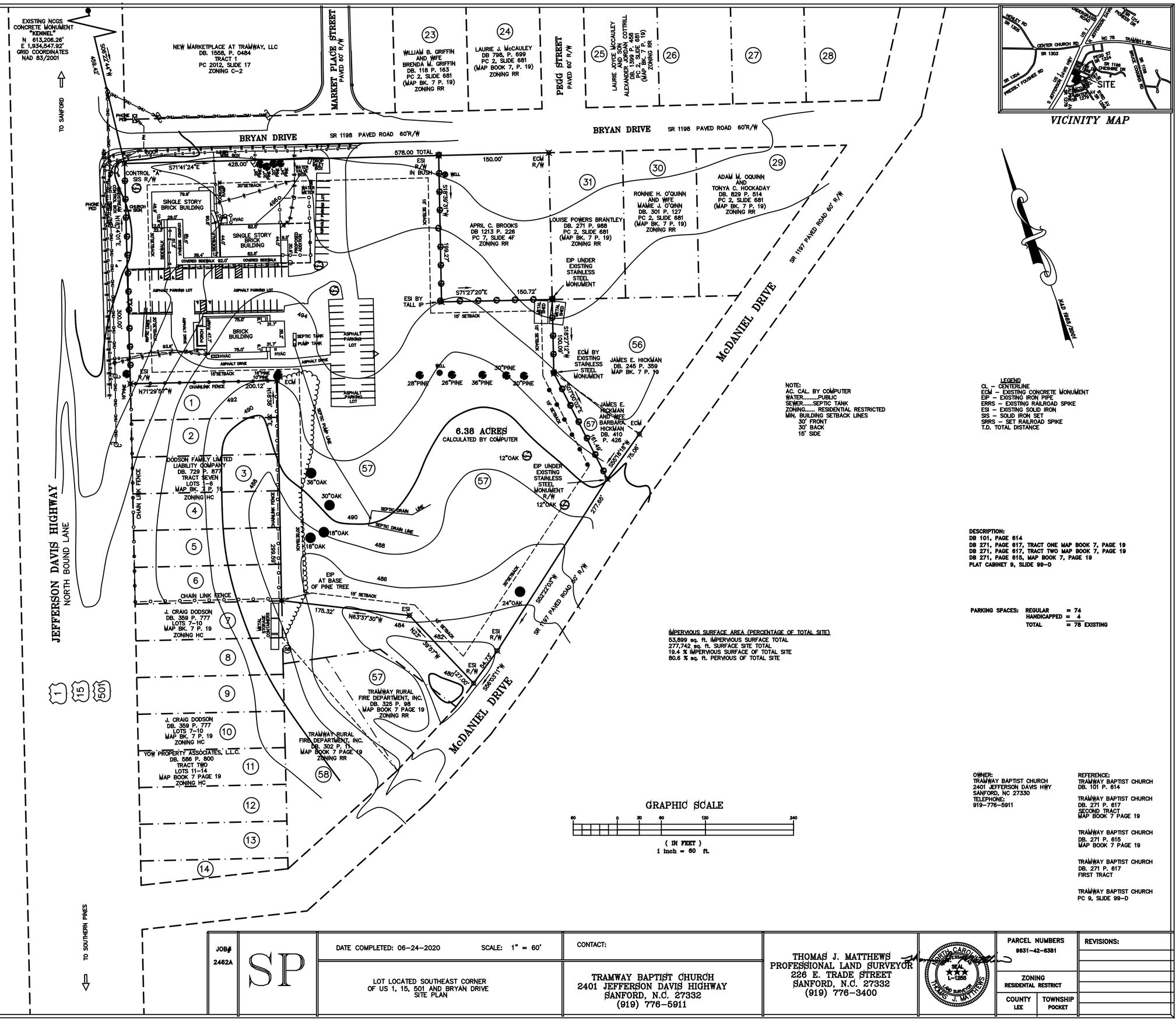
LEGEND

- STRAW WITH NET
- EXCELSIOR MAT
- CLASS A RIPRAP
- CLASS B RIPRAP
- EXISTING CONTOUR
- PROPOSED CONTOUR
- SILT FENCE — SF
- HYDRANT AND VALVE
- EXIST WATER, VALVE, PLUG — W
- PROP. WATER, VALVE, PLUG — W
- PLUG
- CONSTRUCTION LIMITS
- CORRUGATED PLASTIC PIPE — CPP
- DIRECTION OF FLOW
- CREEK
- SWALE
- HYDRANT
- CATCH BASIN
- SEWER MAN HOLE
- GUY POLE
- BENCH MARK
- UTILITY POLE
- FLOOD LIGHT
- PARKING LIGHT
- PHONE PEDESTAL
- SEWER LINE — S
- PHONE LINE INGROUND — PH
- WATER LINE — W
- POWER LINE — OHU
- PROPOSED WATER OAK



VICINITY MAP

NOTE:
AC. CAL. BY COMPUTER
WATER.....PUBLIC
SEWER.....SEPTIC TANK
ZONING..... RESIDENTIAL RESTRICTED
MIN. BUILDING SETBACK LINES
30' FRONT
30' BACK
15' SIDE

LEGEND
CL – CENTERLINE
ECM – EXISTING CONCRETE MONUMENT
EIP – EXISTING IRON PIPE
ERRS – EXISTING RAILROAD SPIKE
ESI – EXISTING SOLID IRON
SIS – SOLID IRON SET
SRRS – SET RAILROAD SPIKE
T.D. TOTAL DISTANCE

I, Thomas J. Matthews certify that this map was drawn under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:
(1) Class of survey: – AA
(2) Positional accuracy: – 95% = Less than or equal to 0.03'US feet (0.10m) Horizontal and 0.03'US feet (0.010m) vertical for each observation.
(3) Type of GPS field procedure: – Real-time Kinematic
(4) Dates of survey: – May 12th, 2020
(5) Datum/Epoch: – NAD 83/2001
(6) Published/Fixed-control use: – NCGS Concrete Monument "Kennel"
(7) Geoid model: – GEOID09
(8) Combined grid factor(s): – 0.99985871
(9) Units: – US Survey Feet

EXISTING NCGS CONCRETE MONUMENT "Kennel"
N 613,206.26' E 1,934,547.92' GRID COORDINATES NAD 83/2011
KENNEL NAVD 88 ELEVATION 499.97'
GRID BEARING S 05°22'43"W 459.35' GRID DISTANCE FROM
NCGS CONCRETE MONUMENT "Kennel" TO CONTROL "A"

I further certify that the property is not located in a special flood hazard area as determined by the Federal Emergency Management Agency.

DESCRIPTION:
DB 101, PAGE 614
DB 271, PAGE 617, TRACT ONE MAP BOOK 7, PAGE 19
DB 271, PAGE 617, TRACT TWO MAP BOOK 7, PAGE 19
DB 271, PAGE 615, MAP BOOK 7, PAGE 19
PLAT CABINET 9, SLIDE 99-D

PARKING SPACES:
REGULAR = 74
HANDICAPPED = 4
TOTAL = 78 EXISTING

IMPERVIOUS SURFACE AREA (PERCENTAGE OF TOTAL SITE)
53,899 sq. ft. IMPERVIOUS SURFACE TOTAL
277,742 sq. ft. SURFACE SITE TOTAL
19.4 % IMPERVIOUS SURFACE OF TOTAL SITE
80.6 % sq. ft. PERVIOUS OF TOTAL SITE

