTRACTOR. EXHAUST HOOD FANS SHALL BE INTERLOCKED WITH ANY EXISTING RTU FAN AND NEW AMU, TO OPERATE SIMULTANEOUSLY. EXISTING RTU SHALL PROVIDE 400CFM DURING "OCCUPIED" MODE.

INSULATION TO BE 1.5" FOIL FACED ON ALL DUCT WORK OUTSIDE THE CONDITIONED SPACE.

PROVIDE A CERTIFICATED AIR BALANCE FOR THE ENTIRE AIR HANDING SYSTEM.

CLASS 'B' FLUE TO HAVE BREEDERT CAP, EXTENDING (2) TWO FEET ABOVE ROOF EXIT POINT.

PROVIDE CURBS, SLEEVES, PITCH BOXES FOR ALL MECHANICAL ROOF PENETRATIONS.

BY OTHER: ROOF SUPPORTS, ELECTRICAL POWER WIRING, GAS PIPING, COOKING HOOD, FIRE PROTECTION SYSTEM.

LOCATE THERMOSTAT AT LEAST 48" ABOVE FINISHED FLOOR TO CENTER OF THERMOSTAT.

PROVIDE NIGHT SET-BACK THERMOSTAT AS REQUIRED.

VERIFY ALL EXISTING JOB CONDITIONS AND ACCOMMODATE AS REQUIRED FOR A COMPLETE INSTALLATION.

KITCHEN EQUIPMENT CONTRACTORS SHALL DESIGN COOKING HOODS VENTILATION SYSTEM AND PREPARE SHOP DRAWINGS FOR APPROVAL BY THE TENTANT AND/OR BUILDING OWNER AND BUILDING DEPARTMENT. ALL SYSTEM SHALL COMPLY WITH HEALTH DEPARTMENT AND ENGINEERING DEPARTMENT OF THE CITY.

EXHAUST DUCTS UP TO EXHAUST FAN TO BE 18 GAUGE METAL MINIMUM, WELD LIQUID TIGHT. DUCT SIZE TO BE DETERMINED BY VENTILATION CONTRACTOR.

FIRE EXTINGUISHING NOTES

FIRE EXTINGUISHING SYSTEM IS TO BE PROVIDED FOR COOKING EQUIPMENT HOOD.

FIRE EXTINGUISHING SYSTEM SHALL CONFORM IN ALL RESPECTS TO NFPA #17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEM. NUMBER OF NOZZELES, LOCATION OF NOZZELES, METHOD OF ACTUATION AND ALL DETAILS OF THE SYSTEM SHALL CONFORM TO NFPA #17A & UL 300 REQUIREMENTS.

INSTALL FAN FROM HOOD TO BE INTERCONNECTED WITH FIRE DETECTION DEVICE TO AUTOMATICALLY SHUT DOWN IN CASE OF FIRE IN HOOD, AS REQUIRED BY FIRE DEPARTMENT.

COOKING EQUIPMENT, HOOD, EXHAUST DUCT, FAN AND CHEMICAL EXTINGUISHING SYSTEM SHALL FORM AN INTEGRATED SYSTEM CONFORMING TO NFAP STANDARDS. SUPPLIER, FABRICATOR, AND INSTALLER OF EQUIPMENT SHALL BE THOROUGHLY FAMILIAR WITH NFPA STANDARDS AND CONTRACTOR SHALL FURNISH SUBSTANTIATION NFPA, AND/OR UL CERTIFICATION OF SYSTEM COMPONENTS AND IF REQUIRED SHALL CONDUCT A TEST OF SYSTEM IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.

PROVIDE AUTO-SHUT OFF GAS PIPING VALVE AS REQUIRED.

INSTALL CONTRACTOR FOR THE SYSTEM SHALL BE LICENSED BY THE WET CHEMICAL EQUIPMENT MANUFACTURER. SUBMIT SHOP DRAWING AND SECURE A PERMIT AS REQUIRED, FROM BUILDING FIRE DEPARTMENT.

NOTES

1. KITCHEN HOOD EXHAUST FANS SHALL REMAIN ON DURING AN APPLIANCE FIRE, (WHEN THE EXTINGUISH SYSTEM IS ON). THE MAKE-UP-AIR UNIT SHALL BE SHUT DOWN.
2. AIR BALANCE REPORT SHALL BE SUBMITTED TO THE CITY FOR ITS APPROVAL.
3. A HEAT SENSOR, OR SENSORS, OR BY MEANS OF OTHER APPROVED METHODS ARE INSTALLED TO TURN THE MAKEUP AIR ON WHEN THE GAS FIRED EQUIPMENT IS STARTED.
4. AN AUTO-SHUTOFF GAS VALVE IS REQUIRED.
5. HVAC SYSTEM IN DINING ROOM IS EXISTING TO REMAIN.

