

LOCAL ISSUING AUTHORITY
CITY OF ATLANTA OFFICE OF BULDINGS
55 TRINITY AVENUE, 3RD FLOOR SUITE 3900
ATLANTA, GA 30303
PHONE: 404-330-6150

UTILITY CONTACTS:

ELECTRIC POWER: TBD

PHONE SERVICE: TBD

WATER SERVICE: TBD

SEWER: TBD

CONSTRUCTION PLANS FOR
DAT FIRE JERK CHICKEN
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

GENERAL NOTES:

OWNER/
DEVELOPER: JAY JOHNSON
226 NORTHSIDE DRIVE
ATLANTA, GA 30313
PHONE: 917-615-3122

ENGINEER:
CONTACT: SOUTH ENGINEERING RESOURCES
3470 PRAIRIE DRIVE
SNELLVILLE, GA 30039
PHONE: 404-428-3445

SURVEYOR: DELTA SURVEYORS
260 PEACHTREE STREET NW #2200
ATLANTA, GA, 30303

SITE ADDRESS: 226 NORTHSIDE DRIVE
ATLANTA, GA 30313

- PARCEL NUMBER: 14 00840011135
1. PARCEL AREA: 0.19 ACRES (8,324 S.F.)
2. DISTRICT: 4TH

LAND LOT: 14
3. ALL CONTRACTORS UTILIZING THIS PLAN SET AND THE INFORMATION
CONTAINED THEREON SHOULD CALL 1800-282-7411 3 DAYS BEFORE
BEGINNING CONSTRUCTION.

PROPOSED BUILDINGS USE: COMMERCIAL RESTAURANT
PROPOSED LOT AREA = 8,324 SF

PARCEL QUANTITIES

PERVIOUS CALCULATIONS:
OPEN SPACE AREA: 0.06 ACRES (2,613 S.F.)
0.06 AC./ 0.19 AC. = 32% OPEN SPACE
TOTAL SITE PERVIOUS AREA: 0.10 ACRES (4,356 S.F.) = 53%

IMPERVIOUS CALCULATIONS:
ROOF: 0.03 ACRES (1,320 S.F.)
ASPHALT PAVEMENT: 0.08 ACRES (2,350.00 S.F.)
CONCRETE PAVEMENT: 0.01 ACRES (466 S.F.)*
TOTAL SITE IMPERVIOUS AREA: 0.09 ACRES (4,136 S.F.) = 47%

STATE WATERS DO NOT EXIST ON OR
ARE WITHIN 200 FT OF THIS SITE.

F.I.R.M. NOTE
AS SHOWN ON FLOOD INSURANCE RATE MAP
OF FULTON COUNTY, GEORGIA COMMUNITY
PANEL NUMBER: 13121C0357F
EFFECTIVE DATE: SEPTEMBER 18, 2013
THIS PROPERTY IS LOCATED IN ZONE X

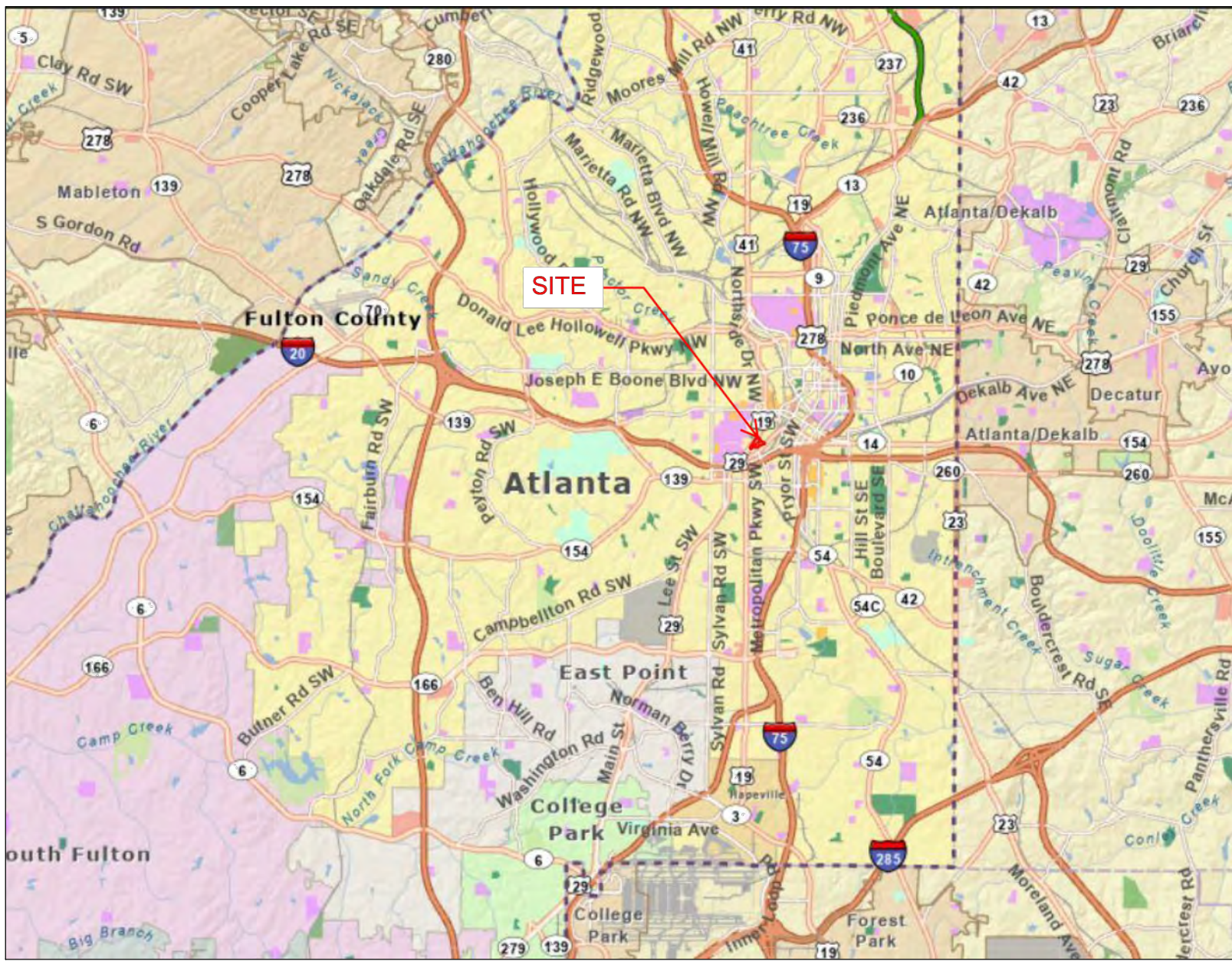
24 HOUR CONTACT
JAY JOHNSON
(917) 615-3122



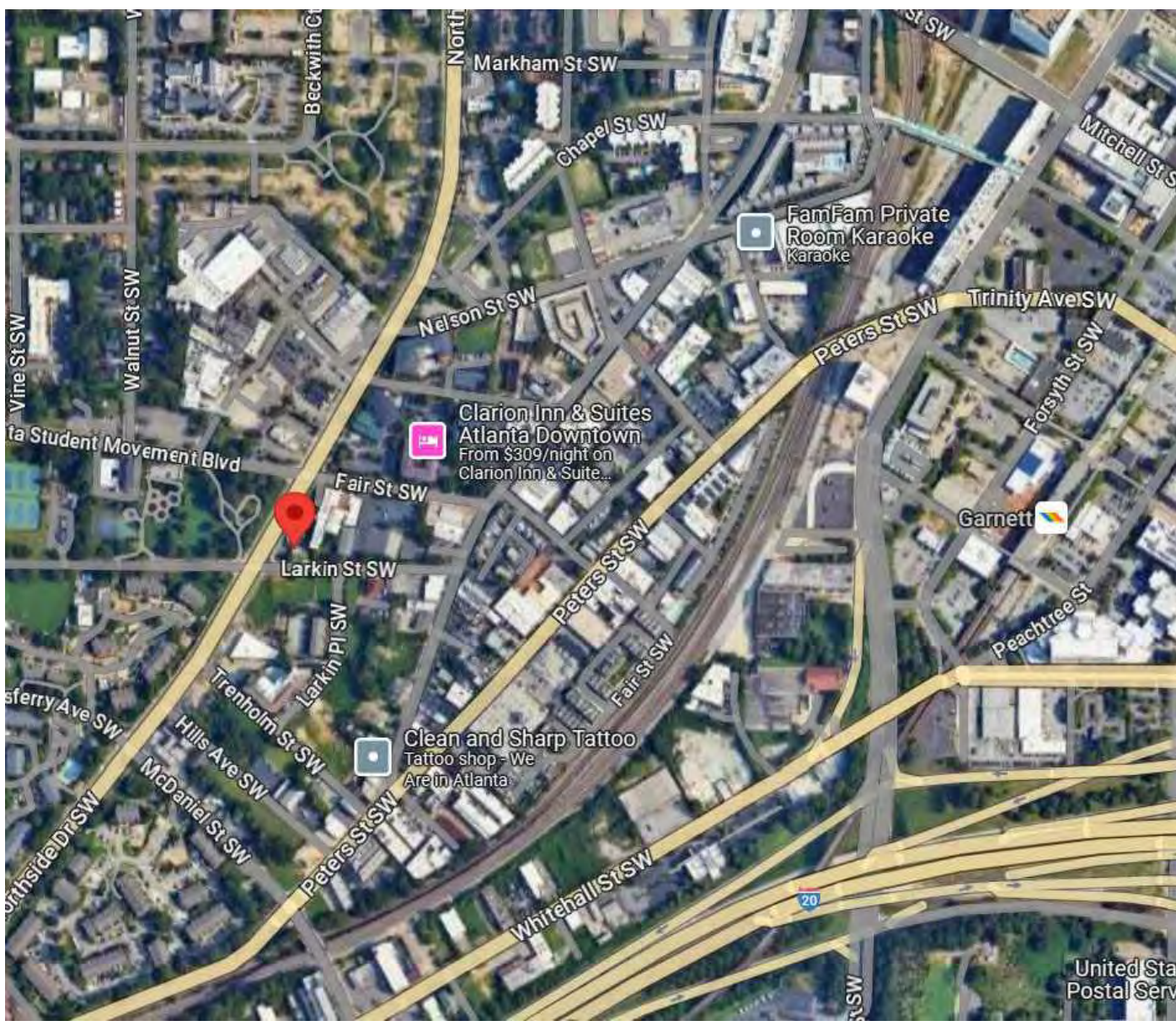
DISTRICT: 4TH
LAND LOT: 14
ZONING : MRC-3 (MIXED RESIDENTIAL COMMERCIAL)
PARCEL ID: 14 00840011135
APRIL 4, 2025

DRAWING INDEX

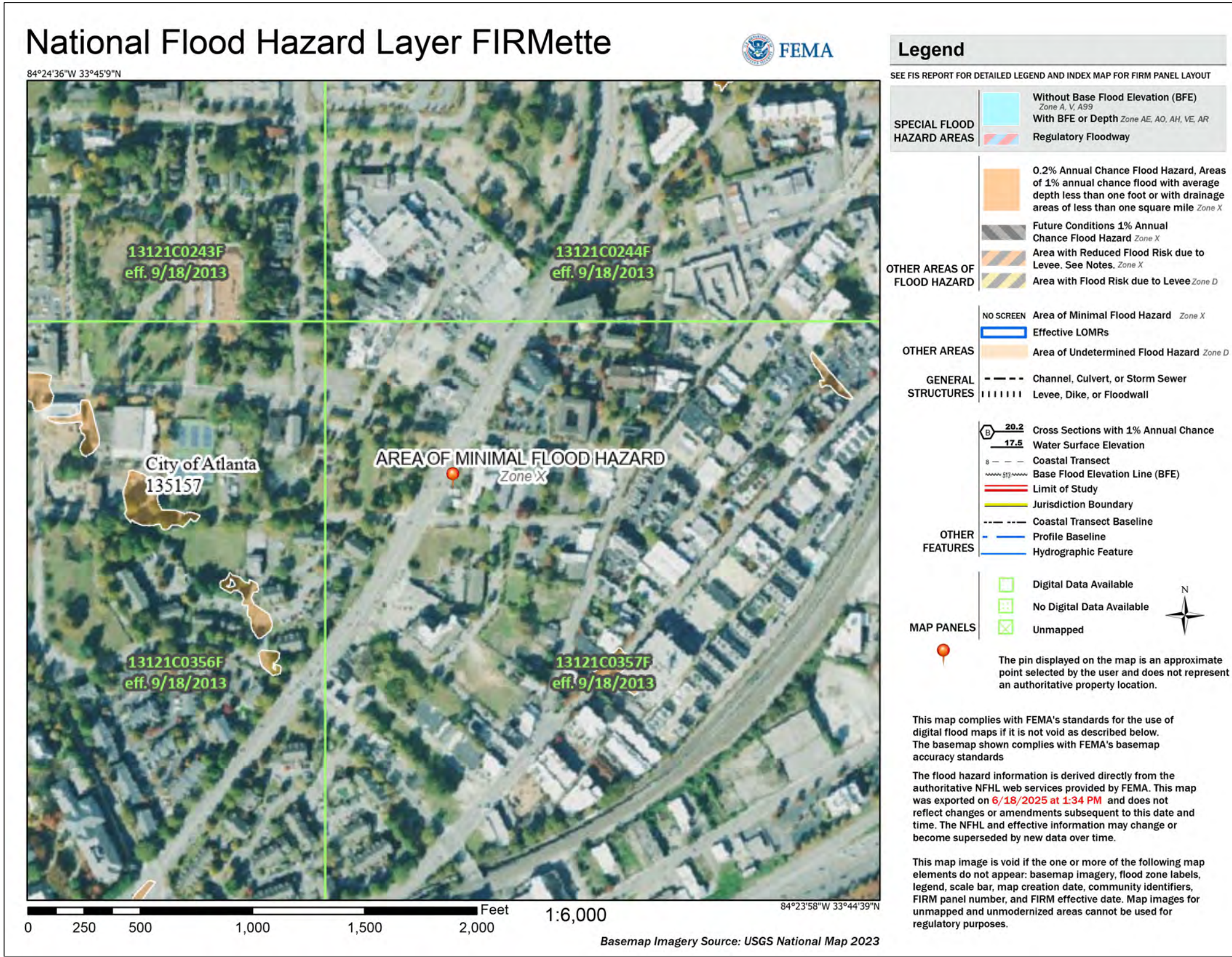
COVER SHEET	G1
EXISTING CONDITIONS	C1
DEMOLITION PLAN	C2
SITE AND GRADING PLAN	C3
EROSION CONTROL PLAN	C4
EROSION CONTROL DETAILS AND NOTES	C5
CIVIL DETAILS	C6



VICINITY MAP



LOCATION MAP



FEMA MAP

EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL VERIFY LOCATION
AND ELEVATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE COST FOR THIS WORK WILL BE AT THE CONTRACTOR'S EXPENSE.

DRAWN BY:	DATE:	APPROVED BY:	TITLE:	DATE:
	DATE:			DATE:
REVIEWED BY:	DATE:			DATE:
	DATE:			DATE:
	DATE:			DATE:



COVER SHEET



SOUTH ENGINEERING
RESOURCES, L.L.C.
3470 PRAIRIE DRIVE
SNELLVILLE, GA 30039

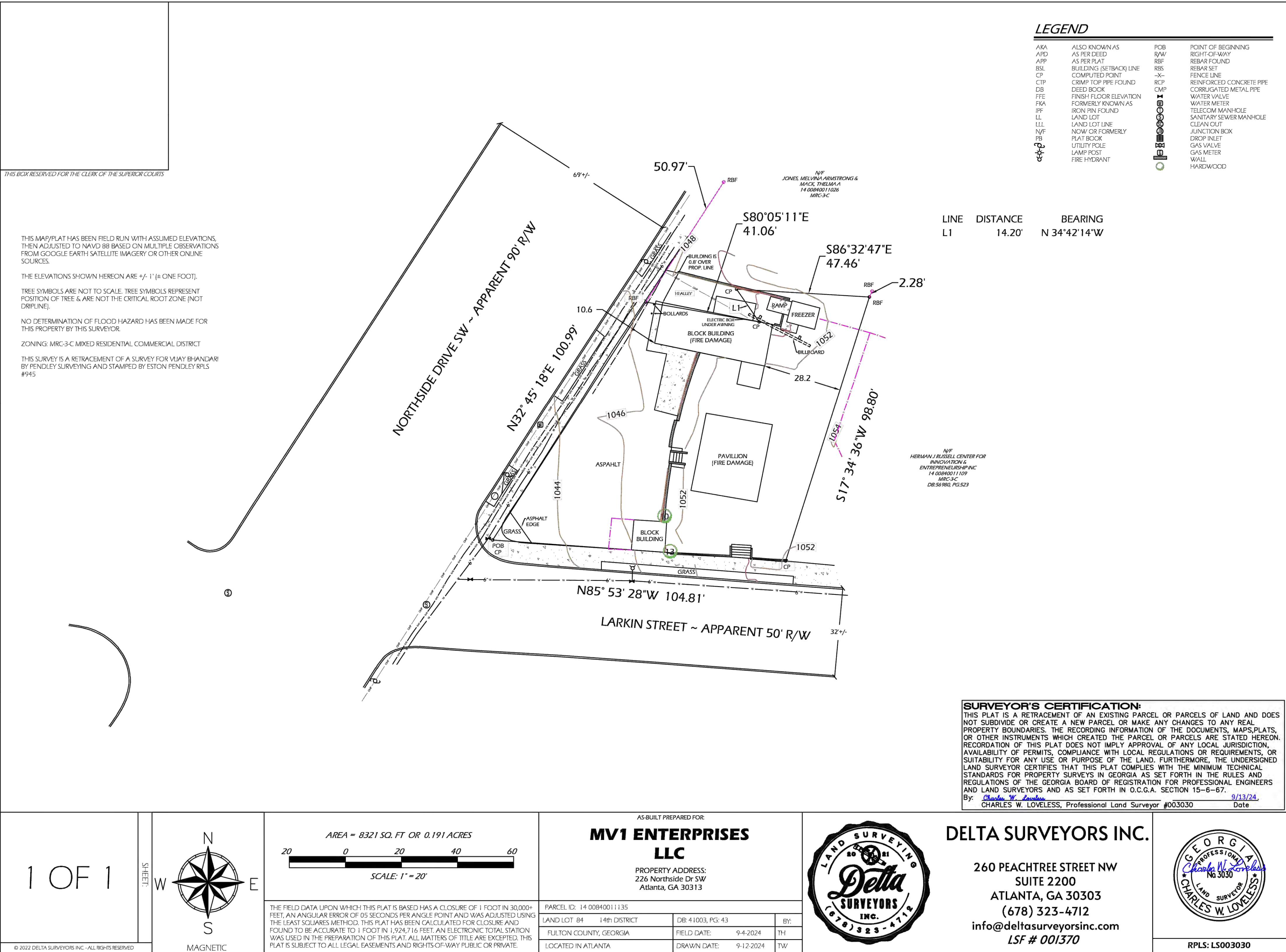
SCALE: N.T.S.

DATE: 05/08/2025

SHEET NO.

G.1

226 NORTHSIDE DRIVE
ATLANTA, GA 30313



DEMOLITION NOTES:

1. PRIOR TO LAND DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING THE CITY SITE DEVELOPMENT INSPECTOR. CALL 404-546-1300.
2. ELEVATIONS SHOWN ARE HEREON ARE PER THE NAVD 1988 DATUM.
3. ALL ELEVATIONS ARE TO BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.
4. NO GRADED SLOPES SHALL EXCEED 2H:1V.
5. ALL CONSTRUCTION AND MATERIALS ARE TO CONFORM TO THE LATEST CODES, STANDARDS, AND SPECIFICATIONS OF THE CITY OF ATLANTA AND FULTON COUNTY.
6. UNDERGROUND UTILITIES ARE SHOWN AS PER SUE PERFORMED BY OTHERS.
7. NO GRADING IS TO BE CONDUCTED IN THE RIGHT-OF-WAY.
8. AT ALL POINTS ALONG THE EXISTING RIGHT-OF-WAY WHERE THE EXISTING CURB HEIGHT IS LESS THAN 5 (FIVE) INCHES HIGH, THE EXISTING CURB SHALL BE REMOVED AND REPLACED OR RESET TO MINIMUM CITY OF ATLANTA REQUIREMENTS AND ADJACENT SIDEWALK REPLACED.
9. EXISTING SANITARY SEWER LINE TO REMAIN IN SERVICE. THE CONTRACTOR IS TO TAKE REASONABLE MEASURES TO MAINTAIN AND PROTECT EXISTING SANITARY SEWER DURING CONSTRUCTION.
10. DEMOLITION TAKING PLACE INSIDE THE CRITICAL ROOT ZONE (C.R.Z.) S IS TO BE DONE BY HAND.
11. NO HEAVY MACHINERY IS ALLOWED WITHIN THE C.R.Z. AREAS.
12. CONTRACTOR AND OWNER MUST ENSUE UTILITIES ARE DISCONNECTED PRIOR TO ANY DEMOLITION WORK TAKING PLACE.
13. NO TREES ARE TO BE DESTROYED DURING DEMOLITION.
14. NO CUT OR FILL OF EARTH WITHIN THE C.R.Z. OF EXISTING TREES IS ALLOWED.

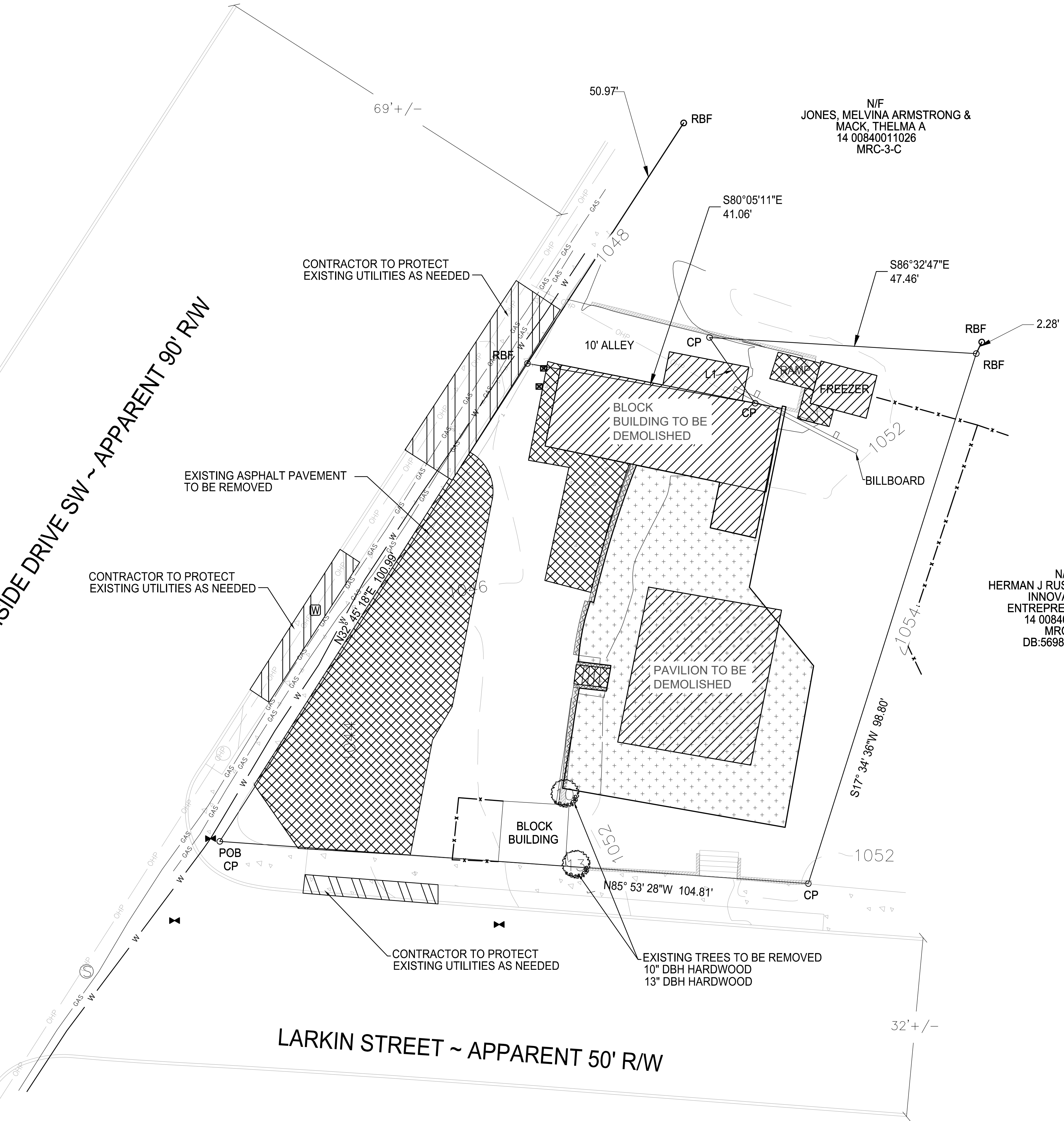
DEMOLITION QUANTITY CALCULATIONS:
15,055 CUFT OF STRUCTURE REMOVED
397 CUFT OF PAVEMENT REMOVED
236 CUFT OF WALL REMOVED
15,688 CUFT OF DEMOLITION MATERIAL
581 CUYD OF DEMOLITION MATERIAL