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

OWNER:
TRAMWAY BAPTIST CHURCH
2401 JEFFERSON DAVIS HWY
SANFORD, NC 27330
TELEPHONE:
919-776-5911

REFERENCE:
TRAMWAY BAPTIST CHURCH DB. 101 P. 614
TRAMWAY BAPTIST CHURCH DB. 271 P. 617 SECOND TRACT MAP BOOK 7 PAGE 19
TRAMWAY BAPTIST CHURCH DB. 271 P. 615 MAP BOOK 7 PAGE 19
TRAMWAY BAPTIST CHURCH DB. 271 P. 617 FIRST TRACT
TRAMWAY BAPTIST CHURCH PC 9, SLIDE 99-D

JOB#		DATE COMPLETED: 06-24-2020	SCALE: 1" = 60'	CONTACT:		PARCEL NUMBERS	REVISIONS:
2462A	SP	LOT LOCATED SOUTHEAST CORNER OF US 1, 15, 501 AND BRYAN DRIVE SITE PLAN		TRAMWAY BAPTIST CHURCH 2401 JEFFERSON DAVIS HIGHWAY SANFORD, N.C. 27332 (919) 776-5911	THOMAS J. MATTHEWS PROFESSIONAL LAND SURVEYOR 226 E. TRADE STREET SANFORD, N.C. 27332 (919) 776-3400	9631-42-6381	
						ZONING RESIDENTIAL RESTRICT	
						COUNTY LEE / TOWNSHIP POCKET	

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☒ Yes (The remainder of this section is not applicable)

Exempt Building: ☐ No ☐ Yes (Provide code or statutory reference): _____

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

Method of Compliance: Energy Code ☐ Performance ☐ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
(If "Other" specify source here)_____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor: _____
Door R-Values: _____

Walls below grade (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

Floors over unconditioned space (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) 1.0
Seismic (I_E) 1.0

Live Loads: Roof 20 psf
Mezzanine ------ psf
Floor 100 psf

Ground Snow Load: 15 psf

Wind Load: Ultimate Wind Speed 115.0 mph (ASCE-7)
Exposure Category B

SEISMIC DESIGN CATEGORY: ☐ A ☒ B ☐ C ☐ D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) ☐ I ☒ II ☐ III ☐ IV
Spectral Response Acceleration S_S 0.159 %g S_1 0.079 %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system ☐ Bearing Wall ☐ Dual w/Special Moment Frame
☒ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ Yes ☐ No

LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☒

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) _____ psf
Presumptive Bearing capacity 2000 psf
Pile size, type, and capacity _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: 20
summer dry bulb: 92

Interior design conditions
winter dry bulb: 72
summer dry bulb: 78
relative humidity: 40%

Building heating load: 75,761

Building cooling load: 113,604

Mechanical Spacing Conditioning System
Unitary
description of unit: _____
heating efficiency: _____
cooling efficiency: _____
size category of unit: _____
See Sheet
Boiler
Size category. If oversized, state reason.: -----
Chiller
Size category. If oversized, state reason.: -----

List equipment efficiencies: 14 seer

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code ☐ Performance ☒ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive

Lighting schedule (each fixture type)
lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
☐ C406.2 More Efficient HVAC Equipment Performance
☐ C406.3 Reduced Lighting Power Density
☐ C406.4 Enhanced Digital Lighting Controls
☐ C406.5 On-Site Renewable Energy
☐ C406.6 Dedicated Outdoor Air System
☐ C406.7 Reduced Energy Use in Service Water Heating

REVISION	
NO.	DATE

APPENDIX B
TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

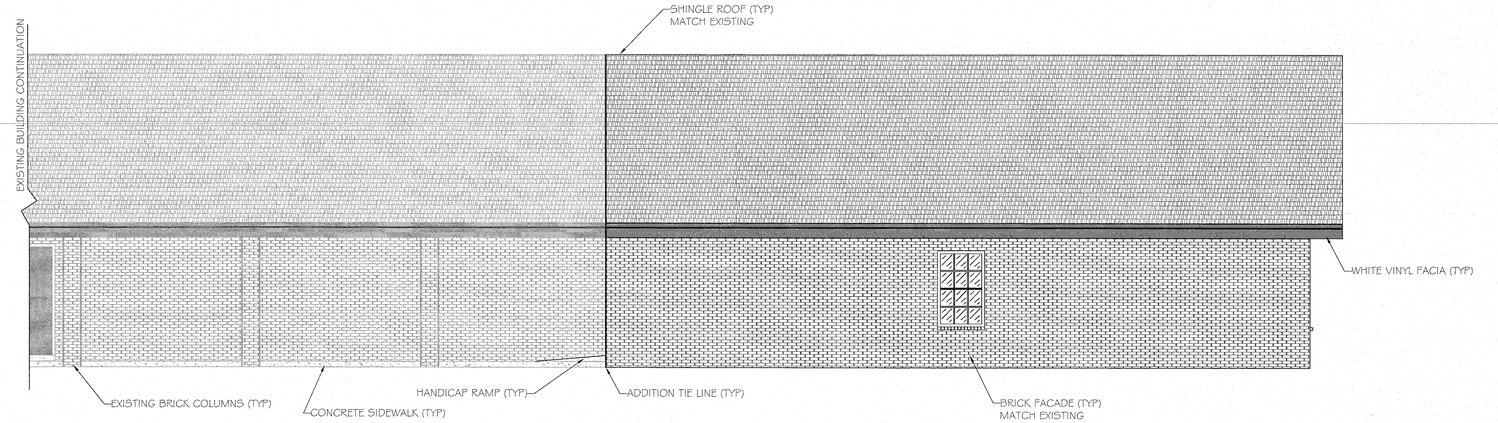
SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.