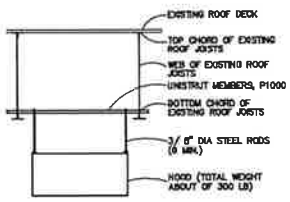
NOTES

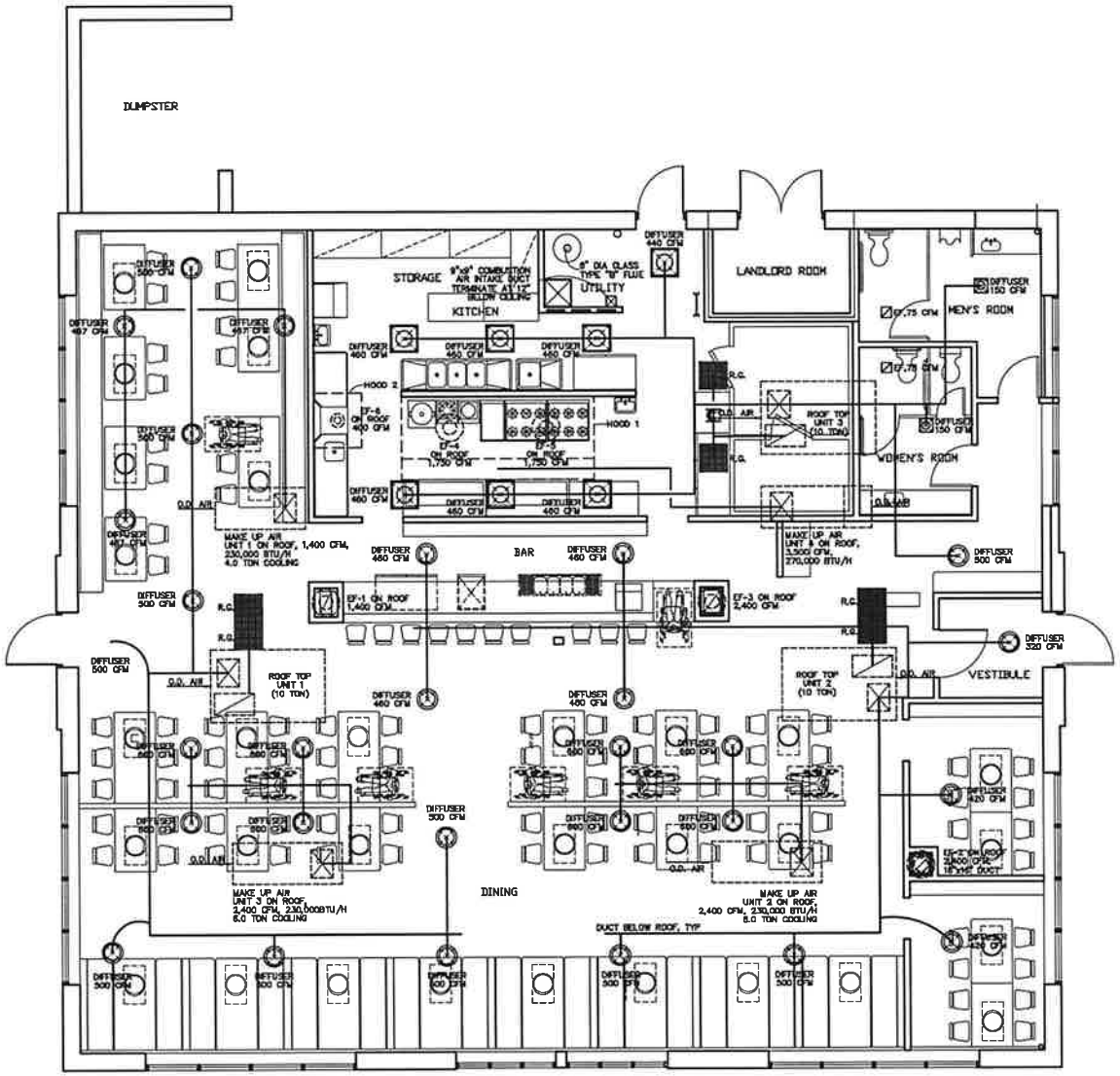
RETURN AIR DUCT SMOKE DETECTION, KEYPAD, AND STROBE ARE REQUIRED

PROVIDE A SERVICE DUPLEX WITHIN 25 FEET OF THE ROOF TOP EQUIPMENT PER E 3901.12

PROVIDE CITY A CERTIFICATE OF EQUIPMENT DEMONSTRATING THAT THE EQUIPMENT IS IN GOOD WORKING CONDITION, FILTERS CHANGED, HEAT EXCHANGE SAFE, ECONOMIZER OPERATIONAL, AIR CONDITIONING PRESSURE CORRECT, AND THERMOSTAT IS A 7 DAY SET FOR FAN OPERATION DURING WORKING HOURS.

