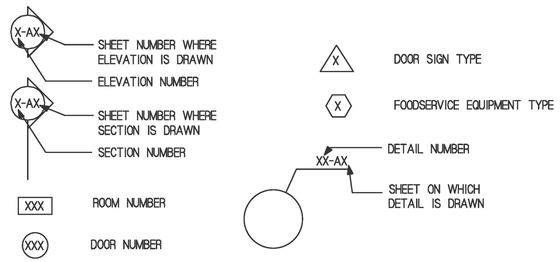
BUILDING CONSTRUCTION PLANS
FOR
BLOOMFIELD RECREATION CENTER
CONCESSION AND TOILET BUILDINGS
NEW CONSTRUCTION

MACON, BIBB COUNTY, GEORGIA
04/05/2021

MATERIAL SYMBOLS

- CONCRETE (SECTION)
- CONCRETE (PLAN)
- BRICK (SECTION OR PLAN)
- NEW / EXISTING WALL (CONCRETE MASONRY) (LARGE SCALE PLAN) — NEW EXIST.
- FRAMING LUMBER (SECT)
- FINISH LUMBER (SECT)
- PLYWOOD (SECTION)
- BATT INSUL (SECTION)
- METAL (SECTION)

REFERENCE SYMBOLS



TYPICAL ABBREVIATIONS

@ ____ AT	ELEV. ____ ELEVATION	N.T.S. ____ NOT TO SCALE
A.B. ____ ANCHOR BOLT	EQ. ____ EQUAL	O.H. ____ OPPOSITE HAND
A.F.F. ____ ABOVE FINISH FLOOR	EXP. ____ EXPANSION	O.C. ____ ON CENTER
ALT. ____ ALTERNATE	EXT. ____ EXTERIOR	O.D. ____ OUTSIDE DIAMETER
ALUM. ____ ALUMINUM	F.D. ____ FLOOR DRAIN	℄ ____ PLATE
ANOD. ____ ANODIZED	F.E. ____ FIRE EXTINGUISHER	P.C.B. ____ PAINTED CONCRETE BLOCK
BCS ____ BABY CHANGING STATION	F.F. ____ FINISH FLOOR	P.E.J. ____ PREFORMED EXPANSION JOINT
BD. ____ BOARD	FIN. ____ FINISH	P.L. ____ PROPERTY LINE
BET. ____ BETWEEN	FL. ____ FLOOR	PLYWD. ____ PLYWOOD
BLK. ____ BLOCK	F.R. ____ FIRE RATED	PROJ. ____ PROJECTION
B.N. ____ BULL NOSE	GA. ____ GAUGE	P.T. ____ PRESSURE TREATED
BM. ____ BEAM	GALV. ____ GALVANIZED	RAD. ____ RADIUS
BOT. ____ BOTTOM	G.B. ____ GRAB BAR	R.D. ____ ROOF DRAIN
C ____ CHANNEL	GYP. ____ GYPSUM	RECEP. ____ RECEPTACLE
℄ ____ CENTERLINE	H.C. ____ HANDICAPPED ACCESSIBLE	REINF. ____ REINFORCED
CAB. ____ CABINET	H.M. ____ HOLLOW METAL	REQ'D. ____ REQUIRED
CLG. ____ CEILING	HOL. ____ HOLLOW	RM. ____ ROOM
CMU ____ CONCRETE MASONRY UNIT	HT. ____ HEIGHT	R/W ____ RIGHT OF WAY
COL. ____ COLUMN	INSUL. ____ INSULATION	S.F. ____ SQUARE FOOT
CONC. ____ CONCRETE	JST. ____ JOIST	SIM. ____ SIMILAR
CONT. ____ CONTINUOUS	JT. ____ JOINT	S.F. ____ SQUARE FOOT
CTR. ____ CENTER	LAM. ____ LAMINATED	S/S ____ STAINLESS STEEL
DIA. ____ DIAMETER	L.F. ____ LINEAL FOOT	STL. ____ STEEL
D.B.N. ____ DOUBLE BULL NOSE	MANUF. ____ MANUFACTURER	STOR. ____ STORAGE
DET. ____ DETAIL	MAX. ____ MAXIMUM	SUSP. ____ SUSPENDED
D.F. ____ DRINKING FOUNTAIN	MET. ____ METAL	TEMP. ____ TEMPERED
DIM. ____ DIMENSION	MIN. ____ MINIMUM	TK. ____ THICK
DISP. ____ DISPENSER	MISC. ____ MISCELLANEOUS	TYP. ____ TYPICAL
EA. ____ EACH	M.O. ____ MASONRY OPENING	U.N. ____ UNLESS NOTED
EHD ____ ELECTRIC HAND DRYER	N.I.C. ____ NOT IN CONTRACT	W/ ____ WITH
E.J. ____ EXPANSION JOINT	NOM. ____ NOMINAL	

ESTABLISHED 2014
MBC
MACON-BIBB COUNTY
PARKS AND RECREATION DEPARTMENT

STATE OF GEORGIA
DAVID L. WOODBURN
CERTIFICATE No. 21585
REGISTERED ARCHITECT
4/17/21

Widner & Associates, Inc.
PH. ✆ (478) 746-2010 P.O. BOX 102 MACON, GEORGIA 31202
EMAIL: widner@widner-assoc.com WEBSITE: www.widner-assoc.com

PROJECT NARRATIVE:

THIS PROJECT IS FOR THE CONSTRUCTION OF ONE CONCESSION BUILDING AND TWO TOILET BUILDINGS ASSOCIATED WITH PLAYING FIELD IMPROVEMENTS AT THE EXISTING BLOOMFIELD PARK RECREATION CENTER. SITE PREPARATION WILL INCLUDE DEMOLITION OF EXISTING BUILDINGS.

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
COVER	PROJECT DATA
A1.1	OVERALL FLOOR PLAN – CONCESSIONS BUILDING, FOODSERVICE EQUIPMENT SCHEDULE
A1.2	CODE COMPLIANCE PLAN, ROOF PLAN, REFLECTED CEILING PLAN – CONCESSIONS BUILDING
A1.3	OVERALL FLOOR PLAN – TOILET BUILDING INTERIOR ELEVATIONS, BOTH BUILDING TYPES, ACCESSORY SCHEDULE
A1.4	CODE COMPLIANCE PLAN, ROOF PLAN, REFLECTED CEILING PLAN – TOILET BUILDING
A2	EXTERIOR ELEVATIONS
A3	SCHEDULES
S1	FOUNDATION PLANS, ROOF FRAMING LAYOUT PLANS – BOTH BUILDING TYPES
S2	STRUCTURAL NOTES, SCHEDULES AND DETAILS, STRUCTURAL SECTION
P1	PLUMBING SPECIFICATIONS, SCHEDULES AND DETAILS
P2	PLUMBING PLANS AND RISERS – CONCESSIONS BUILDING
P3	PLUMBING PLANS AND RISERS – TOILET BUILDINGS
M1	HVAC SPECIFICATIONS
M2	HVAC SCHEDULES AND DETAILS
M3	HVAC PLANS – BOTH BUILDING TYPES
E0.1	ELECTRICAL SPECIFICATIONS, LIGHTING SCHEDULE, LEGEND, NOTES AND DETAILS
E1.1	ELECTRICAL SITE PLAN, NOTES & DETAILS
E2.1	ELECTRICAL PLANS – CONCESSIONS BUILDING, NOTES, MECH. EQUIP. POWER SCHEDULE
E2.2	ELECTRICAL PLANS – TOILET BUILDINGS, NOTES
E3.1	POWER RISER, PANELBOARD SCHEDULES, DETAILS

VICINITY MAP
N.T.S.

NOTE:

THE AGREEMENT BETWEEN THE ARCHITECT AND THE OWNERS IS FOR LIMITED ARCHITECTURAL SERVICES TO PROVIDE DESIGN AND CONSTRUCTION DOCUMENTS REQUIRED TO OBTAIN A BUILDING PERMIT FROM THE AUTHORITY HAVING JURISDICTION FOR THE PROJECT ONLY. ARCHITECTURAL SERVICES FOR CONSTRUCTION CONTRACT ADMINISTRATION ARE NOT PART OF THIS ARCHITECT'S RESPONSIBILITY. PROCUREMENT OF SPECIAL INSPECTIONS AS SPECIFIED IN CHAPTER 17 OF THE IBC IS NOT THE RESPONSIBILITY OF THIS ARCHITECT.

CODE DATA:
NFPA OCCUPANCY TYPE: BUSINESS ACCESSORY TO ASSEMBLY (OUTDOOR)

IBC OCCUPANCY TYPE: BUSINESS GROUP B ACCESSORY TO ASSEMBLY A-5

NFPA CONSTRUCTION TYPE: III (200)

IBC CONSTRUCTION TYPE: 3-B

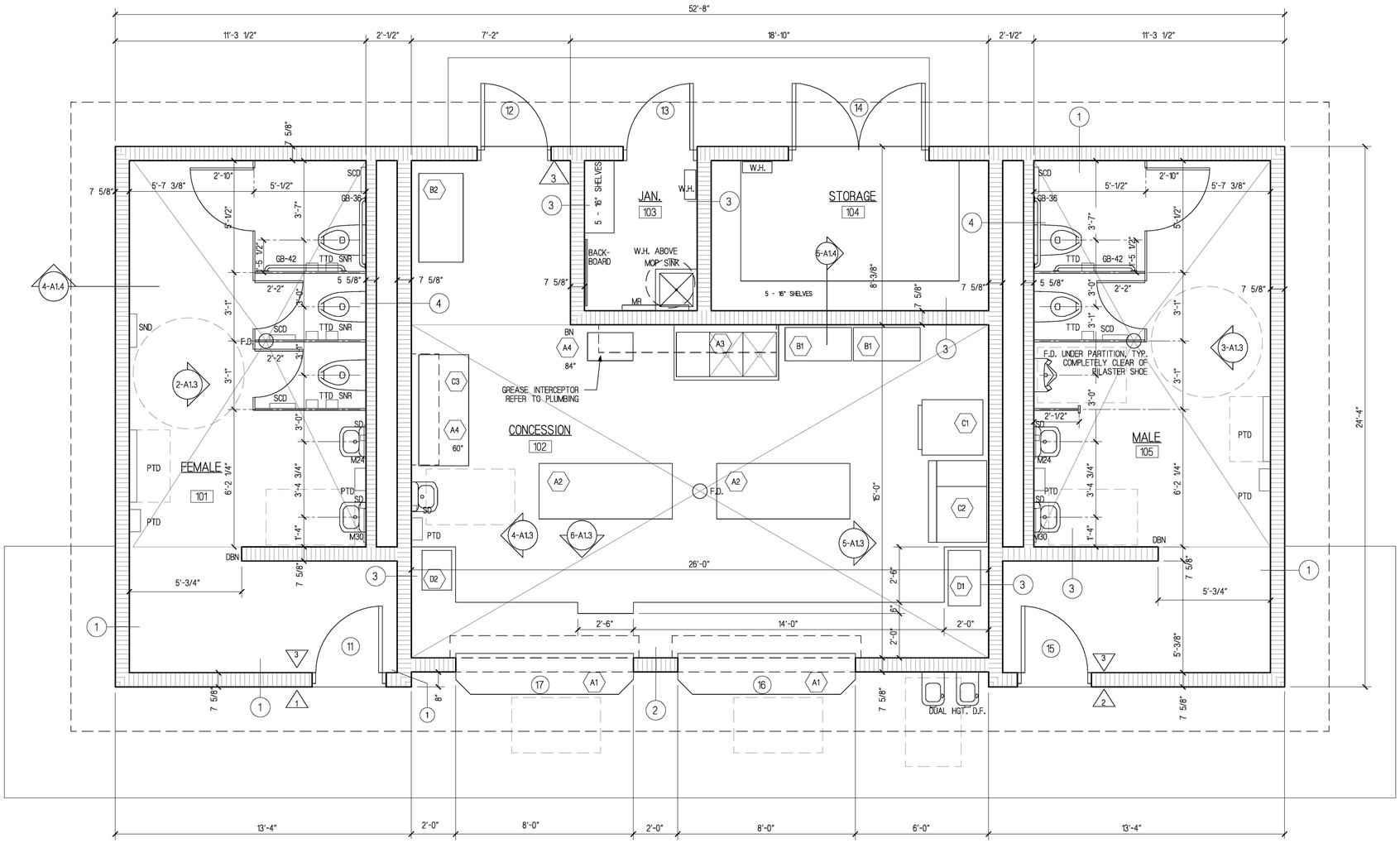
BUILDINGS ARE NOT FIRE SPRINKLED
TABULAR ALLOWABLE AREA PER IBC: 28,500 SF

CONCESSION BUILDING TOTAL ACTUAL AREA =	1,282 S.F.	OK
OCCUPANT LOAD - TOILET ROOMS @ 15 S.F. =		28
OCCUPANT LOAD - BUSINESS @ 150 GROSS S.F. =		4
CONCESSION BUILDING TOTAL CALCULATED OCCUPANT LOAD		32
TOILET BUILDING TOTAL ACTUAL AREA =	600 S.F.	OK
OCCUPANT LOAD - TOILET ROOMS @ 15 S.F. =		30
OCCUPANT LOAD - BUSINESS @ 150 GROSS S.F. =		0
TOILETS BUILDING TOTAL CALCULATED OCCUPANT LOAD		30

ALLOWABLE BUILDING HEIGHT IN STORIES: 3 - OK

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE: 55' - OK

COMPLY WITH THE FOLLOWING CODES & STANDARDS:
INTERNATIONAL BUILDING CODE, 2018 EDITION W/ GA. AMENDMENTS
INTERNATIONAL PLUMBING CODE, 2018 EDITION W/ GA. AMENDMENTS
INTERNATIONAL MECHANICAL CODE, 2018 EDITION W/ GA. AMENDMENTS
NATIONAL ELECTRIC CODE, 2020 EDITION
ENERGY CODE: ASHRAE A90.1, 2013 FOR SEMI-HEATED BUILDINGS (CLIMATE ZONE 3A)
INTERNATIONAL FIRE CODE, 2018 EDITION W/ GA. AMENDMENTS
GEORGIA ACCESSIBILITY CODE 120-3-20
AMERICANS WITH DISABILITIES ACT STANDARDS, ADAAG 2010
NFPA 101 LIFE SAFETY CODE, 2018 EDITION AMENDED BY RULE 120-3-3



1 FLOOR PLAN

SCALE: 3/8" = 1'-0"

CONCESSIONS BUILDING

FOODSERVICE EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MANUF. MODEL	FURN. & INSTALLED	MARK	DESCRIPTION	MANUF. MODEL	FURN. & INSTALLED
FABRICATED STAINLESS STEEL				**REFRIGERATION**			
A1	SERVING COUNTER - 96" X 24"	CUSTOM	BY CONTRACTOR	C1	REACH-IN COOLER	BEVERAGE-AIR HBR23HC-G	BY CONTRACTOR
A2	WORK TABLE - 72" X 30"	ADVANCE-TABCO MS-306	BY CONTRACTOR	C2	ICE MAKER & BIN	HOSHIZAKI KM-1100MAJ50 X B700SF X HS-2130 / HS-2034	BY CONTRACTOR
A3	2 COMPARTMENT SINK W/ 1 DRAIN BOARD - 50.5" X 27"	ADVANCE-TABCO FC-2-1824-18 X K1 X K15	BY CONTRACTOR	C3	CHEST FREEZER	AVANTCO DFF16-HCL 60"	BY CONTRACTOR
A4	S/S OVERSHELF - 10" X LENGTH INDICATED X 16 GA.	ADVANCE-TABCO WS-10-X-16	BY CONTRACTOR	**COOKING & WARMING**			
STORAGE SHELVING				D1	HOT DOG & BUN WARMER		BY OTHERS
B1	18" X 36"		BY OTHERS	D2	MICROWAVE OVEN		BY OTHERS
B2			BY OTHERS				

Drawing Number A1.1

DATE: 04/05/2021

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STATE OF GEORGIA ★ DAVID L. WOODBURN ★ 4/7/21 ★ REGISTERED ARCHITECT ★ CERTIFICATE NO. 4888

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

A1.1

DATE: 04/05/2021

RATED PARTITION LEGEND

		NOTES:
—— 1 ——	ONE HOUR RATED WALL	NOM. 8" NORMAL WEIGHT CMU. 4.0" EQUIVALENT THICKNES ANY AGGREGATE EXCEEDS 1 HOUR BY IBC MIN. T'KNESS OF SEAL TO RATED CEILING
⊗ F.E.	FIRE EXTINGUISHER	ALL FIRE EXTINGUISHERS REGARDLESS OF TYPE ARE CLASS ABC 10 POUND.
	ONE HOUR RATED ROOF / CEING	UL #P522 @ ROOF: WOOD ROOF TRUSS @ 24" O.C. 7/8" FURRING CHANNELS, 5/8" F.R. GYP. BD. ALL PENETRATIONS PROTECTED.