EARTHWORK CALCULATIONS:
298 CUYD CUT
0 CUYD FILL
NET: 298 CUYD CUT



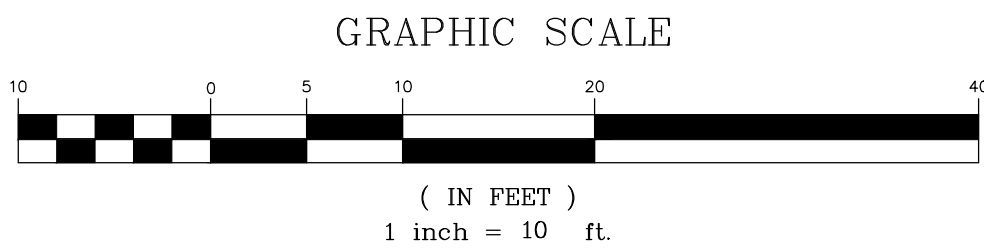
NORTHSIDE DRIVE SW ~ APPARENT 90' R/W

LARKIN STREET ~ APPARENT 50' R/W



LEGEND

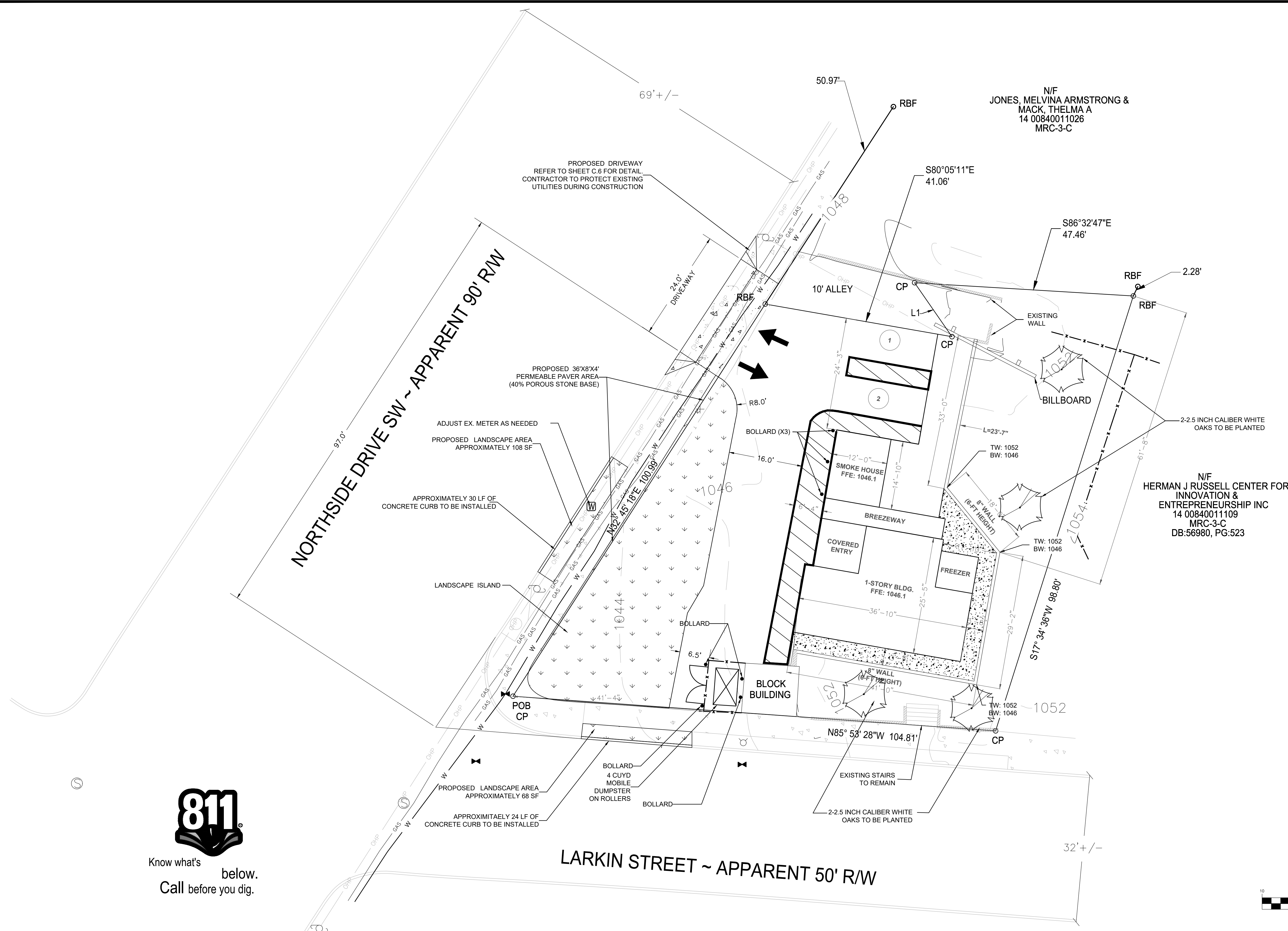
- W — EXISTING WATER
- W — EXISTING WATER METER
- ⊕ — EXISTING HYDRANT
- ⋈ — EXISTING WATER VALVE
- GAS — EXISTING GAS
- OHP — EXISTING OVERHEAD POWER
- ⊕ — EXISTING POWER POLE
- x — x — EXISTING FENCE
- + + + — EXISTING TELEPHONE
- 1046 — EXISTING CONTOUR
- [Pattern] — EXISTING SIDEWALK
- [Pattern] — STRUCTURE DEMOLITION
- [Pattern] — PAVEMENT DEMOLITION
- [Pattern] — CONCRETE DRIVEWAY REMOVAL
- [Pattern] — EXCAVATION
- ~~~~~ — WALL DEMOLITION
- ⊠ — BOLLARD DEMOLITION



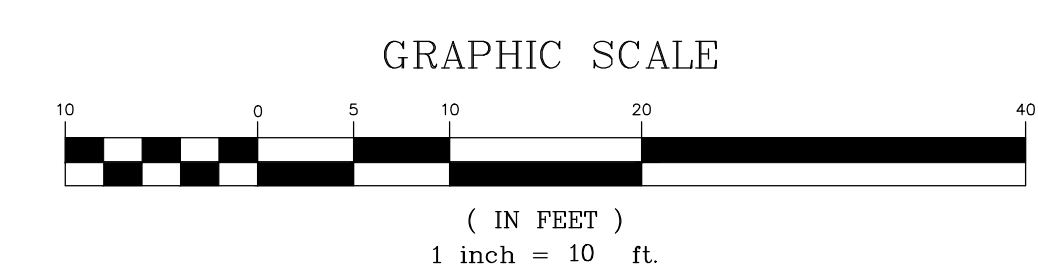
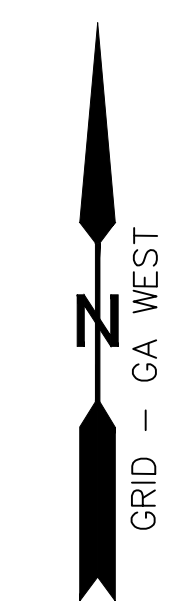
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REVIEWED BY:					DATE:
	DATE:		DATE:		DATE:
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	DATE:		DATE:		DATE:

		DEMOLITION PLAN		SOUTH ENGINEERING RESOURCES	
SOUTH ENGINEERING RESOURCES, L.L.C.		3470 PRAIRIE DRIVE		SNELLVILLE, GA 30039	

SCALE: 1" =10'		DATE: 05/08/2025	
SHEET NO.			
C.2		226 NORTHSIDE DRIVE ATLANTA, GA 30313	



- LEGEND**
- W — EXISTING WATER
 - W — EXISTING WATER METER
 - ⊕ — EXISTING HYDRANT
 - ⊕ — EXISTING WATER VALVE
 - GAS — EXISTING GAS
 - OHP — EXISTING OVERHEAD POWER
 - ⊕ — EXISTING POWER POLE
 - x-x-x — EXISTING FENCE
 - — EXISTING TELEPHONE
 - 1046 — EXISTING CONTOUR
 - EXISTING SIDEWALK
 - PAVEMENT STRIPING
 - — PROPOSED BOLLARD



DRAWN BY:		APPROVED BY:		TITLE:	
DATE:		DATE:		DATE:	
REVIEWED BY:		DATE:		DATE:	
DATE:		DATE:		DATE:	
DATE:		DATE:		DATE:	

	SITE AND GRADING PLAN				
	SOUTH ENGINEERING RESOURCES, L.L.C. 3470 PRAIRIE DRIVE SNELLVILLE, GA 30039				
	SCALE: 1" = 10'				
	DATE: 05/08/2025				

SHEET NO.	226 NORTHSIDE DRIVE ATLANTA, GA 30313
C.3	

PERVIOUS CALCULATIONS:
3368 SF PRE-CONDITIONS PERVIOUS
2490 SF POST-CONDITIONS
NET: 878 SF IMPERVIOUS ADDED

EARTHWORK CALCULATIONS:
298 CUYD CUT
0 CUYD FILL
NET: 298 CUYD CUT

SITE AREA:
8324 SF
0.191 ACRES

DISTURBED AREA:
4684 SF
0.11 ACRES

LEGEND

- W EXISTING WATER
- W EXISTING WATER METER
- HYD EXISTING HYDRANT
- WV EXISTING WATER VALVE
- GAS EXISTING GAS
- OHP EXISTING OVERHEAD POWER
- OHP EXISTING POWER POLE
- X-X EXISTING FENCE
- T EXISTING TELEPHONE
- 1046 EXISTING CONTOUR
- EXISTING SIDEWALK
- EXCAVATION
- INLET PROTECTION
- CONSTRUCTION EXIT
- SILT FENCE
- LIMITS OF DISTURBANCE
- DS1 (MULCHING)
- DS2 TEMPORARY SEEDING
- DS3 PERMANENT SEEDING
- Ds4 PERMANENT SODDING

NORTHSIDE DRIVE SW ~ APPARENT 90' R/W

LARKIN STREET ~ APPARENT 50' R/W

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Joe C. Crooms
Level II Certified Design Professional

CERTIFICATION NUMBER: 0000071173
ISSUED: 04/22/2023 EXPIRES: 04/22/2026



EROSION CONTROL PLAN



**SOUTH ENGINEERING
RESOURCES, L.L.C.**
3470 PRAIRIE DRIVE
SNELLVILLE, GA 30039

SCALE: 1" = 10'

DATE: 05/08/2025

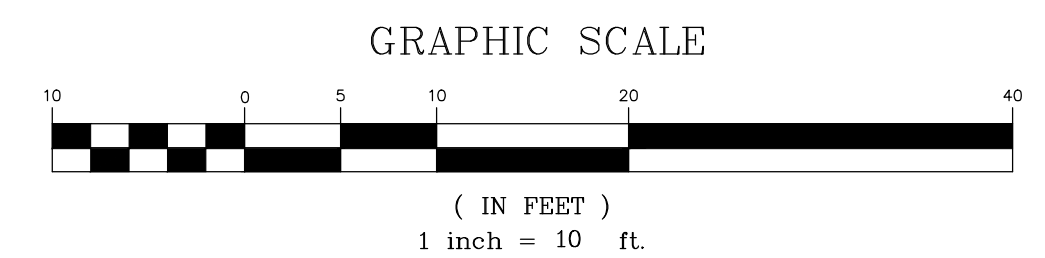
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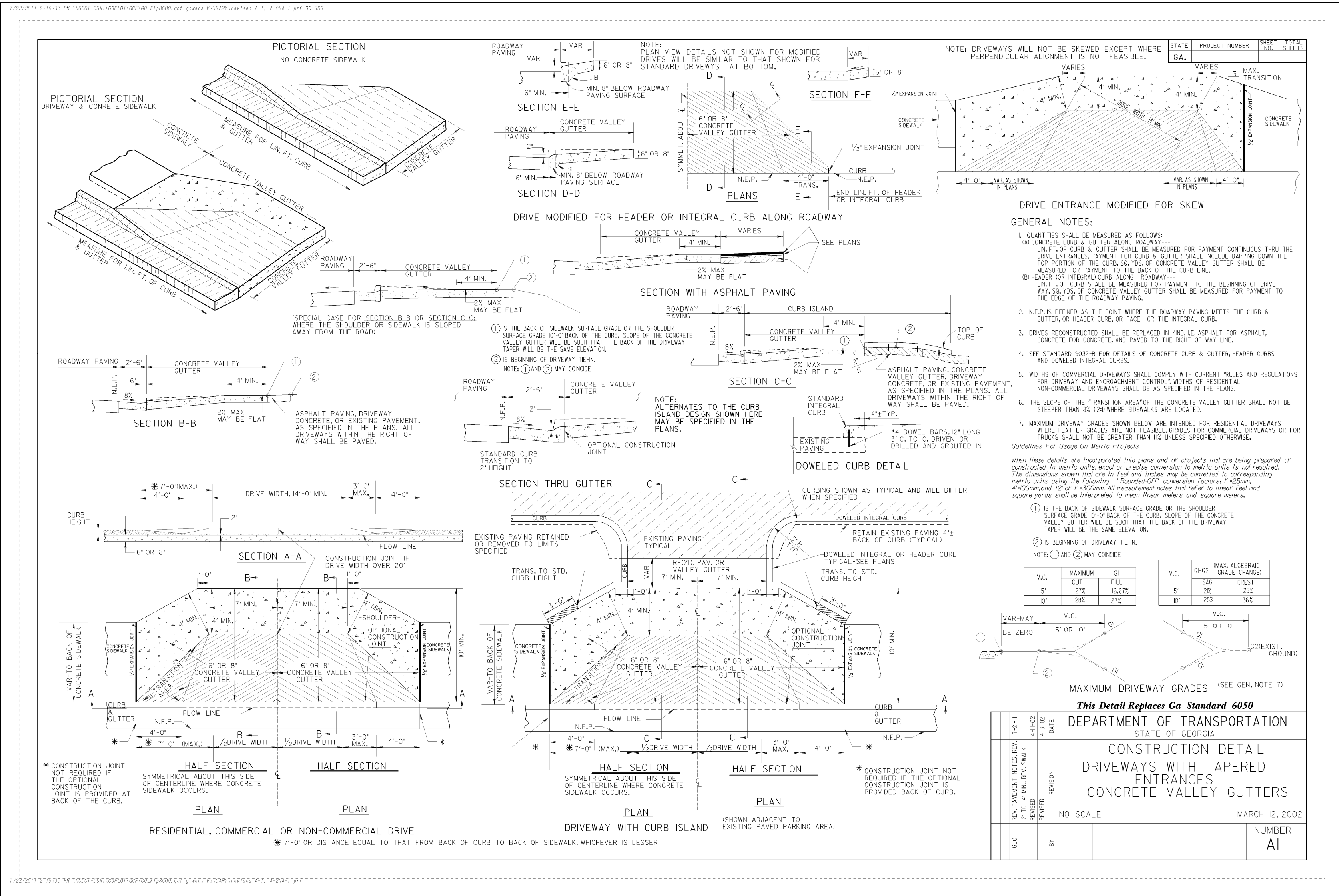
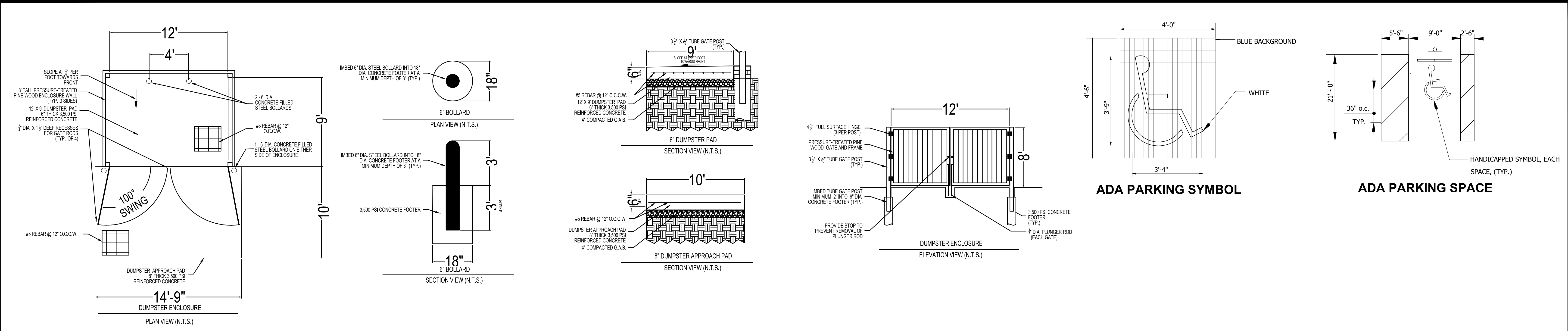
C.4

**226 NORTHSIDE DRIVE
ATLANTA, GA 30313**



Know what's
below.
Call before you dig.





DRAWN BY:	DATE:	APPROVED BY:	TITLE:	DATE:
REVIEWED BY:	DATE:			DATE:
	DATE:			DATE:
	DATE:			DATE:

CIVIL DETAILS

SOUTH ENGINEERING RESOURCES, L.L.C.
3470 PRAIRIE DRIVE
SNELLVILLE, GA 30039

SCALE: N.T.S.		DATE: 05/08/2025
SHEET NO.		
C.6	226 NORTHSIDE DRIVE ATLANTA, GA 30313	

Georgia Stormwater Management Manual

Stormwater Quality Site Development Review Tool

Version 2.2

General Information

Name of Developer:		Date Submitted:	4/4/2025
Development Name:	Dat Fire Jerk Chicken	Permit Number:	
Site Location / Address:	226 Northside Drive	Developer Contact:	Jay Johnson
	Atlanta, GA 30313	Phone Number:	917-615-3122
		Name of Engineer(s):	South Engineering Resources
Development Type:	Commercial/Retail	Maintenance Responsibility:	

Site Summary

Total Pre-Development Area (ac): **0.19**
 Total Post-Development Area (ac): **0.19**
 Total Treated Area (ac): **0.19**
 Total Untreated Area (ac): **0.00**

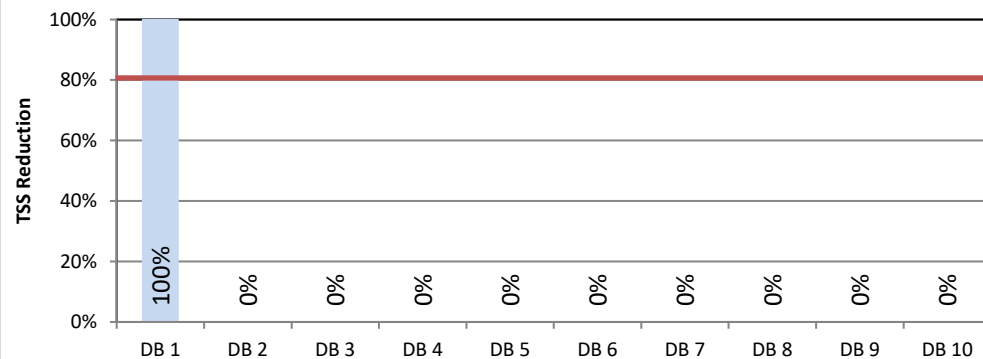
		I (ac)	P (ac)	CA (ac)
Basin 1	DB 1	0.13	0.06	0.00
Drainage Basin 2	DB 2	0.00	0.00	0.00
Drainage Basin 3	DB 3	0.00	0.00	0.00
Drainage Basin 4	DB 4	0.00	0.00	0.00
Drainage Basin 5	DB 5	0.00	0.00	0.00
Drainage Basin 6	DB 6	0.00	0.00	0.00
Drainage Basin 7	DB 7	0.00	0.00	0.00
Drainage Basin 8	DB 8	0.00	0.00	0.00
Drainage Basin 9	DB 9	0.00	0.00	0.00
Drainage Basin 10	DB 10	0.00	0.00	0.00
TOTAL		0.13	0.06	0.00

I = Impervious Area, P = Pervious Area, CA = Conservation Area

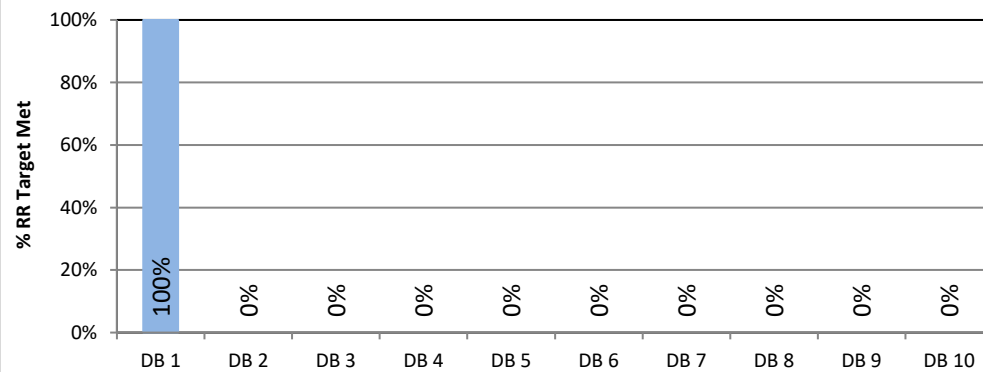
Target Runoff Reduction Volume Achieved? **Yes**
 Target TSS Removal Achieved? **Yes**

 Total Target Runoff Reduction Volume (cf) 459
 Runoff Reduction Volume Achieved (cf) 459
 Total Target Water Quality Volume (cf) 551
 % TSS Removal Achieved 100%

Total Suspended Solids (TSS) Removal



Runoff Reduction (RR)



Official Use Only

Tracking #: _____
 Reviewed By: _____
 Date Approved: _____

Conditions of Approval:

Georgia Stormwater Management Manual
Stormwater Quality Site Development Review Tool, v2.2
Runoff Reduction and TSS Removal Efficiencies

data input cells

constant values

	Runoff Reduction %	Effective TSS Removal %	Runoff Reduction Method	Drainage Area Restrictions	Units	Min/Max
Bioretention Basin (w/ underdrain)	50%	85%	Storage	5	acres	Max
Bioretention Basin (w/ upturned underdrain)	75%	85%	Storage	5	acres	Max
Bioretention Basin (w/o underdrain)	100%	100%	Storage	5	acres	Max
Bioslope (A & B hydrologic soils)	50%	85%	Storage	--	--	--
Bioslope (C & D hydrologic soils)	25%	85%	Storage	--	--	--
Downspout Disconnect (A & B hydrologic soils)	50%	80%	Convey	2500	ft ²	Max
Downspout Disconnect (C & D hydrologic soils)	25%	80%	Convey	2500	ft ²	Max
Dry Detention Basin	0%	60%	Storage	75	acres	Max
Dry Extended Detention Basin	0%	60%	Storage	--	--	--
Dry Well	100%	100%	Storage	2500	ft ²	Max
Enhanced Dry Swale (w/ underdrain)	50%	80%	Storage	5	acres	Max
Enhanced Dry Swale (w/o underdrain)	100%	100%	Storage	5	acres	Max
Enhanced Wet Swale	0%	80%	Storage	5	acres	Max
Grass Channel (A & B hydrologic soils)	25%	50%	Convey	5	acres	Max
Grass Channel (C & D hydrologic soils)	10%	50%	Convey	5	acres	Max
Gravity (oil-grit) Separator	0%	40%	Convey	5	acres	Max
Green Roof	60%	80%	Storage	--	--	--
Infiltration Trench	100%	100%	Storage	5	acres	Max
Multi-Purpose Detention Basin	0%		Storage	--	--	--
Organic Filter	0%	80%	Storage	10	acres	Max
Permeable Paver System (w/ underdrain)	50%	80%	Storage	--	--	--
Permeable Paver System (w/ upturned underdrain)	75%	80%	Storage	--	--	--
Permeable Paver System (w/o underdrain)	100%	100%	Storage			
Pervious Concrete (w/ underdrain)	50%	80%	Storage	--	--	--
Pervious Concrete (w/ upturned underdrain)	75%	80%	Storage			
Pervious Concrete (w/o underdrain)	100%	100%	Storage	--	--	--
Porous Asphalt (w/ underdrain)	50%	50%	Storage	--	--	--
Porous Asphalt (w/ upturned underdrain)	75%	50%	Storage			
Porous Asphalt (w/o underdrain)	100%	100%	Storage	--	--	--
Porous Asphalt (OGFC, PEM)	0%	50%	Convey	--	--	--
Proprietary System						
Rainwater Harvesting			Storage			
Regenerative Stormwater Conveyance	0%	80%	Storage	50	acres	Max
Sand Filter	0%	80%	Storage	10	acres	Max
Site Reforestation/Revegetation	0%	0%	Convey	--	--	--
Soil Restoration (can be used to remediate C & D soils)	0%	0%	Convey	--	--	--
Stormwater Planter / Tree Box	50%	80%	Storage	2500	ft ²	Max
Stormwater Pond	0%	80%	Storage	10-25	acres	Min
Stormwater Wetlands – Level 1	0%	80%	Convey	5	acres	Min
Stormwater Wetlands – Level 2	0%	85%	Convey	5	acres	Min
Submerged Gravel Wetlands	0%	80%	Convey	5	acres	Min
Underground Detention	0%	0%	Convey	--	--	--
Vegetated Filter Strip (A & B hydrologic soils)	50%	60%	Convey	--	--	--
Vegetated Filter Strip (C & D hydrologic soils)	25%	60%	Convey	--	--	--
[User Input 1]						
[User Input 2]						
[User Input 3]						

Georgia Stormwater Management Manual

Stormwater Quality Site Development Review Tool, v2.2

Development Name: Dat Fire Jerk Chicken

Drainage Basin Name: Basin 1

data input cells

calculation cells

constant values

Site Data

Indicate Pre-Development Land Cover and Runoff Curve Numbers in the Site's Disturbed Area

Cover Type	HSG* A (acres)	CN	HSG B (acres)	CN	HSG C (acres)	CN	HSG D (acres)	CN	Total	% Cover
Open space - Fair condition (grass cover 50% to 75%)		49	0.08	69		79		84	0.08	42%
Impervious		98	0.11	98		98		98	0.11	58%
Select a land cover type...		0		0		0		0	0.00	0%
Select a land cover type...		0		0		0		0	0.00	0%
Select a land cover type...		0		0		0		0	0.00	0%
Local Jurisdiction Input									0.00	0%
Other									0.00	0%
Total	0.00		0.19		0.00		0.00		0.19	100%

*HSG = hydrologic soil group

Impervious (ac)	0.11
Weighted CN	86
Potential Max Soil Retention, S _{pre} (in)	1.65

Indicate Post-Development Land Cover and Runoff Curve Numbers in the Site's Disturbed Area

Cover Type	HSG A (acres)	CN	HSG B (acres)	CN	HSG C (acres)	CN	HSG D (acres)	CN	Total	% Cover
Impervious		98	0.13	98		98		98	0.13	68%
Open space - Fair condition (grass cover 50% to 75%)		49	0.06	69		79		84	0.06	32%
Select a land cover type...		0		0		0		0	0.00	0%
Select a land cover type...		0		0		0		0	0.00	0%
Select a land cover type...		0		0		0		0	0.00	0%
Local Jurisdiction Input									0.00	0%
Other									0.00	0%
Total	0.00		0.19		0.00		0.00		0.19	100%

Impervious (ac)	0.13
Rv	0.67
Weighted CN	89
Potential Max Soil Retention, S _{post} (in)	1.26

Conservation Area Credits

Scenario 1: Natural Conservation Area

*See the GSMM Volume 2, Section 2.3.3.3 for more information.

☐

Check the box if a portion of the post-developed area is protected by a conservation easement or equivalent form of protection.

Area (ac) of development protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 1 box above is checked

Scenario 3: Soil Restoration

*See the GSMM Volume 2, Section 4.23 for more information.

☐

Check the box if a portion of the post-developed area employs soil restoration and is protected by a conservation easement or equivalent form of protection.

Area (ac) of development with restored soils and protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 3 box above is checked

Scenario 2: Site Reforestation/Revegetation

*See the GSMM Volume 2, Section 4.22 for more information.

☐

Check the box if a portion of the post-developed area employs site reforestation/revegetation and is protected by a conservation easement or equivalent form of protection.

Area (ac) of development reforested/revegetated and protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 2 box above is checked

Scenario 4: Site Reforestation/Revegetation & Soil Restoration

*See the GSMM Volume 2, Section 4.22 and 4.23 for more information.

☐

Check the box if the same portion of the post-developed area employs site reforestation/revegetation and soil restoration, and is protected by a conservation easement or equivalent form of protection.

Area (ac) with restored soils in a reforested & revegetated area and protected by a conservation easement or equivalent form of protection.

Note: The green cell will unlock if the Scenario 4 box above is checked

Total Conservation Area Credit (acres)

0.00

Georgia Stormwater Management Manual

Stormwater Quality Site Development Review Tool, v2.2

Development Name:

Dat Fire Jerk Chicken

Drainage Basin Name:

Basin 1

data input cells

calculation cells

constant values

Water Quality Goals

Target Runoff Reduction Storm (in)

1.00

Total Site Area for Water Quality Volume (acres)

0.19

Target Runoff Reduction Volume (cf)

459

Target Water Quality Volume (cf)

551

Select BMPs for Runoff Reduction and Water Quality

		Area Draining to Each BMP			Storage Volume Provided by BMP (cf)	RR Conveyance Volume Provided by BMP (cf)	Down-stream BMP	Runoff Reduction Calculations						WQ Calculations		
		On-site Pervious Area (acres)	On-site Impervious Area (acres)	Offsite Area (acres)				RR Volume from Direct Drainage (cf)	RR Volume from Upstream Practices (cf)	Total RR Volume Received by BMP (cf)	Runoff Reduction %	RR Achieved (cf)	Remaining RR Volume (cf)	WQ _v from Direct Drainage (cf)	Effective TSS Removal %	
BMP 1	Permeable Paver System (w/o underdrain)	0.06	0.13		460			459	0	459	100%	459	0	551	100%	
BMP 2	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 3	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 4	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 5	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 6	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 7	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 8	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 9	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
BMP 10	Select a BMP...							0	0	0	N/A	0	0	0	N/A	
TOTAL		0.06	0.13	0.00				459				459			551	
UNTREATED AREA (acres)		0.00	0.00													

Target Runoff Reduction Volume (cf)

459

Target Achieved?

Yes!

Remaining Runoff Reduction Volume (cf)

0

Target Water Quality Volume (cf)

551

% TSS Removal Achieved

100%

Target Achieved?

Yes!

Remaining TSS Removal %

0%

Channel and Flood Protection Calculations

Georgia Stormwater Management Manual

Stormwater Quality Site Development Review Tool, v2.2

Development Name: Dat Fire Jerk Chicken

Drainage Basin Name: Basin 1

data input cells

calculation cells

constant values

	1-yr, 24-hr storm	2-yr, 24-hr storm	25-yr, 24-hr storm	100-yr, 24-hr storm
Target Rainfall Event (in)				

	1-yr, 24-hr storm	2-yr, 24-hr storm	25-yr, 24-hr storm	100-yr, 24-hr storm
Pre-Development Runoff Volume (in)	0.00	0.00	0.00	0.00
Post Development Runoff Volume (in) with no BMPs	0.00	0.00	0.00	0.00
Post-Development Runoff Volume (in) with BMPs	0.00	0.00	0.00	0.00
Adjusted CN	0	0	0	0

*See Stormwater Management Standards to Determine Detention Requirements.

Comments

GENERAL NOTES

1. **SCALE**
REFER TO DRAWING FOR SCALE

2. **CODES**
ANY CHANGES SHALL COMPLY WITH NATIONAL, STATE, AND LOCAL BUILDING CODES

3. **GEORGIA ACCESSIBILITY CODE**
WE CERTIFY THAT WE HAVE PREPARED THESE PLANS IN CONFORMITY WITH GEORGIA ACCESSIBILITY CODE - 120-3-20 FOR MAKING BUILDING AND FACILITIES ACCESSIBLE TO AND USABLE BY PHYSICALLY HANDICAPPED PEOPLE TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF FOR THE SCOPE OF THE WORK HEREIN PERMITTED

4. **JOB SITE**
PRIOR TO SUBMITTING BID, CONTRACTOR SHALL VISIT JOB SITE AND NOTIFY DESIGNER OF ANY PHYSICAL CONDITIONS NOT INCLUDED IN CONSTRUCTION DOCUMENTS WHICH REQUIRE CORRECTIVE ACTION.

5. **FIRE EXTINGUISHERS**
TENANT SHALL INSTALL (1) FIRE EXTINGUISHER FOR EVERY 75 FEET OF TRAVEL DISTANCE, AS INDICATED ON DRAWING, AND AS FURTHER REQUIRED BY GOVERNING CODES.

6. **SITE DISCREPANCIES**
CONTRACTOR TO SITE VERIFY ALL DIMENSIONS AND PRE-EXISTING CONDITIONS; CONTACT DESIGNER AND BUILDING REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS, BEGINNING FABRICATION AND STARTING CONSTRUCTION.

7. **SPRINKLERS-FIRE ALARM**
NON-SPRINKLED/UN-PROTECTED

8. **SEWER**
RECONNECTING TO EXISTING SEWER LINE. USING EXISTING SEWER LATERAL CONNECTION LOCATED IN R/W

9. **GREASE TRAP**
NEW INDOOR GREASE TRAPS PER PLAN