KITCHEN HOOD HANGING DETAILS





HVAC SYSTEM PLAN
SCALE: 1/4"=1'-0"

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10/28/2024

SHEET TITLE
EXHAUST SYSTEM PLAN

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
APPROVED

DATE ISSUED FOR

10/28/2024 REVIEW

SHEET
M:2

SHINPO REQUIREMENT SCHEDULE

PRODUCT NO	QUANTITIES	HEAT SOURCE	ELECTRICAL CONSUMPTION	ELEC POWER		EXHAUST AIR VOLUMN	REQUIRED STATIC PRESSURE	SAFETY DEVICE
				POWER	VOLTAGE			
SPRW-IS	29	GAS	3.25 KW 11,115 BTU/H	25W	120/1P	MIN. 200 CFM	373 Pa 1.5" W.C.	OVER HEATING DETECTOR & MISFIRING DETECTOR

FIRE EXTINGUISHING NOTES

FIRE EXTINGUISHING SYSTEM IS TO BE PROVIDED FOR COOKING EQUIPMENT HOOD.

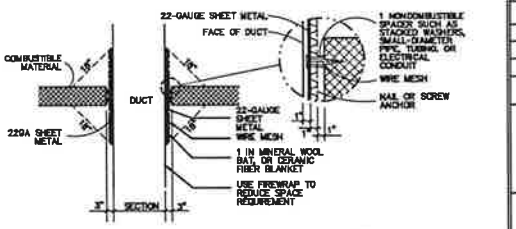
FIRE EXTINGUISHING SYSTEM SHALL CONFORM IN ALL RESPECTS TO NFPA #17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEM. NUMBER OF NOZZLES, LOCATION OF NOZZLES, METHOD OF ACTUATION AND ALL DETAILS OF THE SYSTEM SHALL CONFORM TO NFPA #17A & UL 300 REQUIREMENTS.

INSTALL FAN FROM HOOD TO BE INTERCONNECTED WITH FIRE DETECTION DEVICE TO AUTOMATICALLY SHUT DOWN IN CASE OF FIRE IN HOOD, AS REQUIRED BY FIRE DEPARTMENT.

COOKING EQUIPMENT, HOOD, EXHAUST DUCT, FAN AND CHEMICAL EXTINGUISHING SYSTEM SHALL FORM AN INTEGRATED SYSTEM CONFORMING TO NFAP STANDARDS. SUPPLIER, FABRICATOR, AND INSTALLER OF EQUIPMENT SHALL BE THOROUGHLY FAMILIAR WITH NFPA STANDARDS AND CONTRACTOR SHALL FURNISH SUBSTANTIATION NFPA, AND/OR UL CERTIFICATION OF SYSTEM COMPONENTS AND IF REQUIRED SHALL CONDUCT A TEST OF SYSTEM IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.

PROVIDE AUTO-SHUT OFF GAS PIPING VALVE AS REQUIRED.

INSTALL CONTRACTOR FOR THE SYSTEM SHALL BE LICENSED BY THE WET CHEMICAL EQUIPMENT MANUFACTURER, SUBMIT SHOP DRAWING AND SECURE A PERMIT AS REQUIRED, FROM BUILDING FIRE DEPARTMENT.



CLEARANCE REDUCTION SYSTEM
SCALE: 1/2"=1'-0"

KITCHEN HOOD VENTILATION REQUIREMENT

HOOD NO.	HOOD SIZE		CFM/FOOT LENGTH OF HOOD		TOTAL CFM REQUIRED	UL NUMBER REQUIRED
1	14'-0" LONG	x	250 CFM/FT	=	3,500	UL 710
2	4' x 4'	-	-	=	350	TYPE II