ALL INTERIOR FINISHES ARE TO CE CERTIFIED CLASS A, B OR C IN ACCORDANCE WITH ASTM E 84. IN NEW SPACES AND RENOVATED FINISHES.
FLAME SPREAD = 0-75
SMOKE DEVELOPED = 0-450

NOTE:
ALL DOORS IN MEANS OF EGRESS ARE TO BE OPENABLE WITHOUT KEYS OR SPECIAL TOOLS AT ALL TIMES. LEVER HARDWARE THROUGHOUT

INSULATION STANDARDS (SEMI-HEATED):
CEILING: R-19
EXTERIOR MASONRY WALLS: R-2.8
ENTRY DOORS: U = 0.61

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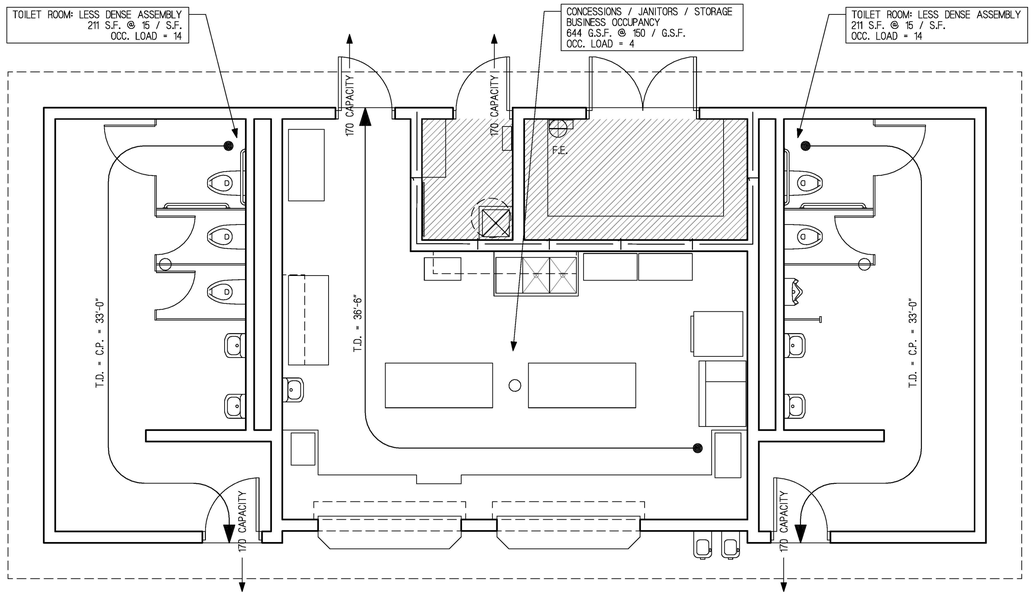
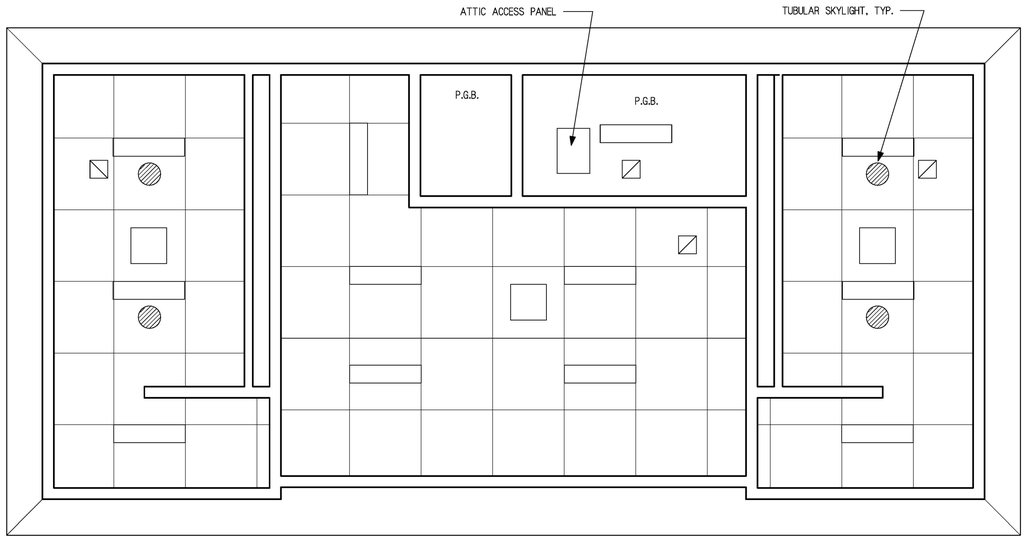


1 FLOOR PLAN

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

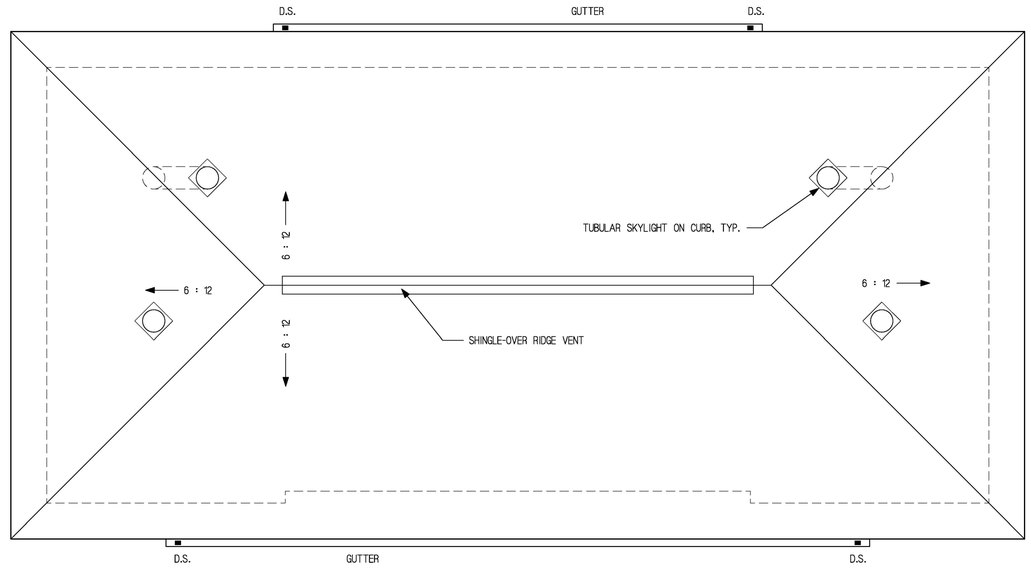
TOILETS & CONCESSION
CODE COMPLIANCE



1 REFLECTED CEILING PLAN

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

TOILETS & CONCESSION



1 ROOF PLAN

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

TOILETS & CONCESSION

Drawing Number A1.2
DATE: 04/05/2021

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STATE OF GEORGIA
DAVID L. WOODBURN
REGISTERED ARCHITECT
CERTIFICATE NO. 4188
4/9/21

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

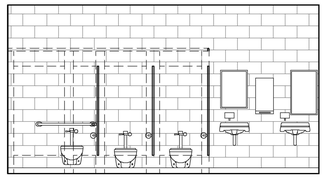
A1.2

DATE: 04/05/2021

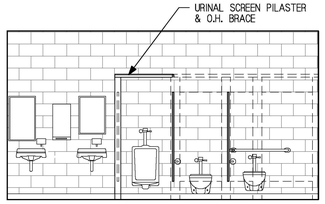
TOILET ACCESSORY SCHEDULE

ABBREV.	ITEM DESCRIPTION	MODEL
GB-36	36" GRAB BAR - NON SLIP GRIPPING SURFACE, CONCEALED FATENERS.	BRADLEY 8122-001-36
GB-42	42" GRAB BAR - NON SLIP GRIPPING SURFACE, CONCEALED FATENERS.	BRADLEY 8122-001-42
PTD	PAPER TOWEL DISPENSER - STAINLESS STEEL C-FOLD, SURFACE MOUNT	BRADLEY 250-15
M-30	STAINLESS STEEL FRAMED MIRROR - 1/4" TEMPERED GLASS - 18" X 30"	BRADLEY 781-1830-2
M-24	STAINLESS STEEL FRAMED MIRROR - 1/4" TEMPERED GLASS - 18" X 24"	BRADLEY 781-1824-2
SD	SOAP DISPENSER - STAINLESS STEEL LIQUID SOAP, SURFACE MOUNT	BRADLEY 6542
TTD	TOILET TISSUE DISPENSER - 2 ROLL, SURFACE MOUNT, CAM SPINDLE CONTROLLED DELIVERY EXCEPT NOT CONTROLLED AT ACCESSIBLE STALLS.	BRADLEY 5241
MR	MOP RACK - 4 HOLDERS ON 3' STAINLESS STEEL TRACK	BRADLEY 995-4
BCT	CHANGING TABLE - FOLDING POLYETHYLENE HORIZONTAL SHELL	BROCAR HORIZONTAL
SND	SANITARY NAPKIN DISPENSER - STAINLESS STEEL, SURFACE MOUNT - COIN OPERATED	BRADLEY 407-11
SNR	SANITARY NAPKIN DISPOSAL RECEPTACLE - STAINLESS STEEL, SURFACE MOUNT - 1.5 GAL. CAPACITY	BRADLEY 4722-15
SCD	SEAT COVER DISPENSER - STAINLESS STEEL, SURFACE MOUNT	BRADLEY 583
PTR (ALTERNATE)	PAPER TOWEL RECEPTACLE - STAINLESS STEEL, SURFACE MOUNT - 6.4 GAL.	BRADLEY 357

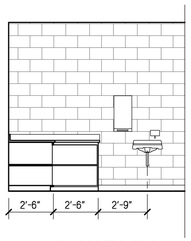
NOTE: MODELS ARE THE BASIS OF DESIGN FOR QUALITY AND FUNCTION. FURNISH SPECIFIED MODEL OR EQUAL.



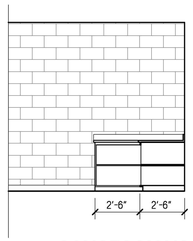
2 FEMALE TOILET



3 MALE TOILET



4 CONCESSIONS



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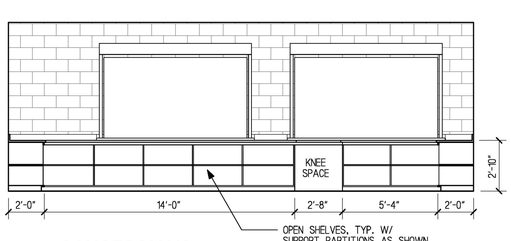
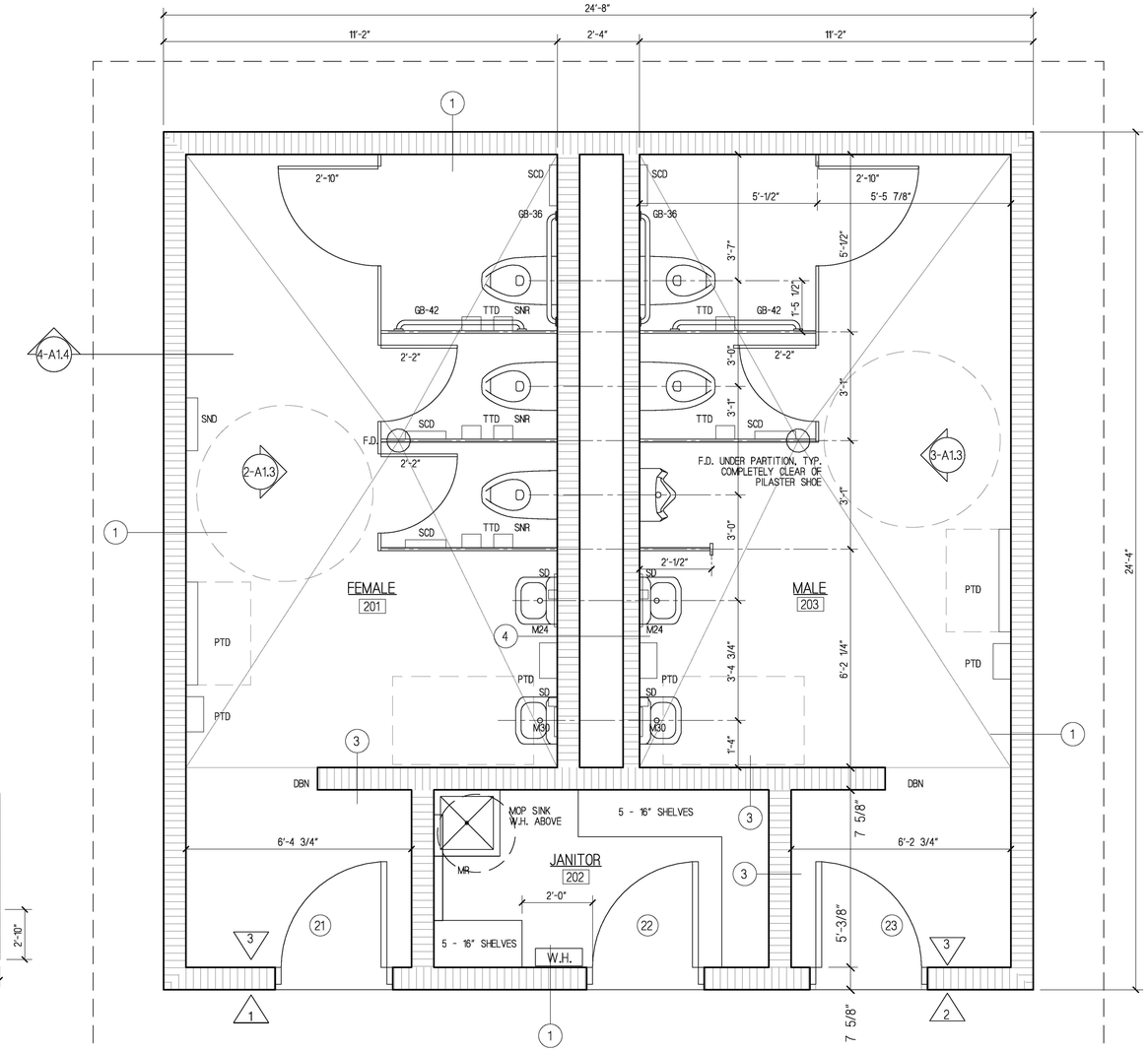


6 CONCESSIONS

INTERIOR ELEVATIONS

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

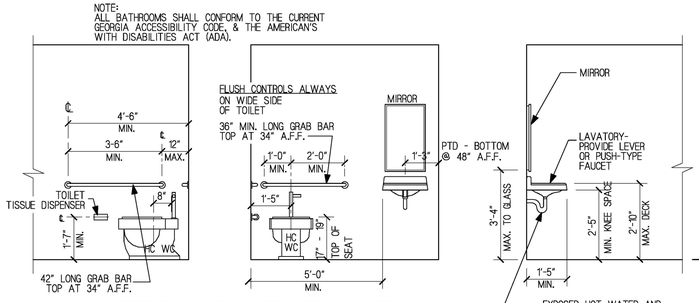


1 FLOOR PLAN

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

TOILET BUILDING

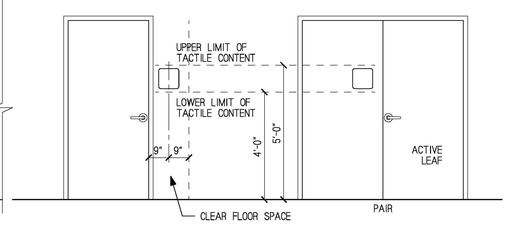
NOTE:
ALL BATHROOMS SHALL CONFORM TO THE CURRENT GEORGIA ACCESSIBILITY CODE, & THE AMERICAN'S WITH DISABILITIES ACT (ADA).



