

IN RE: PETITIONS FOR SPECIAL HEARING	*	BEFORE THE
SPECIAL EXCEPTION & VARIANCE		
(1270 E JOPPA ROAD)	*	OFFICE OF ADMINISTRATIVE
9th Election District		
6th Council District	*	HEARINGS FOR
Joppa Mylander Properties, LLC		
<i>Legal Owner</i>	*	BALTIMORE COUNTY
Camella Dogs, LLC		
<i>Contract Purchaser</i>	*	Case No. 2022-0263-SPHXA

Petitioners

* * * * *

OPINION AND ORDER

This matter comes before the Office of Administrative Hearings (“OAH”) for consideration of Petitions for Special Hearing, Special Exception and Variance filed by Joppa Mylander Properties, the owner and Heather Davis of Camella Dogs, LLC, the contract purchaser/lessee (“Petitioners”) for the property located at 1270 E. Joppa Road (the “Property”). The Special Hearing was filed pursuant to Baltimore County Zoning Regulation (“BCZR”) § 500.7 seeking for a waiver of the conditions for the proposed commercial kennel (special exception) set forth at BCZR § 253.2.C. The Special Exception request was filed pursuant to BCZR § 253.2.C.3 to permit a Commercial Kennel in the ML zone. In addition, Variance relief was filed pursuant to BCZR § 307.1 seeking variance from BCZR § 421.2 to permit an animal boarding place, commercial kennel, private kennel, or pet shop within 16 ft. of the nearest property line and 0 ft. from the nearest lease line in lieu of the 200 ft. minimum requirement.

Due to COVID-19 a public WebEx hearing was conducted virtually in lieu of an in-person hearing. The Petitions were properly advertised and posted. Petitioners, Heather and Alex Davis, appeared at the hearing in support of the Petition. They were represented by Adam Baker, Esquire

of Rosenberg Martin Greenberg, LLP. Also in attendance was Matthew Bishop, P.E., the engineer who prepared and sealed the sight plan, which was admitted as Petitioners' Exhibit 1.

Zoning Advisory Committee ("ZAC") comments were received from the Department of Planning ("DOP"), which did not support the requested relief; however, as will be explained below, Petitioners' addressed DOP's stated concerns at the hearing.

The Property is .956 acres +/- and is zoned ML-IM. The building in question is part of the Loch Raven Commons PUD that was approved in Case No. PAI-09-0844. The site contains mixed commercial, retail and residential uses. At the outset of the hearing the undersigned asked Mr. Baker to address DOP's position - that the proposed kennel constituted a material amendment to the approved PUD, and therefore must go through the process prescribed by BCC § 32-4-245(e). Mr. Baker identified Petitioners' Exhibit 9 as the Loch Raven Commons PUD Pattern Book and directed attention to p. 14, which explained that the subject building, identified as "Retail A", would "accommodate a variety of uses, including commercial retail, restaurant, drug store, or service oriented establishments that can serve the needs of tenants, employees, neighbors and area visitors." He urged that this proposed kennel is such a "service oriented establishment" and, as such, is not a material amendment of the PUD. I agree. Mr. Baker also addressed DOP's concern regarding outdoor dog exercise areas in proximity to residences, by explaining that no outdoor exercise areas are proposed. The kennel facilities will be located entirely within the building. Finally, Mr. Bishop explained that he had calculated that the nearest residential structure was more than 300 feet distant from the proposed kennel. Finally, Mr. Baker pointed out that kennels are permitted by special exception in the ML IM zone, and thus enjoy a presumption of validity at this location.

Heather Davis then explained the proposed kennel operations in detail. She and her husband are franchisees of Dogtopia, a nationwide company that provides “doggie day care” and boarding services. She explained that approximately 75% of the dogs will be dropped off in the morning and picked up in the afternoon. The rest will be boarded overnight while their owners are out of town. She identified Petitioners’ Exhibit 2 as the Dogtopia “Use Description.” This document outlines the myriad state of the art operational protocols that Dogtopia will require them to follow. She then explained Dogtopia’s Odor and Noise control measures that are spelled out in Petitioners’ Exhibit 3. She pointed out that the adjoining tenant in the building is the School of Rock, which provides music lessons to children and teens. She explained that the School of Rock supports their efforts to operate a kennel there, and, due to their own noisy operations they are not concerned about noise from the kennel. In addition, the School of Rock already has sound insulation on their side of the shared party wall, and the kennel will install such insulation on their side as well. Ms. Davis explained that under Dogtopia’s regulations that they can have a maximum of 122 dogs based on the available 5400 sq. ft. of floor space at this location. She stated that their goal would be to have 80-90 dogs at the facility within a year of opening. She also explained that approximately 50% of Dogtopia kennels have no outdoor exercise space, and that this is not a problem for the dogs given the extensive indoor facilities. There will be 8 employees each shift. She and her husband will be actively running the business along with a full time manager. She explained that based on Dogtopia’s experience (and the Davis’ own personal experience using kennels for their dog) the clients will be dropping the dogs off over a period of two to three hours in the morning and picking them up over that same length of time in the evening, so the traffic will be spread out. Their hours of operation for the daily clients will be 7 a.m. to 7 p.m.

Mr. Baker and Mr. Bishop explained that there is adequate shared parking (146 spaces) and travel lanes to accommodate the projected traffic from the kennel in addition to that of other uses at the site. Mr. Bishop explained that the large commercial building adjacent to the subject building is occupied by Loane Brothers, a firm that rents tables, chairs and other such things for events. They do not generate much parking demand or traffic. Mr. Bishop addressed all the special exception criteria in BCZR § 502.1 and in his expert opinion the kennel is a valid special exception use at this location. He specifically explained that he believes it will have *less* impacts at this location than are inherent to the kennel use. He further explained that BCZR § 253.2.C should be waived, or considered not applicable here because that section applies only to kennels seeking to operate outside the URDL where there is no public water or sewer.

Finally, Mr. Bishop explained the justification for the requested variances. The site is unique in shape and the subject building and infrastructure are existing and not subject to modification. He noted that the requested variances will not harm the adjacent neighbors because the kennel operations will be soundproofed and completely indoors.

SPECIAL HEARING

Pursuant to BCZR Sec. 500.7 "a request for special hearing is, in legal effect, a request for a declaratory judgment." *Antwerpen v. Baltimore County*, 163 Md. App. 194, 877 A.2d 1166, 1175 (2005). And, "the administrative practice in Baltimore County has been to determine whether the proposed Special Hearing would be compatible with the community and generally consistent with the spirit and intent of the regulations." *Kiesling v. Long*, Unreported Opinion, No. 1485, Md. App. (Sept. Term 2016). In the instant case, Petitioners seeks a waiver of BCZR § 253.2.C for the operation of a kennel at this location. That regulation is one of the least intelligible regulations in the book, but it appears to apply only to kennels located outside the URDL, since it appears to

address concerns about water and sewer capacity. As such, I believe it should be waived here, or alternatively, deemed not applicable.

SPECIAL EXCEPTION

Under Maryland law, a special exception use enjoys a presumption that it is in the interest of the general welfare, and therefore, valid. *Schultz v. Pritts*, 291 Md. 1 (1981). In *People's Counsel for Baltimore County v. Loyola College of Maryland*, 406 Md. 54 (2008) the court of appeals quoted the following excerpt from *Schultz* to explain the proper legal analysis:

The special exception use is a valid zoning mechanism that delegates to an administrative board a limited authority to allow enumerated uses which the legislature has determined to be permissible absent any fact or circumstance negating the presumption. The duties given the Board are to judge whether the neighboring properties in the general neighborhood would be adversely affected and whether the use in the particular case is in harmony with the general purpose and intent of the plan.

Whereas, the applicant has the burden of adducing testimony which will show that his use meets the prescribed standards and requirements, he does not have the burden of establishing affirmatively that his proposed use would be a benefit to the community. If he shows to the satisfaction of the Board that the proposed use would be conducted without real detriment to the neighborhood and would not actually adversely affect the public interest, he has met his burden. The extent of any harm or disturbance to the neighboring area and uses is, of course, material.

Id., at 88-89.

Based on the record evidence in the instant case I find that the Petitioners' special exception petition should be granted. Specifically, I find that all the requirements of BCZR § 502.1 are satisfied, and that the kennel at this location will have no greater adverse impacts than are inherent in this use.

VARIANCE

A variance request involves a two-step process, summarized as follows:

- (1) It must be shown the property is unique in a manner which makes it unlike surrounding properties, and that uniqueness or peculiarity must necessitate variance relief; and

- (2) If variance relief is denied, Petitioner will experience a practical difficulty or hardship.

Cromwell v. Ward, 102 Md. App. 691 (1995).

As described above the subject property is unique in its dimensions, and because of the existing permanent building and infrastructure. If the variances were denied the Petitioners would suffer practical difficulty and hardship because they would be unable to operate the proposed kennel here due to the fact that it is impossible to meet the required setbacks given the existing site conditions. Finally, I find that the variances are within the spirit and intent of the BCZR and that they will not harm the public health, safety or general welfare. This is evidenced by the fact that there was no community opposition.

THEREFORE, IT IS ORDERED this 14th day of **December, 2022**, by this Administrative Law Judge that the Petition for Special Hearing under BCZR § 500.7 to waive the conditions for the proposed commercial kennel (special exception) as set forth in BCZR § 253.2.C is hereby **GRANTED**; and

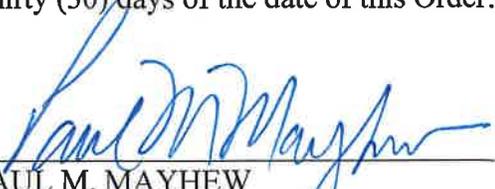
IT IS FURTHER ORDERED that the Petition for Special Exception pursuant to BCZR § 253.2.C.3 to permit a Commercial Kennel in the ML zone is hereby **GRANTED**; and

IT IS FURTHER ORDERED that the Petition for Variance relief in regard to BCZR § 421.2 to permit an animal boarding place, commercial kennel, private kennel, or pet shop within 16 feet of the nearest property line and 0 feet from the nearest lease line in lieu of the 200 feet minimum requirement is hereby, **GRANTED**.

The relief granted herein shall be subject to the following:

1. Petitioner may apply for necessary permits and/or licenses upon receipt of this Order. However, Petitioner is hereby made aware that proceeding at this time is at his own risk until 30 days from the date hereof, during which time an appeal can be filed by any party. If for whatever reason this Order is reversed, Petitioner would be required to return the subject property to its original condition.

Any appeal of this decision must be made within thirty (30) days of the date of this Order.



PAUL M. MAYHEW
Managing Administrative Law Judge
for Baltimore County

PMM:dlm



JOHN A. OLSZEWSKI, JR.
County Executive

PAUL M. MAYHEW
Managing Administrative Law Judge
MAUREEN E. MURPHY
Administrative Law Judge

December 14, 2022

Adam Baker, Esquire abaker@rosenbergmartin.com
Rosenberg Martin Greenberg, LLP
25 S. Charles Street, 21st Floor
Baltimore, MD 21201

RE: Petitions for Special Hearing, Special Exception and Variance
Case No. 2022-0263- SPHXA
Property: 1270 E. Joppa Road

Dear Mr. Baker:

Enclosed please find a copy of the decision rendered in the above-captioned matter.

Pursuant to Baltimore County Code § 32-3-401(a), "a person aggrieved or feeling aggrieved" by this Decision and Order may file an appeal to the County Board of Appeals within thirty (30) days of the date of this Order. For further information on filing an appeal, please contact the Office of Administrative Hearings at 410-887-3868.

Sincerely,

A handwritten signature in black ink that reads "Paul M. Mayhew". The signature is written in a cursive style with a large initial "P".

PAUL M. MAYHEW
Managing Administrative Law Judge
for Baltimore County

PMM:dlm

Enclosure

c: Alex Davis – alexander.davis@dogtopia.com
Heather Davis – heather.davis@dogtopia.com
Matt Bishop – matt.bishop@kimley-horn.com

John A. Olszewski, Jr.
County Executive



C.PETE GUTWALD, AICP *Director*
Department of Permits,
Approvals & Inspections
Approvals & Inspections

October 26, 2022

Bob Ochieng
584 Bellerive Rd Suite 3D
Annapolis MD 21409

Re: C22-03489-Permit Rescinded
1270 E. Joppa Rd Suite 200
Towson, MD 21286

Dear Mr. Ochieng,

This letter is to inform you that the above referenced permit was issued in error and has been rescinded at the request of the Zoning Review Office. According to the Zoning office, for this location to be used as a kennel you will need to request a Zoning Variance. Once the variance is granted, the permit may be able to be reinstated.

Pursuant to Section 112.6 of the Baltimore County Building Code, effective immediately your permit is declared void, any and all work must cease.

If you have any questions concerning this, please contact Mr. Jeffrey Perlow, in the Zoning Office at 410-887-3391.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen L. Lewis".

Karen L. Lewis
Permit Services Supervisor
Permit Processing, PAI

C: Heather Davis, Tenant
J. Perlow, Zoning Supervisor
M. Gawel, Chief Building Inspector
File



Baltimore County, Maryland
Department of Permits, Approvals, and Inspections
BUILDING PERMIT

Permit Number: C22-03489

Permit Type: Commercial Alteration

Sub Type:

Date Issued: 08/25/2022

Expiration Date: 08/24/2023

Building Permit Contractor

Name of Contractor:

Phone Number:

Address:

City, State, Zip: , ,

Is Owner Contractor?:

Building Permit Information

Description of Work: INTERIOR FIT-OUT OF A VACANT TENANT SPACE FOR A DOG DAYCARE. INTERIOR IMPROVEMENTS INCLUDE :CONSTRUCT DRYWALL PARTITIONS, MTL-STUD, BREAK ROOM, CEILING TILE & GRID, FIXTURES & FINISHES, MILLWORK & HVAC & DUCT WK. SEPARATE PERMIT REQUIRED FOR ANY ADDITIONAL WORK. 5,621SF

Handwritten signature of C. Pete Gutwald in black ink.

C. Pete Gutwald, AICP, Director

Handwritten signature of E. John Bryan in black ink.

E. John Bryan, Building Engineer

*Please log into your account to get up-to-date information regarding the permit process and related inspections. Refer to the Permit Number when making inquires.



Permits, Approvals & Inspections

111 W. Chesapeake Avenue
Towson, MD 21204

Report Generated On:
8/3/2022

Permit Processing Commerical Permit & Development Report

Page 1 of 1

Property Information

Tax Account Number: 2500014046

Plat Ref: 079:677

Election District: 9

Owner Name(s): JOPPA MYLANDER PROPERTIES LLC and C/O BPG OFFICE VI JOPPA

PDM #: 09-0844

Address: SUITE 900 1000 N WEST ST
WILMINGTON,DE 19801

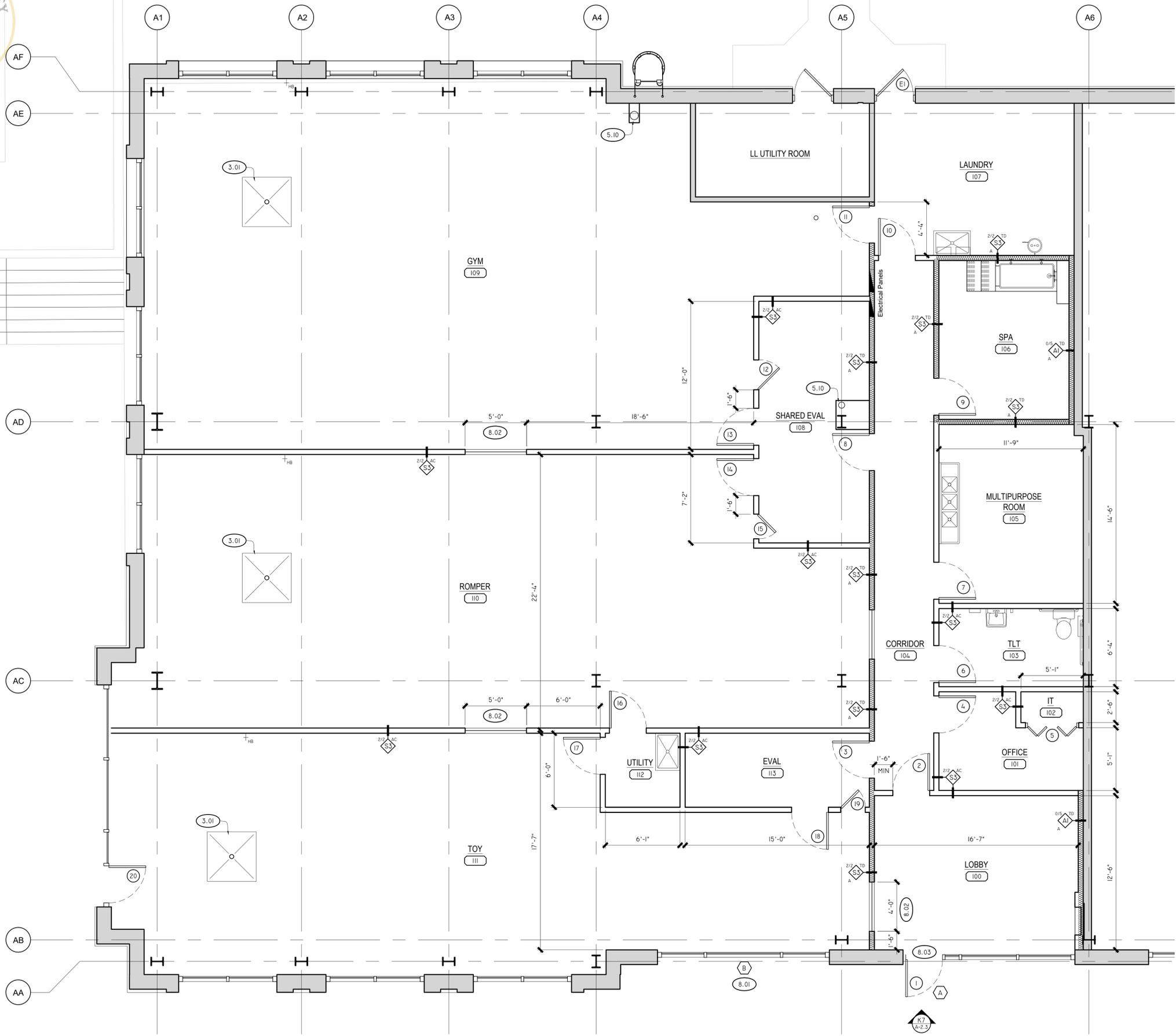
Zoning Class.(s): ML IM

Premise Address: 1270 E JOPPA RD

Elevation Range: 470ft - 490ft

Affected Overlays	Instructions: Begin review process with Zoning Review, Room 111.	New Com Bldg.	Interior Alts.	Add / Ext. Alts.	Piers/Pilings	Grading/SW	Tanks	Ret. Walls/Bulk	Razing	Chg. of Occup.	Tower Antenna	Signs	Elect. & Plumb	Agency Acknowledgment Initial & Date
Contact Agency	Potential Overlay Issues													
	Growth Tier 1: Served by public sewer and inside URDL													
Dev. Management County Office Building Room 123 Phone: 410-887-3321	Impact Fee: EXEMPT Details: ComRevitalDist=Exempt; CountyOwned=Not Exempt; DNROwned=Not Exempt; EnterpriseZone=Not Exempt; FedOwned=Not Exempt; MarylandTOD=Not Exempt; MDOpportunityZone=Not Exempt; StateOwned=Not Exempt; VestedPlat=Exempt Note: DNROwned,FedOwned and MDOpportunityZone may require further review due to spatial discrepancies between datasets.	X	X											
Planning Jefferson Building Room 101 Phone: 410-887-3211	Commercial Revitalization Districts - Loch Raven	X	X									X		
	Pattern Book / Architectural Review	X	X									X		
PAI-Sed. Control Insp. County Office Building Room G-21 Phone: 410-887-3226	Note: All Razing Permits must be sent to Sediment Control for review.													
PAI-Public Services County Office Building Room 119 Phone: 410-887-3751	Note: All permits for Grading, New Buildings & Building Additions must be sent to Public Services.													
Zoning Review County Office Building Room 111 Phone: 410-887-3391	Zoning Cases: 1988-0488-A; 2000-0403-A; 2006-0185-SPH	X	X	X	X	X				X	X	X		

Notice: This report is not inclusive as additional issues may arise which would affect the ability to obtain a building permit. This Report is solely for Departmental use and nothing herein creates any right which would accrue to the applicant.
Form171C



GENERAL FLOOR PLAN NOTES:

1. GENERAL CONTRACTOR TO VISIT SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING PROPOSALS AND COMMENCING WORK.
2. GENERAL CONTRACTOR IS RESPONSIBLE FOR UNLOADING AND HANDLING ALL OWNER SUPPLIED MATERIAL AND DISPOSAL OF ALL PACKING MATERIALS AT THE JOB SITE.
3. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR QUALITY AND FIT OF ALL MATERIALS, INCLUDING, BUT NOT LIMITED TO, ALL REFURBISHED MATERIALS. ALL REFURBISHED MATERIALS TO APPEAR NEW.
4. IF THE CONTRACTOR CONSIDERS ANY SURFACE UNSUITABLE FOR A PROPER FINISH, HE OR SHE SHALL NOTIFY ARCHITECT OF THE CONDITION AND NOT COMMENCE WORK UNTIL DIRECTED BY ARCHITECT.
5. GENERAL CONTRACTOR TO NOTIFY OWNER OF ANY DAMAGES/ SHORTAGES WITHIN 48 HOURS OF RECEIPT OR BEAR RESPONSIBILITY FOR REPLACEMENT OF SUCH.
6. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE PUBLISHED INSTALLATION SPECIFICATIONS AND PROCEDURES OF THE MANUFACTURER OF THE MATERIAL USED.
7. PROTECT OTHER WORK AND MERCHANDISE AS REQUIRED TO PREVENT ANY DAMAGE.
8. PROVIDE A CLEAN, SMOOTH, AND LEVEL CONCRETE SURFACE FOR PROPER INSTALLATION OF ALL FLOOR FINISHES. PATCH AND REPAIR SLAB AS NEEDED TO ENSURE A SMOOTH LEVEL SLAB. PREP SLAB TO RECEIVE NEW FINISHES.
9. APPLICATIONS OF PAINT SHALL BE ONE COAT PRIMER AND TWO COATS PAINT (U.N.O.). PRIMER SHALL BE SPECIFIED OR RECOMMENDED BY PAINT MANUFACTURER.
10. ALL ADHESIVES TO BE SUPPLIED BY GENERAL CONTRACTOR. THE TYPE TO BE USED AS RECOMMENDED BY WALL COVERING MANUFACTURER SELECTED FOR THE TYPE OF INSTALLATION.
11. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT ALL WALL COVERING FOR QUALITY AND DEFECTS PRIOR TO INSTALLATION.
12. ALL SURFACES TO RECEIVE FABRIC OR WALL COVERING AS SELECTED SHALL BE PROPERLY PREPARED AND SIZED AS RECOMMENDED BY WALL COVERING MANUFACTURER SELECTED FOR THE TYPE OF INSTALLATION. CONTRACTOR SHALL NOTIFY ADA OF ANY SURFACE NOT SUITABLE FOR PROPER APPLICATION OF WALL COVERING. DO NOT APPLY ANY MATERIAL UNTIL SITUATION IS RESOLVED.
13. GENERAL CONTRACTOR TO ENSURE TIGHT, SECURE, AND PROPER FASTENING OF ALL STANDARDS TO METAL STUDS.
14. ALL DIMENSIONS ARE FROM FACE OF GYP. BD. U.N.O.
15. ALL INTERIOR DOORS ARE 4" OFF WALL U.N.O.
19. ALL EXPOSED WALLS TO UNDERSIDE OF STRUCTURE SHALL BE BUILT TIGHTLY AROUND STRUCTURE, PIPING, ETC.
20. ALL EXISTING DOORS TO REMAIN SHALL BE SERVICED FOR PROPER OPERATION.
21. THE CONTRACTOR SHALL COORDINATE WITH PLUMBING AND ELECTRICAL PLANS AND EXISTING CONDITIONS IN / BELOW SLAB FOR ALL SLAB CORING AND SLAB SAW CUTS / TRENCHING REQUIRED TO PERFORM AND COMPLETE WORK. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE EXISTING BELOW SLAB UTILITIES ARE NOT DAMAGED DURING DEMOLITION & CONSTRUCTION. THE CONTRACTOR SHALL SCAN OR X-RAY AREAS OF SLAB CORING, CUTTING, AND TRENCHING. INFILL SLAB AS NECESSARY FOR A SMOOTH, FLUSH FINISH TO MATCH EXISTING ADJACENT SLAB. CORE DRILL AND EPOXY #4 REBAR AT 24" OC INTO EXISTING SLAB. INFILL SLAB WITH 4,000 PSI CONCRETE.
22. GC TP PROVIDE INTERIOR FINISH SUBSTRATE AT INSIDE OF ALL EXTERIOR WALLS, FRAMING AND INSULATION TO REMAIN.

FLOOR PLAN KEY NOTES: (X.XX)

- 3.01 CONCRETE SLAB PATCH AT POTTY PLACE. SEE SLAB AND POTTY PLACE DETAILS ON SHEET A-4. I. CENTER RECESSED SLAB ON FLOOR DRAIN.
- 8.01 PROVIDE STOREFRONT INFILL TO MATCH EXISTING AT DOOR REMOVAL
- 8.02 4'-0" HIGH WINDOW. SEE DETAIL A3/A-4 FOR ADDITIONAL INFORMATION.
- 8.03 PROVIDE STOREFRONT DOOR AND SIDELITE INFILL TO MATCH EXISTING
- 5.10 MINIMIZE FURRING TO EXTENT POSSIBLE SURROUNDING COLUMNS AND DRAINS.



Quick Service Restaurant and Retail Design Group, LLC

584 Bellevue Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9880



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19158. EXPIRATION DATE 08/16/2025

1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

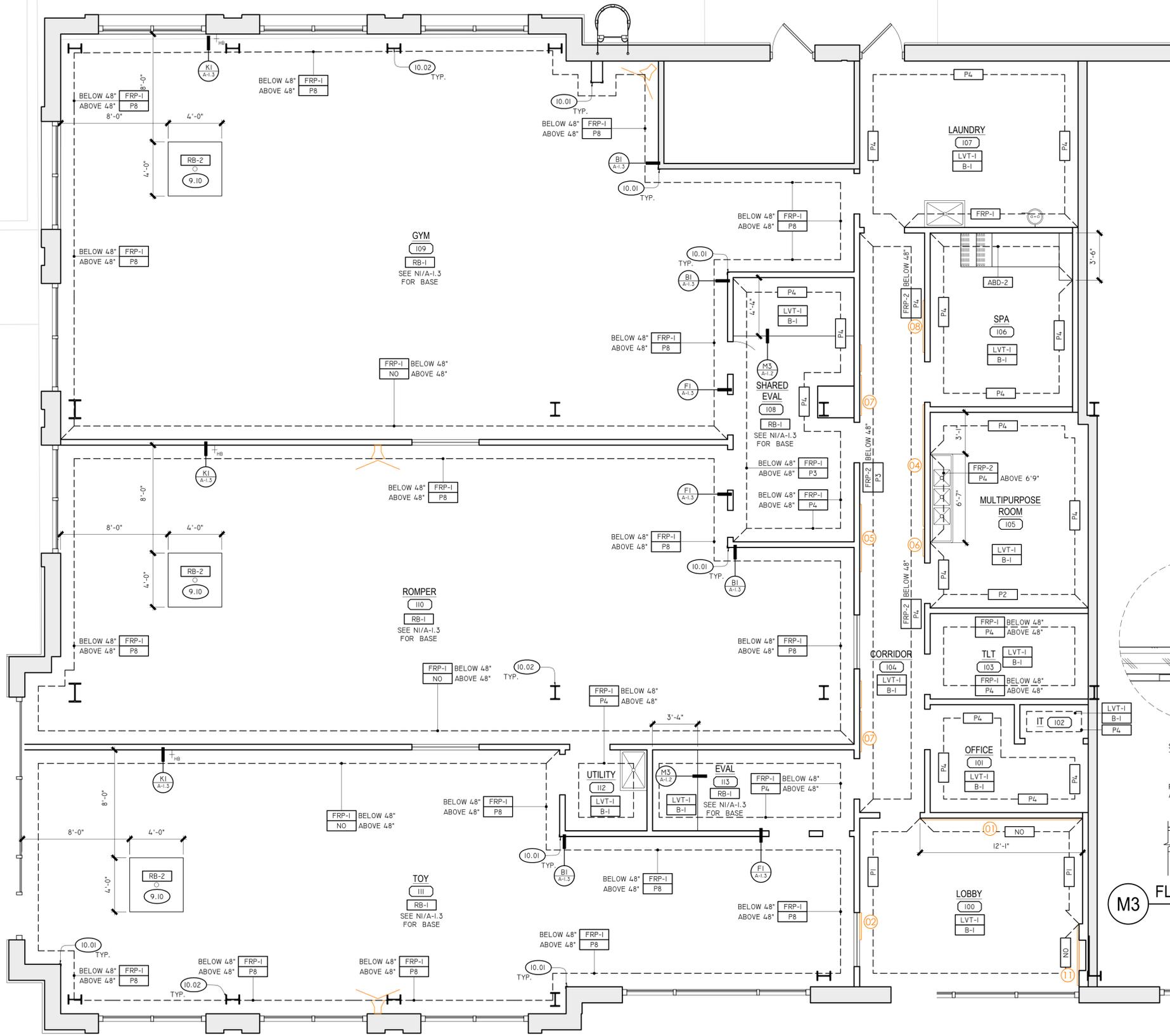
DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

FLOOR PLAN

SHEET No.
A-1.0

A1 FLOOR PLAN

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



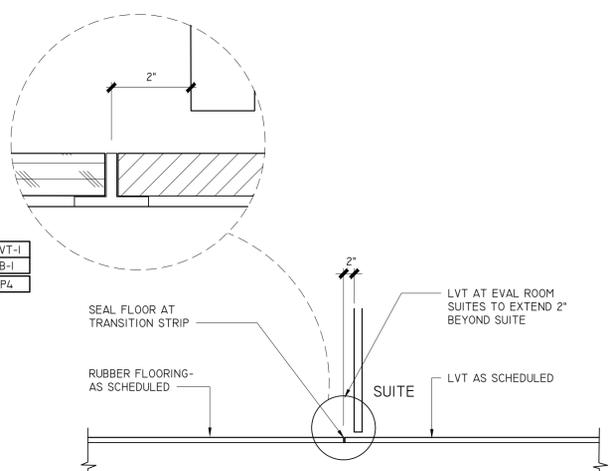
GENERAL FINISH PLAN NOTES:

- G.C. TO COORDINATE PAINT WITH GRAPHICS VENDOR / FINAL GRAPHICS PACKAGE. WALLS TO RECEIVE FULL MURALS SHALL BE PRIMED ONLY NOT PAINTED.
- ENSURE A LEVEL 5 GYPSUM BOARD FINISH ON WALLS TO RECEIVE GRAPHICS. PROVIDE TWO COATS OF PRIMER PRIOR TO APPLYING GRAPHIC.
- SEE MATERIAL FINISH SCHEDULE ON SHEET A-1.3 FOR SPECIFIC PAINT AND PRIMERS FOR EXISTING AND NEW WALLS AS NECESSARY
- REFER TO MATERIAL FINISH SCHEDULE ON SHEET A-1.3 FOR ALL FINISHES
- ALL VERTICAL FRP TO RUBBER FLOORING TO BE FULLY SEALED WITH 3M-540 IN GREY. RUBBER FLOORING TO ALL OTHER VERTICAL SURFACES TO BE FULLY SEALED WITH 3M-540 IN BLACK. GC TO CONFIRM NO WATER CAN PENETRATE SEAMS.
- PROVIDE CORNER GUARDS AT ALL OUTSIDE CORNERS AND EXPOSED COLUMNS. SEE DETAIL ON SHEET A-1.3.
- GC TO PROVIDE HARD START DATE OF PRIMING TO CONSTRUCTION MANAGER - MUST BE AT LEAST 7 DAYS IN ADVANCE OF WORK

FINISH PLAN KEY NOTES: (0.0)

- OPAQUE WINDOW FILM 3M DARK GRAY 41, ON INTERIOR OF GLAZING AS SHOWN. 96" HIGH
- POTTY PLACE CENTERED ON NEW OR EXISTING FLOOR DRAIN. SEE A-1.3 FOR FINISH AND DETAILS ON SHEET A-4.1 FOR DETAILS. SEAMS OF ROLLED RUBBER FLOORING TO ALIGN WITH FINISH TRANSITION CHANGE
- CORNER GUARD. SEE DETAIL BI/A-1.3
- COLUMNS TO BE EPOXY PAINTED (P8) PROVIDE SEALANT AT FLOORING TRANSITION

II STOP TOUR	
1	WOW WALL
2	PLAYROOM
3	OUTDOOR PLAY AREA
4	BRAG WALL
5	MEET AND GREET
6	BREAK ROOM
7	SUITES
8	SPA
9	TRAINING ROOM
10	COFFEE TABLE BOOK
11	DOGTOPIA FOUNDATION



FLOORING TRANSITION DETAIL AT SUITES
SCALE: NTS



Quick Service Restaurant and Retail
Design Group, LLC

584 Belter Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9880



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19158, EXPIRATION DATE 08/16/2025



1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

FINISH PLAN

SHEET No.
A-1.2



GENERAL RCP NOTES:

- REFER TO GENERAL NOTES OF SHEET T-5 FOR ADDITIONAL INFORMATION.
- GENERAL CONTRACTOR TO VISIT SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.
- GENERAL CONTRACTOR TO NOTIFY ARCHITECT IMMEDIATELY AFTER DEMOLITION OR START OF CONSTRUCTION, IF PROPOSED CEILING HEIGHTS & MECHANICAL REQUIREMENTS CAN NOT BE ACHIEVED FOR ANY REASON.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR PATCHING & REPAIRING ALL FIREPROOFING AS REQUIRED DUE TO PRIOR TENANT CONSTRUCTION AND DUE TO ANY NEW DEMOLITION OR NEW CONSTRUCTION TO MEET BOTH LANDLORD AND BUILDING DEPARTMENT REQUIREMENTS.
- GENERAL CONTRACTOR TO PROVIDE CEILING ACCESS PANELS AS REQUIRED TO ACCOMMODATE ELECTRICAL, PLUMBING, AND/OR MECHANICAL SERVICES THAT PASS THROUGH THE LEASED PREMISES, IE., J-BOXES, DUCT SMOKE DETECTORS, FIRE DAMPERS, FLOW SWITCHES, UTILITY CONNECTION POINTS, ETC.
- SUSPENSION WIRES SHALL BE INSTALLED WITH A MAXIMUM SPACING OF 48" O.C.
- ALL LAY-IN CEILING GRIDS SHALL BE CENTERED IN ROOM U.N.O.
- SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

REFLECTED CEILING PLAN KEY NOTES:

- 23.08 DRYER VENT THROUGH CEILING TO EXTERIOR WALL LOUVER. SEE MECHANICAL.
- 23.09 TANKLESS WATER HEATER EXHAUST FLUE THROUGH ROOF.
- 26.04 NEST CAMERA MOUNTED AT 8'-0" A.F.F., SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 26.10 EXTERIOR SIGNAGE BY SIGN VENDOR. GC TO PROVIDE BLOCKING AND ELECTRICAL CONNECTIONS IN ACCORDANCE WITH APPROVED SIGN SHOP DRAWINGS.

REFLECTED CEILING PLAN LEGEND

	2'X4' ACOUSTICAL CEILING TILE BY ARMSTRONG. SEE MATERIAL LEGEND ON THIS SHEET FOR ADDITIONAL INFORMATION.
	2'X2' ACOUSTICAL CEILING TILE BY ARMSTRONG. SEE MATERIAL LEGEND ON THIS SHEET FOR ADDITIONAL INFORMATION.
	2'X2' FLAT PANEL LED FIXTURE. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
	WALL MOUNTED FAN. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. MFG: CANARM MODEL: WMKD30 MOUNT SO TOP OF FAN IS 6" BELOW CEILING HEIGHT OR 8'-0" ABOVE GRADE IF EXTERIOR
	CEILING MOUNTED FAN. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. MFG: CANARM MODEL: CP60HPWP MOUNT SO TOP OF FAN IS 6" BELOW CEILING HEIGHT

MATERIAL LEGEND

	2'X4' ACOUSTICAL CEILING TILE BY ARMSTRONG: FINE FISSURED #1714
	2'X2' ACOUSTICAL CEILING TILE BY ARMSTRONG: FINE FISSURED #1713
	GYPSUM CEILING PAINT SHERWIN WILLIAMS SW7007 "CEILING BRIGHT-WHITE" EGGSHELL FINISH.



Quick Service Restaurant and Retail Design Group, LLC
584 Belterville Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9890



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19138, EXPIRATION DATE 08/16/2025



1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

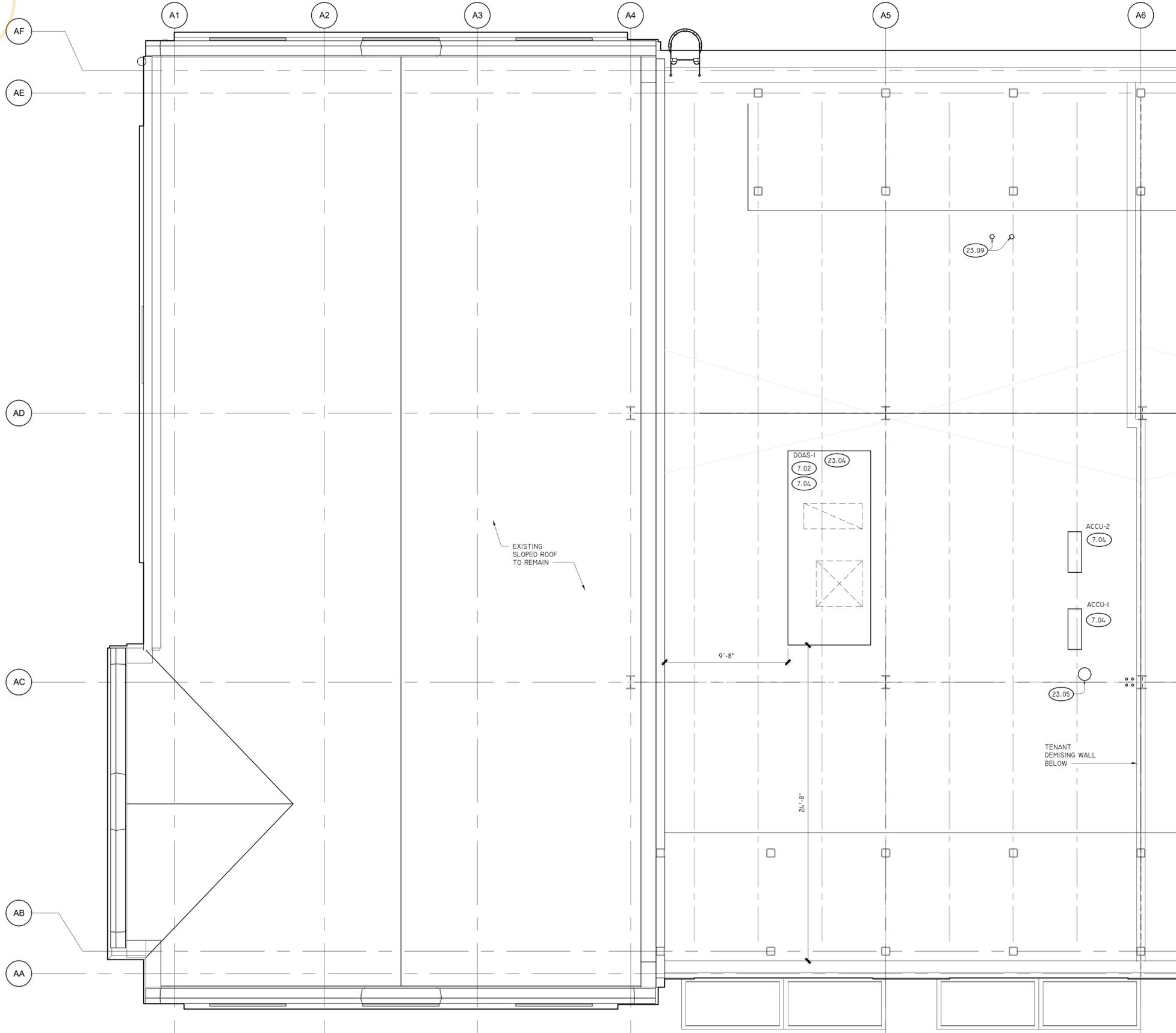
DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

REFLECTED CEILING PLAN

SHEET No.
A-1.4

A1 REFLECTED CEILING PLAN

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



A1 ROOF PLAN

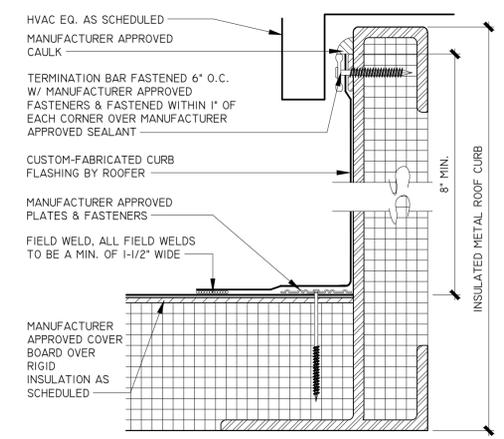
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ROOF PLAN GENERAL NOTES:

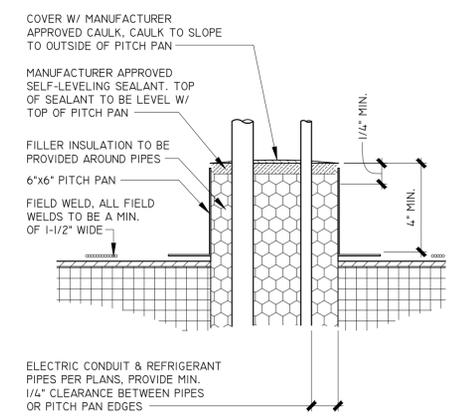
1. ROOF IS EXISTING TO REMAIN. ACCESS IS BY EXISTING LADDER.
2. ANY ROOF MODIFICATION WORK NEEDED SHALL BE COORDINATED WITH THE LANDLORD PRIOR.
3. APPROXIMATE ROOF STRUCTURE IS SHOWN DASHED ON THE PLAN. CONTRACTOR TO VERIFY EQUIPMENT PLACEMENT WITH EXISTING STRUCTURE

ROOF PLAN KEY NOTES: (0.0)

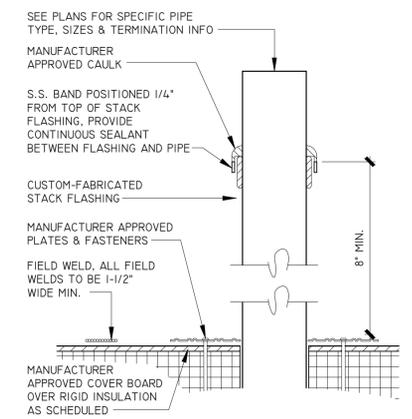
- 7.02 PROVIDE ROOF CRICKETS @ CURBS AS REQUIRED. COORDINATE CRICKETS WITH ROOF SLOPE.
- 7.04 PROVIDE PITCH PANS AS NECESSARY FOR ELECTRICAL ROOF PENETRATIONS. SEE DETAIL THIS SHEET.
- 23.04 RTU ON NEW CURB. SEE MECHANICAL PLAN. FIELD LOCATE WITH EXISTING STRUCTURE AND REQUIRED CLEARANCES.
- 23.05 OUTSIDE AIR DUCT AND TERMINATION, SEE MECHANICAL PLANS
- 23.09 TANKLESS WATER HEATER EXHAUST FLUE THROUGH ROOF.