10. **PARKING**
EXISTING PARKING LOT TO BE RE-STRIPPED.



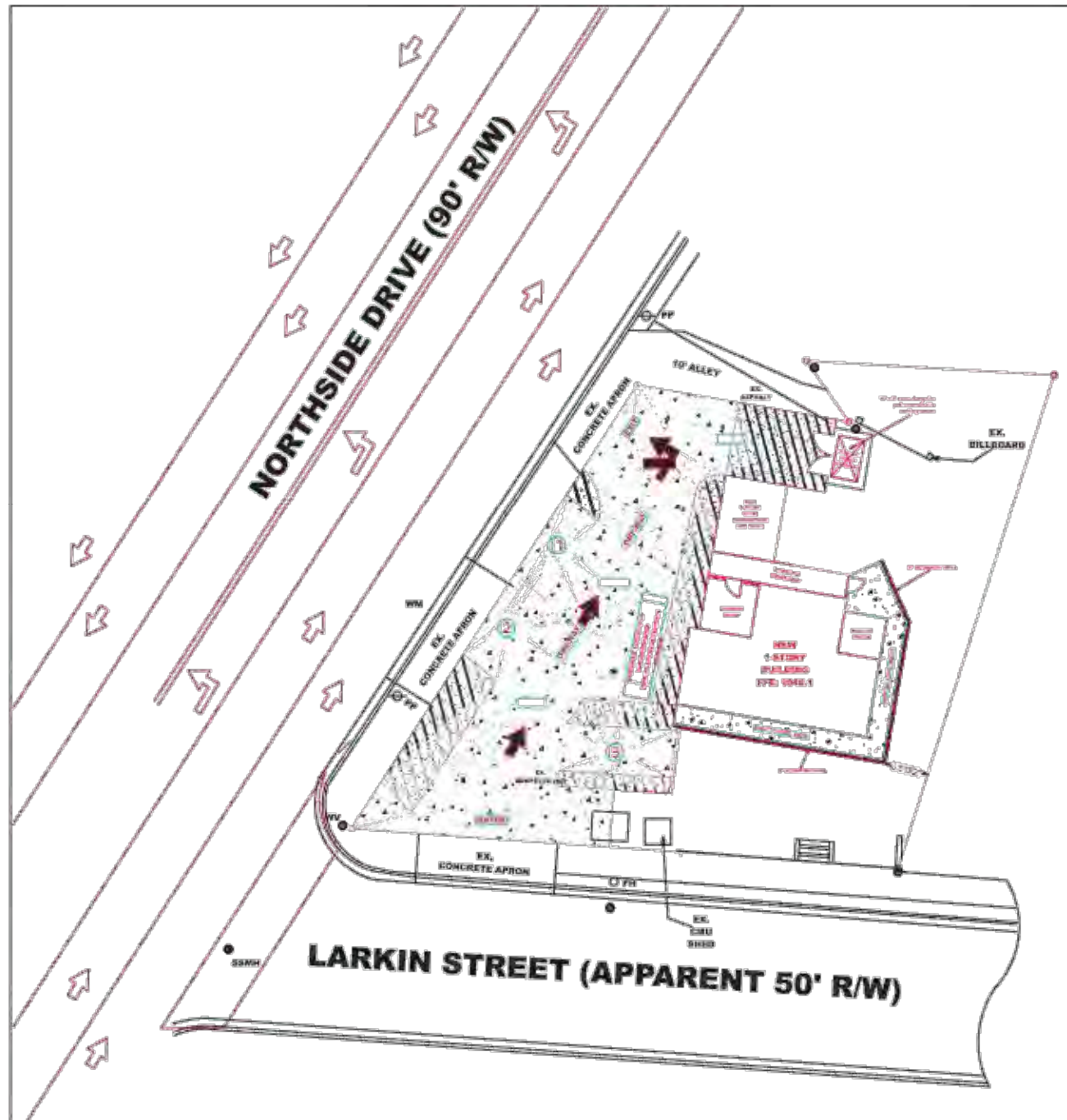
**NEW CONSTRUCTION
(TAKE-OUT ONLY)
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313**

SCOPE OF WORK

NEW CONSTRUCTION ONE-STORY TAKE-OUT RESTAURANT AND SMOKEHOUSE. ORIGINAL STRUCTURE DESTROYED BY FIRE.



VICINITY MAP N.T.S



KEY PLAN N.T.S

GENERAL INFORMATION	
A.) ZONING:	MRC-3-C
(CONDITIONS)	MIXED RESIDENTIAL COMMERCIAL DISTRICT
B.) PROJECT LOCATION:	226 NORTHSIDE DRIVE ATLANTA, GEORGIA 30313
C.) OCCUPANCY CLASSIFICATION:	IBC: ASSEMBLY - GROUP A-2 NFPA: NEW ASSEMBLY
D.) TYPE OF CONSTRUCTION:	TYPE II-B
E.) BUILDING AREA:	MAIN STRUCTURE: 688 SQ. FT. SMOKEHOUSE: 158 SQ. FT. UNHEATED AREA: 394 SQ. FT.
F.) FIRE ALARM:	NON-SPRINKLED-UNPROTECTED
G.) OCCUPANT LOAD:	MAIN STRUCTURE: 33 SMOKEHOUSE: 2
H.) # OF EXITS:	REQUIRED: 2 PROVIDED: 6
I.) PARKING:	REQUIRED: 1 SPACE PER 600 SF PROVIDED: 3 SPACES PROVIDED
J.) TOILETS:	REQUIRED: 1 PROVIDED: 1
K.) EGRESS CALCULATION:	REQUIRED: $35 \times 0.2 = 7"$ PROVIDED: 216"

OCCUPANT LOAD	
ENTRY:	120/7 = 17
ORDER/PICKUP:	75/7 = 10
SERVICE AREA:	86/100 = 1
KITCHEN:	154/100 = 2
STORAGE:	112/300 = 1
SANITATION:	101/100 = 1
SMOKEHOUSE:	158/100 = 2
OFFICE:	31/150 = 1
TOTAL:	35 PEOPLE

- APPLICABLE CODES**
- INTERNATIONAL BUILDING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020)
 - INTERNATIONAL FIRE CODE, 2018 EDITION (NO GEORGIA AMENDMENTS)
 - INTERNATIONAL PLUMBING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020)
 - INTERNATIONAL MECHANICAL CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020)
 - INTERNATIONAL FUEL GAS CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020)
 - NATIONAL ELECTRICAL CODE, 2023 EDITION (NO GEORGIA AMENDMENTS)
 - INTERNATIONAL ENERGY CONSERVATION CODE, 2015 EDITION, WITH GEORGIA SUPPLEMENTS AND AMENDMENTS (2020)
 - INTERNATIONAL SWIMMING POOL AND SPA CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS (2020)
 - NFPA 101 LIFE SAFETY CODE, 2024 EDITION, WITH GEORGIA AMENDMENTS (2020)

DISCLAIMER

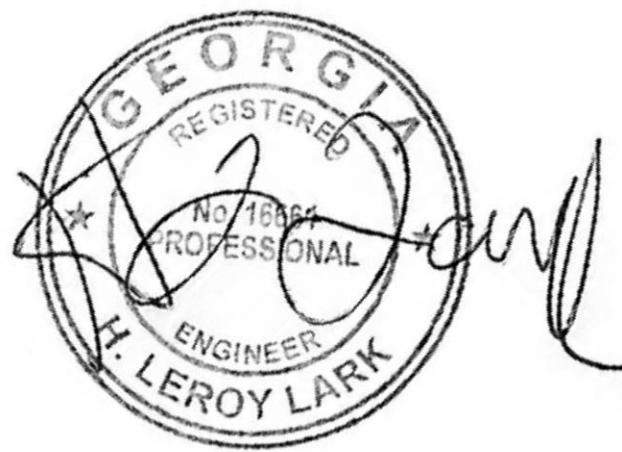
TO THE BEST OF MY KNOWLEDGE THESE PLANS ARE DRAWN TO COMPLY WITH OWNER'S AND/OR BUILDER'S SPECIFICATIONS AND ANY CHANGES MADE ON THEM AFTER PRINTS ARE MADE WILL BE DONE AT THE OWNER'S AND/OR BUILDER'S EXPENSE AND RESPONSIBILITY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENCLOSED DRAWING. KEY DESIGNS/SHONA GRIFFIN IS NOT LIABLE FOR ERRORS ONCE CONSTRUCTION OR MATERIAL PURCHASES HAS BEGUN. WHILE EVERY EFFORT HAS BEEN MADE IN THE PREPARATION OF THIS PLAN TO AVOID MISTAKES, THE MAKER CAN NOT GUARANTEE AGAINST HUMAN ERROR. THE CONTRACTOR OF THE JOB MUST CHECK ALL DIMENSIONS AND OTHER DETAILS PRIOR TO CONSTRUCTION AND BE SOLELY RESPONSIBLE THEREAFTER.

DRAWING INDEX	
C-1	- COVERSHEET
A-1	- ELEVATIONS
A-2	- FLOOR PLAN
A-3	- LIFE SAFETY PLAN
A-4	- FOUNDATION PLAN
A-5	- SECTIONS & TYPICAL DETAILS
A-6	- CEILING PLAN
A-7	- ROOF PLAN
S-1	- STRUCTURAL PLAN
S-2	- STRUCTURAL DETAILS
M-1	- MECHANICAL PLAN
M-2	- MECHANICAL DETAILS
M-3	- MECHANICAL NOTES
M-4	- MECHANICAL NOTES
E-1	- ELECTRICAL POWER PLAN
E-2	- ELECTRICAL LIGHTING PLAN
E-3	- ELECTRICAL NOTES
E-4	- ELECTRICAL NOTES & DETAILS
P-1	- SANITARY PLAN
P-2	- DOMESTIC WATER PLAN
P-3	- PLUMBING NOTES & DETAILS

CONTACT INFORMATION

OWNER:
MY ONE ENTERPRISES, LLC
5 NESBIT RESERVE COURT
ALPHARETTA, GEORGIA 30022
VBHAND1@YAHOO.COM
770-310-1405

TENANT:
DAT FIRE JERK CHICKEN, LLC
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313
DATFIREJERKCHICKEN@GMAIL.COM
917-346-0281



RELEASED FOR CONSTRUCTION



NO.	DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

COVERSHEET

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2611 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-438-5497

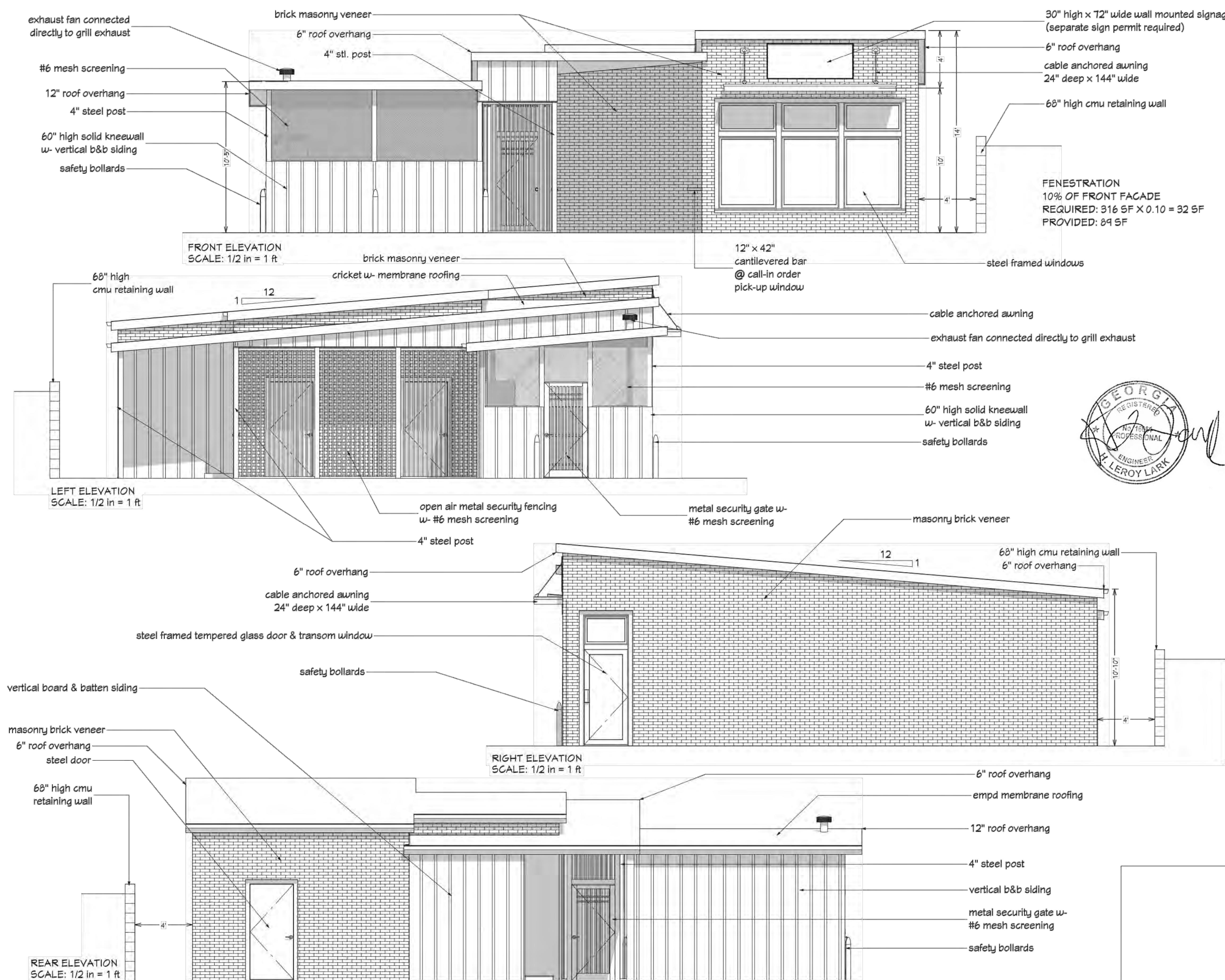
DATE:

4/15/2025


SCALE:

SHEET:

C-1



RELEASED FOR CONSTRUCTION



NO.	DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

ELEVATIONS

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2817 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-438-5497

DATE:

4/15/2025

SCALE:

SHEET:

A-1

EQUIPMENT SCHEDULE

- 1. hand sink w- 1/2" air gap
- 2. 3-compartment sink w/ drain board
- 3. 5-compartment steam table
- 4. 3x9 hood vent
- 5. stainless steel work table
- 6. gas range w-oven
- 7. fryer
- 8. up-right food warmer
- 9. ice machine w- 1/2" air gap
- 10. water heater
- 11. mop sink w- vacuum breaker - 1/2" airgap
- 12. stainless steel prep table w-under counter fridge
- 13. meat prep sink w-1/2" air gap
- 14. vegetable/fruit prep sink w-1/2" air gap
- 15. upright freezer
- 16. walk-in fridge
- 17. 5' high metal storage racks
- 18. drink cooler
- 19. wood/charcoal grill
- 20. ansul fire suppression system
- 21. turbine vent
- 22. dump sink - 1/2" air gap
- 23. employee storage lockers
- 24. hose bib- backflow preventer
- 25. above ground 40lb grease trap
- 26. below ground 200lb grease trap
- 27. gas rice cooker
- 28. countertop warmer
- 29. drink cooler

HEALTH AND SAFETY NOTES

lighting:
all lights to be shielded or fitted with shatter proof light bulbs

floors:
tile floors to be slip-proof mats and duckboards shall be non-absorbent, grease resistant, and such size, design, and construction to facilitate easy cleaning. install new cove base molding to kitchen, restrooms, and service areas as needed.

walls and ceilings:
walls, ceilings, and doors to remain in good repair. the walls including non-supporting partition wall coverings, and ceilings of food prep, food storage, equipment washing, and utensil washing areas, and toilet rooms shall be light colored, smooth, non-absorbent, and easily cleanable.

grease trap:
prep sink and mop sink to be serviced by grease interceptor

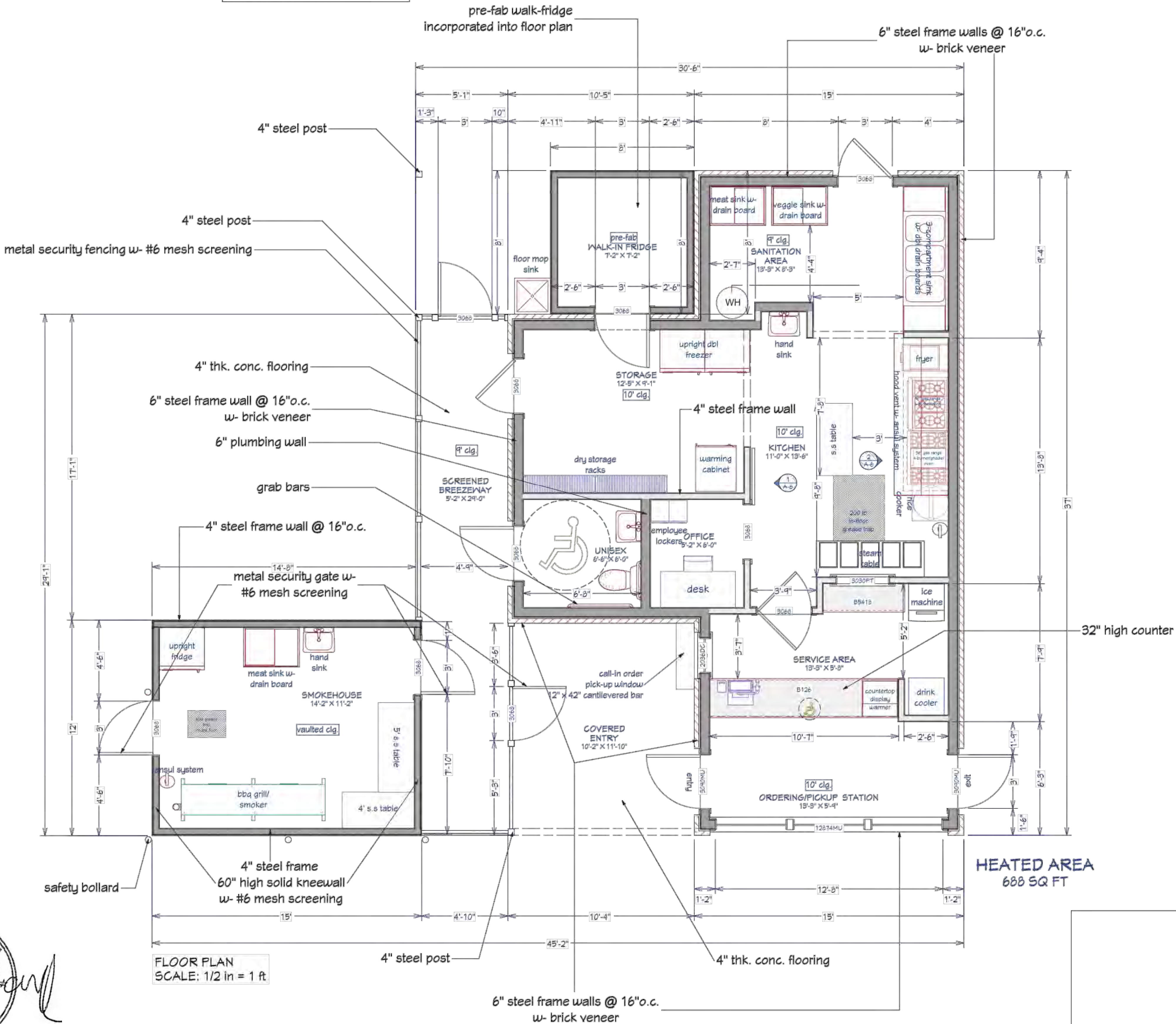
dumpster area:
new dumpster and padding to be installed. hose bib required with vacuum breaker required.

indirect sewer:
3-compartment sink, ice machine, coffee and tea equipment, soda equipment, and hose bib to have indirect sewer connections.

note:
*** all walls and ceiling tiles in prep areas, dishwashing areas, bars, restrooms and front service counter "must be smooth, non-absorbent, non-porous, light in color and easily cleanable surfaces.
- all equipment must be UL and NSF approved

FINISH SCHEDULE

room	floor	wall	base	ceiling	light shields
dining	slip-proof tile	gyp.board w-wipeable paint	cove	2x2 acoustic tile	shielded
food prep areas	slip-proof tile	frp panels	cove	2x2 vinyl tile	shielded
dry goods storage	slip-proof tile	frp panels	cove	2x2 vinyl tile	shielded
restrooms	slip-proof tile	frp panels	cove	2x2 vinyl tile	shielded
walk-in fridge	slip-proof metal	metal panels	n/a	2x2 vinyl tile	shielded



FLOOR PLAN
SCALE: 1/2 in = 1 ft

RELEASED FOR CONSTRUCTION



NO.	DESCRIPTION	BY	DATE

FLOOR PLAN

PROJECT DESCRIPTION & ADDRESS:
DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

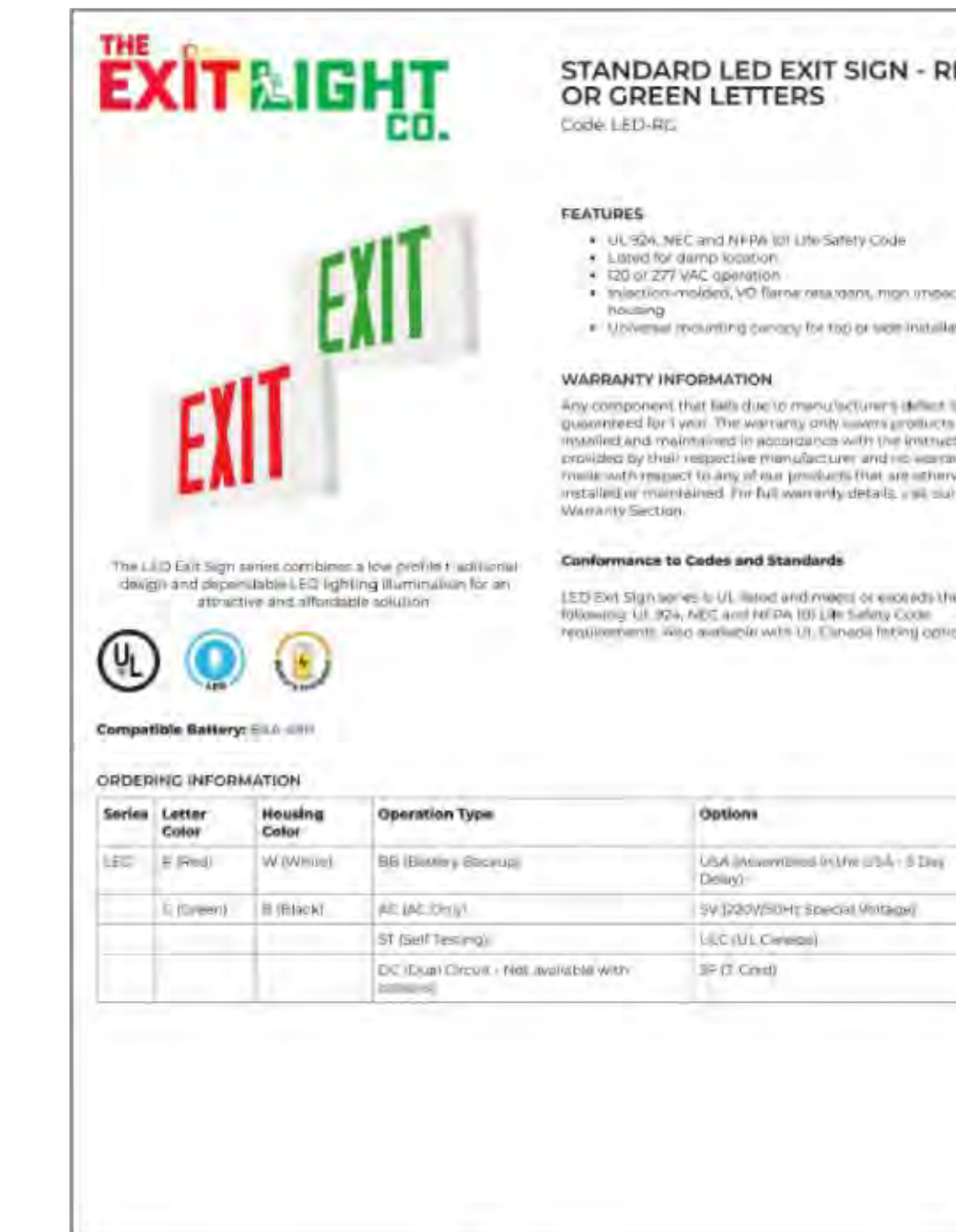
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KEY DESIGNS / SHONA GRIFFIN
2611 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-436-5497





DATE:
4/15/2025

SCALE:

SHEET:
A-2





LIFE SAFETY LEGEND	
	illuminated exit sign
	fire extinguisher
	occupant load
	distribution of occupants



- This unique door closer design is non-handed (can be used on right or left hand doors) and can be mounted in the 3 different configurations below.



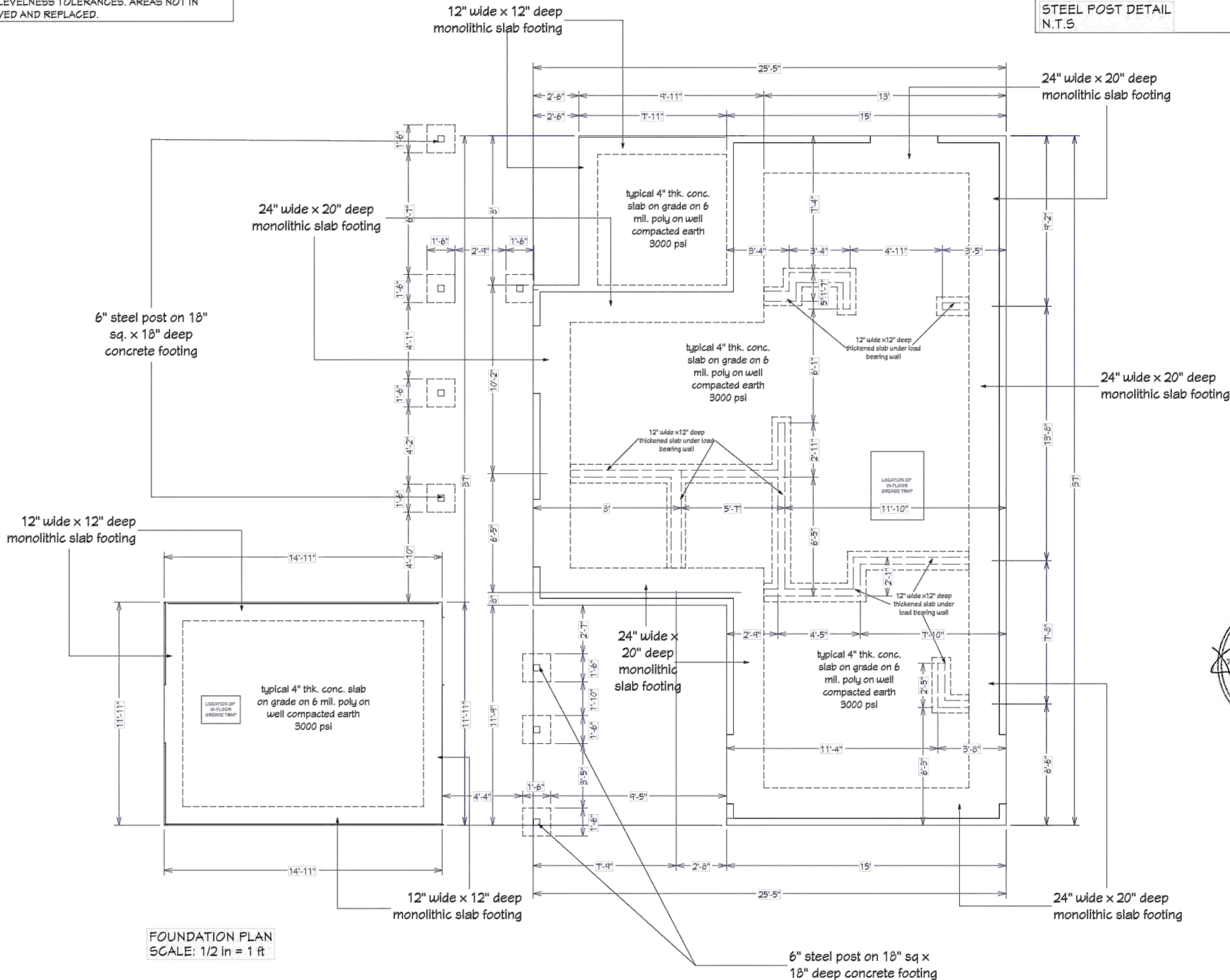
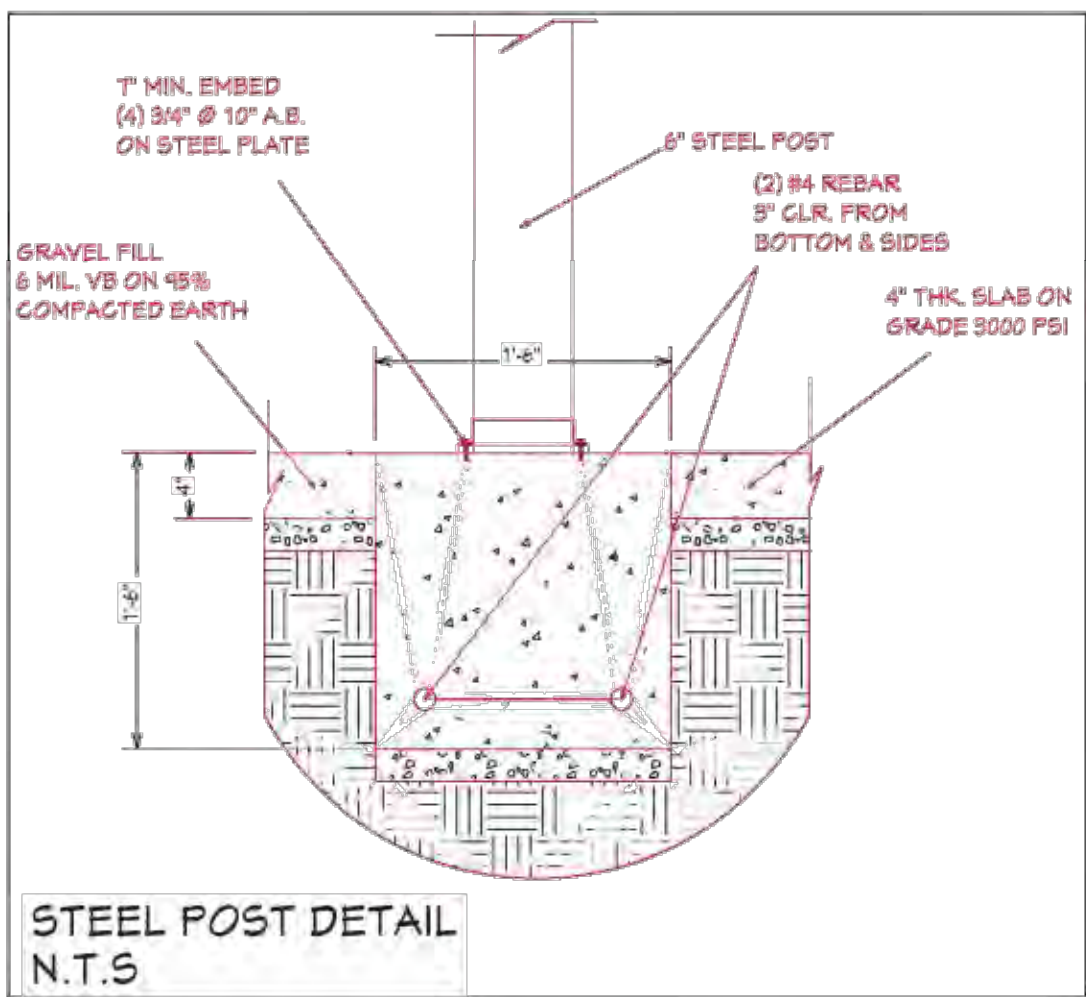
A-3

FOUNDATION GENERAL NOTES

1. THE SLAB THICKNESS SHALL BE 4" THICK MINIMUM.
2. THE TYPICAL EDGE TURNDOWN SHALL BE 12" WIDE X A MINIMUM OF 18" DEEP WITH A MINIMUM OF 12" BENEATH THE EXTERIOR FINISHED GRADE.
3. TURNDOWN FOOTINGS SHALL BE POURED MONOLITHIC WITH THE SLAB AND SHALL BE THE SIZE NOTED ON THE PLANS.
4. THE SLAB SHALL BE SAWCUT TWICE TO A FINAL DEPTH OF 1-1/4" WITHIN 12 HOURS OF POURING SLAB. LOCATE AS SHOWN ON PLANS.
5. THE SLAB SHALL BE WET CURED FOR A MINIMUM OF 4 DAYS AND A CURING AGENT (30 PERCENT SOLIDS) APPLIED AFTER THE WET CURE IS REMOVED. THE WET SHALL BE MAINTAINED CONTINUOUSLY FOR THE 4 DAYS.
6. ALL CONCRETE SHALL BE A STRENGTH OF 3000 PSI IN 28 DAYS, SHALL HAVE A MINIMUM OF 10 PERCENT OF 3/4" AGGREGATE, SHALL HAVE A MAXIMUM SLUMP OF 5", SHALL HAVE A MAXIMUM WATER CEMENT RATIO OF .55 AND SHALL NOT HAVE MORE THAN 1 GALLON OF WATER PER YARD OF CONCRETE ADDED AT THE SITE.
7. THE FOOTING SOIL SHALL BE VIRGIN MATERIAL WITH A SAFE SOIL BEARING PRESSURE OF NOT LESS THAN 3000 PSF. AND THE FAD SHALL BE COMPACTED TO 95 PERCENT STANDARD PROCTOR.
8. THE SLAB SHALL BE POURED WITHIN THE REQUIREMENTS OF ACI-318 REGARDING FLATNESS AND LEVELNESS TOLERANCES. AREAS NOT IN TOLERANCE MUST BE REMOVED AND REPLACED.

GENERAL NOTES

- ALL INTERIOR NON-LOAD BEARING WALLS - FRAME W/STUDS @ 16" O.C. W/ DOUBLE TOP PLATE.
- ALL ANGLES ON PLAN ARE 45 DEGREES UNLESS OTHERWISE NOTED
- VERIFY ALL DIMENSIONS IN THE FIELD.
- ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODE BUILDING CODES.
- WHERE DRAWINGS ARE IN CONFLICT W/OTHER DRAWINGS CONTRACTOR SHALL NOTIFY DESIGNER.



RELEASED FOR CONSTRUCTION

NO.	DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

FOUNDATION PLAN

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2617 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-438-5497

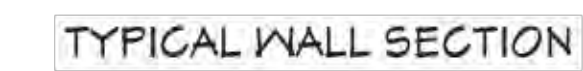
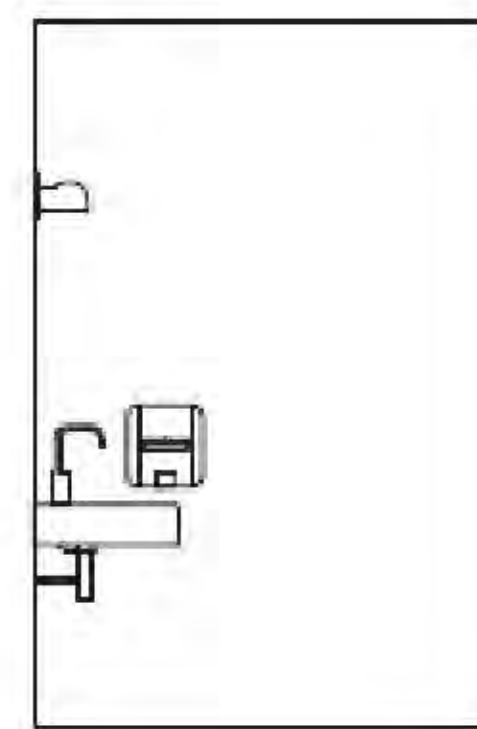
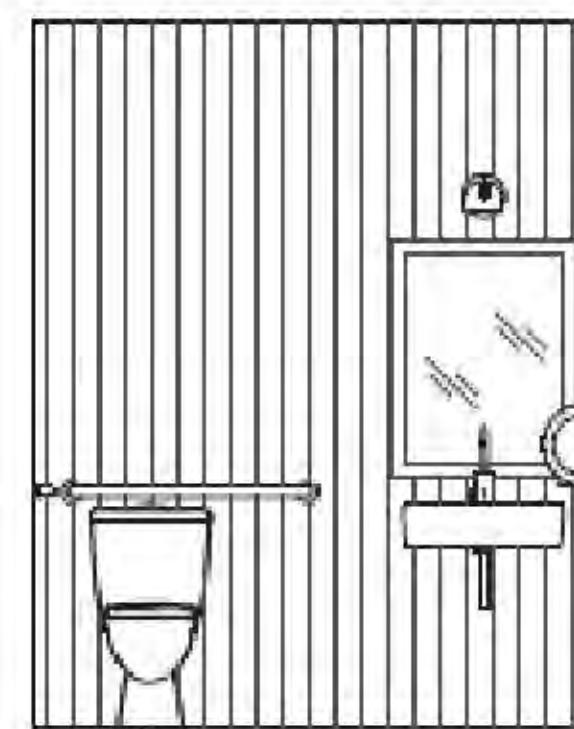
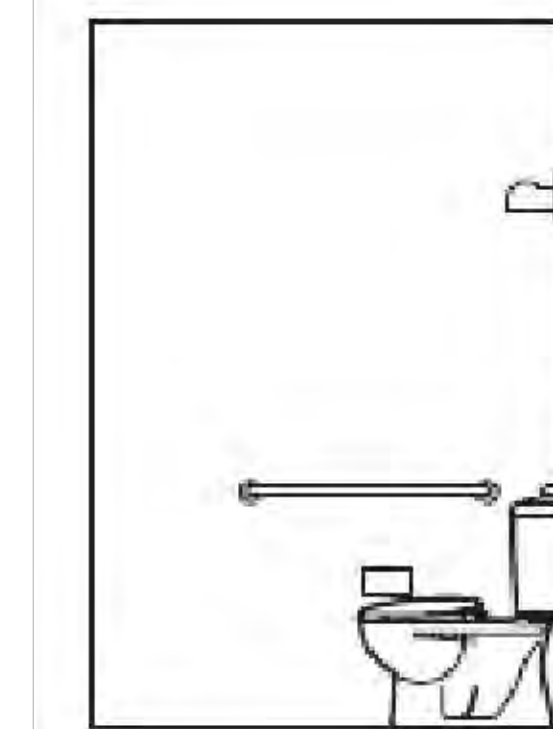
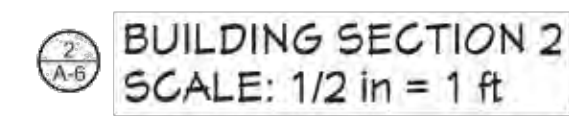
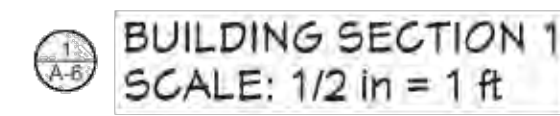
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4/15/2025

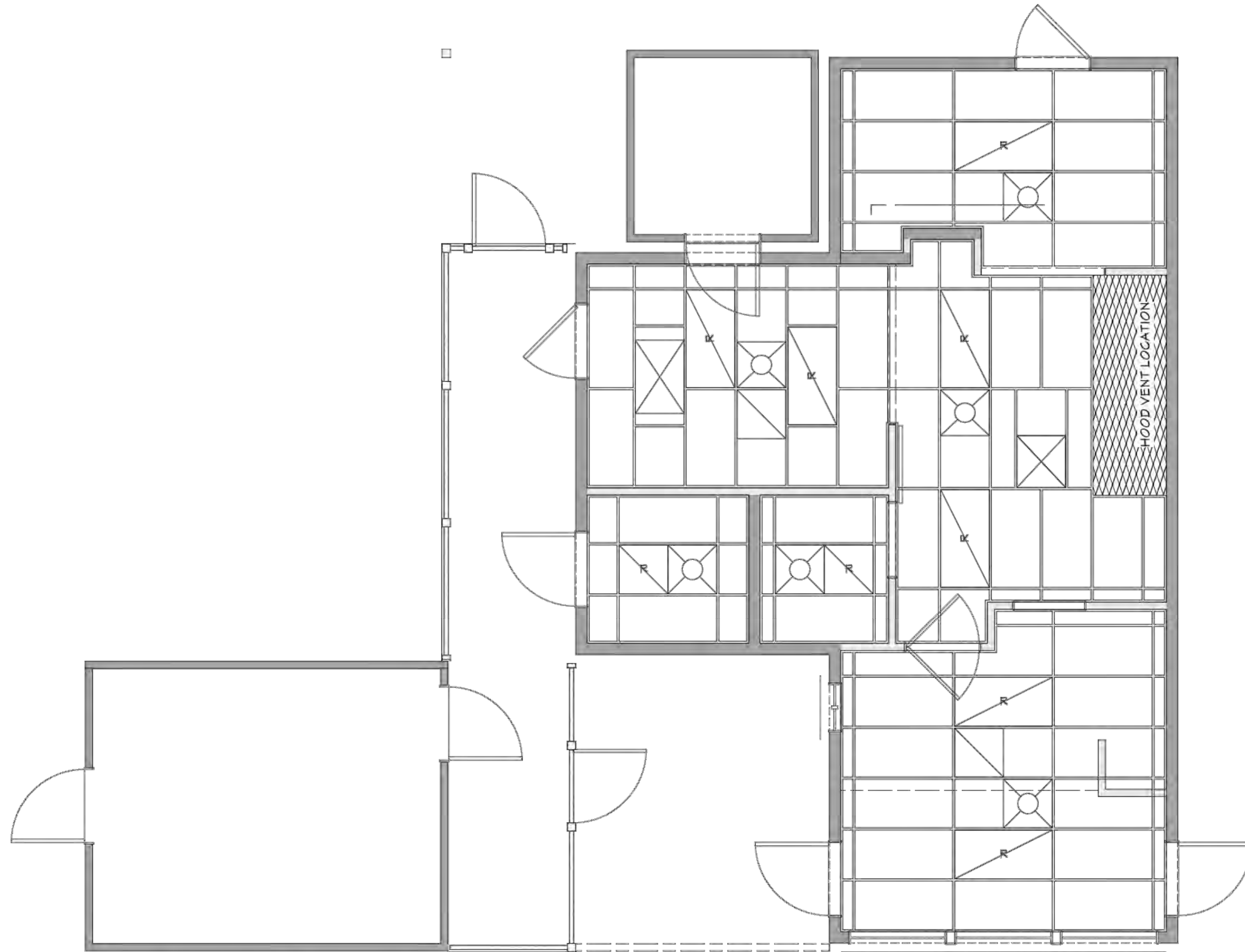
SCALE:

SHEET:

A-4



A-5

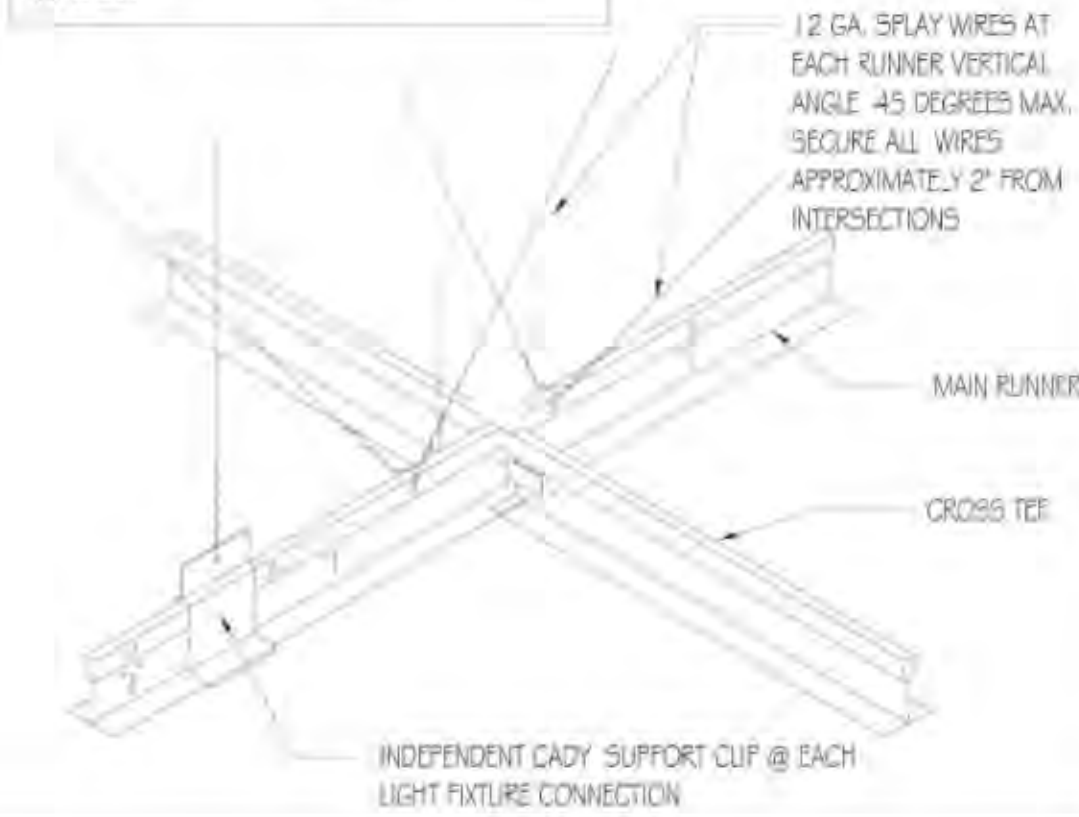


CEILING FRAMING PLAN
SCALE: 1/2 in = 1 ft

CEILING PLAN LEGEND

	HVAC SUPPLY REGISTER
	HVAC RETURN AIR REGISTER
	INDIRECT FLUORESCENT LIGHTING
	ARMSTRONG 2X4 SMOOTH CEILING TILES
	ILLUMINATED EXIT SIGNS W/ BACKUP BATTERY

NOTE:
INSTALL BRACING 12'-0" O.C. EA.
WAY & WITHIN 4'-0" OF PERIMETER
WALLS.



DROP CEILING DETAIL N.T.S



RELEASED FOR CONSTRUCTION



NO.	DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

CEILING PLAN

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2611 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-438-5497

DATE:

4/15/2025

SCALE:

SHEET:

A-6

CRIPPLE STUDS

ATTACH TRACK
N/ (2) #10 S.M.S.
16"oc U.N.O.

HEADER PER SCHEDULE ON SHT. 53.0

T4B OF HEADER TYP.

6" x 60mil TRACK PIECE
N/ (3) #10 S.M.S. TO JAMB
(4) #12 S.M.S. TO EA. FACE OF HEADER

FULL HT. DBL. JAMB STUDS U.N.O.

(1) #10 S.M.S. EA. FLANGE TYP.

#10 S.M.S. # 12"oc TYP.

TRACK T4B OF BOX HEADER PER SCHEDULE

FULL HEIGHT DBL. JAMB STUDS U.N.O. SEE PLAN & ARCH'L. CONT. TRACK N/ PDPA-150' SHOT PINS PER DETAILS

(2) #10 S.M.S. # 24"oc

(3) PDPA-150' SHOT PINS - JAMB

#10 S.M.S. EA. SIDE # 24"oc

1 1/2"

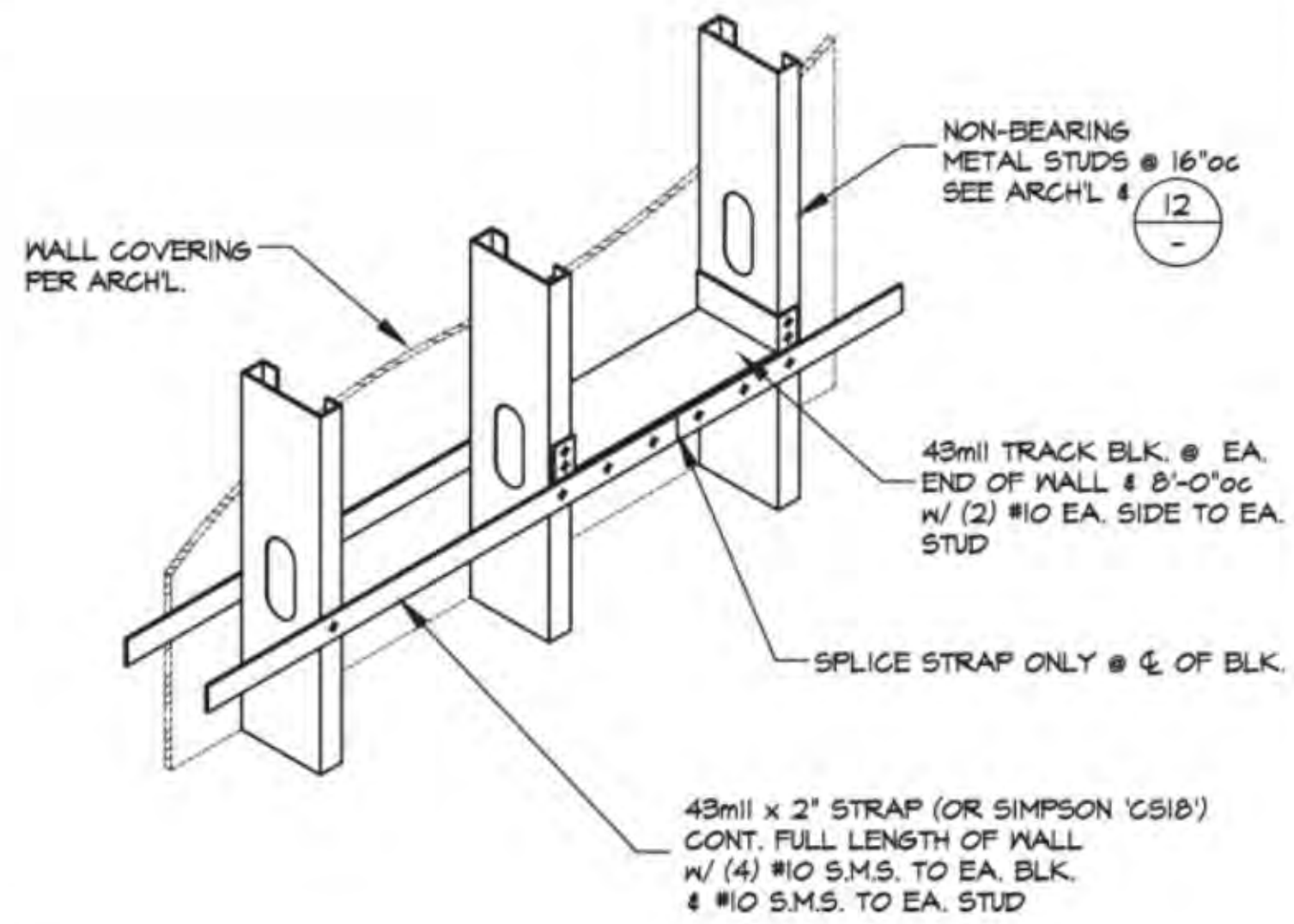
1 1/2"

1 1/2"

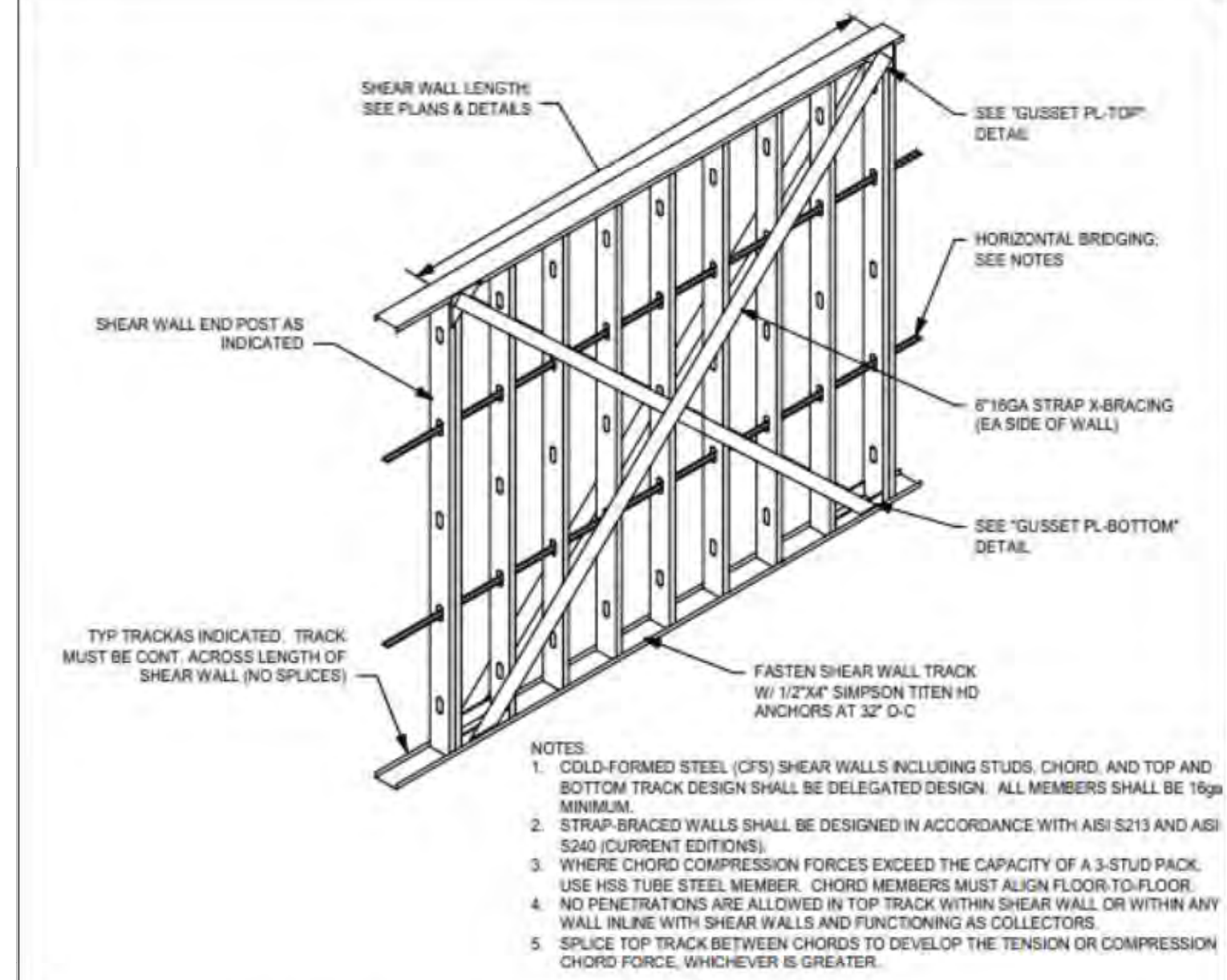
1 1/2"

TYP. JAMB ASSEMBLY - SLAB

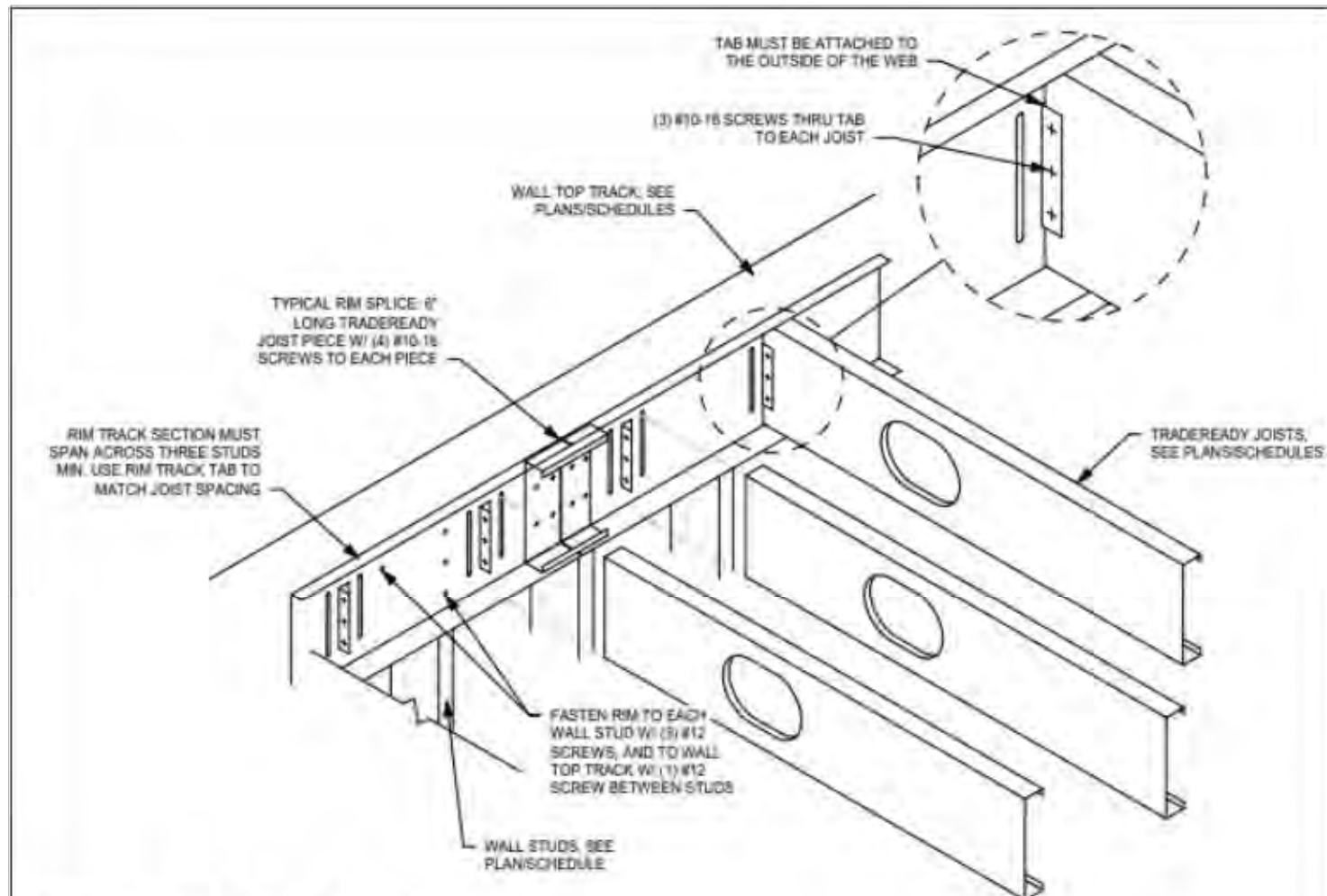
TYP. JAMB ASSEMBLY



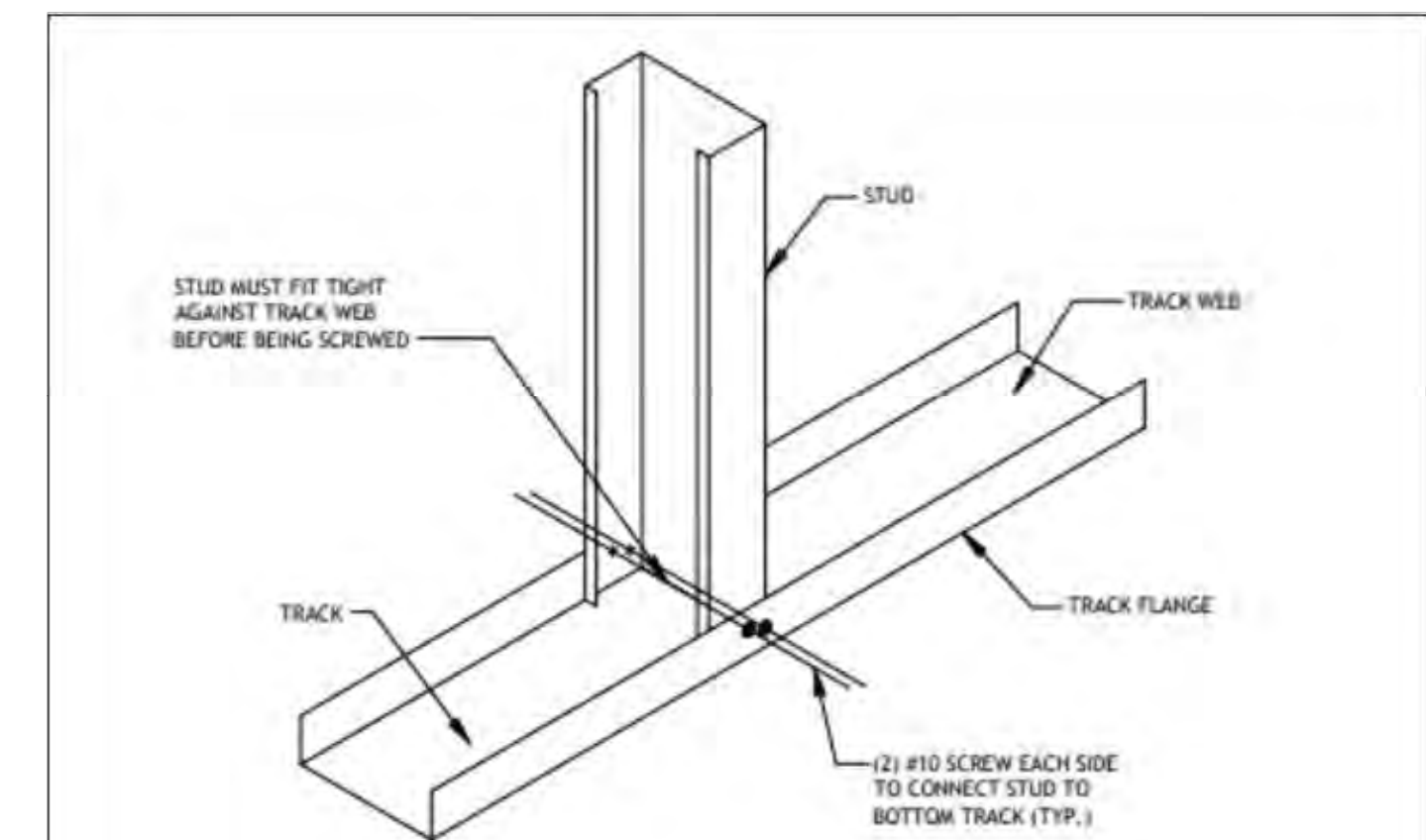
NOTE:
BLKG. & STRAP SHALL OCCUR @ 48"oc MAX.
VERTICAL SPACING. WALL COVERING ON
BOTH SIDES OF WALL MAY BE USED IN LIEU
OF BLKG. & STRAP.



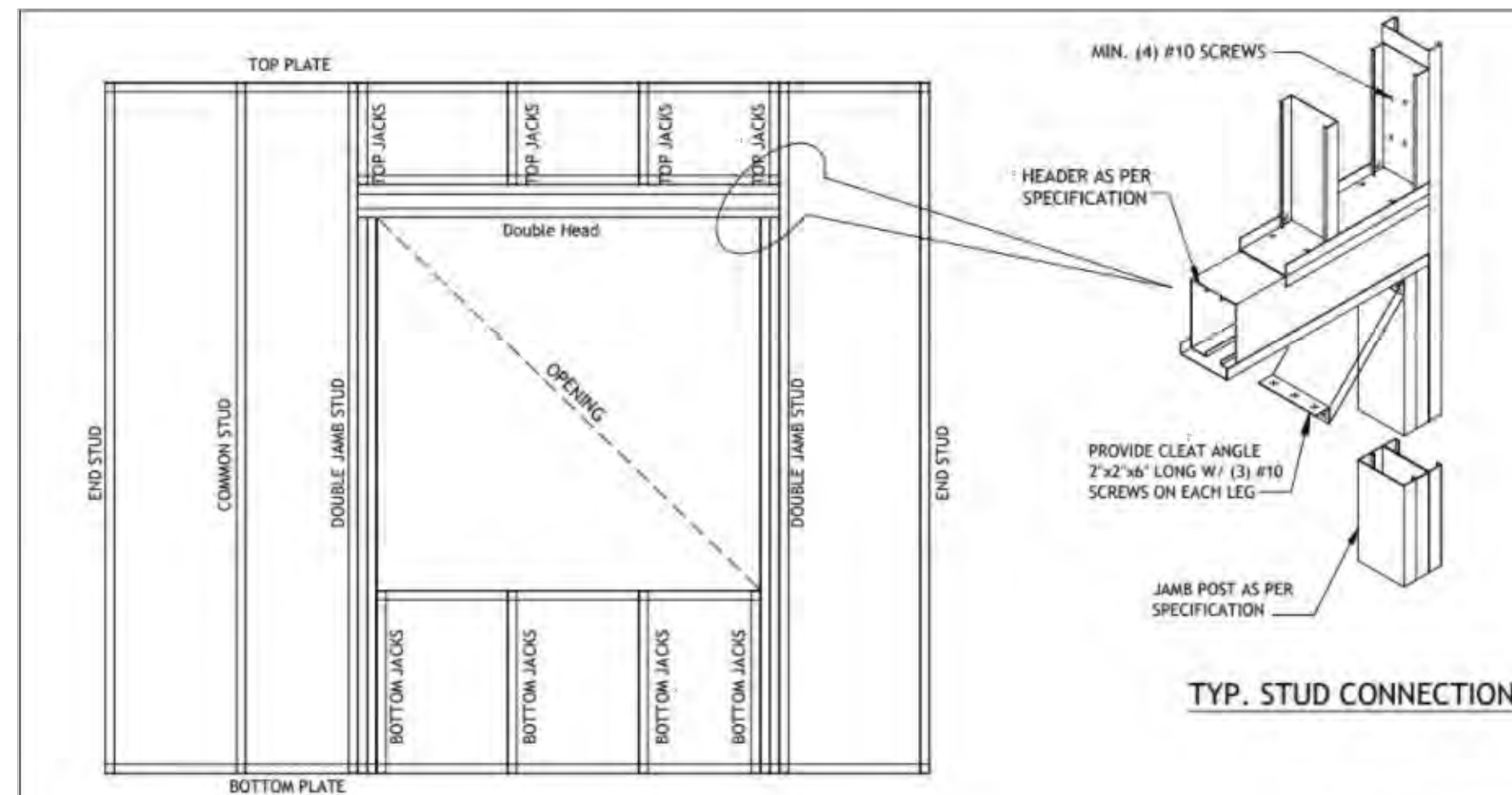
CFS-DIAGONAL STRAP SHEAR WALL DETAIL
NO SCALE



CFS-RIM TRACK TYPICAL DETAIL
NO SCALE



TYP. DETAIL @ STUD TO SILL/ BOTTOM TRACK CONNECTION
(INTERNAL WALLS)



TYP. STUD CONNECTION

NOTE:

1. FOR STUD THK UPTO 43mil USE MIN. #10 SCREWS FOR CONNECTION
2. FOR STUD THK UPTO 54mil USE MIN. #12 SCREWS FOR CONNECTION
3. FOR STUD THK UPTO 118mil USE MIN. #14 SCREWS FOR CONNECTION



RELEASED FOR CONSTRUCTION

NO.	DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:
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2617 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-438-5497

DATE:

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SCALE:

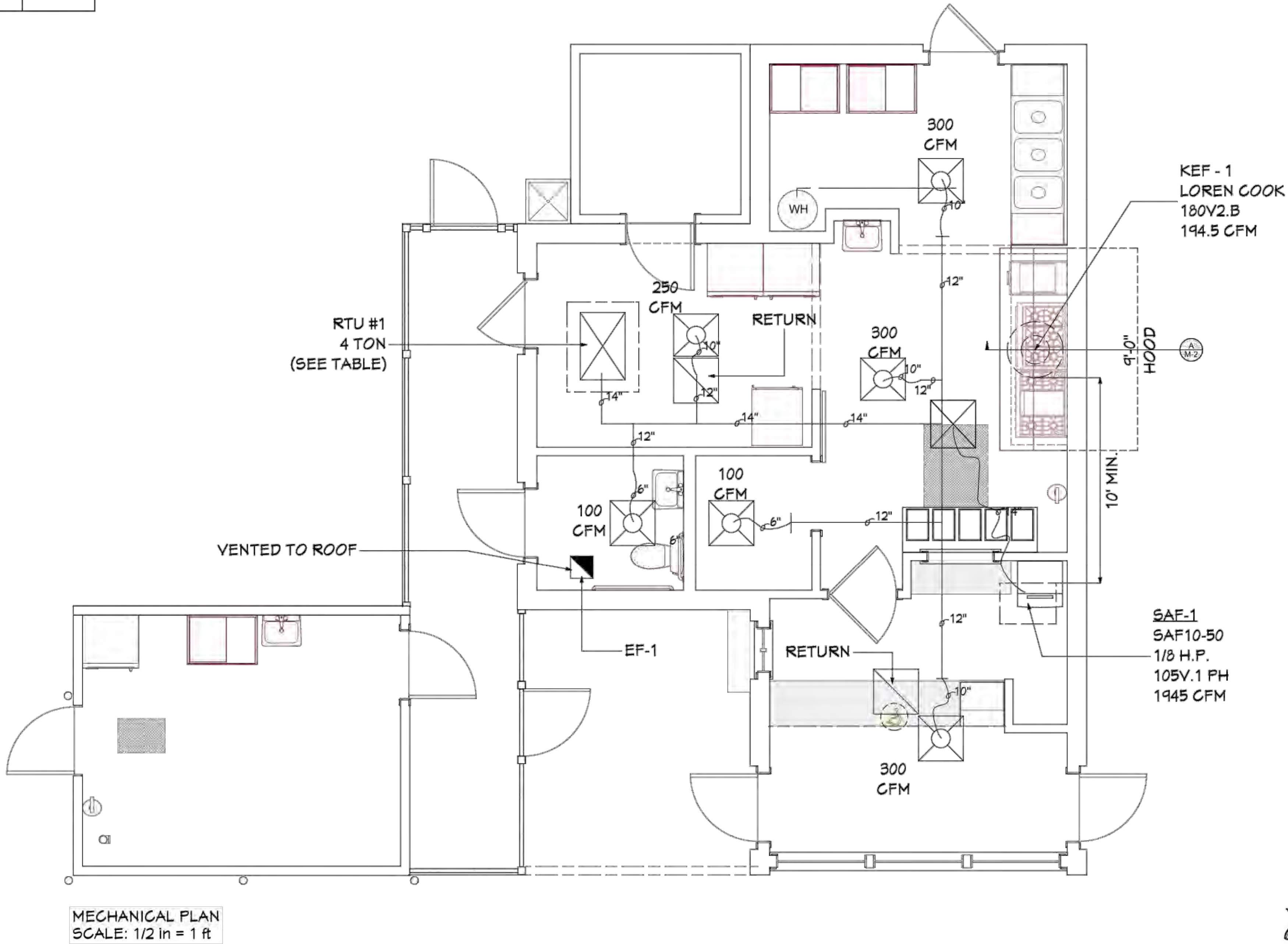
SHEET:

S-2

HVAC EQUIPMENT SCHEDULE									
MARK	CFM	HEATING		A.G.A EFF %	COOLING		EER	OSA (CFM)	REMARKS
		INPUT	OUTPUT		TOTAL	SENSIBLE			
RTU-1	1350	10 KW	10 KW	100	36	28	13	450	COOLING - 4 TON
									DAIKIN
									HEATING - 10 KW

FAN SCHEDULE							
MARK	CFM	SP	RPM	HP%	POWER	MAKE	MODEL
EF-1	100	0.05	1050	50 WATTS	115/1/60	PENN	Z6

OUTSIDE AIR CALCULATION							
OCCUPANY CLASSIFICATION	AREA OF SPACES (S.F.)	EST. PERSONS PER 1000 S.F.	REQ. VENTILATION (CFM/PERSON)	REQ. VENTILATION (CFM/S.F.)	REQ. TOTAL VENTILATION NEEDED (CFM)	PROVIDED VENTILATION (CFM)	REMARKS
COMMERICAL RESTAURANT	688	--	--	0.7	482	500	
	688				482	500	TOTALS



NOTES:

1. HVAC SYSTEM INSTALLER SHALL FIELD VERIFY THE SITE CONDITIONS AND OBTAIN A SEPARATE INSTALLATION PERMIT FROM THE CITY OF ATLANTA BUILDING DEPARTMENT PRIOR TO START OF ANY WORK FOR THIS PROJECT.

RELEASED FOR CONSTRUCTION



NO.	DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

MECHANICAL PLAN

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

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KEYDESIGNS2007@YAHOO.COM
404-438-5497

DATE:

4/15/2025

SCALE:

SHEET:

M-1

HVAC GENERAL NOTES

1. CONTRACTOR SHALL FURNISH A MANUALLY OPERATED DEVICE THAT WILL STOP THE OPERATION OF SUPPLY, RETURN AND/OR EXHAUST FAN(S) IN AN EMERGENCY FOR EACH AIR DISTRIBUTION SYSTEM. THE DEVICE SHALL BE INSTALLED AT A LOCATION APPROVED BY THE FIRE DEPARTMENT.

2. CONTRACTOR SHALL INSTALL A SMOKE DETECTOR APPROVED FOR DUCT INSTALLATION WHERE INDICATED ON THE DRAWINGS, FOR EACH RECIRCULATING AIR HANDLING SYSTEM TO AUTOMATICALLY STOP THE FAN, PER NFPA 90A.

3. ALL HVAC EQUIPMENT SHALL BE FULLY ACCESSIBLE FOR SERVICE. MINIMUM CLEARANCES SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER OR AS REQUIRED BY CODE WHICHEVER IS GREATER.

4. ALL OUTSIDE INTAKES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY EXHAUST OUTLETS, PLUMBING VENTS, TO OTHER AREAS WHERE NOXIOUS OR CORROSIVE VAPORS COULD ENTER INTO THE AIR CONDITIONING SYSTEM.

5. LISTED FIRE DAMPERS WITH ACCESS DOORS SHALL BE INSTALLED IN ALL DUCTS PENETRATING WALLS, CEILINGS, OR FLOORS WHICH HAVE A FIRE RESISTANCE OF 1 OR MORE HOURS.

6. ALL DUCT COVERINGS, LININGS, VAPOR BARRIERS, TAPES, OR MASTICS SHALL HAVE A FLAME SPREAD RATING OF NOT OVER 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50.

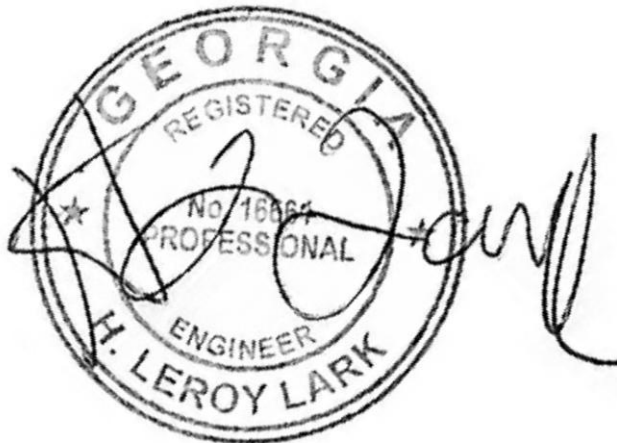
7. DUCTWORK SHALL NOT BE ROUTED ABOVE ELECTRICAL ROOMS OR WITHIN 43" OF ANY ELECTRICAL OR TELEPHONE PANELS.

8. ALL LOW PRESSURE FLEX DUCT SHALL BE CONNECTED TO LOW PRESSURE DUCT WITH SPIN-IN FITTINGS AND MANUAL DAMPERS.

9. LOW PRESSURE FLEX DUCT SHALL BE A MAXIMUM OF 5 FEET LONG AND SHALL BE SIZED AS FOLLOWS. METAL DUCTWORK SHALL CONFORM TO IMC TABLE 510.8.

CFM	FLEXDUCT DIAMETER
0-100	6"
101-200	8"
201-300	10"
301-400	12"

10. ALL SUPPLY DUCTWORK SHALL BE EXTERNALLY INSULATED WITH 2" THICK FIBERWORK DUCT INSULATION WITH ALUMINUM FOIL BACKING.
11. BALANCE ALL AIR SYSTEMS TO PRODUCE THE VOLUMES AND QUANTITIES SHOWN ON DRAWINGS OR SPECIFIED.
12. INSTALL ALL ROOM THERMOSTATS 5' AFF.
13. SUPPLY DIFFUSERS SHALL BE 4-WAY 24"x24" PANEL SIZE. EQUAL TO TITUS TMS. MAXIMUM NECK VELOCITY TO BE 450 FPM.
14. LAY-IN RETURN AIR GRILLES SHALL BE 24"x24" EGGCRATE TYPE.
15. PROVIDE AIR EXTRACTORS AS REQUIRED FOR AIR BALANCING.
16. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL CHARACTERISTICS WITH ELECTRICAL DRAWINGS BEFORE PURCHASING EQUIPMENT.
17. INSTALL FIRE DAMPERS IN ALL DUCTS PASSING THROUGH FIRE RATED WALLS.
18. ALL ELBOWS SHALL BE PROVIDED WITH TURNING VANES.



HVAC SPECIFICATIONS

1. GENERAL

- A. THE "GENERAL CONDITIONS OF THE CONTRACTOR FOR CONSTRUCTION," AIA DOCUMENT A201, LATEST EDITION, AND THESE SPECIFICATIONS AS APPLICABLE ARE PART OF THIS CONTRACT.
- B. 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 BE RESPONSIBLE FOR 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.
- C. INVESTIGATE EACH SPACE THOROUGHLY WHERE EQUIPMENT MUST BE MOVED. WHERE NECESSARY, EQUIPMENT SHALL BE SHIPPED FROM MANUFACTURER IN SECTION OF SIZE SUITABLE FOR MOVING THROUGH AVAILABLE RESTRICTIVE SPACES. ASCERTAIN FROM BUILDING OWNER AT WHAT TIME EQUIPMENT MUST BE MOVED THROUGH ALL AREAS.
- D. DUCTWORK AND PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISERS OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF DUCTWORK AND PIPING TO AVOID OBSTRUCTIONS. EXACT LOCATIONS ARE SUBJECT TO APPROVAL OF OWNER. COORDINATION WITH EXISTING SERVICES, INCLUDING THOSE OF OTHER TRADES IS REQUIRED.
- E. 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 GIG. 231. MULTI-ROD SHALL BE SIMILAR TO FEE & MASON SERIES 4000 WITH END CAPS AND CLOSURE STRIPS. MAXIMUM LOADING INCLUDING PIPES, DUCTWORK CONTENTS AND COVERING SHALL NOT EXCEED 15 PERCENT OF RATED INSERT CAPABILITY. WHEN SUPPORTING FROM BUILDING USE BEAM CLAMPS IN APPROVED MANNER. PROVIDE SEISMIC RESTRAINTS AS REQUIRED BY CODE.
- F. 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.
- G. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK PROPOSAL.
- H. SEAL OPENINGS AROUND DUCTS AND PIPING THROUGH PARTITIONS, WALLS AND FLOORS (NOT IN SHAFTS) WITH MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL.
- I. PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS LOUVERS, CONDUIT AND EQUIPMENT. PROVIDE EQUIPMENT CURBS AND DUNNAGE STEEL AS REQUIRED.
- J. MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
- K. THE WORK IN THE BUILDING SHALL BE DONE 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.
- L. THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PREDICATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORK HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK IN OVERTIME AND THE ADDITIONAL COST TO BE CHARGED THEREFOR SHALL BE THE ONLY ONE REQUIRED FOR THE WORK.
- M. REMOVABLE ACCESS TIE 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.
- N. ALL MATERIALS AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS. O. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING BUILDING, EQUIPMENT, ETC. WHICH AFFECTS THIS WORK AND THE ACCESS TO THE SUCH SPACES, HAS BEEN MADE AND THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. THE ON-SITE INSPECTION SHALL VERIFY EXISTING DUCTWORK, PIPING (SIZES, CLEARANCES, ETC) AND CONDITIONS.
- P. INSURANCE: IN ACCORDANCE WITH BUILDING REQUIREMENTS AND SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
- Q. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, BALANCED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL.
- R. SPECIFICATIONS ARE OF INCLUDED FORMS OR INCLUDING INCOMPLETE SENTENCES WORDS OR PHRASES SUCH AS "THE CONTRACTOR SHALL," "SHALL BE," "FURNISH," "PROVIDE," "A," "THE," AND "ALL" HAVE BEEN OMITTED FOR BREVITY.
- S. DEFINITIONS
- 1.) "PROVIDE": TO SUPPLY, INSTALL AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION THE PARTICULAR WORK REFERRED TO UNLESS OTHERWISE NOTED.
- 2.) "INSTALL": TO ERECT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES.
- 3.) "FURNISH" OR "SUPPLY": TO PURCHASE, PROCURE, ACQUIRE AND DELIVER COMPLETE WITH RELATED ACCESSORIES.
- 4.) "WORK": LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.
- 5.) "CONCEALED": EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES, IN CRAWL SPACES, OR IN ENCLOSURES.
- 6.) "EXPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.
- 7.) "SIMILAR" OR "EQUAL": EQUAL IN MATERIALS, WEIGHT, SIZE, DESIGN AND EFFICIENCY OF SPECIFIED PRODUCT.

2. SCOPE OF WORK

- A. THE WORK UNDER CONTRACT INCLUDES ALL LABOR, MATERIALS AND APPLIANCES NECESSARY FOR THE FURNISHING, INSTALLING AND TESTING, COMPLETE AND READY FOR SAFE OPERATION OF THE SYSTEMS. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.
- B. THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH THE DEPARTMENT HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THIS WORK AND PAY ALL FEES THEREOF. THE CONTRACTOR SHALL ARRANGE AND TEST FOR ANY OR ALL PARTS OF THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR AND FURNISH TO THE OWNER BEFORE FINAL BILLING, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.
- C. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OF ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES, BY OWNER, INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR.
- D. PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT PROVIDE COMPLETE SET OF COORDINATED SHOP DRAWINGS OF ALL NEW AND EXISTING EQUIPMENT, DUCTWORK, PIPING AND CONTROL SYSTEMS INDICATING CAPACITY DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ENGINEER.

3. SHOP DRAWINGS

- A. INDICATE ON EACH SUBMISSION: PROJECT NAME AND LOCATION, ENGINEER, ITEM IDENTIFICATION AND APPROVAL STAMP OF PRIME CONTRACTOR.
- B. SUBMISSIONS
- 1.) SUBMISSIONS 11 IN. X 17 IN. OR SMALLER: IF THE SUBMISSION IS A CATALOG CUT, THEN THE CONTRACTOR SHALL SUBMIT ONE ORIGINAL AND TWO COPIES. OTHERWISE, SUBMIT THREE COPIES. THE DESIGNER WILL FORWARD THE ORIGINAL AND ONE COPY (TWO COPIES WHEN NO ORIGINAL IS RECEIVED) TO THE ENGINEER. ALL CATALOG CUTS SHALL BE COMPLETE.
- 2.) SUBMISSIONS LARGER THAN 11 IN. X 17 IN.: SUBMIT TWO PRINTS AND ONE PAPER SEPIA TO THE DESIGNER. THE DESIGNER WILL FORWARD ONE PRINT AND THE PAPER SEPIA TO THE ENGINEER.
- C. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
- 1.) DUCTWORK LAYOUT AND SHEET METAL DESIGNS
- 2.) AIR OUTLETS
- 3.) AIR BALANCE REPORT
- 4.) AC UNITS AND FANS
- 5.) PIPING LAYOUT
- 6.) VIBRATION ISOLATION AND SEISMIC RESTRAINTS
- 7.) AUTOMATIC CONTROL SYSTEMS AND DEVICES

4. SHEET METAL WORK

- A. EXCEPT AS OTHERWISE SHOWN OR NOTED, ALL DUCTWORK AND OTHER SHEET METAL WORK SHALL BE GALVANIZED SHEET STEEL AND SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION INC. DUCT CONSTRUCTION STANDARDS, PRESSURE CLASSIFICATION 2 IN. W.G.
- B. VOLUME DAMPERS: GALVANIZED STEEL, PER SMOGA "LOW VELOCITY" MANUAL, EXCEPT PROVIDE BEARINGS AT ONE END OF DAMPER ROD AND QUADRANT, WITH LEVER AND LOCKS/SCREWS AT OTHER END, FOR INSULATED DUCTS, QUADRANTS MOUNTED ON COLLAR TO CLEAR INSULATION. INSTALL WITH LOCKS ACCESSIBLE.
- C. ACCESS DOORS: INSULATED OR UNINSULATED, SAME AS DUCT
- 1.) PROVIDE MINIMUM 20 IN. X 14 IN. ON MAIN DUCTS AND 12 IN. X 8 IN. ON BRANCH DUCTS, UNLESS OTHERWISE APPROVED, AT FIRE DAMPERS, AND AT ALL DUCT ACCESSORIES SUCH AS HUMIDIFIERS, DUCT SMOKE DETECTORS, AUTO DAMPERS, AND LOUVERS.
- 2.) ALL ACCESS DOORS TO BE HINGED, WITH LATCH SIMILAR TO VENTLOCK NO. 100.
- D. FLEXIBLE CONNECTIONS: NON-REFRIGERANT COATED GLASS FABRIC, 30 OUNCES PER SQ. YD. WITH SEWED AND CEMENTED SEAMS, SIMILAR TO VENT FABRICS. PROVIDE WITH METAL COLLAR MOVEMENT OF 1 IN.
- E. TURNING VANES: GALVANIZED STEEL SMALL DOUBLE THICKNESS VANES WITH 2 IN. INSIDE RADIUS.
- F. FIRE DAMPERS: UL LISTED, GALVANIZED STEEL CONSTRUCTION, MULTI-BLADED TYPE, SPRING LOADED, EQUIPPED WITH FUSIBLE LINK, CONFORMING TO NFPA STANDARD 90A. SIMILAR TO AIR BALANCE MODEL 314-P, RATED AS REQUIRED. SEE INSTALLATION ON DRAWINGS.
- G. ALL DUCT DIMENSIONS SHALL BE TO INSIDE CLEAR DIMENSIONS.
- H. AUTOMATIC DAMPERS: COMPLETE WITH LINKAGE AND ELECTRIC OPERATOR, OPPOSED BLADE DAMPER OR GALVANIZED STEEL 4 IN. MAX. 8 IN. WIDE WITH COMPRESSIBLE EDGE SEALS TO PREVENT LEAKAGE. FACTORY-ASSEMBLE STEEL LINKAGE AND SHAFT WITH NYLON OR OIL-IMPREGNATED BRONZE BEARINGS. MOTOR WITH SUFFICIENT POWER TO LIMIT LEAKAGE TO 10 CFM PER SQ. FT. LINKAGE TO WITHSTAND LOAD EQUAL TO TWICE-MAXIMUM OPERATING FORCE WITHOUT DEFLECTION. DAMPER MOUNTED IN WELDED STEEL CHANNEL FRAME.
- I. EXTERIOR LOUVERS: 4 IN. WIDE STATIONARY LOUVER, EXTRUDED ALUMINUM, 0.081 IN. WALL THICKNESS, 6063TS ALLOY BLADES AND FRAME INSTANTANEOUS STEEL OR ALUMINUM FASTENERS. LOUVER TO INCORPORATE STRUCTURAL SUPPORT TO WITHSTAND WIND LOAD OF 20 LBS PER SQ. FT. PROVIDE REMOVABLE 3/4 IN. X 3/4 IN. ALUMINUM BIRD SCREEN IN AN ALUMINUM FRAME. AIR PERFORMANCE AND WATER PENETRATION LESS THAN OR EQUAL TO RUSKIN MODEL ELF-375.
- J. ALUMINUM DUCTWORK: ALL OUTSIDE AIR, EXHAUST, AND RELIEF DUCTWORK WITHIN 5 FT. OF LOUVERS SHALL BE ALUMINUM WITH BEAMS SEALED WATERTIGHT WITH ALCOA ALUMINASTIC TYPE C SEAM SEALER OR SOLDER. FITCH DUCTWORK TOWARDS LOUVER.
- K. WIRE MESH SCREEN (WMS): NO. 16 USS, 3/4 SQUARE MESH, 1 IN. WIDE GALVANIZED STEEL ENCLOSING FRAME. PLANGED DUCT OPENING TO RECEIVE FRAME.
- L. LOW-PRESSURE FLEXIBLE DUCT: SHALL BE CONSTRUCTED WITH A CPE INNER FILM, LINER LOCKED TO GALVANIZED STEEL HELIX WITH 1" THICK FIBERGLASS ENCLOSED WITH A REINFORCED POLYMYLAR SLEEVE. UL 181 LISTED AS CLASS 1 AIR DUCT COMPLYING WITH NFPA STANDARD 90A. SIMILAR TO FLEXMASTER TYPE BM.
- M. COMBINATION FIRE AND SMOKE DAMPERS: UL LISTED, GALVANIZED STEEL CONSTRUCTION MULTI-BLADED TYPE. EQUIPPED WITH FUSIBLE LINK CONFORMING TO NFPA STANDARD 90A. SIMILAR TO RUSKIN MODEL FSD 60.
- N. SMOKE DAMPERS: UNLISTED GALVANIZED STEEL CONSTRUCTION MULTI-BLADED TYPE. EQUIPPED WITH PNEUMATIC OPERATOR AND E/ F SWITCH. SIMILAR TO RUSKIN MODEL SDO.

5. AIR OUTLETS

- A. GENERAL
- 1.) MARGIN TYPES, COLORS, FINISH AND METHODS OF ATTACHMENT FOR ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE COORDINATED WITH ARCHITECTURAL CEILINGS AND WALL DETAILS AND SPECIFICATION.
- 2.) FRAME TYPE SUITABLE FOR MOUNTING IN CEILING OR WALL CONSTRUCTION AS INDICATED ON ARCHITECTURAL PLANS.
- 3.) EXACT LOCATION OF ALL AIR OUTLETS AS PER ARCHITECTURAL PLANS.
- 4.) SUITABLE FOR OPERATION AT 20 PERCENT EXCESS AND 20 PERCENT LESS THAN NOTED CAPACITY FOR CONSTANT VOLUME SYSTEMS AND AT 20 PERCENT EXCESS AND 60 PERCENT LESS THAN NOTED CAPACITY FOR VARIABLE VOLUME SYSTEMS.
- 5.) MANUFACTURER RESPONSIBLE FOR EXAMINING APPLICATION OF EACH OUTLET AND GUARANTEE THAT EACH WILL PROVIDE REQUIRED LEVELS AND COMFORT SPACE CONDITIONS WITHOUT DRAFTS THROUGHOUT OPERATING RANGE.
- 6.) DIFFUSERS, GRILLES AND REGISTERS SHALL BE SELECTED TO ACHIEVE NC 35 OR LESS WHEN INSTALLED.
- 7.) ALL REGISTERS AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE VOLUME DAMPERS. DAMPERS OPERATING LEVERS SHALL BE ACCESSIBLE AT 75 PERCENT OF AIR OUTLETS.
8. LINEAR DIFFUSERS: EXTRUDED ALUMINUM CONSTRUCTION, NATURAL ANODIZE FINISH, REMOVABLE CORE, AIR DEFLECTION VANE AND CABLE DAMPER IN EACH BRANCH TAP WITH 3 FT. CABLE TO DIFFUSER FACE. SIMILAR TO NAILOR WITH CABLE DAMPER SIMILAR TO NAILOR.
- C. REGISTERS AND GRILLES
- 1.) RETURN AND EXHAUST REGISTERS: STEEL CONSTRUCTION WITH VOLUME DAMPER. SIMILAR TO NAILOR.
- 2.) SUPPLY REGISTERS: ALUMINUM CONSTRUCTION, ADJUSTABLE DOUBLE DEFLECTION ALUMINUM AIRFOIL LOUVERS, WITH VOLUME DAMPER. SIMILAR TO NAILOR. PROVIDE AIR-EQUALIZING DEFLECTOR WHERE REGISTER COLLAR DUCT IS LESS THAN 2 FT. LONG.
- 3.) RETURN GRILLES: ALUMINUM CONSTRUCTION, 1/2 X 1/2 X 1/2 GSS GRATE SIMILAR TO NAILOR.
- 4.) TRANSFER GRILLES: STEEL CONSTRUCTION WITHOUT VOLUME DAMPER. SIMILAR TO NAILOR.
- D. DIFFUSERS
- 1.) PERFORATED FACE SUPPLY: STEEL FACE WITH 1, 2, 3 OR 4 WAY ADJUSTABLE PATTERN, ROUND INLET COLLAR. SIMILAR NAILOR.
- 2.) RETURN RETURN SHALL BE SIMILAR TO NAILOR.
- 3.) LOUVERED FACE SUPPLY: STEEL CONSTRUCTION WITH 3 CONES, ADJUSTABLE PATTERN, 2 FT. X 2 FT. FACE, ROUND INLET COLLAR SIMILAR TO NAILOR.

6. NOISE CONTROL

- A. ALL ROOM NC LEVELS SHALL BE 35 OR LESS.
- B. PROVIDE SOUND LINING FOR THE FOLLOWING DUCTWORK:
- 1.) ALL DUCTWORK WITHIN MECHANICAL ROOMS AND NOT LESS THAN 20 FT. ON EACH SIDE OF ALL FANS AND AC UNITS.
- 2.) AIR TRANSFER DUCTS
- 3.) DOWNSTREAM OF ALL VARIABLE AIR VOLUME AND CONSTANT VOLUME BOXES FOR A MINIMUM OF 10 FT.
- 4.) ALL MIXED AIR FLENUMS, EXCEPT WHERE MOISTURE CARRYOVER FROM OUTDOOR AIR LOUVER WILL OCCUR.
- 5.) ALSO WHERE NOTED ON A DRAWING.
- C. SOUND LINING IN DUCTWORK: FIBERGLASS GLASS, MINIMUM 3 LB DENSITY, 1 IN. THICKNESS MAXIMUM 0.25 K-FACTOR AT 75 DEGREES F. MEAN TEMPERATURE WITH ACRYLIC COATED FINISH FACTORY APPLIED EDGE COATING AND STENCILED IN ACCORDANCE WITH NFPA 90. FLAMESPREAD SHALL BE A MAXIMUM OF 25. LINING SHALL NOT SUPPORT MICROBIAL GROWTH AND SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1071 AND ASTM G21/G22. SIMILAR TO SCHULLER PERMACOTE LINA COUSTIC.
- D. ALL SOUND LINING, ADHESIVES, FACES AND ACCESSORIES TO BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, EXCEPT AS OTHERWISE NOTED.

7. TESTING AND BALANCING

- A. ALL AIR AND WATER BALANCING SHALL BE IN ACCORDANCE WITH AABC AND NEBB STANDARDS.
- B. AIR BALANCING SHALL BE ACCOMPLISHED BY ADJUSTMENT OF FANS AND BRANCH DAMPERS FOR MAJOR ADJUSTMENTS. ADJUSTMENT OF TERMINAL DAMPERS AND DEVICES SHALL BE FOR TRIM OR MINOR ADJUSTMENT ONLY. THIS SHALL BE DONE TO PERMIT THE LEAST NOISE GENERATION IN THE TERMINAL AREAS AND UTILIZE MINIMUM FAN ENERGY.
- C. WATER BALANCING SHALL BE ACCOMPANIED BY ADJUSTMENT OF BALANCING VALVES AT PUMPS FOR PROPER FLOW. ADJUST FLOW THROUGH BOILERS, CHILLERS, HEAT EXCHANGERS AND COILS AS REQUIRED.
- D. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REBALANCE AND EXISTING PORTIONS OF AIR DISTRIBUTION SYSTEM AND WATER DISTRIBUTION SYSTEM AFFECTED BY THE BALANCE OF NEW WORK.
- E. THE CONTRACTOR SHALL PROVIDE ALL LABOR, PRESSURE GAUGES, FLOW METERS, SHEAVES, AND BELTS REQUIRED TO BALANCE SYSTEMS.
- F. BALANCING REPORT SHALL BE PROVIDED ON AABC-TYPE FORMS.
- G. FANS, AIR HANDLING UNITS, PUMPS, CHILLERS, HEAT EXCHANGERS AND COILS SHALL BE BALANCED TO WITHIN +5 PERCENT OF THEIR DESIGN CAPACITIES. ALL OTHER AIR AND WATER QUANTITIES SHALL BE BALANCED TO WITHIN +10 PERCENT OF THE DESIGN QUANTITIES.
- H. BALANCING AND TESTING SHALL BE PERFORMED AND SUPERVISED BY A CERTIFIED NEBB OR AABC TECHNICIAN.
- I. THE PERFORMANCE AND CAPACITY OF ALL SYSTEMS AND EQUIPMENT TO BE DEMONSTRATED BY THE CONTRACTOR. SUBMIT TO LANDLORD.

8. INSULATION-GENERAL REQUIREMENTS

- A. ALL INSULATION MATERIALS, INCLUDING JACKETS, FACING, ADHESIVE, COATINGS, AND ACCESSORIES ARE TO BE FIRE HAZARD RATED AND LISTED BY UNDERwriters LABORATORIES, INC. USING STEINER TUNNEL TEST METHOD FOR FIRE HAZARD CLASSIFICATION OF BUILDING MATERIALS, STANDARD UL 723 (ASTM E-84), (ASA A2.5-1963). FLAMESPREAD MAXIMUM IS 25 AND FUEL CONTRIBUTED AND SMOKE DEVELOPED MAXIMUM IS 50. FLAMEPROOFING TREATMENTS SUBJECT TO DETERIORATION FROM MOISTURE OR HUMIDITY ARE NOT ACCEPTABLE.
- B. DEFINITIONS
- 1.) EXPOSED: INDOOR DUCTS, PIPING OR EQUIPMENT LOCATED IN MECHANICAL EQUIPMENT ROOMS AND IN AREAS, WHICH WILL BE VISIBLE WITHOUT REMOVING CEILINGS OR OPENING ACCESS PANELS.
- 2.) CONCEALED: INDOOR DUCTS, PIPING OR EQUIPMENT, WHICH IS NOT EXPOSED.
- 3.) OUTDOOR: DUCTS, PIPING OR EQUIPMENT, WHICH IS EXPOSED TO THE WEATHER.

9. DUCTWORK INSULATION

- A. INSULATE ALL DUCTWORK IN ACCORDANCE WITH INSULATION SCHEDULE EXCEPT AS OTHERWISE NOTED.
- 1.) DUCTWORK INSULATION SCHEDULE