INTERIOR ELEVATIONS

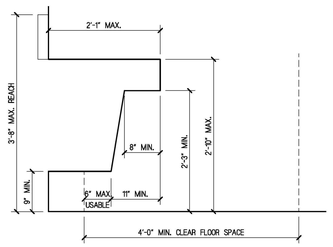
SCALE: 3/8" = 1'-0"

ACCESSIBLE TOILET CLEARANCES



DOOR SIGN LOCATION

SCALE: 3/8" = 1'-0"



TOE & KNEE CLEARANCE

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

WALL TYPES

MARK	DESCRIPTION	FINISH
1	SPLIT FACE ARCHITECTURAL C.M.U.	ELASTOMERIC COATING EXTERIOR, EPOXY INTERIOR
2	SMOOTH-FACE, SINGLE-SCORE ARCHITECTURAL C.M.U.	ELASTOMERIC COATING EXTERIOR, EPOXY INTERIOR
3	NOM. 8" C.M.U. PARTITION	EPOXY
4	CHASE WALL - NOM. 6" PLUS NOM. 8" C.M.U.	EPOXY

Drawing Number A1.3

DATE: 04/05/2021

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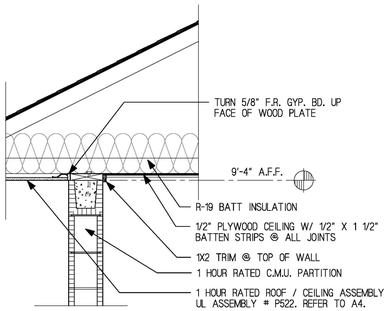
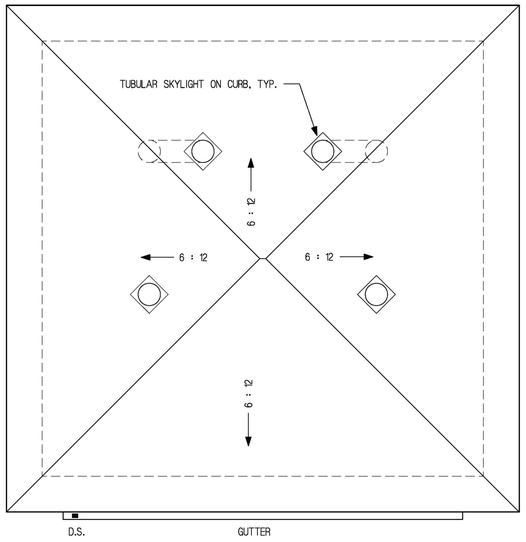


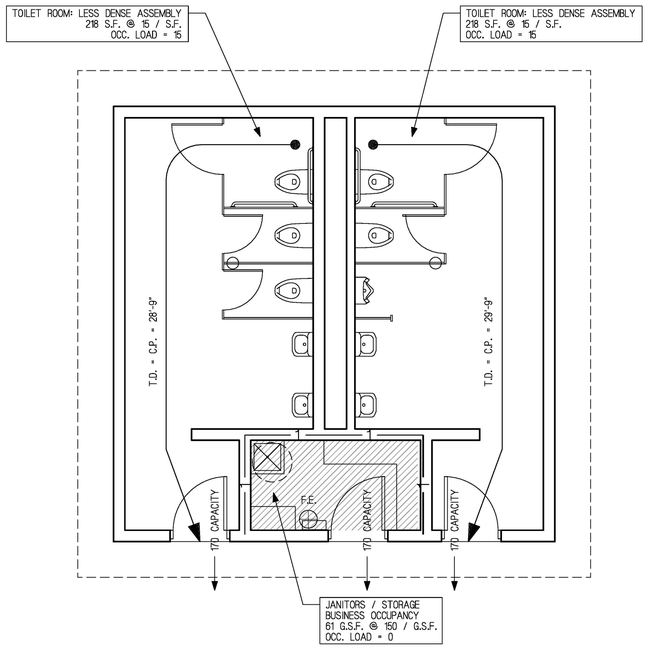
5 SECTION

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



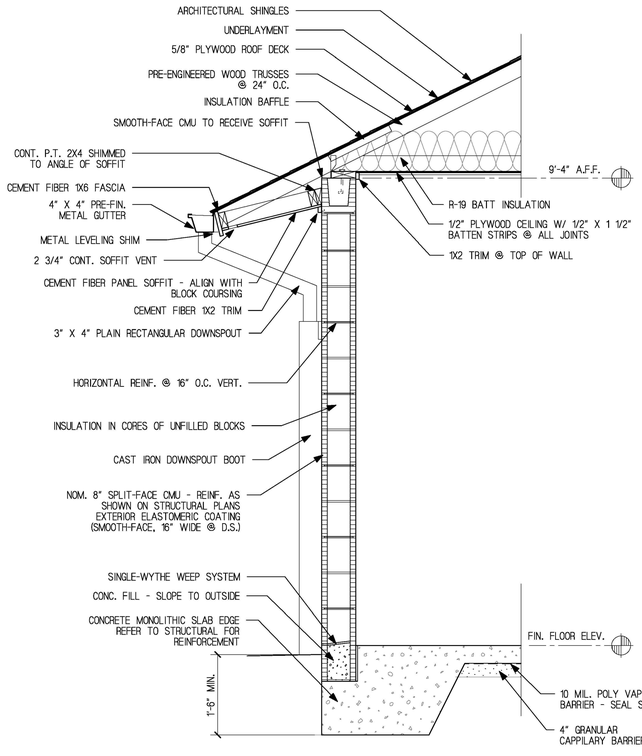
2 ROOF PLAN

SCALE: 1/4" = 1'-0" TOILETS WITH JANITOR



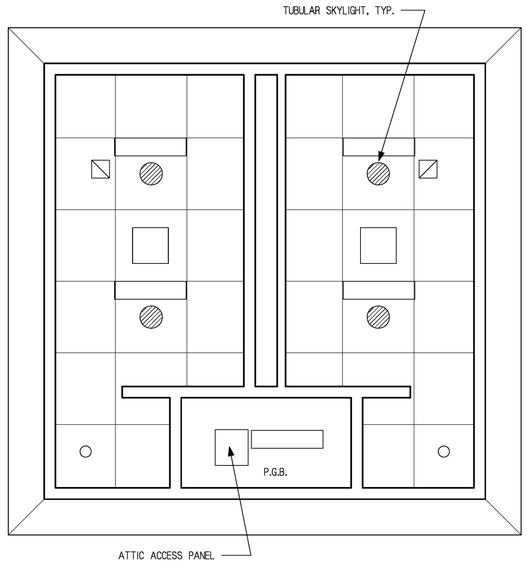
1 FLOOR PLAN

SCALE: 1/4" = 1'-0" TOILETS WITH JANITOR
CODE COMPLIANCE



4 SECTION

SCALE: 3/4" = 1'-0" TYP. EXTERIOR



3 REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" TOILETS WITH JANITOR

RATED PARTITION LEGEND

		NOTES:
—— 1 ——	ONE HOUR RATED WALL	NOM. 8" NORMAL WEIGHT CMU. 4.0" EQUIVALENT THICKNES ANY AGGREGATE EXCEEDS 1 HOUR BY IBC MIN. T'KNESS OF SEAL TO RATED CEILING
⊘ F.E.	FIRE EXTINGUISHER	ALL FIRE EXTINGUISHERS REGARDLESS OF TYPE ARE CLASS ABC 10 POUND.
	ONE HOUR RATED ROOF / CEING	UL #P522 @ ROOF: WOOD ROOF TRUSS @ 24" O.C. 7/8" FURRING CHANNELS, 5/8" F.R. GYP. BD. ALL PENETRATIONS PROTECTED.

ALL INTERIOR FINISHES ARE TO CE CERTIFIED CLASS A, B OR C IN ACCORDANCE WITH ASTM E 84. IN NEW SPACES AND RENOVATED FINISHES.
FLAME SPREAD = 0-75
SMOKE DEVELOPED = 0-450

NOTE:
ALL DOORS IN MEANS OF EGRESS ARE TO BE OPENABLE WITHOUT KEYS OR SPECIAL TOOLS AT ALL TIMES. LEVER HARDWARE THROUGHOUT

INSULATION STANDARDS (SEMI-HEATED):
CEILING: R-19
EXTERIOR MASONRY WALLS: R-2.8
ENTRY DOORS: U = 0.61

CODE DATA:
NFPA OCCUPANCY TYPE: BUSINESS ACCESSORY TO ASSEMBLY (OUTDOOR)

IBC OCCUPANCY TYPE: BUSINESS GROUP B ACCESSORY TO ASSEMBLY A-5

NFPA CONSTRUCTION TYPE: III (200)

IBC CONSTRUCTION TYPE: 3-B

BUILDINGS ARE NOT FIRE SPRINKLED
TABULAR ALLOWABLE AREA PER IBC: 28,500 SF

TOILET BUILDING TOTAL ACTUAL AREA = 600 S.F. OK

OCCUPANT LOAD - TOILET ROOMS @ 15 S.F. =	30
OCCUPANT LOAD - BUSINESS @ 150 GROSS S.F. =	0
TOILETS BUILDING TOTAL CALCULATED OCCUPANT LOAD	30

ALLOWABLE BUILDING HEIGHT IN STORIES: 3 - OK

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE: 55' - OK

COMPLY WITH THE FOLLOWING CODES & STANDARDS:
INTERNATIONAL BUILDING CODE, 2018 EDITION W/ GA. AMENDMENTS
INTERNATIONAL PLUMBING CODE, 2018 EDITION W/ GA. AMENDMENTS
INTERNATIONAL MECHANICAL CODE, 2018 EDITION W/ GA. AMENDMENTS
NATIONAL ELECTRIC CODE, 2020 EDITION
ENERGY CODE: ASHRAE A90.1, 2013 FOR SEMI-HEATED BUILDINGS (CLIMATE ZONE 3A)
INTERNATIONAL FIRE CODE, 2018 EDITION W/ GA. AMENDMENTS
GEORGIA ACCESSIBILITY CODE 120-3-20
AMERICANS WITH DISABILITIES ACT STANDARDS, ADAAG 2010
NFPA 101 LIFE SAFETY CODE, 2018 EDITION AMENDED BY RULE 120-3-3

Drawing Number A1.4
DATE: 04/05/2021

Widner & Associates, Inc.
P.O. BOX 109, MACON, GEORGIA 31202
PH.# (478) 745-2010
EMAIL: widner@widner-assoc.com WEBSITE: www.widner-assoc.com

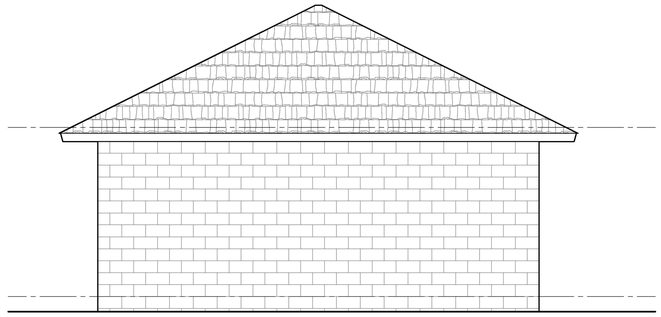
STATE OF GEORGIA ★ DAVID L. WOODBURN ★ REGISTERED ARCHITECT
DLW 4/9/21

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

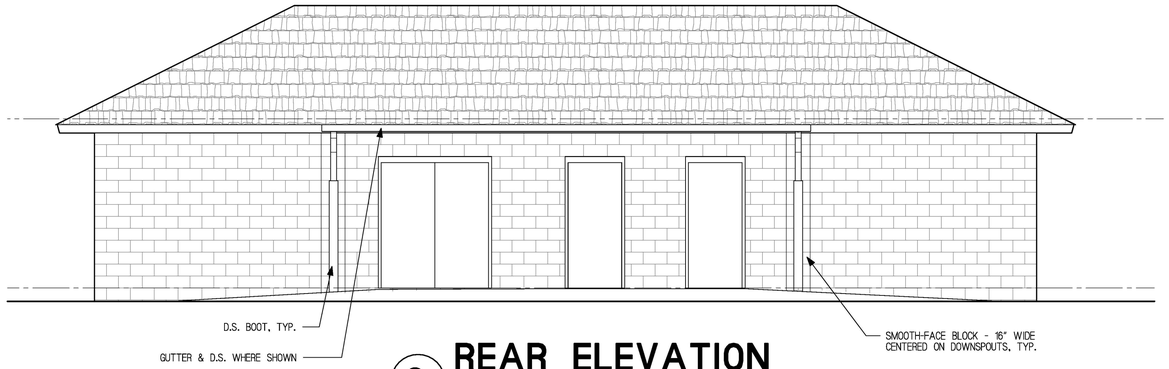
A1.4

DATE: 04/05/2021



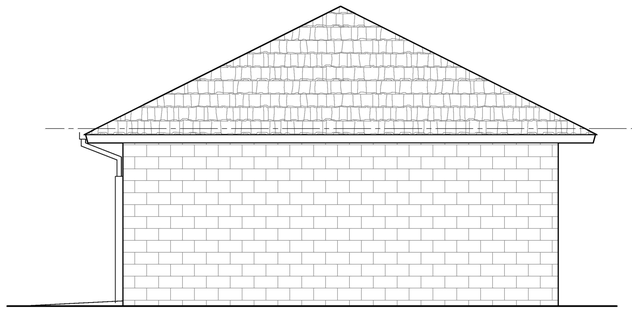
6 REAR ELEVATION

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



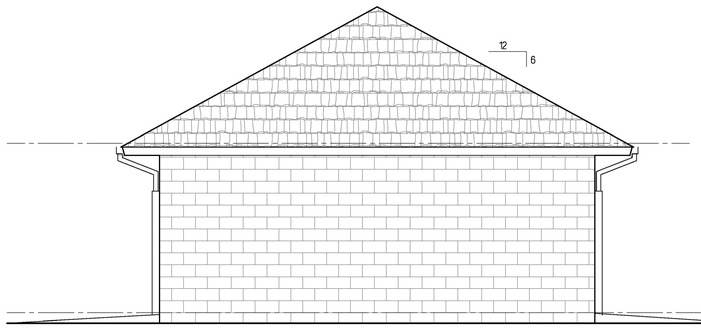
3 REAR ELEVATION

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



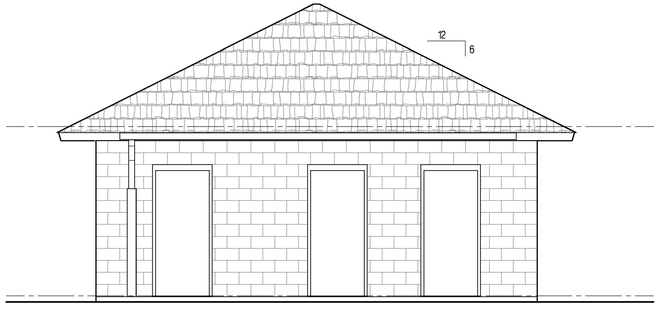
5 RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0" TOILET BUILDING
LEFT SIDE OPPOSITE HAND