APPENDIX - B2

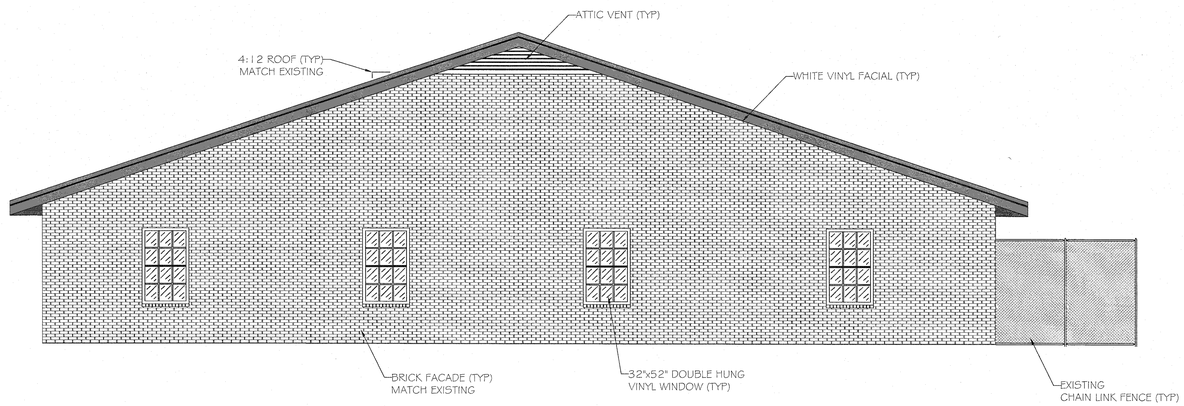
NORTH CAROLINA PROFESSIONAL SEAL 7891 ENGINEER ROBERT J. BRACKEN

4/30/20



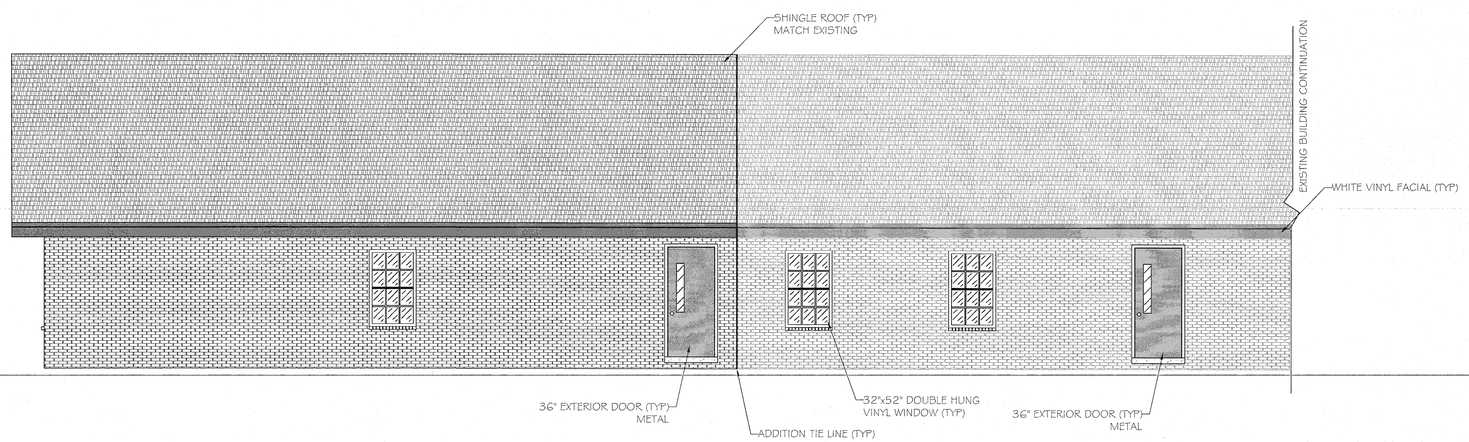
FRONT ELEVATION - SANTUARY SIDE

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



END ELEVATION - PLAYGROUND SIDE

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



REAR ELEVATION - BRYAN DRIVE SIDE

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

REVISION	
NO.	DATE

ELEVATIONS

TRAMWAY BAPTIST
BUILDING ADDITION

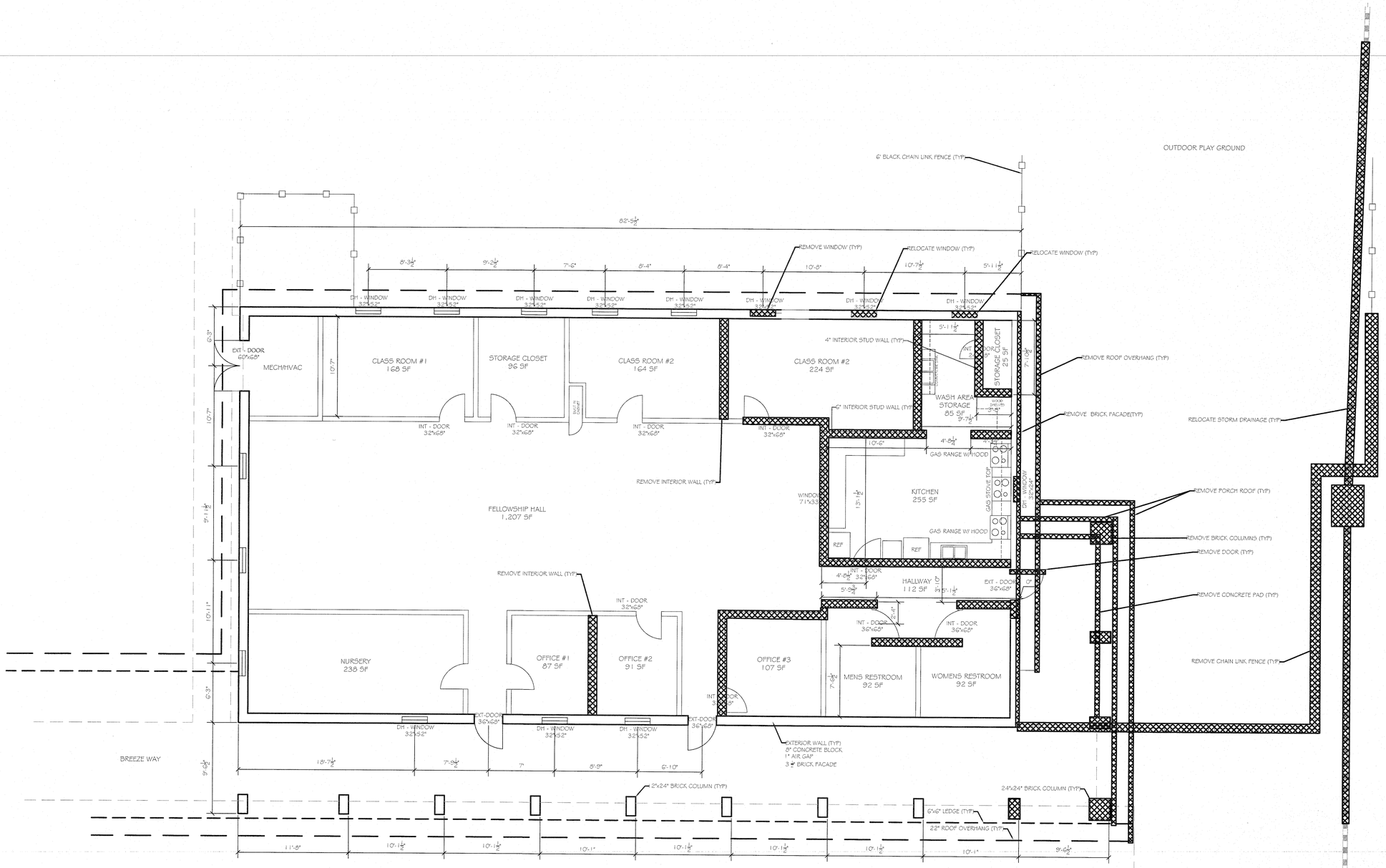
TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	
SHEET NO.	G-1

NORTH CAROLINA PROFESSIONAL SEAL 10291 ENGINEER ROBERT J. BRACKEN

4/30/20



DEMOLITION PLAN

SCALE: 3/16"= 1'-0"

REVISION	
NO.	DATE

DEMOLITION PLAN

TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

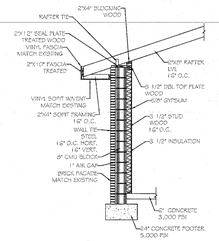
SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.

G-2

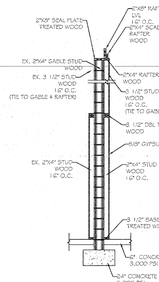
NORTH CAROLINA PROFESSIONAL SEAL 7291 ENGINEER ROBERT J. BRACKEN

4/30/20



DETAIL "A"

NTS



DETAIL "B"

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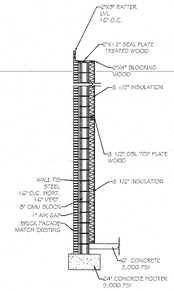
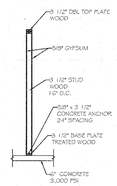


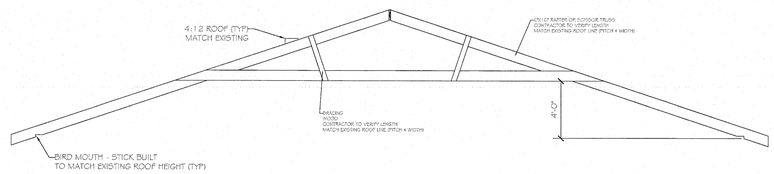
DETAIL "C"

NTS



DETAIL "D"

NTS



DETAIL "STICK BUILT RAFTERS OR SCISSOR TRUSSES"