ROOF CURB DETAIL



PITCH PAN DETAIL



PIPE PENETRATION DETAIL



Quick Service Restaurant and Retail Design Group, LLC

584 Belterve Road, Suite 3D Annapolis, MD 21409
 Ph. No. (410) 364-9880



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1270 EAST JOPPA ROAD
 SUITE 200
 TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
 DRAWN BY: STAFF
 PROJECT No.: 22155
 DWG TITLE:

ROOF PLAN AND DETAILS

SHEET No.
A-1.5



Quick Service Restaurant and Retail
Design Group, LLC
584 Belter Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9880



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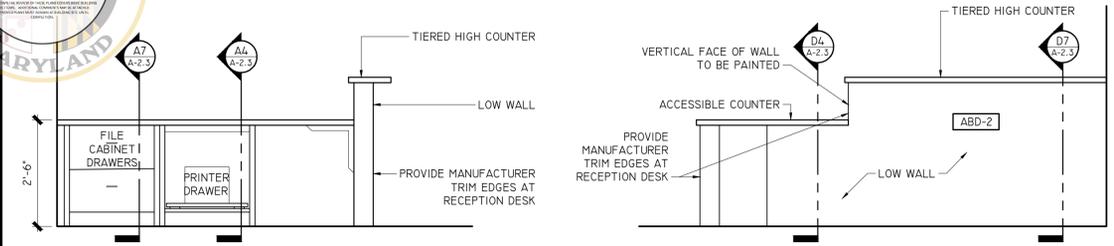
1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

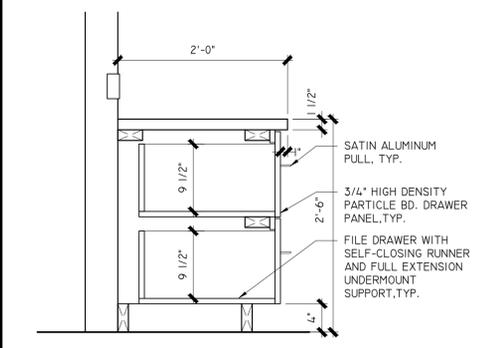
LOBBY DETAILS

SHEET No.
A-2.3

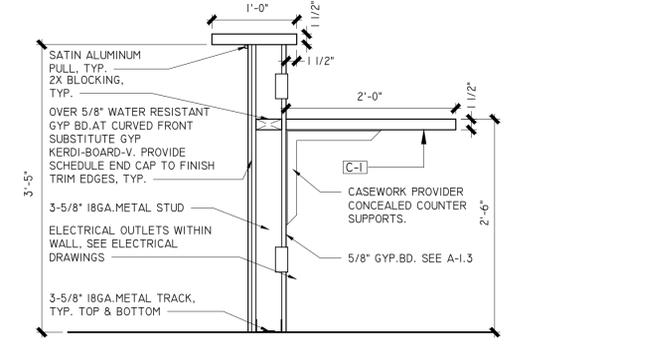


A10 RECEPTION DESK ELEVATION
SCALE: 1/2" = 1'-0"

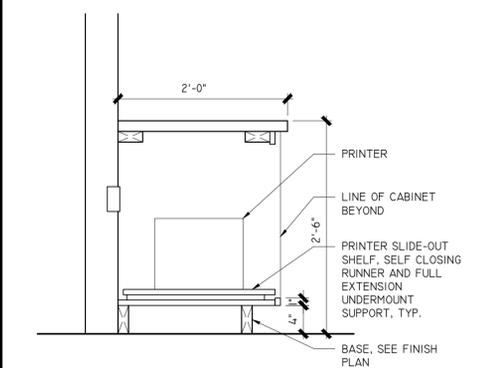
E10 RECEPTION DESK ELEVATION
SCALE: 1/2" = 1'-0"



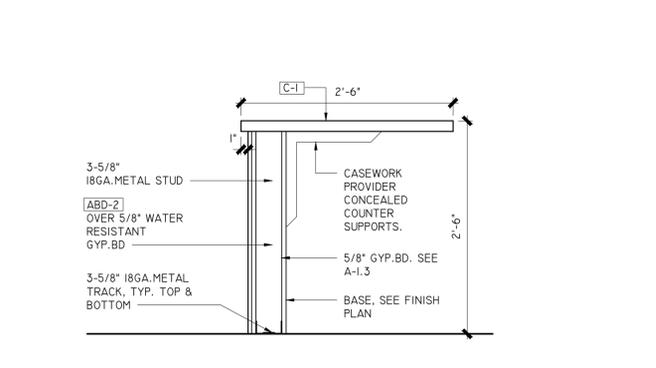
A7 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



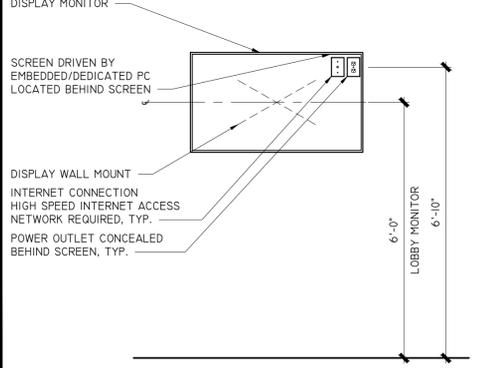
D7 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



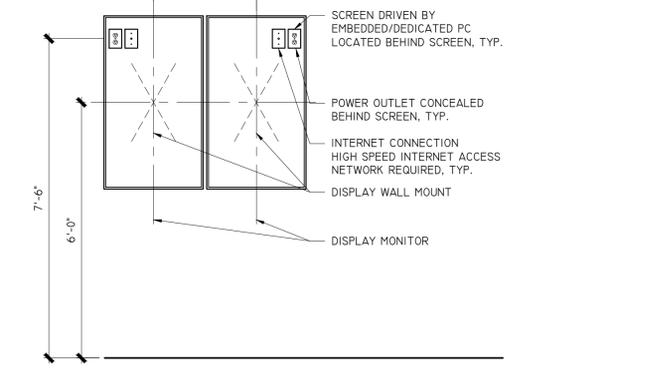
A4 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



D4 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



A1 LOBBY PLAYROOM MONITOR
SCALE: 1/2" = 1'-0"



D1 DIGITAL MENU BOARDS
SCALE: 1/2" = 1'-0"

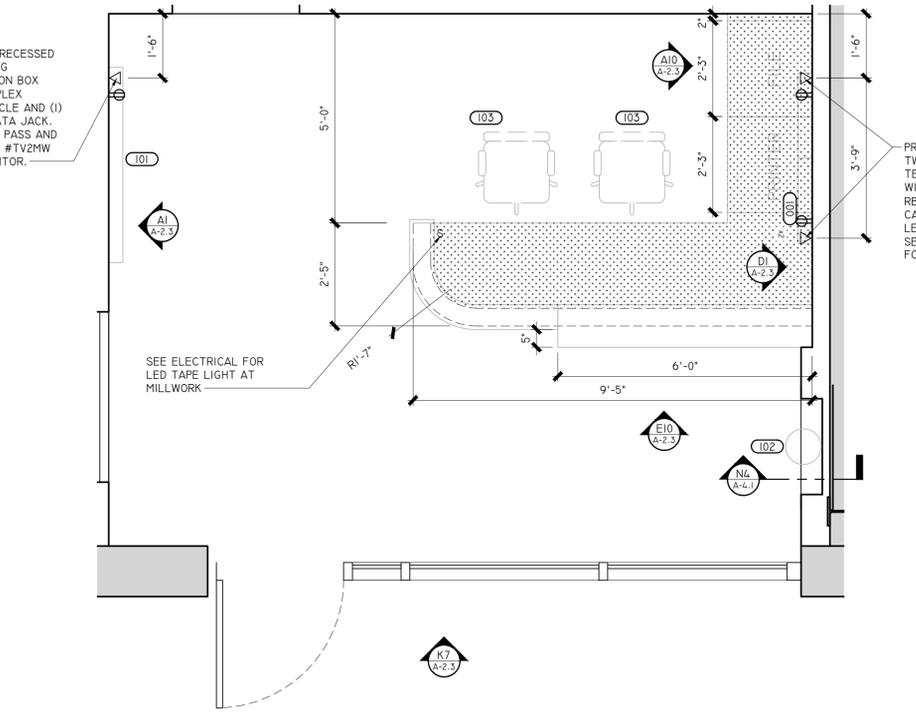


SIGNAGE BY SIGN VENDOR, PERMITTED AND INSTALLED UNDER SEPARATE PERMIT AND COVER. GC TO PROVIDE BLOCKING AND ELECTRICAL CONNECTION IN ACCORDANCE WITH APPROVED SIGN SHOP DRAWINGS.

DEMOLISH AND REMOVE EXISTING DOORS AND INFILL WITH STOREFRONT TO MATCH EXISTING

DEMOLISH AND REMOVE PORTION OF EXISTING STOREFRONT TO FACILITATE NEW STOREFRONT DOOR.

K7 FRONT ELEVATION VIEW
SCALE: N/S



K1 ENLARGED LOBBY PLAN
SCALE: 1/2" = 1'-0"



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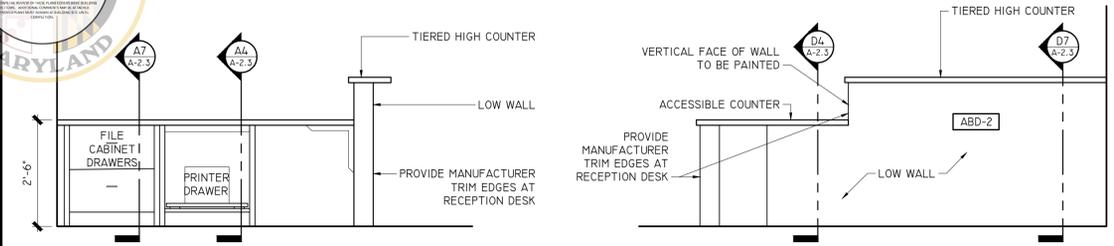
1300 EAST JOPPA ROAD
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
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PROJECT No.: 22155
DWG TITLE:

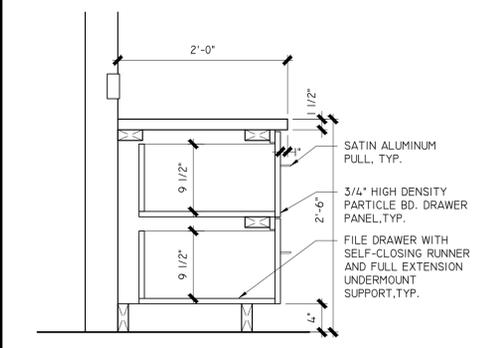
LOBBY DETAILS

SHEET No.
A-2.3

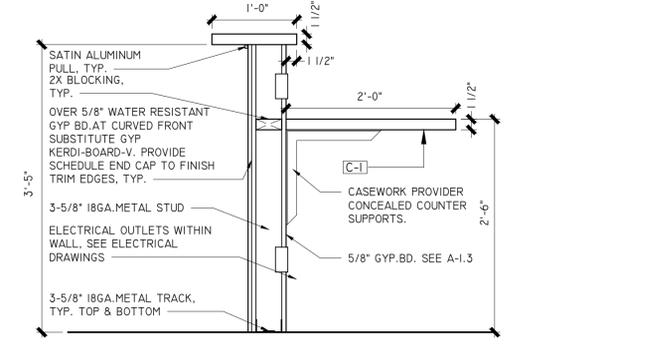


A10 RECEPTION DESK ELEVATION
SCALE: 1/2" = 1'-0"

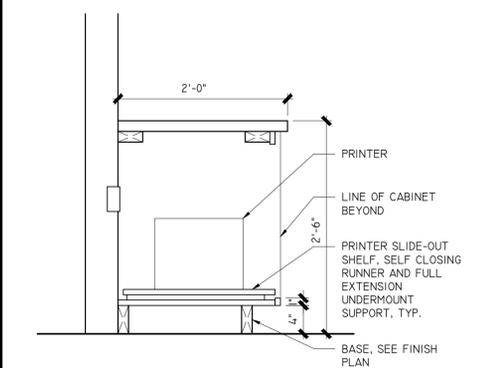
E10 RECEPTION DESK ELEVATION
SCALE: 1/2" = 1'-0"



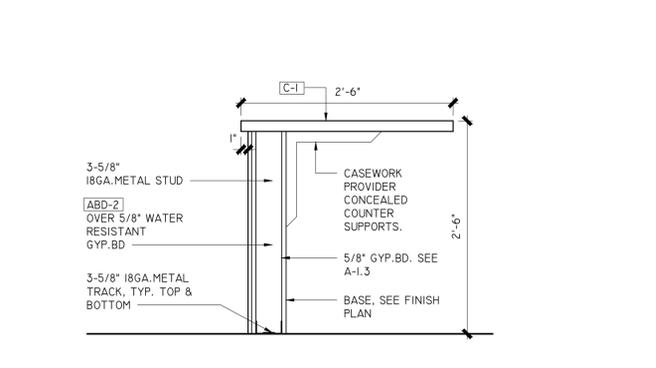
A7 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



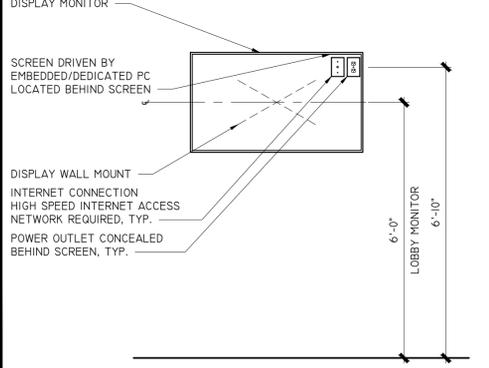
D7 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



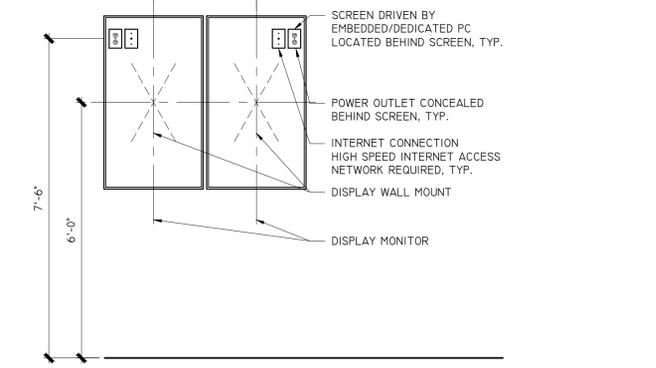
A4 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



D4 RECEPTION DESK SECTION
SCALE: 1" = 1'-0"



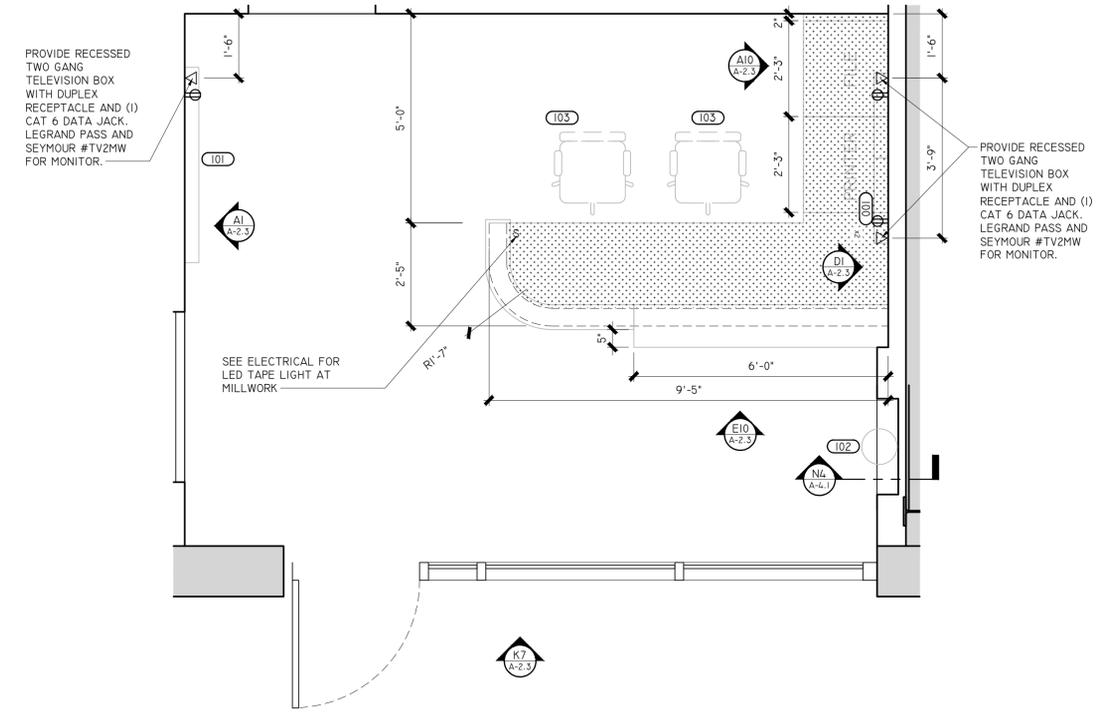
A1 LOBBY PLAYROOM MONITOR
SCALE: 1/2" = 1'-0"



D1 DIGITAL MENU BOARDS
SCALE: 1/2" = 1'-0"



K7 FRONT ELEVATION VIEW
SCALE: N/S



K1 ENLARGED LOBBY PLAN
SCALE: 1/2" = 1'-0"

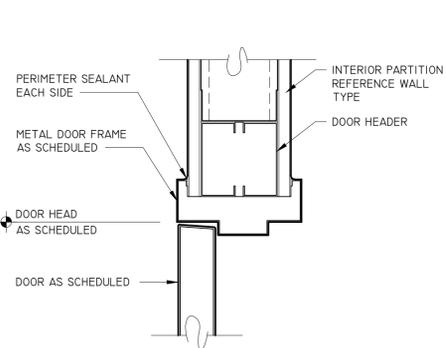


DOOR SCHEDULE

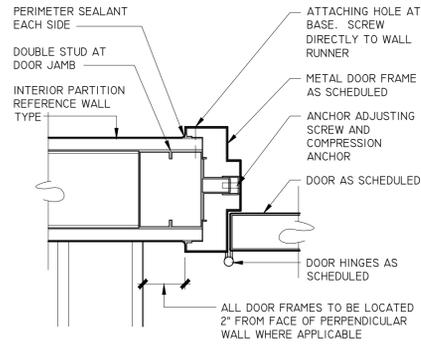
NO.	LEAFS	WIDTH	HEIGHT	THK.	DOOR			FRAME			DETAILS			ASSEMBLY		REMARKS
					ELEV.	MATERIAL	FINISH	ELEV.	MATERIAL	FINISH	HEAD	JAMB	SILL	HDWSET	RATING	
1	1	3'-0"	7'-0"	1 3/4"	E	ALUM./GL	NOTE 5	NOTE 5	ALUM	NOTE 5	-	-	-	2	-	NOTE 5
2	1	3'-0"	7'-0"	1 3/4"	F	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	8	-	NOTE 4
3	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	3	-	NOTE 4
4	1	3'-0"	7'-0"	1 3/4"	A	WD	W6	1	HM	W6	A5/A-3.0	D5/A-3.0	-	5	-	DUTCH DOOR
5	4	1'-0"	7'-0"	1 3/4"	K	WD	W6	1	HM	W6	-	-	-	10	-	-
6	1	3'-0"	7'-0"	1 3/4"	J	WD	W6	1	HM	W6	A5/A-3.0	D5/A-3.0	-	6	-	-
7	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W6	1	HM	W6	A5/A-3.0	D5/A-3.0	-	3	-	-
8	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	3	-	NOTE 4
9	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	3	-	NOTE 4
10	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	3	-	-
11	1	3'-0"	7'-0"	1 3/4"	D	WD	W6	1	HM	W6	A5/A-3.0	D5/A-3.0	-	7	-	-
12	1	2'-5"	2'-10"	1 3/4"	G	WD	W8	1	HM	W8	C5/A-3.0	S/A-3.0	-	9	-	NOTE 4
13	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	3	-	NOTE 4
14	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	C5/A-3.0	K5/A-3.0	-	3	-	NOTE 4
15	1	2'-0"	2'-10"	1 3/4"	G	WD	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	9	-	-
16	1	3'-0"	7'-0"	1 3/4"	D	WD	W6	1	HM	W6	A5/A-3.0	D5/A-3.0	-	7	-	-
17	1	3'-0"	7'-0"	1 3/4"	D	WD	W6	1	HM	W6	A5/A-3.0	D5/A-3.0	-	7	-	-
18	1	3'-0"	7'-0"	1 3/4"	C	WD/GL	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	3	-	NOTE 4
19	1	2'-0"	2'-10"	1 3/4"	G	WD	W8	1	HM	W8	A5/A-3.0	D5/A-3.0	-	9	-	NOTE 4
20	1	3'-0"	7'-0"	-	-	-	-	-	-	-	-	-	-	-	-	NOTE 5 AND 6
E1	1	3'-0"	7'-0"	-	-	-	-	-	-	-	-	-	-	-	-	NOTE 1 AND 2

GENERAL DOOR AND HARDWARE NOTES:

- ALL EXISTING DOORS SHALL BE SERVICED FOR PROPER FUNCTION
- HARDWARE SETS PROVIDED FOR EXISTING DOORS ARE FOR PURPOSES AUGMENTATION AS NEEDED. CONFIRM EXISTING DOOR HARDWARE PRIOR TO ANY NEW INSTALLATIONS
- FIELD VERIFY ALL OPENINGS PRIOR TO GATE / DOOR INSTALLATIONS
- PROVIDE A RADIUS DOOR EDGE OF 1/4" ON ALL DOG ROOM DOORS ON THE LATCH SIDE
- STOREFRONT DOOR AND FRAME SHALL MATCH EXISTING
- REPLACE EXISTING DOOR WITH IN SWING DOOR PER PLAN, MATCH DOOR HARDWARE WITH DEMOLISHED DOOR.



A5 INTERIOR DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



D5 INTERIOR DOOR JAMB DETAIL
SCALE: 3" = 1'-0"

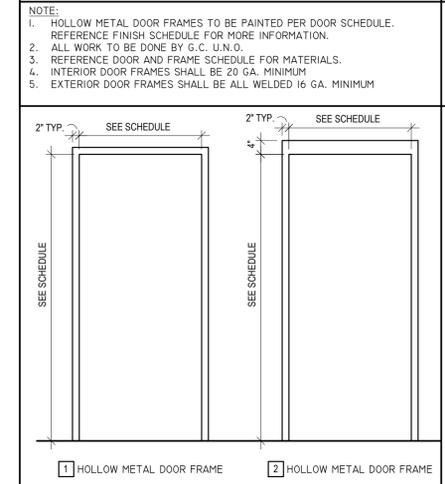
HARDWARE GROUP

GROUP #1 - (HOLLOW METAL DOORS) (EXTERIOR PLAY DOOR)		GROUP #2 (SINGLE DOOR) (EXTERIOR ENTRY DOOR)		GROUP #3 (PLAYROOM, SPA, EVAL., SUITES, MULTI-ROOM)		GROUP #4 - STORAGE		GROUP #5 (DUTCH DOOR) (OFFICE)	
HINGE	STANLEY: 780-224HD-84" ALUMINUM CONTINUOUS HINGE FOR 7'-0" DOOR	HINGE	STANLEY: 780-224HD-84" ALUMINUM CONTINUOUS HINGE FOR 7'-0" DOOR	HINGE	STANLEY: 04-4786 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (3)	HINGE	STANLEY: FB8179 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (3)	HINGE	STANLEY: FB8179 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (3); (4) AT DUTCH DOOR
EXIT DEVICE	MONARCH: 19-R-L-DANE, US32D/STAINLESS STEEL	DOOR PULL	KAWNEER: CO-12, FINISH TO MATCH EXISTING HARDWARE	LOCKSET	FALCON: W101A26, SATIN CHROME, PASSAGE (NOT KEYPED)	LOCKSET	FALCON: W581A26, SATIN CHROME, STOREROOM KEYPED LOCK	LOCKSET	FALCON: W511A26, SATIN CHROME, KEYPED LOCK ENTRY/OFFICE FUNCTION
LEVER	MONARCH: DANE/US32D/ STAINLESS STEEL	DOOR PUSH	KAWNEER: CP-11, FINISH TO MATCH EXISTING HARDWARE	CLOSER	DORMA: 8916 - 626 SATIN CHROME FINISH, WITH 90 DEGREE FRICTION HOLD-OPEN. PUSH SIDE MOUNTING WITH PARALLEL ARM PREFERRED WHERE POSSIBLE.	WALL STOP	DON JO: 1407-630 #US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)	WALL STOP	DON JO: 1407-630#US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)
KICK PLATE	HIAWATHA: KP34X34 SATIN STAINLESS STEEL@PUSH SIDE ONLY	LOCKSET	FALCON: D131, 626 SATIN CHROME, C.O. CYLINDER@3/4" MIN ABOVE BOTTOM OF DOOR (LOCK TO HAVE LOCKED/UNLOCKED INDICATOR)	WALL STOP	DON JO: 1407-630 #US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)	SILENCER	IVES: SR64, US260 SATIN CHROME	SILENCER	IVES: SR64, GRAY (4)
THRESHOLD	REESE: S514-36 OR S424-36, FINISH TO MATCH DOOR, INSTALL IN NON-SHRINK STRUCTURAL GROUT BED	CLOSER	DORMA: 8916-626 SATIN CHROME FINISH, WITH 90 DEGREE FRICTION HOLD-OPEN. PUSH SIDE MOUNTING WITH PARALLEL ARM PREFERRED WHERE POSSIBLE.	KICK PLATE	HIAWATHA: KP34X34-32D STAINLESS STEEL @ BOTH SIDES	KICK PLATE	HIAWATHA: KP34X34 SATIN STAINLESS STEEL @ HALLWAY SIDE ONLY	KICK PLATE	HIAWATHA: KP34X34-32D STAINLESS STEEL@BOTH SIDES-VERIFY WITH OWNER
DORR SWEEP	PEMCO: SFSC-200-36, INSTALL WITH WEATHER STRIPPING	THRESHOLD	REESE: S514-36 OR S424-36, FINISH TO MATCH DOOR, INSTALL IN NON-SHRINK STRUCTURAL GROUT BED	SILENCER	IVES: SR64, GRAY (3)	ALTERNATE LOCKSET AT LAUNDRY/ UTILITY LOCKSET	FALCON: W101A26, SATIN CHROME, PASSAGE (NOT KEYPED)	DUTCH BOLT	IVES: 054 B260 SATIN CHROME, (BASE BRASS), DUTCH DOOR BOLT
CLOSER	DORMA: 8916-626 SATIN CHROME FINISH, WITH 90 DEGREE FRICTION HOLD-OPEN. PUSH SIDE MOUNTING WITH PARALLEL ARM PREFERRED WHERE POSSIBLE.	DOOR SWEEP	PEMCO: SFSC-200-36, INSTALL WITH WEATHER STRIPPING	THRESHOLD	ROPPE: REDUCER STRIP IN JET BLACK@RUBBER TO V.C.T. TRANSITION				
INSWINGING DOORS ONLY PROVIDE A DOOR STOP GLAZING	DON JO: 1407-630#US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)	SIGNAGE	PROVIDE SIGN STATING "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED" ON EGRESS SIDE OR ADJACENT TO DOOR.	GLAZING	AIR LOUVERS VSL SLIMLINE: 24"X32"X1/4" VISION LITE KIT WITH CLEAR TEMPERED SAFETY GLASS (22X30 GLASS VISIBLE) PAINT FRAME				

GROUP #6 - RESTROOM GROUP #7 - UTILITY GROUP #8 - LOBBY GROUP #9 - THRU-WALL CRATES GROUP #10 - BI-FOLD CLOSET DOOR

HINGE	STANLEY: FB8179 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (3)	HINGE	STANLEY: FB8179 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (3)	HINGE	STANLEY: 04-4786 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (3)	HINGE	STANLEY: FB8179 STAINLESS STEEL, 4-1/2X4-1/2 - SET OF (2) (HINGES ON EVALUATION SIDE)	HINGE	STANLEY: BF50-00-72(2) PANEL PACKAGE: 1/4" PIECE STEEL, BI-FOLD CLOSET DOOR HARDWARE KIT.
LOCKSET	FALCON: W301A26, SATIN CHROME, PRIVACY LOCK	LOCKSET	FALCON: W101A26, SATIN CHROME, PASSAGE (NOT KEYPED)	LOCKSET	FALCON: W101A26, SATIN CHROME, PASSAGE (NOT KEYPED)	HINGE	FALCON: W101A26, SATIN CHROME, PASSAGE (NOT KEYPED) NO LEVER ON PLAYROOM SIDE	LEVER	(2) FALCON: W12A26, SATIN CHROME, "DUMMY TRIM"
CLOSER	DORMA: 8916-626 SATIN CHROME FINISH, WITH 90 DEGREE FRICTION HOLD-OPEN. PUSH SIDE MOUNTING WITH PARALLEL ARM PREFERRED WHERE POSSIBLE.	WALL STOP	DON JO: 1407-630 #US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)	CLOSER	DORMA: 8916-626 SATIN CHROME FINISH, WITH 90 DEGREE FRICTION HOLD-OPEN. PUSH SIDE MOUNTING WITH PARALLEL ARM PREFERRED WHERE POSSIBLE.	WALL STOP	DON JO: 1407-630#US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)		
WALL STOP	DON JO: 1407-630#US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)	SILENCER	IVES: SR64, GRAY (3)	WALL STOP	DON JO: 1407-630 #US26 (USE 1440-626 WHEN WALL STOP NOT POSSIBLE)	KICK PLATE (TOY & ROMPER ONLY)	HIAWATHA: KP27X29-32D STAINLESS STEEL		
SILENCER	IVES: SR64, GRAY (3)	KICK PLATE	HIAWATHA: KP34X34 SATIN STAINLESS STEEL@BOTH SIDES	SILENCER	IVES: SR64, GRAY (3)	KICK PLATE (GYM ONLY)	HIAWATHA: KP27X29-32D STAINLESS STEEL		
KICK PLATE	HIAWATHA: KP34X34-32D STAINLESS STEEL@BOTH SIDES	THRESHOLD	ROPPE: 5NKL8 ALUMINUM 22X18 PREFINISHED GRAY	KICK PLATE	HIAWATHA: KP34X34-32D STAINLESS STEEL @ BOTH SIDES				
		LOUVER	AIR LOUVERS: 900 SERIES 24X24, 1" Z BLADES	THRESHOLD	ROPPE: REDUCER STRIP IN JET BLACK @RUBBER TO V.C.T. TRANSITION				
				GLAZING	AIR LOUVERS: VSL SLIMLINE: 24"X66"X1/4" VISION LITE KIT WITH CLEAR TEMPERED SAFETY GLASS (22X62 GLASS VISIBLE) PAINT FRAME				

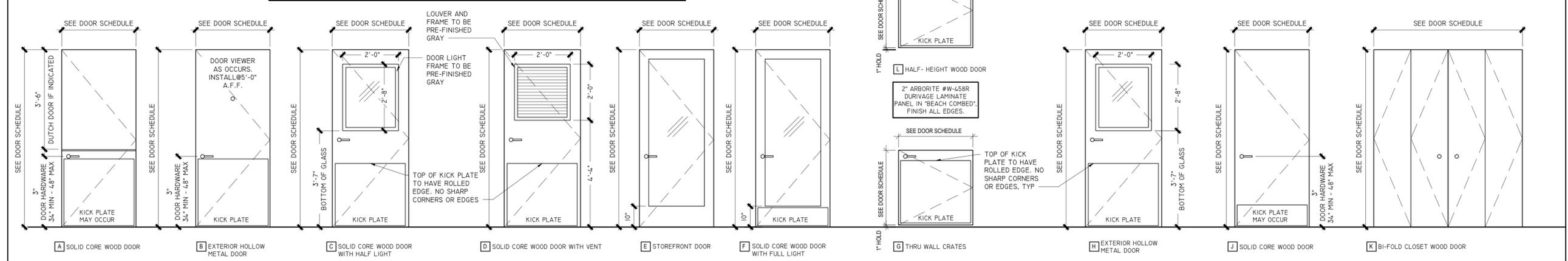
FRAME TYPES



1 HOLLOW METAL DOOR FRAME 2 HOLLOW METAL DOOR FRAME

DOOR TYPES

- NOTE:
- DOORS TO BE PAINTED PER DOOR SCHEDULE, REFERENCE FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
 - ALL WORK TO BE DONE BY G.C. U.N.O.
 - REFERENCE DOOR & FRAME SCHEDULE FOR MATERIALS.
 - ALL GLASS TO BE TEMPERED.
 - ALL INTERIOR/EXTERIOR METAL DOORS SHALL BE 20 GA. MINIMUM.



Quick Service Restaurant and Retail Design Group, LLC

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1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

DOOR SCHEDULE AND DETAILS

SHEET No.
A-3.0



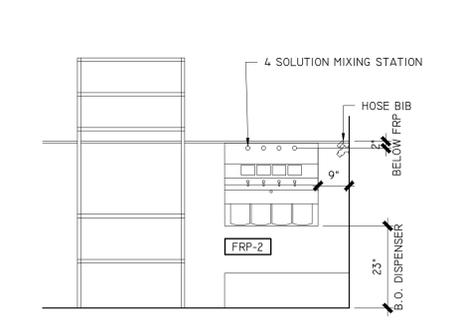
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584 Bellevue Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9880



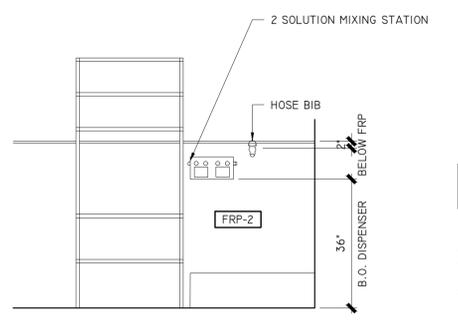
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19158, EXPIRATION DATE 08-16-2025.



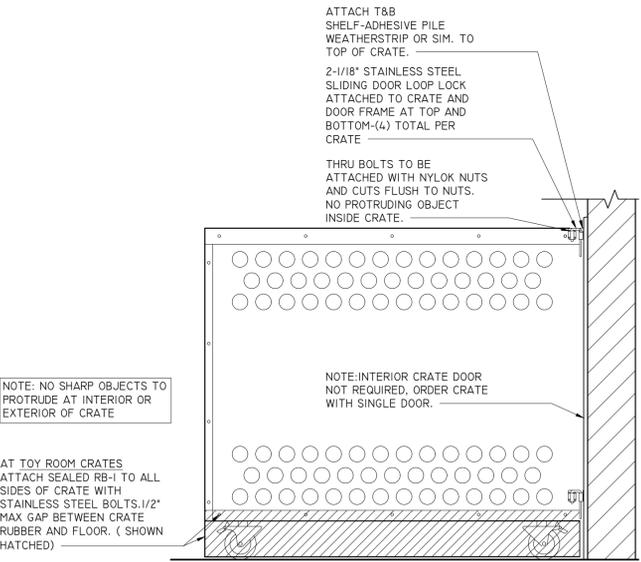
1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286



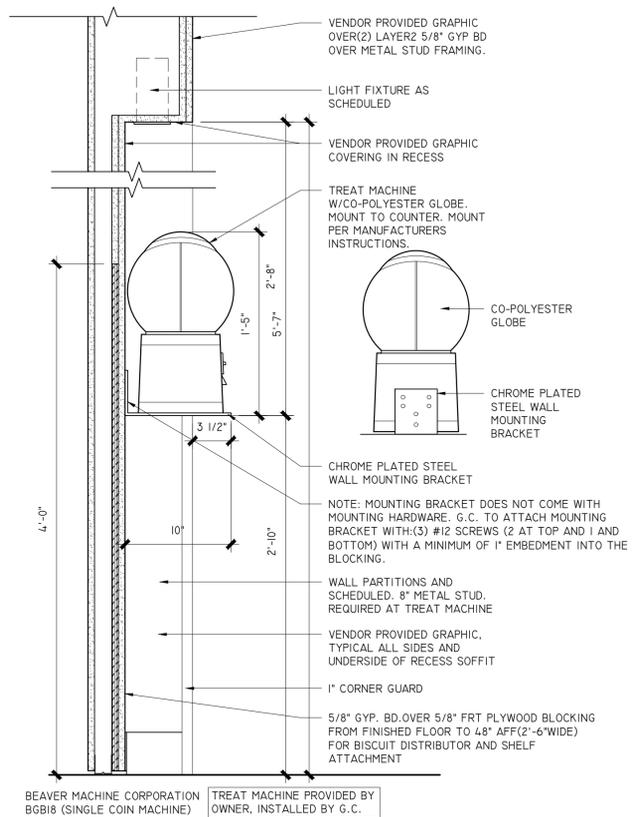
C4 MOP SINK W/ 4 SOLUTION MIX
SCALE: 1/2" = 1'-0"



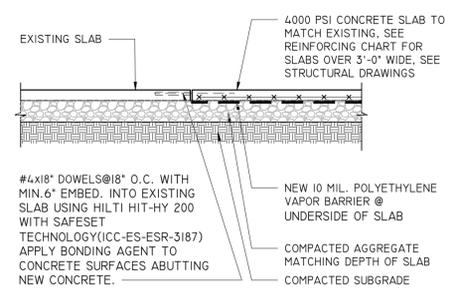
F4 MOP SINK W/ 2 SOLUTION MIX
SCALE: 1/2" = 1'-0"



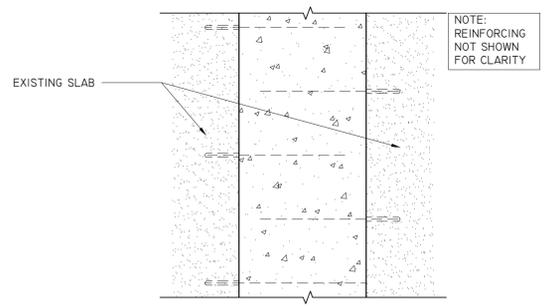
J4 THRU WALL DOG CRATE DETAIL
SCALE: 1-1/2" = 1'-0"



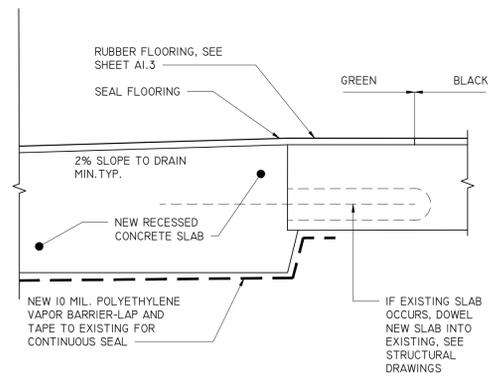
N4 TREAT MACHINE DETAIL
SCALE: 1-1/2" = 1'-0"



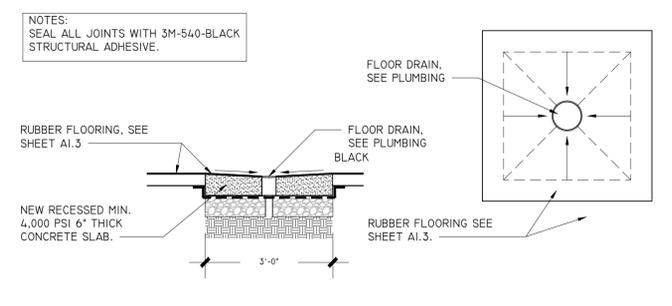
A1 TYPICAL SLAB PATCH DETAIL
SCALE: NTS



D1 TRENCHED SLAB DOWEL PLAN
SCALE: NTS



G1 POTTY PLACE DETAIL
SCALE: 3" = 1'-0"



L1 POTTY PLACE FLOOR DRAIN
SCALE: NTS

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

DETAILS AND ELEVATIONS

SHEET No.
A-4.1



GENERAL DEMOLITION NOTES:

1. DEMOLITION PLANS ARE GENERAL IN NATURE AND ARE NOT INTENDED TO BE ALL ENCOMPASSING OR EXHAUSTIVE IN DEPICTING EACH INDIVIDUAL ITEM TO BE REMOVED OR DEMOLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH THE PROJECT REQUIREMENTS PRIOR TO BIDDING. ITEMS INTERFERING WITH OR OF NO USE / VALUE TO THE COMPETED PROJECT SHALL BE REMOVED OR DEMOLISHED WHETHER SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS OR NOT.
2. THE CONTRACTOR SHALL COORDINATE WITH THE TENANT / OWNER. THE ITEMS TO BE SALVAGED AND ITEMS TO BE DISPOSED OF. SALVAGED ITEMS SHALL BE HANDLED IN A WAY THAT WILL CAUSE NO FURTHER DAMAGE TO EACH PARTICULAR ITEM.
3. THE CONTRACTOR SHALL DEMOLISH AND REMOVE CONSTRUCTION AGAINST A RATED ASSEMBLY IN SUCH A WAY AS TO NOT DAMAGE, ALTER, OR COMPROMISE THE EXISTING RATING IN ANY WAY.
4. DEMOLISH & REMOVE ALL FLOOR FINISHES THROUGHOUT AREA OF WORK U.N.O. FLOOR PENETRATIONS, INCLUDING BUT NOT LIMITED TO, ABANDONED CONDUITS, WIRES, AND PIPES SHALL BE REMOVED & CAPPED BELOW FLOOR SLAB AS REQUIRED BY CODE AND VOIDS INFILLED TO MATCH ADJACENT SLAB LEVEL. PROVIDE A SMOOTH, LEVEL FLOOR SLAB READY TO RECEIVE NEW FINISHES.
5. DEMOLISH & REMOVE ALL EXISTING CEILING SYSTEMS IN THEIR ENTIRETY, INCLUDING BUT NOT LIMITED TO, LAY-IN CEILINGS, GWB HARD CEILINGS, DROP SOFFITS, BULKHEADS, LIGHTS AND ALL ASSOCIATED FRAMING & HANGERS THROUGHOUT AREA OF WORK U.N.O. ALL ASSOCIATED WIRE TIES, HANGER SYSTEMS, PIPES, CONDUITS, ETC. TO BE REMOVED TO PROVIDE A CLEAN, EXISTING EXPOSED UNDERSIDE OF STRUCTURE. COORDINATE WITH NEW CEILING PLAN FOR CEILINGS TO REMAIN.
6. DEMOLISH & REMOVE ALL EXISTING ABANDONED MECHANICAL EQUIPMENT AND DUCTWORK NOT TO BE REUSED.
7. THE CONTRACTOR SHALL COORDINATE WITH PLUMBING AND ELECTRIC PLANS AND EXISTING CONDITIONS IN / BELOW SLAB FOR ALL SLAB CORING AND SLAB SAW CUTS / TRENCHING REQUIRED TO PERFORM AND COMPLETE WORK. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE EXISTING BELOW SLAB UTILITIES ARE NOT DAMAGED DURING DEMOLITION & CONSTRUCTION. THE CONTRACTOR SHALL SCAN OR X-RAY AREAS OF SLAB CORING, CUTTING, AND TRENCHING.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXTENTS OF TRENCHING REQUIRED & LOCATION OF TIE-INS. COORDINATE W/ PLUMBING PLANS.