- a. CONCEALED SUPPLY/RETURN SHALL BE 1 IN., TYPE D-1 WITH VAPORSEAL.
- b. ALL INTAKES SHALL BE 2 IN., TYPE D-3 WITH VAPORSEAL.
- c. EXPOSED SUPPLY/RETURN SHALL BE 1 IN., TYPE D-3 WITH VAPORSEAL.
- d. EXPOSED VIER EXHAUST SHALL BE 2 IN., TYPE D-3 WITH VAPORSEAL.
- B. NON-INSULATE DUCTWORK
- 1.) WHERE SOUND LINING IS OF MINIMUM THICKNESS SPECIFIED FOR INSULATION.
- 2.) AIR CONDITIONING RETURN AIR DUCTWORK EXPOSED IN AIR CONDITIONED SPACES AND INSTALLED IN HUNG CEILINGS WHERE SPACE IMMEDIATELY ABOVE AND BELOW ARE BOTH AIR CONDITIONED.
- C. MATERIAL
- 1.) TYPE D-1: MINIMUM 1-LB DENSITY FIBERGLASS BLANKET, MAXIMUM 0.25 K-FACTOR AT 75 F MEAN TEMPERATURE WITH FACTORY-APPLIED FOIL SKRIM-KRAFT FACING SIMILAR TO MANVILLE MICROCLITE.
- 2.) TYPE D-2: 3 LB. FIBERGLASS BOARD, THE MAXIMUM K-FACTOR SHALL BE 0.23 AT 75 F MEAN TEMPERATURE WITH A MINIMUM DENSITY OF 3 LB. THE INSULATION SHALL BE PROVIDED WITH A FACTORY-APPLIED ALL-PURPOSE OR ALL SERVICE FACING. THE INSULATION SHALL BE EQUAL TO MANVILLE TYPE 814 SPIN-GLAS AP.
- 3.) TYPE D-3: MINIMUM 6 LB FIBERGLASS BOARD, MAXIMUM 0.22 K-FACTOR AT 75 F MEAN TEMPERATURE WITH FACTORY APPLIED ALL-PURPOSE OR ALL SERVICE FACING. SIMILAR TO MANVILLE 811 SPIN-GLAS AP.
- D. INSTALLATION
- 1.) FIBERGLASS BLANKET: 2 IN. LAP STRIPS AT ALL SEAMS. SECURE BOTTOM OF ALL DUCTS OVER 24 IN. WIDE WITH MIN. 2 ROWS OF WELD PINS 12 IN. ON CENTER. SECURE ALL SEAMS WITH FOIL VAPOR BARRIER TAPE AND VAPORSEAL ADHESIVE.
- 2.) FIBERGLASS BOARD: SEAL JOINTS AND BREAKS IN FACING WITH 3 IN. WIDE TAPE TO MATCH FACING AND ADHERE WITH VAPOR SEAL ADHESIVE. APPLY 3 IN. WIDE TAPE AT CORNERS; WELD PINS ON TOP, SIDES AND BOTTOM.

10. PIPING INSULATION

- A. INSULATE ALL PIPING IN ACCORDANCE WITH INSULATION SCHEDULE EXCEPT AS OTHERWISE NOTED.
- 1.) PIPING INSULATION SCHEDULE
- a. LOW TEMP 40 TO 100 DEGREES F, UP TO 4 IN., SHALL BE 1 IN. THICK, TYPE P-1 WITH VAPORSEAL.
- b. ALL REFRIGERANT LIQUID & SUCTION LINES SHALL BE 1/2 IN. THICK, TYPE P-1 WITH VAPORSEAL.

11. PIPING, VALVES AND FITTINGS TO BE INSULATED

- A. LOW TEMPERATURE PIPING SYSTEMS - 40 TO 100 F INCLUDING:
- 1.) CONDENSATE DRAIN PIPING.
- B. MATERIAL
- 1.) TYPE P-1: MINIMUM 4 LB DENSITY MOLDED FIBERGLASS, MAXIMUM 0.25 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE WITH FACTORY-APPLIED FIRE RETARDANT FOIL-SKRIM-KRAFT FACING, ALL SERVICE JACKET. SIMILAR TO OWENS-CORNING 850 ASL.
- 2.) TYPE P-3: MINIMUM 4 LB DENSITY MOLDED FIBERGLASS FITTING, MAXIMUM 0.25 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE SIMILAR TO EPO-LUM HANFAS MOLDED FITTINGS.
- 3.) TYPE P-4: MINIMUM 1 LB DENSITY FIBERGLASS FITTING INSERTS, MAXIMUM 0.25 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE SIMILAR TO MANVILLE HI-LO TEMP INSULATION INSERTS.
- 4.) TYPE P-6: MINIMUM 6 LB MOLDED FOAMED PLASTIC, MAXIMUM 0.21 K-FACTOR AT 75 DEGREE F MEAN TEMPERATURE. MAXIMUM 0.17 PERMEANCE. SIMILAR TO ARMSTRONG ARMAFLEX II.
- C. FINISH
- 1.) TYPE P-1: FITTING COVER, MOLDED WHITE PVC JACKET, UL CLASS 1, MAXIMUM PERMEANCE 0.05 SIMILAR TO MANVILLE ZESTRON.
- 2.) TYPE P-2: WHITE VAPOR BARRIER COATING WITH 10X10 OR 20X20 MESH WHITE GLASS, POLYESTER OR NYLON CLOTH REINFORCING MEMBRANE, MINIMUM 1/8 IN. DRY FILM THICKNESS, SIMILAR TO FOSTER TITE-FIT, UL LABEL.
- 3.) TYPE P-4: ALUMINUM JACKETING WITH MINIMUM 0.016 IN. WALL THICKNESS AND LONGITUDINAL JOINTS WITH LOCK SEAMS.
- 4.) TYPE P-6: WHITE FINISHING AND INSULATING CEMENT APPLIED OVER HEXAGONAL WIRE MESH. CEMENT SIMILAR TO KEENE SUPERSLICK.
- D. OUTDOOR PIPING
- 1.) FOR ALL PIPING, FITTINGS AND VALVES LOCATED OUTDOORS INCREASE SCHEDULED INSULATION THICKNESS BY A MINIMUM IF 1 IN. AND PROVIDE F-4 FINISH. PROVIDE VAPORSEAL ON ALL OUTDOOR PIPES, VALVES AND FITTINGS SUBJECT TO CONDENSATION.
- 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 SERVICES, HANGERS, ETC., OR OTHER OPENINGS. PROVIDE SADDLES OR SHIELDS FOR PROTECTION.
- 4.) INSULATION FOR STRAINERS OR OTHER FITTINGS OR ACCESSORIES REQUIRING SERVICING OR INSPECTION SHALL HAVE INSULATION REMOVABLE AND REPLACEABLE WITHOUT DAMAGE.

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PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2611 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-436-5447

DATE:

4/15/2025

SCALE:

SHEET:

M-3

12. VIBRATION ISOLATION AND SEISMIC RESTRAINTS

A. GENERAL

- 1.) PROVIDE ISOLATION FOR EQUIPMENT, PIPING AND DUCTWORK.
- 2.) INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- 3.) PROVIDE LEVELING DEVICES AND APPROVED RESILIENT RESTRAINING DEVICES AS REQUIRED TO LIMIT EQUIPMENT AND PIPING MOTION IN EXCESS OF 1/4 IN.
- 4.) ACCEPTABLE MANUFACTURERS
5. MASON INDUSTRIES, INC
6. VIBRATION ELIMINATOR CO.
7. KORFOUND DYNAMICS CORP.
8. CEILING-HUNG FANS AND EQUIPMENT
- 1.) PROVIDE SPRING HANGER ROD ISOLATORS, STEEL COMPRESSION SPRING AND NEOPRENE SOUND PAD WITHIN A STEEL RETAINER BOX SIMILAR TO MASON TYPE PG45
- 2.) 1 IN. MINIMUM STATIC DEFLECTION, 1/2 IN. MINIMUM RESERVE DEFLECTION, FACTORY-PRELOADED TO 75 PERCENT OF RATED LOAD.
- 3.) PROVIDE SUPPLEMENTAL STEEL AS REQUIRED WHERE EQUIPMENT OR STRUCTURE CANNOT SUPPORT POINT LOADS.

C. SEISMIC RESTRAINTS

- 1.) PROVIDE SEISMIC RESTRAINTS FOR ALL MECHANICAL EQUIPMENT AS REQUIRED BY CODE. SEISMIC RESTRAINTS SHALL BE CAPABLE OF SAFELY ACCEPTING EXTERNAL FORCES AS REQUIRED BY CODE WITHOUT FAILURE, AND SHALL MAINTAIN EQUIPMENT, PIPING, CONDUIT, DUCT AND PRESSURE REDUCING BOXES IN A CAPTIVE POSITION. SEISMIC RESTRAINTS SHALL NOT SHORT CIRCUIT ISOLATION SYSTEMS OR TRANSMIT OBJECTIONABLE VIBRATION OR NOISE, AND SHALL BE PROVIDED IN ALL EQUIPMENT SCHEDULES ON DRAWINGS.
- 2.) SEISMIC RESTRAINT TYPES
9. SEISMIC RESTRAINT TYPE 1: EACH CORNER OR SIDE SEISMIC RESTRAINT SHALL INCORPORATE MINIMUM 5/8 (6MM) THICK PAD LIMIT STOPS. RESTRAINTS SHALL BE MADE OF PLATE, STRUCTURAL MEMBERS OR SQUARE METAL TUBING IN A WELDED ASSEMBLY, INCORPORATING RESILIENT PADS. ANGLE BUMPERS ARE NOT ACCEPTABLE. SYSTEM TO BE FIELD BOLTED TO DECK WITH MINIMUM 1.05 LOAD CAPACITY. SEISMICALLY RATED SPRING MOUNTINGS, SUCH AS MASON
10. SEISMIC RESTRAINT, TYPE II: METAL CABLE TYPE WITH APPROVED AND FASTENING DEVICES TO EQUIPMENT AND STRUCTURE. SYSTEM TO BE FIELD BOLTED TO DECK OR OVERHEAD STRUCTURAL MEMBERS OR DECK WITH AIRCRAFT CABLE PER SMACNA GUIDELINES.

13. KITCHEN EXHAUST SYSTEM

A. KITCHEN HOOD EXHAUST DUCT INCLUDING FAN DISCHARGE TO ATMOSPHERE SHALL BE PROVIDED AS FOLLOWS:

- 1.) MINIMUM NO. 16 USSG BLACK STEEL
- 2.) ALL SEAMS, JOINTS AND PENETRATIONS SHALL BE LIQUID TIGHT CONTINUOUS EXTERNAL ARC WELDED, EXCEPT WHERE THE DUCT STUB COLLAR OF THE HOOD IS CONNECTED TO THE EXHAUST DUCT. CONNECTION TO THE HOOD SHALL BE CONTINUOUS LIQUID TIGHT EXTERNAL ARC WELDED OR IN ACCORDANCE WITH NFPA 98, 2004 OR AS REQUIRED BY THE BUILDING DEPARTMENT.
- 3.) ANGLE REINFORCING SHALL BE MINIMUM 1-1/2 X 1-1/2 X 3/16 IN. AT MAXIMUM 4 FT. ON CENTERS AND IN ACCORDANCE WITH SMACNA RECTANGULAR INDUSTRIAL DUCT CONSTRUCTION STANDARDS.
- 4.) CLEANOUT DOORS SHALL BE PROVIDED ON HORIZONTAL DUCTS AND SHALL BE MOUNTED MAXIMUM 20 FT. APART AND AT EACH CHANGE OF DIRECTION. CLEANOUT DOORS ON HORIZONTAL DUCT SHALL BE MOUNTED ON SIDE OF DUCT. BOTTOM EDGE SHALL BE NOT LESS THAN 2 IN. ABOVE THE BOTTOM OF DUCT. CLEANOUT DOORS AT VERTICAL DUCTS SHALL BE MOUNTED AT BASE. DOOR AND FRAME SHALL BE SAME GAUGE AS DUCT. HINGES SHALL BE VENTLOCK NO. 260, EXTRA HEAVY ZINC PLATED. LATCHES SHALL BE VENTLOCK NO. 140, CAST ZINC. GASKETS SHALL BE BETWEEN DOOR AND FRAME. GASKETS SHALL BE 1/8 IN. DOUBLE THICKNESS RATED FOR 2000 P. CLEANOUT DOOR SIZE SHALL BE MAXIMUM 24 IN. AND MINIMUM SHALL BE 24 IN. ONE SIDE, AND OTHER SIDE SHALL BE 2 IN. LESS THAN DUCT HEIGHT.
- 5.) ALL KITCHEN EXHAUST DUCTWORK SHALL BE SLOPED TOWARDS EXHAUST HOOD.
6. ALL KITCHEN HOOD EXHAUST DUCTWORK SHALL BE INSULATED AS FOLLOWS:
- 1.) INSULATION: CALCIUM SILICATE BLOCK. THE MAXIMUM K FACTOR SHALL BE 0.44 AT 300 DEGREES F MEAN TEMPERATURE WITH A MINIMUM DENSITY OF 12 LB. THE BLOCK SHALL BE SCORED AS REQUIRED TO FIT ROUND DUCTS AND EQUIPMENT. PROVIDE THICKNESS AS REQUIRED TO PROVIDE 2 HOUR FIRE RATING BUT NO LESS THAN 2 IN. MINIMUM THICKNESS. INSULATION SHALL BE INSTALLED IN TWO EQUAL THICKNESS LAYERS WITH STAGGERED JOINTS OR SEAMS. THE INSULATION SHALL BE ASBESTOS FREE AND BE SIMILAR TO MANVILLE THERMO-12.
- 2.) FINISH: WHITE FINISHING AND INSULATING CEMENT. ONE (1) COAT SHALL BE APPLIED OVER HEXAGONAL WIRE MESH. THE CEMENT SHALL BE SIMILAR TO KEENE SUPERGLICK
7. KITCHEN EXHAUST FAN: FURNISHED BY OTHERS AND INSTALLED BY MECHANICAL CONTRACTOR.

14. PIPING - GENERAL REQUIREMENTS

- A. COMPLETE WITH PIPE FITTINGS, VALVES, STRAINERS, MOTORIZED VALVE OPERATORS, STRAINERS, HANGERS, SUPPORTS, GUIDE, SLEEVES, AND ACCESSORIES.
- B. ALL ITEMS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING CODES AND STANDARDS.
- 1.) AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
- 2.) AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
- 3.) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
- 4.) MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY (MSV)
- C. ALL PRESSURIZED PIPING TO BE TESTED HYDROSTATICALLY TO 150 PSI OR 150 PERCENT OF OPERATING PRESSURE, WHICHEVER IS GREATER, BUT NEVER EXCEED TEST PRESSURE ANSI B16.1 BASIS. TEST DURATION TO BE 2 HOURS WITH NO PRESSURE CHANGE CORRECTED FOR TEMPERATURE CHANGE. REPAIR OR REPLACE LEAKS OR DEFECTS WITHOUT ADDITIONAL COST.
- D. PROVIDE DIELECTRIC FITTINGS WHERE DISSIMILAR METALS ARE TO BE JOINED.
- E. PIPE SUPPORTS
- 1.) PROVIDE ADEQUATE SUPPORT FOR PIPE AND CONTENTS TO PREVENT SAGGING, VIBRATION, OR SWAYING AND ALLOW FOR EXPANSION AND CONTRACTION. PROVIDE SUPPLEMENTAL STEEL AS REQUIRED WHERE STRUCTURE CANNOT SUPPORT POINT LOADS.
- 2.) HORIZONTAL PIPING TO BE SUPPORTED BY FORGED STEEL ADJUSTABLE CLEVIS TYPE HANGER. MAXIMUM SPACING AS FOLLOWS:
- a. COPPER 3 IN. AND SMALLER: 7 FT.
- b. ADDITIONAL SUPPORTS AT CHANGES IN DIRECTION, RUNOUTS, AND CONCENTRATED LOADS DUE TO VALVES, ETC.
- c. ADDITIONAL SUPPORTS AT CHANGES IN DIRECTION, RUNOUTS, AND CONCENTRATED LOADS DUE TO VALVES, ETC.
- 3.) VERTICAL PIPING
- a. BASE ELBOW SUPPORT WITH BEARINGS PLATE ON STRUCTURAL SUPPORT
- b. GUIDES AT EVERY SECOND FLOOR (SPACINGS NOT TO EXCEED 25 FT.)
- c. TOP SUPPORT HANGER OR SADDLE IN HORIZONTAL CONNECTION WITH PROVISIONS FOR EXPANSION.
- d. INTERMEDIATE STEEL RISER CLAMP SUPPORT BOLTED AND WELDED TO PIPE BEARINGS ON STRUCTURAL STEEL OR BEARING PLATE AT FLOOR.

15. CONDENSATE DRAIN PIPING

- A. PIPE: ASTM B88, HARD DRAWN COPPER TUBING TYPE "L".
- B. FITTINGS: SOLDERED JOINT FITTINGS, 95/5 SOLDER.
- C. PITCH, EXCEPT AS NOTED.
- 1.) 1 IN. IN 4 FT. PREFERRED.
- 2.) 1 IN. IN 8 FT. MINIMUM.
- D. SWING CHECK VALVES: AT CONDENSATE PUMP DISCHARGE. 300 LB WOG, BRONZE BODY SOLDER ENDS, REGRIND BRONZE DISC TO BE USED WITH COPPER TUBING. JENKINS FIG. 1222.

16. REFRIGERANT PIPING

- 1.) PIPE: COPPER ACR IN ACCORDANCE WITH ASTM B280.
- 2.) FITTINGS: WROUGHT COPPER WITH SILVER BRAZING ALLOY SOLDER SIMILAR TO HANDY AND HARMAN EASY-FLO.

17. MOTORS

- A. MOTORS (UNDER HVAC WORK): IN ACCORDANCE WITH NEMA, IEEE AND ANSI C 50 STANDARDS.
- 1.) STANDARD EFFICIENCY UNLESS OTHERWISE NOTED.
- 2.) 1.15 SERVICE FACTOR
- 3.) SQUIRREL CAGE INDUCTION, OPEN DRIP-PROOF TYPE, 1750 RPM, NEMA TYPE B INSULATION CLASS, CONTINUOUS DUTY, EXCEPT AS NOTED.

18. MOTOR CONTROLLERS

- A. PROVIDED BY HVAC CONTRACTOR AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
- B. NEMA ENCLOSURE, WEATHERPROOF WHERE MOUNTED OUTDOORS.
- C. WITH OVERLOAD PROTECTION, COORDINATE ALL MOTOR CONTROLLER TYPES AND SIZES WITH MOTOR TYPES AND SIZES.
- D. 1/8 HP AND SMALLER: PROVIDE MANUAL STARTER EXCEPT USE MAGNETIC TYPE WHERE AUTOMATICALLY CONTROLLED.
- E. 1/2 HP AND LARGER: PROVIDE MAGNETIC STARTER
- 1.) COMBINATION UNFUSED DISCONNECT SWITCH AND MAGNETIC STARTER EXCEPT AS NOTED.
- 2.) OVERLOAD PROTECTION IN EACH PHASE LEG WITH RESET IN ENCLOSURE.
- 3.) HOA SELECTOR SWITCH FOR AUTOMATICALLY OPERATED MOTORS. SAFETY CONTROLS COMMON TO BOTH CONTROLS.
- 4.) RED, GREEN AND AMBER PILOT LIGHTS.
- 5.) SWITCHES: HORSE-POWER-RATED, EXTERNAL PADLOCKING TYPE.
- 6.) HOLDING COILS: 10 WATT, 120 VOLT.
- 7.) CONTACTS: MINA LINE AND MINIMUM (2) - NORMALLY OPEN, (2) - NORMALLY CLOSED 10 AMP AUXILIARIES, IN ADDITION TO CONTACTS REQUIRED FOR CONTROLS SPECIFIED.
- 8.) CONTROL TRANSFORMERS: FOR MOTORS OVER 120 VOLTS. TO STEP DOWN CONTROL VOLTAGE TO 120 VOLTS; OF THE REQUIRED CAPACITY, WITH FUSE AND GROUND CONNECTION ON VOLTAGE SIDE.
- 9.) FUSES: SIMILAR TO BUSSMAN.
- 10.) RELAYS TO SUPPLEMENT AUXILIARY CONTACTS IN CONTROLLER. MINIMUM 10-WATT COIL AND TWO 10 AMP CONTACTS.
- 11.) TERMINALS: SUITABLE FOR CONDUCTORS NOTED AND AS APPROVED.
- F. ACCEPTABLE MANUFACTURERS
- 1.) CUTLER-HAMMER
- 2.) SQUARE D.
- 3.) ALLEN BRADLEY

19. SMOKE DETECTOR

- A. THE ELECTRICAL CONTRACTOR SHALL SUPPLY DUCT MOUNTED IONIZATION-TYPE SMOKE DETECTORS AND PROVIDE ALL WIRING.
- B. THIS CONTRACTOR SHALL INSTALL THE SMOKE DETECTOR IN THE DUCT AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOT INSTALL A SMOKE DETECTOR IN A LOCATION WHERE IT OPERATING RANGE (TYPICALLY 32-100 DEGREES F) WILL BE EXCEEDED. THE SUPPLY FAN AND ALL ASSOCIATED EQUIPMENT SHALL STOP AND ALL DAMPERS SHALL RETURN TO THEIR "NORMAL" POSITIONS IF PRODUCTS OF COMBUSTION ARE DETECTED. RESET FOR THE SMOKE DETECTOR SHALL BE AT THE FIRE ALARM PANEL OR FIRE COMMAND STATION.
- D. THIS CONTRACTOR SHALL ASSIST THE ELECTRICAL CONTRACTOR IN TESTING THE DUCT-MOUNTED SMOKE DETECTION SYSTEM.

20. EQUIPMENT

A. FANS

- 1.) GENERAL (APPLIES TO ALL FAN TYPES EXCEPT AS NOTED).
- a. PROVIDE CENTRIFUGAL TYPE, NON-OVERLOADING DESIGN EXCEPT AS NOTED WITH MINIMUM CAPACITIES AS NOTED AND WITH CERTIFIED RATINGS BY AMCA. WHEEL SHALL BE FACTORY BALANCED STATICALLY AND DYNAMICALLY. BRAKE HORSEPOWER RATINGS SHALL NOT BE MORE THAN 5 PERCENT ABOVE WHAT IS NOTED ON DRAWINGS. DRIVES SHALL BE MATCHED, MULTIPLE V-BELT DRIVE UNLESS OTHERWISE NOTED WITH MINIMUM CAPACITY OF 1.4 TIMES RATED MOTOR HP. PULLEYS SHALL BE CAST IRON.
- b. MOTOR PULLEY SHALL BE VARIABLE PITCH DIAMETER EXCEPT FANS WITH VARIABLE INLET VANES. SUPPLY AND INSTALL ONE FIXED PITCH PULLEY CHARGE AS REQUIRED PER FAN TO BALANCE SYSTEMS. COMPANION SHEAVES SHALL MAINTAIN BELTS PARALLEL. BELT GUARDS SHALL BE IN COMPLIANCE WITH OSHA REGULATIONS AND WITH TACHOMETER OPENING FOR FAN SPEED MEASUREMENTS. MANUFACTURER SHALL PROVIDE REPLACEMENT FIXED PITCHED SHEAVES WHERE NEEDED TO BALANCE SYSTEM.
- c. PROVIDE REMOVABLE FLANGED SCREENS AT INLETS OR OUTLETS WHERE NO CONNECTING DUCTWORK IS INDICATED.
- d. BEARINGS BALL ROLLER OR TAPER. PROVIDE PRESSURE TYPE LUBRICATING FITTINGS WITH PRESSURE RELIEF FITTINGS EXTENDED TO ACCESSIBLE LOCATIONS. MINIMUM L-10 LIFE RATING; 50,000 HOURS PER AFBSMA STANDARD B-10 OR 25,000 HOURS AVERAGE (B-50) LIFE AT MAXIMUM CATALOG RATING.
- 2.) ROOF MOUNTED CENTRIFUGAL EXHAUST FANS SHALL BE OF SPUN ALUMINUM CONSTRUCTION WITH BACKWARD INCLINED, NON-OVERLOADING FAN WHEELS, ADJUSTABLE BELT DRIVE OR DIRECT DRIVE, MOTOR OUT OF AIR STREAM, INTERNAL VIBRATION ISOLATION, BIRD SCREEN, PREFABRICATED ROOF CURB, SELF-ACTING BACKDRAFT DAMPER AND MOTOR DISCONNECT SWITCH. SIMILAR TO PENN VENTILATOR DOME EX.