NTS

INTERIOR ROOM FINISH

ROOM #	ROOM NAME	FLOORS		WALLS		CEILING			REMARKS
		BASE	FINISH	MATERIAL	FINISH	BASE	TYPE	HEIGHT	
100	NURSERY	CONCRETE	CARPET	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
101	OFFICE #1	CONCRETE	CARPET	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
102A	STORAGE CLOSET	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
102B	JANITOR CLOSET #1	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
103	GATHERING HALL	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
104	CLASSROOM #3	CONCRETE	CARPET	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
105	MECH/HVAC	CONCRETE	NATURAL	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
106	CLASSROOM #1	CONCRETE	CARPET	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
107	STORAGE CLOSET #2	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
108	CLASSROOM #2	CONCRETE	CARPET	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
109	KITCHEN	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	
110	STORAGE	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	
111	MENS	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
112	WOMENS	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	10'-0"	EXISTING FINISH MAY REMAIN PER OWNER
113	FELLOWSHIP HALL	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	VARIES	
114	SOUND ROOM	CONCRETE	TILE FLOOR	GYPSUM	PAINT	6" RUBBER	GYPSUM	VARIES	

HARDWARE SCHEDULE

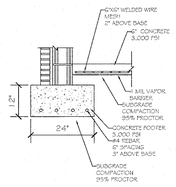
MARK	SIZE	TYPE	FRAME	FINISH	LIGHTS	REMARKS
A	3PR 3 1/2" x 3 1/2" HINGES, CLOSER, PULL HANDLE, PANIC BAR HARDWARE EACH					
B	3PR 3 1/2" x 3 1/2" HINGES, CLOSER, PULL HANDLE, PANIC BAR HARDWARE					
C	3PR 3 1/2" x 3 1/2" HINGES, PASSAGE SET					

WINDOW SCHEDULE

MARK	SIZE	TYPE	FRAME	FINISH	LIGHTS	REMARKS
A	32" x 52"	VINYL	VINYL	WHITE	FULL	

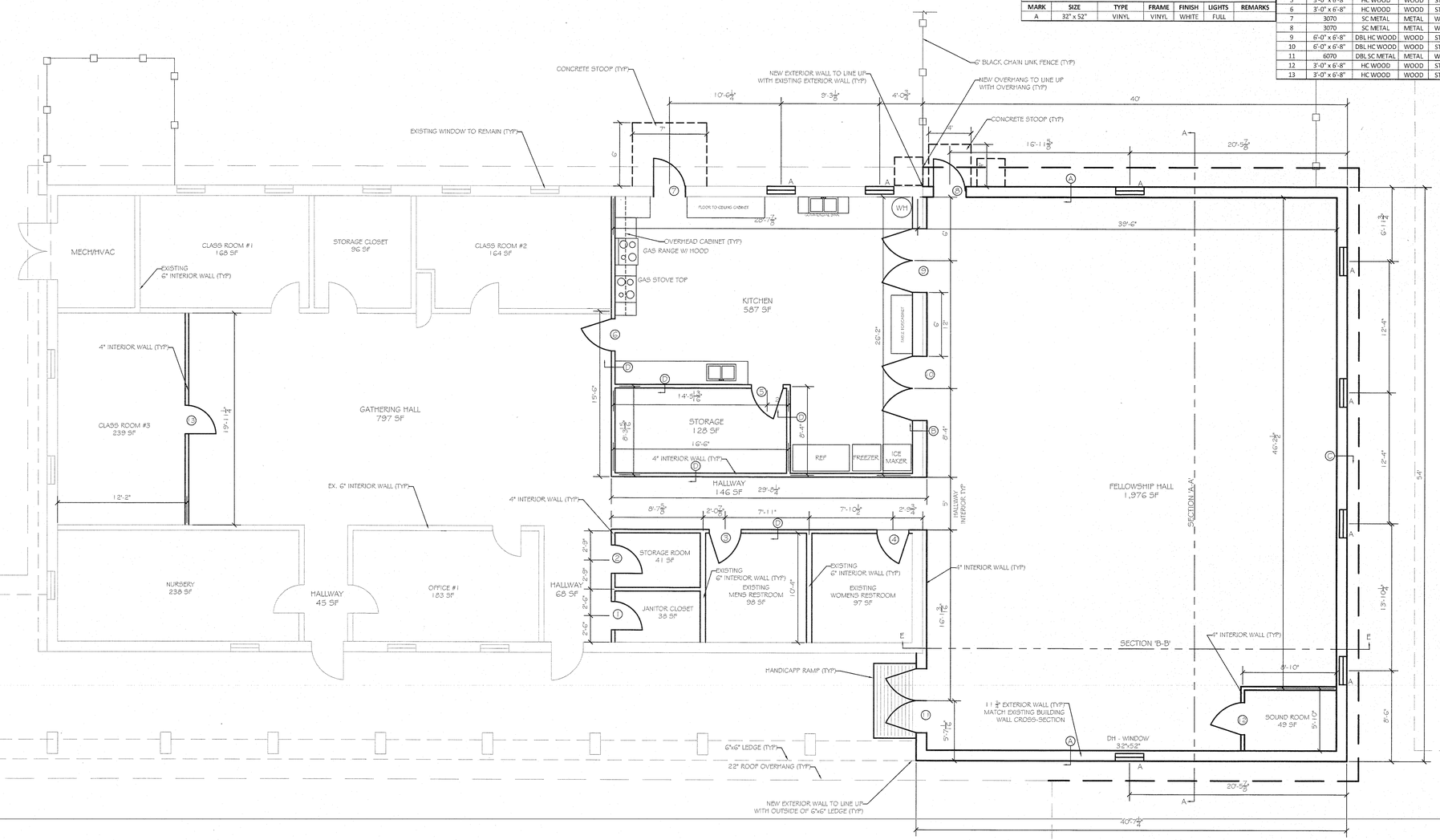
DOOR SCHEDULE

MARK	SIZE	TYPE	FRAME	FINISH	LIGHTS	HARDWARE #
1	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
2	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
3	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
4	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
5	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
6	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
7	3070	SC METAL	METAL	WHITE	5" X 26"	B
8	3070	SC METAL	METAL	WHITE	5" X 26"	B
9	6'-0" x 6'-8"	DBL HC WOOD	WOOD	STAIN		C
10	6'-0" x 6'-8"	DBL HC WOOD	WOOD	STAIN		C
11	6070	DBL SC METAL	METAL	WHITE	5" X 26"	A
12	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C
13	3'-0" x 6'-8"	HC WOOD	WOOD	STAIN		C



DETAIL "SLAB & FOOTER"

NTS



ADDITION/REMODEL PLAN

SCALE: 3/16"= 1'-0"

REVISION	
NO.	DATE

ADDITION/REMODEL PLAN

TRAMWAY BAPTIST BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA

C-0269

ROBERT J. BRACKEN ENGINEERING SURVEYING

3768 CARBONTON RD SANFORD, NC 27330

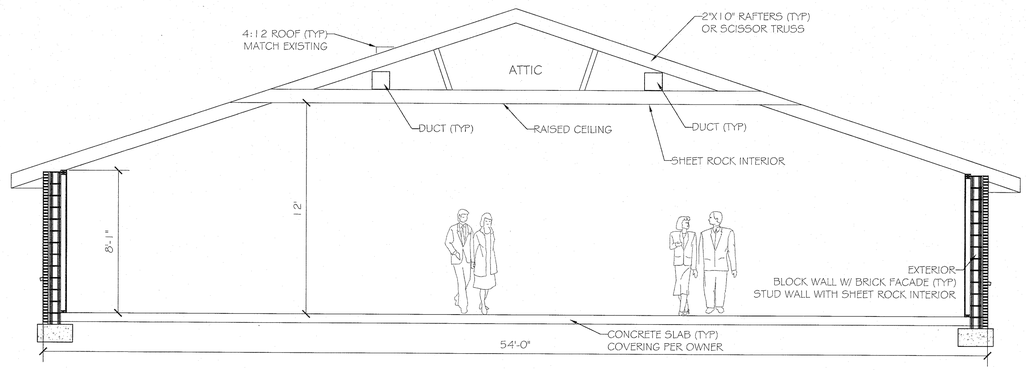
SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.