Quick Service Restaurant and Retail
Design Group, LLC

584 Beltrive Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9880



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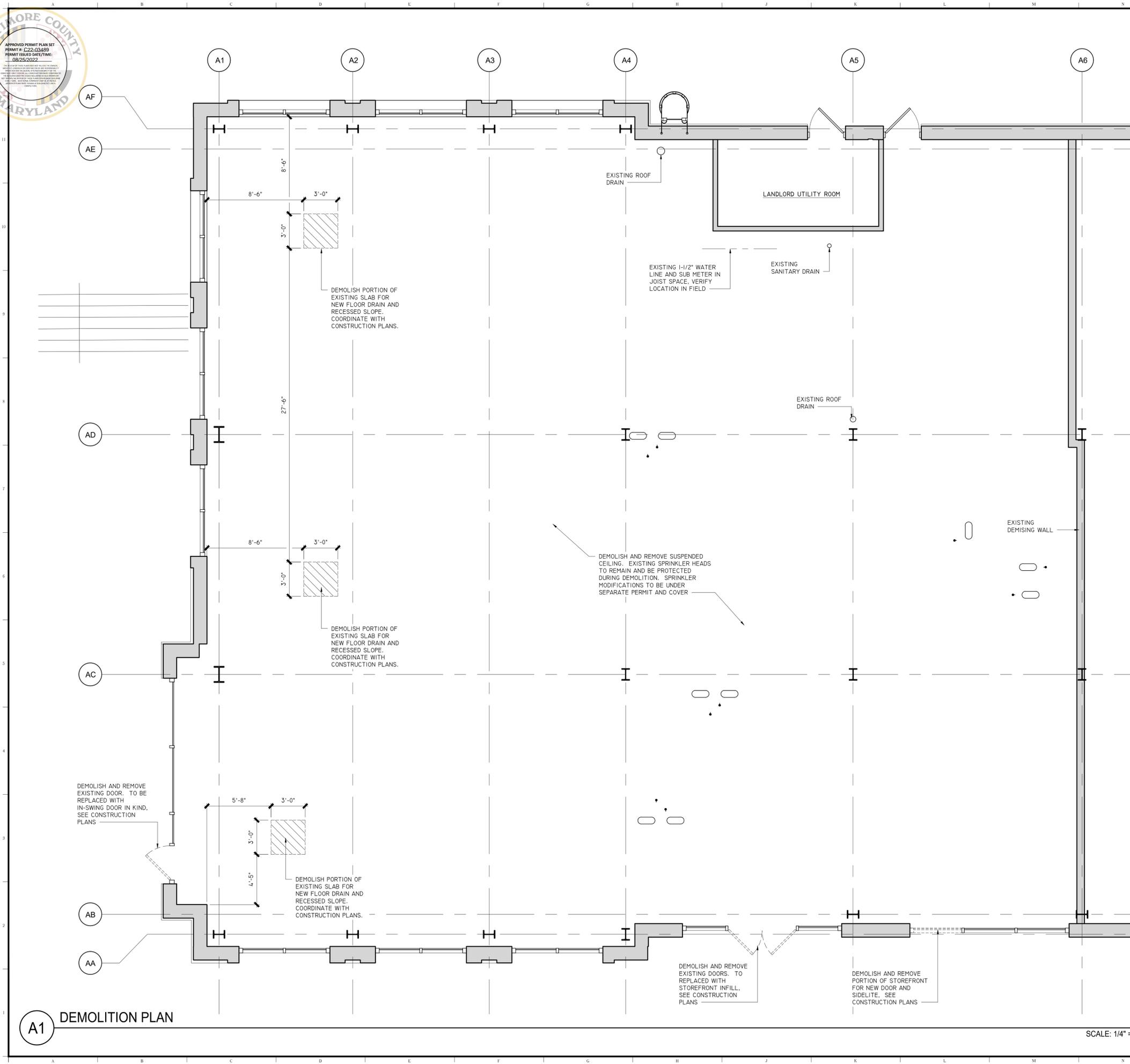
1270 EAST JOPPA ROAD
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REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
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DWG TITLE:

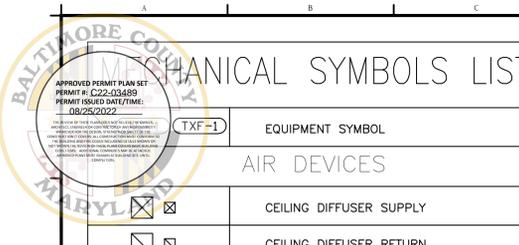
DEMOLITION PLAN

SHEET No.
D-1.0



A1 DEMOLITION PLAN

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



MECHANICAL SYMBOLS LIST

EQUIPMENT SYMBOL	ABBREVIATIONS
	AC AIR CONDITIONING UNIT
	ACCU AIR COOLED CONDENSING UNIT
	AL ACOUSTIC LINING
	BD BACKDRAFT DAMPER
	CDS CEILING DIFFUSER SUPPLY
	CDR CEILING DIFFUSER RETURN
	CFM CUBIC FEET OF AIR PER MINUTE
	CD CONDENSATE DRAIN PIPE
	DOAS DEDICATED OUTSIDE AIR SUPPLY
	DN DOWN
	EG EXHAUST GRILLE
	FC FLEXIBLE CONNECTION
	MD MOTORIZED DAMPER
	VD VOLUME DAMPER

CONTROLS AND SENSORS

	T THERMOSTAT
	S DUCT SMOKE DETECTOR
	H HUMIDISTAT

DUCTWORK

	AIR DUCT W/ 1.5" ACOUSTICAL LINING
	FLEXIBLE DUCT
	FLEXIBLE CONNECTION
	RECTANGULAR DUCT (WIDTH X DEPTH)
	SUPPLY AIR RECTANGULAR DUCT CROSS SECTION
	RETURN AIR RECTANGULAR DUCT CROSS SECTION
	ROUND DUCT (DIAMETER)
	ROUND DUCT CROSS SECTION

CODE COMPLIANCE

ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THESE PROJECT:

- 2018 INTERNATIONAL BUILDING CODE-BUILDING.
- 2018 INTERNATIONAL BUILDING CODE-PLUMBING.
- 2018 INTERNATIONAL BUILDING CODE-MECHANICAL.
- 2018 INTERNATIONAL BUILDING CODE-ENERGY CONSERVATION.
- 2018 INTERNATIONAL BUILDING CODE-FUEL GAS.
- NATIONAL ELECTRIC CODE-2014.

FIELD VERIFY ALL CONDITIONS

- DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.
- THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES. THE PLANS AND SPECIFICATIONS NOT WITHSTANDING, THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

MECHANICAL DRAWING LIST

M-0.1	MECHANICAL GENERAL NOTES, SYMBOLS LIST & ABBREVIATIONS
M-0.2	MECHANICAL SPECIFICATIONS (1 OF 2)
M-0.3	MECHANICAL SPECIFICATIONS (2 OF 2)
M-1.0	MECHANICAL FLOOR PLAN
M-2.0	MECHANICAL ROOF PLAN
M-5.0	MECHANICAL DETAILS (1 OF 2)
M-5.1	MECHANICAL DETAILS (2 OF 2)
M-6.0	MECHANICAL SCHEDULES

CITY OF MARYLAND BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF THE CITY OF MARYLAND 2018 INTERNATIONAL BUILDING CODE. ALL AMENDMENTS, RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS.

- THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A PROFESSIONAL ENGINEER TO PROVIDE THE REQUIRED SPECIAL INSPECTIONS AND TESTS.
- TESTS WILL BE CONDUCTED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS.
- THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.

SPECIAL INSPECTIONS:

THE FOLLOWING SYSTEMS SHALL BE INSPECTED IN ACCORDANCE WITH THE SECTION CITED FROM THE 2018 INTERNATIONAL BUILDING CODE.

- MECHANICAL COMPONENTS- BC 1705.12.6
- ENERGY CODE PROGRESS INSPECTIONS:

THE FOLLOWING PROGRESS INSPECTIONS FOR HVAC SYSTEMS SHALL BE PERFORMED AS REQUIRED BY THE SECTIONS CITED FROM THE 2018 IECC.

- MECHANICAL SYSTEM-C105.2.4.
- FINAL INSPECTION-C105.2.6.

TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 2018 IMC 107 AND THE FOLLOWING SECTIONS OF THE 2018 INTERNATIONAL MECHANICAL CODE:

- VENTILATION SYSTEM MC 403
- MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
- VENTILATION FOR ALL AREA SHALL COMPLY WITH 2018 IMC 401.

A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY 2018 IMC 403.3

THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

MECHANICAL SYSTEMS SHALL BE COMMISSIONED PER 2018 IECC C408.2.5, C408.2.4 & C408.2.4 FINAL COMMISSIONING REPORT SHALL BE DUE WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY.

ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183-2007.

A COMMISSIONING PLAN SHALL BE DEVELOPED BY A LICENSED DESIGN PROFESSIONAL MECHANICAL ENGINEER OR APPROVED AGENCY.

A PRELIMINARY REPORT OF COMMISSIONING TEST PROCEDURES AND RESULTS SHALL BE COMPLETED AND CERTIFIED BY THE LICENSED DESIGN PROFESSIONAL, ELECTRICAL ENGINEER, MECHANICAL ENGINEER OR APPROVED AGENCY AND PROVIDED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT AS PER IECC 2020, C408.2.4.

A WRITTEN REPORT DESCRIBING THE ACTIVITIES AND MEASUREMENTS COMPLETED IN ACCORDANCE WITH SECTION IECC 2020, C408.2.2.

ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.

SMOKE DETECTOR SHALL MEET UL268A.

SMOKE DETECTION SYSTEMS SHALL BE INSTALLED AND SEQUENCED TO FOLLOW CONTROLS OPERATIONS WITH THE REQUIREMENTS OF SECTION 606, 2018 INTERNATIONAL MECHANICAL CODE TO CLOSE DAMPERS AND AUTOMATICALLY STOP THE FAN.

A REPORT OF TEST PROCEDURES AND RESULTS IDENTIFIED AS "FINAL COMMISSIONING REPORT" SHALL BE DELIVERED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT AS PER C408.2.5.3

THE BUILDING OPERATIONS AND MAINTENANCE DOCUMENTS SHALL BE PROVIDED TO THE OWNER AND SHALL CONSIST OF MANUFACTURERS' INFORMATION, SPECIFICATIONS AND RECOMMENDATIONS; PROGRAMMING PROCEDURES AND DATA POINTS; NARRATIVES; AND OTHER MEANS OF ILLUSTRATING TO THE OWNER HOW THE BUILDING, EQUIPMENT AND SYSTEMS ARE INTENDED TO BE INSTALLED, MAINTAINED AND OPERATED. REQUIRED REGULAR MAINTENANCE ACTIONS FOR EQUIPMENT AND SYSTEMS SHALL BE CLEARLY STATED ON A READILY VISIBLE LABEL. THE LABEL SHALL INCLUDE THE TITLE OR PUBLICATION NUMBER FOR THE OPERATION AND MAINTENANCE MANUAL FOR THAT PARTICULAR MODEL AND TYPE OF PRODUCT AS PER 408.1.1

THE CONSTRUCTION DOCUMENTS SHALL SPECIFY THAT THE DOCUMENTS DESCRIBED IN THIS SECTION BE PROVIDED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

GENERAL NOTES

CONTRACTOR SHALL SURVEY THE AREA OF THIS WORK BEFORE SUBMITTING A BID AND SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT OF ANY CONDITIONS WHICH WOULD PREVENT THE INSTALLATION OF THE WORK AS SHOWN ON DRAWINGS.

ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR.

BEFORE PROCEEDING WITH ANY WORK IN OCCUPIED OR USED AREAS, THE CONTRACTOR SHALL APPLY TO OWNER FOR PERMISSION TO ENTER SUCH AREAS. THE CONTRACTOR IS OBLIGED TO PERFORM HIS WORK ONLY AT THE TIMES DESIGNATED BY OWNER. THERE WILL BE NO ADDITIONAL COMPENSATION FOR THE WORK PERFORMED AFTER HOURS OR ON OFF-DAYS WITHOUT PRIOR WRITTEN APPROVAL.

THE WORK IN THE BUILDING SHALL BE DONE WHEN AND AS DIRECTED, AND IN A MANNER SATISFACTORY TO THE OWNER. THE WORK SHALL BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE PRESENT OCCUPANTS.

THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PRECATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK IN OVERTIME AND THE ADDITIONAL COST TO BE CHARGED THEREFORE SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.

CONTRACTOR SHALL ASCERTAIN THE APPROPRIATE METHOD FOR BRINGING THE UNITS INTO AND THROUGH THE BUILDING TO POSITION UNIT IN LOCATION SHOWN ON THE PLANS. WHERE NECESSARY, EQUIPMENT SHALL BE SHIPPED FROM MANUFACTURER IN SECTIONS OF SIZE SUITABLE FOR MOVING THROUGH RESTRICTIVE SPACES. COORDINATE WITH BUILDING OWNER APPROPRIATE TIMES OF DAY SUCH EQUIPMENT MAY BE MOVED THROUGH ALL AREAS.

DISCONNECT, REMOVE AND/OR RELOCATE EXISTING MATERIAL, EQUIPMENT AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW SYSTEM.

CONNECT NEW WORK TO EXISTING WORK IN NEAT AND APPROVED MANNER. RESTORE EXISTING WORK DISTURBED WHILE INSTALLING NEW WORK TO ACCEPTABLE CONDITION AS DETERMINED BY ARCHITECT.

PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH BUILDING OWNER. INSTALL ISOLATION VALVES AT POINT OF CONNECTION TO THE EXISTING PIPING. PROVIDE TEMPORARY DUCT CAPS AND/OR CONNECTIONS TO MINIMIZE SHUTDOWN TIME.

SUPPORT ALL DUCTWORK AND PIPING FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OR SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING. INSERTS SHALL BE STEEL, SLOTTED TYPE AND FACTORY PAINTED. SINGLE ROD SHALL BE SIMILAR TO GRINNELL FIG. 281. MULTI-ROD SHALL BE SIMILAR TO FEE & MASON SERIES 9000 WITH END CAPS AND CLOSURE STRIPS. MAXIMUM LOADING INCLUDING PIPES, CONTENTS, JOINTS AND COVERING SHALL NOT EXCEED 75% OF RATED INSERT CAPABILITY. WHEN SUPPORTING FROM BUILDING USE BEAM CLAMPS IN APPROVED MANNER.

PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS, LOUVERS, CONDUIT AND EQUIPMENT CURBS AND DUNNAGE STEEL AS REQUIRED.

SEAL OPENINGS AROUND DUCTS AND PIPING THROUGH PARTITIONS, WALLS AND FLOORS (NOT IN SHAFTS) WITH MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL (FIBERGLASS INSULATION IS NOT ACCEPTABLE).

WHERE PENETRATIONS THROUGH FIRE RATED WALLS ARE NOT FIRE PROOFED THIS CONTRACTOR SHALL BE RESPONSIBLE TO SEAL SAME TO MAINTAIN THE RATED INTEGRITY.

INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.

ACCESS DOORS ARE REQUIRED FOR ALL BUILDING SERVICE VALVES THAT RUN THROUGH THE SPACE, AND ACCESS DOOR SHALL HAVE THE EQUAL RATED CAPACITY (1HR, 2HR, ETC.) AS WALL. COORDINATE ALL LOCATIONS OF ACCESS DOORS WITH THE ARCHITECT.

REMOVABLE ACCESS TILE AND/OR ACCESS DOOR ARE REQUIRED IN HUNG CEILINGS, SHAFTS AND WALLS FOR ALL VOLUME AND FIRE DAMPERS, AUTOMATIC DAMPERS AND ALL OTHER MECHANICAL EQUIPMENT AND DEVICES. HVAC CONTRACTOR TO FURNISH ACCESS LOCATION REQUIREMENTS TO GENERAL CONTRACTOR. ACCESS TILE IDENTIFICATION: PROVIDE BUTTONS, TABS, AND MARKERS TO IDENTIFY LOCATION OF CONCEALED VALVES, DAMPERS AND EQUIPMENT.

THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING, EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.

UNLESS OTHERWISE SPECIFICALLY SPECIFIED, INCLUDE ALL CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, PARTITIONS AND OTHER MATERIALS IN THE EXISTING BUILDING. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION.

MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.

ALL EQUIPMENT SHALL BE PROVIDED WITH ONE YEAR WARRANTY PARTS AND LABOR AND FIVE YEARS ON COMPRESSORS. WARRANTY PERIOD BEGINS UPON PROJECT ACCEPTANCE

GENERAL HVAC NOTES

GENERAL:

PROVIDE ALL MATERIAL AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.

CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK (HVAC, PLUMBING, AND FIRE PROTECTION) ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.

THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.

WHEN MECHANICAL WORK (HVAC, PLUMBING, SHEET METAL, FIRE PROTECTION, ETC.) IS SUBCONTRACTED, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUBCONTRACTORS AND THE ASSOCIATED CONTRACTS. WHEN DISCREPANCIES ARISE PERTAINING TO WHICH CONTRACTOR PROVIDES A PARTICULAR ITEM OF THE MECHANICAL CONTRACT OR WHICH CONTRACTOR PROVIDES FINAL CONNECTIONS FOR A PARTICULAR ITEM OF THE MECHANICAL CONTRACT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE MECHANICAL CONTRACTOR, WHOSE DECISION SHALL BE FINAL.

COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.

INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.

WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.

COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.

ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND ELECTRICAL DIVISION OF THE SPECIFICATION.

PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.

LOCATE ALL TEMPERATURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH THE STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.

WHERE BEAMS ARE INDICATED TO BE PENETRATED WITH DUCTWORK OR PIPING, COORDINATE DUCTWORK AND PIPING LAYOUT WITH BEAM OPENING SIZE AND OPENING LOCATIONS. COORDINATION SHALL BE DONE PRIOR TO THE FABRICATION OF DUCTWORK, CUTTING OF PIPING, OR FABRICATION OF BEAMS.

ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN THE DETAILS FOR DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS, AND OTHER CONCEALED MECHANICAL EQUIPMENT. ACCESS PANELS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION. ACCESS PANELS SHALL HAVE THE EQUAL RATED CAPACITY (1HR, 2HR, ETC.) AS WALL.

MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHALL NOT BE SUPPORTED FROM A METAL DECK.

ALL EQUIPMENT, PIPING, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND REQUIRED TO PROVIDE A VIBRATION-FREE INSTALLATION.

ALL DUCTWORK, PIPING, AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED. THE USE OF C-CLAMPS SHALL NOT BE PERMITTED.

LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.

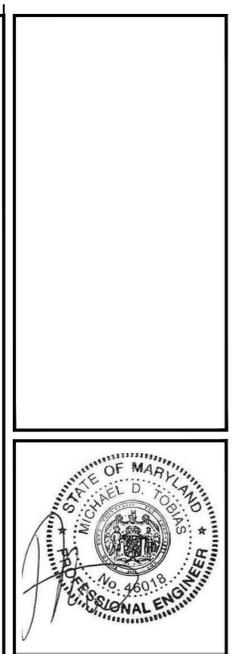
ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M OR APPROVED EQUAL.

CONDENSATE DRAIN LINES FROM EACH ROOF TOP UNIT SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET, WITH "P" TRAP, AND PIPED TO THE NEAREST DRAIN OR GUTTER OR DOWN SPOUT PROVIDED THAT DOWNSPOUT DOES NOT DISCHARGE ONTO PAVEMENT. SEE THE DETAILS SHOWN IN THE DRAWINGS OR THE CONTRACT SPECIFICATIONS FOR THE DEPTH OF THE AIR CONDITIONING CONDENSATE TRAP.

REFER TO TYPICAL DETAILS FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION.

ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.

TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 46018. EXPIRATION DATE 10/8/22



1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: NYE
PROJECT No.: 22155

DWG TITLE:
MECHANICAL GENERAL NOTES, SYMBOLS LIST & ABBREVIATIONS

SHEET No.
M-0.1



SPECIFICATIONS

0001 - NOTICE TO BIDDERS

REPRESENTATIONS
 BIDDER BY MAKING A BID REPRESENTS THAT:
 BIDDER HAS READ AND UNDERSTANDS THE BIDDING DOCUMENTS, TO THE EXTENT THAT SUCH DOCUMENTATION RELATES TO THE WORK FOR WHICH THE BID IS SUBMITTED, AND FOR OTHER PORTIONS OF THE PROJECT, IF ANY, BEING BID CONCURRENTLY OR PRESENTLY UNDER CONSTRUCTION.
 B. THE BID IS MADE IN COMPLIANCE WITH THE BIDDING DOCUMENTS.
 C. THE SPECIFICATIONS AND DRAWINGS ARE INTENDED TO SERVE JOINTLY AS A BASIS FOR THE BIDDER TO SUBMIT A CONTRACT PRICE FOR THE MATERIAL AND LABOR.
 D. SHOULD CONFLICTS OR DISCREPANCIES OCCUR WITHIN THE BIDDING DOCUMENTS, THE ITEM OR ITEMS IN DISPUTE THAT REPRESENT THE GREATER COST SHALL PREVAIL IN THE FINAL BID.
 E. THE BID IS BASED UPON THE MATERIALS, EQUIPMENT AND SYSTEMS REQUIRED BY THE BIDDING DOCUMENTS WITHOUT EXCEPTION.

1.2 EXISTING CONDITIONS AND COORDINATION
 A. THE BIDDER HAS VISITED THE SITE, BECOME FAMILIAR WITH LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND HAS CORRELATED THE BIDDER'S PERSONAL OBSERVATIONS WITH THE REQUIREMENTS OF THE PROPOSED BIDDING DOCUMENTS.
 B. THE BIDDER SHALL PROPOSE COORDINATION OF WORK SUCH THAT CONFLICTS WITH OTHER TRADES AND SPACE ALLOCATIONS ARE AVOIDED.
 1.3 RESPONSIBILITIES
 A. THE BIDDER UNDERSTANDS THAT ANY CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE TIMELY COMPLETION AND ACCEPTANCE OF THEIR WORK AND THAT ANY ITEMS DAMAGED, LOST OR STOLEN DURING TIME OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
 B. THE BIDDER UNDERSTANDS THAT ANY PROPOSED WORK IN OCCUPIED TENANT SPACES SHALL BE PERFORMED DURING TIMES OF NON-TENANT OCCUPANCY OR AS SCHEDULED OR DIRECTED BY THE BUILDING MANAGER.
 C. THE BIDDER UNDERSTANDS THAT ANY PROPOSED SHUT-DOWN OF EXISTING SYSTEMS DURING CONSTRUCTION SHALL BE PRE-ARRANGED WITH THE BUILDING MANAGER AND THAT SUCH SHUT-DOWNS ARE TO BE KEPT TO A MINIMUM.
 END OF SECTION 0001

SECTION 0101 - QUALITY OF WORK

1.1 WORKMANSHIP
 A. ALL WORK SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
 B. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT OR BUILDING MANAGER AT NO ADDITIONAL COST TO THE OWNER.
 C. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL REMOVE FROM THE SITE, ALL TOOLS, DEMOLISHED APPLIANCES AND ANY SURPLUS MATERIAL.
 1.2 CODE COMPLIANCE
 A. ALL WORK SHALL MEET ALL STATE AND LOCAL CODES HAVING JURISDICTION.
 END OF SECTION 0101

SECTION 0102 -REQUIRED DOCUMENTS

1.1 SHOP DRAWINGS
 A. A SET OF PRINTS FOR ANY MECHANICAL WORK INCLUDING BUT NOT LIMITED TO, DUCTWORK AND PIPING LAYOUT SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO CONSTRUCTION OR PURCHASE OF MATERIALS.
 1.2 SUBMITTALS
 A. EQUIPMENT SUBMITTALS OF ALL PROPOSED MECHANICAL AND ANCILLARY EQUIPMENT INCLUDING ALL ACCESSORIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. ALL PERTINENT MODELS, SIZES, ACCESSORIES AND CHOICES SHALL BE CLEARLY CHECKED, PRINTED OR OTHERWISE INDICATED ON THE SUBMITTALS.
 1.3 RECORD DRAWINGS
 A. UPON COMPLETION OF THE WORK, A RECORD DRAWING SHALL BE SUBMITTED TO THE OWNER DEPICTING ALL SUBSEQUENT CHANGES, ADDITIONS AND OR CORRECTIONS TO THE CONTRACT DRAWINGS AND OR CONTRACT SCOPE MADE DURING CONSTRUCTION. THIS DRAWING SHALL REPRESENT A COMPLETE RECORD OF THE WORK INSTALLED.
 1.4 EQUIPMENT OPERATING INSTRUCTIONS
 A. ON COMPLETION AND ACCEPTANCE OF WORK, THIS CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS, EQUIPMENT MANUALS AND DEMONSTRATE TO THE OWNER THE PROPER OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT.
 B. THESE INSTRUCTIONS SHALL BE TYPED ON 8-1/2 IN. X 11 IN. PAPER AND BOUND IN THREE-RING BINDERS WITH CLEAR ACETATE COVERS. THE CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE ELECTRONIC COPY TO THE ENGINEER.
 C. THE INSTRUCTION BOOKLET SHALL BE ORGANIZED IN SECTIONS, WITH ONE SECTION PER SYSTEM. THE COVER OF THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS AND PHONE NUMBER OF THE PROJECT, ARCHITECT, ENGINEER, MECHANICAL CONTRACTOR AND SUBCONTRACTORS.
 END OF SECTION 0102

SECTION 230593 - TESTING, ADJUSTING, AND BALANCING FOR HVAC

1.1 SUMMARY
 A. TESTING, ADJUSTING, AND BALANCING FOR THE FOLLOWING:
 9. AIR SYSTEMS: CONSTANT VOLUME.
 1.2 QUALITY ASSURANCE
 A. THE CONTRACTOR SHALL PROCURE THE SERVICES OF A TESTING, ADJUSTING AND BALANCING (TAB) SPECIALIST WHO SPECIALIZES IN HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS. THE TAB AGENT SHALL HAVE THE FOLLOWING QUALIFICATIONS: AABC, NEBB OR TABB CERTIFIED.
 1.3 EXECUTION
 A. THE TAB SPECIALIST SHALL PERFORM FLOW MEASUREMENTS OF ALL EXISTING AIR AND HYDRONIC SYSTEMS THAT ARE TO REMAIN OR TO BE INCORPORATED INTO NEW WORK PRIOR TO THE STARTING OF WORK IN THE PROJECT SCOPE. A REPORT OF THESE MEASUREMENTS, INDICATING ANY AND ALL DEFICIENCIES SHALL BE SUBMITTED FOR OWNER REVIEW.
 B. THE TAB SPECIALIST SHALL PERFORM FLOW MEASUREMENTS OF ALL NEW AIR AND HYDRONIC SYSTEMS AS LISTED ABOVE IN THE PROJECT SCOPE. A REPORT OF THESE MEASUREMENTS, INDICATING ANY AND ALL DEFICIENCIES SHALL BE SUBMITTED FOR OWNER REVIEW.
 C. THE REPORT SHALL INDICATE A SCHEMATIC DIAGRAM INDICATING LOCATIONS OF ALL EQUIPMENT TESTED AND MEASUREMENT LOCATIONS.
 D. PRIOR TO FINAL INSPECTION OF THE WORK, THE TAB SPECIALIST SHALL BALANCE ALL SYSTEMS AS INDICATED ABOVE TO THE REQUIREMENTS OF THE DESIGN.
 E. THE CONTRACTOR SHALL HAVE FURNISH AND INSTALL ALL ADDITIONAL BALANCING EQUIPMENT, PRESSURE TAPS, GAGES AND OTHER EQUIPMENT AS REQUIRED FOR A PROPERLY BALANCED SYSTEM AT NO ADDITIONAL COST TO THE OWNER. SUCH ADDITIONAL EQUIPMENT SHALL ADHERE IN STRICT ACCORDANCE WITH THE RESPECTIVE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
 F. THE CONTRACTOR SHALL HAVE THE TESTING AND BALANCING SPECIALIST COORDINATE ALL WORK OF THIS SECTION WITH THE BUILDING MANAGER. BALANCING WORK SHALL NOT CONFLICT WITH OTHER WORK SO AS TO MAINTAIN COMPLETION WITHIN THE SPECIFIED TIME.
 G. ALL INSTRUMENTS USED FOR TAB SHALL BE MAINTAINED IN GOOD WORKING CONDITION AND ACCURATELY CALIBRATED.
 H. TOLERANCES: PLUS OR MINUS 5 PERCENT OF DESIGN VALUES.
 I. INSPECTIONS: RANDOM CHECKS BY OWNER OR ARCHITECT TO VERIFY FINAL TESTING, ADJUSTING, AND BALANCING REPORT.
 J. ADDITIONAL TESTS: RANDOM TESTS WITHIN 90 DAYS OF COMPLETING TAB TO VERIFY BALANCE CONDITIONS AND SEASONAL TESTS.
 END OF SECTION 230593

THERMOSTATIC CONTROLS:

A. GENERAL:
 THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH ZONE SHALL BE CONTROLLED BY INDIVIDUAL THERMOSTATIC CONTROLS CAPABLE OF RESPONDING TO TEMPERATURE WITHIN THE ZONE. WHERE HUMIDIFICATION OR DEHUMIDIFICATION OR BOTH IS PROVIDED, AT LEAST ONE HUMIDITY CONTROL DEVICE SHALL BE PROVIDED FOR EACH HUMIDITY CONTROL SYSTEM.
 B. DEAD BAND:
 WHERE USED TO CONTROL BOTH HEATING AND COOLING, ZONE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A TEMPERATURE RANGE OR DEADBAND OF AT LEAST 5°F (2.8°C) WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS CAPABLE OF BEING SHUT OFF OR REDUCED TO A MINIMUM.
 C. SETBACK CONTROLS:
 THERMOSTATIC SETBACK CONTROLS SHALL HAVE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C).
 D. AUTOMATIC SETBACK AND SHUTDOWN:
 AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS; A MANUALLY OPERATED TIMER CAPABLE OF BEING ADJUSTED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS; OR AN OCCUPANCY SENSOR.
 E. OFF-HOUR CONTROLS:
 EACH ZONE SHALL BE PROVIDED WITH THERMOSTATIC SETBACK CONTROLS THAT ARE CONTROLLED BY EITHER AN AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROL SYSTEM.
 F. AUTOMATIC START CAPABILITIES:
 AUTOMATIC START CONTROLS SHALL BE PROVIDED FOR EACH HVAC SYSTEM. THE CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY ADJUSTING THE DAILY START TIME OF THE HVAC SYSTEM IN ORDER TO BRING EACH SPACE TO THE DESIRED OCCUPIED TEMPERATURE IMMEDIATELY PRIOR TO SCHEDULED OCCUPANCY.
 C. WHERE LATEST EDITION OF SMACNA DOES NOT CLEARLY STATE GAUGES AND/OR STIFFENERS TO BE USED OR, WHERE SMACNA STANDARDS REQUIRE INTERPRETATION, THE FOLLOWING MINIMUM METAL GAUGES AND BRACING SHALL BE USED:

SECTION 230713 - DUCT INSULATION

1.1 QUALITY ASSURANCE
 SURFACE-BURNING CHARACTERISTICS: ALL INSULATION SHALL HAVE COMPOSITE (INSULATION JACKET OR FACING AND ADHESIVE USED TO ADHERE THE FACING OR JACKET TO THE INSULATION) A FLAME-SPREAD INDEX OF 25, AND SMOKE-DEVELOPED INDEX OF 50 FOR INSULATION INSTALLED INDOOR, 75, AND SMOKE-DEVELOPED INDEX OF 150 FOR INSULATION INSTALLED OUTDOORS; ACCORDING TO ASTM E 84.
 1.2 FIELD QUALITY CONTROL
 A. FIELD INSPECTIONS: BY OWNER-ENGAGED AGENCY.
 1.3 INDOOR DUCT AND PLENUM INSULATION SCHEDULE;
 A. CONCEALED, RECTANGULAR, ROUND AND FLAT-OVAL, SUPPLY-RETURN, OUTDOOR-AND EXHAUST-AIR DUCT AND AIR PLENUM INSULATION:
 B. FLEXIBLE ELASTOMERIC, MINERAL-FIBER BLANKET, MINERAL-FIBER BOARD OR POLYOLEFIN WITH MINIMUM INSTALLED THERMAL RESISTANCE AS FOLLOWS:
 UNCONDITIONED SPACES WITHIN BUILDING: R-6
 WITHIN BUILDING ENVELOPE ASSEMBLY: R-8
 OUTSIDE OF BUILDING: R-8
 1.4 ITEMS NOT INSULATED:
 1. FIBROUS-GLASS DUCTS.
 2. METAL DUCTS WITH DUCT LINER OR SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1.
 3. FACTORY-INSULATED FLEXIBLE DUCTS.
 4. FACTORY-INSULATED PLENUMS AND CASINGS.
 5. FLEXIBLE CONNECTORS.
 6. VIBRATION-CONTROL DEVICES.
 7. FACTORY-INSULATED ACCESS PANELS AND DOORS.
 8. DUCTS THAT HAVE INTERNAL ACOUSTICAL LINING.
 1.5 PRODUCTS
 A. THE FOLLOWING INSULATION MANUFACTURERS WILL BE ACCEPTABLE:
 1. JOHNS-MANVILLE
 2. OWENS-CORNING
 1.6 ACOUSTICAL TREATMENT
 1. WHERE SHOWN ON THE DRAWINGS, LOW PRESSURE DUCTWORK SHALL BE LINED WITH 1.5" THICK R-6 AS MANUFACTURED BY DUCTMATE, 1-1/2 POUND MINIMUM DENSITY, NEOPRENE COATED, FLEXIBLE FIBERGLASS DUCT LINER. LINING SHALL COMPLY WITH NFPA 90A AND SHALL HAVE A FLAME SPREAD CLASSIFICATION OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING NOT MORE THAN 50 DUCT SIZES WHERE LINING IS INDICATED ON PLANS ARE MINIMUM INSIDE CLEAR DIMENSIONS REQUIRED.
 END OF SECTION 230713

SECTION 233113 - METAL DUCTS

1.1 CONSTRUCTION
 A. EACH DUCT SYSTEM SHALL BE CONSTRUCTED FOR THE SPECIFIC SMACNA DUCT PRESSURE CLASSIFICATIONS SHOWN ON THE CONTRACT DRAWINGS. WHERE NO PRESSURE CLASSES ARE SPECIFIED BY THE DESIGNER, THE SMACNA 2-1/2 INCH WG PRESSURE CLASS IS THE BASIS OF COMPLIANCE WITH THESE STANDARDS, REGARDLESS OF THE VELOCITY IN THE DUCT.
 B. ALL DUCTWORK SHALL BE CONSTRUCTED TO SMACNA 2" WG DESIGN AND NOT LESS THAN THE FOLLOWING STANDARDS:
 1. DUCTWORK SHALL BE TRANSVERSELY JOINTED BY CONNECTING SEAMS OF COMPANION ANGLES, FORMED FROM 1-1/2"x1-1/2"x1/8" GALVANIZED ANGLES, TACK-WELDED OR RIVETED TO THE DUCT. THE ANGLE FRAME SHALL BE CONTINUOUSLY FLANGED UP INTO UPRIGHT OF ANGLE AND EACH CORNER SHALL BE FILLED IN AND GROUND SMOOTH. JOINTS SHALL BE GASKETED WITH 1/8" THICK REINFORCED GASKET, OVERLAPPED AT CORNERS, GASKET SIMILAR TO 3M-1202 OR APPROVED EQUAL.
 2. RECTANGULAR FITTINGS AND ALL TRANSITION PIECES FROM RECTANGULAR TO ROUND SHALL BE NO. 16 GAUGE ALL WELDED CONSTRUCTION.
 3. HORIZONTAL DUCTS SHALL BE SUPPORTED ON NOT MORE THAN 6' CENTERS. VERTICAL RISERS SHALL BE SUPPORTED AT EACH FLOOR.
 4. LONGITUDINAL SEAMS FOR RECTANGULAR DUCTWORK SHALL BE PITTSBURGH LOCK SEAMS WITH SEALING COMPOUND, EQUAL TO BENJAMIN FOSTER NO. 30-03 INSERTED INTO SEAM. ALL SEAMS SHALL BE BRUSHED WITH NO. 30-02 AND COVERED WITH APPROVED SEALING TAPE.
 5. RECTANGULAR DUCTWORK 18 GAUGE AND HEAVIER, FILLER RODS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR IRON AND STEEL GAS WELDING RODS, ASTM 215; AWG A5.2.
 6. ALL FITTINGS SUCH AS ELBOWS, TEES, ETC., SHALL BE NO. 20 GAUGE ZINC COATED STEEL. ELBOWS SHALL BE OF FIVE (5) PIECE WELDED AIRTIGHT CONSTRUCTION.
 C. WHERE LATEST EDITION OF SMACNA DOES NOT CLEARLY STATE GAUGES AND/OR STIFFENERS TO BE USED OR, WHERE SMACNA STANDARDS REQUIRE INTERPRETATION, THE FOLLOWING MINIMUM METAL GAUGES AND BRACING SHALL BE USED:

USG MAX. SIDE INCHES TRANSVERSE JOINTS AND BRACING

22 UP TO 12 3" S LIP, DRIVE S LIP, ONE INCH POCKET LOCK ON 8 FOOT CENTERS
 22 13 TO 24 1"x1"x1/8" ANGLES ON 4 FOOT CENTERS
 20 25 TO 35 1"x1"x1/8" ANGLES ON 2 FOOT CENTERS
 D. PROVIDE TAPPING IN DUCTS FOR THERMOMETERS WHERE SPECIFIED. IN ADDITION, PROVIDE AN AIRTIGHT PLUGGED TAPPING LOCATED AS FOLLOWS:
 1. UPSTREAM OF EACH REHEAT COIL AND VAV BOX.
 2. DOWNSTREAM OF EACH REHEAT COIL AND VAV BOX.
 E. FLAT OVAL OR ROUND DUCTWORK MAY BE PROVIDED IN LIEU RECTANGULAR DUCTWORK WITH THE REINFORCEMENT FOR FLAT SIDES SAME AS SPECIFIED FOR THE RECTANGULAR DUCTWORK, AND AS PER SMACNA FLAT OVAL DUCT CONSTRUCTION STANDARDS SHOWN IN FIG. 3-6 AND AS SHOWN IN FIG. 3-1 AND 3-2 FOR ROUND DUCTWORK.
 F. ALL DUCTWORK SHALL BE SEALED TO CLASS "A" AND LEAK TESTED TO MEAT SMACNA CLASS 6 FOR RECTANGULAR AND CLASS 3 FOR ROUND DUCTS.