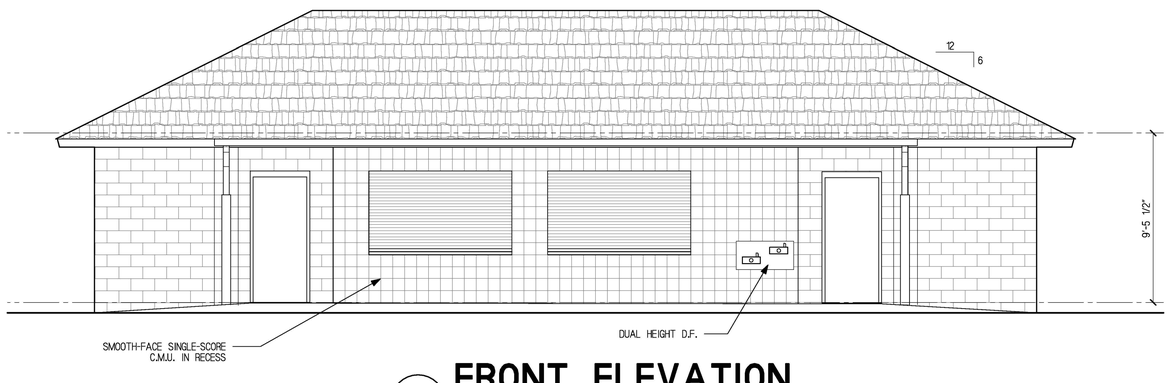
2 RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0" CONCESSIONS BUILDING
LEFT SIDE OPPOSITE HAND



4 FRONT ELEVATION

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



1 FRONT ELEVATION

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

Drawing Number A2

DATE: 04/05/2021

Widner & Associates, Inc.
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EMAIL: widner@widner-assoc.com WEBSITE: www.widner-assoc.com

STATE OF GEORGIA ★ DAVID L. WOODBURN ★ 4/17/21 ★ CERTIFICATE NO. 4888 ★ REGISTERED ARCHITECT

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

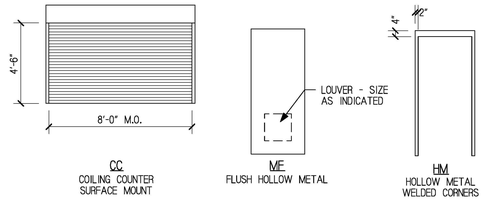
A2

DATE: 04/05/2021

HARDWARE SCHEDULE

HARDWARE SET	APPLICATION	OPERATION: ACCESSIBLE PUSH PLATE / PULL BAR	OPERATION: AUXILIARY DEADLOCK - THUMB-TURN	HINGES: ENTRY LOCKSET W/ DEADBOLT	HINGES: STANDARD 4.5 X 4.5	HINGES: CONT. GEARED HINGS	FLUSH BOLTS	O.H. SURFACE CLOSER W/ HOLD OPEN	ACCESSORIES: LATCH GUARD	ACCESSORIES: ARMOR PLATE	ACCESSORIES: KICKPLATE	ACCESSORIES: DRIP CAP	ACCESSORIES: VIEWER	ACCESS. FLAT SADDLE	T'HOLD: BUMPER TYPE THRESHOLD	T'HOLD: WEATHERSTRIP
1	TOILETS	●	●			●		●			●	●		●		●
2	STORAGE			●		●		●	●		●	●		●		●
3	CONCESSION			●		●		●	●	●		●	●	●		●
4	STORAGE PR.			●		●	●	●	●		●	●		●		●

REFER TO SPECIFICATIONS FOR MORE DETAILED FUNCTIONAL REQUIREMENTS



CC
COILING COUNTER SURFACE MOUNT

MF
FLUSH HOLLOW METAL

HM
HOLLOW METAL WELDED CORNERS

DOOR SCHEDULE

DOOR NO.	LEAF QUAN.	DOOR TYPE	SIZE: WIDTH	SIZE: HEIGHT	SIZE: THICK	FRM. TYPE	FIRE LABEL	DETAILS: HEAD	DETAILS: JAMB	DETAILS: SILL	H'DWARE SET	REMARKS
11	1	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	1	1
12	1	MF	3'-4"	7'-0"	1 3/4"	HM	-	1	2	6	3	1
13	1	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	2	2
14	2	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	4	2
15	1	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	1	1
16	1	CC	8'-0"	4'-8"	1 3/4"	-	-	4	5	3	-	-
17	1	CC	8'-0"	4'-8"	1 3/4"	-	-	4	5	3	-	-
21	1	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	1	1
22	1	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	2	2
23	1	MF	3'-0"	7'-0"	1 3/4"	HM	-	1	2	6	1	1

DOOR GENERAL NOTES

1. ALL DOORS IN MEANS OF EGRESS TO BE OPENABLE FROM INSIDE AT ALL TIMES WITHOUT USE OF A KEY OR SPECIAL TOOL OR KNOWLEDGE.
2. ALL LEVERS AND PULLS TO BE HANDICAP ACCESSIBLE.
3. ALL CLOSERS PULL FORCE TO BE IN ACCORDANCE WITH THE ADA.
4. ALL FIRE RATED OPENINGS ARE TO BE ASSEMBLIES TESTED IN ACCORDANCE WITH NFPA 80 FOR POSITIVE PRESSURE.

DOOR NUMBERED REMARKS

1. FURNISH DOOR WITH 18" X 18" LOUVER.
2. FURNISH DOOR WITH 12" X 12" LOUVER. (ONLY 1 LEAF IN PAIR)

ROOM FINISH SCHEDULE

RM. NO.	ROOM NAME	FLOOR	BASE	WALLS	WAINSCOT	CEILING	CEILING HEIGHT	REMARKS
101	FEMALE TOILET	EPOXY	4" EPOXY	EPCB	-	PP	9'-5"	-
102	CONCESSION	EPOXY	4" EPOXY	EPCB	-	PP	9'-5"	-
103	JANITOR	EPOXY	R	EPCB	-	PGB	9'-4"	1
104	STORAGE	EPOXY	R	EPCB	-	PGB	9'-4"	1
105	MALE TOILET	EPOXY	4" EPOXY	EPCB	-	PP	9'-5"	-
201	FEMALE TOILET	EPOXY	4" EPOXY	EPCB	-	PP	9'-5"	-
202	JANITOR	EPOXY	R	EPCB	-	PGB	9'-4"	1
203	MALE TOILET	EPOXY	4" EPOXY	EPCB	-	PP	9'-5"	-

ROOM FINISH LEGEND

EPCB	EPOXY PANTED CONCRETE BLOCK
EPOXY	HIGH PERFORMANCE NON-SLIP EPOXY FLOOR COATING
PGB	PAINTED GYPSUM BOARD
PP	PAINTED PLYWOOD
R	RUBBER

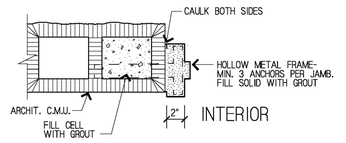
FINISH REMARKS

1. 1 HOUR FIRE RATED ENCLOSURE

DOOR TYPES FRAME TYPES

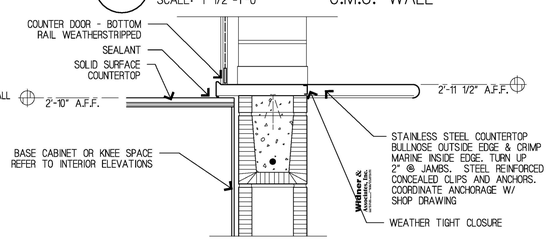
4 **HEAD**
SCALE: 1 1/2"=1'-0" COILING COUNTER DOOR

1 **HEAD**
SCALE: 1 1/2"=1'-0" C.M.U. WALL

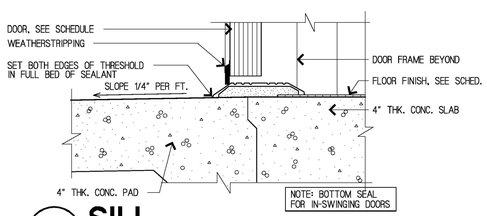


2 **JAMB**
SCALE: 1 1/2"=1'-0" C.M.U. WALL

5 **JAMB**
SCALE: 1 1/2"=1'-0" COILING COUNTER DOOR



3 **SILL**
SCALE: 1 1/2"=1'-0" COILING COUNTER DOOR



6 **SILL**
SCALE: 3"=1'-0" ACCESSIBLE THRESHOLD

SIGNAGE SCHEDULE

MARK	TYPE	TEXT	SIZE	PICTOGRAMS
1	RAISED CONTENT, BRAILLE	WOMEN	9" X 9"	ACCESSIBILITY, FEMALE
2	RAISED CONTENT, BRAILLE	MEN	9" X 9"	ACCESSIBILITY, MALE
3	RAISED CONTENT, BRAILLE	EXIT DISCHARGE	3" X 12"	-

REFER TO SITE PLAN FOR PARKING SIGN
REFER TO ELECTRICAL FOR ILLUMINATE EXIT SIGNS

Drawing Number A3

DATE: 04/05/2021

Widner & Associates, Inc.
PH & (478) 745-2010 P.O. BOX 109, MACON, GEORGIA 31202
EMAIL: widnerwidner-assoc.com WEBSITE: www.widner-assoc.com

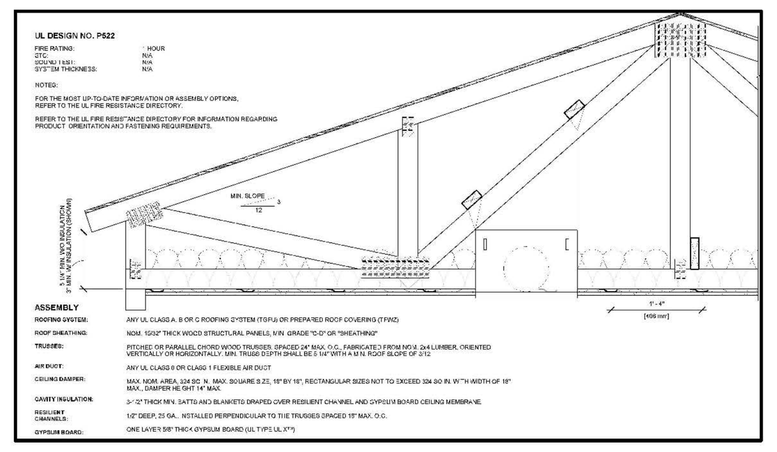
STATE OF GEORGIA * DAVID L. WOODBURN * 4/9/21 * REGISTERED ARCHITECT

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

A3

DATE: 04/05/2021



UL Product iQ™

BXUV.P522 - Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. P522

February 10, 2021

Unrestrained Assembly Rating — 1 Hr

Finish Rating — 25 Min (See Items 3 or 3A)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

1. Roofing System* — Any UL Class A, B or C Roofing System (TGFU) or Prepared Roof Covering (TFWZ) acceptable for use over nom 15/32 in. thick wood structural panels, min. grade "C-D" or "Sheathing". Nom 15/32 in. thick wood structural panels secured to trusses with No. 6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Construction adhesive may be used with either the nails or staples.

2. Trusses — Pitched or parallel chord wood trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Truss members secured together with min. 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approximately 7/8 in. centers with four rows of teeth per inch of plate width. Where the truss intersects with the interior face of the exterior walls, the min truss depth shall be 5-1/4 in. with a min roof slope of 3/12 and a min. area in the plane of the truss of 21 sq/ft. Where the truss intersects with the interior face of the exterior walls, the min truss depth may be reduced to 3 in. if the batts and blankets (Item 3) are used as shown in the above illustration (Alternate Insulation Placement) and are firmly packed against the intersection of the bottom chords and the plywood sheathing.

3. Batts and Blankets* — (Optional) — Required when Item 6B is used — Glass fiber insulation, secured to the wood structural panels with staples spaced 12 in. OC or to the trusses with 0.090 in. diam galv steel wires spaced 12 in. OC. Any glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance, having a min density of 0.5 pcf. As an option, the insulation may be fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. When Steel Framing Members (Item 6B) are used, max 3-1/2 in. thick insulation shall be draped over the furring channels (Item 6Ba) and gypsum board ceiling membrane, and friction-fitted between trusses and Steel Framing Members (Item 6Bd). The finished rating has only been determined when the insulation is secured to the decking.

3A. Fiber, Sprayed* — As an alternate to Item 3 (not evaluated for use with Item 6B) — Any thickness of spray-applied cellulose insulation material, having a min density of 0.5 lb/ft^3, applied with water, over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. Fiber, Sprayed is applied with moisture in accordance with the application instructions supplied with the product. The finish rating when Fiber Sprayed is used has not been determined. Alternate application method: The fiber is applied without water or adhesive in accordance with the application instructions supplied with a minimum density of 0.5 lb/ft^3 over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. Alternate application method: The fiber is applied without water or adhesive to a nominal density of 3.5 lb/ft^3 behind netting (Item 9) stapled to the rafters. The netting is stapled at both lower edges of the rafters creating a cavity to accept the cellulose fiber.
U S GREENFIBER L L C — INS735, INS745, INS750LD, and SANCTUARY for use with wet or dry application. INS510LD, INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.

3B. Foamed Plastic* — (As an alternate to Item 3 or 3A, Not Shown) — Spray foam insulation applied directly to the underside of the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft^3 density, while maintaining a minimum 8-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5K) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 6A through 6F.
SES FOAM INC — Sucraseal

3C. Cavity Insulation - Batts and Blankets* or Fiber, Sprayed* — (As described above) in Items 3 and 3A — (For Use with Item 7B, Not Shown) — Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6G)/gypsum board (Item 7B) ceiling membrane.

3D. Foamed Plastic* — (As alternate to Item 3, 3A, or 3B, Not Shown) — Spray foam insulation applied directly to the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft^3 or 2.0 lb/ft density, depending on the product installed. When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5H) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 6A through 6F.
BASF CORP — Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, and Walltite® HP+

3E. Foamed Plastic* — (As an alternate to Item 3, 3A, 3B, 3C, or 3D, Not Shown) — Spray foam insulation applied directly to the underside of the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 17 in. at a nominal 0.5 lb/ft^3 density, while maintaining a minimum 1-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Not evaluated for use with Items 6A through 6F.
SES FOAM INC — EasySeal.5

3F. Foamed Plastic* — (As alternate to Item 3 - not to be used in combination with any alternates to item 3) — Spray foam insulation applied directly to the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 11 in. at a nominal 1.0 lb/ft^3 - 2.5 lb/ft^3 density, while maintaining a minimum 7 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board spaced maximum 3 in. away from gypsum butt joints. Gypsum board to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5K) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Only for use with item 6 not evaluated for use with alternates to item 6.
CARLISLE SPRAY FOAM INSULATION — SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim, and SealTite Pro One Zero.

4. Air Duct* — Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

5. Ceiling Damper* — Max nom area, 324 sq in. Max square size, 18 in. by 18 in. rectangular sizes not to exceed 324 sq in. with a max width of 18 in. Max damper height is 14 in. Installed in accordance with manufacturers installation instructions provided with the damper. Max damper openings not to exceed 162 sq in. per 100 sq ft of ceiling area.
C&S AIR PRODUCTS — Model RD-521

POTTORFF — Model CFD-521

5A. Alternate Ceiling Damper* — Max nom area, 196 sq in. Max square size, 14 in. by 14 in. Rectangular sizes not to exceed 196 sq in. with a max width of 26 in. Max overall damper height is 7 in. Installed in accordance with the manufacturers installation instructions provided with the damper. Max damper openings not to exceed 98 sq in. per 100 sq ft of ceiling area.
C&S AIR PRODUCTS — Model RD-521-8T

POTTORFF — Model CFD-521-8T.