G-3

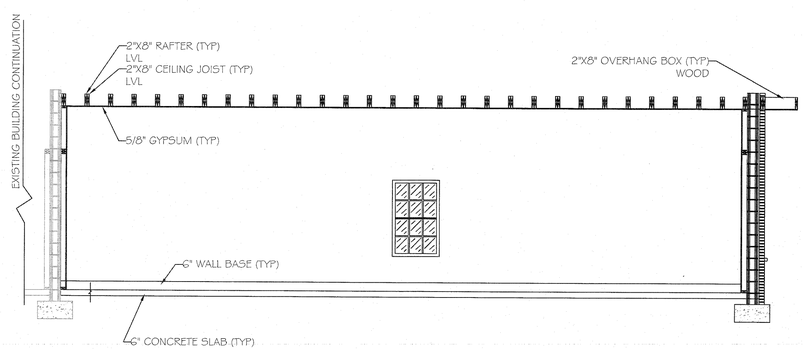
NORTH CAROLINA PROFESSIONAL SEAL 017291 ENGINEER ROBERT J. BRACKEN

4/30/20



SECTION 'A-A'

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



SECTION 'E-E'

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

REVISION	
NO.	DATE

CROSS-SECTIONS

TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

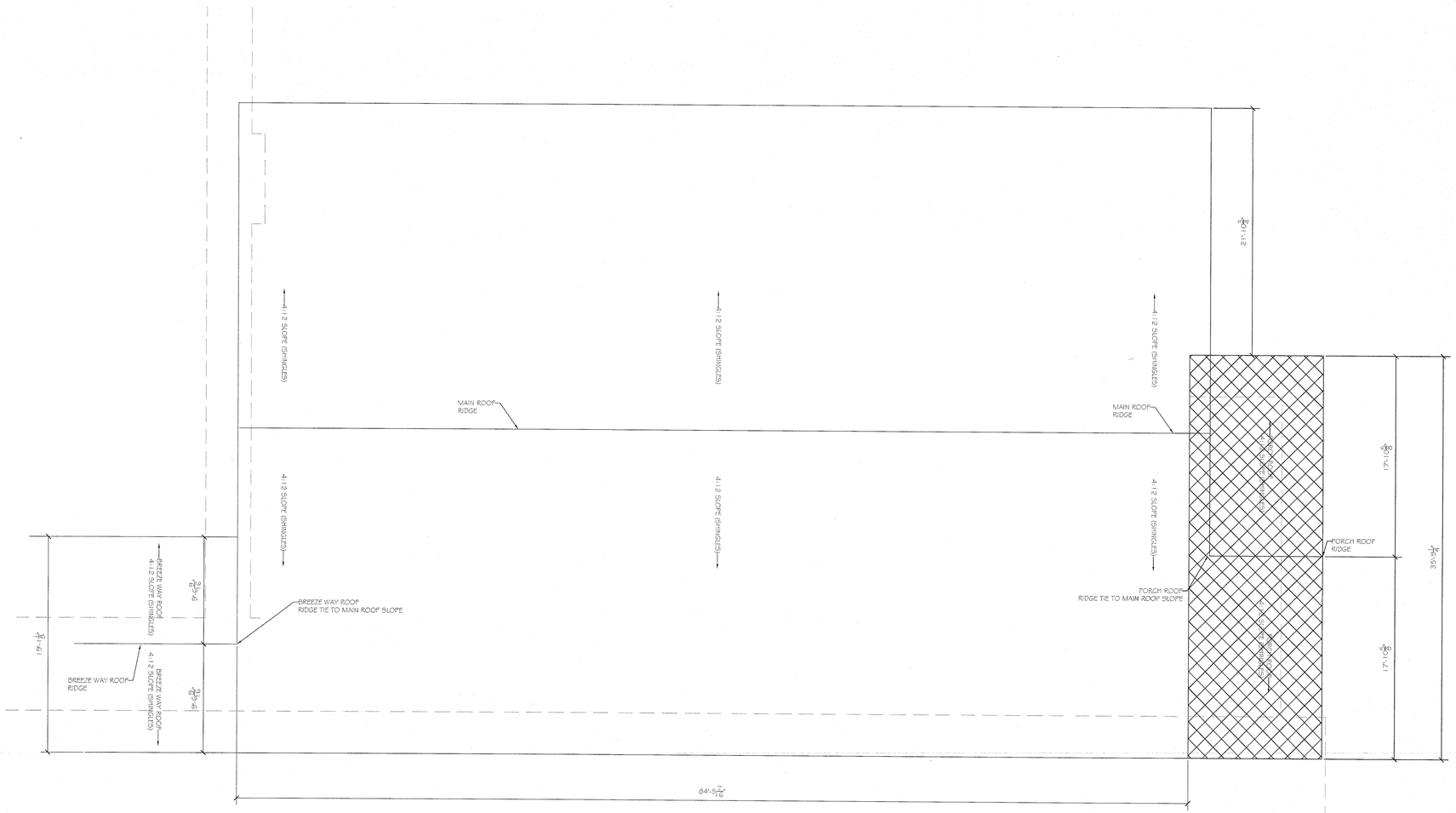
SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.

G-4

NORTH CAROLINA PROFESSIONAL SEAL 7291 ENGINEER R.BRACKEN

4/30/20



EXISTING ROOF PLAN

SCALE: 3/16" = 1'-0"

REVISION	
NO.	DATE

EXISTING ROOF PLAN

TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

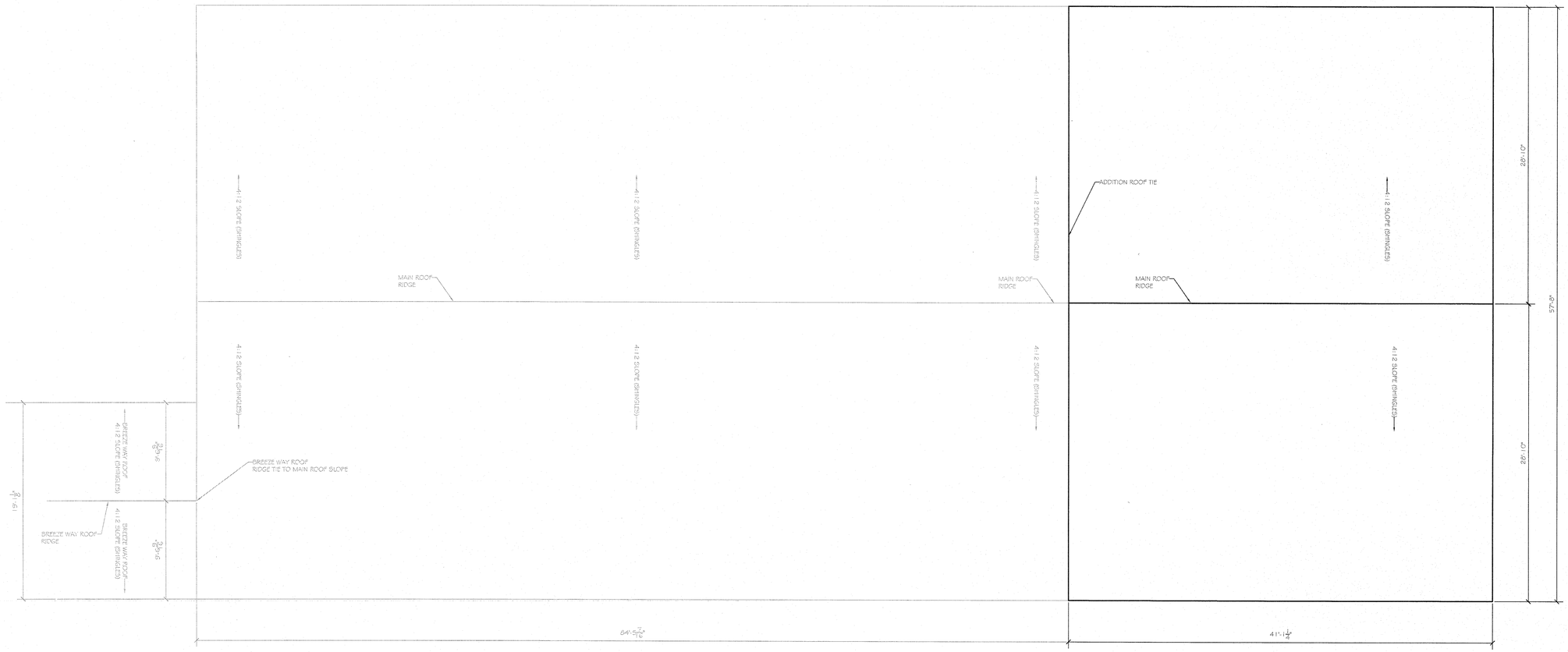
RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.