1.2 MATERIALS

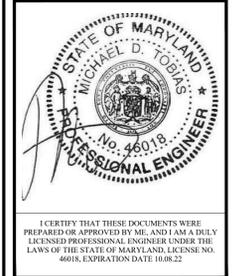
A. SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS.
 B. SINGLE-WALL ROUND AND FLAT-OVAL DUCTS AND FITTINGS.
 C. SHEET METAL MATERIALS:
 1. GALVANIZED SHEET STEEL.
 2. STAINLESS-STEEL SHEETS.
 3. ALUMINUM SHEETS.
 4. FACTORY-APPLIED ANTI-MICROBIAL COATING.
 D. DUCT LINER:
 1. FIBROUS GLASS, TYPE I, FLEXIBLE.
 a. WITH ANTI-MICROBIAL EROSION-RESISTANT COATING.
 2. FLEXIBLE ELASTOMERIC.
 3. NATURAL FIBER.
 E. SEALANT MATERIALS:
 1. TWO-PART TAPE SEALING SYSTEM.
 2. WATER-BASED JOINT AND SEAM SEALANT.
 3. SOLVENT-BASED JOINT AND SEAM SEALANT.
 4. FLANGED JOINT SEALANT.
 5. FLANGE GASKETS.
 6. ROUND DUCT JOINT O-RING SEALS.
 1.3 DUCT CLEANING
 A. CLEAN EXISTING DUCT SYSTEM(S) BEFORE TESTING, ADJUSTING, AND BALANCING.
 B. CLEAN THE FOLLOWING ITEMS:
 1. AIR OUTLETS AND INLETS.
 2. SUPPLY, RETURN, AND EXHAUST FANS.
 3. AIR-HANDLING UNITS.
 4. COILS AND RELATED COMPONENTS.
 5. RETURN-AIR DUCTS, DAMPERS, ACTUATORS, AND TURNING VANES.
 6. SUPPLY-AIR DUCTS, DAMPERS, ACTUATORS, AND TURNING VANES.
 7. DEDICATED EXHAUST AND VENTILATION COMPONENTS AND MAKEUP AIR SYSTEMS.
 1.4 DUCT SCHEDULE
 A. ALL DUCTS SHALL BE GALVANIZED STEEL EXCEPT AS FOLLOWS:
 B. MOIST ENVIRONMENT DUCT MATERIAL: ALUMINUM.
 END OF SECTION 233113

SECTION 233713 - DIFFUSERS AND GRILLES

1.1 PRODUCTS
 A. DIFFUSERS AND GRILLES SHALL BE FURNISHED AND INSTALLED FOR CAPACITIES AND IN LOCATIONS INDICATED ON DRAWINGS. ALL REGISTERS AND DIFFUSERS SHALL BE PRIME COATED STEEL OR EXTRUDED ALUMINUM FINISHED UNLESS OTHERWISE NOTED IN BAKED WHITE ENAMEL.
 B. MANUFACTURERS: TITUS
 1. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY ONE OF THE FOLLOWING:
 a. CARNES.
 b. HART & COOLEY INC.
 c. KRUEGER.
 d. METALAIR, INC.
 e. NAILOR INDUSTRIES INC.
 C. ALL DIFFUSERS SHALL HAVE CONTROLLING/EQUALIZING GRID AND OPPOSED BLADE DAMPER UNLESS OTHERWISE NOTED.
 D. ALL DUCTED RETURN REGISTERS SHALL HAVE AN OPPOSED BLADE DAMPER UNLESS OTHERWISE NOTED.
 END OF SECTION 233713

PIPING INSULATION

A. INSULATE ALL PIPING IN ACCORDANCE WITH INSULATION SCHEDULE EXCEPT AS OTHERWISE NOTED.
 REFRIGERANT PIPING 1.5" P-6
 CONDENSER DRAIN PIPING 1.0" P-6
 (IF RUNNING THROUGH EXTERIOR WALL)
 B. PIPING, VALVES AND FITTINGS TO BE INSULATED:
 1) LOW TEMPERATURE PIPING SYSTEMS - 0 TO 55 DEG F INCLUDING:
 a. CONDENSATE DRAIN PIPING.
 2) LOW TEMPERATURE HOT PIPING SYSTEMS - 100 TO 200 DEG F INCLUDING:
 a. LOW TEMPERATURE HOT WATER SUPPLY AND RETURN.
 b. PUMPED CONDENSATE DISCHARGE.
 3) PROTECTIVE COVERINGS SHALL BE INSTALLED ON AREAS OF INSULATION THAT ARE EXPOSED TO WEATHER OR SUBJECT TO MECHANICAL DAMAGE. THE PROTECTIVE COVERING SHALL BE:
 a. ARMA-CHEK SILVER MULTI-LAYER LAMINATE OF ALUMINUM, COATED WITH A UV PROTECTIVE FILM AND BACKED WITH A FLEXIBLE PVC FILM. THE MATERIAL SHOULD BE ADHERED WITH ARMAFLEX 520 ADHESIVE OR EQUIVALENT, AND ALL JOINS AND SEAMS SECURED WITH ARMA-CHEK SILVER TAPE. INSTALLATION SHALL BE IN ALL CASES TO THE MANUFACTURER'S RECOMMENDATIONS.
 OR
 b. HIGH DENSITY RUBBER CLADDING OF THE ARMA-CHEK R TYPE BONDED USING AN APPROPRIATE CONTACT ADHESIVE WITH A MINIMUM 50 MM OVERLAP AT ALL BUTT JOINTS AND LONGITUDINAL SEAMS. A WEATHER-PROOF MASTIC SEALANT SHALL BE APPLIED OVER ALL SEAMS AND JOINTS. ALL MATERIAL SHALL BE OVERLAPPED AND STAGGERED IN SUCH A WAY AS TO ENSURE A WATERSHED IS ALWAYS PROVIDED. INSTALLATION SHALL BE IN ALL CASES TO THE MANUFACTURER'S RECOMMENDATIONS. ALL EXCESS ADHESIVE VISIBLE ON THE SURFACE OF THE COMPLETED ASSEMBLY SHALL BE REMOVED USING AN APPROPRIATE CLEANING MATERIAL.
 OR
 c. METAL CLADDING, COMPRISED OF COATED SHEET METAL, WITH ALL EXTERNAL JOINTS AND FIXING MADE WEATHER-PROOF WITH SILICONE SEALANT.
 C. MATERIAL:
 1) TYPE P-1: MINIMUM 4 LB DENSITY MOLDED FIBERGLASS, MAXIMUM 0.24 K-FACTOR AT 75 DEG F MEAN TEMPERATURE WITH FACTORY-APPLIED FIRE-RETARDANT FOIL-SKRIM-KRAFT FACING. ALL SERVICE JACKET. SIMILAR TO OWENS-CORNING 650 ASJ.
 2) TYPE P-3: MINIMUM 4 LB DENSITY MOLDED FIBERGLASS FITTING, MAXIMUM 0.23 K-FACTOR AT 75 DEG F MEAN TEMPERATURE SIMILAR TO EPOLUX HAMFAB MOLDED FITTINGS.
 3) TYPE P-4: MINIMUM 1 LB DENSITY FIBERGLASS FITTING INSERTS, MAXIMUM 0.27 K-FACTOR AT 75 DEG F MEAN TEMPERATURE SIMILAR TO MANVILLE HI-LO TEMP INSULATION INSERTS.
 4) TYPE P-6: MINIMUM 6 LB MOLDED FOAMED PLASTIC. MAXIMUM 0.27 K-FACTOR AT 75 DEG F MEAN TEMPERATURE. MAXIMUM 0.17 PERMEANCE. SIMILAR TO ARMSTRONG ARMAFLEX II.
 D. FINISH:
 1) TYPE F-1: FITTING COVER, MOLDED WHITE PVC JACKET, UL CLASS 1, MAXIMUM PERMEANCE 0.05 SIMILAR TO MANVILLE ZESTRON.
 2) TYPE F-2: WHITE VAPOR BARRIER COATING WITH 10X10 OR 20X20 MESH WHITE GLASS, POLYESTER OR NYLON CLOTH REINFORCING MEMBRANE, MINIMUM 31 MIL DRY FILM THICKNESS, SIMILAR TO FOSTER TITE-FIT, UL LABEL.
 3) TYPE F-4: ALUMINUM JACKETING WITH MINIMUM 0.016 IN. WALL THICKNESS AND LONGITUDINAL JOINTS WITH LOCK SEAMS.
 4) TYPE F-6: WHITE FINISHING AND INSULATING CEMENT APPLIED OVER HEXAGONAL WIRE MESH. CEMENT SIMILAR TO KEENE SUPERSLICK.
 E. INSTALLATION:
 1) BEFORE APPLYING INSULATION ALL PRESSURE AND LEAK TESTS SHALL BE COMPLETED AND APPROVED.
 2) ALL INSULATION SHALL BE BUTTED FIRMLY TOGETHER. PROVIDE 2 IN. LAMP STRIPS AT ALL SEAMS SECURED WITH ADHESIVE. USE VAPOR BARRIER TAPE AND VAPORSEAL ADHESIVE WHERE REQUIRED. STAPLES NOT PERMITTED. REFRIGERANT PIPING INSULATION SHALL HAVE MITERED FITTINGS.
 3) ALL INSULATION AND VAPOR BARRIERS SHALL BE CONTINUOUS PASSING THROUGH SLEEVES, HANGERS, ETC. OR OTHER OPENINGS. PROVIDE SADDLES OR SHIELDS FOR PROTECTION AT ALL HANGINGS.
 4) INSULATION FOR STRAINERS OR OTHER FITTINGS OR ACCESSORIES REQUIRING SERVICING OR INSPECTION SHALL HAVE INSULATION REMOVABLE AND REPLACEABLE WITHOUT DAMAGE.



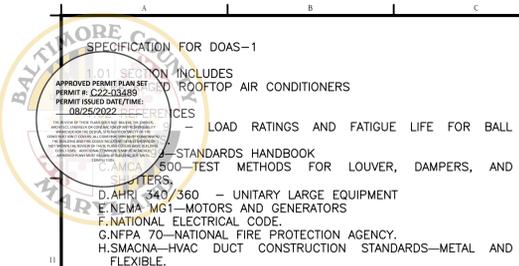
1270 EAST JOPPA ROAD
 SUITE 200
 TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
 DRAWN BY: NYE
 PROJECT No.: 22155
 DWG TITLE:

MECHANICAL SPECIFICATIONS (1 OF 2)

SHEET No.
M-0.2



1. SPECIFICATION FOR DOAS-1
2. THE UNIT INCLUDES ROOFTOP AIR CONDITIONERS
3. LOAD RATINGS AND FATIGUE LIFE FOR BALL BEARINGS
4. STANDARDS HANDBOOK 900-TEST METHODS FOR LOUVER, DAMPERS, AND FILTERS
5. D.A.H.T. 547/360 - UNITARY LARGE EQUIPMENT
6. NEMA MG-1 MOTORS AND GENERATORS
7. NATIONAL ELECTRICAL CODE
8. NFPA 70-NATIONAL FIRE PROTECTION AGENCY
9. H.S.MACNA-HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE
10. I. UL 900-TEST PERFORMANCE OF AIR FILTER UNITS

1.03 SUBMITTALS
A. SHOP DRAWINGS: INDICATE ASSEMBLY, UNIT DIMENSIONS, WEIGHT LOADING, REQUIRED CLEARANCES, CONSTRUCTION DETAILS, FIELD CONNECTION DETAILS, ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS.
B. PRODUCT DATA
1. PROVIDE LITERATURE THAT INDICATES DIMENSIONS, WEIGHTS, CAPACITIES, RATINGS, FAN PERFORMANCE, AND ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS.
2. PROVIDE COMPUTER GENERATED FAN CURVES WITH SPECIFIED OPERATING POINT CLEARLY PLOTTED.
3. MANUFACTURER'S INSTALLATION INSTRUCTIONS.

1.04 OPERATION AND MAINTENANCE DATA
A. MAINTENANCE DATA: PROVIDE INSTRUCTIONS FOR INSTALLATION, MAINTENANCE AND SERVICE

1.05 QUALIFICATIONS
A. MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM FIVE YEARS DOCUMENTED EXPERIENCE, WHO ISSUES COMPLETE CATALOG DATA ON TOTAL PRODUCT.
B. STARTUP MUST BE DONE BY TRAINED PERSONNEL EXPERIENCED WITH ROOFTOP EQUIPMENT.
C. DO NOT OPERATE UNITS FOR ANY PURPOSE, TEMPORARY OR PERMANENT, UNTIL DUCTWORK IS CLEAN, FILTERS AND REMOTE CONTROLS ARE IN PLACE, BEARINGS LUBRICATED, AND MANUFACTURER'S INSTALLATION INSTRUCTIONS HAVE BEEN FOLLOWED.

1.06 DELIVERY, STORAGE, AND HANDLING
A. DELIVER, STORE, PROTECT AND HANDLE PRODUCTS TO SITE.
B. ACCEPT PRODUCTS ON SITE AND INSPECT FOR DAMAGE.
C. STORE IN CLEAN DRY PLACE AND PROTECT FROM WEATHER AND CONSTRUCTION TRAFFIC. HANDLE CAREFULLY TO AVOID DAMAGE TO COMPONENTS, ENCLOSURES, AND FINISH.

PART 2 - PRODUCTS
2.01 MANUFACTURERS
A. BASIS OF DESIGN: DAIKIN APPLIED
1. NO EQUAL EXISTS. [DEDUCTS FOR ALTERNATIVE EQUIPMENT WILL BE CONSIDERED.]

2.02 GENERAL DESCRIPTION
A. FURNISH AS SHOWN ON PLANS, DAIKIN APPLIED REBEL SINGLE ZONE HEATING AND COOLING UNIT(S) MODEL DPS. UNIT PERFORMANCE AND ELECTRICAL CHARACTERISTICS SHALL BE PER THE JOB SCHEDULE.
B. CONFIGURATION: FABRICATE AS DETAILED ON PRINTS AND DRAWINGS:
1. RETURN PLENUM / ECONOMIZER SECTION
2. FILTER SECTION
3. COOLING COIL SECTION
4. SUPPLY FAN SECTION
5. GAS HEATING SECTION
6. CONDENSING UNIT SECTION
C. THE COMPLETE UNIT SHALL BE CETLUS LISTED.
D. THE UNIT SHALL BE ASHRAE 90.1-2016 COMPLIANT AND LABELED.

E. EACH UNIT SHALL BE SPECIFICALLY DESIGNED FOR OUTDOOR ROOFTOP APPLICATION AND INCLUDE A WEATHERPROOF CABINET. EACH UNIT SHALL BE COMPLETELY FACTORY ASSEMBLED AND SHIPPED IN ONE PIECE. PACKAGED UNITS SHALL BE SHIPPED FULLY CHARGED WITH R-410 REFRIGERANT AND OIL.
F. THE UNIT SHALL UNDERGO A COMPLETE FACTORY RUN TEST PRIOR TO SHIPMENT. THE FACTORY TEST SHALL INCLUDE A REFRIGERATION CIRCUIT RUN TEST, A UNIT CONTROL SYSTEM OPERATIONS CHECKOUT, A UNIT REFRIGERANT LEAK TEST AND A FINAL UNIT INSPECTION.
G. ALL UNITS SHALL HAVE DECALS AND TAGS TO INDICATE CAUTION AREAS AND AID UNIT SERVICE. UNIT NAMEPLATES SHALL BE FIXED TO THE MAIN CONTROL PANEL DOOR. ELECTRICAL WIRING DIAGRAMS SHALL BE ATTACHED TO THE CONTROL PANELS. INSTALLATION, OPERATING AND MAINTENANCE BULLETINS AND START-UP FORMS SHALL BE SUPPLIED WITH EACH UNIT.
H. PERFORMANCE: ALL SCHEDULED EER, IEER, CAPACITIES AND FACE AREAS ARE MINIMUM ACCEPTED VALUES. ALL SCHEDULED AMPS, KW, AND HP ARE MAXIMUM ACCEPTED VALUES THAT ALLOW SCHEDULED CAPACITY TO BE MET.
I. WARRANTY: THE MANUFACTURER SHALL PROVIDE 12-MONTH PARTS ONLY WARRANTY. DEFECTIVE PARTS SHALL BE REPAIRED OR REPLACED DURING THE WARRANTY PERIOD AT NO CHARGE. THE WARRANTY PERIOD SHALL COMMENCE AT STARTUP OR SIX MONTHS AFTER SHIPMENT, WHICHEVER OCCURS FIRST.

2.03 CABINET, CASING, AND FRAME
A. PANEL CONSTRUCTION SHALL BE DOUBLE-WALL CONSTRUCTION FOR ALL PANELS. ALL FLOOR PANELS SHALL HAVE A SOLID GALVANIZED STEEL INNER LINER ON THE AIR STREAM SIDE OF THE UNIT TO PROTECT INSULATION DURING SERVICE AND MAINTENANCE. INSULATION SHALL BE A MINIMUM OF 2" THICK WITH AN R-VALUE OF 13.0, AND SHALL BE 2 PART INJECTED FOAM. PANEL DESIGN SHALL INCLUDE NO EXPOSED INSULATION EDGES. UNIT CABINET SHALL BE DESIGNED TO OPERATE AT TOTAL STATIC PRESSURES UP TO 5.0 INCHES W.G.
B. EXTERIOR SURFACES SHALL BE CONSTRUCTED OF PAINTED GALVANIZED STEEL FOR AESTHETICS AND LONG-TERM DURABILITY. PAINT FINISH WILL INCLUDE A BASE PRIMER WITH A HIGH-QUALITY POLYESTER RESIN TOPCOAT. FINISHED, UNABRADED PANEL SURFACES SHALL BE EXPOSED TO AN ASTM B117 SALT SPRAY ENVIRONMENT AND EXHIBIT NO VISIBLE RED RUST AT A MINIMUM OF 3,000 HOURS EXPOSURE. FINISHED, ABRADED SURFACES SHALL BE TESTED PER ASTM D1654, HAVING A MEAN SCRIBE CREEPAGE NOT EXCEEDING 1/16" AT 1,000 HOURS MINIMUM EXPOSURE TO AN ASTM B117 SALT SPRAY ENVIRONMENT. MEASUREMENTS OF RESULTS SHALL BE QUANTIFIED USING ASTM D1654 IN CONJUNCTION WITH ASTM D610 AND ASTM D714 TO EVALUATE BLISTER AND RUST RATINGS.
C. SERVICE DOORS SHALL BE PROVIDED ON THE FAN SECTION, FILTER SECTION, CONTROL PANEL SECTION, AND HEATING VESTIBULE IN ORDER TO PROVIDE USER ACCESS TO UNIT COMPONENTS. ALL SERVICE ACCESS DOORS SHALL BE MOUNTED ON MULTIPLE, STAINLESS STEEL HINGES AND SHALL BE SECURED BY A LATCH SYSTEM. REMOVABLE SERVICE PANELS SECURED BY MULTIPLE MECHANICAL FASTENERS ARE NOT ACCEPTABLE.

2.04 OUTDOOR/RETURN AIR SECTION
A. UNIT SHALL BE PROVIDED WITH A 100% OUTDOOR AIR HOOD. THE 100% OUTDOOR AIR HOOD SHALL ALLOW OUTDOOR AIR TO ENTER FROM THE BACK OF THE UNIT, AT THE DRAW-THROUGH FILTER SECTION. THE OUTDOOR AIR HOOD SHALL BE FACTORY INSTALLED AND CONSTRUCTED FROM GALVANIZED STEEL FINISHED WITH THE SAME DURABLE PAINT FINISH AS THE MAIN UNIT. THE HOOD SHALL INCLUDE A BIRD SCREEN TO PREVENT INFILTRATION OF FOREIGN MATERIALS AND A RAIN LIP TO DRAIN WATER AWAY FROM THE ENTERING AIR STREAM.
B. DAIKIN APPLIED ULTRASEAL LOW LEAK DAMPERS SHALL BE PROVIDED. DAMPER BLADES SHALL BE FULLY GASKETED AND SIDE SEALED AND ARRANGED VERTICALLY IN THE HOOD. DAMPER LEAKAGE SHALL BE LESS THAN 1.5 CFM/SQ. FT. OF DAMPER AREA AT 1.0 INCH STATIC PRESSURE DIFFERENTIAL. LEAKAGE RATE TO BE TESTED IN ACCORDANCE WITH AMCA STANDARD 500. DAMPER BLADES SHALL BE OPERATED FROM MULTIPLE SETS OF LINKAGES MOUNTED ON THE LEAVING FACE OF THE DAMPERS. CONTROL OF THE DAMPERS SHALL BE FROM A FACTORY INSTALLED ACTUATOR.
C. CONTROL OF THE OUTDOOR DAMPERS SHALL BE BY A FACTORY INSTALLED ACTUATOR. DAMPER ACTUATOR SHALL BE OF THE MODULATING TYPE. DAMPER TO OPEN WHEN SUPPLY FAN STARTS, AND CLOSE WHEN SUPPLY FAN STOPS.

2.05 ENERGY RECOVERY
A. THE ROOFTOP UNIT SHALL BE PROVIDED WITH AN AHRI CERTIFIED ROTARY WHEEL AIR-TO-AIR HEAT EXCHANGER IN A CASSETTE FRAME COMPLETE WITH SEALS, DRIVE MOTOR AND DRIVE BELT. THE ENERGY RECOVERY WHEEL SHALL BE AN INTEGRAL PART OF THE ROOFTOP UNIT WITH UNITARY CONSTRUCTION, POWER SUPPLY AND CONTROLS AND DOES NOT REQUIRE FIELD ASSEMBLY. BOLT-ON ENERGY RECOVERY UNITS THAT REQUIRE FIELD ASSEMBLY AND SECTION TO SECTION GASKETING AND SEALING ARE NOT ACCEPTABLE.
THE ENERGY RECOVERY WHEELS SUPPLIED MUST MEET THE SCHEDULED CAPACITY, AND AIR PRESSURE DROP. THE WHEEL CAPACITY, AIR PRESSURE DROP AND EFFECTIVENESS SHALL BE AHRI CERTIFIED PER AHRI STANDARD 1060. THERMAL PERFORMANCE SHALL BE CERTIFIED BY THE MANUFACTURER IN ACCORDANCE WITH ASHRAE STANDARD 84. METHOD OF TESTING AIR-TO-AIR HEAT EXCHANGERS AND AHRI STANDARD 1060, RATING AIR-TO-AIR HEAT EXCHANGERS FOR ENERGY RECOVERY VENTILATION EQUIPMENT. THE ROOFTOP UNIT SHALL BE DESIGNED WITH A TRACK SO THE ENTIRE ENERGY RECOVERY WHEEL CASSETTE CAN SLIDE OUT FROM THE ROOFTOP UNIT TO FACILITATE CLEANING. THE UNIT SHALL HAVE 2 MERV 8 FILTERS FOR THE OUTDOOR AIR BEFORE THE WHEEL TO HELP KEEP THE WHEEL CLEAN AND REDUCE MAINTENANCE. A DIRTY FILTER SWITCH AND ALARMS ARE PROVIDED ON THE ENERGY RECOVERY FILTER RACK. THE TOTAL ENERGY RECOVERY WHEEL SHALL HAVE AN ALUMINUM SUBSTRATE AND A 3 ANGSTROM DESICCANT AND SHALL HAVE AN ADJUSTABLE PURGE FOR FIELD BALANCING. THE ROOFTOP UNIT WITH THE ENERGY RECOVERY WHEEL SHALL INCORPORATE THE ECONOMIZER OPERATION. UNITS WITH ECONOMIZERS AND ENERGY RECOVERY WHEELS SHALL HAVE A BYPASS DAMPER. WHEN THE UNIT IS IN THE ECONOMIZER MODE OF OPERATION THE ENERGY RECOVERY WHEEL SHALL STOP AND THE BYPASS DAMPERS SHALL BE OPENED THE OUTDOOR AIR SHALL BE DRAWN THROUGH THE BYPASS DAMPERS TO REDUCE THE PRESSURE DROP OF THE OUTDOOR AIRSTREAM.

B. THE ROOFTOP UNIT DDC CONTROLLER SHALL PROVIDE FROST CONTROL FOR THE ENERGY RECOVERY WHEEL. WHEN A FROST CONDITION IS ENCOUNTERED THE UNIT CONTROLLER SHALL STOP THE WHEEL. WHEN IN THE FROST CONTROL MODE THE WHEEL SHALL BE JOGGED PERIODICALLY AND NOT BE ALLOWED TO STAY IN THE STATIONARY POSITION.
2.06 EXHAUST FAN
A. EXHAUST FAN SHALL BE A SINGLE WIDTH, SINGLE INLET (SWSI) AIRFOIL CENTRIFUGAL FAN. THE FAN WHEEL SHALL BE CLASS II CONSTRUCTION WITH ALUMINUM FAN BLADES THAT ARE CONTINUOUSLY WELDED TO THE HUB PLATE AND END RIM. THE EXHAUST FAN SHALL BE A DIRECT DRIVE FAN MOUNTED TO THE MOTOR SHAFT. BELTS AND SHEAVES ARE NOT ACCEPTABLE DUE TO THE ADDITIONAL MAINTENANCE.
B. THE FAN MOTOR SHALL BE A TOTALLY ENCLOSED EC MOTOR THAT IS SPEED CONTROLLED BY THE ROOFTOP UNIT CONTROLLER. THE MOTOR SHALL INCLUDE THERMAL OVERLOAD PROTECTION AND PROTECT THE MOTOR IN THE CASE OF EXCESSIVE MOTOR TEMPERATURES.
THE MOTOR SHALL HAVE PHASE FAILURE PROTECTION AND PREVENT THE MOTOR FROM OPERATION IN THE EVENT OF A LOSS OF PHASE.
MOTORS SHALL BE PREMIUM EFFICIENCY.
C. THE UNIT DDC CONTROLLER SHALL PROVIDE BUILDING STATIC PRESSURE CONTROL. THE UNIT CONTROLLER SHALL PROVIDE PROPORTIONAL CONTROL OF THE EXHAUST FANS FROM 25% TO 100% OF THE SUPPLY AIR FAN DESIGNED AIRFLOW TO MAINTAIN THE ADJUSTABLE BUILDING PRESSURE SETPOINT. THE FIELD SHALL MOUNT THE REQUIRED SENSING TUBING FROM THE BUILDING TO THE FACTORY MOUNTED BUILDING STATIC PRESSURE SENSOR.

2.07 FILTERS
A. UNIT SHALL BE PROVIDED WITH A DRAW-THROUGH FILTER SECTION. THE FILTER RACK SHALL BE DESIGNED TO ACCEPT A 2" PRE FILTER AND A 4" FINAL FILTER. THE UNIT DESIGN SHALL HAVE A HINGED ACCESS DOOR FOR THE FILTER SECTION. THE MANUFACTURER SHALL SHIP THE ROOFTOP UNIT WITH 2' MERV 8 CONSTRUCTION FILTERS. THE CONTRACTOR SHALL FURNISH AND INSTALL, AT BUILDING OCCUPANCY, THE FINAL SET OF FILTERS PER THE CONTRACT DOCUMENTS.
2.08 COOLING COIL
A. THE INDOOR COIL SECTION SHALL BE INSTALLED IN A DRAW THROUGH CONFIGURATION, UPSTREAM OF THE SUPPLY AIR FAN. THE COIL SECTION SHALL BE COMPLETE WITH A FACTORY PIPED COOLING COIL AND AN ASHRAE 62.1 COMPLIANT DOUBLE SLOPED DRAIN PAN.
B. THE DIRECT EXPANSION (DX) COOLING COILS SHALL BE FABRICATED OF SEAMLESS HIGH EFFICIENCY COPPER TUBING THAT IS MECHANICALLY EXPANDED INTO HIGH EFFICIENCY ALUMINUM PLATE FINS. COILS SHALL BE A MULTI-ROW, STAGGERED TUBE DESIGN WITH A MINIMUM OF 3 ROWS. ALL COOLING COILS SHALL HAVE AN INTERLACED COIL CIRCUITING THAT KEEPS THE FULL COIL FACE ACTIVE AT ALL LOAD CONDITIONS. ALL COILS SHALL BE AND THE REFRIGERANT DISCHARGE TEMPERATURE OF THE COMPRESSORS. ALL OF THE ABOVE DEVICES SHALL BE AN INPUT TO THE UNIT CONTROLLER AND THE VALUES BE DISPLAYED AT THE UNIT CONTROLLER.

D. THE REFRIGERANT SUCTION LINES SHALL BE FULLY INSULATED FROM THE EXPANSION VALVE TO THE COMPRESSORS.
E. THE DRAIN PAN SHALL BE STAINLESS STEEL AND POSITIVELY SLOPED. THE SLOPE OF THE DRAIN PAN SHALL BE IN TWO DIRECTIONS AND COMPLY WITH ASHRAE STANDARD 62.1. THE DRAIN PAN SHALL HAVE A MINIMUM SLOPE OF 1/8" PER FOOT TO PROVIDE POSITIVE DRAINING. THE DRAIN PAN SHALL EXTEND BEYOND THE LEAVING SIDE OF THE COIL. THE DRAIN PAN SHALL HAVE A THREADED DRAIN CONNECTION EXTENDING THROUGH THE UNIT BASE.
2.09 HOT GAS REHEAT
A. UNIT SHALL BE EQUIPPED WITH A FULLY MODULATING HOT GAS REHEAT COIL WITH HOT GAS COMING FROM THE UNIT CONDENSER
B. HOT GAS REHEAT COIL SHALL BE A MICRO CHANNEL DESIGN. THE ALUMINUM TUBE SHALL BE A MICRO CHANNEL DESIGN WITH HIGH EFFICIENCY ALUMINUM FINS. FINS SHALL BE BRAZED TO THE TUBING FOR A DIRECT BOND. THE CAPACITY OF THE REHEAT COIL SHALL ALLOW FOR A 20°F TEMPERATURE RISE AT ALL OPERATING CONDITIONS.
C. THE MODULATING HOT GAS REHEAT SYSTEMS SHALL ALLOW FOR INDEPENDENT CONTROL OF THE COOLING COIL LEAVING AIR TEMPERATURE AND THE REHEAT COIL LEAVING AIR TEMPERATURE. THE COOLING COIL AND REHEAT COIL LEAVING AIR TEMPERATURE SETPOINTS SHALL BE ADJUSTABLE THROUGH THE UNIT CONTROLLER. DURING THE DEHUMIDIFICATION CYCLE THE UNIT SHALL BE CAPABLE OF 100% OF THE COOLING CAPACITY. THE HOT GAS REHEAT COIL SHALL PROVIDE DISCHARGE TEMPERATURE CONTROL WITHIN +/- 2°F.

D. EACH COIL SHALL BE FACTORY LEAK TESTED WITH HIGH-PRESSURE AIR UNDER WATER.
2.010 SUPPLY FAN
A. SUPPLY FAN SHALL BE A SINGLE WIDTH, SINGLE INLET (SWSI) AIRFOIL CENTRIFUGAL FAN. THE FAN WHEEL SHALL BE CLASS II CONSTRUCTION WITH FAN BLADES THAT ARE CONTINUOUSLY WELDED TO THE HUB PLATE AND END RIM. THE SUPPLY FAN SHALL BE A DIRECT DRIVE FAN MOUNTED TO THE MOTOR SHAFT. BELTS AND SHEAVES ARE NOT ACCEPTABLE DUE TO THE ADDITIONAL MAINTENANCE.
B. ALL FAN ASSEMBLIES SHALL EMPLOY SOLID STEEL FAN SHAFTS. HEAVY DUTY PILLLOW BLOCK TYPE, SELF-ALIGNING, GREASE LUBRICATED BALL BEARINGS SHALL BE USED. BEARINGS SHALL BE SIZED TO PROVIDE A L-50 LIFE AT 250,000 HOURS. THE ENTIRE FAN ASSEMBLY SHALL BE ISOLATED FROM THE FAN BULKHEAD WITH A FLEXIBLE COLLAR AND MOUNTED ON 1" SPRING ISOLATORS.
C. ALL FAN ASSEMBLIES SHALL BE STATICALLY AND DYNAMICALLY BALANCED AT THE FACTORY, INCLUDING A FINAL TRIM BALANCE, PRIOR TO SHIPMENT.
D. SUPPLY FAN AND MOTOR ASSEMBLY COMBINATIONS LARGER THAN 8 HP OR 22" DIAMETER SHALL BE INTERNALLY ISOLATED ON DEFLECTED SPRING ISOLATORS AND INCLUDE REMOVABLE SHIPPING TIE DOWNS.
E. THE MOTOR SHALL BE T FRAME AND OPEN DRIP PROOF. OVRLOAD PROTECTION AND SPEED CONTROL IS PROVIDED BY THE FACTORY INSTALLED VFD AND ROOFTOP UNIT CONTROLLER. THE MOTOR SHALL HAVE PHASE FAILURE PROTECTION AND PREVENT THE MOTOR FROM OPERATION IN THE EVENT OF A LOSS OF PHASE. MOTORS SHALL BE PREMIUM EFFICIENCY.
F. THE SUPPLY FAN SHALL BE CAPABLE OF AIRFLOW MODULATION FROM 30% TO 100% OF THE SCHEDULED DESIGNED AIRFLOW. THE FAN SHALL NOT OPERATE IN A STATE OF SURGE AT ANY POINT WITHIN THE MODULATION RANGE.

2.011 HEATING SECTION
A. THE ROOFTOP UNIT SHALL INCLUDE A NATURAL GAS HEATING SECTION. THE GAS FURNACE DESIGN SHALL BE ONE NATURAL GAS FIRED HEATING MODULE FACTORY INSTALLED DOWNSTREAM OF THE SUPPLY AIR FAN IN THE HEAT SECTION. THE HEATING MODULE SHALL BE A TUBULAR DESIGN WITH IN-SHOT GAS BURNERS.
B. THE MODULE SHALL BE COMPLETE WITH FURNACE CONTROLLER AND CONTROL VALVE CAPABLE OF 12:1 MODULATING OPERATION.
C. THE HEAT EXCHANGER TUBES SHALL BE CONSTRUCTED OF STAINLESS STEEL.
D. THE MODULE SHALL HAVE AN INDUCED DRAFT FAN THAT WILL MAINTAIN A NEGATIVE PRESSURE IN THE HEAT EXCHANGER TUBES FOR THE REMOVAL OF THE FLUE GASES.
E. EACH BURNER MODULE SHALL HAVE TWO FLAME ROLL-OUT SAFETY PROTECTION SWITCHES AND A HIGH TEMPERATURE LIMIT SWITCH THAT WILL SHUT THE GAS VALVE OFF UPON DETECTION OF IMPROPER BURNER ROLL-OUT OPERATION. THE INDUCED DRAFT FAN SHALL HAVE AN AIRFLOW SAFETY SWITCH THAT WILL PREVENT THE HEATING MODULE FROM TURNING ON IN THE EVENT OF NO AIRFLOW IN THE FLUE CHAMBER.
F. THE FACTORY-INSTALLED DDC UNIT CONTROL SYSTEM SHALL CONTROL THE GAS HEAT MODULE. FIELD INSTALLED HEATING MODULES SHALL REQUIRE A FIELD ETL CERTIFICATION. THE MANUFACTURER'S ROOFTOP UNIT ETL CERTIFICATION SHALL COVER THE COMPLETE UNIT INCLUDING THE GAS HEATING MODULES.

2.012 CONDENSING SECTION
A. OUTDOOR COILS SHALL BE CAST ALUMINUM. MICRO-CHANNEL COILS SHALL BE PROTECTED AND BRAZED BETWEEN ADJOINING FLAT TUBES SUCH THAT THEY SHALL NOT EXTEND OUTSIDE THE TUBES. A SUB-COOLING COIL SHALL BE AN INTEGRAL PART OF THE MAIN OUTDOOR AIR COIL. EACH OUTDOOR AIR COIL SHALL BE FACTORY LEAK TESTED WITH HIGH-PRESSURE AIR UNDER WATER.
B. OUTDOOR AIR COILS SHALL BE PROTECTED FROM INCIDENTAL CONTACT TO COIL FINS BY A COIL GUARD. COIL GUARD SHALL BE CONSTRUCTED OF CROSS WIRE WELDED STEEL WITH PVC COATING.
C. FAN MOTORS SHALL BE AN ECM TYPE MOTOR FOR PROPORTIONAL CONTROL. THE UNIT CONTROLLER SHALL PROPORTIONALLY CONTROL THE SPEED OF THE CONDENSER FAN MOTORS TO MAINTAIN THE HEAD PRESSURE OF THE REFRIGERANT CIRCUIT FROM AMBIENT CONDITION OF 0-120°F. MECHANICAL COOLING SHALL BE PROVIDED TO THE MOTOR. THE MOTOR SHALL INCLUDE THERMAL OVERLOAD PROTECTION AND PROTECT THE MOTOR IN THE CASE OF EXCESSIVE MOTOR TEMPERATURES. THE MOTOR SHALL HAVE PHASE FAILURE PROTECTION AND PREVENT THE MOTOR FROM OPERATION IN THE EVENT OF A LOSS OF PHASE.
D. THE CONDENSER FAN SHALL BE LOW NOISE BLADE DESIGN. FAN BLADE DESIGN SHALL BE A DYNAMIC PROFILE FOR LOW TIP SPEED.
FAN BLADE SHALL BE OF A COMPOSITE MATERIA
E. THE UNIT SHALL HAVE SCROLL COMPRESSORS. ONE OF THE COMPRESSORS SHALL BE AN INVERTER COMPRESSOR PROVIDING PROPORTIONAL CONTROL. THE UNIT CONTROLLER SHALL CONTROL THE SPEED OF THE COMPRESSOR TO MAINTAIN THE DISCHARGE AIR TEMPERATURE. THE INVERTER COMPRESSOR SHALL HAVE A SEPARATE OIL PUMP AND LOW OIL SAFETY PROTECTION.
F. PRESSURE TRANSDUCERS SHALL BE PROVIDED FOR THE SUCTION PRESSURE AND HEAD PRESSURE. TEMPERATURE SENSOR SHALL BE PROVIDED FOR THE SUCTION TEMPERATURE AND THE REFRIGERANT DISCHARGE TEMPERATURE OF THE COMPRESSORS. ALL OF THE ABOVE DEVICES SHALL BE AN INPUT TO THE UNIT CONTROLLER AND THE VALUES BE DISPLAYED AT THE UNIT CONTROLLER.