- 3.) FLANGE BACKDRAFT DAMPER FOR NON-DUCTED DISCHARGE AND WEATHER COVER FOR OUTDOOR INSTALLATION. PROVIDE V-BELT DRIVES WITH ADJUSTABLE PULLEYS AND OPEN DRIP PROOF MOTORS. PROVIDE FANS WITH VIBRATION ISOLATORS. PROVIDE PRE-FABRICATED EQUIPMENT CURBS FOR ROOF MOUNTING. FANS SHALL BE SIMILAR TO PENN VENTILATOR DYNAMO.

21. AUTOMATIC CONTROLS - GENERAL REQUIREMENTS

- A. FURNISH AND INSTALL A COMPLETE ELECTRIC OR ELECTRONIC CONTROL SYSTEM TO PROVIDE TEMPERATURE CONTROL AS SPECIFIED UNDER DESCRIPTION OF OPERATION.
- B. WORK SHALL INCLUDE ALL WIRING, CONTROL EQUIPMENT, AND ACCESSORIES NECESSARY TO MAKE THIS SYSTEM COMPLETE. ALL WIRING SHALL E 24 VOLT. COORDINATE WITH MANUFACTURER FOR INTERCONNECTION WITH CONTROLS INCLUDED IN EQUIPMENT. ALL CONTROL WORK SHALL BE INSTALLED BY THE HVAC CONTRACTOR.
- C. ACCEPTABLE MANUFACTURERS
- 1.) CARRIER CONTROL UNIT
- D. THERMOSTATS
- 1.) KITCHEN THERMOSTAT SHALL BE T-DAY PROGRAMMABLE THERMOSTAT MODEL 93C5C9FTN-02.

LANDLORD REQUIREMENTS

VERIFY ALL DEMOLITION WITH BUILDING OWNER TO BID AND START OF WORK. CONTRACTOR IS RESPONSIBLE FOR ALL WORK REQUIRED BY THE LANDLORD NOT SHOWN ON THESE PLANS.

VERIFY ANY WORK REQUIRED TO PROTECT LANDLORD AND TENANT FIRE ALARM/LIFE SAFETY SYSTEM WIRING AND DEVICES, DUCTWORK, PLUMBING, COMMUNICATE SYSTEM WIRING, ETC. DURING DEMOLITION AND NEW CONSTRUCTION WITH BUILDING OWNER AND THE TENANTS DESIGNER PRIOR TO BID/START OF WORK.

ALL ROOFING WORK SHALL BE PERFORMED BY THE LANDLORDS ROOFER

CONTRACTOR SHALL COORDINATE STRUCTURAL REVIEW WITH BUILDING OWNER.

ALL ROOFTOP EQUIPMENT MUST BE STENCILED WITH TENANT'S NAME AND SPACE NUMBER WITH EXTERIOR GRADE PAINT.

PROVIDE ROOF PROTECTION PADS AROUND ALL ROOFTOP EQUIPMENT AND UNDER ALL PIPING AND CONDUIT SUPPORTS.

VERIFY CONNECTIONS REQUIREMENTS AND POINT AND SIZES OF CONNECTIONS TO THE LANDLORD'S SANITARY WASTE, GREASE WASTE, VENT, WATER AND GAS TRAPS BUILDING OWNER PRIOR TO BID.

VERIFY LANDLORD APPROVED METHODS FOR ATTACHING TO THE BUILDING STRUCTURE FOR ALL HVAC, PIPING AND ELECTRICAL EQUIPMENT. ATTACHING TO THE ROOF DECK IS NOT ACCEPTED.

PROVIDE ACCESS TO ALL LANDLORDS EQUIPMENT LOCATED WITHIN THE TENANTS SPACE.

VERIFY WATER METER REQUIREMENTS WITH THE LOCAL UTILITY COMPANY PRIOR TO BID. METER MUST READ IN GALLONS. METER MUST BE INSTALLED NO MORE THAN 4'-0" AFF. WATER METER MUST ALSO BE INSTALLED IN ACCORDANCE WITH ARTESIAN REQUIREMENTS.

CONTRACTOR SHALL COORDINATE WITH THE LANDLORDS DESIGN CRITERIA.

FURNISH SHOP DRAWINGS FOR ALL EQUIPMENT TO THE LANDLORD AND THE ENGINEER FOR REVIEW.



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2611 CAROL CIRCLE
DOUGLASSVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-438-5497

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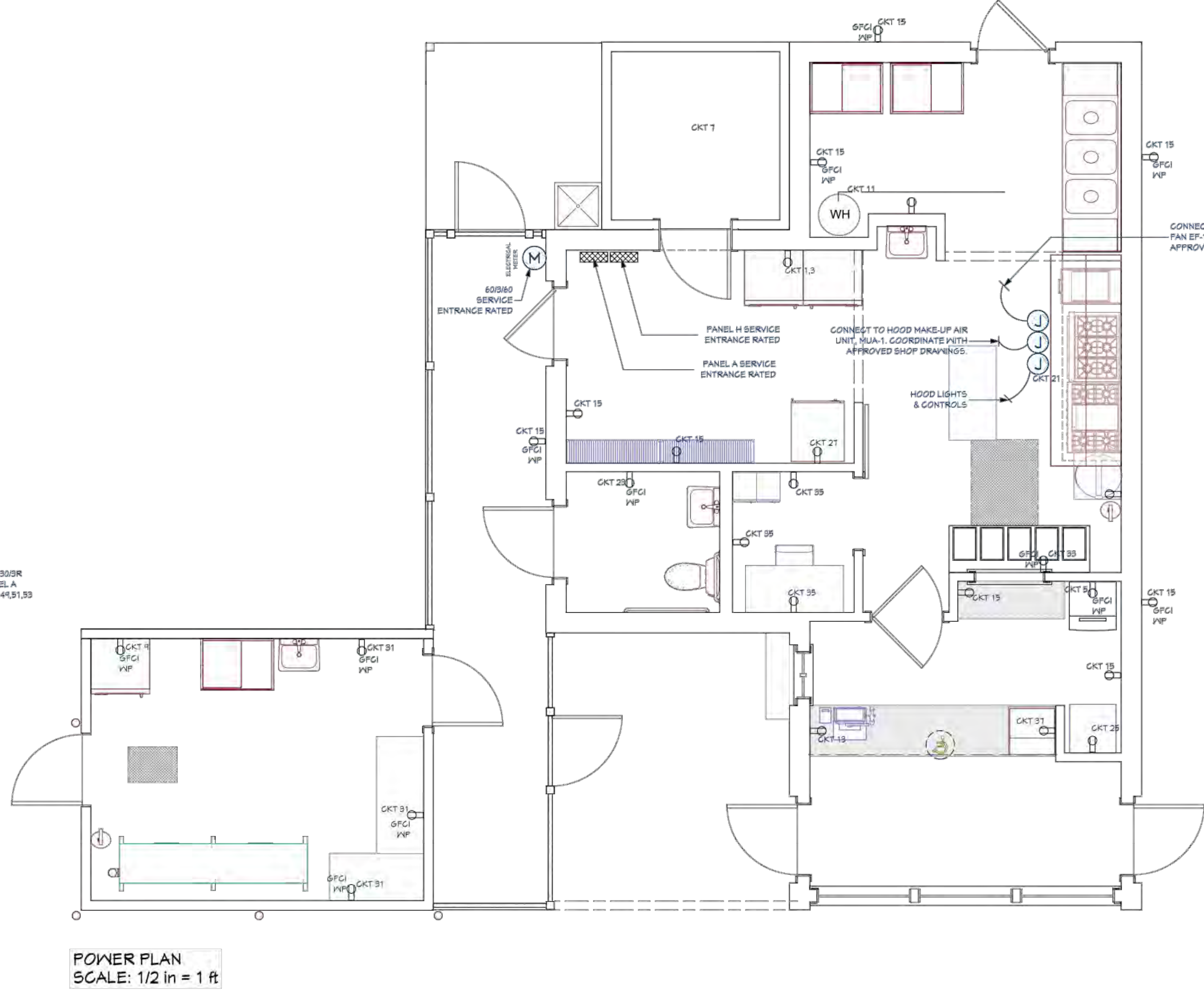
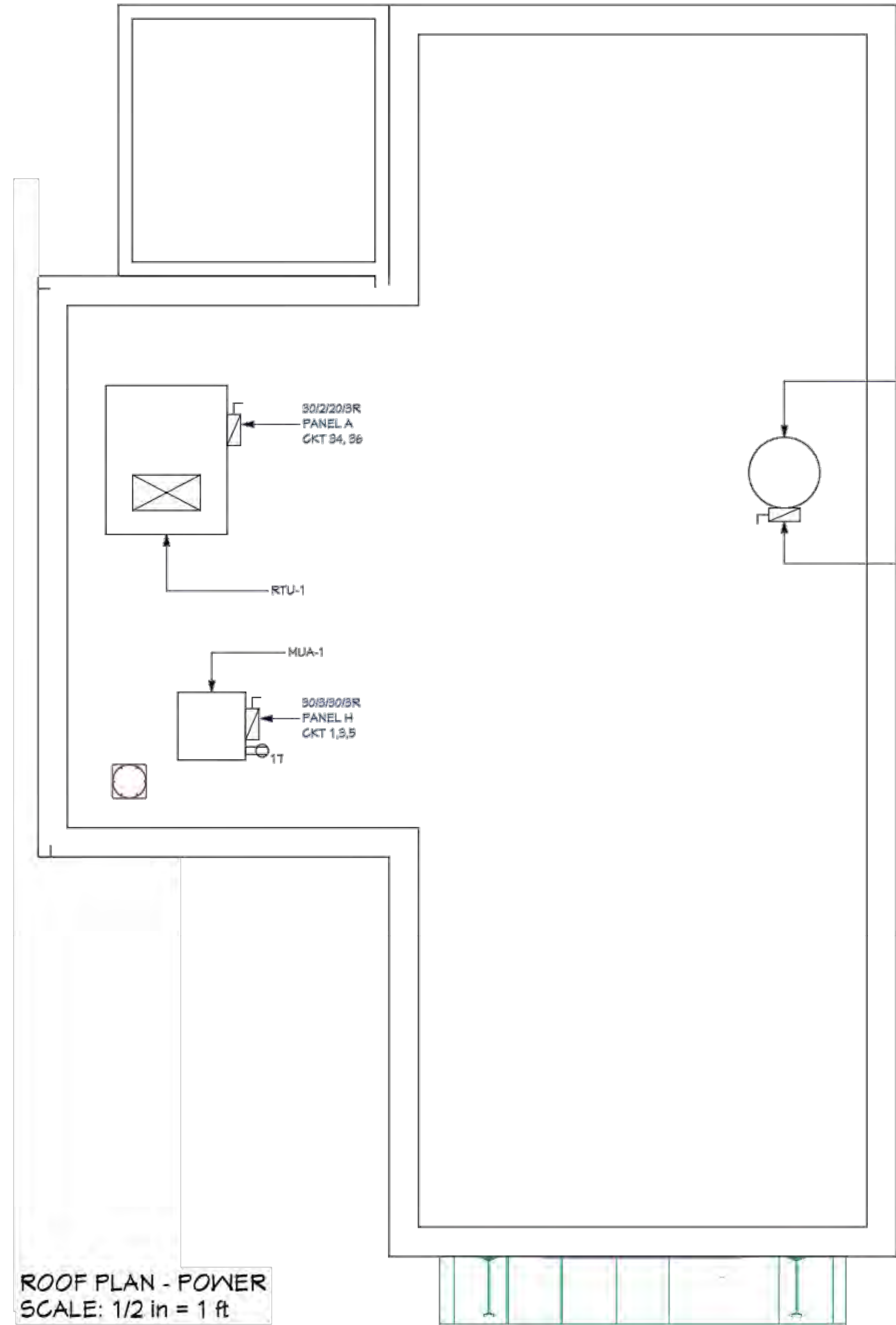
SHEET:

M-4

PANEL: A		208/120 VOLTS / 3 PHASE / 4 WIRE		MAIN BUS: 200 AMPS / NEUTRAL: 100%	
LOCATION: BACK OF HOUSE		MOUNTING: o SURFACE o FLUSH o ISOL GND BUS		o MAIN LUGS ONLY o MAIN BKR: 100 AMP o PROVIDE WITH FEED - THRU LUGS AIC: 10,000 AMPS	
		- SHUNT TRIP BRKR			
CKT #	TRIP/POLE	DESCRIPTION OF LOAD	WIRE & COND SIZE	LOAD (VA)	TRIP/POLE
1	201	REACH-IN FREEZER	20A	1080	2
2	201	REACH-IN FREEZER	20A	1080	4
3	201	ICE MAKER	20A	860	6
4	201	WALK-IN FRIDGE	20A	4000	8
5	201	UP-RIGHT FRIDGE	20A	1550	10
6	201	GAS WATER HEATER CONTROLS	20A	200	12
7	201	PUMP-1	20A	200	14
8	201	REC-CONVENIENCE	20A	840	16
9	201	REC-ROAST	20A	840	18
10	201	LIGHTING CONTRASTOR	20A	200	20
11	201	EXHAUST HOOD LBS/CONTROLS	20A	400	22
12	201	REC - TOILET ROOMS	20A	840	24
13	201	DRINK COOLER	20A	840	26
14	201	FOOD WARMER	20A	1500	28
15	201	LIGHTING SMOKEHOUSE	20A	1200	30
16	201	REC-SMOKEHOUSE	20A	840	32
17	201	STEAM TABLE	20A	840	34
18	201	REC-OFFICE	20A	840	36
19	201	COUNTERTOP WARMER	20A	1200	38
20	201	LIGHTING-EXTERIOR	20A	120	40
21	201	LIGHTING-EXIT SIGN	20A	100	42
22	201	SPARE	20A	0	44
23	201	SPARE	20A	0	46
24	201	SPARE	20A	0	48
25	201	SPARE	20A	0	50
26	201	HOOD EXHAUST FAN EF-1	40A	2100	52
27	201	SPARE	20A	0	54
TOTAL BY PHASE		11941	3922	1512	
TOTAL CONNECTED LOAD = 32035 VA		TOTAL DEMAND LOAD = 21630 VA		SPARE = 100%	
TOTAL CONNECTED AMP = 136 AMPS		TOTAL DEMAND AMP = 92 AMPS			

PANEL: H		208/120 VOLTS / 3 PHASE / 4 WIRE		MAIN BUS: 100 AMPS / NEUTRAL: 100%	
LOCATION: BACK OF HOUSE		MOUNTING: o SURFACE o FLUSH o ISOL GND BUS		o MAIN LUGS ONLY o MAIN BKR: 100 AMP o PROVIDE WITH FEED - THRU LUGS AIC: 10,000 AMPS	
		- SHUNT TRIP			
CKT #	TRIP/POLE	DESCRIPTION OF LOAD	WIRE & COND SIZE	LOAD (VA)	TRIP/POLE
1	30/3	MUA-1	30D	2522	2
2				2522	4
3				2522	6
4		SPACE ONLY		0	8
5				0	10
6				0	12
7		SPACE ONLY		0	14
8				0	16
9		SPACE ONLY		0	18
10				0	20
11				0	22
12		SPACE ONLY		0	24
13				0	26
14		SPACE ONLY		0	28
15				0	30
16		SPACE ONLY		0	32
17				0	34
TOTAL BY PHASE		8902	8902	2522	
SPARE = 5%		TOTAL CONNECTED LOAD = 9126 VA		TOTAL DEMAND LOAD = 6844 VA	
		TOTAL CONNECTED AMP = 36 AMPS		TOTAL DEMAND AMP = 28 AMPS	

ELECTRICAL LOAD SUMMARY			
TENANT VOLTAGE:	208 VOLTS	3 PHASE	AREA: 1240 SQ. FT.
LOADS	CONNECTED VA	DEMAND FACTOR	DESIGN VA
LIGHTING	5075	125%	6344
RECEPTACLES	1450	100% FOR FIRST 10KW 50% THEREAFTER	1450
HEATING	0	0	0
AIR CONDITIONING	18251	100%	18251
MISCELLANEOUS	200	100%	200
KITCHEN EQUIPMENT	24620	65%	16003
SUBTOTAL	30426		40028
SPARE @ 20%	10169		3006
TOTALS:	61111		48034
VA PER SQUARE FOOT	49		39
CONNECTED AMPS = 136		DESIGN AMPS = 40	



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4/15/2025

SCALE:

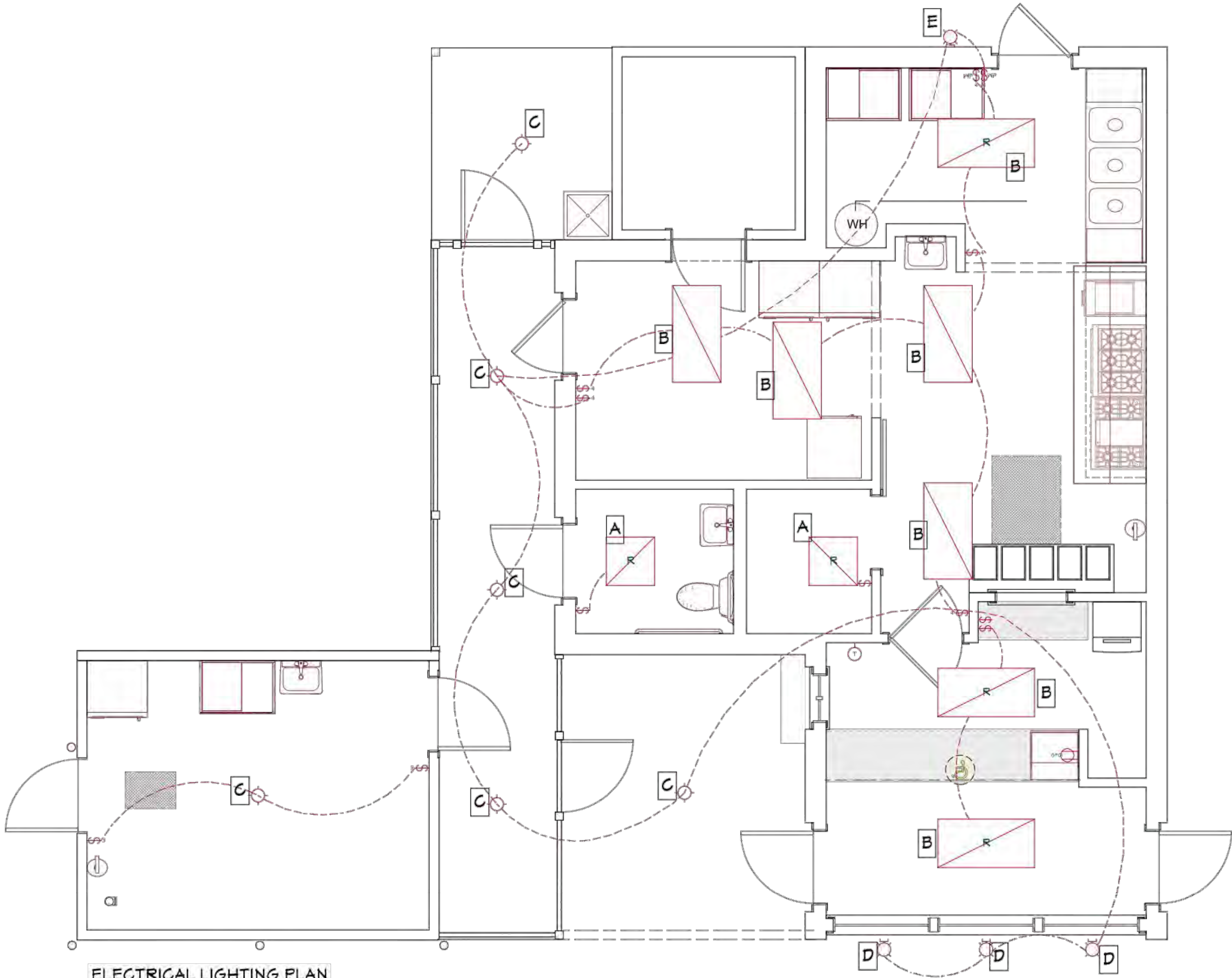
SHEET:

E-1

POWER GENERAL NOTES:

- 1. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E-2 AND ARCHITECTURAL REFLECTED CEILING PLAN.
- 2. COORDINATE FIXTURE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.

LIGHTING FIXTURE SCHEDULE								
TYPE	DESCRIPTION	MANUFACTURER	CATALOG	LAMPS	WATTS	VOLTS	MOUNT	NOTES
A	KITCHEN TROFFER 2X2 RECESSED, 3 LAMP	LITHONIA	CPX 2X2 3200LM 40K M4	LED	31.5	120	RECESSED	
B	KITCHEN TROFFER 2X4 RECESSED, 3 LAMP	LITHONIA	CPX 2X4 ALO8 SWMT M2	LED	50.5	120	RECESSED	
C	20" FARMHOUSE PENDANT LIGHT	CARSON STEEL LIGHTING	THE CARSON	LED	22	120	CEILING	
D	16" GOOSENECK 9" DOME	CARSON STEEL LIGHTING	THE VENICE	LED	22	120	WALL	
E	11" GOOSENECK	CARSON STEEL LIGHTING	THE TOPANGA	LED	22	120	WALL	



ELECTRICAL LIGHTING PLAN
SCALE: 1/2 in = 1 ft



ELECTRICAL LEGEND	
	2x4 RECESSED FLUORESCENT LIGHT FIXTURE
	2x2 RECESSED FLUORESCENT LIGHT FIXTURE
	110V DUPLEX WEATHER-PROOF 67C RECEPTACLES
	110V DUPLEX 67C RECEPTACLES
	CEILING MOUNTED LIGHT FIXTURE
	SINGLE-POLE SWITCH
	3-WAY SWITCH
	4-WAY SWITCH
	WEATHER-PROOF SWITCH
	ELECTRICAL METER
	WALL MOUNTED ELECTRICAL PANEL BOX
	THERMOSTAT

RELEASED FOR CONSTRUCTION

NO.		DESCRIPTION	BY	DATE

SHEET DESCRIPTION:

ELECTRICAL LIGHTING PLAN

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2611 CAROL CIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-430-5491

DATE:

4/15/2025

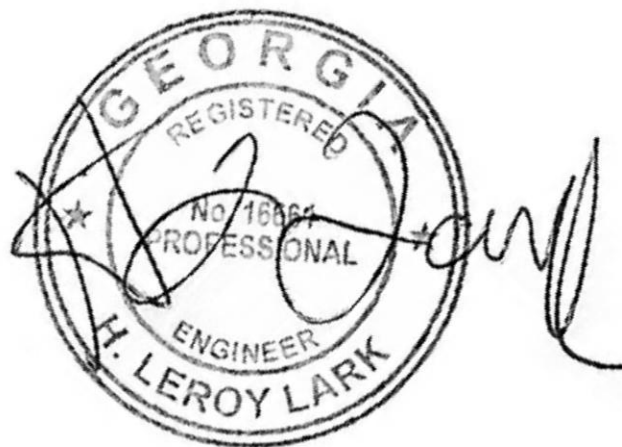
SCALE:

SHEET:

E-2

ELECTRICAL GENERAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS.
2. SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, RAIL PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND RAIL PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10 FT. APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
3. PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 6 INCHES OF STEAM OR HOT WATER PIPES OR AFFLIANCES (EXCEPT PIP CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 3 INCH FROM PIPE COVERS).
4. CUT CONDUIT ENDS SQUARE. REAM SMOOTH, PAINT MILD THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
5. HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED. DO NOT RUN CONDUIT IN PRECAST ROOF SLABS, IN 2 INCH SLAB, OR IN TERRAZZO FLOOR FINISH.
6. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT. LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.
7. SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.
8. VERIFY LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT. VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, CORRECT AND INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
9. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. COORDINATE WITH ARCHITECT AND INSTALL SWITCH ON SIDE OPPOSITE HINGE. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
10. COVERS OF JUNCTION AND PULLBOXES SHALL BE READILY ACCESSIBLE.
11. PROVIDE PULLBOXES WHERE INDICATED, WHERE REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES.
12. EMPTY RACEWAY RUNS: PROVIDE PULLBOXES EVERY 100 FT AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.
13. JUNCTION AND PULLBOXES: LOCATE GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
14. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
15. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
16. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
17. PROVIDE 2#14 INDICATING PILOT LIGHT WIRES FROM PILOT LIGHT IN CONTROLLER TO LOAD SIDE OF DISCONNECT SWITCH. RUN WIRES IN BRANCH CIRCUIT CONDUIT AND INCREASE CONDUIT SIZE AS REQUIRED.
18. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32°F (0°C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
19. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. COMMON BOXES: PROVIDE BARRIERS BETWEEN EMERGENCY AND NORMAL WIRING.
20. HEIGHTS OF OUTLETS FROM FINISHED FLOOR TO CENTERLINE OF OUTLET:
- | | |
|---------------------------------------|--|
| RECEPTACLES AND TELEPHONES: GENERALLY | 1'-6" |
| OVER WORK BENCHES | 3'-6" |
| WALL SWITCHES | 3'-10" |
| WALL FIXTURES | 7'-0" |
| MOTOR CONTROLLERS FA | 5'-0" |
| SPEAKERS & STROBES | 6'-3" AFF OR 6" BELOW CEILING (WHICHEVER IS LOWER) |
| FA PULL STATIONS | 4'-0" |
| CLOCKS | 7'-6" |
| FA STROBE LIGHTS | 6'-3" TO BOTTOM |
| EXIT SIGNS | 8" FROM TOP OF OPENING TO UNDERSIDE OF FIXTURE |
| EMERGENCY LIGHTS | 12" FROM CEILING TO CENTERLINE OF FIXTURE |
- EXCEPTIONS: AT JUNCTION OF DIFFERENT WALL FINISH MATERIALS, ON MOLDING OR BREAK IN WALL SURFACE, IN VIOLATION OF CODE REQUIREMENTS, AS NOTED OR DIRECTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND CONFIRMING ALL MOUNTING HEIGHTS WITH ARCHITECT AND ARCHITECTURAL DRAWINGS.
21. WIRE COLOR CODING: AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 8") IN ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
22. FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION.
23. LIGHTING FIXTURE SCHEDULE STANDARD NOTE: LIGHTING FIXTURE SCHEDULE SHOWN ON ENGINEER'S DRAWINGS ARE FOR INFORMATION PURPOSES ONLY. LIGHTING FIXTURES SHOWN ARE THOSE SELECTED BY ARCHITECT. ENGINEER SHALL NOT BE RESPONSIBLE FOR INFORMATION SHOWN RELATED TO FIXTURE SELECTION AND OVERALL LIGHTING DESIGN. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.
24. EXPOSED CONDUITS ARE NOT PERMITTED EXCEPT AT PANEL LOCATION. CONCEAL ALL CONDUITS IN WALLS AND ABOVE CEILINGS.



1. GENERAL

- A. THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, AIA DOCUMENT A201, LATEST EDITION, AND THESE SPECIFICATIONS AS APPLICABLE ARE PART OF THIS CONTRACT.
- B. 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 MATERIAL WHICH VIOLATES ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR.
- C. INVESTIGATE EACH SPACE THROUGH WHICH EQUIPMENT MUST BE MOVED. WHERE NECESSARY, EQUIPMENT SHALL BE SHIPPED FROM MANUFACTURER IN SECTIONS OF SIZE SUITABLE FOR MOVING THROUGH AVAILABLE RESTRICTIVE SPACES. ASCERTAIN FROM BUILDING OWNER AND TENANT AT WHAT TIMES OF DAY EQUIPMENT MAY BE MOVED THROUGH ALL AREAS.
- D. 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.
- E. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK MAY BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES AND CHARGES IN MAKING UP THE WORK PROPOSAL.
- F. PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THE BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF CONDUIT AND EQUIPMENT. PROVIDE EQUIPMENT CURBS AS REQUIRED.
- G. THE WORK IN THE BUILDING SHALL BE DONE WHEN AND AS DIRECTED 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.
- H. ALL MATERIAL AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
- I. INSURANCE: IN ACCORDANCE WITH BUILDING REQUIREMENTS AND SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
- J. THE FINAL ACCEPTANCE SHALL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, TESTED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL.
- 2. SCOPE OF WORK**
- A. PROVIDE LABOR, MATERIALS, EQUIPMENT, SERVICES AND FEES NECESSARY FOR COMPLETE AND SAFE INSTALLATION IN CONFORMITY WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL OTHER APPLICABLE INDUSTRY, NATIONAL AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION, AS INDICATED ON DRAWINGS AND HEREIN SPECIFIED.
- B. ALL DRAWINGS, PLANS, DETAILS, SPECIFICATIONS AND SPECIFICATION APPENDS ARE MADE PART OF THIS CONTRACT AND SHALL APPLY TO ALL WORK UNDER THE CONTRACT UNLESS OTHERWISE AMENDED, MODIFIED, SUPPLEMENTED OR SPECIFIED HEREIN.
- C. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OF ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES BY OWNER INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER & THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING OR REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR.
- D. THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH ALL DEPARTMENTS HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THIS WORK AND PAY ALL FEES THEREFOR. THE CONTRACTOR SHALL ARRANGE FOR INSPECTIONS AND TESTS OF ANY OR ALL PARTS THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR, AND FURNISH TO THE OWNER BEFORE FINAL BILLING, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.
- 3. SHOP DRAWINGS**
- A. PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT, CONTRACTOR SHALL PROVIDE COMPLETE SETS OF COORDINATED SHOP DRAWINGS OF ALL NEW AND EXISTING EQUIPMENT, INDICATING CAPACITY, DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ENGINEER.
- B. INDICATE ON EACH SHOP DRAWINGS SUBMITTED:
- PROJECT NAME AND LOCATION
 - ITEM IDENTIFICATION
- 4. GENERAL PROVISIONS FOR ELECTRICAL WORK**
- A. SPECIFICATIONS ARE OF SIMPLIFIED FORM AND INCLUDE INCOMPLETE SENTENCES. WORDS OR PHRASES SUCH AS "THE CONTRACTOR SHALL," "SHALL BE," "FURNISH," "PROVIDE," "A," "THE," AND "ALL" HAVE BEEN OMITTED FOR BREVITY.
- B. DEFINITIONS
- "PROVIDE": TO SUPPLY, INSTALL AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION THE PARTICULAR WORK REFERRED TO UNLESS SPECIFICALLY OTHERWISE NOTED.
 - "INSTALL": TO ERECT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES
 - "FURNISH" OR "SUPPLY": TO PURCHASE, PROCURE, ACQUIRE AND DELIVER COMPLETE WITH RELATED ACCESSORIES
 - "WORK": LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.
 - "WIRING": RACEWAY, FITTINGS, WIRE, BOXES AND RELATED ITEMS.
 - "CONCEALED": EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES, IN CRAWLSPACES, OR IN ENCLOSURES.
 - "EXPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE
 - "SIMILAR" OR "EQUAL": EQUAL IN MATERIALS, WEIGHT, SIZE, DESIGN AND EFFICIENCY OF SPECIFIED PRODUCT.
- C. GENERAL
- THE DRAWINGS SHOW THE APPROXIMATE LOCATIONS OF ALL APPARATUS, THE EXACT LOCATIONS OF WHICH ARE SUBJECT TO THE APPROVAL OF THE OWNER, WHO RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGES IN THE LOCATION INDICATED WITHOUT EXTRA COST. WHILE THE GENERAL RUN OF CONDUIT AND CABLES ARE INDICATED ON THE DRAWINGS, IT IS NOT INTENDED THAT THE EXACT ROUTING OR LOCATIONS OF CONDUIT AND CABLES BE DETERMINED THERE FROM.
 - THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HISHER WORK TO CONFORM TO THE STRUCTURE, MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH ALL TRADES.
 - WIRE ALL FIXTURES, DEVICES, ETC., TO RESPECTIVE PANEL AND CONTROLS AS SHOWN ON PLANS IN SYMBOL FORM
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP AND REMOVAL FROM THE SITE OF RESULTING DEBRIS UPON COMPLETION OF WORK UNDER THIS SECTION.
 - PROVIDE SEPARATE SYSTEMS AND ENCLOSURES FOR 120/208 POWER AND CONTROL WIRING. COMMON PULL BOXES AND JB'S ARE NOT ACCEPTABLE.
 - LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO RELOCATIONS. AT OR NEAR DOORS INSTALL SWITCH INSIDE OPPOSITE HINGE. VERIFY FINAL DOOR HINGE LOCATION IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
 - HEIGHTS OF OUTLET FROM FINISHED FLOOR TO CENTERLINE OF OUTLETS SHALL CONFORM TO ADA CODE REQUIREMENTS.
- D. TEMPORARY LIGHT AND POWER
- PROVIDE TEMPORARY LIGHT AND POWER SYSTEMS AT EARLIEST POSSIBLE DATE WITHIN THE CONSTRUCTION AREAS FOR THE REQUIREMENTS OF ALL TRADES AS HEREIN DESCRIBED. EXTEND SYSTEMS TO NEW CONSTRUCTION AS SOON AS PHYSICALLY POSSIBLE. MAINTAIN SYSTEM DURING WORKING HOURS OF ALL TRADES. OWNER WILL PAY FOR COST OF ENERGY. PROVIDE ALL REQUIRED MAINTENANCE, INCLUDING LAMPS AND SOCKETS.
- E. QUALITY ASSURANCE
- QUALITY AND GAUGE OF MATERIALS: NEW, BEST OF THEIR RESPECTIVE KINDS, FREE FROM DEFECTS AND LISTED BY UNDERWRITERS LABORATORIES, INC., OR OTHER NATIONALLY APPROVED TESTING AGENCY AND BEARING THEIR LABEL. MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION SHALL BE OF SAME MANUFACTURER, EXCEPT AS NOTED.
 - ON COMPLETION OF THE WORK, THE ENTIRE WIRING SYSTEM SHALL BE ENTIRELY FREE FROM GROUNDS, SHORT CIRCUITS, OPENS, OVERLOADS AND IMPROPER VOLTAGES AND THOROUGH TEST SHALL BE MADE. FURNISH ALL LABOR AND MATERIALS AND INSTRUMENTS.
 - GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
 - CURRENT CHARACTERISTICS
- a. SERVICE: AND 120/280 VOLT, 3 PHASE, 4 WIRE, 60 HERTZ WITH GROUNDED NEUTRAL.
- b. DISTRIBUTION: AND 120/280 VOLT, 3 PHASE, 4 WIRE, 60 HERTZ WITH GROUNDED NEUTRAL.
- F. MATERIALS
- NAMEPLATES: PROVIDE BLACK LAMICOID SHEET WITH 3/4 IN. WHITE LETTERING, FASTENED WITH EPOXY CEMENT FOR EACH DISCONNECT SWITCH, CIRCUIT BREAKER, PANEL, CABINET, TRANSFORMER, ENCLOSURE, MOTOR CONTROLLER AND THE LIKE. NAMEPLATES SHALL DESCRIBE THE NAME AND NUMBER OF EACH COMPONENT.
 - CABLE TAGS: TAG EACH CONDUCTOR PASSING THROUGH SPlice OR PULLBOX WITH A WHITE LINEN TAG, INDICATING POINT OF ORIGIN AND TERMINATION OF THE CIRCUIT.
 - INSERTS AND SUPPORTS
 - INSERTS: STEEL, SLOTTED TYPE, FACTORY PAINTED.
 - (1) MAXIMUM LOADING: 75 PERCENT OF RATING.
 - SUPPORTS FROM BUILDING CONSTRUCTION: INSERTS, BEAM CLAMPS, STEEL FISHPLATES (IN CONCRETE FILL ONLY), CANTILEVER BRACKETS OR OTHER MEANS.
 - GROUPED LINES AND SERVICES: TRAPEZEE HANGERS IF BOLTED ANGLES OR CHANNELS.
 - WHERE BUILDING CONSTRUCTION IS INADEQUATE: PROVIDE ADDITIONAL FRAMING. SUBMIT FOR REVIEW BY OWNER AND STRUCTURAL ENGINEER.
- G. PAINT SHALL BE THE BEST GRADE FOR ITS PURPOSE. DELIVER IN ORIGINAL SEALED CONTAINERS AND APPLY IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. COLORS SHALL BE DAPLERS. UTILIZE GALVANIZED IRON PRIMER ON PANEL, AND PULL BOXES, AFTER FABRICATION, UTILIZE HOT DIPPED GALVANIZED OR DIPPED IN ZINC CHROMATE FOR OUTLET BOXES, JUNCTION BOXES, CONDUIT HANGERS, RODS, INSERTS AND SUPPORTS. RED LEAD OR ZINC CHROMATE WITH FINISH TO MATCH SURROUNDINGS SHALL BE USED FOR MARKED SURFACES OF STEEL EQUIPMENT AND RACEWAYS. A FIELD-APPLIED ZINC CHROMATE PRIME COAT SHALL BE UTILIZED FOR STEEL AND IRONWORK.

- H. BRUSH AND CLEAN WORK PRIOR TO CONCEALING, PAINTING AND ACCEPTANCE. PAINTED EXPOSED WORK SOILED OR DAMAGED; CLEAN AND REPAIR TO MATCH ADJOINING WORK BEFORE FINAL ACCEPTANCE. REMOVE DEBRIS FROM INSIDE AND OUTSIDE OF MATERIAL AND EQUIPMENT.
- I. FINAL LOCATIONS AND MOUNTING ORIENTATIONS OF ALL SWITCHES, RECEPTACLES AND LIGHT FIXTURES SHALL BE VERIFIED WITH ENGINEER, PRIOR TO ROUGH IN.
- J. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ENGINEER PRIOR TO INSTALLATION.
- 5. CUTTING AND PATCHING**
- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF THE EXISTING AND NEW CONSTRUCTION WORK, WHICH MAY BE REQUIRED FOR THE PROPER INSTALLATION OF THE ELECTRICAL WORK. ALL PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP, AND FINISH, AND SHALL ACCURATELY MATCH ALL SURROUNDINGS WORK.
- B. CORE BORING OF CONCRETE FLOORS AND/OR WALLS IF REQUIRED, IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 6. COORDINATION**
- A. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EQUIPMENT WITH ARCHITECTURAL DRAWINGS. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS, AND MECHANICAL EQUIPMENT. VARIATIONS IN FIRE PROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS, AND THE LIKE AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSES TO THE OWNER.
- 7. EQUIPMENT FURNISHED BY OTHERS**
- A. THE CONTRACTOR SHALL FURNISH AND INSTALL WIRE, JUNCTION BOXES, DISCONNECTS AND MAKE FINAL CONNECTIONS FOR EQUIPMENT FURNISHED BY OTHERS, AS SHOWN ON DRAWINGS. COORDINATE WITH ALL OTHER TRADES OR DETAILS FOR INSTALLATION. CONTRACTOR SHALL CHECK ALL OTHER TRADE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT TO BE INSTALLED BY OTHERS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER WIRING AND NECESSARY ELECTRICAL ADJUSTMENTS TO EQUIPMENT TO CONFORM TO SPECIFIED REQUIREMENTS OF THE EQUIPMENT.
- 8. LOW-VOLTAGE DISTRIBUTION EQUIPMENT**
- A. ALL EQUIPMENT SHALL CONFORM TO NEMA, ANSI AND IEEE STANDARDS.
- B. DISCONNECT SWITCHES SHALL BE FUSED OR NON-FUSED AS NOTED.
- VOLTAGE SHALL BE AS REQUIRED.
 - SWITCHES SHALL BE HEAVY DUTY, EXCEPT AS NOTED, AND HORSEPOWER RATED FOR MOTOR LOADS.
 - TOGGLE TYPE SWITCHES SHALL BE NON-FUSED, LOAD BREAK, HAVING MAXIMUM RATINGS OF 20 AMP AT 600 VOLTS AND 30 AMP AT 240 VOLTS.
 - KNIFE-BLADE TYPE SWITCHES SHALL BE LOAD BREAK, QUICK-BREAK, UL CLASS R UP TO 600 AMP. MAXIMUM RATING EXCEPT AS NOTED SHALL BE 600 AMP. ARC GUARDIANS SHALL BE PROVIDED.
 - ALL SWITCH ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, EXCEPT AS NOTED.
 - FUSES:
 - DUAL ELEMENT FUSES SHALL BE UTILIZED FOR MOTOR LOADS. TIME DELAY SHALL HAVE A MAXIMUM RATING OF 600 AMP AT REQUIRED VOLTAGE. 200,000 AMP INTERRUPTING CAPACITY FUSES SHALL BE UL CLASS R.
 - CURRENT LIMITING FUSES SHALL BE UTILIZING FOR OTHER LOADS. 200,000 AMP INTERRUPTING CAPACITY SHALL BE UL CLASS R UP TO 600 AMP, CLASS L OVER 600 AMP.
 - ALL FUSES SHALL BE PROVIDED BY SAME MANUFACTURER. PROVIDE 1 SPARE MATCHING FUSE FOR EACH SET OF 3.
- D. CIRCUIT BREAKER:
- MOLDED CASE BREAKERS SHALL BE THERMAL-MAGNETIC, QUICK-MAKE-QUICK-BREAK, BOLT-ON TYPE, MANUALLY OPERATED WITH INSULATED TRIP-FREE HANDLE.
 - MULTI-POLE TYPE BREAKERS SHALL CONTAIN INTERNAL TRIP BAR.
 - TERMINALS SHALL BE SUITABLE FOR COPPER OR ALUMINUM CABLE.
 - FURNISH AUXILIARY DEVICES WHERE REQUIRED FOR SHUNT TRIPPING, OPEN AND CLOSE MOTOR OPERATOR AND ALARM INDICATION.
 - ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, OR AS NOTED.
 - FRAMES, INTERRUPTING CAPACITY AND INTERCHANGEABLE TRIPS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
 - 120 VOLTS, 100-AMP FRAME: 10,000 AMPS, 1 POLE.
 - 240 VOLTS, 100-AMP FRAME: 10,000 AMPS, 2 & 3 POLES.
 - 240 VOLTS, 200-AMP FRAME: 50,000 AMPS 2 & 3 POLES WITH INTERCHANGEABLE TRIP.
 - CIRCUIT BREAKERS TO BE INSTALLED IN EXISTING PANEL BOARDS, SHALL BE OF THE SAME MANUFACTURER, TYPE AND A.I.C. RATING AS PRESENTLY IN USE.
- E. PANEL BOARDS:
- 3 PHASE SWITCHING UNITS SHALL BE 4 WIRE CIRCUIT-BREAKER TYPE UNLESS OTHERWISE NOTED ON PANEL SCHEDULES.
 - BUS BARS SHALL BE HARD DRAWN COPPER, MINIMUM 48 PERCENT CONDUCTIVITY, SILVER OR TIN-PLATED JOINTS.
 - CABINETS SHALL BE GALVANIZED SHEET STEEL BACK BOX, WITH DOOR AND TRIM AND LAPPEF AND WELDED CORNERS.
 - HARDWARE SHALL BE CHROMED PLATED WITH FLUSH LOCK/LATCH HANDLE ASSEMBLY (UP TO 48 IN. HIGH DOORS) OR VAULT HANDLE, LOCK AND 3-POINT CATCH (LARGER THAN 48 IN. HIGH DOORS).
 - HINGES SHALL BE SEMI-CONCEALED, 5-KNUCKLE STEEL WITH NONFERROUS PINS, 180-DEGREE OPENING, LOCATED A MAXIMUM 26 IN. ON CENTERS. PROVIDE DOOR-IN-DOOR CONSTRUCTION.
 - MINIMUM GUTTER SPACES FOR LIGHTING PANELS SHALL BE 3-3/8 IN. SIDES, TOP AND BOTTOM.
 - DIRECTORY HOLDER SHALL BE METAL FRAME WITH CLEAR PLASTIC, TRANSPARENT COVER.
 - A TYPEWRITTEN LIST INDICATING FEEDER CABLE AND CONDUIT SIZE, CIRCUIT NUMBERS, OUTLETS SUPPLIED AND THEIR LOCATIONS SHALL BE PROVIDED.
 - BALANCE THE LOAD OVER PHASES WHEN NEW CIRCUITS ARE ADDED TO NEW PANELS.
 - PROVIDE MULTI-CABLE LUGS WHERE REQUIRED. DOUBLE LUGGING SHALL NOT BE PERMITTED.
 - MOUNTING HEIGHT SHALL BE A MAXIMUM OF 6 FT. 6 IN. FROM FLOOR TO TOP SWITCH UNIT.
 - TESTS: OPEN AND CLOSE LOAD BREAK SWITCHING DEVICES UNDER LOAD.
- 9. GROUNDING**
- A. EQUIPMENT-GROUNDING CONDUCTOR, COMMONLY DESCRIBED AS A GREEN WIRE, SHALL BE PROVIDED FOR ALL BRANCH CIRCUITS PROTECTED BY OVERCURRENT DEVICES. AN EQUIPMENT GROUNDING WIRE SHALL ALSO BE PROVIDED FOR FLEXIBLE CONDUIT AND MOTOR CIRCUIT.
- 10. RACEWAYS**
- A. PROVIDE RACEWAYS COMPLETE WITH BOXES, FITTINGS, AND ACCESSORIES.
- B. CONDUIT OR TUBING SIZES REFERRED TO IN SPECIFICATIONS AND ON DRAWINGS ARE NOMINAL DIAMETERS.
- C. MINIMUM DIAMETER SHALL BE 3/4 IN.
- D. MATERIALS
- CONDUIT
 - RIGID STEEL CONDUIT: FULL-WEIGHT PIPE, GALVANIZED, THREADED.
 - ELECTROMAGNETIC TUBING (EMT): THIN WALL PIPE, GALVANIZED, THREADED.
 - FLEXIBLE STEEL CONDUIT: CONTINUOUS SINGLE STRIP, GALVANIZED
 - WIREWAYS: DIMENSIONS AS NOTED, MINIMUM NO. 16 GAUGE STEEL WITH GROUND CONTINUITY. FINISH SHALL BE BAKED ENAMEL COVERS SHALL BE SCREW-ON.
 - FITTINGS AND ACCESSORIES
 - RIGID STEEL: NONSPLIT, THREADED, STEEL OR MALLEABLE IRON. ZINC DIE CAST NOT PERMITTED.
 - ELECTROMAGNETIC TUBING: COMPRESSION TYPE 2 IN. AND UNDER. SET SCREW TYPE 2-1/2 IN. AND LARGER. GALVANIZED STEEL ELBOWS, 2 IN. OR LARGER.
 - FLEXIBLE METALLIC CONDUIT: SQUEEZE TYPE COMPRESSION FITTING WITH INSULATED THROAT.
 - SUBMINGS: METALLIC INSULATED TYPE.
 - BOXES
 - OUTLET BOXES:
 - (1) EXCEPT AS OTHERWISE REQUIRED BY CONSTRUCTION, DEVICES OR WIRING, BOXES SHALL BE STAMPED STEEL, 4 IN. SQUARE OR OCTAGON FOR FIXTURES.
 - a) ABOVE CEILING SHALL BE 1-1/2 IN. DEEP.
 - b) IN CEILING OR SLAB SHALL BE 3 IN. DEEP.
 - c) IN WALL FOR FIXTURES SHALL BE 2-3/4 IN. DEEP.
 - d) IN WALL FOR RECEPTACLES AND SWITCHES SHALL BE 1-1/2 IN. DEEP.
 - e) FURNISH WITH BASED COVERS AND FIXTURE STUDS WHERE REQUIRED.
 - (2) WITHOUT FIXTURE OR DEVICE: FURNISH BLANK COVER.
 - (3) OFFSET BACK-TO-BACK OUTLETS WITH MINIMUM 6 IN. SEPARATION.
 - (4) ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING.
 - (5) OUTLET BOXES SHALL BE SET SQUARE AND TRUE BUILDING FINISH. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRON OR GROUT IN WITH MASONRY.
 - (7) VERIFY OUTLET LOCATIONS IN FINISHED SPACES WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISHES.
 - (8) PROVIDE BARRIERS BETWEEN SWITCHES CONNECTED TO DIFFERENT PHASES FOR VOLTAGES EXCEEDING 150 VOLTS TO GROUND.
 - (9) PROVIDE BARRIERS BETWEEN NORMAL ONLY AND NORMAL/EMERGENCY SWITCHES INSTALLED WITHIN A COMMON OUTLET BOX.
 - b. JUNCTION AND PULL BOXES:
 - (1) GALVANIZED SHEET STEEL WITH SCREW-ON COVERS, EXCEPT AS NOTED.
 - (2) FURNISH WITH INSULATED SUPPORTS AND CABLES.
 - (3) LOCATIONS SHALL BE AS NOTED OR REQUIRED AND ACCESSIBLE.
 - (4) CONCEAL JUNCTION AND PULL BOXES IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
 - (5) SUPPORT BOXES FROM BUILDING STRUCTURE, INDEPENDENT OF CONDUIT. PROVIDE FLOOR-TO-CEILING CHANNELS FOR MOUNTING ON DRYWALL AND LIGHTWEIGHT CONSTRUCTION.
 - (6) BOXES SHALL BE ACCESSIBLE. OUTLET BOXES FOR FIXTURES RECESSED IN HUNG CEILINGS SHALL BE ACCESSIBLE THROUGH OPENING CREATED BY REMOVAL OF FIXTURE.
 - (7) MOTOR TERMINAL BOXES: COORDINATE WITH MOTOR BRANCH CIRCUIT CONDUIT AND WIRING; ADD BOX VOLUME WHERE REQUIRED.
 6. PANEL, JUNCTION AND PULL BOXES SHALL BE LOCATED CLEAR OF OTHER TRADES.

E. PROVIDE RACEWAYS ONLY AS HEREIN SPECIFIED, EXCEPT AS NOTED.
1.) RACEWAYS SHALL BE RUN CONCEALED, EXCEPT AS NOTED.
2.) PROVIDE RACEWAY SUPPORT UTILIZING CEILING TRAPEZE, STRAPHANGERS, OR WALL BRACKET, PROVIDE U-BOLTS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND CONNECTED TO ACCEPTABLE SUPPORTS. PROVIDE RISER CLAMPS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND RESTING ON SLAB.
3.) SECURE ALL RACEWAYS TO SUPPORTS WITH PIPE STRAPS OR U-BOLTS. SPACING OF SUPPORTS SHALL BE A MINIMUM OF 10 FT. ON CENTER OF METALLIC RACEWAY AND AS REQUIRED FOR NONMETALLIC RACEWAY. SPACING SHALL BE 8 FT. ON CENTER FOR FIREWAYS AND FIBER GOLF AND AS NOTED FOR OTHERS. MOUNT SUPPORTS TO STRUCTURE MASONRY WITH TOGGLE BOLTS ON HOLLOW MASONRY, EXPANSION SHIELDS OR INSERTS IN CONCRETE AND BRICK. MACHINE SCREWS ON METAL. BEAM CLAMPS ON FRAMEWORK. WOOD SCREWS ON WOOD AND PAN THROUGH STRAPS IN METAL DECK. MAINS, RAY PLUGS OR WOOD PLUGS SHALL NOT BE PERMITTED. WHERE REQUIRED BY STRUCTURE, FURNISH THROUGH BOLTS AND REINPLATES.
4.) EXPOSED RACEWAY SHALL RUN PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
5.) PROVIDE CLEARANCE WITH WATER, STEAM OR OTHER PIPING (MINIMUM 3 IN. SEPARATION FROM STEAM AND HOT WATER PIPES, EXCEPT 1 IN. FROM PIPE COVER AT CROSSINGS AND 18 IN. FOR PARALLEL RUNS).
6.) FOR HUNG CEILING OUTLETS, RUN IN HUNG CEILING AND CONNECT TO CEILING SUPPORT CHANNELS. IN MASONRY AND POURED CONCRETE, RUN VERTICALLY ONLY.
7.) MAINTAIN GROUNDING CONTINUITY OF UNINTERRUPTED METALLIC RACEWAYS WITH GROUND CONDUCTOR, AND IN FLEXIBLE CONDUIT FOR FEEDERS AND MOTOR TERMINAL CONNECTIONS.
8.) EMPTY RACEWAYS OVER 10 FT. LONG: PROVIDE FISH OR PULL WIRE, GALVANIZED OR NYLON ROPE.
9.) RIGID STEEL CONDUIT SHALL BE PERMITTED FOR FEEDERS AND BRANCH CIRCUITS. PAINT MAKE THREADS OF FIELD-THREADED CONDUIT WITH GRAPHITE-BASE PIPE COMPOUND AND BUTT CONDUIT ENDS. TOUCH UP MARKED SURFACES AND FIELD-CUT THREADS, CRC-COLD GALVANIZED.
10.) EMT SHALL BE PERMITTED FOR BRANCH CIRCUITS ONLY, IN DRY LOCATIONS, DRY WALLS, HUNG CEILINGS, HOLLOW BLOCK WALLS AND FURRED SPACES.
11.) FLEXIBLE STEEL CONDUIT MAY BE UTILIZED FOR SHORE CONNECTIONS WHERE RIGID CONDUIT IS IMPRACTICAL.
a. FROM OUTLET BOX TO RECESSED LIGHTING FIXTURE: PROVIDE MINIMUM 4 FT. AND MAXIMUM 6 FT. LENGTHS.
b. FOR FINAL CONNECTION TO MOTOR TERMINAL BOX, TRANSFORMER AND OTHER VIBRATING EQUIPMENT: PROVIDE WITH POLY-VINYL SHEATHING AND GROUND CONDUCTOR.
c. MINIMUM LENGTH: 18 IN. WITH SLACK.
d. CONNECT GROUND CONDUCTOR TO ENCLOSURE OR RACEWAY AT EACH END.
e. FOR EXPANSION JOINT CROSSINGS, CROSS AT RIGHT ANGLES AND ANCHOR ENDS.
12.) CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MAKE THREADS OF FIELD-THREADED RACEWAYS WITH GRAPHITE-BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLINGS.
13.) ALL COUPLINGS ON EMT RACEWAYS SHALL BE COMPRESSION TYPE UP TO AND INCLUDING 2 IN. CONDUIT. SET SCREW TYPE FITTINGS SHALL BE USED ON 2-1/2 IN. EMT. CONDUIT AND LARGER.
14.) EXPANSION FITTINGS SHALL BE INSTALLED AT RIGHT ANGLES WITH CLIP JOINT CENTERED IN EXPANSION JOINT. PROVIDE A LENGTH OF RUN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PRESERVE FITTINGS SHALL ALLOW FOR TEMPERATURE VARIATION.