5B. Alternate Ceiling Damper* — Max nom area shall be 256 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 17 in. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille shall be installed in accordance with installation instructions.
C&S AIR PRODUCTS — Model RD-521-IP, RD-521-NP

POTTORFF — Models CFD-521-IP, CFD-521-NP

5C. Alternate Ceiling Damper* — Ceiling damper & fan assembly. Max nom area shall be 75 sq in. with the length not to exceed 8-9/16 in. and the width not to exceed 8-3/4 in. Max height of damper shall be 9-7/8 in. Aggregate damper openings shall not exceed 38 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturers installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
DELTA ELECTRONICS INC — Models CRD2, GBR-CRD, ITG-CRD

5D. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 75 sq in. with the length not to exceed 9-1/4 in. and the width not to exceed 9-3/4 in. Max height of damper shall be 9-7/8 in. Aggregate damper openings shall not exceed 45 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturers installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
DELTA ELECTRONICS INC — Model SIG-CRD

5E. Alternate Ceiling Damper* — For use with min 18 in. deep trusses. Max nom area shall be 144 sq in. with the length not to exceed 14 in. and the width not to exceed 12 in. Max height of damper shall be 17-7/8 in. Aggregate damper openings shall not exceed 74 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille shall be installed in accordance with installation instructions.
C&S AIR PRODUCTS — Model RD-521-90, RD-521-NP90

POTTORFF — Models CFD-521-90, CFD-521-90NP

5F. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 131 sq in. with the length not to exceed 11-1/16 in. and the width not to exceed 11-7/8 in. Aggregate damper openings shall not exceed 66 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
DELTA ELECTRONICS INC — Model SMT-CRD

5G. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 103 sq in. with the length not to exceed 10-1/8 in. and the width not to exceed 10-1/8 in. Aggregate damper openings shall not exceed 52 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA — Model PC-RD05C5

5H. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 113 sq in. with the length not to exceed 10-1/8 in. and the width not to exceed 11-1/8 in. Aggregate damper openings shall not exceed 57 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
BROAN-NUTONE L L C — Model RDFUWT

5I. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 79 sq in. with the length not to exceed 10 in. and the width not to exceed 7-15/16 in. Aggregate damper openings shall not exceed 40 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A metallic grille shall be installed in accordance with installation instructions.
BROAN-NUTONE L L C — Models RDJ1 and RDH

5J. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
BROAN-NUTONE L L C — Model RDMWT

5K. Alternate Ceiling Damper* — Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9-11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille shall be installed in accordance with installation instructions.
BROAN-NUTONE L L C — Model RDMWT2

6. Furring Channels — Resilient channels formed of 25 MSG thick galv steel. Installed perpendicular to the trusses (Item 2), spaced a max of 16 in. OC when no insulation (Item 3 or 3A) is fitted in the concealed, or a max of 12 in. OC when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane, or when insulation (Item 3B, 3D or 3E) is applied to the underside of the roofing system (Item 1). Two courses of resilient channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channels oriented opposite at wallboard butt-joints. Channel splices overlapped 4 in. beneath wood trusses. Channels secured to each truss with 1-1/4 in. long Type S screws.

6A. Steel Framing Members* — (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Members as described below:

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to trusses when no insulation (Items 3 or 3A) is fitted in the concealed space or 12 in. OC when insulation (Items 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane or 24 in. OC when insulation (Items 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane and a second layer of gypsum board is attached as described in Item 7 for steel framing members. Channels secured to trusses as described in Item 6Ab. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.

b. Steel Framing Members — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to alternating trusses with No. 8 by 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to alternating trusses with No. 8 by 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item 6Aa. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

6B. Steel Framing Members* — (Not Shown) — As an alternate to Items 6 and 6A.

a. Furring Channels — Hat-shaped furring channels, 7/8 in. deep by 2-5/8 in. wide at the base and 1-1/4 in. wide at the face, formed from No. 25 ga. galv steel, spaced max 16 in. OC perpendicular to trusses and Cold Rolled Channels (Item 6Bb). Furring channels secured to Cold Rolled Channels at every intersection with a 1/2 in. pan head self-drilling screw through each furring channel leg. Ends of adjoining channels overlapped 4 in. and tied together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap. Supplemental furring channels at base layer and outer layer gypsum board butt joints are not required. Batts and Blankets draped over furring channels as described in Item 3. Two layers of gypsum board attached to furring channels as described in Item 7.

b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Bd). Adjoining lengths of cold rolled channels lapped min. 6 in. and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Blocking — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 6 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the truss (Item 2) at the top and bottom of the blocking at each Steel Framing Member (Item 6Bd) location.

d. Steel Framing Members* — Hangers spaced 48 in. OC. max along truss, and secured to the Blocking (Item 6Bc) on alternating trusses with a single 5/16 in. by 2 in. hex head lag bolt or four #6 1-1/4 in. drywall screws through mounting hole(s) on the hanger bracket. The two 1/4 in. long steel teeth on the hanger are embedded in the side of the blocking. Hanger positioned on blocking and leveling bolt height adjusted such that furring channels are flush with bottom of trusses before gypsum board installation. Spring gauge of hanger chosen per manufacturer's instructions.
KINETICS NOISE CONTROL INC — Type ICW.

6C. Steel Framing Members* — (Not Shown) — As an alternate to Items 6, 6A and 6B.

a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep installed perpendicular to wood structural members. Channels spaced a max of 16 in. OC when no insulation (Item 3 or 3A) is fitted in the concealed space or a max of 12 in. OC when insulation (Item 3 or 3A) is fitted in the concealed space. Channels secured to trusses as described in Item 6Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.

b. Steel Framing Members* — Used to attach furring channels (Item 6Ca) to trusses (Item 2). Clips secured to the bottom chord of each truss (48 in. OC) with one No. 8 by 2-1/2 in. long coarse drywall screw through center grommet. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item 6Ca. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
PLITEQ INC — Type Genie Clip

6D. Steel Framing Members* — (Not Shown) — As an alternate to Items 6, 6A, 6B and 6C.

a. Main runners — Installed perpendicular to trusses — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC. Main runners hung a min of 2 in. from bottom chord of trusses with 12 SWG galv steel wire. Wires located a max of 48 in. OC.

and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

6B. Steel Framing Members* — (Not Shown) — As an alternate to Items 6 and 6A.

a. Furring Channels — Hat-shaped furring channels, 7/8 in. deep by 2-5/8 in. wide at the base and 1-1/4 in. wide at the face, formed from No. 25 ga. galv steel, spaced max 16 in. OC perpendicular to trusses and Cold Rolled Channels (Item 6Bb). Furring channels secured to Cold Rolled Channels at every intersection with a 1/2 in. pan head self-drilling screw through each furring channel leg. Ends of adjoining channels overlapped 4 in. and tied together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap. Supplemental furring channels at base layer and outer layer gypsum board butt joints are not required. Batts and Blankets draped over furring channels as described in Item 3. Two layers of gypsum board attached to furring channels as described in Item 7.

b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, friction-fitted into the channel caddy on the Steel Framing Members (Item 6Bd). Adjoining lengths of cold rolled channels lapped min. 6 in. and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Blocking — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 6 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the truss (Item 2) at the top and bottom of the blocking at each Steel Framing Member (Item 6Bd) location.

d. Steel Framing Members* — Hangers spaced 48 in. OC. max along truss, and secured to the Blocking (Item 6Bc) on alternating trusses with a single 5/16 in. by 2 in. hex head lag bolt or four #6 1-1/4 in. drywall screws through mounting hole(s) on the hanger bracket. The two 1/4 in. long steel teeth on the hanger are embedded in the side of the blocking. Hanger positioned on blocking and leveling bolt height adjusted such that furring channels are flush with bottom of trusses before gypsum board installation. Spring gauge of hanger chosen per manufacturer's instructions.
KINETICS NOISE CONTROL INC — Type ICW.

6C. Steel Framing Members* — (Not Shown) — As an alternate to Items 6, 6A and 6B.

a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep installed perpendicular to wood structural members. Channels spaced a max of 16 in. OC when no insulation (Item 3 or 3A) is fitted in the concealed space or a max of 12 in. OC when insulation (Item 3 or 3A) is fitted in the concealed space. Channels secured to trusses as described in Item 6Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.

b. Steel Framing Members* — Used to attach furring channels (Item 6Ca) to trusses (Item 2). Clips secured to the bottom chord of each truss (48 in. OC) with one No. 8 by 2-1/2 in. long coarse drywall screw through center grommet. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item 6Ca. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
PLITEQ INC — Type Genie Clip

6D. Steel Framing Members* — (Not Shown) — As an alternate to Items 6, 6A, 6B and 6C.

a. Main runners — Installed perpendicular to trusses — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC. Main runners hung a min of 2 in. from bottom chord of trusses with 12 SWG galv steel wire. Wires located a max of 48 in. OC.

7. Gypsum Board* — One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the resilient channels using 1 in. long Type S bugle-head screws. Screws spaced a max of 12 in. OC along butted end-joints and in the field when no insulation (Item 3 or 3A) is fitted in the concealed spaced, or a max of 8 in. OC along butted end-joints and in the field when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane. When insulation (Item 3B, 3D or 3E) is installed in the concealed space, spray-applied to the underside of the roofing system (Item 1), screws are spaced a max of 8 in. OC along resilient channels, fasteners are increased in length to 1-1/4 in, and gypsum board butt joints shall be staggered min. 2 ft within the assembly, and occur between the main furring channels.

When Steel Framing Members* (Item 6A or 6C) are used, sheets installed with long dimension perpendicular to furring channels and side joints of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3 or 3A) is fitted in the concealed space, or 8 in. OC in the field when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Gypsum board butt joints shall be staggered min. 2 ft within the assembly, and occur between the main furring channels. At the gypsum board butt joints, each end of the gypsum board shall be supported by a single length of furring channel equal to the width of the wallboard plus 6 in. on each end. The furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to the trusses with one clip at each end of the channel. Screw spacing along the butt joint to attach the gypsum board to the furring channels shall be 8 in. OC. Second (outer) layer of gypsum board required when furring channels (Item 6A, a) are spaced 24 in. OC and insulation is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Outer layer of gypsum board attached to the furring channels using 1-5/8 in. long Type S bugle-head screws spaced 8 in. OC at butted joints and 12 in. OC in the field. Butted end joints of outer layer to be offset a minimum of 8 in. from base layer end joints. Butted side joints of outer layer to be offset minimum 18 in. from butted side joints of base layer.

When Steel Framing Members (Item 6B) are used, two layers of nom 5/8 in. thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels (Item 6Ba). Base layer attached to the furring channels using 1 in. long Type S bugle head steel screws spaced 8 in. OC along butted end joints and 12 in. OC in the field of the board. Butted end joints centered on the continuous furring channels. Butted base layer end joints to be offset a min of 16 in. in adjacent courses. Outer layer attached to the furring channels using 1-5/8 in. long Type S bugle head steel screws spaced 8 in. OC at butted end joints and 12 in. OC in the field. Butted end joints centered on the continuous furring channels and offset a min of 16 in. from butted end joints of base layer. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base layer.

When Steel Framing Members (Item 6C) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 72 in. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end, spaced approximately 2 in. in from joint. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Butt joint furring channels shall be attached with a RESILMOUNT Sound Isolation Clip secured to underside of every truss that is located over the butt joint. Over all Gypsum Board side joints, approximately 20 in. lengths of furring channel shall be installed parallel to trusses (Item 2) between main furring channels. Side joint furring channels shall be attached to underside of the joist with RESILMOUNT Sound Isolation Clips - located approximately 2 in. from each end of the approximate 20 in. length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.

When Steel Framing Members (Item 6E) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from end joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel.

When alternate Steel Framing Members* (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board.

When Steel Framing Members (Item 6H) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in. from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonusClip at every truss involved with the butt joint.

CGC INC — Types C, IP-X2, IPC-AR

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

7A. Gypsum Board* — For use with Steel Framing Members (Item 6D) when Batts and Blankets* (Item 3) are not used - One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to the main runners. Gypsum board fastened to each cross tee or channel with five wallboard screws, with one screw located at the midspan of the cross tee or channel, one screw located 12 in. from and on each side of the cross tee or channel mid span and one screw located 1-1/2 in. from each gypsum board side joint. Except at wallboard end joints, wallboard screws shall be located on alternating sides of cross tee flange. At gypsum board end joints, gypsum board screws shall be located 1/2 in. from the joint. Gypsum board fastened to main runners with wallboard screws 1/2 in. from side joints, midway between intersections with cross tees or channels (16 in. OC). End joints of adjacent gypsum board sheets shall be staggered not less than 32 in. Gypsum board sheets screw attached to leg of wall angle with wallboard screws spaced 12 in. OC. Joints treated as described in Item 7. For use with Steel Framing Members* (Item 6D) when Batts and Blankets* (Item 3) are used - Ratings limited to 1 Hour - 5/8 in. thick, 4 ft wide; installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Fastened to cross tees with 1 in. long steel gypsum board screws spaced 8 in. OC in the field and 8 in. OC along end joints. Fastened to main runners with 1 in. long gypsum board screws spaced midway between cross tees. Screws along sides and ends of boards spaced 3/8 to 1/2 in. from board edge. End joints of the sheets shall be staggered with spacing between joints on adjacent boards not less than 4 ft OC.
CGC INC — Type C or IP-X2

UNITED STATES GYPSUM CO — Type C or IP-X2

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Type C or IP-X2

7B. Gypsum Board* — For use with Items 3C and 6G. Nom 5/8 in. thick, 48 in. wide gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 8 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. Finish Rating with this ceiling system is 20 min.
CGC INC — Type ULIX

UNITED STATES GYPSUM CO — Type ULIX

8. Finishing System — (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board. Alternate Ceiling Membrane — Not Shown.