2.013 ELECTRICAL
A. UNIT WIRING SHALL COMPLY WITH NEC REQUIREMENTS AND WITH ALL APPLICABLE UL STANDARDS. ALL ELECTRICAL COMPONENTS SHALL BE UL RECOGNIZED WHERE APPLICABLE. ALL WIRING AND ELECTRICAL COMPONENTS PROVIDED WITH THE UNIT SHALL BE NUMBER AND COLOR-CODED AND LABELED ACCORDING TO THE ELECTRICAL DIAGRAM PROVIDED FOR EASY IDENTIFICATION. THE UNIT SHALL BE PROVIDED WITH A FACTORY WIRED WEATHERPROOF CONTROL PANEL. UNIT SHALL HAVE A SINGLE POINT POWER TERMINAL BLOCK FOR MAIN POWER CONNECTION. A TERMINAL BOARD SHALL BE PROVIDED FOR LOW VOLTAGE CONTROL WIRING. BRANCH SHORT CIRCUIT PROTECTION, 115-VOLT CONTROL CIRCUIT TRANSFORMER AND FUSE SYSTEM SWITCHES, AND A HIGH TEMPERATURE SENSOR SHALL ALSO BE PROVIDED WITH THE UNIT. EACH COMPRESSOR AND CONDENSER FAN MOTOR SHALL BE FURNISHED WITH CONTACTORS AND INHERENT THERMAL OVERLOAD PROTECTION. SUPPLY FAN MOTORS SHALL HAVE CONTACTORS AND EXTERNAL OVERLOAD PROTECTION.
KNOCKOUTS SHALL BE PROVIDED IN THE BOTTOM OF THE MAIN CONTROL PANELS FOR FIELD WIRING ENTRANCE.
B. A GFI RECEPTACLE SHALL BE UNIT MOUNTED THAT IS FIELD POWERED.
C. A SINGLE NON-FUSED DISCONNECT SWITCH SHALL BE PROVIDED FOR DISCONNECTING ELECTRICAL POWER AT THE UNIT. DISCONNECT SWITCHES SHALL BE MOUNTED INTERNALLY TO THE CONTROL PANEL AND OPERATED BY AN EXTERNALLY MOUNTED HANDLE.
2.014 CONTROLS
A. PROVIDE A COMPLETE INTEGRATED MICROPROCESSOR BASED DIRECT DIGITAL CONTROL (DDC) SYSTEM TO CONTROL ALL UNIT FUNCTIONS INCLUDING TEMPERATURE CONTROL, SCHEDULING, MONITORING, UNIT SAFETY PROTECTION, INCLUDING COMPRESSOR MINIMUM RUN AND MINIMUM OFF TIMES, AND DIAGNOSTICS. THIS SYSTEM SHALL CONSIST OF ALL REQUIRED TEMPERATURE SENSORS, PRESSURE SENSORS, CONTROLLER AND KEYPAD/DISPLAY OPERATOR INTERFACE. ALL MCBS AND SENSORS SHALL BE FACTORY MOUNTED, WIRED AND TESTED.
B. THE STAND-ALONE DDC CONTROLLERS SHALL NOT BE DEPENDENT ON COMMUNICATIONS WITH ANY ON-SITE OR REMOTE PC OR MASTER CONTROL PANEL FOR PROPER UNIT OPERATION. THE MICROPROCESSOR SHALL MAINTAIN EXISTING CONTROL POINTS AND OPERATE STAND ALONE. IF THE UNIT LOSES EITHER DIRECT CONTROL OR NETWORK COMMUNICATIONS, THE MICROPROCESSOR MEMORY SHALL BE PROTECTED FROM VOLTAGE FLUCTUATIONS AS WELL AS ANY EXTENDED POWER FAILURES. ALL FACTORY AND USER SET SCHEDULES AND CONTROL POINTS SHALL BE MAINTAINED IN NONVOLATILE MEMORY. NO SETTINGS SHALL BE LOST, EVEN DURING EXTENDED POWER SHUTDOWNS.
C. THE DDC CONTROL SYSTEM SHALL PERMIT STARTING AND STOPPING OF THE UNIT LOCALLY OR REMOTELY. THE CONTROL SYSTEM SHALL BE CAPABLE OF PROVIDING A REMOTE ALARM INDICATION. THE UNIT CONTROL SYSTEM SHALL PROVIDE FOR OUTSIDE AIR DAMPER ACTION, EMERGENCY SHUTDOWN, REMOTE HEAT ENABLE/DISABLE, REMOTE COOL ENABLE/DISABLE, HEAT INDICATION, COOL INDICATION, AND FAN OPERATION.
D. ALL DIGITAL INPUTS AND OUTPUTS SHALL BE PROTECTED AGAINST DAMAGE FROM TRANSIENTS OR INCORRECT VOLTAGES. ALL FIELD WIRING SHALL BE TERMINATED AT A SEPARATE, CLEARLY MARKED TERMINAL STRIP.
E. THE DDC CONTROLLER SHALL HAVE A BUILT-IN TIME SCHEDULE. THE SCHEDULE SHALL BE PROGRAMMABLE FROM THE UNIT KEYPAD INTERFACE. THE SCHEDULE SHALL BE MAINTAINED IN NONVOLATILE MEMORY TO INSURE THAT IT IS NOT LOST DURING A POWER FAILURE.
THERE SHALL BE ONE START/STOP PER DAY AND A SEPARATE HOLIDAY SCHEDULE. THE CONTROLLER SHALL ACCEPT UP TO SIXTEEN HOLIDAYS EACH WITH UP TO A 5-DAY DURATION. EACH UNIT SHALL ALSO HAVE THE ABILITY TO ACCEPT A TIME SCHEDULE VIA BAS NETWORK COMMUNICATIONS.
F. THE KEYPAD INTERFACE SHALL ALLOW CONVENIENT NAVIGATION AND ACCESS TO ALL CONTROL FUNCTIONS. THE UNIT KEYPAD/DISPLAY CHARACTER FORMAT SHALL BE 4 LINES X 20 CHARACTERS. ALL CONTROL SETTINGS SHALL BE PASSWORD PROTECTED AGAINST UNAUTHORIZED CHANGES. FOR EASE OF SERVICE, THE DISPLAY FORMAT SHALL BE ENGLISH LANGUAGE READOUT. CODED FORMATS WITH LOOK-UP TABLES WILL NOT BE ACCEPTED. THE USER INTERACTION WITH THE DISPLAY SHALL PROVIDE THE FOLLOWING INFORMATION WITH A MINIMUM:
1. RETURN AIR TEMPERATURE.
2. DISCHARGE AIR TEMPERATURE.
3. OUTDOOR AIR TEMPERATURE.
4. SPAGE AIR TEMPERATURE.
5. OUTDOOR ENTHALPHY, HIGH/LOW.
6. COMPRESSOR SUCTION TEMPERATURE AND PRESSURE
7. COMPRESSOR HEAD PRESSURE AND TEMPERATURE
8. EXPANSION VALVE POSITION
9. CONDENSER FAN SPEED
10. INVERTER COMPRESSOR SPEED
11. DIRTY FILTER INDICATION.
12. AIRFLOW VERIFICATION.
13. COOLING STATUS.
14. CONTROL TEMPERATURE (CHANGEOVER).
15. VAV BOX OUTPUT STATUS.
16. COOLING STATUS/CAPACITY.
17. UNIT STATUS.
18. ALL TIME SCHEDULES.
19. ACTIVE ALARMS WITH TIME AND DATE.
20. PREVIOUS ALARMS WITH TIME AND DATE.
21. OPTIMAL START
22. SUPPLY FAN AND EXHAUST FAN SPEED.
23. SYSTEM OPERATING HOURS.
a. FAN
EXHAUST FAN
c. COOLING
d. INDIVIDUAL COMPRESSOR
e. HEATING
f. ECONOMIZER
g. TENANT OVERRIDE
G. THE USER INTERACTION WITH THE KEYPAD SHALL PROVIDE THE FOLLOWING:
1. CONTROLS MODE
2. OFF MANUAL
h. AUTO
i. HEAT/COOL
j. COOL ONLY
k. HEAT ONLY
l. FAN ONLY
2. OCCUPANCY MODE
a. AUTO
b. OCCUPIED
c. UNOCCUPIED
d. TENANT OVERRIDE
3. UNIT OPERATION CHANGEOVER CONTROL
a. RETURN AIR TEMPERATURE
b. SPAGE TEMPERATURE
NETWORK SIGNAL

G. EACH CIRCUIT SHALL BE DEHYDRATED AND FACTORY CHARGED WITH R-410A REFRIGERANT AND OIL.
2.015 ROOF CURB
A. PREFABRICATED HEAVY GAUGE GALVANIZED STEEL MOUNTING CURB SHALL BE PROVIDED FOR FIELD ASSEMBLY ON THE ROOF DECKING PRIOR TO UNIT SHIPMENT. THE ROOF CURB SHALL BE A FULL PERIMETER TYPE WITH COMPLETE PERIMETER SUPPORT OF THE AIR HANDLING SECTION AND CONDENSING SECTION. THE CURB SHALL BE A MINIMUM OF 14" HIGH AND INCLUDE A NOMINAL 2" X 4" WOOD NAILING STRIP. GASKET SHALL BE PROVIDED FOR FIELD MOUNTING BETWEEN THE UNIT BASE AND ROOF CURB.

1. COOLING AND HEATING CHANGE-OVER TEMPERATURE WITH DEADBAND
2. COOLING DISCHARGE AIR TEMPERATURE (DAT)
3. SUPPLY RESET OPTIONS
c. RETURN AIR TEMPERATURE
d. OUTDOOR AIR TEMPERATURE
e. SPAGE TEMPERATURE
f. AIRFLOW (VAV)
g. NETWORK SIGNAL
h. EXTERNAL (0-20 VDC)
i. EXTERNAL (0-20 MA)
7. TEMPERATURE ALARM LIMITS
a. HIGH SUPPLY AIR TEMPERATURE
b. LOW SUPPLY AIR TEMPERATURE
c. HIGH RETURN AIR TEMPERATURE
8. LOCKOUT CONTROL FOR COMPRESSORS.
9. COMPRESSOR INTERSTATE TIMERS
10. NIGHT SETBACK AND SETUP SPAGE TEMPERATURE.
11. BUILDING STATIC PRESSURE.
12. ECONOMIZER CHANGEOVER
o. ENTHALPHY
d. DRYBULB TEMPERATURE
13. CURRENTLY TIME AND DATE
14. TENANT OVERRIDE TIME
15. OCCUPIED/UNOCCUPIED TIME SCHEDULE
16. ONE EVENT SCHEDULE
17. HOLIDAY DATES AND DURATION
18. ADJUSTABLE SET POINTS
19. SERVICE MODE
o. TIMERS NORMAL (ALL TIME DELAYS NORMAL)
b. TIMERS FAST (ALL TIME DELAYS 20 SEC)
G. IF THE UNIT IS TO BE PROGRAMMED WITH A NIGHT SETBACK OR SETUP FUNCTION, AN OPTIONAL SPAGE SENSOR SHALL BE PROVIDED.
SPAGE SENSORS SHALL BE AVAILABLE TO SUPPORT FIELD SELECTABLE FEATURES. SENSOR OPTIONS SHALL INCLUDE:
1. ZONE SENSOR WITH TENANT OVERRIDE SWITCH
2. ZONE SENSOR WITH TENANT OVERRIDE SWITCH PLUS HEATING AND COOLING SET POINT ADJUSTMENT. (SPAGE COMFORT CONTROL SYSTEMS ONLY)
I. TO INCREASE THE EFFICIENCY OF THE COOLING SYSTEM THE DDC CONTROLLER SHALL INCLUDE A DISCHARGE AIR TEMPERATURE RESET PROGRAM FOR PART LOAD OPERATING CONDITIONS. THE DISCHARGE AIR TEMPERATURE SHALL BE CONTROLLED BETWEEN A MINIMUM AND A MAXIMUM DISCHARGE AIR TEMPERATURE (DAT) BASED ON ONE OF THE FOLLOWING INPUTS:
1. AIRFLOW
2. OUTSIDE AIR TEMPERATURE
3. SPAGE TEMPERATURE
4. RETURN AIR TEMPERATURE
5. EXTERNAL SIGNAL OF 1-5 VDC
6. EXTERNAL SIGNAL OF 0-20 MA
7. NETWORK SIGNAL

2.015 ROOF CURB
A. PREFABRICATED HEAVY GAUGE GALVANIZED STEEL MOUNTING CURB SHALL BE PROVIDED FOR FIELD ASSEMBLY ON THE ROOF DECKING PRIOR TO UNIT SHIPMENT. THE ROOF CURB SHALL BE A FULL PERIMETER TYPE WITH COMPLETE PERIMETER SUPPORT OF THE AIR HANDLING SECTION AND CONDENSING SECTION. THE CURB SHALL BE A MINIMUM OF 14" HIGH AND INCLUDE A NOMINAL 2" X 4" WOOD NAILING STRIP. GASKET SHALL BE PROVIDED FOR FIELD MOUNTING BETWEEN THE UNIT BASE AND ROOF CURB.

1. COOLING AND HEATING CHANGE-OVER TEMPERATURE WITH DEADBAND
2. COOLING DISCHARGE AIR TEMPERATURE (DAT)
3. SUPPLY RESET OPTIONS
c. RETURN AIR TEMPERATURE
d. OUTDOOR AIR TEMPERATURE
e. SPAGE TEMPERATURE
f. AIRFLOW (VAV)
g. NETWORK SIGNAL
h. EXTERNAL (0-20 VDC)
i. EXTERNAL (0-20 MA)
7. TEMPERATURE ALARM LIMITS
a. HIGH SUPPLY AIR TEMPERATURE
b. LOW SUPPLY AIR TEMPERATURE
c. HIGH RETURN AIR TEMPERATURE
8. LOCKOUT CONTROL FOR COMPRESSORS.
9. COMPRESSOR INTERSTATE TIMERS
10. NIGHT SETBACK AND SETUP SPAGE TEMPERATURE.
11. BUILDING STATIC PRESSURE.
12. ECONOMIZER CHANGEOVER
o. ENTHALPHY
d. DRYBULB TEMPERATURE
13. CURRENTLY TIME AND DATE
14. TENANT OVERRIDE TIME
15. OCCUPIED/UNOCCUPIED TIME SCHEDULE
16. ONE EVENT SCHEDULE
17. HOLIDAY DATES AND DURATION
18. ADJUSTABLE SET POINTS
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G. IF THE UNIT IS TO BE PROGRAMMED WITH A NIGHT SETBACK OR SETUP FUNCTION, AN OPTIONAL SPAGE SENSOR SHALL BE PROVIDED.
SPAGE SENSORS SHALL BE AVAILABLE TO SUPPORT FIELD SELECTABLE FEATURES. SENSOR OPTIONS SHALL INCLUDE:
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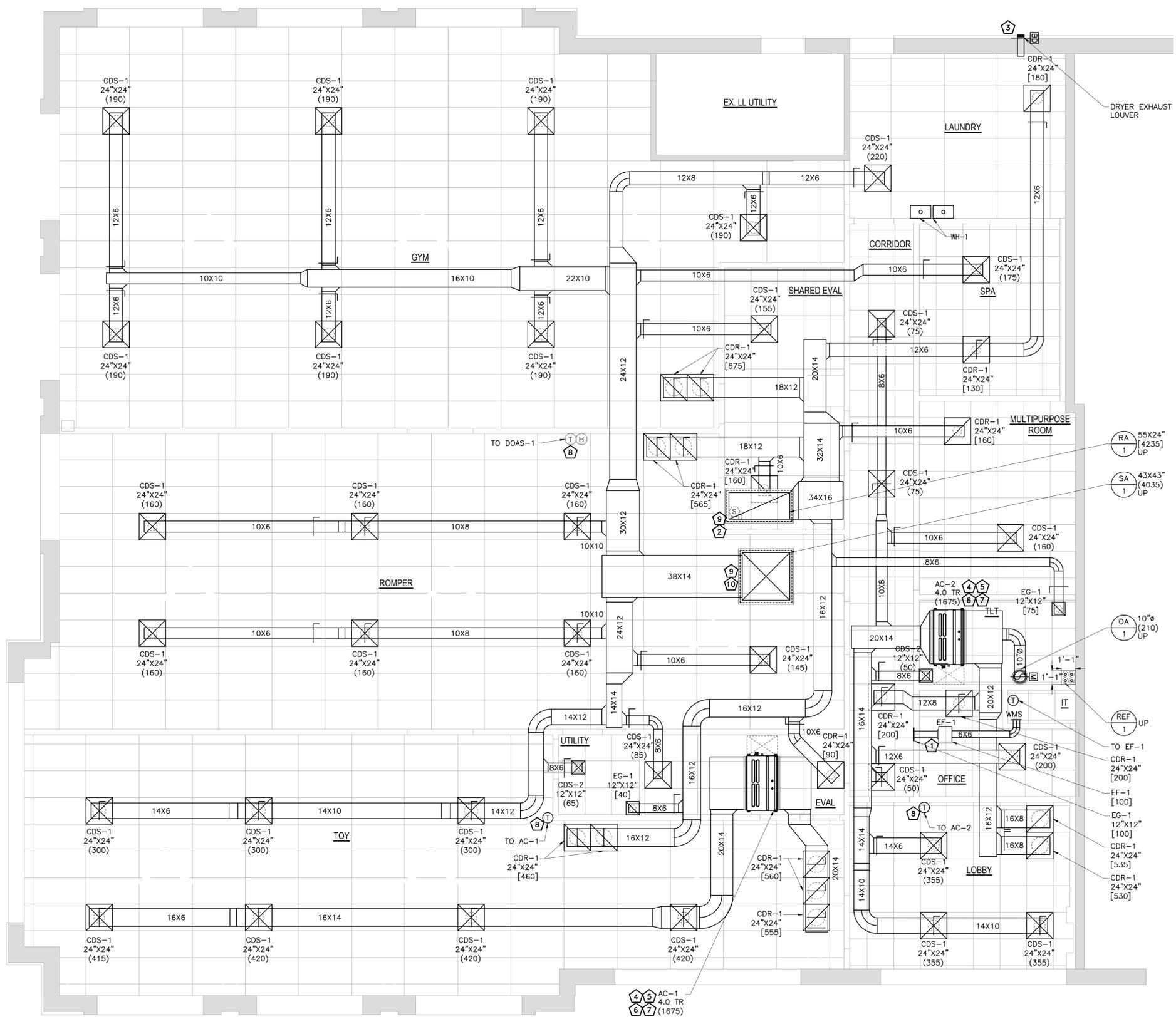
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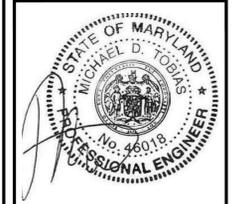


MECHANICAL GENERAL NOTES

- A. COORDINATE WITH OWNER FOR DEMO OF EXISTING HVAC SYSTEM.
- B. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
- C. NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED, PROVIDE ANY EXTRA DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- D. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
- E. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- F. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- G. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- H. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- I. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- J. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
- K. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C AND OWNER.
- L. NEW DUCTWORK IN CONCEALED AREAS MAY BE RECTANGULAR WITH EQUIVALENT CROSS SECTIONAL FLOW AREA.
- M. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/ BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS. ALL EQUIPMENT SHALL MAINTAIN MINIMUM CLEARANCE FROM THE COMBUSTIBLE MATERIAL AS PER MANUFACTURE RECOMMENDATION.
- O. PROVIDE ACCESS TO FIRE DAMPERS AND FSD AS PER MANUFACTURERS RECOMMENDATION.
- P. PROVIDE CORD OPERATED DAMPER IN INACCESSIBLE CEILING.
- Q. PROVIDE R-8 INSULATION FOR OAI DUCT AND R-6 INSULATION FOR SUPPLY AND RETURN DUCT.
- O. OUTDOOR AIR INTAKE, EXHAUST OPENINGS SHALL BE PROVIDED WITH CLASS 1 MOTORIZED DAMPERS. THE DAMPERS SHALL HAVE AN AIR LEAKAGE RATE NOT GREATER THAN 4 CFM/FT2 OF DAMPER SURFACE AREA AT 1.0 INCH WATER GAUGE (249 PA) AND SHALL BE LABELED BY AN APPROVED AGENCY WHEN TESTED IN ACCORDANCE WITH AMCA 500D.

KEY NOTES:

- 1. INSTALL NEW CEILING MOUNTED EXHAUST FAN. INTERCONNECT EXHAUST FAN WITH T-STAT AND SET CUT-ON TEMP TO 70°F. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION. CONNECT TO EXISTING EXHAUST NETWORK OF THE BASE BUILDING. PROVIDE FIRE DAMPER IF CROSSING ANY RATED WALL.
- 2. SMOKE DETECTOR SHALL BE FURNISHED/INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR TO SHUT DOWN CORRESPONDING DAOs UNDER ALARM CONDITIONS. ALL WIRING SHALL BE IN CONDUIT PER N E C SMOKE DETECTOR SHALL BE SYSTEM SENSOR MODEL DH100ACDCLP OR EQUAL.
- 3. PROVIDE DRYER EXHAUST LOUVER AS PER MANUFACTURER REQUIREMENT. LOUVER TO BE TERMINATED WITH BACKDRFT DAMPER 10' AWAY FROM ANY EXHAUST AND 3' AWAY FROM ANY BUILDING OPENING.
- 4. CONNECT 1" CD TO SINK/LAV WITH AIR GAP FITTING. INSTALL CONDENSATE DRAIN WITH 1/4" SLOPE. SLOPE SHALL BE TOWARDS SINK. PROVIDE 1" INSULATION TO CONDENSATE DRAIN.
- 5. PROVIDE SECONDARY DRIP PAN UNDER AC UNIT WITH WATER LEAKAGE SENSOR AND ALARM TO SHUT DOWN THE UNIT.
- 6. EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM AC UNITS TO SPACE. EXTEND AS SHOWN. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN MAIN DUCTS.
- 7. PROVIDE REMOTE TEMP SENSOR MOUNTED IN RETURN DUCT AND WIRE BACK TO T-STAT.
- 8. LOCATION OF DIGITAL THERMOSTAT/HUMIDISTAT CONTROL. INSTALL AND WIRE NEW 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
- 9. EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM HVAC EQUIPMENT TO SPACE. EXTEND AS SHOWN. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN MAIN DUCTS.
- 10. PROVIDE REMOTE TEMP SENSOR MOUNTED IN SUPPLY DUCT AND WIRE BACK TO T-STAT.



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 46018. EXPIRATION DATE 10/08/22.



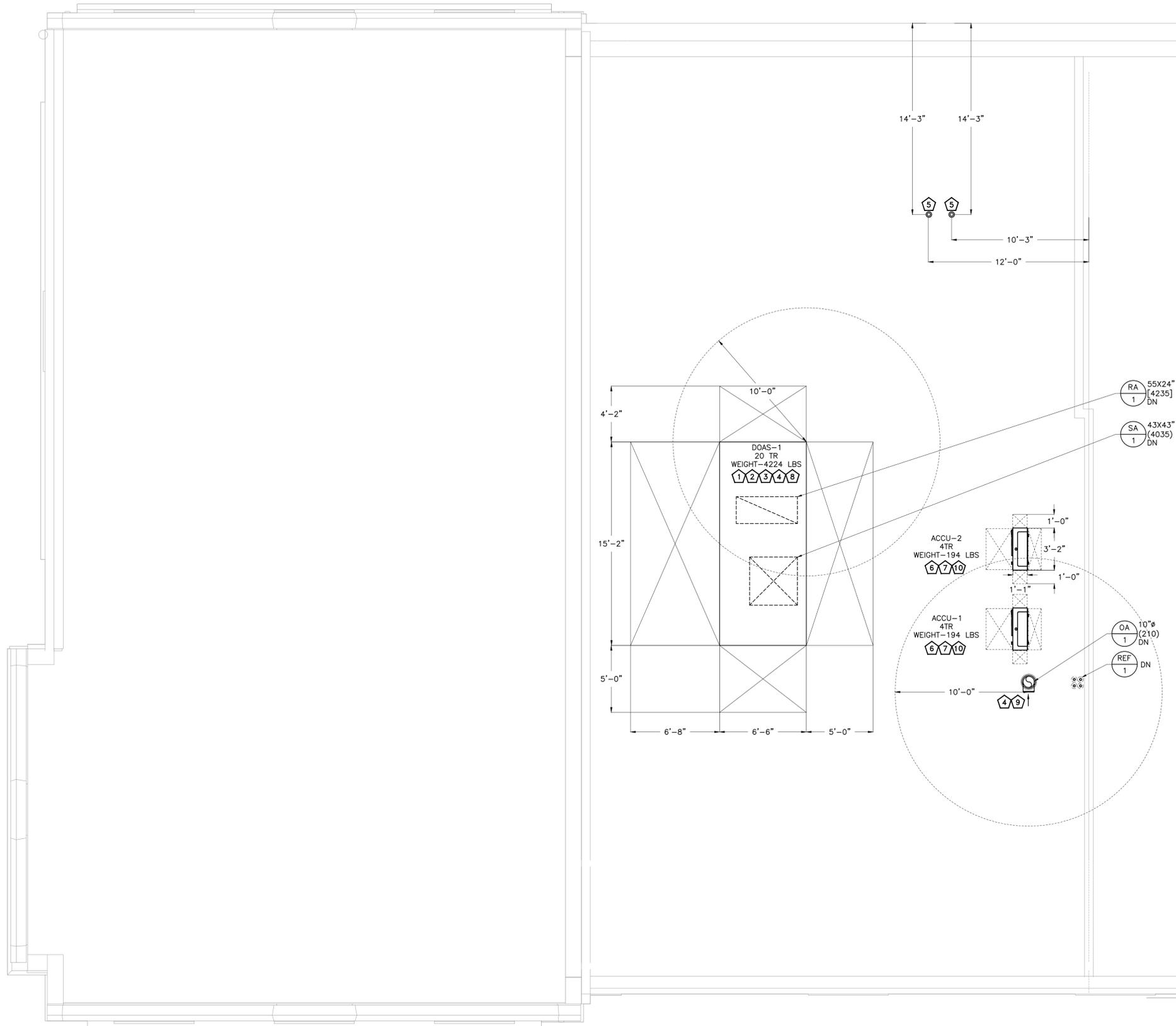
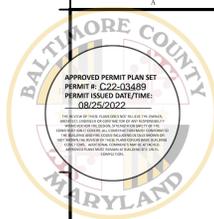
1270 EAST JOPPA ROAD
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TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: NYE
PROJECT No.: 22155
DWG TITLE:

MECHANICAL FLOOR PLAN

SHEET No.
M-1.0

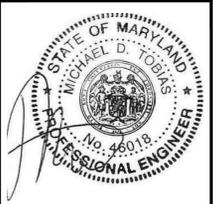


MECHANICAL GENERAL NOTES

- A. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
- B. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED. VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
- C. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- D. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- E. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- F. COORDINATE ALL EQUIPMENT WITH STRUCTURAL.
- G. MAINTAIN ALL CODE AND MANUFACTURERS RECOMMENDED CLEARANCE AROUND ALL ROOF EQUIPMENT.
- H. PROVIDE WATER TIGHT CAP AT EXISTING CURBS, SEAL AT ALL EXISTING ROOF PENETRATIONS UNLESS TO BE REUSE.
- I. EXCLUDING ITEMS THAT ARE EXPLICITLY STATED TO BE REUSED, THE GENERAL CONTRACTOR IS TO REMOVE EXISTING ROOFTOP UNITS, DUCTWORK, CURBS, CONTROLS, SUPPORTS AND OTHER ACCESSORIES ASSOCIATED WITH THE ROOFTOP EQUIPMENT; REMOVE, ALTER AND REPLACE STRUCTURAL FRAMING AS NEEDED; RE-DECK AND RE-ROOF EXISTING OPENING TO MATCH EXISTING ROOF; AND REMOVE ALL EXISTING GRILLES, DIFFUSERS, DUCTWORK, HANGERS AND ASSOCIATED MATERIALS.
- J. PROVIDE WEATHER PROOF COATING FOR ALL EXTERIOR DUCTING.
- K. PROVIDE WEATHER PROOF COATING FOR ALL EXTERIOR PIPING.

KEY NOTES:

- 1. CONTRACTOR TO RUN CONDENSATE DRAIN FROM DOAS TO NEAREST ROOF DRAIN OR DOWN SPOUT. COORDINATE IN FIELD. PROVIDE STRUCTURAL SUPPORTS AS REQUIRED. COORDINATE WITH STRUCTURAL ENGINEER.
- 2. NEW DOAS IS PROVIDED. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCT CONNECTIONS. SET OUTSIDE AIR AS INDICATED ON ROOFTOP UNIT SCHEDULES. MECHANICAL CONTRACTOR SHALL SCRIBE INTO UNIT POSITION OF OUTSIDE AIR DAMPER AND LABEL OUTSIDE AIR VOLUME AND PERCENT OF OUTSIDE AIR. TRANSITION AND CONNECT SUPPLY AND RETURN DUCTWORK FROM BELOW. COORDINATE ROUTING THROUGH STRUCTURAL TRUSSES AND OFFSET AS REQUIRED IN CURB SPACE.
- 3. OUTSIDE AIR CFM SHALL BE BALANCE AS PER SCHEDULE.
- 4. ALL OUTSIDE AIR INTAKE ON THE ROOF SHALL BE MINIMUM 10 FEET AWAY FROM ANY EXHAUST SOURCE.
- 5. PROVIDE MANUFACTURER'S CONCENTRIC TERMINATION VENT KIT SERVING HOT WATER HEATER BELOW. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. ENSURE AT LEAST 10'-0" DISTANCE BETWEEN OUTDOOR AIR INTAKES.
- 6. INSTALL OUTDOOR CONDENSING UNITS ON THE ROOF WITH ALL REQUIRED ACCESSORIES. COORDINATE EXACT LOCATION ON FIELD WITH OWNER.
- 7. PROVIDE STRUCTURAL SUPPORTS AND 4" CONCRETE PADS AS REQUIRED. COORDINATE WITH STRUCTURAL ENGINEER.
- 8. EXISTING RTU SHALL BE DEMOLISHED AND PROVIDE NEW.
- 9. TERMINATE OUTSIDE AIR INTAKE DUCT WITH GOOSENECK AND BIRD SCREEN.
- 10. CONTRACTOR TO PROVIDE REFRIGERANT PIPING BETWEEN INDOOR AND OUTDOOR UNIT AS PRE MANUFACTURES RECOMMENDATIONS.



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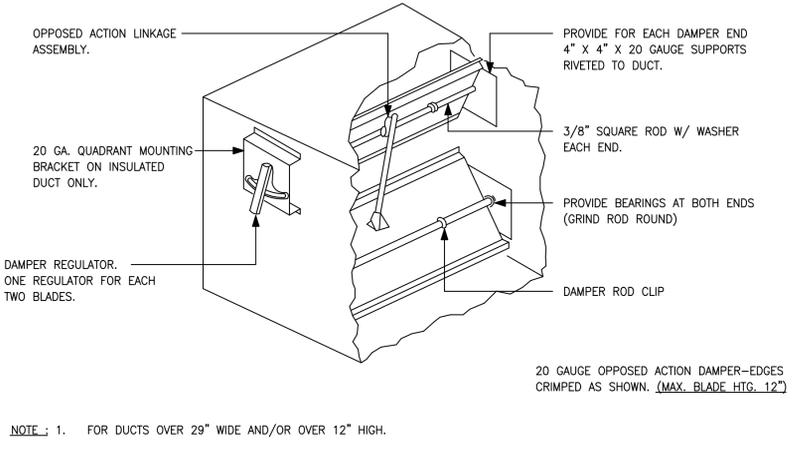
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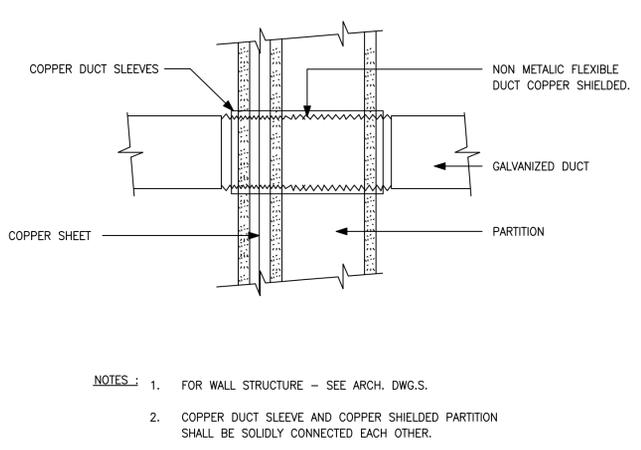
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MECHANICAL
ROOF PLAN

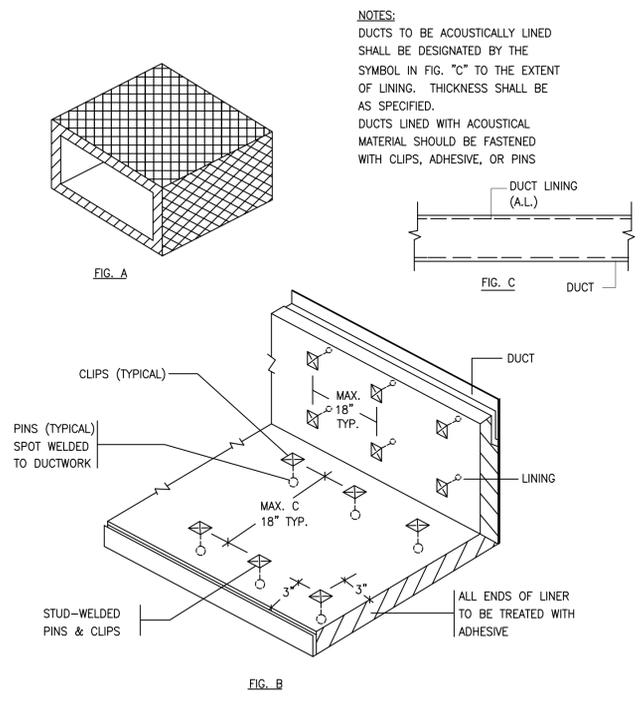
SHEET No.
M-2.0



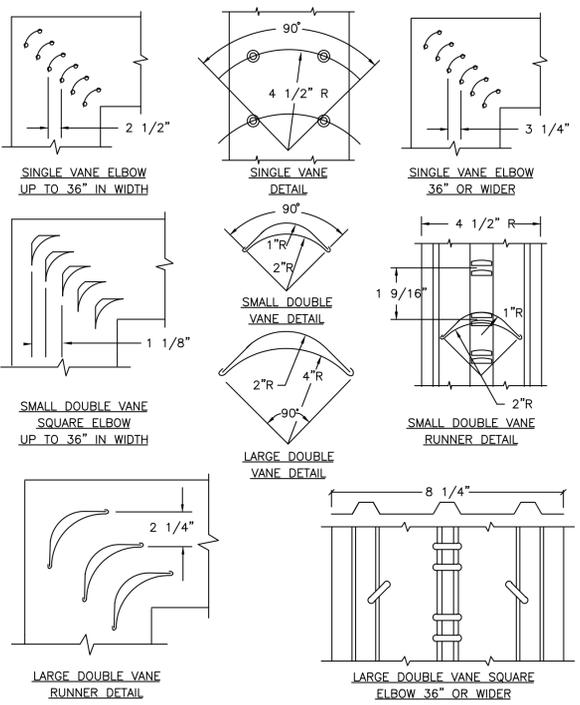
1 LOW PRESSURE BALANCING DAMPER
M-3.0 N.T.S



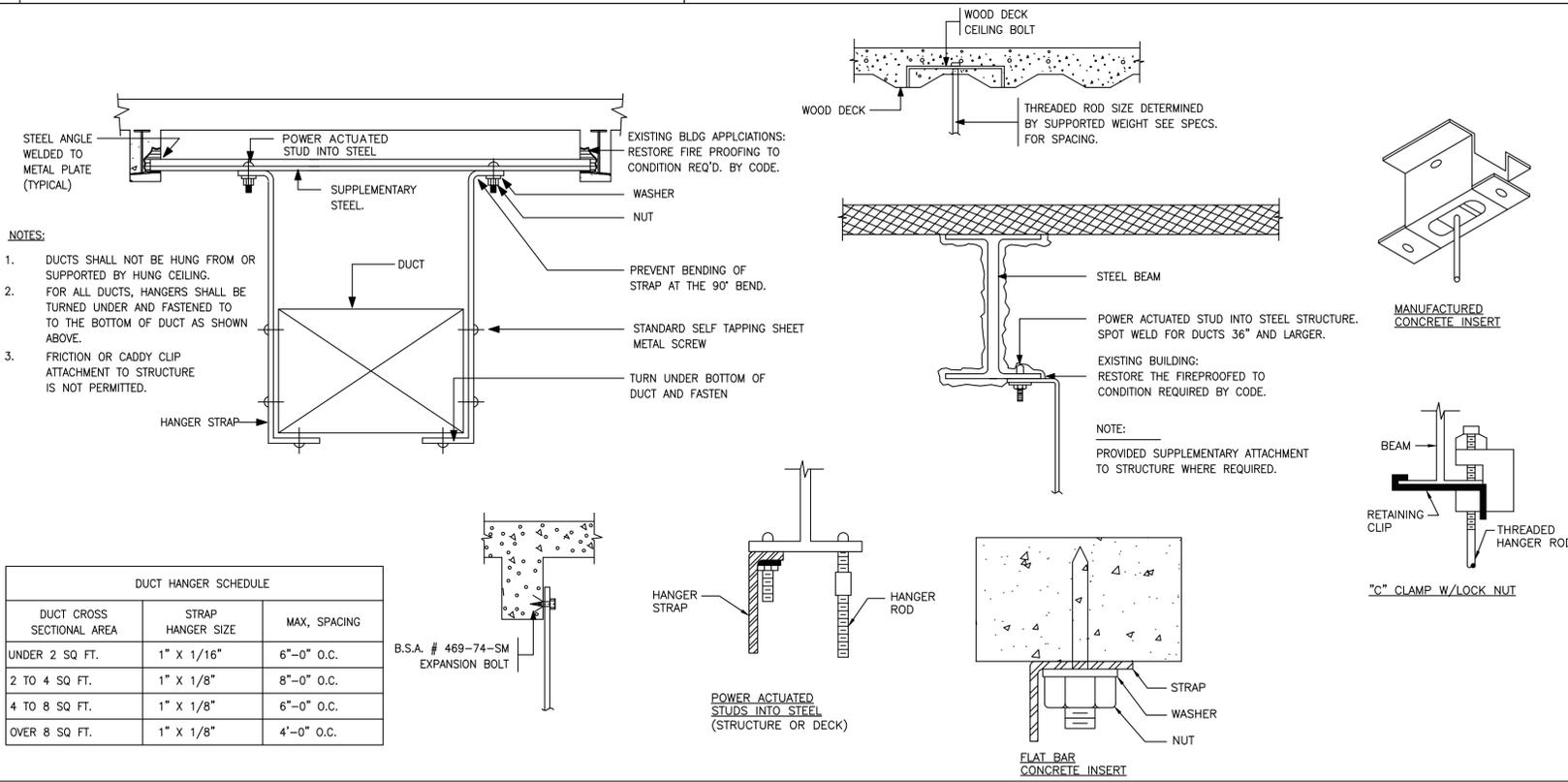
2 WALL PENETRATION DETAIL
M-3.0 N.T.S



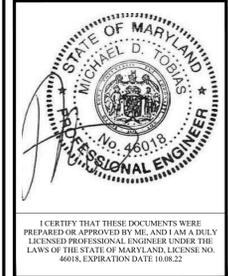
3 ACOUSTICAL TREATMENT DUCT LINING
M-3.0 N.T.S



4 LOW VELOCITY DUCTWORK ELBOWS
M-3.0 N.T.S



5 DUCT HANGING DETAILS
M-3.0 N.T.S



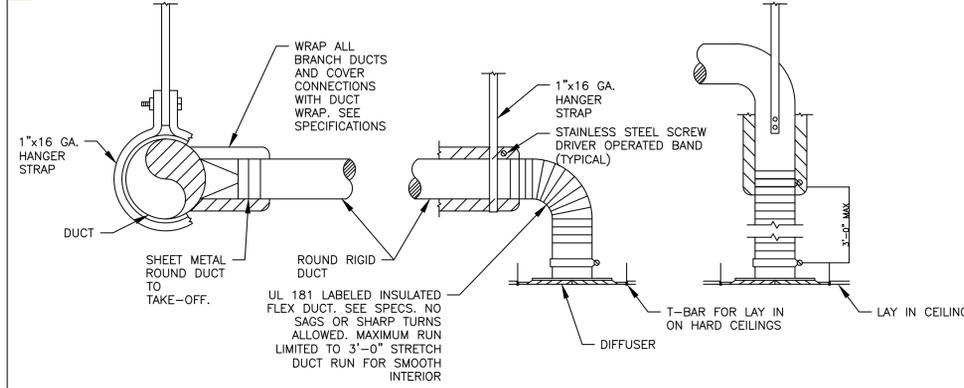
1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

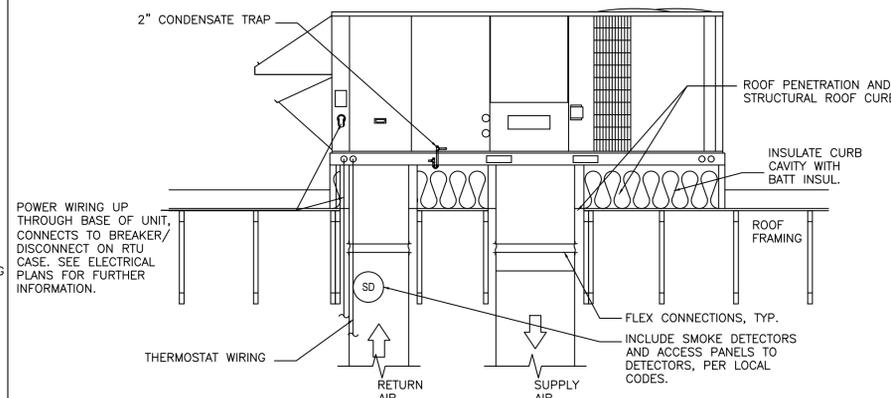
DWG DATE: 07-20-2022
DRAWN BY: NYE
PROJECT No.: 22155
DWG TITLE:

MECHANICAL
DETAILS (1 OF 2)

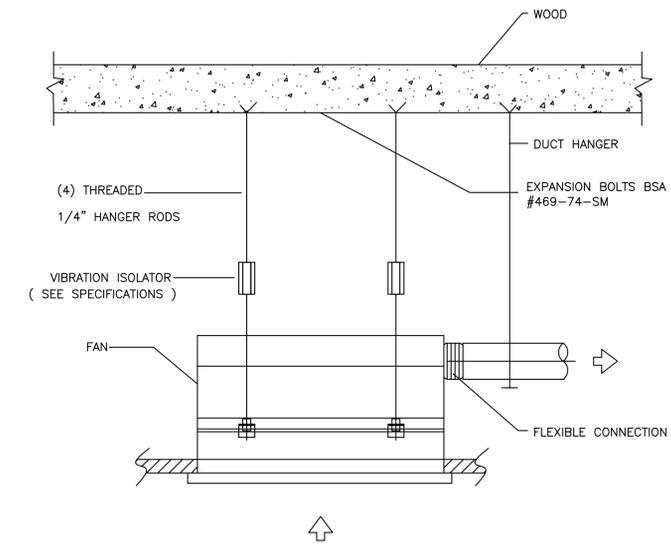
SHEET No.
M-3.0



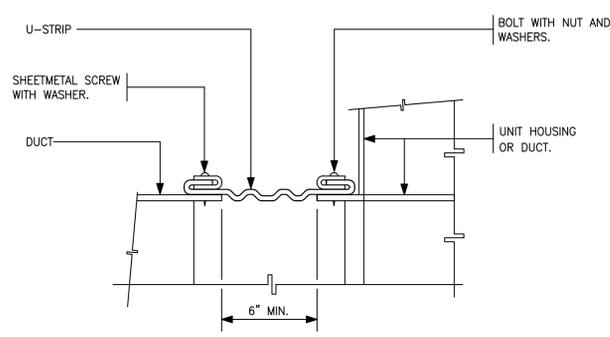
1 TYPICAL DIFFUSER CONNECTION DETAIL
M-4.0 N.T.S