G-5

NORTH CAROLINA PROFESSIONAL SEAL 022291 ENGINEER ROBERT J. BRACKEN



ADDITION ROOF PLAN
SCALE: 3/16"=1'-0"

REVISION	
NO.	DATE

ROOF PLAN
TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.
G-6

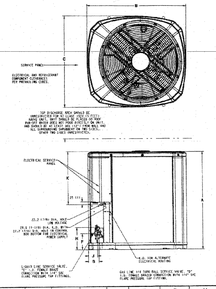
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 10031 ROBERT J. BRACKEN
4/30/20

NOTES:

1. HVAC SIZING BY OTHERS LOCATIONS SHOWN APPROXIMATE.

TRANE

Outline Drawing

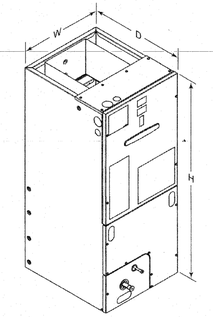


Model	Base	A	B	C	D	E	F	G	H	J	K
4TWA4035A3	4	741 (29-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	83 (3-1/4)	206 (8-1/8)	70 (2-3/4)	508 (20)
4TWA4042A3	4	741 (29-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	83 (3-1/4)	206 (8-1/8)	70 (2-3/4)	508 (20)
4TWA4048A3	4	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	156 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWA4060A3	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)
4TWA4036A4	4	741 (29-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	143 (5-5/8)	83 (3-1/4)	206 (8-1/8)	70 (2-3/4)	508 (20)
4TWA4042A4	4	741 (29-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	143 (5-5/8)	83 (3-1/4)	206 (8-1/8)	70 (2-3/4)	508 (20)
4TWA4048A4	4	841 (33-1/8)	946 (37-1/4)	870 (34-1/4)	3/4	3/8	156 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	508 (20)
4TWA4060A4	4	1147 (45-1/8)	946 (37-1/4)	870 (34-1/4)	7/8	3/8	152 (6)	98 (3-7/8)	219 (8-5/8)	86 (3-3/8)	813 (32)

22-1929-1C-EN 7

TRANE

TEM4 Air Handler Dimensional Data



Model No.	H	W	D
TEM4A0B1B5215B	45.02	18.59	21.13
TEM4A0B2B5215B	45.02	18.59	21.13
TEM4A0B3D5315B	45.02	18.59	21.13
TEM4A0D3D5315B	45.02	18.59	21.13
TEM4A0C3T5315B	51.27	23.59	21.13
TEM4A0C4D5415B	51.27	23.59	21.13
TEM4A0C4B5415B	51.27	23.59	21.13
TEM4A0C5G5515B	51.27	23.59	21.13

20 22-1897-1H-EN

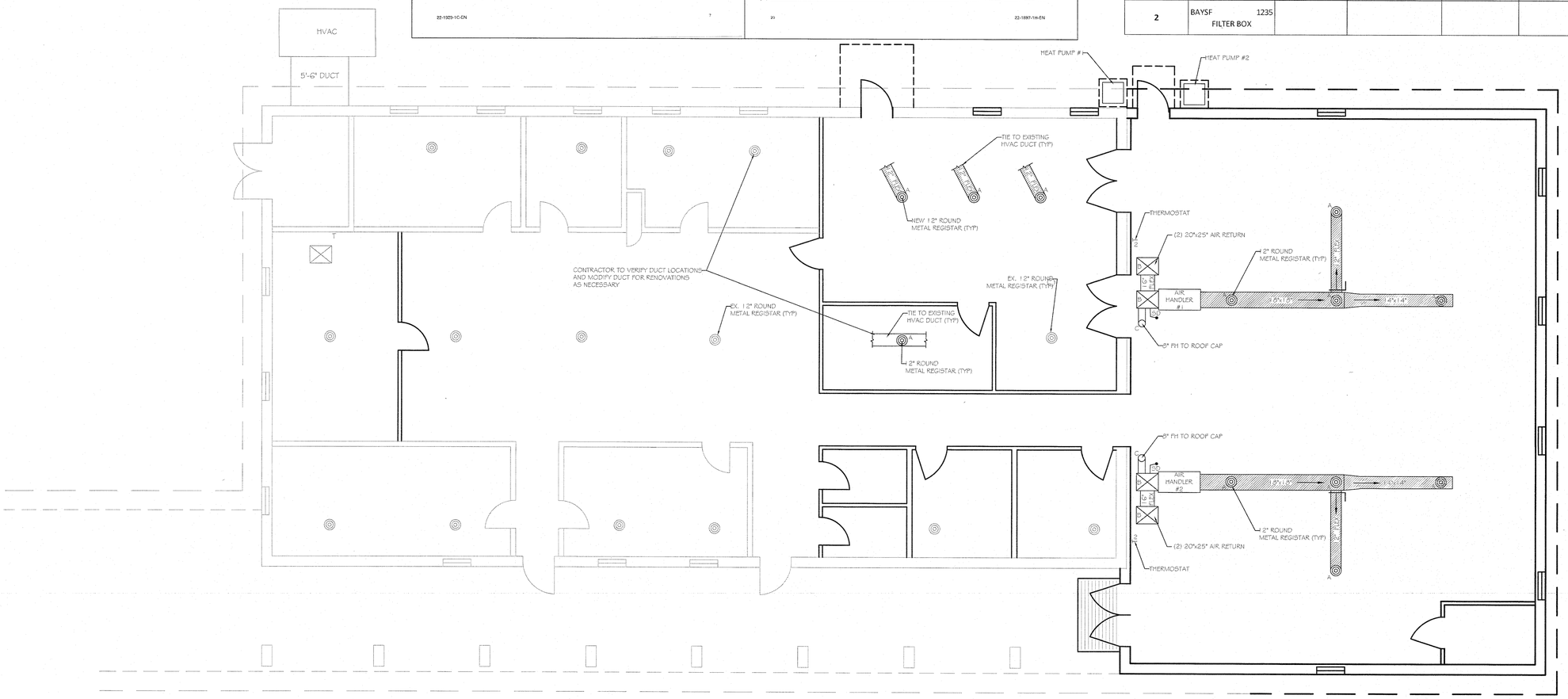
AIR DISTRIBUTION SCHEDULE

METALAIRE SUPPLYS HART & COOLX RETURNS

TAG	MODEL	TYPE	SIZE	FINISH	DUCT SIZE	CFM	BRAND	REMARKS
A	3100A	ROUND CEILING DIFFUSER	12"	WHITE	12"	500	METALAIRE	SUPPLY
B	373	FILTER RETURN GRILL	20"X25"	WHITE	16"	1000	HART & COOLX	RETURN
C	BROAN 634 RJ	PITCHED FRESH AIR ROOF JACK	10"	BLACK	8"	200	BROAN	O.S. FRESH AIR