9. Netting — Fibrous, woven netting material fastened to underside of each joist with staples, with side joints overlapped.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2021-02-10

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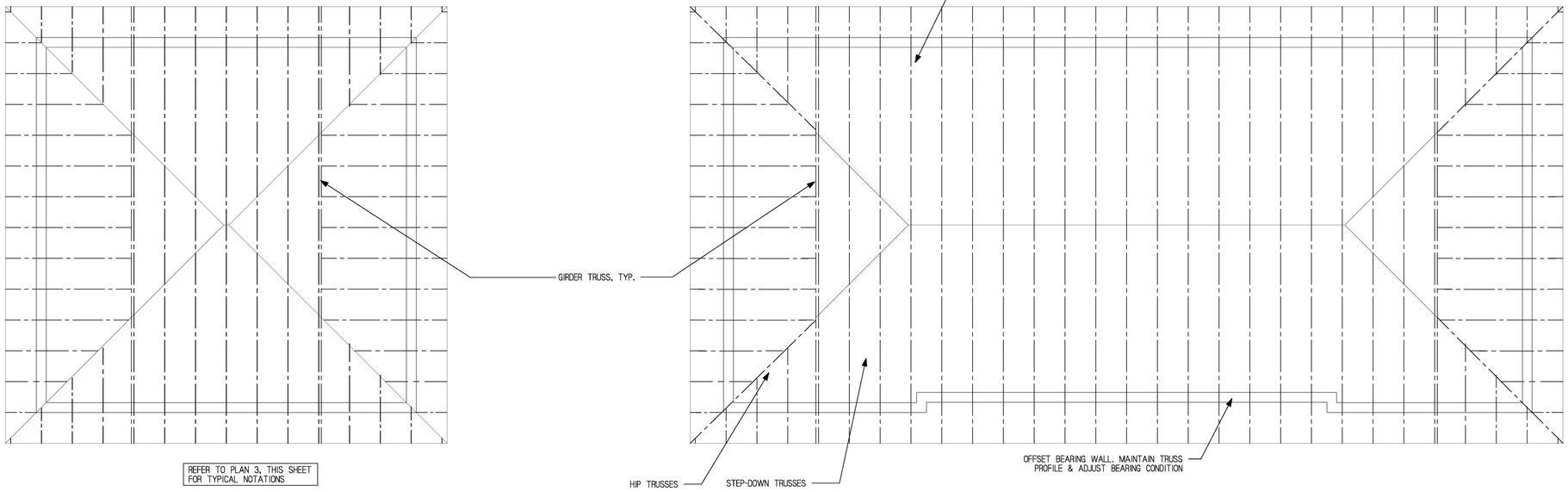
STATE OF GEORGIA ★ DAVID L WOODBURN 4/19/21 CERTIFICATE NO 5988 REGISTERED ARCHITECT

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA



REFER TO PLAN 3, THIS SHEET FOR TYPICAL NOTATIONS

4 ROOF FRAMING PLAN

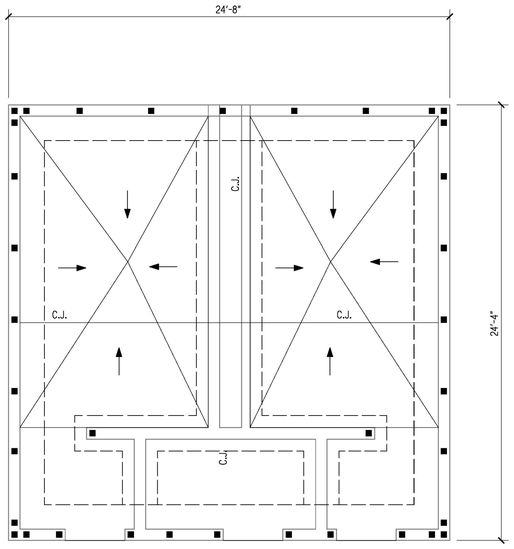
SCALE: 1/4" = 1'-0"

TOILETS WITH JANITOR

3 ROOF FRAMING PLAN

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

TOILETS & CONCESSION

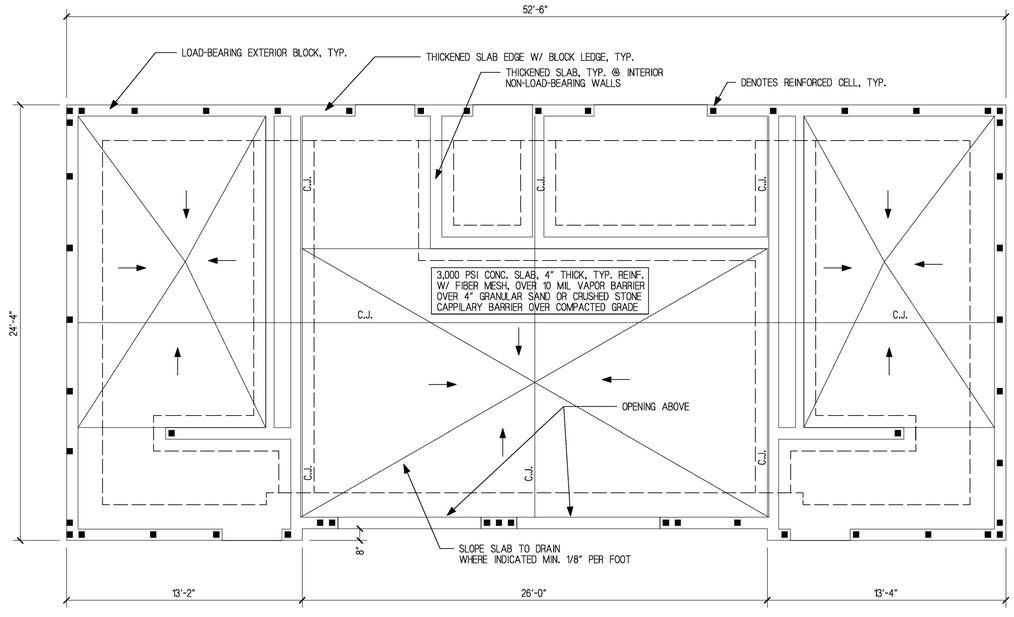


REER TO PLAN 1, THIS SHEET FOR TYPICAL NOTATIONS

2 FOUNDATION PLAN

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

TOILETS WITH JANITOR



1 FOUNDATION PLAN

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

TOILETS & CONCESSION

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Drawing Number S1

DATE: 04/05/2021

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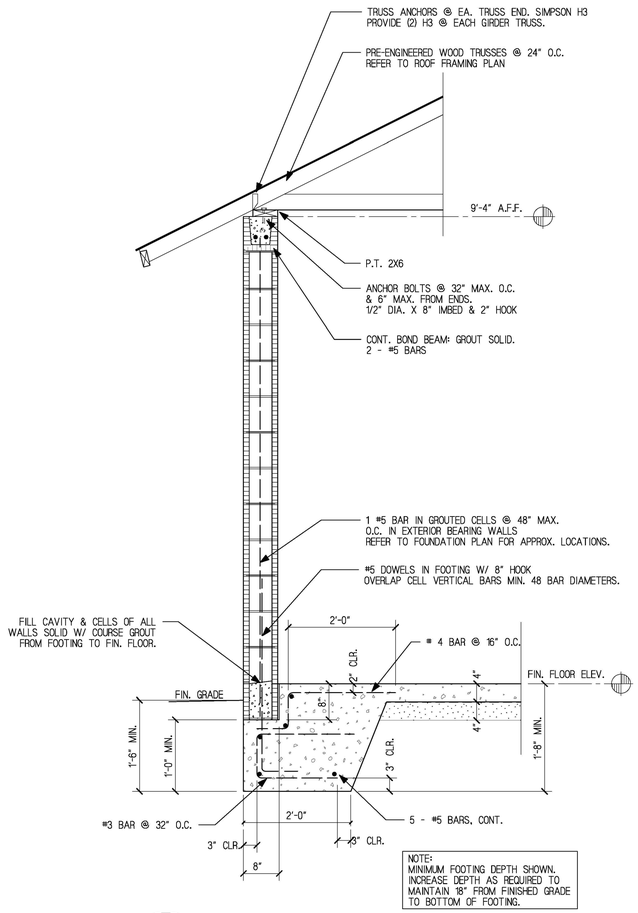
GEORGIA REGISTERED NO. 30197 PROFESSIONAL ENGINEER CHAD S. McDONALD

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

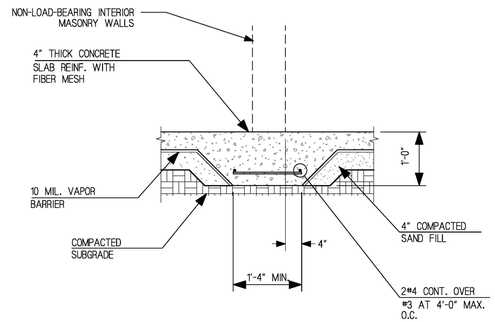
S1

DATE: 04/05/2021



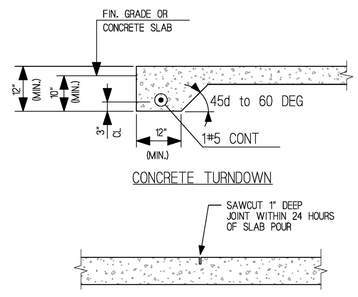
4 SECTION

SCALE: 3/4" = 1'-0" TYP. EXTERIOR



1 THICKENED SLAB

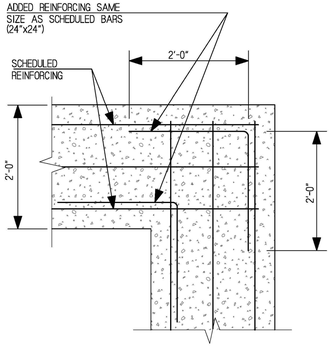
SCALE: 3/4" = 1'-0"



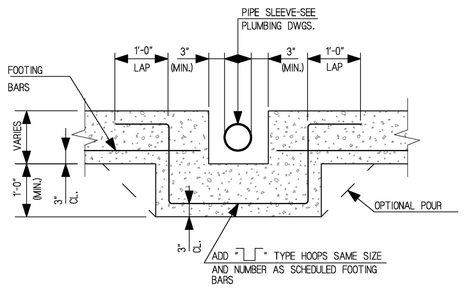
TYPICAL CONTRACTION JOINT
(INDICATED C.J. ON PLAN)

2 FLOOR SLAB DETAILS

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



TYPICAL CORNER - PLAN VIEW



INTERFERENCE OFFSET @
GRAVITY SEWER
(COORDINATE W/ PLUMBING DRAWINGS)

3 WALL FOOTING DETAILS

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

STRUCTURAL NOTES

A. GENERAL:

1. WHERE A SECTION OR DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY TO ALL LIKE AND SIMILAR CONDITIONS.
2. COORDINATE ALL LIMITS AND DEPTHS OF DEPRESSIONS FOR FLOOR FINISHES WITH ARCHITECTURAL DRAWINGS AND SCHEDULES. LIMITS SHOWN ON STRUCTURAL DRAWINGS ARE SCHEMATIC.
3. THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. DO NOT SCALE DRAWINGS. FOLLOW DIMENSIONS SHOWN ON PLANS.
5. CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN HEREIN WITH ARCHITECTURAL PLANS, SECTIONS AND DETAILS PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE AND SHALL NOTIFY ARCHITECT IN WRITING OF DISCREPANCIES. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS NOT SHOWN HEREIN.
6. DESIGN LOAD BASIS ARE AS FOLLOWS:
   RISK CATEGORY - II
   ROOF DEAD LOAD: 20 PSF
   ROOF LIVE LOAD: 20 PSF
   WIND VELOCITY: 109 MPH (ULTIMATE) EXPOSURE: B.
   ROOF SNOW LOAD: 5 PSF
   SEISMIC SOILS CLASSIFICATION - D
   SEISMIC DESIGN CATEGORY - B
7. ALL DESIGN SHALL BE IN COMPLIANCE WITH 2018 INTERNATIONAL BUILDING CODE W/ GA. AMENDMENTS.

B. FOUNDATION:

1. FOUNDATIONS DESIGNED FOR 2000 PSF MAXIMUM ALLOWABLE SOIL BEARING PRESSURE UNLESS NOTED. ALLOWABLE BEARING PRESSURE SHALL BE VERIFIED BY FIELD TESTING USING HAND PENOTROMETER TESTS AT EACH COLUMN FOOTING EXCAVATION AND MAXIMUM 75' ON CENTER IN WALL FOOTINGS AND THICKENED SLABS.
2. ALL FOOTINGS AND SLABS SHALL BEAR ON COMPACTED SUBGRADE.
3. REMOVE ALL WATER SOFTENED SOILS FROM FOOTING EXCAVATIONS PRIOR TO PLACING CONCRETE. FILL REMAINING VOIDS WITH ADDITIONAL CONCRETE.
4. SUPPORT ALL BOTTOM REINFORCING IN FOUNDATION WITH WHOLE CONCRETE BRICKS AT MAX. 48" O.C.
5. ALL FOOTING, PIER AND OTHER FOUNDATION REINFORCING SHALL BE TIED IN PLACE PRIOR TO POURING CONCRETE.
6. WHERE GRAVITY PLUMBING LINES OCCUR BELOW TOP OF WALL FOOTINGS, STEP FOOTING DOWN TO PROVIDE CLEARANCES INDICATED ON DETAIL: "WALL FOOTING INTERFERENCE AT GRAVITY SEWER" UNLESS OTHERWISE SPECIFIED. COORDINATE WITH PLUMBING DRAWINGS FOR LOCATIONS, SIZES AND INVERTS.
7. PROVIDE 1/4" P.E.J. FILLER AROUND PERIMETER OF SLABS WHERE THEY ABUT VERTICAL SURFACES AND AT COLUMN ISOLATION JOINTS AS DETAILED.

C. MATERIALS
   CONCRETE:
   STANDARD WEIGHT CONCRETE:
   CONCRETE MASONRY FILL: 2500 PSI
   FOUNDATIONS: 3000 PSI
   OTHERS: 3000 PSI
   REINF. STEEL ASTM A615 GRADE 60
   CONCRETE MASONRY UNITS: ASTM C-90 (LIGHTWEIGHT): F'M = 1350 PSI
   MASONRY MORTAR: ASTM C270 TYPE S: F'C = 1350 PSI
   MASONRY GROUT: ASTM C476 TYPE PM: F'C = 2500 PSI

D. TIMBER FRAMING:

1. LOCATION, NUMBER AND DIMENSIONS OF FRAMING ARE DESIGNED TO SHOW GENERAL ARRANGEMENT ONLY. ACTUAL SPANS, SPACINGS, ETC. SHALL BE DETERMINED FROM ARCHITECTURAL DETAILS AND DIMENSIONED ON SHOP DRAWINGS.
2. SEE ARCHITECTURAL PLANS AND DETAILS FOR EDGE SECTIONS, HEADER AND LINTEL LOCATIONS, AND ALL NON-STRUCTURAL FRAMING AND TRIM
3. PROVIDE HEADERS, BRIDGING, CONNECTORS, BLOCKING TRIMMERS, ETC. AS REQUIRED AND RECOMMENDED BY REFERENCES BELOW UNLESS OTHERWISE NOTED.

REFERENCES - ALL FRAMING SHALL COMPLY WITH APPLICABLE SECTION OF THE FOLLOWING UNLESS OTHERWISE SHOWN ON PLANS:
1. TRUSS PLATE INSTITUTE PUBLICATION TPI-78, "DESIGN SPECIFICATIONS FOR METAL PLATE CONNECTED TO WOOD TRUSSES".
2. INTERNATIONAL BUILDING CODE - 2012 EDITION
3. AITC TIMBER CONSTRUCTION STANDARDS - (AITC 100)

E. ROOF FRAMING:

1. TRUSSED RIFTERS:
   (a) ALL TRUSSED RAFTERS SHALL BE DESIGNED, FABRICATED AND ERECTED TO SUPPORT THE FOLLOWING MINIMUM LOADS:
   LIVE - TOP CHORD - 20 PSF
   DEAD - TOP CHORD - 10 PSF
   - BOT CHORD - 10 PSF
   WIND LOAD - 109 MPH WIND FACTORED AS PER IBC 2018 CODE REQUIREMENTS.
   SNOW - TOP CHORD - 5 PSF
   (b) PROVIDE AT EACH TRUSS BEARING, GALVANIZED METAL HURRICANE ANCHORAGES SUFFICIENT TO RESIST HORZ. AND VERTICAL WIND COMPONENTS AS NOTED. UPLIFT LOAD AS DETERMINED BY TRUSS MANUFACTURER FROM REQUIREMENTS OF LOCAL BUILDING CODES.
   (c) INSTALL TEMPORARY AND PERMANENT VERTICAL BRACING OR OTHER BRACES AS RECOMMENDED BY THE TRUSSED RAFTER MANUFACTURER AND/OR APPLICABLE REFERENCES.
   (d) SHOP DRAWINGS, COMPUTATIONS, ETC. TO BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL PROVIDE ERECTION LAYOUT FOR TRUSS RAFTERS, OUTRIGGERS, HEADERS, BRACING, ETC. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR SUPPORT LOCATIONS.
   (e) CALCULATIONS AND DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.
   (f) MIN. MEMBER SIZES TO BE 2X4 EXCEPT WHERE OTHERWISE SHOWN
   (g) TRUSS WEB TO CHORD CONNECTION SHALL BE MADE WITH APPROVED GALVANIZED STEEL TRUSS CONNECTION PLATES MEETING ALL REQUIREMENTS OF THE TRUSS PLATE ISTITUTE.
   (h) MAXIMUM LIVE LOAD DEFLECTION OF TRUSSES SHALL BE L/240.
   (i) TRUSS BRIDGING SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION AND APPLICABLE REFERENCES NOTED HEREIN.
   (j) PROVIDE END WALL TRUSSES AT GABLED ENDS. PROVIDE OPENINGS FOR GABLE END VENTS AS INDICATED.
   (k) FOR PRE-ENGINEERED TIMBER BEAMS, FURNISHED BEARING LENGTH & DETAIL FOR CONDITION INDICATED.