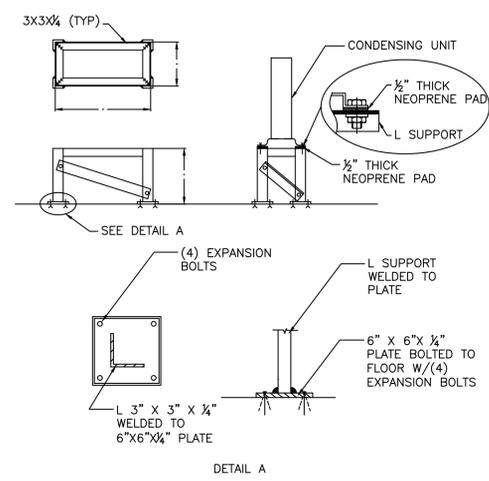
2 TYPICAL DOAS UNIT DETAILS
M-4.0 N.T.S



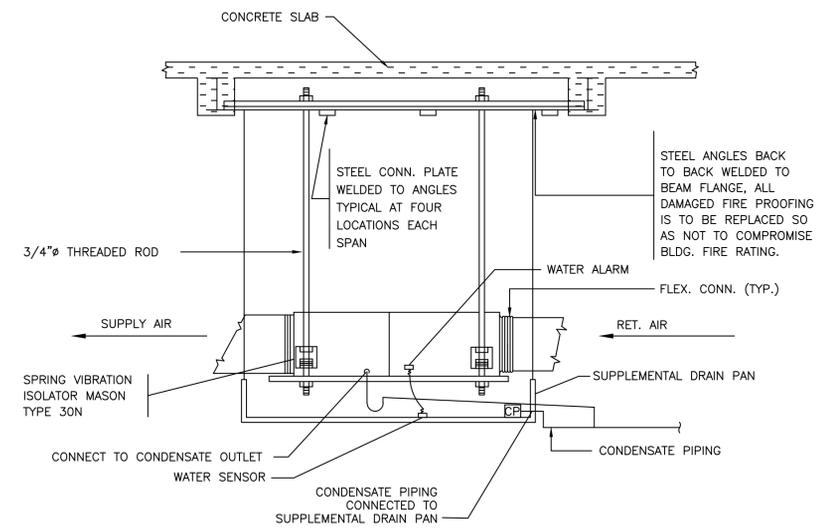
3 CEILING FAN HANGING SUPPORT DETAIL
M-4.0 N.T.S



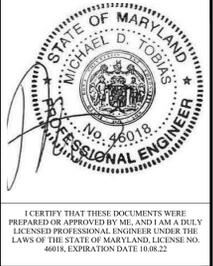
4 FLEXIBLE CONNECTION (DUCT-EQUIPMENT)
M-4.0 N.T.S



5 CONDENSING UNIT INSTALLATION DETAIL
M-4.0 N.T.S



6 A.C. UNIT INSTALLATION DETAIL
M-4.0 N.T.S

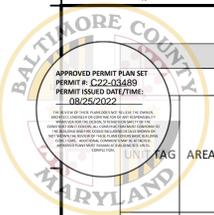


1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

MECHANICAL
DETAILS (2 OF 2)

SHEET No.
M-4.0



APPROVED PERMIT PLAN SET
PERMIT # C22-03489
PERMIT ISSUED DATE/TIME:
09/25/2022

DOAS SCHEDULES

MAKE: DAIKIN

UNIT TAG	AREA SERVED	WEIGHT (LBS.)	QTY	ELECTRICAL				EFFICIENCY		SUPPLY FAN				EXHAUST FAN			FILTERS		RECOVERED CAPACITY				ENERGY RECOVERY				COOLING				Gas Heating				MODEL NO.								
				VOLTAGE	MCA (A)	MOC (A)	EER / SEER	THERMAL EFFICIENCY %	AIRFLOW (CFM)	ESP (IN H2O)	TSP (IN H2O)	ALTITUDE (FT)	MOTOR SIZE (HP)	AIRFLOW (CFM)	ESP (IN H2O)	HP (MTR QTY)	FACE AREA (FT ²)	EFFICIENCY	COOLING (MBH)	HEATING (MBH)	DB (°F)	WB (°F)	DB (°F)	WB (°F)	APD (IN H ₂ O)	TOTAL COOLING	SENSIBLE COOLING	TOTAL HEATING	SENSIBLE HEATING	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOTAL CAPACITY (MBH)		SENSIBLE CAPACITY (MBH)	AMBIENT DB (°F)	TYPE	SIZE	STAGES	TOTAL CAPACITY (MBH)	EDB (°F)	LDB (°F)
DOAS-1	GYM, ROMPER, TOY, SPA, EVAL, SHARED EVAL	4224	1	208/60/3	121.6	175	11.1	80	4035	1.5	2.03	39	8	4235	1.5	(1) 8.0 HP	27	COMBO 2"/4" RACK WITH 2" MERV 8	184	263	76.5	65.6	58.2	51.0	0.12	0.7	0.74	0.7	0.72	77.0	67.0	47.2	47.2	231	131	95	Gas	300 MBH	Modulating 12:1 Turndown	240	17.5	72.4	DPS020A

- NOTES:**
- SUPPLY AIR CFM BASED ON HIGH SPEED.
 - REFRIGERANT R410A SHALL BE PROVIDED.
 - PROVIDE SMOKE DETECTOR ON RETURN DUCT FOR DOAS.
 - HOT GAS REHEAT OPTION AND ECONOMIZER FAULT DETECTION AND DIAGNOSTICS (FDD).
 - PROVIDE OUTSIDE AIR INTAKE HOOD AND MOTORIZED DAMPER.
 - ELECTRICAL CONNECTION TO BE SINGLE POINT AND TO BE THROUGH THE BOTTOM OF THE UNIT
 - 14" ROOF CURB - CONTRACTOR SHALL FIELD INSULATE. SHIP ASAP AHEAD OF THE UNIT.
 - CONDENSATE DRAIN WITH 2" DEEP VENTED TRAP DISCHARGE TO SPLASH BLOCK ON ROOF.
 - CABINET WITH 1/2" FIBERGLASS INSULATION.
 - UNIT SHALL BE COMPLETE WITH GAS HEATING SECTION. GAS REGULATOR TO RECEIVE 4.5-14" GAS PRESSURE FROM MAIN.
 - PROVIDE 8-WIRE, 24 VAC, AUTOMATIC CHANGEOVER, 2-STAGE HEAT / COOL, REMOTELY PROGRAMMABLE THERMOSTAT.
 - REMOTE SENSORS SHALL BE PROVIDED IN SPACE WIRED BACK TO PROGRAMMABLE, 24 HOUR, 7 DAY, THERMOSTATS.
 - ANTI SHORT CYCLE TIMER.
 - THROWAWAY 2" FILTERS (MERV 8).
 - PROVIDE ALL COMPRESSORS WITH 5 YEAR WARRANTY.

OUTDOOR SPLIT CONDENSING UNITS

MAKE: SAMSUNG

UNIT TAG	LOCATION	INDOOR UNITS SERVED	CAPACITY TR	COOLING MBH	HEATING MBH	COMPRESSOR TYPE	UNIT DIMENSIONS IN.(HXWXD)	WEIGHT (LBS)	PIPING DIMENSION		ELECTRICAL			SOUND LEVEL (Dba)	(DUCTED)			MODEL NO.
									LIQUID (IN)	VAPOR (IN)	(V/Hz/Ph)	MCA	MOP		EER	SEER	HSPF	
ACCU-1	ROOF	AC-1	4	48	53	DC INVERTER ROTARY	48"x37"x13"	194	3/8"	5/8"	208-230/60/1	26.5	40	55	9.15	17.8	9.8	AC048IXADCH/AA (CXH48ADJ)
ACCU-2	ROOF	AC-2	4	48	53	DC INVERTER ROTARY	48"x37"x13"	194	3/8"	5/8"	208-230/60/1	26.5	40	55	9.15	17.8	9.8	AC048IXADCH/AA (CXH48ADJ)

- NOTES:**
- UNIT SHALL HAVE TEN YEAR EXTENDED WARRANTY FOR COMPRESSORS/PARTS.
 - PROVIDE LOW AMBIENT CONTROL FOR CONDENSING UNIT OPERATION DOWN TO -4°F.
 - PROVIDE COMPRESSOR CYCLE PROTECTOR.
 - PROVIDE STEEL RAIL, 4" CONCRETE PAD AND VIBRATION ISOLATION FOR CONDENSER UNIT MOUNTING.
 - CONTRACTOR SHALL PROVIDE A LONG LINE SET FOR REFRIGERANT PIPING IN THE EVENT THAT TOTAL REFRIGERANT LENGTH EXCEED THE MANUFACTURER'S STANDARD RECOMMENDED LENGTH.
 - AIR CONDITIONER UNIT SHALL NOT PRODUCE NOISE LEVELS IN EXCESS OF 42 DB FOR A SINGLE AIR CIRCULATING DEVICE AND 45 DECIBELS FOR THE CUMULATIVE NOISE LEVEL OF MULTIPLE AIR CIRCULATING DEVICES AS MEASURED 3 FEET FROM THE NOISE SOURCE AT AN OPEN DOOR OR WINDOW OF A NEARBY RESIDENCE.
 - PROVIDE WIND BAFFLE.

AIR CONDITIONER SCHEDULES

MAKE: SAMSUNG

UNIT TAG	LOCATION	AREA SERVED	TYPE	CAP. (TON)	COOLING MBH	HEATING MBH	TOTAL CFM (MAX.)	MAX. ESP. (IN. WG)	MAX. SOUND PRESS.(DBA)	DIMENSIONS (HXWXD) (IN.)	PIPE SIZE			WEIGHT (LBS.)	MODEL NO.
											LIQ.	SUCTION	DRAIN (ID)		
AC-1	EVAL	TOY	CEILING SUSPENDED	4.0	48	53	1675	0.8	43	12X52X28	3/8"	5/8"	1"	99.6	AC048MNHDC/AA (CNH48HDM)
AC-2	TLT	OFFICE, LOBBY & MULTI PURPOSE ROOM	CEILING SUSPENDED	4.0	48	53	1675	0.8	43	12X52X28	3/8"	5/8"	1"	99.6	AC048MNHDC/AA (CNH48HDM)

- NOTES:**
- SUPPLY AIR CFM BASED ON HIGH SPEED.
 - REFRIGERANT R410A SHALL BE PROVIDED.
 - PROVIDE MOUNTING BRACKETS AND ALL ASSOCIATED ACCESSORIES.
 - ALL REFRIGERANT PIPING TO BE SIZED PER MANUFACTURERS RECOMMENDATIONS.
 - PROVIDE MERV-8 FILTERS.
 - SEE FLOOR PLAN FOR QUANTITIES.
 - INDOOR UNIT ACCESS PANEL FIELD-PROVIDED.
 - CONTRACTOR SHALL PROVIDE A LONG LINE SET FOR REFRIGERANT PIPING IN THE EVENT THAT TOTAL REFRIGERANT LENGTH EXCEEDS THE MANUFACTURER'S STANDARD RECOMMENDED LENGTH.
 - THE OUTDOOR UNIT SHALL SUPPLY POWER TO INDOOR UNIT VIA 14 AWG X 3 POWER WIRE.

FAN SCHEDULE

TAG	FLOW RATE	STATIC PRESSURE	ELECTRIC DATA			MAXIMUM LOUDNESS	BASIS OF DESIGN			REMARK
			EXTERNAL	SPEED	INPUT		DBA	MANUFACTURER	MODEL	
EF-1	100	0.3	847	32	115/1/60	38	COOK	GC-146	1,2,3	

- NOTES:**
- PROVIDE FACTORY MOUNTED AND INSTALLED DISCONNECT.
 - PROVIDE ACCESS DOOR TO SERVICE UNIT IF IN HARD CEILING.
 - INTERCONNECT WITH T-STAT. AND SET CUT-OFF TEMP TO 80°F. PROVIDE HANDOFF/AUTO SWITCH FOR MANUAL OPERATIONS.

AIR BALANCE

UNIT	AREA SERVED	SUPPLY AIR	OUTSIDE AIR	RETURN AIR	EXHAUST AIR
DOAS-1	SEE PLAN	4035 CFM	4035 CFM	0	4235 CFM
AC-1	SEE PLAN	1675 CFM	0 CFM	1675	
AC-2	SEE PLAN	1675 CFM	210 CFM	1465	
TOTAL:		7385 CFM	4245 CFM	3140 CFM	4235 CFM
BUILDING PRESSURE:				10 CFM	POSITIVE

VENTILATION CALCULATION

ROOM NAME	AREA (SQ.FT.)	NUMBER OF PEOPLE/1000sq.ft AS PER	NUMBER OF PEOPLE AS PER 2018 IMC	NUMBER OF CHAIR	FINAL PEOPLE NO.	MIN OUTSIDE AIR AS PER IMC 2018		REQ. OA (CFM)	PROVIDED OA (CFM)	EXHAUST AIRFLOW RATE (CFM/SQ.FT OR	TOTAL EXHAUST (CFM)	PROVIDED EXHAUST (CFM)
						CFM/PEOPLE	CFM/SQ.FT.					
ROMPER	1253	7	9	0	12	20	0.18	470	4035	0.9	1127.7	1130
GYM	1499	7	11	0	12	20	0.18	510		0.9	1349.1	1350
TOY	1014	7	8	0	8	20	0.18	345		0.9	912.6	920
EVAL	90	10	1	1	2	20	0.18	60		0	130	90
SHARED EVAL	169	10	2	1	2	5	0.18	45		0	210	160
LAUNDRY	200	10	2	1	2	25	0.06	65		0	140	180
SPA	136	10	2	0	2	7.5	0.06	25		0	130	130
UTILITY	36	5	1	0	1	5	0.06	10		0	50	40
TOILET	74	0	0	0	0	0	0	0		0	75	75
MULTI PURPOSE	169	5	1	2	2	5	0.06	25		0	160	160
LOBBY	216	10	3	2	3	5	0.06	30	0	0	0	
OFFICE	78	5	1	2	2	5	0.06	15	0	0	0	
CORRIDOR	207	0	0	0	0	0	0.06	15	0	0	0	
TOTAL									4245			4235

AIR TERMINAL SCHEDULE

BASIS OF DESIGN: TITUS

NECK SIZES FOR AIR TERMINAL

TAG	TYPE	CFM RANGE	DEFLECTION (DEGREE)	DIMENSION (IN)	MODEL NO.	MAX NC dBA	CFM RANGE	NECK SIZE (IN)
CDS1	SUPPLY	100-500	0	24X24	TMS	20	0-98	6
CDS2	SUPPLY	50-100	0	12X12	TMS	20	101-175	8
CDR1	RETURN	100-750	0	24X24	TMS	20	176-275	10
EG-1	RETURN	50-100	0	12X12	350RL	25	276-400	12
							401-535	14
							536-615	15

- NOTES FOR DIFFUSERS**
- ALL GRILLES : CONTRACTOR SHALL COORDINATE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS TO ENSURE PROPER AIR
 - COORDINATE COLOR/FINISH WITH ARCHITECT.



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 46018. EXPIRATION DATE 10/08/22



1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: NYE
PROJECT No.: 22155
DWG TITLE:

MECHANICAL SCHEDULES

SHEET No.
M-6.0

Mechanical Compliance Certificate

APPROVED PERMIT PLAN SET
 PERMIT #: C22-03489
 PERMIT ISSUED DATE/TIME:
 08/25/2022

THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITY WHENEVER FOR THE DESIGN, SAFETY OR THE CONSTRUCTION IT COVERS. ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. THE REVIEW OF THESE PLANS COVERS BASIC BUILDING CODE ITEMS. ADDITIONAL COMMENTS MAY BE ATTACHED. APPROVED PLANS MUST REMAIN AT BUILDING SITE UNTIL COMPLETION.

Project Information:
 Energy Code: 2018 IECC
 Project Title: DOGTOPIA
 Location: Towson, Maryland
 Climate Zone: 4a
 Project Type: Alteration

Construction Site:
 1270 EAST JOPPA ROAD
 SUITE 200
 TOWSON, MD 21286

Owner/Agent:

Designer/Contractor:
 MICHAEL TOBIAS
 NY ENGINEERS
 55 BROAD ST., 4TH FLOOR
 NEW YORK, NY 10004

Mechanical Systems List

Quantity System Type & Description

- 1 DOAS-1 (Single Zone):
 Heating: 1 each - Central Furnace, Gas, Capacity = 300 kBtu/h
 Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et
 Cooling: 1 each - Single Package DX Unit, Capacity = 231 kBtu/h, Air-Cooled Condenser, Air Economizer
 Proposed Efficiency = 11.10 EER, Required Efficiency: 10.80 EER + 12.2 IEER
 Fan System: None
- 1 ACCU-1 (Single Zone):
 Split System Heat Pump
 Heating Mode: Capacity = 53 kBtu/h,
 Proposed Efficiency = 9.80 HSPF, Required Efficiency = 8.20 HSPF
 Cooling Mode: Capacity = 48 kBtu/h,
 Proposed Efficiency = 17.80 SEER, Required Efficiency: 14.00 SEER
 Fan System: None
- 1 ACCU-2 (Single Zone):
 Split System Heat Pump
 Heating Mode: Capacity = 53 kBtu/h,
 Proposed Efficiency = 9.80 HSPF, Required Efficiency = 8.20 HSPF
 Cooling Mode: Capacity = 48 kBtu/h,
 Proposed Efficiency = 17.80 SEER, Required Efficiency: 14.00 SEER
 Fan System: None
- 2 WH-1:
 Gas Instantaneous Water Heater, Capacity: 0 gallons, Input Rating: 199 kBtu/h w/ Circulation Pump
 No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.4 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MICHAEL TOBIAS
 Name - Title

Signature



07/19/22
 Date

Inspection Checklist

APPROVED PERMIT PLAN SET: 2018 IECC

PERMIT #: C22-03489

PERMIT ISSUED DATE/TIME: 08/25/2022

Requirements addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user indicates if the requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is not met, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2]'	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL SHEETS FROM M-0.1 TO M-0.2 AND NOTE 13 UNDER CITY ON MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1.
C103.2 [PR3]'	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER PLUMBING SHEETS P-1.0 TO P-4.0

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12.2, C403.12.3 [FO9] ³	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for indoor and outdoor connections to controls. APPROVED PERMIT PLAN SET PERMIT #: C22-03489 PERMIT ISSUED DATE/TIME: 08/25/2022	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments:

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1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
------------------------	--------------------------	-----------------------

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6] ³	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #2 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C404.5, C404.5.1, C404.5.2 [PL6] ³	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #2 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C404.5, C404.5.1, C404.5.2 [PL6] ³	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #2 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C404.5, C404.5.1, C404.5.2 [PL6] ³	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #2 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C404.6.1, C404.6.2 [PL3] ¹	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #3 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C404.6.3 [PL7] ³	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.6.3 [PL7] ³	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.6.3 [PL7] ³	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.6.3 [PL7] ³	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.7 [PL8] ³	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.7 [PL8] ³	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.7 [PL8] ³	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or the temperature of the cold water piping to 104°F. <small>APPROVED PERMIT PLAN SET PERMIT #: C22-03489 PERMIT ISSUED DATE/TIME: 08/25/2022</small>	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.7 [PL8] ³	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or the temperature of the cold water piping to 104°F. <small>THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITY. APPROVED PERMIT PLAN SET PERMIT #: C22-03489 PERMIT ISSUED DATE/TIME: 08/25/2022</small>	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #4 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0

Additional Comments/Assumptions:

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41] ³	Thermally ineffective panel surfaces of sensible heating panels have insulation >=	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.11.3 [ME61] ²	HVAC piping insulation insulated in accordance with Table C403.11.3. Piping is protected from damage and is provided with shielding	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER PIPING INSULATION UNDER INSULATION GENERAL REQUIREMENTS ON SHEET M-0.2
C403.11.3 [ME61] ²	HVAC piping insulation insulated in accordance with Table C403.11.3. Insulation exposed to weather is protected from damage and is provided with shielding from solar radiation.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER PIPING INSULATION UNDER INSULATION GENERAL REQUIREMENTS ON SHEET M-0.2
C403.8.1 [ME65] ³	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL SCHEDULE ON SHEET M-6.0
C403.8.1 [ME65] ³	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL SCHEDULE ON SHEET M-6.0
C403.8.1 [ME65] ³	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL SCHEDULE ON SHEET M-6.0
C403.8.3 [ME117] ²	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Fans integral to equipment listed under Section C403.2.3.
C403.8.3 [ME117] ²	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Fans integral to equipment listed under Section C403.2.3.
C403.8.3 [ME117] ²	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Fans integral to equipment listed under Section C403.2.3.
C403.12.1 [ME71] ²	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.3 [ME55] ²	HVAC equipment efficiency verified.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL SCHEDULE ON SHEET M-6.0

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.2 [ME59] ¹	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical APPROVED PERMIT PLAN SET PERMIT #: C22-03489 PERMIT ISSUED DATE/TIME: 08/25/2022	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL FLOOR PLAN ON M-0.1, MECHANICAL VENTILATION PROVIDED THROUGH DOAS UNIT.
C403.7.1 [ME59] ¹	<small>THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITY. WHATEVER FOR THE DESIGN, SAFETY OR HEALTH OF THE CONSTRUCTION IT COVERS. ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITY. WHATEVER FOR THE DESIGN, SAFETY OR HEALTH OF THE CONSTRUCTION IT COVERS. ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. APPROVED PLANS MUST REMAIN AT BUILDING OFFICE UNTIL THE COMMENCEMENT OF CONSTRUCTION.</small> Mechanical ventilation provided for people/1000 ft ² provided by systems auto modulating outside air damper control, or design airflow >3,000 cfm.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.7.2 [ME115] ³	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.7.6 [ME141] ³	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.7.4 [ME57] ¹	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.5 [ME116] ³	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.11.1, C403.11.2 [ME60] ²	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #1.3 UNDER SECTION 230713 ON SHEET M-0.2
C403.4.3.3. 2 [ME121] ³	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop. Open- or closed circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.4.3.3.2 [ME121] ²	<p>Closed circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure tower within heat pump loop. Open- or closed circuit cooling towers used by shutting down the cooling tower loop. Open- or closed circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop.</p> <p>APPROVED PERMIT PLAN SET PERMIT #: C22-03489 PERMIT ISSUED DATE/TIME: 08/25/2022</p> <p><small>THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITY. WHENEVER FOR THE DESIGN OR REVIEW OF SAFETY OF THE CONSTRUCTION IT COVERS, ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. THE REVIEW OF THESE PLANS COVERS BASIC BUILDING CODE ITEMS. ADDITIONAL COMMENTS MAY BE ATTACHED. APPROVED PLANS MUST REMAIN AT BUILDING SITE UNTIL COMPLETION.</small></p>	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.4.1.4 [ME63] ²	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.3.3 [ME35] ¹	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL SCHEDULE ON SHEET M-0.6, HOT GAS BYPASS NOT PROVIDED.
C408.2.2.1 [ME53] ³	Air outlets and zone terminal devices have means for air balancing.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL FLOOR PLAN ON SHEET M-1.0
C403.5, C403.5.1, C403.5.2 [ME123] ³	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26] ²	Low-voltage dry type distribution electric transformers meet the minimum efficiency requirements of Table C405.6. APPROVED PERMIT PLAN SET PERMIT #: C22-03489 PERMIT ISSUED DATE/TIME: 08/25/2022	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.7 [EL27] ²	<p>THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER OR CONTRACTOR OF ANY RESPONSIBILITY WHEN REVIEWING THE DESIGN, SPECIFICATION OR SHEET OF THE CONSTRUCTION IT COVERS. ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. THE REVIEW OF THESE PLANS COVERS BASIC BUILDING CODE ITEMS. ADDITIONAL COMMENTS MAY BE ATTACHED. APPROVED PLANS MUST REMAIN AT BUILDING SITE UNTIL COMPLETION.</p> <p>Efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).</p>	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.8.2, C405.8.2.1 [EL28] ²	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.9 [EL29] ²	Total voltage drop across the combination of feeders and branch circuits <= 5%.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER TO LIGHTING PLAN ON DRAWING E-1.3

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [F18] ³	Furnish O&M manuals for HVAC systems within 90 days of system acceptance.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.2 [F127] ³	Heating and cooling equipment capacity and loads. <small>THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER, OR CONTRACTOR OF ANY RESPONSIBILITY INCURRED FOR THE DESIGN, OR REVISIONS THEREOF, OR THE CONSTRUCTION IT COVERS. ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. THE REVIEW OF THESE PLANS COVERS BASIC BUILDING CODE ITEMS. ADDITIONAL COMMENTS MAY BE ATTACHED. APPROVED PLANS MUST REMAIN AT BUILDING SITE UNTIL COMPLETION.</small>	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #13 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1 AND MECHANICAL SCHEDULE ON SHEET M-0.6
C403.2.4.1 [F147] ³	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL FLOOR PLAN ON SHEET M-1.0, THERMOSTAT AND HUMIDISTAT PROVIDED.
C403.2.4.1 [F147] ³	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL FLOOR PLAN ON SHEET M-1.0, THERMOSTAT AND HUMIDISTAT PROVIDED.
C403.2.4.1 [F147] ³	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER MECHANICAL FLOOR PLAN ON SHEET M-1.0, THERMOSTAT AND HUMIDISTAT PROVIDED.
C403.2.4.1.1 [F142] ³	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #E UNDER THERMOSTATIC CONTROLS ON SHEET M-0.2
C403.2.4.1.1 [F142] ³	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #E UNDER THERMOSTATIC CONTROLS ON SHEET M-0.2
C403.4.1.2 [F138] ³	Thermostatic controls have a 5 °F deadband.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #B UNDER THERMOSTATIC CONTROLS ON SHEET M-0.2
C403.2.4.1.3 [F120] ³	Temperature controls have setpoint overlap restrictions.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #C UNDER THERMOSTATIC CONTROLS ON SHEET M-0.2
C403.2.4.2 [F139] ³	Each zone equipped with setback controls using automatic time clock or programmable control system.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #D UNDER THERMOSTATIC CONTROLS ON SHEET M-0.2, PROGRAMABLE THERMOSTAT IS PROVIDED.
C403.2.4.2.1, C403.2.4.2.2 [F140] ³	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #C UNDER THERMOSTATIC CONTROLS ON SHEET M-0.2

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C404.3 [FI11] ³	Heat traps installed on supply and discharge piping of non-circulating systems.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C404.4 [FI25] ²	All plans approved in accordance with C-403.11.3. <small>THE REVIEW OF THESE PLANS DOES NOT RELIEVE THE OWNER, ARCHITECT, ENGINEER OR CONTRACTOR OF ANY RESPONSIBILITY WHATEVER FOR THE DESIGN, SAFETY OR THE CONSTRUCTION IT COVERS. ALL CONSTRUCTION MUST CONFORM TO THE BUILDING AND FIRE CODES INCLUDING DETAILS SHOWN OR NOT SHOWN. THE REVIEW OF THESE PLANS COVERS BASIC BUILDING CODE ITEMS. ADDITIONAL COMMENTS MAY BE ATTACHED. APPROVED PLANS MUST REMAIN AT BUILDING SITE UNTIL COMPLETION.</small>	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #1 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C404.6.1 [FI12] ³	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #3 UNDER ENERGY CONSERVATION NOTES ON SHEET P-1.0
C408.1.1 [FI57] ¹	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #21 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1
C408.2.1 [FI28] ¹	Commissioning plan developed by registered design professional or approved agency.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #12 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1
C408.2.3.1 [FI31] ¹	HVAC equipment has been tested to ensure proper operation.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #6 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1
C408.2.3.2 [FI10] ¹	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER 230593 ON SHEET M-0.2
C408.2.4 [FI29] ¹	Preliminary commissioning report completed and certified by registered design professional or approved agency.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #15 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1
C408.2.5.1 [FI7] ³	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #22 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1
C408.2.5.3 [FI43] ¹	An air and/or hydronic system balancing report is provided for HVAC systems.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER 230593 ON SHEET M-0.2
C408.2.5.4 [FI30] ¹	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met. Location on plans/spec: REFER #12 UNDER MARYLAND BUILDING DEPARTMENT NOTES ON SHEET M-0.1

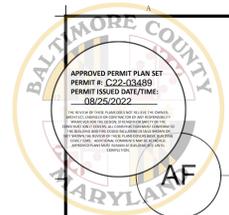
Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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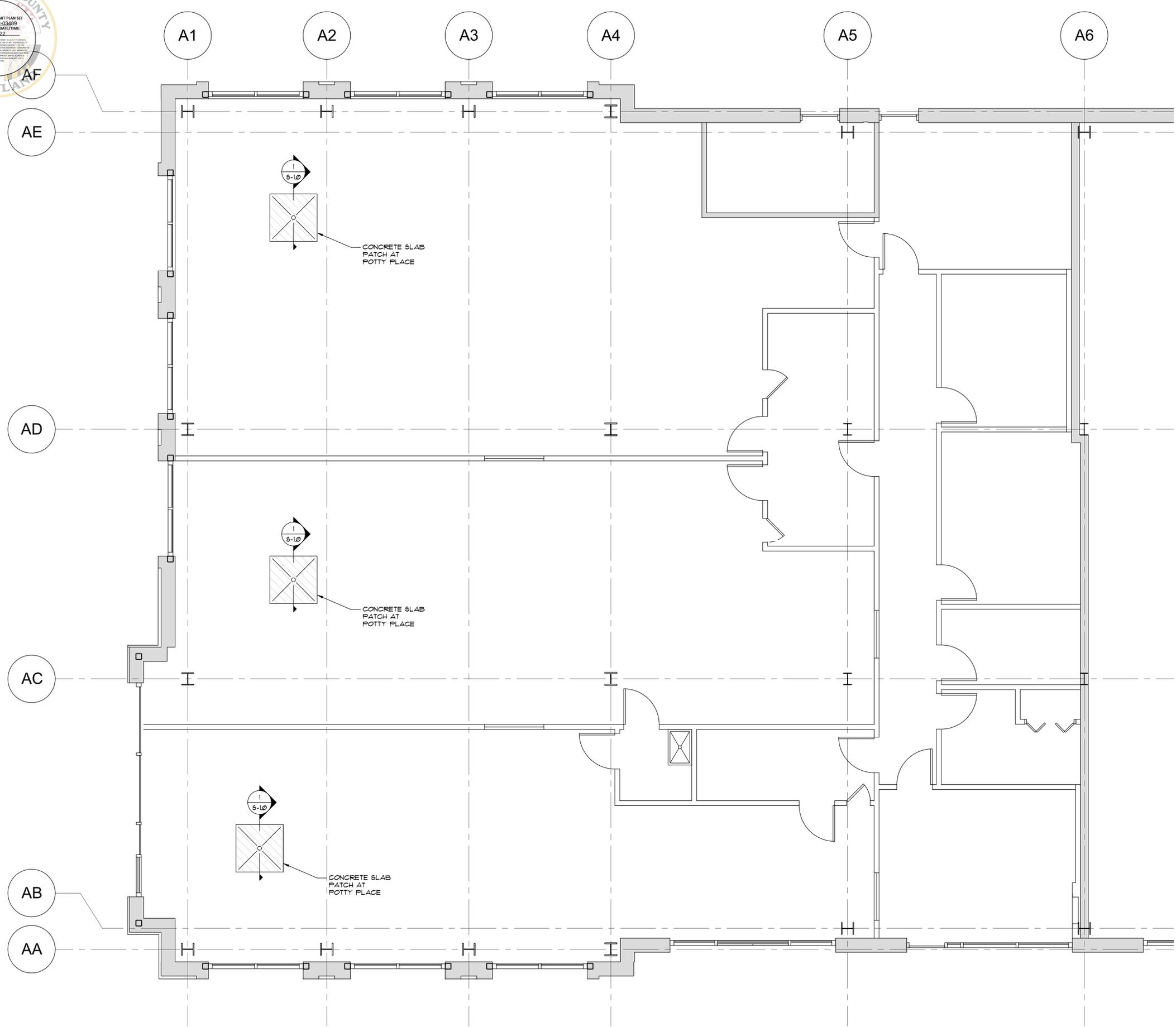


1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Aug 02, 2022 - 12:06pm
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 The Watkins Partnership Inc.



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



Quick Service Restaurant and Retail
 Design Group, LLC
 584 Bellevue Road, Suite 3D Annapolis, MD 21409
 Ph. No. (410) 364-9880

ATKINS
 Partnership Inc.
 Consulting Structural Engineering
 3802 Millersville Road Annapolis 410-741-1791
 Suite 202 WASHINGTON (301) 249-9974
 Bowie, Maryland FAX (301) 249-9976

PROJECT#: 20220514



Professional Certification
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License number 12656
 expiration date October 11, 2023



1270 EAST JOPPA ROAD, SUITE 200
 TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
 DRAWN BY: STAFF
 PROJECT No.: 22155
 DWG TITLE:

FIRST FLOOR PLAN

SHEET No.
S-1



1270 EAST JOPPA ROAD, SUITE 200 TOWSON, MD 21286

GENERAL PROJECT NOTES

- THE CONTRACT DOCUMENTS CONSIST OF THE FOLLOWING:
 - ARCHITECTURAL DRAWINGS
 - S/M/P/E DRAWINGS
- ALL WORK SHOWN IN THESE DRAWINGS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL USE ONLY EXPERIENCED CRAFTSMAN SKILLED IN THE DUTIES WHICH THEY ARE TO PERFORM ON THIS PROJECT.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED TRADE PERMITS PRIOR TO CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL PERMITS HAVE BEEN APPROVED BY APPROPRIATE AGENCIES PRIOR TO START OF CONSTRUCTION. NO CONSTRUCTION OR FABRICATION OF ANY ITEMS SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY DOCUMENTATION FROM ALL OF THE PERMITTING AND REGULATORY AUTHORITIES. FAILURE OF THE CONTRACTOR TO FOLLOW THIS PROCEDURE SHALL CAUSE THE CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSEQUENT MODIFICATION OF THE WORK MANDATED BY AN REGULATORY AUTHORITY.
- IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AS HOLDER OF PERMITS TO NOTIFY THE BUILDING OFFICIAL WHEN WORK IS READY FOR INSPECTION. REQUESTS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF GOVERNING JURISDICTION. INSPECTORS SHALL HAVE COMPLETE ACCESS TO ALL WORK. RECORDS OF INSPECTIONS SHALL BE MAINTAINED ON THE JOB SITE IN ACCORDANCE WITH REQUIREMENTS AND FORMAT OF GOVERNING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES REQUIRED BY INSPECTIONS, EXCEPT FOR INSPECTIONS MADE BY OWNER OR ITS AGENTS.
- THESE DRAWINGS ARE NOT TO BE ALTERED IN ANY WAY WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT.
- NO CHANGES OR MODIFICATIONS TO THE WORK SHALL BE MADE WITHOUT APPROVAL OF OWNER / ARCHITECT. FAILURE TO OBTAIN APPROVAL SHALL CAUSE THE CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSEQUENT MODIFICATIONS OF THE WORK REQUIRED BY THE OWNER OR ANY REGULATORY AUTHORITY.
- THE CONTRACT DOCUMENTS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT. WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT, THE CONTRACT DOCUMENTS SHALL NOT BE USED BY OWNER OR TENANT FOR OTHER PROJECTS OR EXTENSIONS TO THE PROJECT NOR ARE THEY TO BE MODIFIED IN ANY MANNER WHATSOEVER EXCEPT BY AGREEMENT IN WRITING WITH THE APPROPRIATE COMPENSATION TO THE ARCHITECT.
- THE GENERAL CONTRACTOR SHALL CONTACT CLIENT, OR THE ARCHITECT OF RECORD, REGARDING ALL QUESTIONS OR DISCREPANCIES. COMMUNICATION WITH THE ARCHITECT'S CONSULTANTS, OR REGULATORY AGENCIES SHALL NOT BE CONSIDERED VALID AND ANY CHANGES IN WORK, ADDITIONAL COSTS, APPROVALS, OR NON APPROVALS DUE TO SUCH COMMUNICATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. SHOULD ADDITIONAL ENGINEERING OR INVESTIGATIVE WORK BE REQUIRED DUE TO SITE OR ENVIRONMENTAL CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY. ENGINEERING SERVICES REQUIRED FOR CHANGES OR MODIFICATIONS IN THESE DOCUMENTS SHALL BE SECURED BY OWNER.
- GENERAL CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS TO ALL SUBCONTRACTORS. ALL CROSS-REFERENCING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN SUB-CONTRACTORS, SUPPLIERS, AND VENDORS BASED ON THE ENTIRE SET OF DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE DUE TO A CONTRACTOR FOR ISSUES RESULTING FROM THE USE OF AN INCOMPLETE SET OF CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF INCONSISTENCIES OR DISCREPANCIES BETWEEN CONTRACT DOCUMENTS, DRAWINGS, SPECIFICATIONS, ETC..
- THESE CONSTRUCTION DOCUMENTS ARE NOT TO BE SCALED. SHOULD IT BE DETERMINED A DIMENSION IS NOT SPECIFICALLY PROVIDED, CONTACT THE ARCHITECT.
- DETAILS NOTED ON DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DIMENSIONAL DRAWINGS TAKE PRECEDENCE OVER DRAWINGS ON A SMALLER SCALE. SHOULD THE CONTRACTOR AT ANY TIME DISCOVER AN ERROR IN A DRAWING SPECIFICATION, OR DISCREPANCY OR VARIATION BETWEEN DIMENSIONS OR OTHER INFORMATION, HE SHALL NOT PROCEED WITH THE WORK AFFECTED UNTIL CLARIFICATION HAS BEEN MADE.
- IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO FULLY EXAMINE AND BECOME FAMILIAR WITH THE SITE BEFORE COMMENCING THE WORK. GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AS WELL AS VERIFY THE CONDITIONS AND NATURE OF THE CONSTRUCTION MATERIALS AND AVAILABLE UTILITIES AND STRUCTURAL ELEMENTS AND TO NOTIFY THE ARCHITECT IN WRITING OF ANY AND ALL DISCREPANCIES BETWEEN THE SAID EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS. IT SHALL BE THE JOINT RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS AND SUPPLIERS OF MATERIALS TO SECURE ALL NECESSARY ADAPTATIONS TO SAME AS REQUIRED FOR THEIR RESPECTIVE WORK PRIOR TO ORDERING, FABRICATION, OR INSTALLATION OF ANY MATERIALS, EQUIPMENT, OR COMPONENTS WHICH ARE TO BE INTEGRATED INTO THE WORK OF THIS PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. CLARIFICATIONS REGARDING ANY CONFLICTS SHALL BE APPROVED PRIOR TO RELATED WORK BEING STARTED. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY DEFICIENCIES IN BASE BUILDING WORK PRIOR TO THE COMMENCEMENT OF THIS WORK. ANY UNREPORTED DEFICIENCIES WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT.
- CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST IN LOCATIONS OF ANY AND ALL MECHANICAL, TELEPHONE, ELECTRICAL, PLUMBING AND SPRINKLER EQUIPMENT (TO INCLUDE ALL PIPING, DUCT-WORK AND CONDUIT) AND THAT ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE OF THE ABOVE EQUIPMENT ARE PROVIDED. ELEMENTS TO BE EXPOSED OR CONCEALED SHALL BE DETERMINED AND REVIEWED WITH THE ARCHITECT PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE WORK WILL CONFORM WITH THE REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION.