HOODS		1	2
HOOD MAKE: MODEL NO: MAX. TEMP: MIN EXHAUST: OPTION INCLUDED:		CAPTIVE-AIR ND-2 700 DEGREE F 250 CFM/FT UL LISTED LIGHT AND FAN CONTROL SWITCHED ETL LISTED EXHAUST	TYPE II HOOD
EXHAUST FAN	HOOD NO.	1	2
	EXHAUST FAN NO.	EF-4, EF-5	EF-6
	MAKE:	A.D.M. AIR CONTOL	LORCH COOK
	MODEL NO.	AU855	120V2B
	STATIC PRESSURE	3/4"	3/4"
	REQUIRED CFM	1,750 CFM	400 CFM
	ELEC. POWER	8.90 AMPS	4.40 AMPS
	VOLTAGE/PHASE	120V/1P	120V/1P
	WEIGHT	100 LBS	80 LBS
EXHAUST DUCT	REQUIRED	2	1
	SIZE	12" x 12"	8" x 8"
	AREA	1.00 S.F.	0.44 S.F.
	AIR VELOCITY	1,750 FPM	910 FPM
FILTERS	PROVIDED	8	
	MAKE	RESEARCH PRODUCTS	
	MODEL NO.	KLEENGARD	
	SIZE/NET AREA	23.04 S.F.	
	AIR VELOCITY	152 FPM	
UNITS PROVIDING MAKE-UP -AIR	MAKE UP AIR UNIT	4	
	MAKE	A.D.M. AIR CONTROL	
	MODEL NO.	ADMS-0.250-200-MPU	
	REQUIRED	3,500 CFM	
	TYPE	DIRECT-FIRED	
	TEMP. RISE	65 DEGREE	
	GAS REQ'D	267,065 BTU/H	
	GAS USED	270,000 BTU/H	
	ELEC. POWER	3.0 HP	
	VOLTAGE	208V	
	PHASE	3 PHASE	
	CURRENT	11.0 A	
	MAX FUSE SIZE	30 A	
	WEIGHT		

DIFFUSER AREA (FOR MAKE-UP-AIR UNIT) CLACULATION

	AREA 1	AREA 2	AREA 3
CONDITION	FROM CEILING	FROM CEILING	FROM CEILING
AIR SPEED	300 FPM	300 FPM	300 FPM
EFFECTIVE OPENING RATE	70%	70%	70%
REQUIRED AIR VOLUME	7 x 200 CFM = 1,400 CFM	12 x 200 CFM = 2,400 CFM	12 x 200 CFM = 2,400 CFM
REQUIRED DIFFUSER AREA =	1,400 / (300 * 0.7) = 6.67 SF	2,400 / (300 * 0.7) = 11.43 SF	2,400 / (300 * 0.7) = 11.43 SF
AREA OF EACH DIFFUSER (24" x 24")	2.0 x 2.0 = 4.0 SF	2.00 x 2.00 = 4.00 SF	2.00 x 2.00 = 4.00 SF
NUMBERS OF DIFFUSERS REQUIRED	6.67 / 4.0 = 1.7 (SAY USING 3)	11.43/ 4.00 = 2.85 (SAY USING 4)	11.43/ 4.00 = 2.85 (SAY USING 4)

NOTES:
1. WIND SHIELDING PLATES UNDER DIFFUSERS ARE REQUIRED.
2. AVOID PLACING THE DIFFUSERS DIRECTLY ABOVE GUEST SEATING.
3. THE PREFERED LOCATIONS IS NEAR THE AIR CONDITIONING EXHAUST.