F. MASONRY LINTEL SCHEDULE

STANDARD LINTELS (UNLESS DETAILED OR NOTED)
MAX. 3'-4" SPAN: 8" DEEP CONCRETE FILLED CHANNEL BLOCK, MINIMUM 8" BEARING EACH END, REINFORCED WITH:
2#4 BOT. (PROVIDE 1 CELL REINF. & GROUTED EA. SIDE)
MAX. 6'-0" SPAN: 16" DEEP CONCRETE FILLED CHANNEL BLOCK, MINIMUM 12" BEARING EACH END, REINFORCED WITH:
2#5 BOT. (PROVIDE 1 CELL REINF. & GROUTED EA. SIDE)
MAX. 8'-0" SPAN: 16" DEEP CONCRETE FILLED CHANNEL BLOCK, MINIMUM 16" BEARING EACH END, REINFORCED WITH:
2#4 TOP
2#6 BOT.
#2 "C" TIES AT 8" THRU OUT
(PROVIDE 2 CELLS REINF. & GROUTED EA. SIDE)

TRILOGY ENGINEERING, LLC
2550 Sandy Plains Rd, Suite 225
Marietta, GA 30066
PH: 404-556-5923

Drawing Number S2
DATE: 04/05/2021

Widner & Associates, Inc.
PH.& (478) 745-2010 P.O. BOX 109, MACON, GEORGIA 31202
EMAIL: widner@widner-assoc.com WEBSITE: www.widner-assoc.com

GEORGIA REGISTERED NO. 30197 PROFESSIONAL ENGINEER CHAD S. McDONALD

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

S2

DATE: 04/05/2021

PLUMBING SPECIFICATIONS

Provide all plumbing items indicated on the drawings, described herein or otherwise required for a complete and proper installation, including:
A. Plumbing fixtures, fittings and equipment.
B. Hot and cold water systems.
C. Drain waste and vent piping systems.
D. Indirect waste piping, including all valves, traps, piping and accessories for all equipment. Size per equipment requirements.

Comply with all applicable codes, standards and ordinances, including requirements of the Georgia State Minimum Standard Plumbing Code (2018 International Plumbing Code with all Georgia State Amendments), Georgia State Minimum Standard Energy Code (2015 International Energy Conservation Code with all Georgia State Amendments), and the DOJ 2010 ADA Standards for Accessible Design.

The contractor should not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearance. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or to actual building construction, shall be made at no additional cost to the owner.

The submission of a bid or proposal will be construed as evidence that the contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

Fabrication or ordering of any material or equipment prior to verification of site conditions shall be done at the contractor's risk.

All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings.

Coordinate with all trades and verify all equipment rough-in items and locations with the equipment supplier or contractor. All re-work and corrections required due to lack of coordination shall be the contractor's responsibility, and done at no cost to the owner.

Submit shop drawings and material data submittals to the engineer for approval before installation. No substitutions shall be allowed without prior approval by the engineer. Product data for piping, insulation, valves, specialties and all fixtures and equipment scheduled and specified here. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

All equipment and flue materials shall be U.L. listed.

Installation shall comply with manufacturer requirements including all clearances recommended for proper operation of service. All serviceable parts shall be readily accessible.

Below ground sanitary drain and vent piping shall be solid-wall ASTM D2665 schedule 40 PVC. Install underground, PVC plastic drainage piping according to ASTM D2321. Above ground sanitary drain and vent piping shall be cellular-core ASTM F891 schedule 40 PVC. Install aboveground PVC piping according to ASTM D 2665. All aboveground piping shall be adequately supported. Sanitary drain and vent piping shall have PVC Socket Fittings (ASTM D 2665, made to ASTM D 3311, drain, waste, and vent patterns and to fit Schedule 40 pipe). Slope at 1/8 inch per foot continuously toward public sewer.

All above ground domestic water distribution piping shall be ASTM D 2846, SDR11, schedule 40 CPVC with socket fittings. All piping shall be adequately supported. Disinfect all domestic water piping after installation.

DOMESTIC WATER PIPING CLEANING

A. Clean and disinfect potable domestic water piping as follows:
   1. Purge new piping and parts of existing piping that have been altered, extended, or repaired before using.
   2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures described in either AWWA C651 or AWWA C652 or follow procedures described below:
      a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
      b. Fill and isolate system according to either of the following:
         1) Fill system or part thereof with water/chlorine solution with at least 50 ppm (50 mg/L) of chlorine. Isolate with valves and allow to stand for 24 hours.
         2) Fill system or part thereof with water/chlorine solution with at least 200 ppm (200 mg/L) of chlorine. Isolate and allow to stand for three hours.
      c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
      d. Repeat procedures if biological examination shows contamination.
      e. Submit water samples in sterile bottles to authorities having jurisdiction.
B. Prepare and submit reports of purging and disinfecting activities. Include copies of water-sample approvals from authorities having jurisdiction.
C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

Domestic water piping shall be insulated with Owens Corning type ASJ/SSL-II heavy density fiber glass with all service jacket. Insulation shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 50 when tested in accordance with U.B.C. standard 42-1. Provide mastic on all joints and exposed ends of insulation. Insulate domestic Cold water piping in exterior walls, attic, or unconditioned spaces with 1/2" thick insulation for piping 1-1/4" & smaller and 1" thick insulation for piping 1-1/2" & larger. Insulate all domestic Hot water supply and return piping with 1" thick insulation for piping 1-1/4" & smaller and 1-1/2" thick insulation for piping 1-1/2" & larger.

HW & CW Valves: Use pipe size valves, as shown below:
A. Ball: Watts #B-6000 or B-6001.
B. Check: Watts #600 or #601S.

Domestic water valve Boxes: Comply with AWWA M44 for cast-iron valve boxes. Include top section, adjustable extension of length required for depth of burial of valve, plug with lettering "WATER," and bottom section with base that fits over valve and with a barrel approximately 5 inches in diameter. Operating Wrenches: Steel, tee-handle with one pointed end, stem of length to operate deepest buried valve, and socket matching valve operating nut.

Ball-Valve-Type Hose-End Drain Valves shall comply with MSS SP-110 for standard-port, two-piece ball valves. Copper alloy body, 3/4", 400-psig pressure rating, replaceable seats and seals, vinyl-covered steel handle, threaded short nipple outlet with garden-hose thread complying with ASME B1.20.7 and cap with brass chain.

Balancing valves shall confirmed to MSS SP-110 for two-piece, copper-alloy ball valves. Balancing valves shall be copper alloy, memory-stop type, chrome-plated brass ball, replaceable seats & seals, vinyl-covered steel handle with memory-setting device.

Fixture tailpieces, wall escutcheon, and traps for lavatories and sinks shall be brass tubing, semi-cast, or cast iron: All brass tubing shall be 17 gage, chrome plated. Basket strainers for sinks.

Water Hammer Arresters shall comply with standard ASSE 1010, metal bellows type or copper piston type.

Urinal Supports shall be type I, urinal carrier with fixture support plates and coupling with seal and fixture bolts and hardware matching fixture for wall-mounting, urinal-type fixture. Include steel uprights with feet. For accessible-fixture support include rectangular steel uprights. Lavatory Supports shall be type II, lavatory carrier with concealed arms and tie rod for wall-mounting, lavatory-type fixture. Include steel uprights with feet. For accessible-fixture support include rectangular steel uprights. Plate type wall hangers for water coolers.

Thermometers shall comply with standard ASME B40.200.

Lavatory/ Sink supply fittings: NSF Standard: Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components – Health Effects," for supply-fitting materials that will be in contact with potable water. Standard: ASME A112.18.1/CSA B125.1. Supply Stops: Chrome-plated-brass, one-quarter-turn, ball-type valve with inlet connection matching supply piping. Wheel handle operation. Risers: Chrome-plated, soft-copper flexible tube for exposed applications and ASME A112.18.6, braided- or corrugated-stainless-steel, flexible hose for conceal behind cabinet applications.

Provide ADA Supply and Drain Protective Shielding Guards on ADA fixtures that piping is exposed. Supply and Drain Protective Shielding Guards shall comply with ICC A117.1 and Americans with Disabilities Act (ADA) requirements. Manufactured plastic wraps shall cover hot and cold water supplies, trap, and drain piping.

All pipe hangers, clamps and channels shall be adequately sized to carry pipe loads and prevent sagging.

All other materials not specifically described but required for a complete and proper installation of work of this section, shall be new, first quality of their respective kinds, and as selected by the contractor subject to acceptance by the engineer.

Lay out the plumbing system in careful coordination with the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a satisfactorily functioning system. Follow the general layout shown on the drawings in all cases except where other work may interfere. Unless shown otherwise, lay out all pipes to fall within partition, wall floor, or roof cavities, and to not require furring other than as shown on the drawings.

Do not cut into or reduce the size of any load-carrying member without the prior approval of the architect. Install all pipes to clear all beams and obstructions.

Extend all plumbing vents above roof to parapet height.

Permanently close and make weatherproof any openings or penetrations of the building envelope made for plumbing systems. All wall and floor penetrations shall be sleeved. All exterior wall or foundation wall penetrations shall use a mechanical seal.

Coordinate all roof penetrations with architectural plans and building and roofing trades.

Provide shut-off balls valves and unions at all water connections to equipment and appliances.

Isolate all dissimilar metals with "EPCO" dielectric unions, except for brass or bronze valves with steel pipe.

Protect the potable water supply against backflow and siphonage from equipment, fixtures, etc., using approved backflow and anti-siphon devices.

Thoroughly clean all piping and equipment. Removing all dirt, rust, oil, and plaster.

Test Sanitary and storm drainage piping by plugging all openings and filling with water to a height equal to a 10 foot head. Allow to stand one hour or longer as required. Repair leaking joints and then re-test.

No work shall be covered until it has been inspected and accepted by the local authority and the engineer.

Test water lines at 100 PSIG. Retain for 24 hours, repair all leaks and retest.

The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. All labor and materials necessary to repair or replace the system, or portions thereof, during that time shall be warranted for a period of one (1) year from the repair or replacement.

Install piping in concealed locations, unless otherwise indicated and except in equipment rooms, and service areas. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal. Install piping to permit valve servicing. Install piping at indicated slopes. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install piping to allow application of insulation. Select system components with pressure rating equal to or greater than system operating pressure. Install escutcheons for penetrations of walls, ceilings, and floors. Verify final equipment locations for roughing-in.

Confirm that millwork is constructed with adequate provision for the installation of counter top lavatories and sinks.

Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

All vents thru roof (VTR) shall be offset a minimum of 10'-0" from all outside air intakes.

Provide a complete through penetration fire stopping assembly for fire resistance rated wall assemblies. The through penetration assembly must be listed by an approved third-party test agency (UL), and include the entire listed assembly with all notations. Refer to architectural drawings for fire wall locations.

Approved manufactures: (Items submitted shall be approved by architect and engineer. Architect and engineer reserve the right to reject any item substituted for basis of design item for any reason.)

China Fixtures: American Standard, Kohler, Toto, Zurn, Sloan
Faucets: Delta, T&S Brass, Chicago Faucets, Zurn, Kohler, Grohe, Moen, Speakman, Symmons
Supplies & Traps: Engineered Brass CO., Mcguire, Charlotte Pipe, Brasscraft, IPS, Watts, Zurn
Flush Valves: Sloan, Delany, Zurn, American Standard
Floor Drains & Cleanouts: Zurn, Jay R Smith, Proset, Watts, Mifab, Wade, Josam, Sioux Chief, Oatey
Water Heaters: A.O. Smith, Lochinar, Bradford White, State, Vaughn
Toilet Seats: Bemis, Centoco, Church Seats, Olsonite, Beneke, Zurn, Mainline
ADA Protective Shielding Pipe Covers: Engineered Brass, McGuire, Plumberex, TRUEBRO, Zurn, Oatey
Fixture Supports: MIFAB, Jay R. Smith, Wade, Watts, Zurn
Mixing Valves: Armstrong, Leonard, Powers, Symmons, Lawler
Wall Hydrants/ Hose Bibbs: MIFAB, Jay R. Smith, Wade, Watts, Woodford, Zurn
Water Hammer Arresters: AMTROL, Josam, MIFAB, PPP, Sioux Chief, Jay R. Smith, Wade, Watts, Zurn
Brass Valves: American, Crane, Watts, Apollo
Drinking Fountains: Elkay, Oasis, Haws
Mop Sinks: Stern Williams, Acorn, Fiat

NOTICE: This document is subject to all requirements of the General Conditions of the Contract for Construction, AIA Document 201, August 1976 edition.

FIXTURE AND EQUIPMENT SCHEDULE

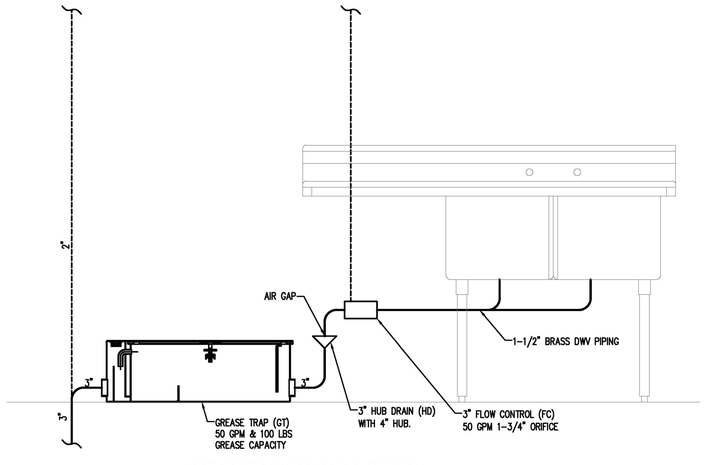
#	FIXTURE TYPE	WASTE		WATER SUPPLY		WATER FIX. CONN.		MODEL NUMBER
		BELOW FLOOR	FIXTURE CONN.	COLD	HOT	COLD	HOT	
WC1	PUBLIC FLUSH VALVE WATER CLOSET 1.28 GPF	3"	3"	1"		1"		AMERICAN STANDARD 3043.001 WATER CLOSET & 6147121.002 FLUSH VALVE. BEMIS 1655SSCT SEAT.
WC2	PUBLIC FLUSH VALVE ADA WATER CLOSET 1.28 GPF	3"	3"	1"		1"		AMERICAN STANDARD 3043.001 WATER CLOSET & 6147121.002 FLUSH VALVE. BEMIS 1655SSCT SEAT.
UR	ADA URINAL 0.125 GPF	2"	2"	3/4"		3/4"		AMERICAN STANDARD 6002.001 URINAL & 6145013.002 FLUSH VALVE.
LAV	PUBLIC ADA WALL-HUNG LAVATORY 0.5 GPM	2"	1-1/4"	1/2"	1/2"	1/2"	1/2"	AMERICAN STANDARD 0355.012 LAVATORY & 6114.116.002 FAUCET.
MOP	TERRAZZO MOP SINK	3"	3"	1/2"	1/2"	1/2"	1/2"	FIAT TSB200 SINK, 830AA FAUCET, 832AA HOSE/BRACKET, 889CC MOP HANGER, MSG2424 PANELS, QDC32 DRAIN, & 1453BB STRAINER.
FD	FLOOR DRAIN WITH WATERLESS TRAP PRIMER	SEE DWGS.	SEE DWGS.					WATTS FD-190-PR-60 FLOOR DRAIN. RECTORSEAL "SURESEAL PLUS" WATERLESS TRAP PRIMER.
HD	HUB DRAIN	SEE DWGS.	SEE DWGS.					PVC HUB DRAIN.
GCO	GRADE CLEANOUT	SEE DWGS	SEE DWGS					WATTS CO-200-RX-4-60.
WCO	WALL CLEANOUT	SEE DWGS	SEE DWGS					WATTS CO-450-RD-60.
DF	ADA DRINKING FOUNTAIN	2"	1-1/4"	1/2"		1/2"		ELKAY EHW217C.
MV	THERMOSTATIC MIXING VALVE (ASSE 1017)			1/2"	1/2"	1/2"	1/2"	LAWLER 61-10.
HB1	HOSE BIBB			3/4"		3/4"		WOODFORD 27.
HB2	HOSE BIBB				3/4"		3/4"	WOODFORD 27 NO HANDLE WITH OPTIONAL TEE KEY.
GT	GREASE TRAP	3"	3"					ZURN GT2702-50.
FC	FLOW CONTROL	3"	3"					ZURN Z1108-50 GPM.