15.) RACEWAYS PASSING THROUGH FIRE-RATED CONSTRUCTION: SEAL OPENINGS WITH FIRE SEALANT APPROPRIATE TO MAINTAIN FIRE RATING OF CONSTRUCTION.
16.) PROVIDE RACEWAYS CONTINUITY TESTS OF RESISTANCE OF FEEDER CONDUITS FROM SERVICE TO POINT OF FINAL DISTRIBUTION USING 1 CONDUCTOR RETURN. MAXIMUM RESISTANCE SHALL BE 25 OHMS.

11. WIRE AND CABLE

A. PROVIDE WIRE AND CABLE COMPLETE WITH ACCESSORIES.
B. SIZE REFERENCE SHALL BE AWG EXCEPT AS NOTED.
C. POWER CONDUCTOR SHALL BE COPPER, ASTM STANDARD SOLID (NO. 10 AND SMALLER) OR STRANDED (NO. 8 AND LARGER). GENERAL USE CABLEING SHALL BE NO. 12 MINIMUM.
1.) AT 120 VOLTS AND OVER 100 FT. CIRCUIT LENGTH PROVIDE NO. 10 MINIMUM.
D. CONTROL AND ALARM CABLEING, EXCEPT AS NOTED, SHALL BE NO. 14 MINIMUM.
E. ADJUST CABLE SIZES AS REQUIRED TO MAINTAIN VOLTAGE DROP. INCREASE RACEWAY SIZES FOR LARGER WIRE AS REQUIRED.
F. INSULATION SHALL BE RUBBER AND THERMOPLASTIC MEETING ASTM AND IFCEA STANDARDS. TYPE THIN OR THIN SHALL BE UTILIZED FOR FEEDERS AND BRANCH CIRCUITS EXCEPT AS NOTED. TYPE SFF-2 SHALL BE UTILIZED FOR BRANCH CIRCUITS LOCATED IN WIRING CHANNELS OR CONTINUOUS FLUORESCENT FIXTURES AND IN AMBIENT TEMPERATURES OVER 90 DEGREES C. FOR UNGROUNDED ISOLATED BRANCH CIRCUITS PROVIDE CROSS-INSULATION (TYPE MHMA).
G. PRE-MANUFACTURED ARMORED CABLE MAY BE UTILIZED FOR ALL NORMAL BRANCH CIRCUITS IN DRY HOLLOW STUD WALL LOCATIONS, ABOVE ACCESSIBLE CEILING AND WHERE PERMITTED BY ARTICLE #320 OF THE NATIONAL ELECTRICAL CODE ONLY.
1.) MINIMUM CONDUCTOR SIZE SHALL BE NO. 12 AWG COPPER
2.) PROVIDE WITH INTEGRAL GREEN INSULATED CONTINUOUS GROUND CONDUCTOR AND BARE BONDING CONDUCTOR IN DIRECT CONTACT WITH THE OUTER METAL JACKET.
H. THE INSULATION OF ALL CONDUCTORS SHALL BE 90 DEGREES C RATED THERMOPLASTIC WITH COLOR CODING AS FOLLOWS:
1.) WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FROM CITY INSPECTORS TO OVERLAP CONDUCTORS WITH 6 IN. OF COLOR TAPING IN ACCESSIBLE LOCATIONS.
2.) 120/208 VOLT SYSTEM
a. BLACK FOR A PHASE
b. RED FOR B PHASE
c. BLUE FOR C PHASE
3.) NEUTRAL WIRE SHALL UTILIZE WHITE OUTER COVERING THROUGHOUT.
4.) EQUIPMENT GROUND WIRE SHALL UTILIZE GREEN OUTER COVERING THROUGHOUT.
I. PROVIDE FLAMEPROOF LINEN OR FIBER TAGS IN ACCESSIBLE LOCATIONS. FOR FEEDERS INDICATE FEEDER NUMBER, SIZE, PHASE AND POINTS OF ORIGIN AND TERMINATIONS. FOR CONTROL AND ALARM WIRING INDICATE TYPE (CONTROL OR ALARM), SIZE OF WIRE, AND POINTS OF ORIGIN AND TERMINATIONS.
J. TERMINATIONS, SPlices AND TAPS UNDER 600 VOLTS:
1.) COPPER CONDUCTORS NO. 10 AND SMALLER SHALL UTILIZE COMPRESSION-TYPE OF TWIST-ON SPRING-LOADED CONNECTORS AND CLEAR NYLON-INSULATED COVERING.
2.) COPPER CONDUCTORS NO. 8 AND LARGER SHALL UTILIZE MECHANICAL BOLTED PRESSURE OR HYDRAULIC COMPRESSION TYPE USING MANUFACTURER'S RECOMMENDED TOOLING.
3.) CABLE LUGS AND CONNECTORS SHALL UTILIZE COMPRESSION TYPE OF SAME METAL AS CONDUCTOR. PROVIDE TO MATCH CABLE, WITH MARKINGS INDICATING SIZE AND TYPE.
4.) COPPER LUG CONNECTIONS TO BUS BARS: USE ANTI-SEIZE COMPOUND TANG.
K. FULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32 DEGREES F.
L. THERMOPLASTIC WIRES SHALL NOT BE INSTALLED IN COMPUTER AREA RAISED FLOORS.
M. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS.
N. PERFORM CONTINUITY AND INSULATION TESTS. MEGGER TEST 100 PERCENT OF FEEDERS, 10 PERCENT OF BRANCH CIRCUITS AND ALL MOTOR BRANCH CIRCUITS OVER 25 HP.
O. PERFORM TESTS PRIOR TO CONNECTING EQUIPMENT AND IN PRESENCE OF AUTHORIZED REPRESENTATIVES. SUBMIT WRITTEN REPORT OF RESULTS. CORRECT OR REPLACE CABLE TESTING BELOW MANUFACTURER'S STANDARDS.

12. POWER WIRING

A. PROVIDE ALL POWER WIRING TO ALL MOTORS AND EQUIPMENT FURNISHED UNDER ALL CONTRACTS ON THE PROJECT. INCLUDE EXTENSIONS FROM CONTROLLERS TO MOTORS AND MOTOR CONNECTIONS. MOUNT AND WIRE ALL CONTRACTORS AND POWER DEVICES FURNISHED UNDER ALL CONTRACTS.

13. CONTROL WIRING

A. PROVIDE ALL CONTROL WIRING FOR MOTORS AND EQUIPMENT FURNISHED UNDER ALL CONTRACTS AND AS SPECIFICALLY SHOWN ON THE DRAWINGS, EXCEPT AS NOTED OR NOTED FOR MECHANICAL/PLUMBING EQUIPMENT. INCLUDE MOUNTING AND WIRING OF ALL CONTROL DEVICES FURNISHED WITH EQUIPMENT.
B. CONTROL WIRING LESS THAN 120 VOLTS FOR MOTORS, ALARMS FOR EQUIPMENT FURNISHED UNDER MECHANICAL/PLUMBING WILL BE PROVIDED UNDER DIVISION 15 CONTRACT.

14. DEVICES

A. LOCAL SWITCHES
1.) CONVENTIONAL, QUITE TOGGLE TYPE, RATED AT 20 AMP, 120/277 VOLT AC. THE OWNER OR CONTRACTOR SHALL SELECT TOGGLE COLOR.
2.) MOMENTARY CONTACT TOGGLE TYPE, RATED AT 20 AMP, 120/277 VOLT AC.
3.) PILOT LIGHT TOGGLE TYPE WITH NEON LAMP, RATED AT 20 AMP, 120/277 VOLT
B. MANUAL MOTOR STARTERS
1.) FLUSH MOUNTED TYPE WITH INTEGRAL THERMAL OVERLOAD PROTECTION AND PILOT LIGHT
C. INSERTION RECEPTACLES
1.) CONVENTIONAL, DUPLEX CONVENIENCE 125 VOLT, 2 POLE, 3 WIRE, 20 AMP WITH U GROUND SLOT GROUNDED, EXCEPT AS NOTED. DEVICE SHALL MEET AND EXCEED:
a. UL 485
b. UL FEDERAL SPECIFICATION IEC-596 LISTING.
c. NEMA IVD-1 AND IVE-6
d. OWNER OR CONTRACTOR SHALL SELECT FACE COLOR
2.) GROUND FAULT INTERRUPTER WITH SELF-PROTECTION AND LED INDICATOR LIGHT.
3.) SPECIAL RECEPTACLES
a. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE SPECIAL RECEPTACLES REQUIRED TO MATCH PROVIDED, NEW EQUIPMENT PLUGS.
b. RECEPTACLE ORIENTATION
c. CONTRACTOR SHALL COORDINATE ORIENTATION OF DEVICE OF CONTRACTOR
d. DEVICE PLATES
1.) REINFORCED THERMOPLASTIC BY SAME MANUFACTURER OF DEVICES.

15. LIGHTING FIXTURES

A. MANUFACTURE AND INSTALL LIGHTING FIXTURES IN ACCORDANCE WITH NEC ARTICLE 410.
B. PROVIDE ALL LIGHTING FIXTURES INDICATED, COMPLETE WITH LAMPS, INCLUDE ALL INTERIOR LIGHTING FIXTURES, AND ALL EXTERIOR FIXTURES MOUNTED ON THE BUILDING.
C. FURNISH ALL PLASTER OR DRY WALL FRAMES.
D. USE FIXTURES CONFORMING TO UL STANDARDS, AND BEARING UL LABEL.
E. ALL FLUORESCENT ELECTRONIC BALLASTS SHALL MEET OR EXCEED THE REQUIREMENTS OF:
1.) ANSI/IEEE C62.41 (AMERICAN NATIONAL STANDARDS INSTITUTE)
2.) FCC PART 15 (RFI AND EMI)
3.) CDM (CERTIFIED BALLAST MANUFACTURERS).
4.) UL (UNDERWRITERS LABORATORIES)
5.) PUBLIC LAW #100-397 (MINIMUM EFFICIENCY STANDARDS).
6.) NAECA (NATIONAL APPLIANCE ENERGY CONSERVATION AMENDMENTS).
7.) NEC (NATIONAL ELECTRICAL CODE).
F. GENERAL CONSTRUCTION
1.) PLASTICS: 100 PERCENT VIRGIN ACRYLIC, REFER TO FIXTURE LIST FOR FURTHER DESCRIPTION
2.) METAL
a. MATERIAL: STEEL, ALUMINUM OR OTHER TYPES MENTIONED.
b. B & S GAUGE: NO. 22 MINIMUM FOR HOUSINGS, WITH APPROPRIATE CROSS-SECTIONAL CONFIGURATION FOR FIXTURE HOUSING; THINNER SHEET METAL ACCEPTABLE FOR BALLAST ENCLOSURES AND INCIDENTAL PURPOSES.

3.) FINISHES
a. CORROSION PROTECTION: PLATING, BONDING, PRIMING, ELECTROSTATIC PAINTING, OR OTHER APPROVED MEANS.
b. COLORS: FACTORY STANDARD UNLESS OTHERWISE NOTED.
c. FINAL COATING: BAKED PAINT OR ENAMEL ON STEEL AND ALUMINUM; BAKED CLEAR LACQUER OR OTHER DURABLE TRANSPARENT FILM ON POLISHED METAL SURFACES.
4.) EXTERIOR FIXTURES: ENCLOSED AND GASKETED, UNLESS OTHERWISE NOTED.
5.) FLUORESCENT LAMP SOCKETS: WHITE FINISH, SILVER-PLATED CONTACT SURFACES.
6.) LATCHES: QUICK-OPERATING TYPE WITHOUT NEED FOR TOOLS, UNLESS OTHERWISE NOTED; STAINLESS STEEL OR CADMIUM PLATED STEEL.
7.) EXPOSED HARDWARE: NOT ACCEPTABLE ON VISIBLE SURFACES OF FIXTURES IN FINISHED AREAS UNLESS OTHERWISE NOTED.
8.) OPERATING TEMPERATURE: NOT TO EXCEED 25 DEGREES C. TEMPERATURE RISE OVER 40 DEGREES C. A MAXIMUM 40 DEGREES BALLAST HOT SPOT WHEN FLUORESCENT FIXTURE IS OPERATED IN 25 DEGREES C AMBIENT. MAXIMUM CASE TEMPERATURE SHALL NOT EXCEED 25 DEGREES C.
9.) PROVIDE APPROPRIATE MOUNTING ACCESSORIES FOR EACH FIXTURE, COMPATIBLE WITH THE VARIOUS STRUCTURAL CONDITIONS THAT WILL BE ENCOUNTERED. PROVIDE FASTENING CLIPS (EARTHQUAKE CLIPS) FOR LIGHTING FIXTURES THAT ARE SUPPORTED FROM FRAMING MEMBERS OF SUSPENDED CEILINGS.
H. ASSEMBLE WIRE AND INSTALL ALL LIGHTING FIXTURES AT THEIR RESPECTIVE OUTLETS AS INDICATED AND ASSUME RESPONSIBILITY FOR THEIR CONDITION UNTIL ACCEPTANCE BY OWNER.
I. INSTALL PROPER LAMPS IN EACH FIXTURE.
J. FIXTURE CONNECTIONS TO BRANCH CIRCUITS SHALL BE MADE USING STRANDED WIRE WITH INSULATION TEMPERATURE RATINGS EQUAL TO OR HIGHER THAN THAT OF WIRE SUPPLIED WITH THE FIXTURE, OR SPECIFIED BY FIXTURE MANUFACTURER. FIXTURES ARE TO BE CONNECTED TO BRANCH CIRCUITS VIA JUNCTION BOX USING FLEXIBLE CONDUIT OF LENGTHS BETWEEN 4 FT. MINIMUM AND 6 FT. MAXIMUM.
K. THE USE OF FLEXIBLE CONDUIT, TO FIXTURES IN ANY LENGTH OVER 6 FT. IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED ALONG WITH THE CONDUCTORS INSIDE THE FLEXIBLE CONDUIT. IN THIS APPLICATION THE GROUND WIRE MUST BOND THE LIGHTING FIXTURE HOUSINGS TO EACH OTHER AND/OR TO THE JUNCTION BOX. ALL FLEXIBLE CONDUIT SHALL BE SUPPORTED AS REQUIRED BY NEG AND SHALL BE INSTALLED IN A WORKMANLIKE MANNER.
L. NOTE THAT SPECIFICATIONS FOR RECESSED FIXTURES GENERALLY DO NOT INCLUDE MOUNTING ACCESSORIES, AND THAT EACH FIXTURE TYPE MAY BE USED IN SEVERAL DIFFERENT CEILINGS, SUCH AS LAY-IN EXPOSED GRID, CONCEALED SPLINE TILE, OR DRYWALL. VERIFY MOUNTING DETAILS BEFORE ORDERING FIXTURES SO THAT PROPER QUANTITIES FOR EACH CONDITION WILL BE DELIVERED IN TIME TO AVOID CONSTRUCTION DELAYS.
M. SECURELY FASTEN LIGHTING FIXTURES TO FRAMING MEMBERS OF SUSPENDED CEILINGS WITH FASTENING CLIPS, AS SPECIFIED. CLIP EACH FIXTURE TO ALL ADJOINING FRAMING MEMBERS TO PREVENT MOVEMENT OF THE MEMBERS AWAY FROM THE FIXTURES.
N. SUPPORT EXIT SIGNS IN TILE CEILINGS WITH RAILS THAT SPAN BETWEEN RUNNERS OF CEILING SUSPENSION SYSTEM. USE FLANGED FIXTURES FOR FINISHED APPEARANCES.
O. SUPPORT FLUORESCENT FIXTURES IN DRYWALL CEILINGS FROM PLASTER FRAMES, WITH ADJUSTABLE LUGS ON SIDE OF FIXTURE OR YOKE MOUNTING AS RECOMMENDED BY FIXTURE MANUFACTURER. USE FLANGED FIXTURES FOR FINISHED APPEARANCE, UNLESS OTHERWISE NOTED.
P. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL FIXTURES.

16. EMPTY RACEWAY SYSTEMS

A. A COMPLETE EMPTY RACEWAY SYSTEM CONSISTS OF BLANK 4-1/16 IN. SQ. X 2-1/8 IN. DEEP OUTLET BOXES WITH SINGLE OR DOUBLE GANG DRYWALL FINISH COLLAR AS NOTED. METALLIC RACEWAY WITH PULL STRING SHALL BE PROVIDED AND INSTALLED WHERE SHOWN ON THE FOLLOWING SYSTEMS.
1.) TELEPHONE/DATA (SINGLE GANG)
2.) CABLE TELEVISION (SINGLE GANG)
B. RACEWAY SIZE SHALL BE A MINIMUM OF 3/4 IN. OR AS DOCUMENTED IN PLANS AND DETAILS.
C. ALL METALLIC RACEWAY SYSTEMS SHALL BE STUBBED UP AND TERMINATE IN ACCESSIBLE CEILING, END BUSHINGS AND PULL WIRES SHALL BE PROVIDED. BONDING OF ALL RACEWAY SYSTEMS TO PROVIDE A COMMON GROUND PATH SHALL BE PROVIDED.
D. ACTUAL DEVICES, CONNECTORS, WIRING COMPLETE WITH TERMINATIONS AND BOX COVERS SHALL BE PROVIDED BY THE OWNER.

17. FIRE STOPPING

A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION.
B. PROVIDE ALL REQUIRED FIRE STOPPING. WORK INCLUDES FIRE-STOPPING PENETRATIONS OF FIRE-RESISTANCE RATED FLOORS, WALLS AND PARTITIONS IN NEW CONSTRUCTION.
C. FIRE RESISTANT JOINT SEALERS: PROVIDE MANUFACTURER'S STANDARD FIRE-STOPPING SEALANT WITH ACCESSORY MATERIALS HAVING FIRE RESISTANCE RATINGS ESTABLISHED BY TESTING IDENTICAL ASSEMBLIES PER ASTM E814 BY UNDERWRITERS LABORATORY, INC. OR OTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
D. MATERIALS - PROVIDE THE FOLLOWING:
1.) ONE-PART FIRE-STOPPING SEALANT; ONE PART LATEX BASED INTUMESCENT SEALANT FORMULATED FOR USE IN A THROUGH-PENETRATION FIRE-STOP SYSTEM FOR SEALING OPENINGS AROUND CABLES, CONDUIT, PIPES AND SIMILAR PENETRATIONS THROUGH WALLS AND FLOORS.

18. TESTS

A. BEFORE MAKING TESTS, COMPLETE ALL CONNECTIONS AT PANELS, FIXTURES AND OTHER EQUIPMENT. INSTALL FUSES AND HAVE ALL WIRING CONTINUOUS FROM SERVICE EQUIPMENT TO UTILIZATION OUTLETS. CORRECT ALL UNDESIRABLE GROUND, OPEN AND SHORT CIRCUIT CONDITIONS.
B. PROVIDE SOURCE OF TEMPORARY POWER FOR MAKING TESTS IF NORMAL BUILDING POWER IS NOT AVAILABLE AT THE TIME.
C. TAKE AND RECORD THE FOLLOWING READINGS ON SYSTEMS 600 VOLTS AND BELOW:
1.) MEGGER TESTS OF ALL FEEDER CIRCUIT CONDUCTORS, GROUND CONDUCTORS, AND CONDUIT GROUND.
2.) AMMETER READINGS ON ALL PHASES AND NEUTRAL OF EACH FEEDER TO INDICATE BALANCE.
3.) AMMETER READINGS ON ALL PHASES OF EACH POLYPHASE MOTOR. INCLUDE NAMEPLATE FULL LOAD CURRENT OF EACH MOTOR ON DATA SHEET.
4.) CERTIFY THAT ALL OVERLOAD DEVICES HAVE BEEN SET IN ACCORDANCE WITH DATA SHOWN ON THE DRAWINGS AND/OR MANUFACTURER'S RECOMMEND SETTING.
D. SEND FINAL CERTIFIED TEST REPORTS AND CERTIFICATIONS TO THE ENGINEER FOR APPROVAL AND TRANSMITTAL TO THE OWNER.

19. DEMONSTRATION OF COMPLETE ELECTRICAL SYSTEMS

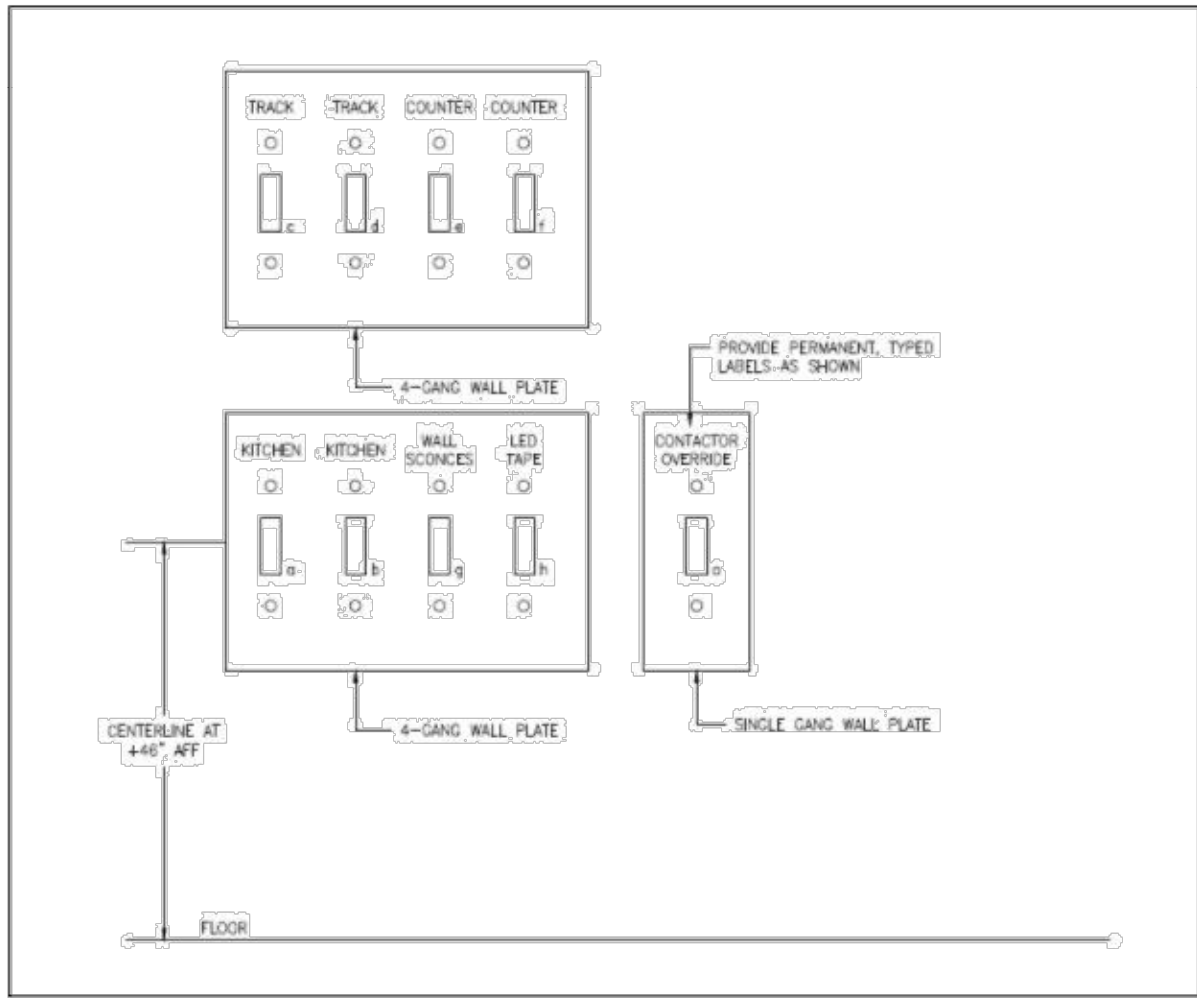
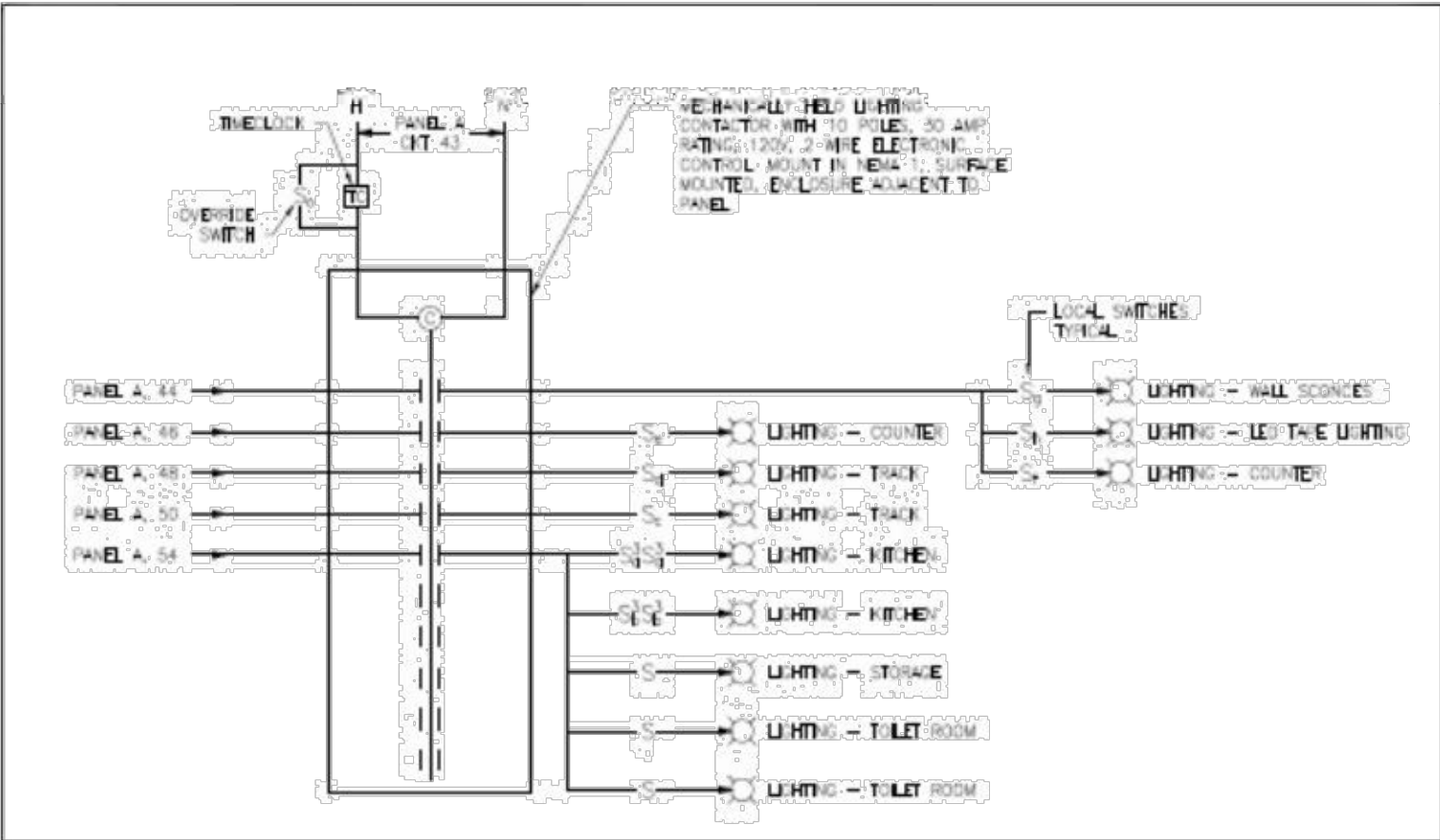
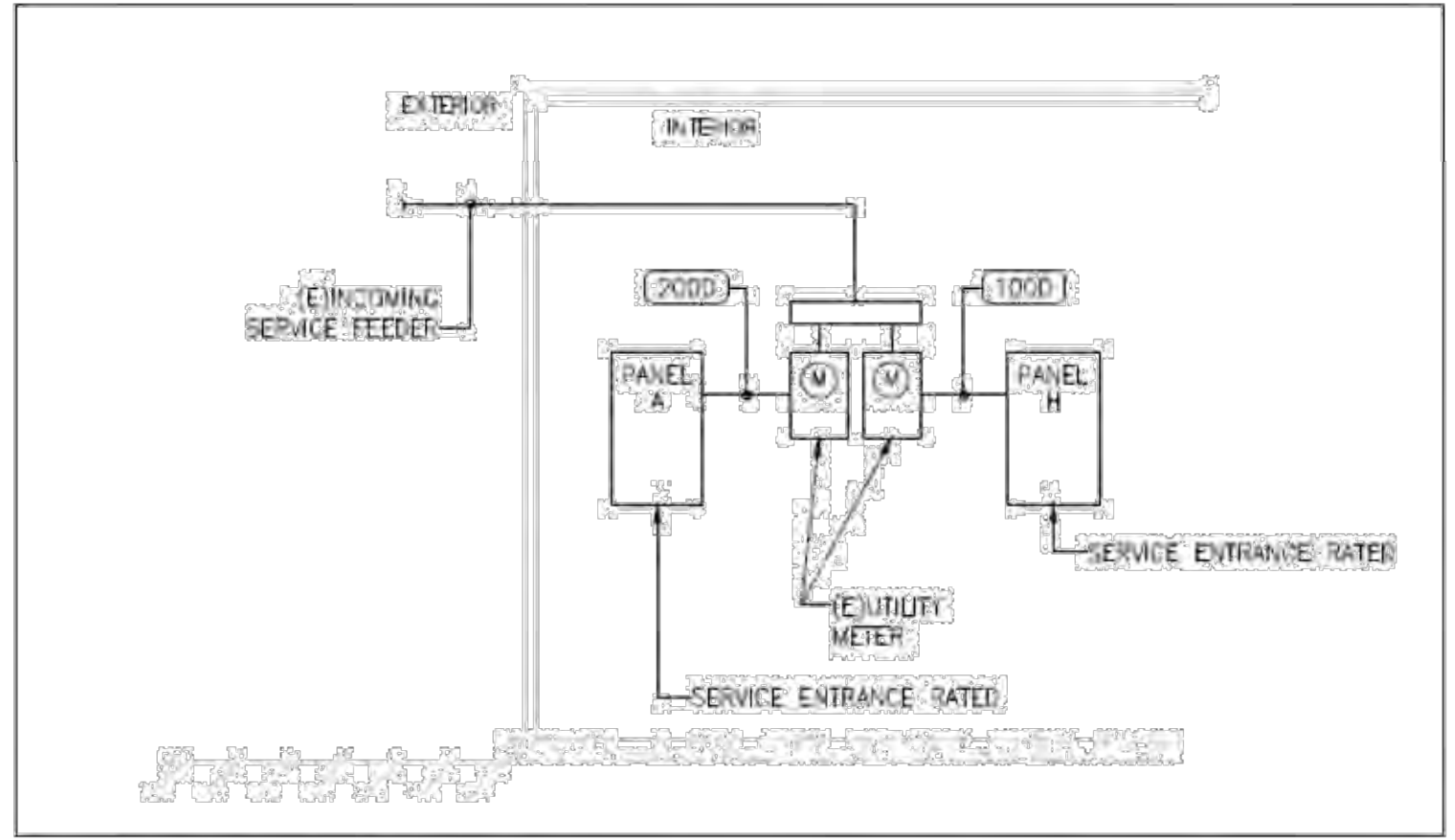
A. SUBMIT WRITTEN CERTIFICATION THAT ELECTRICAL SYSTEMS ARE COMPLETE AND OPERATIONAL. SUBMIT CERTIFICATION WITH CONTRACTORS REQUEST FOR FINAL REVIEW.
1.) AT THE TIME OF FINAL REVIEW OF ELECTRICAL WORK, DEMONSTRATION THE OPERATION OF ELECTRICAL SYSTEMS. FURNISH LABOR, APPARATUS AND EQUIPMENT FOR SYSTEMS' DEMONSTRATION. THE VARIOUS TEST SHALL BE WITNESSED BY AND THE OWNER OF HIS REPRESENTATIVE.
B. THE CONTRACTOR SHALL FURNISH ALL TEST EQUIPMENT, MATERIALS, LABOR, AND TEMPORARY POWER HOOK-UPS TO PERFORM START-UP AND ALL TESTS AS REQUIRED TO OBTAIN FINAL FIELD ACCEPTANCE FROM OWNER. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE. ALL TEST PROCEDURES SHALL CONFORM TO THIS SPECIFICATION AND APPLICABLE STANDARDS THE ANSI, IEEE, NEMA, OSHA, NEPA, ETC.
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTS AND TEST RECORD. TESTING SHALL BE PERFORMED BY AND UNDER THE IMMEDIATE SUPERVISION OF THE CONTRACTOR. TEST RECORD SHALL BE KEPT FOR EACH PIECE OF EQUIPMENT. COPIES SHALL BE FURNISHED TO THE ENGINEER FOR REVIEW AND/OR APPROVAL.
D. A VISUAL INSPECTION OF ALL ELECTRICAL EQUIPMENT, TO CHECK FOR THE FOREIGN MATERIAL, TIGHTNESS OR WIRING AND CONNECTION, PROPER GROUNDING, MATCHING NAMEPLATE CHARTS WITH SPECIFICATION, ETC., SHALL BE MADE PRIOR TO ACTUAL TESTING.

20. SPECIAL ENGINEERING SERVICES

A. IN THE INSTANCE OF COMPLEX OR SPECIALIZED ELECTRICAL SYSTEMS SUCH AS EMERGENCY SYSTEM FIRE ALARM OR SIMILAR MISCELLANEOUS SYSTEMS, THE INSTALLATION, FINAL CONNECTIONS AND TESTING OF SUCH SYSTEMS SHALL BE MADE UNDER THE DIRECT SUPERVISION OF COMPETENT AUTHORIZED SERVICE ENGINEERS WHO SHALL BE IN THE EMPLOY OF THE RESPECTIVE EQUIPMENT MANUFACTURER.
B. ANY AND ALL EXPENSES INCURRED BY THESE EQUIPMENT MANUFACTURERS' REPRESENTATIVES RELATED TO THIS PROJECT, SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.

21. DESIGN MODIFICATIONS

A. DRAWINGS SHOW ELECTRICAL SYSTEMS, WHICH SUPPLY, CONTROL, AND/OR MONITOR SYSTEMS SPECIFIED ELSEWHERE. THE ELECTRICAL SYSTEM SHOWN HAS BEEN BASED ON SPECIFIC MANUFACTURERS DATA OR INFORMATION CONVEYED TO THE ELECTRICAL DESIGNER. WHERE ANY AGREEMENT OR CHANGE IS MADE TO SUPPLY EQUIPMENT OR LARGER CAPACITY OR DIFFERENT ELECTRICAL CHARACTERISTICS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE ELECTRICAL SYSTEM TO EFFECT SUCH CHANGES WITHIN THE INTENT OF THESE SPECIFICATIONS AND TO INFORM THE ENGINEER, IN WRITING, OF SUCH CHANGE.



RELEASED FOR CONSTRUCTION

NO.	DESCRIPTION	BY	DATE

ELECTRICAL DETAILS & NOTES

PROJECT DESCRIPTION & ADDRESS:

DAT FIRE JERK CHICKEN
NEW CONSTRUCTION
226 NORTHSIDE DRIVE
ATLANTA, GEORGIA 30313

DRAWINGS PROVIDED BY:

KEY DESIGNS / SHONA GRIFFIN
2611 CAROL GIRCLE
DOUGLASVILLE, GEORGIA 30135
KEYDESIGNS2007@YAHOO.COM
404-430-5491

DATE:

4/15/2025

SCALE:

SHEET:

E-4