EQUIPMENT SCHEDULE - TRANE

TAG	MODEL	VOLTAGE	MIN BRCH CIR/AMPS	MAX FUSE AMPS	SEER RATING	COOLING BTU
HEAT PUMP 1 &2	4TWA460 A3000A	208/230 3 PHASE	21 AMPS	35 AMPS	14	60,000
AIR/HANDLER 1&2	TEM4A OC605 515B	208/230 1 PHASE	6 AMPS	15 AMPS	14	
HEATER 1 &2	BAYHTR 3510LUG 10 KW	208 - 230 - 3 PHASE	32 AMPS 36 AMPS	35 AMPS 40 AMPS		24,600 32,800
2	XR203 PRGRAMABLE TOUCH SCREEN T-STAT					
2	BAYSF 1235 FILTER BOX					



ADDITION/REMODEL HVAC PLAN

SCALE: 3/16"=1'-0"

REVISION	
NO.	DATE

HVAC PLAN

TRAMWAY BAPTIST BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
ENGINEERING SURVEYING
3768 CARBONTON RD SANFORD, NC 27330

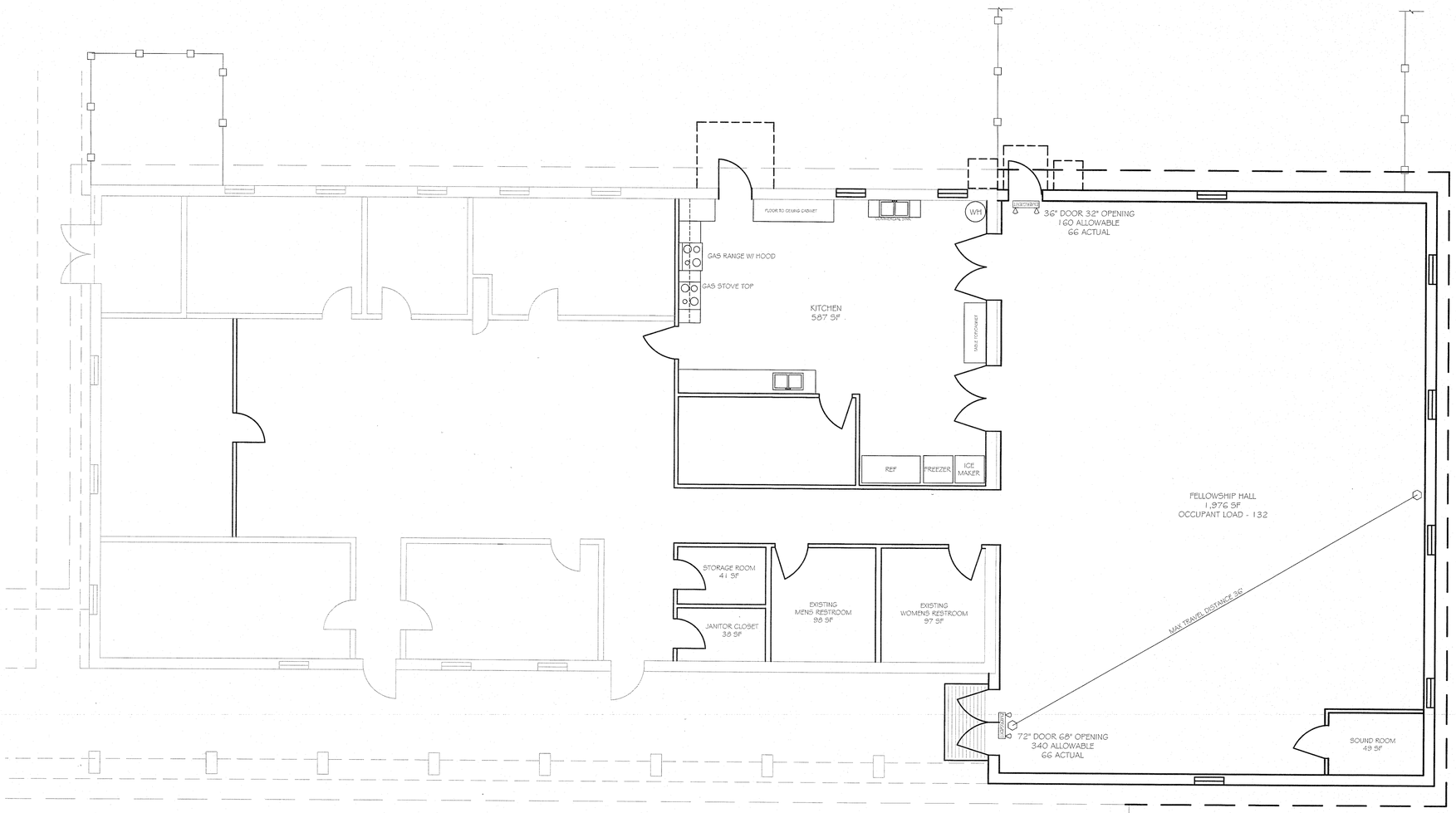
SCALE:	SEE PLAN
DRAWN BY:	MTB
DATE:	4/30/2020
CHECKED BY:	RJB
DRAWING NO.	
JOB NO.	

SHEET NO.

M-1

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER ROBERT J. BRACKEN 11291

4/30/20



ADDITION/REMODEL PLAN

SCALE: 3/16"=1'-0"

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LIFE SAFETY PLAN

TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

RJB, PE, PA
C-0269
ROBERT J. BRACKEN
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3768 CARBONTON RD SANFORD, NC 27330

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LS-1

NORTH CAROLINA PROFESSIONAL SEAL 7291 ENGINEER ROBERT J. BRACKEN

4/30/20

SYMBOL LEGEND

75 W INCANDESCENT/LED	CL C	EX. CAN LIGHT(RECESSED LIGHT)
75 W INCANDESCENT/LED	LF D	EX. GLOBE TYPE LIGHT FIXTURE
112 W FLUORESCENT	A LF	EX. 48" FLUORESCENT 4-BULB
75 W INCANDESCENT/LED	LF D	RELOCATED EX. GLOBE TYPE LIGHT FIXTURE
65 W LED	CL D	6" HALO RLSG LENS 65-WATT DIMMABLE
192 W LED	E	48" PROGRESS LIGHTING LED TROFFER
3.7 W LED	EMERGENCY	EMERGENCY EXIT LIGHT W/BATTERY BACKUP

PANEL LOAD CALCULATIONS

LOAD	CONNECT	DF	DEMAND
LIGHTING	6750	125	8437.5
RECEPTICALS	8100	100	8100
HEAT PUMPS	16800	100	16800
AIR HANDLERS	20000	125	25000
MISC. (EM LIGHTS)	600	100	600
TOTAL	52250		58937.5
PANEL LOAD			164
58937 WATTS DIVIDED BY 360=			164