- ALL WORK SHALL COMPLY WITH APPLICABLE CODES, AMENDMENTS, RULES REGULATIONS, ORDINANCES, LAWS, ORDERS, APPROVALS, ETC. THAT ARE REQUIRED BY PUBLIC AUTHORITIES. IN THE EVENT OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. REQUIREMENTS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO THE CURRENTLY APPLICABLE EDITIONS OR PUBLICATIONS OF THE FOLLOWING:
 - NATIONAL FIRE PROTECTION ASSOCIATION
 - AMERICAN NATIONAL STANDARDS INSTITUTE
 - LOCAL BUILDING & FIRE CODES AND REQUIREMENTS
- INSTALL ALL WORK WITH APPROVED FASTENERS, AS REQUIRED TO HOLD WORK SECURE, LEVEL, PLUMB, AND TRUE TO LINE. FASTENERS TO BE SET BELOW THE FINISHED SURFACES, FILL HOLES WITH WOOD PUTTY OR OTHER APPROVED MATERIAL. SAND FLUSH WITH SURFACE SO AS TO BE UNDETECTABLE IN THE FINISH. BLIND NAIL WHENEVER POSSIBLE. ROUND ALL EXPOSED EDGES OF ASSEMBLY TO 1/8" RADIUS.
- ALL WORK SHALL BE ERECTED AND INSTALLED PLUMB, LEVEL SPACE AND TRUE, AND IN PROPER ALIGNMENT.
- CUT AND FIT COMPONENTS FOR ALTERATIONS OF EXISTING WORK AND INSTALLATION OF NEW WORK. PATCH DISTURBED AREAS TO MATCH ADJACENT MATERIALS AND FINISHES.
- PATCH AND REPAIR ALL FIREPROOFING DAMAGED OR REMOVED DURING PERFORMANCE OF THE WORK. FIREPROOF NEW PENETRATIONS REQUIRED BY THE WORK.
- COORDINATE AND PROVIDE BLOCKING/BACKING IN PARTITIONS BEHIND ALL WALL MOUNTED MILLWORK, SHELVING, AND STANDARDS.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE CONSTRUCTION WITH OWNER FURNISHED ITEMS. CONTRACTOR SHALL PROVIDE NECESSARY PROTECTION OF OWNER ITEMS.
- CONTRACTOR IS RESPONSIBLE FOR AND SHALL PROVIDE PROTECTION FOR ANY EXISTING FINISHES INCLUDING ELEVATORS, LOBBIES AND CORRIDORS OF THE BASE BUILDING. ANY REPAIR TO EXISTING AREAS ARE NOT PART OF THIS PROJECT OR CONTRACT UNLESS NOTED.
- CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED SPECIFICATIONS AND INSTALLATION PROCEDURES. IF THESE ARE CONTRARY TO THE CONTRACT DOCUMENTS, CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING IMMEDIATELY TO RESOLVE DISCREPANCIES PRIOR TO PROCEEDING.
- EXERCISE EXTREME CARE AND PRECAUTION DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT TENANTS AND THEIR OCCUPANTS, PROPERTY, PUBLIC THROUGHFARES, ETC. CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS FROM CONSTRUCTION PROCEDURES.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE CONTROL AND PRECAUTION TO ELIMINATE DUST, NOISE, ODOR NUISANCE AND THE LIKE TO THE PREMISES AND THE OCCUPANCY.
- THE FINISHED WORK SHALL BE FIRM WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS, OR DISCOLORATION. JOINTS SHALL BE CLOSE FITTING, NEAT AND WELL SCRIBED. THE FINISH SHALL NOT PRESENT HAZARDOUS CONDITIONS OR UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISION FOR EXPANSION, CONTRACTION, AND SHRINKAGE AS NECESSARY TO PREVENT CRACK, BUCKLING AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONTACT THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DIMENSIONS AND ELEVATIONS AT THE SITE. THE CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATION OF ALL PARTITIONS, DOORS, ELECTRICAL/TELEPHONE OUTLETS, LIGHT SWITCHES AND THERMOSTATS WITH THE OWNER & THE ARCHITECT IN THE FIELD.
- THE CONTRACTOR SHALL COORDINATE ARCHITECTURAL AND STRUCTURAL CLEARANCES FOR ACCESSIBILITY OF MILLWORK, EQUIPMENT AND MECHANICAL AND ELECTRICAL SYSTEMS. NO ALLOWANCE OF ANY KIND WILL BE MADE FOR THE CONTRACTOR'S NEGLIGENCE TO FORESEE MEANS OF INSTALLING EQUIPMENT INTO POSITION INSIDE STRUCTURES.
- NO WORK DEFECTIVE IN CONSTRUCTION OR QUALITY OR DEFICIENT IN ANY REQUIREMENTS OF DRAWINGS AND/OR SPECIFICATIONS WILL BE ACCEPTABLE IN CONSEQUENCE OF OWNER'S OR THE ARCHITECT'S FAILURE TO DISCOVER OR TO POINT OUT DEFECTS OR DEFICIENCIES DURING CONSTRUCTION. DEFECTIVE WORK REVEALED WITHIN REQUIRED TIME GUARANTEE SHALL BE REPLACED BY WORK CONFORMING WITH INTENT OF CONTRACT. NO PAYMENT WHETHER PARTIAL OR FINAL, SHALL BE CONSIDERED AS AN ACCEPTANCE OF DEFECTIVE WORK OR IMPROPER MATERIALS.
- MATERIALS AND WORKMANSHIP SPECIFIED BY THE REFERENCE TO NUMBER SYMBOL, TO TITLE OF A SPECIFICATION SUCH AS COMMERCIAL STANDARDS, FEDERAL SPECIFICATION, TRADE ASSOCIATION STANDARD, OR OTHER SIMILAR STANDARD, SHALL COMPLY WITH THE REQUIREMENTS IN LATEST EDITION OR REVISION THEREOF AND WITH ANY AMENDMENT OR SUPPLEMENT THERETO IN EFFECT ON DATE OF ORIGIN OF THIS PROJECT'S CONTRACT DOCUMENTS. SUCH STANDARD, EXCEPT AS MODIFIED HEREIN, SHALL HAVE FULL FORCE AND EFFECTS AS THOUGH PRINTED IN CONTRACT DOCUMENTS.
- CONTRACTOR SHALL WAIVE "COMMON PRACTICE" AND "COMMON USAGE" AS CONSTRUCTION CRITERIA WHEREVER DETAILS AND CONTRACT DOCUMENTS OF GOVERNING CODES, ORDINANCES, ETC. REQUIRE GREATER QUANTITY OR BETTER QUALITY THAN COMMON PRACTICE OR COMMON USAGE WOULD REQUIRE.
- CONTRACTOR SHALL ORDER AND SCHEDULE DELIVERY OF MATERIALS IN AMPLE TIME TO AVOID DELAYS IN CONSTRUCTION. IF AN ITEM IS FOUND TO BE UNAVAILABLE, CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY TO ALLOW THE ARCHITECT A REASONABLE AMOUNT OF TIME TO SELECT A SUITABLE SUBSTITUTE.
- IF AT ANY TIME BEFORE COMMENCEMENT OF WORK, OR DURING PROGRESS THEREOF, CONTRACTOR'S METHODS, EQUIPMENT OR APPLIANCES ARE INEFFICIENT OR INAPPROPRIATE FOR SECURING QUALITY OF WORK, OR RATE OF PROGRESS INTENDED BY CONTRACT DOCUMENTS, OWNERS MAY ORDER CONTRACTOR TO IMPROVE THEIR QUALITY OR INCREASE THEIR EFFICIENCY. THIS WILL NOT RELIEVE CONTRACTOR OF HIS OBLIGATIONS FROM THEIR OBLIGATIONS TO SECURE QUALITY WORK AND RATE OF PROGRESS SPECIFIED IN CONTRACT.
- WITH REFERENCE TO CEILINGS, CONTRACTOR SHALL COORDINATE WITH ALL TRADES INVOLVED AND PREPARE COMPOSITE SHOP DRAWINGS TO INSURE CLEARANCES FOR FIXTURES, DUCTS, CEILINGS, ETC., NECESSARY TO MAINTAIN THE SPECIFIED FINISH CEILING HEIGHT ABOVE THE FINISH FLOOR AS NOTED ON THE DRAWINGS. CLARIFY CONFLICTS WITH THE ARCHITECT.

- THE ARCHITECT, ACTING AS THE OWNER'S DESIGNATED AGENT FOR DESIGNING THIS PROJECT, WILL EXERCISE SOLE AUTHORITY FOR DETERMINING CONFORMANCE OF MATERIALS, EQUIPMENT AND SYSTEMS WITH THE INTENT OF THE DESIGN. REVIEW AND ACCEPTANCE OF ALL ITEMS PROPOSED BY CONTRACTOR FOR INCORPORATION INTO THIS WORK WILL BE COMPLETED BY THE ARCHITECT. THIS FUNCTION OF THE ARCHITECT WILL APPLY BOTH TO CONTRACT AS INITIALLY SIGNED, AND TO THE CHANGES TO CONTRACT BY MODIFICATION DURING PROGRESS OF WORK.
- REFERENCE TO MAKES, BRANDS, MODELS, ETC. IS TO ESTABLISH TYPE AND QUALITY DESIRED. SUBSTITUTION OF ACCEPTABLE EQUALS WILL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED. SUBSTITUTIONS MUST BE SUBMITTED TO OWNER AND THE ARCHITECT FOR APPROVAL.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY DEFICIENCIES IN BASE BUILDING WORK PRIOR TO THE COMMENCEMENT OF THIS WORK. ANY UNREPORTED DEFICIENCIES WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT.
- THE GENERAL CONTRACTOR SHALL VERIFY & COORDINATE EXTENT OF SLAB CUT AND TRENCHING FOR NEW PLUMBING AND ELECTRICAL WITH NEW PROJECT REQUIREMENTS. SAWCUT AND/OR CORE AND REMOVE CONCRETE SLAB AS REQUIRED FOR INSTALLATION OF ELECTRIC AND PLUMBING. COMPACT SUB-GRADE AND FILL FLUSH TO EXISTING SURFACE. PROVIDE SMOOTH, LEVEL, STEEL TROWELLED SURFACE READY TO RECEIVE NEW FINISHES.
- ANY AND ALL SLAB PENETRATIONS THRU ABOVE GRADE REINFORCED STRUCTURAL CONCRETE SLABS SHALL BE X-RAYED PRIOR TO CUTTING OR CORING IN ORDER TO DETERMINE IF REINFORCING MEMBERS WILL BE DAMAGED AND THE STRUCTURAL INTEGRITY OF THE SLAB JEOPARDIZED. ALL X-RAY RESULTS WILL BE SUBMITTED AND ANALYZED BY THE REGISTERED STRUCTURAL ENGINEER OF RECORD TO DETERMINE WHAT, IF ANY, REPAIR OR CORRECTIVE MEASURES NEED TO BE IMPLEMENTED PRIOR TO AUTHORIZATION OR COMMENCEMENT TO CUT THE SLAB. ANY AND ALL REPAIRS REQUIRED DUE TO PRE AUTHORIZED SLAB CUTTING OR CORING PRIOR TO STRUCTURAL ANALYSIS AND RESULTS WILL BE AT THE CONTRACTORS SOLE RESPONSIBILITY AND COST.
- SOUND CAULK ALL ACoustICAL WALLS- TOP AND BOTTOM JOINTS WITH APPROVED ACoustICAL CAULKING.
- IN THE EVENT THAT ASBESTOS IS FOUND IN WALLS, CEILINGS, ETC., THEN ITS REMOVAL OR ENCAPSULATION SHALL BE COORDINATED WITH THE OWNER.
- CONTRACTOR TO ENSURE THAT ALL GAS LINES ARE TURNED OFF BEFORE REMOVING, CUTTING OR CAPPING EXISTING PIPING.
- CONTRACTOR TO DETERMINE ADEQUACY OF THE EXISTING HVAC UNITS. UPON COMPLETION OF CONSTRUCTION, G.C. TO REBALANCE ENTIRE SPACE.
- CONTRACTOR SHALL PROVIDE MAINTENANCE SPEC FOR ALL FINISHES.
- CONTRACTOR SHALL PROVIDE 1 YEAR WARRANTY ON ALL WORK.
- THE JOB SITE IS TO BE KEPT CLEAR DURING CONSTRUCTION. CONTRACTOR SHALL PERIODICALLY AND PROMPTLY REMOVE ALL DEBRIS FROM SITE AT THEIR EXPENSE IN A LEGAL MANNER. INCLUDE THE PROVISION FOR EXPANSION, CONTRACTION, AND SHRINKAGE, INCLUDING DISPLAY FIXTURES AND HARDWARE SUPPLIED BY THE GC OR OTHERS.
- THE GENERAL CONTRACTOR SHALL OBTAIN ANY APPROVALS (IF NECESSARY) FOR ROOF PENETRATIONS IN WRITING BY THE LANDLORD. IN THE EVENT THE LANDLORD REQUIRES THE PENETRATIONS TO BE MADE BY THE LANDLORD'S CONTRACTOR, THE GENERAL CONTRACTOR SHALL BEAR SUCH EXPENSE UNLESS OTHERWISE AGREED TO IN WRITING.
- THE GENERAL CONTRACTOR SHALL PROVIDE PEDESTRIAN PROTECTION BARRICADES AND/OR CANOPIES AS REQUIRED BY LOCAL AUTHORITIES OR AS NECESSARY FOR PEDESTRIAN SAFETY.
- NO ASBESTOS OR ASBESTOS CONTAINING MATERIALS (ACM) SHALL BE USED IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL NOTIFY ARCHITECT OF MATERIALS SUSPECTED TO BE ACM.
- CONTRACTOR SHALL PROVIDE ALL FLOOR LEVELING, PATCHING, AND REMEDIAL REPAIRS AS REQUIRED BY THE SCOPE OF WORK. REPAIRS INCLUDE, BUT ARE NOT LIMITED TO, WORK REQUIRED TO PROVIDE A SMOOTH AND EVEN TRANSITION BETWEEN NEW AND EXISTING SPACES AND TO PREPARE EXISTING SURFACES FOR NEW FINISHES.
- GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL ANY AND ALL ACCESS PANELS AS REQUIRED.
- ALL FIRE EXITS ARE TO REMAIN CLEAR AND OPEN DURING ALL PHASES OF CONSTRUCTION IF APPLICABLE.
- THE GENERAL CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION AND RESTORE ALL FINISH SURFACES TO THEIR ORIGINAL CONDITION WHERE DAMAGED.
- CONTRACTOR TO PROVIDE AND / OR MAINTAIN FIRE RATED ASSEMBLIES WHERE SHOWN, OR AS REQUIRED.
- WHERE NEW CONSTRUCTION IS TO BE SUSPENDED FROM THE EXISTING STRUCTURE, THE GENERAL CONTRACTOR SHALL VERIFY THAT THE EXISTING STRUCTURE HAS THE CAPACITY TO SUPPORT SUCH NEW ASSEMBLIES.
- ALL SPRINKLER WORK MODIFICATIONS SHALL BE COORDINATED WITH ALL OTHER TRADES ON SITE. CONTRACTOR IS RESPONSIBLE FOR ALL SPRINKLER WORK, ENGINEERING AND HYDRAULIC CALCULATIONS FOR ALL UPGRADES AND MODIFICATIONS, INCLUDING ALL RISERS AND HEADS. ALL SPRINKLER WORK SHALL ACCOMMODATE IMPROVEMENTS PER APPROVED CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
- GO TO PROVIDE CONTRACTOR TO PROVIDE A 20' SECURE STORAGE CONTAINER (CONEX BOX) AT THE JOBSITE FOR THE DURATION OF THE PROJECT.**

DRAWING SYMBOL LEGEND

DETAIL NUMBER SHEET NUMBER DRAWN ON		DETAIL REFERENCE TAG		WALL / PARTITION TAG
DETAIL NUMBER SHEET NUMBER DRAWN ON		EXTERIOR ELEVATION REFERENCE / WALL SECTION		ROOM TAG
WALL IDENTIFICATION DETAIL NUMBER SHEET NUMBER DRAWN ON		INTERIOR ELEVATION REFERENCE (4 WAY)		KEY NOTE TAG
DETAIL NUMBER SHEET NUMBER DRAWN ON		FINISH MATERIAL TAG		DOOR TAG
DETAIL NUMBER SHEET NUMBER DRAWN ON		WINDOW TAG		EQUIPMENT TAG

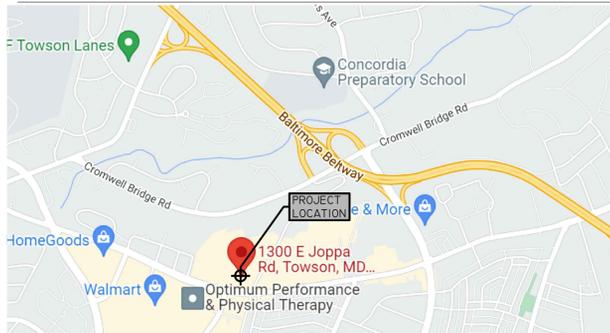
WALL / PARTITION LEGEND

	POURED CONCRETE WALL		EXISTING WALL / PARTITION
	MASONRY WALL - CMU		DEMOLISHED WALL
	MASONRY WALL - BRICK		STOREFRONT OR GLASS PARTITION
	GWB PARTITION		

ABBREVIATIONS

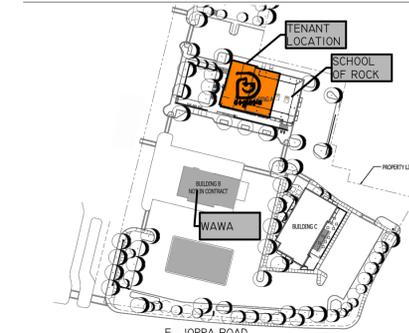
ABV - ABOVE	EQUIP - EQUIPMENT	MTL - METAL
ACT - ACUSTIC CEILING TILE	EX - EXISTING	NIC - NOT IN CONTRACT
AFF - ABOVE FINISHED FLOOR	EXT - EXTERIOR	NTS - NOT TO SCALE
ALT - ALTERNATE	FD - FLOOR DRAIN	OC - ON CENTER
ALUM - ALUMINUM	FE - FIRE EXTINGUISHER	PNL - PANEL
ARCH - ARCHITECTURAL	FIN - FINISH	PNT - PAINT
BRD - BOARD	FIXT - FIXTURE	PTD - PAINTED
BLKG - BLOCKING	FLR - FLOOR	R - RISER
BM - BEAM	FLUR - FLUORESCENT	RAD - RADIUS
BRJ - BEARING	FS - FLOOR SINK	REQ'D - REQUIRED
CJ - CONTROL JOINT	FURR - FURRING	RM - ROOM
CLR - CLEAR	GA - GAUGE	SC - SOLID CORE
CLNG - CEILING	GALV - GALVANIZED	SCHED - SCHEDULE
CLST - CLOSET	GC - GENERAL CONTRACTOR	SEC - SECTION
CMU - CONCRETE MASONRY UNIT	GSF - GROSS SQUARE FEET	SHT - SHEET
CO - CASED OPENING / CLEAN OUT	GWB - GYPSUM WALL BOARD	SM - SIMILAR
COL - COLUMN	HC - HOLLOW CORE / HANDICAPPED	SS - STAINLESS STEEL
CONC - CONCRETE	HWDR - HARDWARE	STL - STEEL
CONT - CONTINUOUS	HM - HOLLOW METAL	SM - SIMILAR
DIA - DIAMETER	HR - HOUR	TBD - TO BE DETERMINED
DN - DOWN	HVAC - HEATING, VENTILATION & AIR CONDITIONING	TEL - TELEPHONE
DR - DOOR	INSUL - INSULATION	TEMP - TEMPERED
DTL - DETAIL	LAM - LAMINATE	TYP - TYPICAL
DWG - DRAWING	LAV - LAVATORY	UL - UNDERWRITER'S LABORATORY
EA - EACH	MAX - MAXIMUM	UNO - UNLESS NOTED OTHERWISE
ELEV - ELEVATION	MECH - MECHANICAL	VCT - VINYL COMPOSITION TILE
ELEC - ELECTRIC	MIN - MINIMUM	VF - VERIFY IN FIELD
EMER - EMERGENCY	MISC - MISCELLANEOUS	WC - WATER CLOSET
EQ - EQUAL	MSO - MASONRY OPENING	WD - WOOD
		WNF - WELDED WIRE FABRIC

VICINITY MAP



N.T.S.

KEY PLAN



N.T.S.

PROJECT DIRECTORY

PROJECT NAME/ADDRESS: DOGTOPIA 1270 EAST JOPPA ROAD SUITE 200 TOWSON, MD 21286	ARCHITECT OF RECORD: OSR AND R LLC 584 BELLERIVE ROAD SUITE 3D ANNAPOLIS, MD 21409 CONTACT: BILL SMITH TELEPHONE: 301-364-9880 EXT 1004	JURISDICTIONAL AUTHORITY: BALTIMORE COUNTY 111 CHESAPEAKE AVE, #105 TOWSON MD, 21204 TELEPHONE: 410-887-3353
CLIENT/TENANT: CAMELLA DOGS, LLC 4108 LONG GREEN ROAD GLEN ARM, MD 21057 CONTACT: HEATHER DAVIS EMAIL: HEATHER.DAVIS@DOGTOPIA.COM	STRUCTURAL ENGINEER: WATKINS PARTNERSHIP 3032 MITCHELLVILLE ROAD SUITE 202, BOWIE, MD 20716 CONTACT: STEVE WATKINS TELEPHONE: 301-249-0974	M, P & E ENGINEER: NEW YORK ENGINEERS 135 W 41ST, 5TH FLOOR, NEW YORK, NY 10036 CONTACT: ANKIT JAVERI TELEPHONE: 212-575-5300
LANDLORD: MACKENZIE MANAGEMENT COMPANY LLC 2328 W. JOPPA ROAD, SUITE 200 LUTHERVILLE, MD 21093 CONTACT: TOM GENTRY TELEPHONE: 410-821-8585		

LANDLORD REQUIRED CONTRACTORS

SPRINKLER SYSTEM MODIFICATIONS: BPE ALEX MOODY PHONE: 410-768-2200	FIRE ALARM SYSTEM MODIFICATIONS: VSC FIRE AND SECURITY TAMMY BACZINSKY'S PHONE: 443-532-7760
ROOF MODIFICATIONS: FA TAYLOR JOHN TAYLOR PHONE: 410-477-5330	



Quick Service Restaurant and Retail
Design Group, LLC

584 Bellerive Road, Suite 3D Annapolis, MD 21409
Ph. No. (301) 364-9880



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19158, EXPIRATION DATE 08/16/2025.



1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

PROJECT INFORMATION AND TITLE SHEET

SHEET No.
T-1

SPRINKLER REQUIREMENTS

APPROVED PERMIT PLAN SET SHALL BE MODIFIED TO REMAIN FULLY SPRINKLERED IN COMPLIANCE WITH THE LOCAL FIRE CODE (REFERENCE 2012 MARYLAND FIRE CODE) CHAPTER 903.2.6 AND N.F.P.A. 13 CRITERIA.

THE SPRINKLER SYSTEM SHALL BE MADE UNDER SEPARATE PERMIT APPLIED FOR UNDER SEPARATE COVER. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING SPRINKLER SYSTEM DRAWINGS TO JURISDICTION FOR APPROVAL.

FIRE ALARM REQUIREMENTS

EXISTING SPACE SHALL HAVE EXISTING FIRE ALARM SYSTEM TO BE MODIFIED TO BE IN FULL COMPLIANCE WITH LOCAL FIRE CODE CHAPTER 907.2 AND NFPA 72.

MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM SHALL BE MADE UNDER SEPARATE PERMIT APPLIED FOR UNDER SEPARATE COVER. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING FIRE ALARM SYSTEM DRAWINGS TO JURISDICTION FOR APPROVAL.

FIRE NOTES

ILLUMINATED EXIT SIGNS SHALL BE PROVIDED THROUGHOUT THE BUILDING. ALL EXIT SIGNS SHALL HAVE BATTERY BACKUP.

THIS BUILDING SHALL BE PROVIDED WITH APPROVED BATTERY POWERED EMERGENCY LIGHTING TO ILLUMINATE ALL REQUIRED MEANS OF EGRESS.

DOORS SHALL BE ARRANGED TO BE OPENED READILY FROM THE EGRESS SIDE WHENEVER THE BUILDING IS OCCUPIED. LOCKS, IF PROVIDED, SHALL NOT REQUIRE THE USE OF A KEY, A TOOL, OR SPECIAL KNOWLEDGE OR EFFORT FOR OPERATION FROM THE EGRESS SIDE.

EMERGENCY LIGHTING UNITS ARE TO BE WIRED INTO THE NORMAL LIGHTING CIRCUIT AND ARRANGED AS TO PROVIDE THE REQUIRED ILLUMINATION AUTOMATICALLY IN THE EVENT OF ANY INTERRUPTION OF NORMAL LIGHTING SUCH AS ANY FAILURE OF PUBLIC UTILITY OR OUTSIDE ELECTRICAL POWER SUPPLY, OPENING OF A CIRCUIT BREAKER OR FUSE, OR ANY MANUAL ACTS INCLUDING ACCIDENTAL OPENING OF SWITCH CONTROLLING NORMAL LIGHTING FACILITIES.

EVERY CLOSET DOOR LATCH SHALL BE SUCH THAT CHILDREN CAN OPEN THE DOOR FROM THE INSIDE OF THE CLOSETS.

EVERY BATHROOM DOOR LOCK SHALL BE DESIGNED TO PERMIT OPENING OF THE LOCKED DOOR FROM THE OUTSIDE IN A EMERGENCY. THE OPENING DEVICE SHALL BE READILY ACCESSIBLE TO ANYONE OUTSIDE THE DOOR.

THE ELEVATION OF THE FLOOR SURFACES ON BOTH SIDES OF A DOOR SHALL NOT VARY BY MORE THAN 1/2". THE ELEVATION SHALL BE MAINTAINED ON BOTH SIDES OF THE DOORWAY FOR A DISTANCE NOT LESS THAN THE WIDTH OF THE WIDEST LEAF. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES IN EXCESS OF 1/4" SHALL BE BEVELED WITH A SLOPE OF NOT STEEPER THAN 1 IN 2.

A LATCH OR OTHER FASTENING DEVICE ON A DOOR SHALL BE PROVIDED WITH A RELEASING DEVICE HAVING AN OBVIOUS METHOD OF OPERATION AND THAT IS READILY OPERATED UNDER ALL LIGHTING CONDITIONS. THE RELEASING MECHANISM FOR ANY LATCH SHALL BE NOT LESS THAN 34", AND NOT MORE THAN 48" ABOVE FINISH FLOOR. DOORS SHALL BE OPERABLE WITH NOT MORE THAN ONE RELEASING OPERATION.

EVERY EXTERIOR AND INTERIOR WALL AND PARTITION SHALL BE FIRE STOPPED AT EACH FLOOR LEVEL, AT THE TOP STORY CEILING LEVEL, AND AT THE LEVEL OF SUPPORT FOR ROOFS.

PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS

PLUMBING FIXTURE COUNT

TABLE 403.1

OCCUPANCY CLASSIFICATION		B - BUSINESS	
TOTAL OCCUPANT LOAD		17	
NO. OF MALE OCCUPANTS		9	
NO. OF FEMALE OCCUPANTS		8	

GENDER	WATER CLOSETS		LAVATORIES		DRINKING FOUNTAINS		SERVICE SINKS	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
MALE	1 PER 25	1**	1 PER 40	1				
	1		1		1	0*	1	2
FEMALE	1 PER 25	1**	1 PER 40	1				
	1		1					

* TENANT / OWNER WILL PROVIDE BOTTLED WATER SERVICE
** PER IPC 403.2 EXCEPTION 4, SINGLE RESTROOM USE ALLOWED WITH BUSINESS OCCUPANT LOAD UNDER 25

APPLICABLE CODES

BUILDING	2018	INTERNATIONAL EXISTING BUILDING CODE, INTERNATIONAL BUILDING CODE
		MARYLAND BUILDING PERFORMANCE STANDARDS - JANUARY 2012 EDITION
MECHANICAL	2018	INTERNATIONAL MECHANICAL CODE
ELECTRICAL	2020	NFPA 70/NEC
PLUMBING	2018	INTERNATIONAL PLUMBING CODE
FIRE - LIFE SAFETY	2018	NFPA 101 LIFE SAFETY CODE
ENERGY	2018	INTERNATIONAL ENERGY CONSERVATION CODE
FUEL GAS	2018	INTERNATIONAL FUEL GAS CODE
ACCESSIBILITY	2010	COMAR 09.12.53 MD ACCESSIBILITY CODE GUIDELINES FOR BUILDINGS AND FACILITIES, 2010 ADA

CODE INFORMATION & LIFE SAFETY PLAN LEGEND

DOOR	STAIR (.3) / DOOR (.2)	FIRE RESISTANT RATING LEGEND
EXPT	EXPECTED LOAD	1/2 HR. WALL
MAX	MAX. LOAD	1 HR. WALL
EGRESS LOADS MARKER	EXIT WIDTH PROVIDED	2 HR. WALL
		3 HR. WALL
USE GROUP		DESIGN TRAVEL DISTANCE
B 100	TOTAL OCCUPANCY	DESIGN COMMON PATH
FLOOR OCCUPANCY BY USE GROUP		SECOND MEANS OF EGRESS PATH
		FIRE EXTINGUISHER (FE)

TENANT SPACE DATA (TENANT SPACE ONLY)

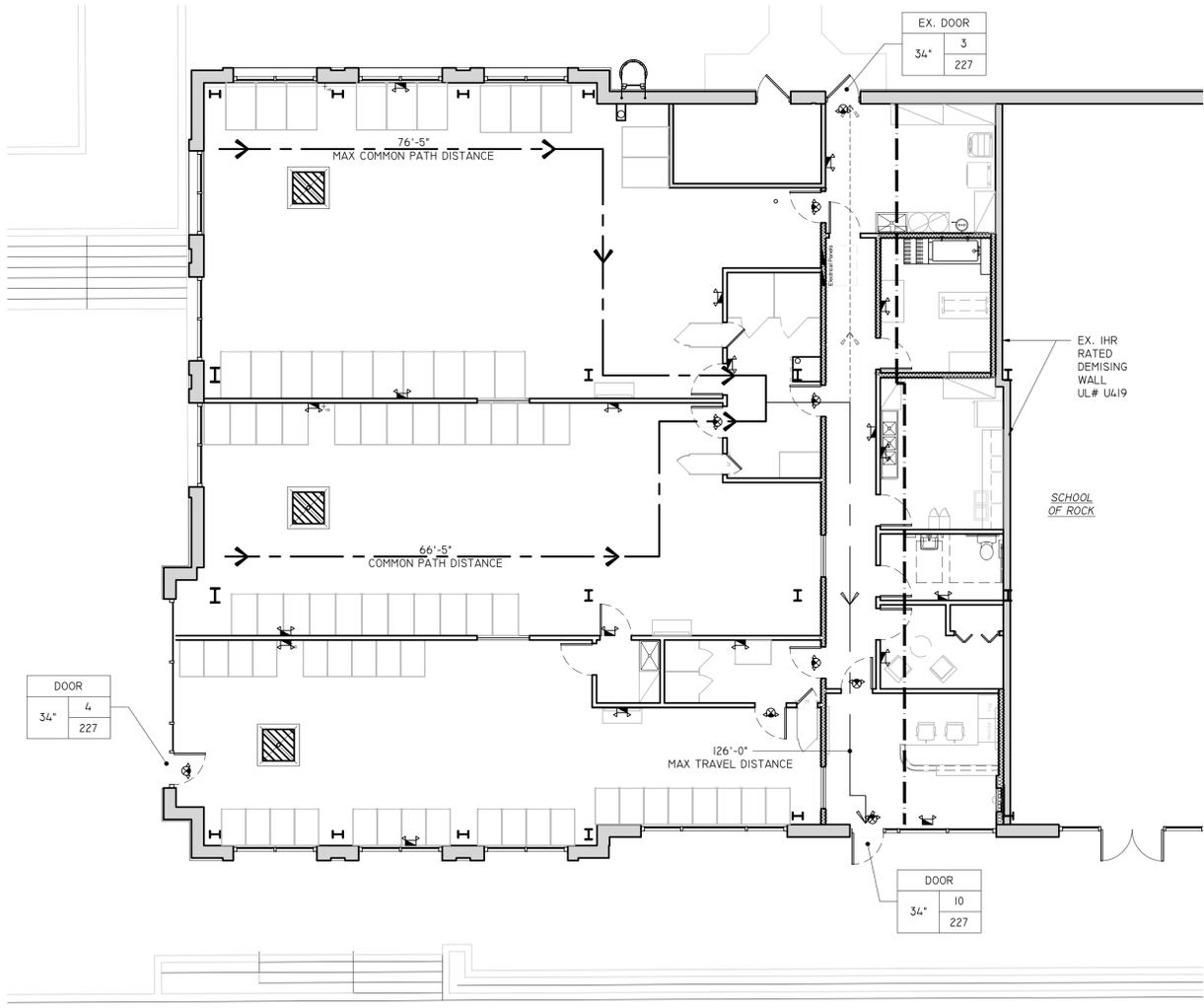
SECTION 302	TENANT SPACE USE AND OCCUPANCY GROUP	VACANT SHELL SPACE
	EXISTING USE	B-BUSINESS
	PROPOSED USE	VB
	TENANT IMPROVEMENT AREA	5,621 G.S.F. (UNCHANGED)
SECTION 602	CONSTRUCTION CLASSIFICATION	VB
TABLE 803.13	INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY	B - BUSINESS (SPRINKLERED)
	EXIT PASSAGEWAYS AND EXIT ENCLOSURES	B
	CORRIDORS	C
	ROOMS AND ENCLOSED SPACES	C
SECTION 903	AUTOMATIC SPRINKLER SYSTEM	YES
SECTION 907	FIRE ALARM AND DETECTION SYSTEM	YES

OCCUPANCY LOAD CALCULATION BY SPACE USE

SECTION 1004.1	DESIGN OCCUPANT LOAD	
	ACTUAL INTERIOR SQUARE FOOTAGE	5,302 G.S.F.
	TOTAL BUILDING OCCUPANTS	8 OCCUPANTS
	BUSINESS AREA	1,132 NSF / 150 NSF PER OCCUPANT = 8 OCCUPANTS
	DOG AREAS	4,170 NSF / 500 NSF PER OCCUPANT = 9 OCCUPANTS
	TOTAL OCCUPANT LOAD	17 OCCUPANTS

EGRESS

SECTION 1005.2	MINIMUM REQUIRED EGRESS WIDTH	
	OTHER (1005.3.2)	15 (SPRINKLERED)
SECTION 1006.2	MIN. NUMBER OF EXITS REQUIRED	2 (2 PROVIDED)
TABLE 1006.2.1	COMMON PATH OF EGRESS TRAVEL	100' MAX. (SPRINKLERED.)
	B - USE GROUP	
SECTION 1016	EXIT ACCESS	
SECTION 1017	EXIT ACCESS TRAVEL DISTANCE	
TABLE 1017.2	EXIT ACCESS TRAVEL DISTANCE	300' W/ SPRINKLER
	B - USE GROUP	
SECTION 1018	AISLES	
SECTION 1018.3	B/M - USE GROUP	44" MIN. (36" IF < 50 OCC.)
SECTION 1020.2	CORRIDOR WIDTH	44" MIN. (36" IF < 50 OCC.)
SECTION 1020.4	DEAD END CORRIDOR	50' MAX. - SPRINKLERED



SCOPE OF WORK

INTERIOR FIT-OUT OF A VACANT TENANT SPACE FOR A DOG DAYCARE. INTERIOR IMPROVEMENTS INCLUDE RECEPTION AREA, BREAK ROOM, (3) DOG PLAY ROOMS WITH EVALUATION ROOMS AND UTILITY CLOSETS ALONG WITH A GROOMING SPACE AND LAUNDRY ROOM.

THIS INCLUDES THE CONSTRUCTION OF NEW INTERIOR NON-LOAD BEARING WALLS, WALL FINISHES, MILLWORK, EQUIPMENT, AND NEW CEILING SYSTEMS, AS WELL AS ALL ASSOCIATED MECHANICAL, PLUMBING, AND ELECTRICAL WORK.



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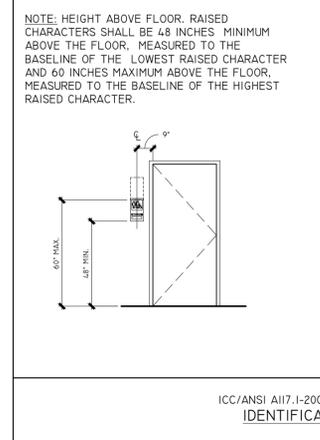
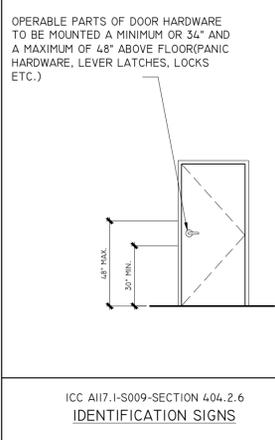
1270 EAST JOPPA ROAD
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REVISION

No.	DATE	DESCRIPTION

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PROJECT No.: 22155
DWG TITLE:

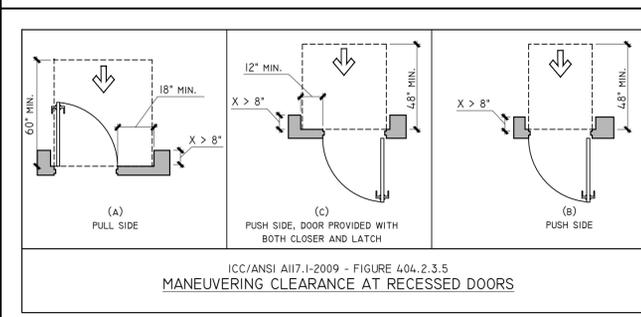
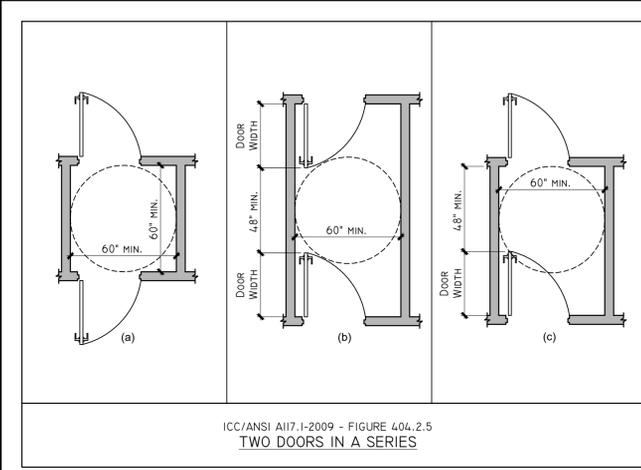
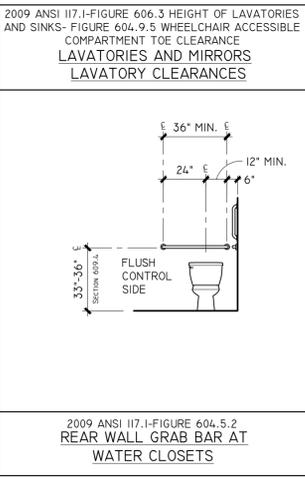
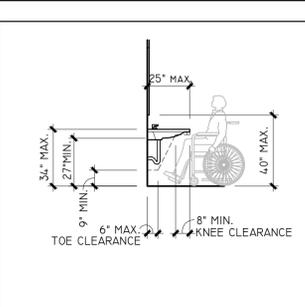
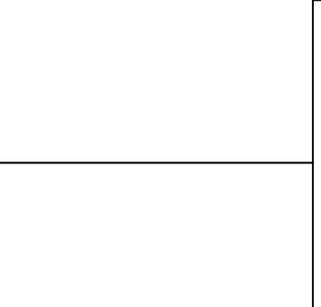
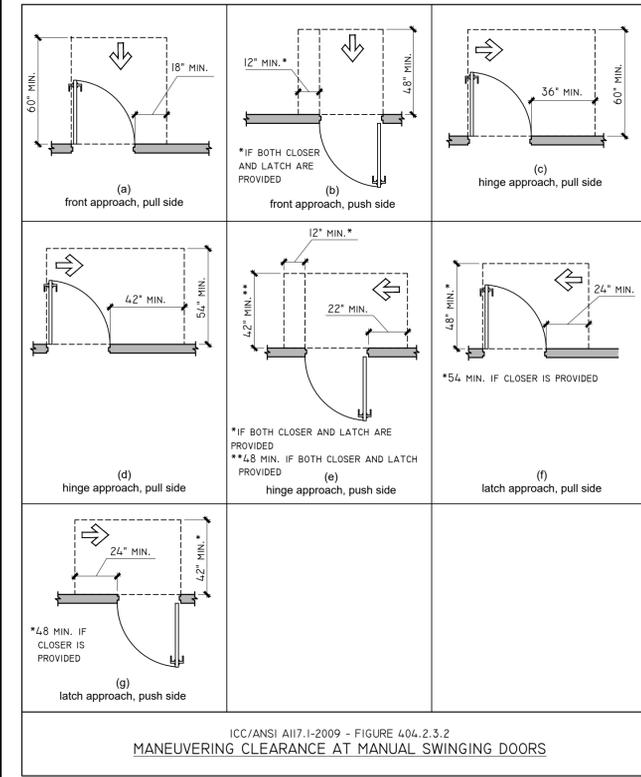
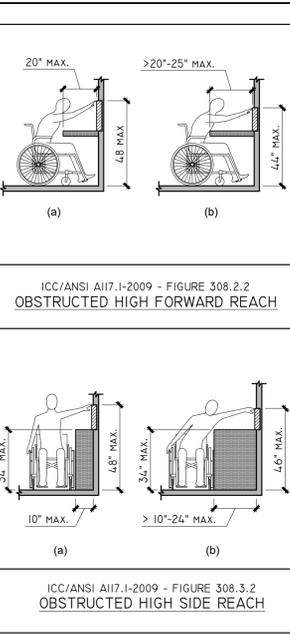
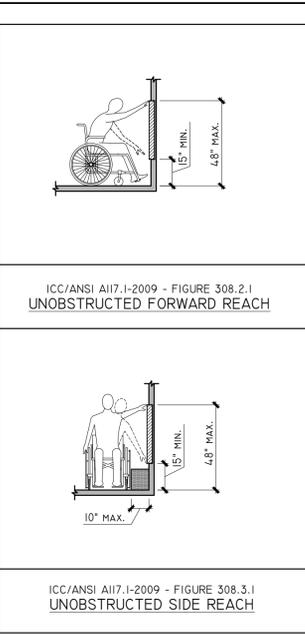
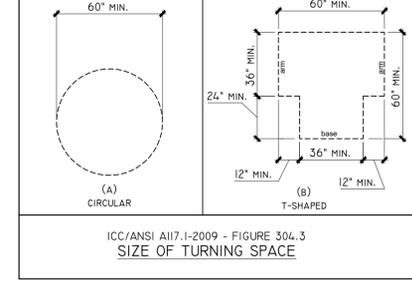
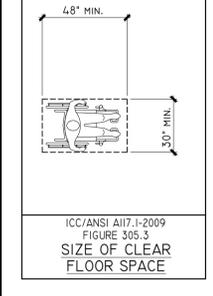
CODE ANALYSIS AND LIFE SAFETY PLAN



PROVIDE TACTILE SIGNS FOR ALL EGRESS EXITS & HANDICAP ACCESSIBLE RESTROOMS

1/2" THICK SIGNS W/ GRADE 2 BRAILLE (TYP.)