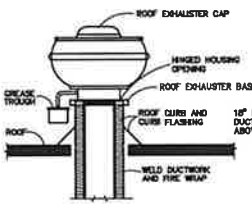
REQUIREMENT OF AIR CONDITION COOLING LOAD FOR MAKE UP AIR UNITS

CONDITION:							
OUTDOOR TEMPERATURE	33 C / 90 F	hoj = 20.80					
OUTDOOR HUMIDITY	70%						
INDOOR TEMPERATURE	26 C / 79 F	hoj = 12.53					
INDOOR HUMIDITY	50%						
		REQUIRED AIR CONDITION LOAD					
		AREA 1		AREA 2		AREA 3	
EXHAUST FAN:		EF-1, (1,400 CFM, STATIC PRESSURE IN W.G. 2.77")		EF-2, (2,400 CFM, STATIC PRESSURE IN W.G. 2.67")		EF-3, (2,400 CFM, STATIC PRESSURE IN W.G. 2.67")	
NUMBER OF GRILLS		7		12		12	
REQUIRED OUDOOR AIR SUPPLY		USE 1,400 CFM		USE 2,400 CFM		USE 2,400 CFM	
OUTDOOR AIR LOAD		1.2 x 1,400 x (20.80 - 12.53) = 13,390 kcal/h = 15.6 KW		1.2 x 2,400 x (20.80 - 12.53) = 22,954 kcal/h = 26.7 KW		1.2 x 2,400 x (20.80 - 12.53) = 22,954 kcal/h = 26.7 KW	
HEAT FROM ALL GRILLS		7x 840 = 5,880 kcal/h		12 x 840 = 10,080 kcal/h		12 x 840 = 10,080 kcal/h	
REQUIRE HEAT FROM ALL GRILLS		0.8 x 5,880 = 4,704 kcal/h = 5.5 KW		0.8 X 10,080 = 8,064 kcal/h = 9.4 KW		0.8 X 10,080 = 8,064 kcal/h = 9.4 KW	
		15.6 + 5.5 = 21.1 KW		26.7 + 9.4 = 30.0 KW		26.7 + 9.4 = 30.0 KW	
REQUIRED MUA CFM	MUA UNIT 1	1,400 CFM	MUA UNIT 2	2,400 CFM	MUA UNIT 3	2,400 CFM	
REQUIRED MUA GAS INPUT		110,000 BTU/H		180,000 BTU/H		180,000 BTU/H	
REQUIRED MUA A/C POWER INPUT		COOLING LOAD 4.0 TON		COOLING LOAD 6.0 TON		COOLING LOAD 6.0 TON	

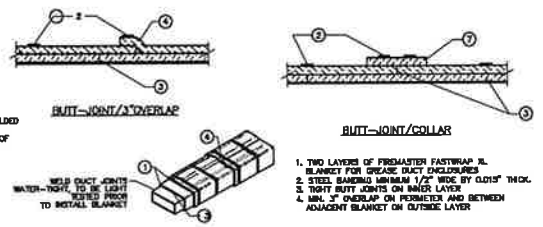
NOTES:
1. THE ABOVE CALCULATION IS BASED ON THE PROCEDURE BY SHINPO. ALL VALUES ARE TO BE REVIEWED, CONFIRMED AND APPROVED BY SHINPO.
2. ALL EXHAUST FANS ON ROOF SHALL HAVE GREASE FILTERS.

SPECIFICATION OF THREE ROOF TOP UNITS (RTU 1-RTU 3)

NOMINAL COOLING TON SIZE	10 TON
COOLING STAGE	2
AHRI EFFICIENCY (SEER) EER	12.3
HEATING CAPACITY	120,000 BTU/H
ELECTRICAL VOLTAGE	208V
PHASE	3
SUPPLY AIR	4,000 CFM
OUTDOOR AIR INTAKE	25% (1,000 CFM) MIN.

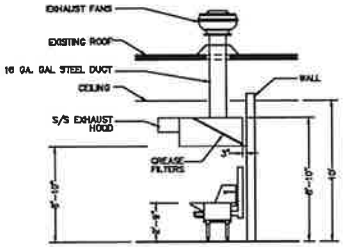


KITCHEN EXHAUST FAN
SCALE: N.T.S.

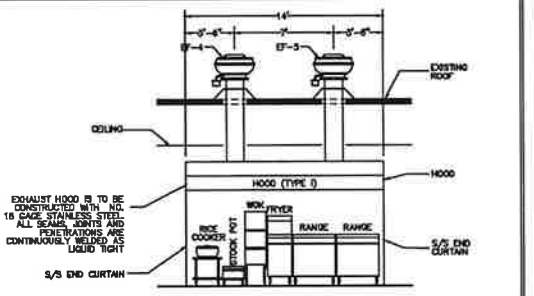


1. TWO LAYERS OF FIREMASTER FASTWRAP XL BLANKET FOR GREASE DUCT ENCLOSURES
2. STEEL BANDING MINIMUM 1/2" WIDE BY 0.015" THICK.
3. TIGHT BUTT JOINTS ON INNER LAYER
4. MIN. 3" OVERLAP ON PERIMETER AND BETWEEN ADJACENT BLANKET ON OUTSIDE LAYER

COMMERCIAL KITCHEN GREASE DUCT ENCLOSURE SYSTEM
2 HOUR SHAFT WRAP



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



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

1.08 x 85 x 8,000/0.82 = 457,825 BTU/H

LSA, Inc.
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DANCING PINE
(INTERIOR RENOVATION)
42738 GRAND RIVER AVE
NOVI, MI 48375

10/28/2024

SHEET TITLE
EXHAUST SYSTEM SCHEDULES

PROJECT NO: 2309009

DRAWN J.S.
CHECKED Z.L.
APPROVED

DATE	ISSUED FOR
10/28/2024	REVIEW

SHEET
M:3