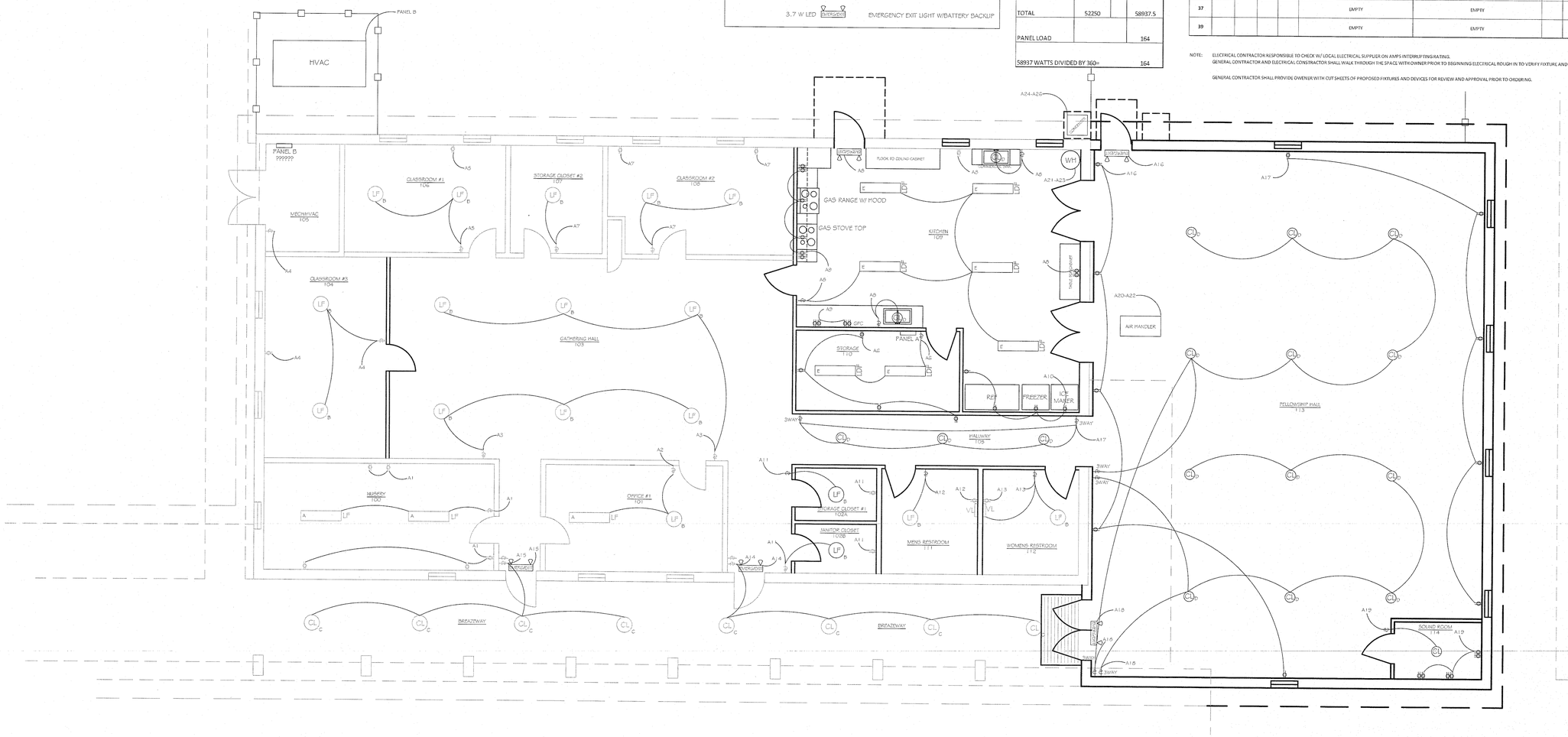
PANEL BOARD SCHEDULE

PANEL BOARD DESIGNATION - A	TYPE OF PANEL - CIRCUIT BREAKER	MOUNTING PLATE - FLANGE
VOLTAGE - 220/240 PH/4WIRE	BUS SIZE(AMPS) 600 A?	MAIN SWITCH - MSD
POLES	TOTAL SPACES REQUIRED - 25	NOTES -
FEEDER - FROM EXISTING PANEL	AMPS INTERRUPTING RATING - 20 KA	MANUFACTURER - SQUARE D OR EQUIVALENT

CKT #	CIRCUIT BREAKER	WIRE SIZE	LOAD (WATTS) A Φ	LOAD (WATTS) B Φ	LOAD DESCRIPTION	LOAD DESCRIPTION	LOAD (WATTS) A Φ	LOAD (WATTS) B Φ	WIRE SIZE	CIRCUIT BREAKER	CKT #
1	20	12	1150		RM100 LIGHTS (2) - RECEPTICALS (5)	RM101 LIGHTS (2)	250		12	20	2
3	20	12		750	RM103 LIGHTS (6)	RM104/RM105 LIGHTS (2) - RECEPTICALS (1)/LIGHTS(1)		555	12	20	4
5	20	12	430		RM106 LIGHTS (2)-RECEPTICALS (1)	RM110 LIGHTS (2) - RECEPTICALS (4)	970		12	20	6
7	20	12		735	RM108/RM107 LIGHTS (2) - RECEPTICALS (2)/LIGHTS (1)	RM109 LIGHTS (7) - RECEPTICALS (3) - EMERGENCY/EXIT LIGHT		1535	12	20	8
9	20	10	1800		RM109 RECEPTICALS (10)	RM109 RECEPTICALS (4)	720		10	20	10
11	15	12		610	RM102A/RM102B LIGHTS (1) - RECEPTICALS(1)/LIGHTS(1) - RECEPTICALS (1)	RM111 LIGHTS (2) - RECEPTICALS (1)		430	12	15	12
13	15	12	430		RM112 LIGHTS (2) - RECEPTICALS (1)	BRZWAY LIGHTS (4) - EMERGENCY/EXIT LIGHT	620		12	15	14
15	15	12		620	BRZWAY LIGHTS (4) - EMERGENCY/EXIT LIGHT	RM113 RECEPTICALS (5) - EMERGENCY/EXIT LIGHT		1020	12	20	16
17	20	12	625		RM113 RECEPTICALS (5)	BRZWAY LIGHTS (12) - EMERGENCY/EXIT LIGHT	1520		12	20	18
19	20	10		1205	RM115 LIGHTS (1) - RECEPTICALS (6)	HEAT PUMP #1		8400	8	35	20
21	30	10	4500		Water Heater	HEAT PUMP #1	8400		8	35	22
23	30	10		4500	Water Heater	HEAT PUMP #1		8400	8	35	24
25	35	8	8400		HEAT PUMP #2	AIR HANDLER #1 (10 KW HEAT STRIP)	10000		8	40	26
27	35	8		8400	HEAT PUMP #2	AIR HANDLER #1 (10 KW HEAT STRIP)		10000	8	40	28
29	35	8	8400		HEAT PUMP #2	AIR HANDLER #1 (10 KW HEAT STRIP)	10000		8	40	30
31	40	8	10000		AIR HANDLER #2 (10 KW HEAT STRIP)	EMPTY					32
33	40	8		10000	AIR HANDLER #2 (10 KW HEAT STRIP)	EMPTY					34
35	40	8	10000		AIR HANDLER #2 (10 KW HEAT STRIP)	EMPTY					36
37					EMPTY	EMPTY					38
39					EMPTY	EMPTY					40

NOTE: ELECTRICAL CONTRACTOR RESPONSIBLE TO CHECK W/ LOCAL ELECTRICAL SUPPLIER ON AMPS INTERRUPTING RATING.
GENERAL CONTRACTOR AND ELECTRICAL CONSTRACTOR SHALL WALK THROUGH THE SPACE WITH OWNER PRIOR TO BEGINNING ELECTRICAL ROUGH IN TO VERIFY FIXTURE AND DEVICE LOCATIONS

GENERAL CONTRACTOR SHALL PROVIDE OWENUER WITH CUT SHEETS OF PROPOSED FIXTURES AND DEVICES FOR REVIEW AND APPROVAL PRIOR TO ORDERING.



ADDITION/REMODEL ELECTRICAL PLAN

SCALE: 3/16"=1'-0"

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ELECTRIC PLAN

TRAMWAY BAPTIST
BUILDING ADDITION

TRAMWAY, NORTH CAROLINA

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