- CHARACTERS AND IDENTIFICATION SYMBOLS ARE TO BE DISTINCTLY DIFFERENT FROM THE BACKGROUND IN COLOR AND CONTRAST.
- LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED 1/8" MIN. SHALL BE A MIN. OF 3/8" HIGH AND MAX. OF 2" HIGH. CHARACTERS SHALL BE UPPERCASE AND SANS-SERIF ACCOMPANIED BY GRADE 2 BRAILLE.
- PROVIDE IDENTIFICATION SIGN ON WALL TO LATCH SIDE OF WHERE SIGNS ARE PROVIDED AT DOUBLE DOORS. THE SIGN SHALL BE TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE NO WALL SPACE IS AVAILABLE SIGNS SHALL BE ON THE NEAREST ADJACENT WALL.



GENERAL ACCESSIBILITY NOTES:

- FLOOR AND GROUND SURFACES**
- GROUND AND FLOOR SURFACES ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES INCLUDING FLOORS, WALKS, RAMP, STAIRS, AND CURB RAMPS, SHALL BE STABLE, FIRM, AND SLIP-RESISTANT.
 - THE RUNNING SLOPE (PARALLEL) OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE (PERPENDICULAR) OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48.
 - CHANGES IN LEVEL UP TO 1/4" MAY BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE REVEALED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 1/2" SHALL BE ACCOMPLISHED BY MEANS OF A RAMP.
 - CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED; HAVE A FIRM CUSHION PAD, OR BACKING, OR NO CUSHION OR PAD; AND HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/JUNCUT PILE TEXTURE. THE MAX. PILE THICKNESS SHALL BE 1/2". EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND HAVE TRIM ALONG THE ENTIRE LENGTH OF THE EXPOSED EDGE. CARPET EDGE TRIM SHALL COMPLY WITH ABOVE.
 - OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" INCH DIAMETER. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
 - OUTDOOR RAMPS, STAIRS AND THEIR APPROACHES SHALL BE MAINTAINED SO THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES.
- RAMPS**
- RAMP RUNS SHALL HAVE A RUNNING SLOPE OF GREATER THAN 1:20 AND NOT STEEPER THAN 1:12. THE CROSS SLOPE OF RAMPS SHALL NOT BE STEEPER THAN 1:48.
 - THE MIN. CLEAR WIDTH OF A RAMP SHALL BE 36". PROJECTIONS INTO THE REQUIRED RAMP AND LANDING WIDTH ARE PROHIBITED.
 - THE RISE FOR ANY RAMP RUN SHALL BE 30" MAX.
- CURB RAMPS**
- COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.
- OPERABLE PARTS**
- A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH FIGURE 305.3 SHALL BE PROVIDED. OPERABLE PARTS SHALL BE PLACED WITHIN ONE OF THE REACH RANGES SPECIFIED IN FIGURES 308.2.1, 308.2.2, 308.3.1, OR 308.3.2.
 - CONTROLS, OPERATING MECHANISMS AND HARDWARE SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRISTS. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 L.B.F. MAX.
- WATER CLOSETS**
- THE REQUIRED CLEARANCE AROUND THE WATER CLOSET SHALL BE PERMITTED TO OVERLAP THE WATER CLOSET, ASSOCIATED GRAB BARS, PAPER DISPENSERS, SANITARY NAPKIN RECEPTACLES, COAT HOOKS, SHELVES, ACCESSIBLE ROUTES, CLEAR FLOOR SPACE AT OTHER FIXTURES, AND THE TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE.
 - THE HEIGHT OF WATER CLOSETS SHALL BE 17" TO 19" MEASURED TO THE TOP OF THE TOILET SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.
 - FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET. HAND OPERATED FLUSH CONTROLS SHALL COMPLY WITH THE OPERABLE PARTS SECTION OF THESE NOTES.
 - TOILET TISSUE DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINUOUS PAPER FLOW.
- LAVATORIES AND SINKS**
- A CLEAR FLOOR SPACE COMPLYING WITH FIGURE 305.3, POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCES COMPLYING WITH FIGURES 306.2, 306.3 SHALL BE PROVIDED. A PARALLEL APPROACH SHALL BE PERMITTED TO A KITCHEN SINK IN A SPACE WHERE A COOK TOP OR CONVENTIONAL RANGE IS NOT PROVIDED AND WET BARS.
 - IF SOAP AND/OR TOWEL DISPENSERS ARE PROVIDED, THEY MUST BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN FIGURES 308.2.1, 308.2.2, 308.3.1, OR 308.3.2. LOCATE SOAP AND TOWEL DISPENSERS SO THAT THEY ARE CONVENIENTLY USABLE BY THE ACCESSIBLE LAVATORY.
 - LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 3/4" MAX. ABOVE THE FINISHED FLOOR OR GROUND.
 - CONTROLS FOR FAUCETS SHALL COMPLY WITH OPERABLE PARTS (ABOVE). HAND-OPERATED METERING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MIN.
 - WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.
 - WHERE MIRRORS ARE LOCATED ABOVE LAVATORIES, A MIRROR SHALL BE LOCATED OVER THE ACCESSIBLE LAVATORY AND SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40" MAX. ABOVE THE FINISH FLOOR. WHERE MIRRORS ARE LOCATED ABOVE COUNTERS THAT DO NOT CONTAIN LAVATORIES, THE MIRROR SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40" MAX. ABOVE THE FLOOR.
- GRAB BARS**
- GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1-1/4" MIN. AND 2" MAX. GRAB BARS WITH NON-CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS-SECTION DIMENSION OF 2" MAX. AND A PERIMETER DIMENSION OF 4" MIN. AND 4.8" MAX.
 - THE SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1-1/2". THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12" MIN. THE SPACE BETWEEN THE GRAB BARS AND SHOWER CONTROLS, SHOWER FITTINGS, AND OTHER GRAB BARS ABOVE SHALL BE PERMITTED TO BE 1-1/2" MIN.
 - ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.
 - GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
 - GRAB BARS AND ANY WALL OR OTHER SURFACES ADJACENT TO GRAB BARS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES.
- DINING SURFACES AND WORK SURFACES**
- A CLEAR FLOOR SPACE COMPLYING WITH FIGURE 305.3 POSITIONED FOR A FORWARD APPROACH SHALL BE PROVIDED. KNEE AND TOE CLEARANCES COMPLYING WITH FIGURES 306.2 AND 306.3 SHALL BE PROVIDED.
 - THE TOPS OF DINING SURFACES AND WORK SURFACES SHALL BE 28" MIN. AND 34" MAX. ABOVE THE FINISH FLOOR OR GROUND.

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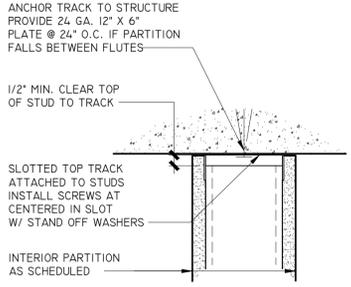
1270 EAST JOPPA ROAD
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TOWSON, MD 21286

REVISION		
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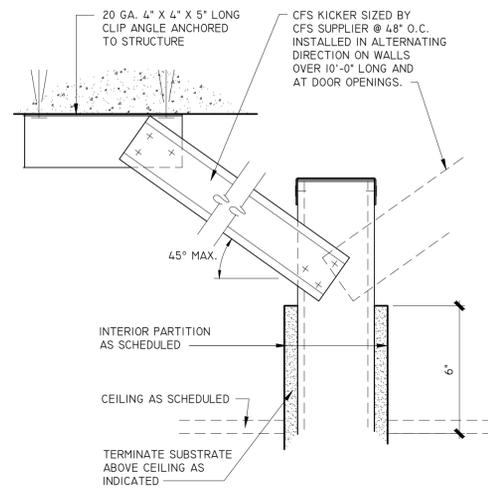
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PROJECT No.: 22155
DWG TITLE:

ACCESSIBILITY DETAILS AND INFORMATION

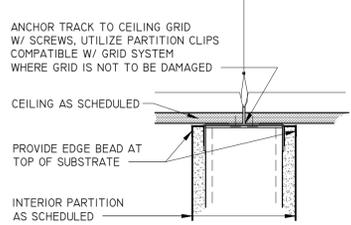
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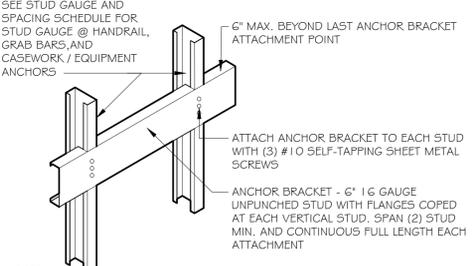
TYPICAL STUD WALL DETAIL - TERMINATION TO DECK (TD)



TYPICAL STUD WALL DETAIL - TERMINATION ABOVE CEILING (AC)

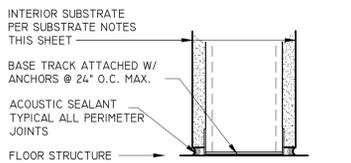


TYPICAL STUD WALL DETAIL - TERMINATION AT CEILING (TC)



NOTES:
1. SEE PARTITION SCHEDULE FOR STUD SIZE, COORDINATE LENGTH, HEIGHT, QUANTITY AND LOCATION OF BLOCKING WITH SPECIFIED EQUIPMENT AND PLANS.
2. WALL STUD FLANGES ARE CONTINUOUS AT BLOCKING.

TYPICAL BLOCKING DETAIL



TYPICAL STUD WALL DETAIL - TERMINATION AT BASE

GENERAL FIRE BARRIER, FIRE PARTITION / SMOKE BARRIER, SMOKE PARTITION NOTES.

1. GENERAL
ALL FIRE RATED AND SMOKE PROOF ASSEMBLIES SHALL BE CONSTRUCTED FULL HEIGHT FROM FLOOR SLAB TO UNDERSIDE OF STRUCTURE PER TYPICAL DETAILS THIS SHEET.
ALL FIRE RATED AND SMOKE PROOF ASSEMBLIES SHALL BE SEALED AT PERIMETER OF ASSEMBLY TO RESIST THE PASSAGE OF FLAME AND SMOKE PER TYPICAL DETAILS AND PERIMETER SEALANT NOTES THIS SHEET.
ALL RATED AND SMOKE PROOF ASSEMBLIES SHALL BE IDENTIFIED WITH LABELS LOCATED IN ACCORDANCE WITH THE LOCAL CODE. SEE THE CODE REVIEW AND LIFE SAFETY SHEET FOR ADDITIONAL LABELING REQUIREMENTS.

2. RATED SUBSTRATES:
THE FOLLOWING SUBSTRATES SHALL BE USED AS INDICATED BELOW FOR ALL INTERIOR RATED BARRIERS AND PARTITIONS UNLESS NOTED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.
ALL SUBSTRATES SHALL BE FINISHED IN ACCORDANCE W/GA 216-961 "RECOMMENDED LEVELS OF GYPSUM WALLBOARD FINISH". SEE GENERAL GYPSUM BOARD FINISH NOTES THIS SHEET.
GWB AS MANUFACTURED BY USG "SHEETROCK" BRAND "FIRECODE" CORE GYPSUM PANELS OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE FOR ALL ROOMS & AREAS SCHEDULED TO RECEIVE PAINT FINISH.
WATER RESISTANT GWB AS MANUFACTURED BY USG "SHEETROCK" BRAND "MOLD TOUGH FIRECODE" CORE GYPSUM PANELS OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE FOR ALL WET AREAS NOT SCHEDULED TO RECEIVE WALL TILE FINISH INCLUDING:
-RESTROOMS
-WITHIN THE VICINITY OF DRINKING FOUNTAINS

ABUSE RESISTANT GWB AS MANUFACTURED BY USG "FIBEROCK" VHI (VERY HIGH IMPACT) BRAND OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE FOR ALL ROOMS SCHEDULED TO RECEIVE IT. SEE FLOOR PLAN FOR AREAS

TILE BACKER BOARD AS MANUFACTURED BY USG "FIBEROCK" BRAND AQUA-TOUGH TILE BACKERBOARD OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE ALL AREAS SCHEDULED TO RECEIVE WALL TILE FINISH. COORDINATE W/ FINISH PLANS & INTERIOR ELEVATIONS FOR CEMENT BACKER BOARD LOCATIONS.

GLASS-MAT LINER PANEL AS MANUFACTURED BY USG "SHEETROCK" BRAND AT SHAFT SIDE OF SHAFT WALLS 1" THICK UNLESS NOTED OTHERWISE.

3. FIRE BATTS AND BLANKETS:
THE FOLLOWING INSULATION SHALL BE USED AS INDICATED BELOW FOR ALL INTERIOR RATED BARRIERS AND PARTITIONS SCHEDULED TO RECEIVE IT UNLESS NOTED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.
FURNISH AND INSTALL MINERAL WOOL FIRE SAFING AS INDICATED WITHIN THE CONTRACT DOCUMENT.
MINERAL WOOL FIRE SAFING SHALL BE 4 PCF MIN. PACKED TO 25% COMPRESSION, AS MANUFACTURED BY INDUSTRIAL INSULATION GROUP, LLC. ALL MINERAL WOOL SHALL BE INSTALLED PER THE MANUFACTURER'S WRITTEN SPECIFICATIONS.

4. FIRE CAULK AND SEALS:
ALL FIRE SEALANTS SHALL BE ACOUSTICAL SEALANT AS MANUFACTURED BY USG "SHEETROCK" BRAND ACOUSTICAL SEALANT" UNLESS NOTED OTHERWISE WITHIN THE CONTRACT DOCUMENTS.

5. FIRE BLOCKING:
ALL FIREBLOCKING SHALL BE AS DETAILED WITHIN THE CONTRACT DOCUMENTS.

GENERAL GYPSUM BOARD FINISH NOTES.

ALL GYPSUM BOARD SHALL BE FINISHED AS INDICATED BELOW & IN ACCORDANCE WITH THE "LEVELS OF GYPSUM BOARD FINISH" TABLE & ASTM C840 LATEST EDITION "STANDARD SPECIFICATION FOR APPLICATION AND FINISH OF GYPSUM BOARD" UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.
TEMPORARY CONSTRUCTION & AREAS WHERE WALL FINISH HAS NOT BEEN ESTABLISHED SHALL BE FINISHED TO 'LEVEL 0'
PLENUM AREAS ABOVE CEILINGS, ATTIC AREAS, BUILDING SERVICE CORRIDORS, CONCEALED AREAS, & AREAS NOT NORMALLY OPEN TO PUBLIC VIEW SHALL BE FINISHED TO 'LEVEL 1'
AREAS WHERE WATER RESISTANT GYPSUM BACKING BOARD (ASTM C630) IS USED AS A SUBSTRATE FOR TILE, GARAGES & STORAGE AREAS SHALL BE FINISHED TO 'LEVEL 2'
ALL AREAS TO RECEIVE HEAVY OR MEDIUM TEXTURED FINISHES BEFORE FINAL PAINTING OR WHERE HEAVY GRADE WALL COVERINGS ARE SCHEDULED SHALL BE FINISHED TO 'LEVEL 3'
ALL AREAS TO RECEIVE LIGHT TEXTURED FINISH OR FLAT PAINTS & ALL AREAS NOT LISTED ABOVE & VIEWED BY THE PUBLIC SHALL BE FINISHED TO 'LEVEL 4'
'LEVEL 5' FINISH SHALL BE USED WHERE SPECIFICALLY NOTED TO RECEIVE 'LEVEL 5' FINISH IN THE CONTRACT DOCUMENTS

LEVELS OF GYPSUM BOARD FINISH

LEVEL	JOINTS & INTERIOR ANGLES	ACCESSORIES & FASTENERS	SURFACE
0	NO TAPING	N/A	N/A
1	TAPE SET IN JOINT COMPOUND	N/A	TOOL MARKS AND RIDGES ACCEPTABLE. SURFACE FREE OF EXCESS JOINT COMPOUND.
2	TAPE EMBEDDED IN JOINT COMPOUND AND WIPED WITH A JOINT KNIFE, LEAVING A THIN COAT OF COMPOUND OVER TAPE.	SHALL BE COVERED BY ONE SEPARATE COAT OF JOINT COMPOUND	TOOL MARKS AND RIDGES ACCEPTABLE. SURFACE FREE OF EXCESS JOINT COMPOUND.
3	TAPED AS IN LEVEL #2 THEN COVERED WITH ONE SEPARATE COAT OF JOINT COMPOUND.	SHALL BE COVERED BY TWO SEPARATE COATS OF JOINT COMPOUND	JOINT COMPOUND SHALL BE SMOOTH AND FREE OF TOOL MARKS AND RIDGES.
4	TAPED AS IN LEVEL #2 THEN COVERED WITH TWO SEPARATE COATS OF JOINT COMPOUND.	SHALL BE COVERED BY THREE SEPARATE COATS OF JOINT COMPOUND	JOINT COMPOUND SHALL BE SMOOTH AND FREE OF TOOL MARKS AND RIDGES.
5	TAPED AS IN LEVEL #2 THEN COVERED WITH TWO SEPARATE COATS OF JOINT COMPOUND.	SHALL BE COVERED BY THREE SEPARATE COATS OF JOINT COMPOUND	A THIN SKIM COAT OF JOINT COMPOUND SHALL BE APPLIED TO THE ENTIRE SURFACE. THE SURFACE SHALL BE SMOOTH AND FREE OF TOOL MARKS AND RIDGES.

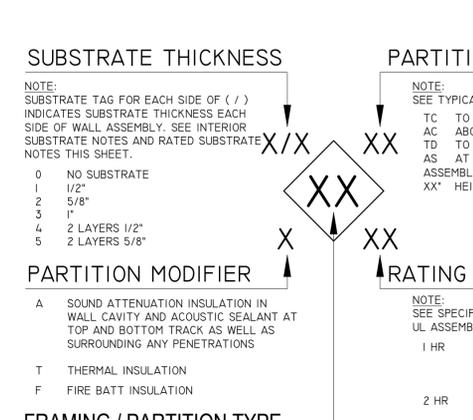
GENERAL WALL TYPE SCHEDULE NOTES.

1. INTERIOR SUBSTRATES:
THE FOLLOWING SUBSTRATES SHALL BE USED AS INDICATED BELOW FOR ALL INTERIOR PARTITIONS UNLESS NOTED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.
GWB AS MANUFACTURED BY USG "SHEETROCK" BRAND OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE FOR ALL ROOMS & AREAS SCHEDULED TO RECEIVE PAINT FINISH.
ALL SUBSTRATES SHALL BE FINISHED IN ACCORDANCE W/GA 216-961 "RECOMMENDED LEVELS OF GYPSUM WALLBOARD FINISH". SEE GENERAL GYPSUM BOARD FINISH NOTES THIS SHEET.
WATER RESISTANT GWB AS MANUFACTURED BY USG "SHEETROCK" BRAND OR EQUAL 1/2" THICK UNLESS NOTED OTHERWISE FOR ALL WET AREAS NOT SCHEDULED TO RECEIVE WALL TILE FINISH INCLUDING:
-RESTROOMS
-WITHIN THE VICINITY OF DRINKING FOUNTAINS
ABUSE RESISTANT GWB AS MANUFACTURED BY USG "SHEETROCK" BRAND OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE FOR ALL ROOMS SCHEDULED TO RECEIVE IT. SEE FLOOR PLAN FOR AREAS
PLYWOOD AT KITCHEN AREAS & AREAS SCHEDULED TO RECEIVE FRP FINISHES 5/8" NOM. THICK UNLESS NOTED OTHERWISE FROM 6" A.F.F. TO 6" ABV. CLG. SEE DRAWING INFORMATION / TITLE SHEETS FOR FIRE RETARDANT TREATED (FRT) WOOD REQUIREMENTS IF APPLICABLE.
CEMENT BACKER BOARD AS MANUFACTURED BY USG "DUROCK" BRAND OR EQUAL 5/8" THICK UNLESS NOTED OTHERWISE ALL AREAS SCHEDULED TO RECEIVE WALL TILE FINISH AND IN KITCHEN AREAS FROM FLOOR TO 6" A.F.F. COORDINATE W/ FINISH PLANS & INTERIOR ELEVATIONS FOR CEMENT BACKER BOARD LOCATIONS.

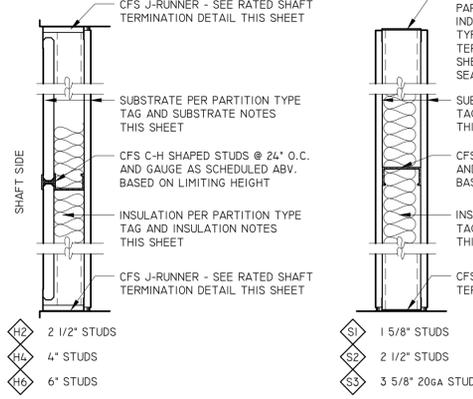
2. INSULATION:
THE FOLLOWING INSULATION SHALL BE USED AS INDICATED BELOW FOR ALL INTERIOR PARTITIONS AND FURRING WALLS SCHEDULED TO RECEIVE IT UNLESS NOTED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.
SEE GENERAL FIRE BARRIER, FIRE PARTITION / SMOKE BARRIER, SMOKE PARTITION NOTES THIS SHEET FOR FIRE BATT INFORMATION.
SOUND ATTENUATION BATT AS MANUFACTURED BY OWINGS CORNING "SOUND ATTENUATION BATTS FIBERGLASS" 3 1/2" THICK, UNFACED, OR EQUAL.
2" RIGID INSULATION FOR ALL FURRING WALLS ADJACENT TO EXTERIOR WALLS AS MANUFACTURED BY OWINGS CORNING "INSUL PINK-2" FOAMULAR EXTRUDED POLYSTYRENE OR EQUAL WHERE 2" Z-CHANNEL FRAMING IS USED.
2 1/2" FIBERGLASS BOARD INSULATION FOR ALL FURRING WALLS ADJACENT TO EXTERIOR WALLS AS MANUFACTURED BY OWINGS CORNING "TYPE 703, UNFACED" OR EQUAL WHERE 2 1/2" AND 3 5/8" CHANNEL FRAMING IS USED.

3. BLOCKING:
BLOCKING SHALL BE PROVIDED PER TYPICAL BLOCKING DETAIL. SEE INTERIOR ELEVATIONS FOR BLOCKING LOCATIONS.

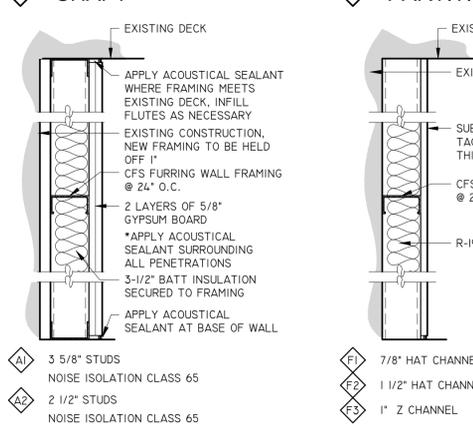
PARTITION TYPE TAG - MATRIX



FRAMING / PARTITION TYPE



CFS C-H SHAPED STUD SHAFT



ACOUSTIC PARTITION

CFS STUD GAUGE AND SPACING SCHEDULE (BASED ON LIMITING HEIGHT)

TAG	STUD SIZE	STUD GAUGE	STUD SPACING	LIMITING HEIGHT (L/240, S/PSF)	CFS C-H SHAPED STUD				
					TAG	STUD SIZE	STUD GAUGE	STUD SPACING	LIMITING HEIGHT (L/240, S/PSF)
S1	1 5/8"	25 GA.	16" O.C.	8'-4"	H2	2 1/2"	25 GA.	24" O.C.	9'-3"
		20 GA.	24" O.C.	7'-11"	H4	4"	25 GA.	24" O.C.	10'-9"
		20 GA.	16" O.C.	9'-8"			20 GA.	24" O.C.	12'-5"
S2	2 1/2"	25 GA.	16" O.C.	8'-9"	H6	6"	25 GA.	24" O.C.	15'-3"
		20 GA.	24" O.C.	11'-3"			20 GA.	24" O.C.	21'-0"
		20 GA.	16" O.C.	10'-7"			S3	3 5/8"	25 GA.
20 GA.	24" O.C.	12'-10"	25 GA.	24" O.C.	13'-5"				
20 GA.	16" O.C.	11'-7"	20 GA.	16" O.C.	16'-5"				
S6	6"	25 GA.	16" O.C.	14'-9"	S5	2"	25 GA.	16" O.C.	19'-9"
		20 GA.	24" O.C.	16'-5"			20 GA.	16" O.C.	19'-9"
		20 GA.	24" O.C.	21'-7"			20 GA.	16" O.C.	24'-6"

CFS FRAMING NOTES:
THE CG SHALL VERIFY ALL STUD GAUGES WITH THE CFS SUPPLIER BASED ON WALL HEIGHT AND ACTUAL CONDITIONS IN THE FIELD. WHERE THE CFS SUPPLIER DEEMS A STUD SIZE AND GAUGE INADEQUATE FOR A WALL ASSEMBLY OR HEIGHT, THE GAUGE SHALL BE INCREASED TO THAT REQUIRED.
PROVIDE (2) 20 GAUGE STUDS AT ALL DOOR JAMBS EACH SIDE.
PROVIDE 20 GAUGE STUDS @ 16" O.C. AT ALL WALLS SCHEDULED TO RECEIVE CEMENT BACKER BOARD.
PROVIDE 20 GAUGE STUDS @ HANDRAIL, GRAB BARS, AND CASEWORK / EQUIPMENT ANCHORS



Quick Service Restaurant and Retail Design Group, LLC

584 Belterre Road, Suite 3D Annapolis, MD 21409
Ph. No. (410) 364-9880



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19138. EXPIRATION DATE 08-16-2025



1270 EAST JOPPA ROAD
SUITE 200
TOWSON, MD 21286

REVISION		
No.	DATE	DESCRIPTION

DWG DATE: 07-20-2022
DRAWN BY: STAFF
PROJECT No.: 22155
DWG TITLE:

INTERIOR PARTITION SCHEDULE

SHEET No.

T-4



DOGTOPIA SPECIFICATIONS

SECTION 01000 - GENERAL NOTES: 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS. SCHEDULING ALL INSPECTIONS. 015000 - TEMPORARY FACILITIES AND CONTROLS. A. SANITARY FACILITIES: PROVIDE TEMPORARY TOILETS, WASH FACILITIES, AND DRINKING WATER FOR ALL...

D. GENERAL CONTRACTOR SHALL ENGAGE A PROFESSIONAL CLEANING COMPANY TO CLEAN THE ENTIRE CENTER PRIOR TO FIXTURING AND THE NIGHT BEFORE TURNOVER. MAINTAIN AN ACCEPTABLE LEVEL OF CLEANLINESS AT ALL TIMES IN BETWEEN. GC SHALL COORDINATE AND MANAGE THE CLEANING OF ALL FLOORING WITH THE APPROPRIATE WALL-BEHIND SCRUBBER. GC SHALL COORDINATE ALL CLEANINGS WITH CENTER OPERATIONS. E. UPON COMPLETION OF CONSTRUCTION, GENERAL CONTRACTOR TO SUBMIT RECORD DRAWINGS OF THE PREMISES TO ARCHITECT AS INDICATED IN SECTION 07839.

IS SATISFACTORY, GYPSUM BOARD SHALL BE KEPT A MINIMUM OF 1/2" ABOVE THE EXISTING SLAB THROUGHOUT. D. ALL GYPSUM WALLBOARD (DRYWALL) TO HAVE A LEVEL 4 FINISH. 092216 - NON STRUCTURAL METAL FRAMING. A. ALL METAL FRAMING, GYPSUM BOARD, PARTITIONS, SOFFITS AND FACADES BY THE GENERAL CONTRACTOR UNLESS OTHERWISE NOTED. B. ALL NEW INTERIOR PARTITIONS SHALL BE 3-5/8" 20 GA. METAL STUDS @ 16" MIN. O.C. WITH 5/8" GYPSUM BOARD BOTH SIDES, UNLESS NOTED OTHERWISE IN "WALL TYPES" SCHEDULE.

EQUIPMENT SCHEDULE

Table with columns: TAG, QTY, FURN. BY, INST. BY, ITEM DESCRIPTION, MANUFACTURER, MODEL, PLUM, ELEC, GAS, REMARKS. Includes items like LOBBY, OFFICE, LAUNDRY, SPA, and various shelving units.



Quick Service Restaurant and Retail Design Group, LLC 584 Belter Road, Suite 3D Annapolis, MD 21409 Ph. No. (410) 364-9890



I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19158. EXPIRATION DATE: 06/16/2025

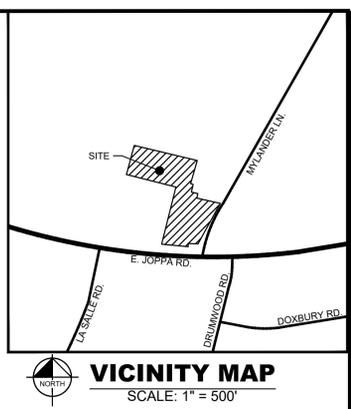
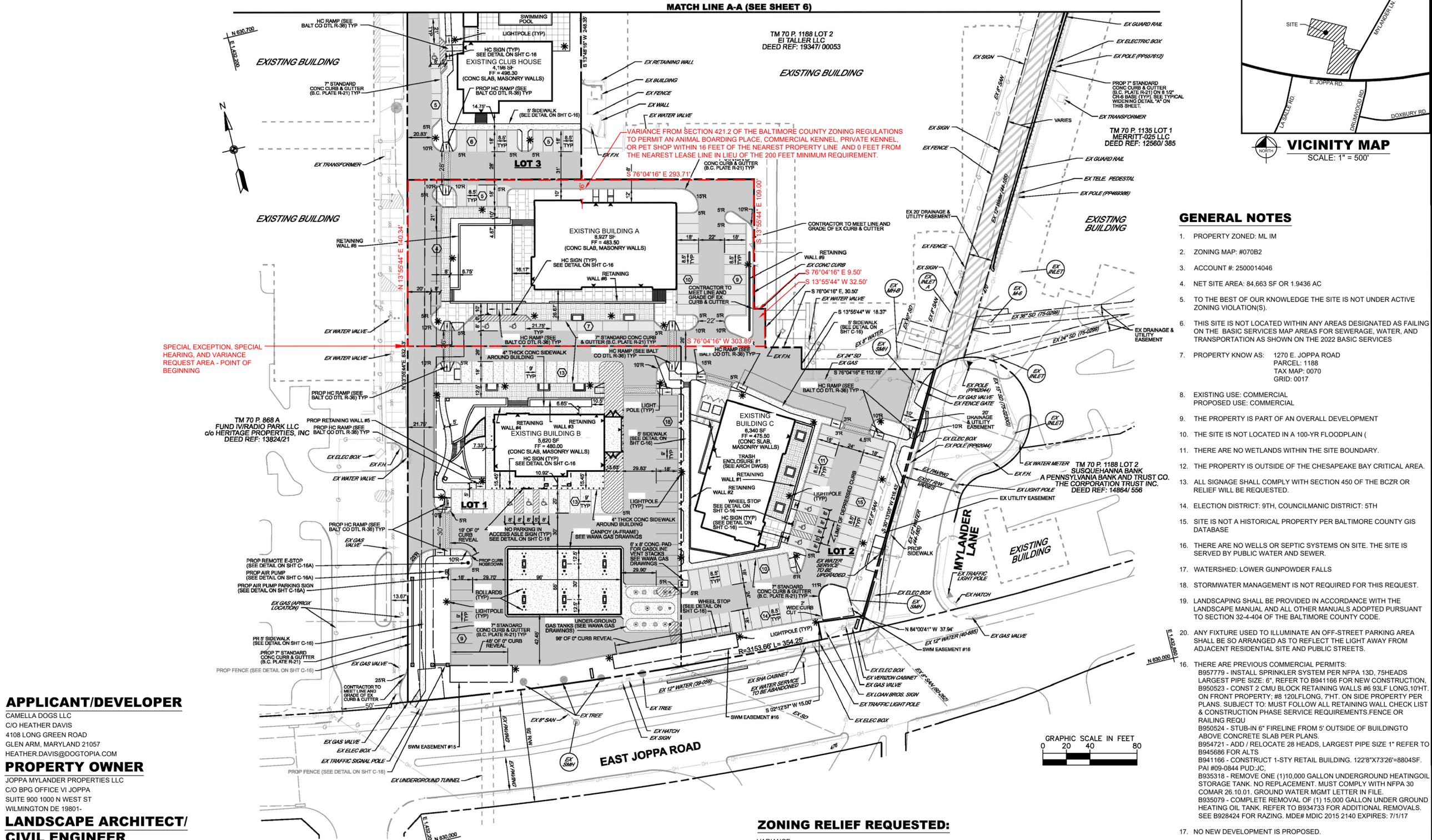


1270 EAST JOPPA ROAD SUITE 200 TOWSON, MD 21286

REVISION table with columns: No., DATE, DESCRIPTION

DWG DATE: 07-20-2022 DRAWN BY: STAFF PROJECT No.: 22155 DWG TITLE: SPECIFICATIONS AND EQUIPMENT SCHEDULE

Plotted By: Bishop, Matt - Sheet Set: 1630_E_JOPPA ROAD - Layout: SITE PLAN - October 28, 2022 11:52:01am - N:\General Marketing\1270 E. Joppa Road_Zoning_Plan.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



GENERAL NOTES

- PROPERTY ZONED: ML IM
- ZONING MAP: #070B2
- ACCOUNT #: 2500014046
- NET SITE AREA: 84,663 SF OR 1.9436 AC
- TO THE BEST OF OUR KNOWLEDGE THE SITE IS NOT UNDER ACTIVE ZONING VIOLATION(S).
- THIS SITE IS NOT LOCATED WITHIN ANY AREAS DESIGNATED AS FAILING ON THE BASIC SERVICES MAP AREAS FOR SEWERAGE, WATER, AND TRANSPORTATION AS SHOWN ON THE 2022 BASIC SERVICES
- PROPERTY KNOW AS: 1270 E. JOPPA ROAD
PARCEL: 1188
TAX MAP: 0070
GRID: 0017
- EXISTING USE: COMMERCIAL
PROPOSED USE: COMMERCIAL
- THE PROPERTY IS PART OF AN OVERALL DEVELOPMENT
- THE SITE IS NOT LOCATED IN A 100-YR FLOODPLAIN (
- THERE ARE NO WETLANDS WITHIN THE SITE BOUNDARY.
- THE PROPERTY IS OUTSIDE OF THE CHESAPEAKE BAY CRITICAL AREA.
- ALL SIGNAGE SHALL COMPLY WITH SECTION 450 OF THE BCZR OR RELIEF WILL BE REQUESTED.
- ELECTION DISTRICT: 9TH, COUNCILMANIC DISTRICT: 5TH
- SITE IS NOT A HISTORICAL PROPERTY PER BALTIMORE COUNTY GIS DATABASE
- THERE ARE NO WELLS OR SEPTIC SYSTEMS ON SITE. THE SITE IS SERVED BY PUBLIC WATER AND SEWER.
- WATERSHED: LOWER GUNPOWDER FALLS
- STORMWATER MANAGEMENT IS NOT REQUIRED FOR THIS REQUEST.
- LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH THE LANDSCAPE MANUAL AND ALL OTHER MANUALS ADOPTED PURSUANT TO SECTION 32-4-404 OF THE BALTIMORE COUNTY CODE.
- ANY FIXTURE USED TO ILLUMINATE AN OFF-STREET PARKING AREA SHALL BE SO ARRANGED AS TO REFLECT THE LIGHT AWAY FROM ADJACENT RESIDENTIAL SITE AND PUBLIC STREETS.
- THERE ARE PREVIOUS COMMERCIAL PERMITS:
 B957779 - INSTALL SPRINKLER SYSTEM PER NFPA 13D, 75HEADS LARGEST PIPE SIZE: 6". REFER TO B941166 FOR NEW CONSTRUCTION, B950523 - CONST 2 CMU BLOCK RETAINING WALLS #6 93LF LONG, 10'HT. ON FRONT PROPERTY, #8 120LF LONG, 7'HT. ON SIDE PROPERTY PER PLANS. SUBJECT TO: MUST FOLLOW ALL RETAINING WALL CHECK LIST & CONSTRUCTION PHASE SERVICE REQUIREMENTS. FENCE OR RAILING REQU
 B950524 - STUB-IN 6" FIRELINE FROM 5' OUTSIDE OF BUILDING TO ABOVE CONCRETE SLAB PER PLANS.
 B954721 - ADD / RELOCATE 28 HEADS, LARGEST PIPE SIZE 1" REFER TO B945686 FOR ALTS
 B941166 - CONSTRUCT 1-STY RETAIL BUILDING. 122'8"x73'26"-88045F. PAI #09-0844 PUD/JC
 B935318 - REMOVE ONE (1) 110,000 GALLON UNDERGROUND HEATING OIL STORAGE TANK. NO REPLACEMENT. MUST COMPLY WITH NFPA 30 COMAR 26.10.01. GROUND WATER MGMT LETTER IN FILE.
 B935079 - COMPLETE REMOVAL OF (1) 15,000 GALLON UNDER GROUND HEATING OIL TANK. REFER TO B934733 FOR ADDITIONAL REMOVALS. SEE B928424 FOR RAZING. MDE# MDIC 2015 2140 EXPIRES: 7/11/17
- NO NEW DEVELOPMENT IS PROPOSED.
- THE SITE DOES NOT EXCEED THE MAXIMUM PERMITTED FLOOR AREA RATIO.

ZONING RELIEF REQUESTED:

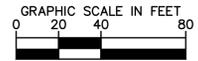
- VARIANCE**
- VARIANCE FROM SECTION 421.2 OF THE BALTIMORE COUNTY ZONING REGULATIONS TO PERMIT AN ANIMAL BOARDING PLACE, COMMERCIAL KENNEL, PRIVATE KENNEL, OR PET SHOP WITHIN 16 FEET OF THE NEAREST PROPERTY LINE AND 0 FEET OF THE NEAREST LEASE LINE IN LIEU OF THE 200 FEET MINIMUM REQUIREMENT; AND
 - FOR SUCH OTHER AND FURTHER RELIEF AS MAY BE DEEMED NECESSARY BY THE ADMINISTRATIVE LAW JUDGE.

SPECIAL EXCEPTION

- SPECIAL EXCEPTION PURSUANT TO SECTION 253.2.C.3 OF THE BALTIMORE COUNTY ZONING REGULATIONS TO PERMIT A COMMERCIAL KENNEL IN THE ML ZONE, AND
- FOR SUCH OTHER AND FURTHER RELIEF AS MAY BE DEEMED NECESSARY BY THE ADMINISTRATIVE LAW JUDGE.

SPECIAL HEARING

- SPECIAL HEARING PURSUANT TO SECTION 500.7 OF THE BALTIMORE COUNTY ZONING REGULATIONS TO WAIVE THE CONDITIONS FOR THE PROPOSED COMMERCIAL KENNEL (SPECIAL EXCEPTION), AS PROVIDED IN SECTION 253.2.C OF THE BALTIMORE COUNTY ZONING REGULATIONS; AND
- FOR SUCH OTHER AND FURTHER RELIEF AS MAY BE DEEMED NECESSARY BY THE ADMINISTRATIVE LAW JUDGE.



APPLICANT/DEVELOPER

CAMELLA DOGS LLC
 C/O HEATHER DAVIS
 4108 LONG GREEN ROAD
 GLEN ARM, MARYLAND 21057
 HEATHER.DAVIS@DOCTOPIA.COM

PROPERTY OWNER

JOPPA MYLANDER PROPERTIES LLC
 C/O BPG OFFICE VI JOPPA
 SUITE 900 1000 N WEST ST
 WILMINGTON DE 19801-

**LANDSCAPE ARCHITECT/
 CIVIL ENGINEER**

KIMLEY-HORN & ASSOCIATES, INC.
 215 WASHINGTON AVE., SUITE 500
 TOWSON, MD 21204
 ATTN: MATT BISHOP, PLA
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MARTIN & PHILLIPS
 DESIGN ASSOCIATES, INC.
 Land Planning, Civil Engineering, Landscape Architecture, Development Consulting, Zoning
 222 Bailey Avenue, Suite 81
 Towson, Maryland 21286
 (410) 321-6666

NO.	REVISIONS	DATE	BY

Kimley-Horn
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 215 WASHINGTON AVE., SUITE 500, TOWSON, MD 21204
 PHONE: 443-743-8500
 WWW.KIMLEY-HORN.COM

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM AN A duly licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

KHA PROJECT	114136004
DATE	10/28/2022
SCALE	AS SHOWN
DESIGNED BY	KMD
DRAWN BY	KMD
CHECKED BY	MAE
LICENSE NO.	3386
EXPIRATION DATE	09/30/2024

**PLAN TO ACCOMPANY
 VARIANCE, SPECIAL
 EXCEPTION, AND SPECIAL
 HEARING**

1270 E. JOPPA ROAD
 PREPARED FOR
CAMELLA DOGS, LLC
 BALTIMORE COUNTY
 MARYLAND