WATER HEATER & TANK SCHEDULE

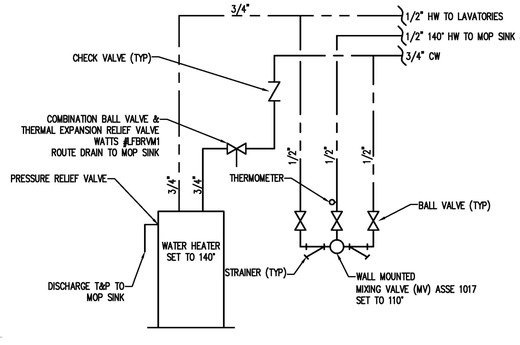
MARK	MANUFACTURER	MODEL NUMBER	TYPE	GPH @100° RISE	GALLON	KW	PHASE	VOLTAGE
WH1	A.O. SMITH	DEN-52	LIGHT COMMERCIAL ELECTRIC	18	50	4.5	1	208
WH2	A.O. SMITH	C2VA-140X	COMMERCIAL ELECTRIC TANKLESS			14	1	208
WH2	A.O. SMITH	C2VA-140X	COMMERCIAL ELECTRIC TANKLESS			14	1	208
ET	ZURN/WILKINS	XT-8	EXPANSION TANK		2.1			

LEGEND

	BALL VALVE		COLD WATER
	CHECK VALVE		HOT WATER
	BALANCING VALVE		HOT WATER RETURN
	PIPE UP		VENT
	PIPE DOWN		SEWER
PDI-B	PDI LIMIT WATER HAMMER ARRESTOR	CW	COLD WATER
F.F.E.	FINISHED FLOOR ELEVATION	HW	HOT WATER
(TYP)	TYPICAL	HWR	HOT WATER RETURN
N.T.S.	NOT TO SCALE	VTR	VENT THRU ROOF
UG	UNDERGROUND	G	NATURAL GAS

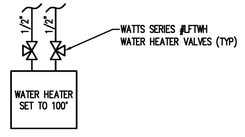


GREASE TRAP PIPING SCHEMATIC
SCALE: N.T.S.



NOTE:
GENERAL PIPING SCHEMATIC
SEE FLOOR PLAN FOR LOCATIONS

WATER HEATER (WH1) PIPING SCHEMATIC
SCALE: N.T.S.



NOTE:
GENERAL PIPING SCHEMATIC
SEE FLOOR PLAN FOR LOCATIONS

WATER HEATER (WH2 & WH3) PIPING SCHEMATIC
SCALE: N.T.S.

Widner & Associates, Inc.
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EMAIL: widner@widner-assoc.com WEBSITE: www.widner-assoc.com

GEORGIA REGISTERED NO. 036854 PROFESSIONAL ENGINEER KAUSAL M. PATEL

Drawing Number P1
DATE 04/07/21

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

TOTAL ENGINEERS
169 New Street, Macon, GA 31201
(478)741-4632 - T.E. project #21-025
www.totalengineers.com

PROJECT NUMBER 20-119

P1

DATE 04/16/21

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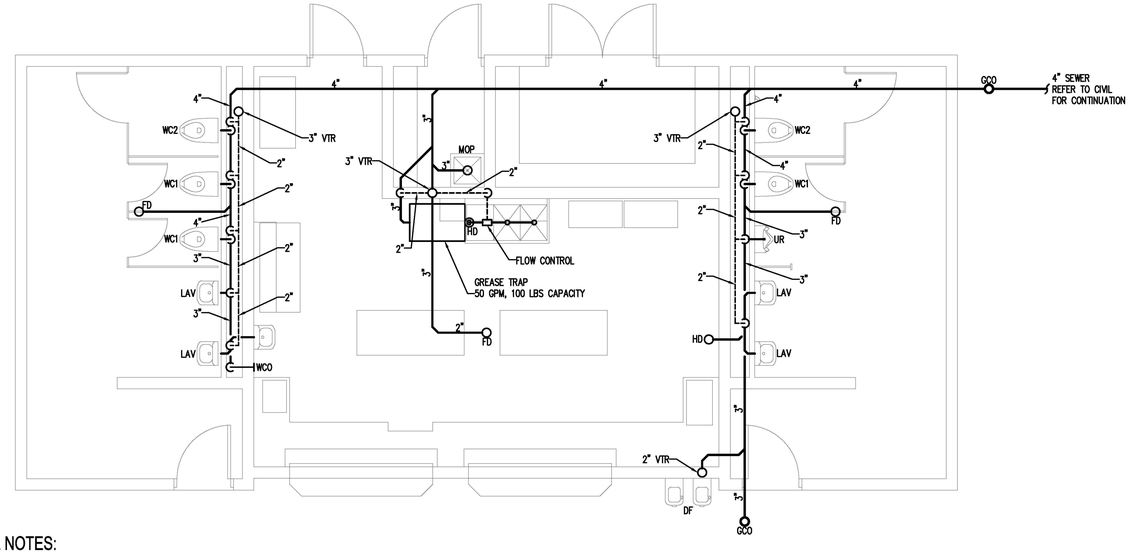
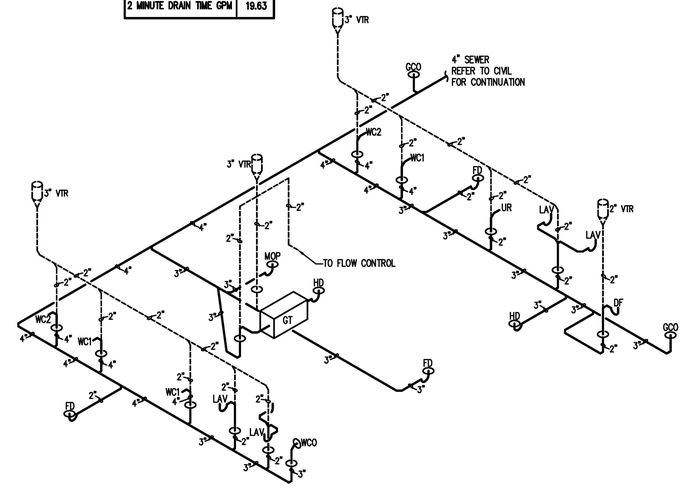
ABOVE GROUND GREASE TRAP CALULATIONS							
MARK	DESCRIPTION	BOWL LENGTH	BOWL WIDTH	BOWL DEPTH	NUMBER OF BOWLS	CUBIC INCH TOTAL	GPM	FLOW RATE
A3	TWO COMPARTMENT SINK	18"	24"	14"	2	12,096	39.27	100%
				1 MINUTE DRAIN TIME GPM			39.27	
				2 MINUTE DRAIN TIME GPM			19.63	



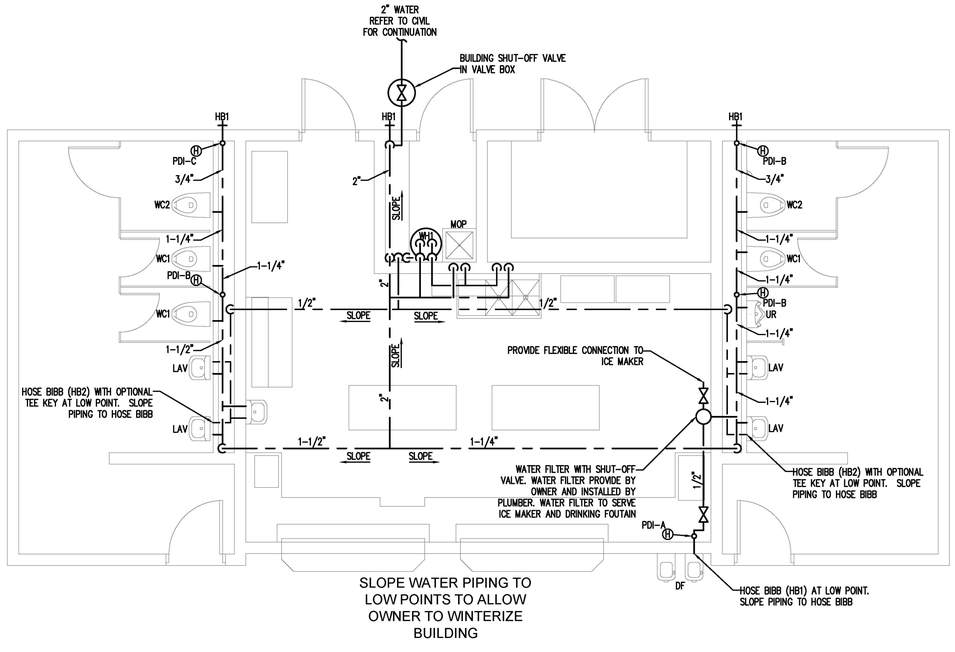
1 CONNESSION BUILDING PLUMBING PLAN - SEWER
SCALE: 1/4"=1'-0"



2 CONCESSION SEWER RISER
SCALE: N.T.S.

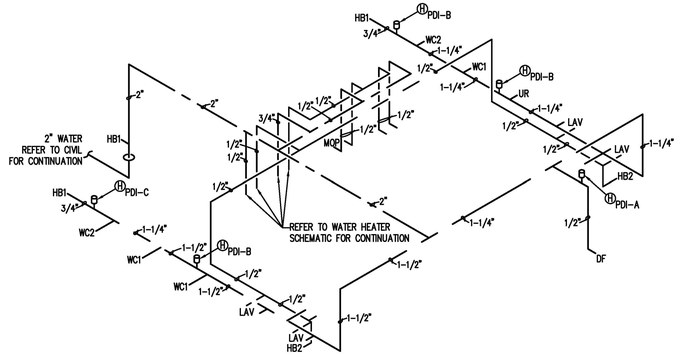
GENERAL NOTES:

PLUMBER IS TO FURNISH AND INSTALL ALL NECESSARY VALVES, TRAPS, TAIL PIECES, LINE STRAINERS, WATER PRESSURE REDUCING VALVES AND VACUUM BREAKERS AND CONNECT ALL WATER, WASTE, AND VENT LINES TO CONCESSION STAND EQUIPMENT. CONNECT TO CONCESSION STAND EQUIPMENT THROUGH INDIVIDUAL WATER FILTERS WHEN REQUIRED BY EQUIPMENT MANUFACTURER. USE FLEXIBLE STAINLESS STEEL LINES WITH QUICK DISCONNECT CONNECTIONS. VERIFY WITH EQUIPMENT SUPPLIER EXACT LOCATION OF EQUIPMENT AND PLUMBING ROUGH IN SIZES, LOCATIONS, AND REQUIREMENTS.



SLOPE WATER PIPING TO LOW POINTS TO ALLOW OWNER TO WINTERIZE BUILDING

3 CONNESSION BUILDING PLUMBING PLAN - WATER
SCALE: 1/4"=1'-0"



4 CONCESSION WATER RISER
SCALE: N.T.S.

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GEORGIA REGISTERED PROFESSIONAL ENGINEER KAUSAL M. PATEL NO. 036854

Drawing Number P2
DATE 04/07/21

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NEW CONCESSIONS / TOILETS
MACON, GEORGIA

TOTAL ENGINEERS
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PROJECT NUMBER 20-119

P2

DATE 04/16/21

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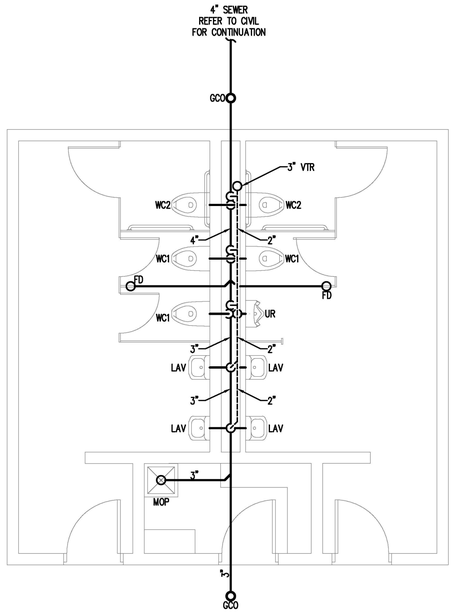
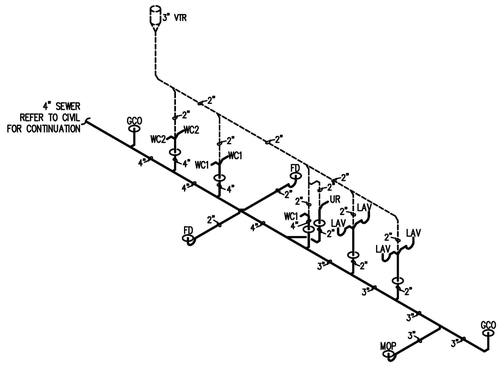
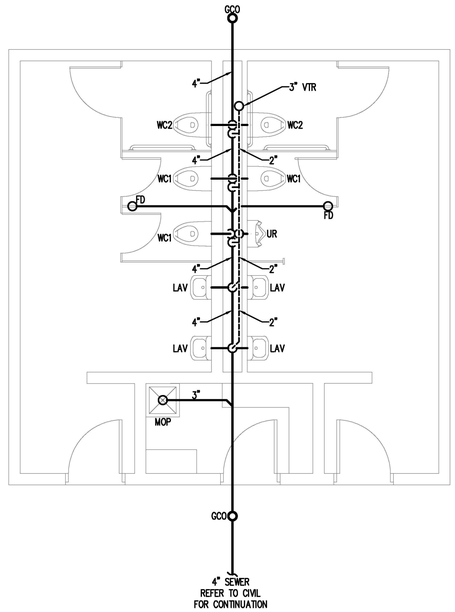


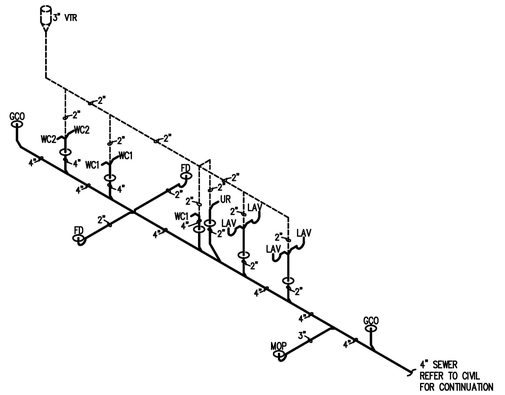
1 NORTH RESTROOM BUILDING PLUMBING PLAN - SEWER
SCALE: 1/4"=1'-0"



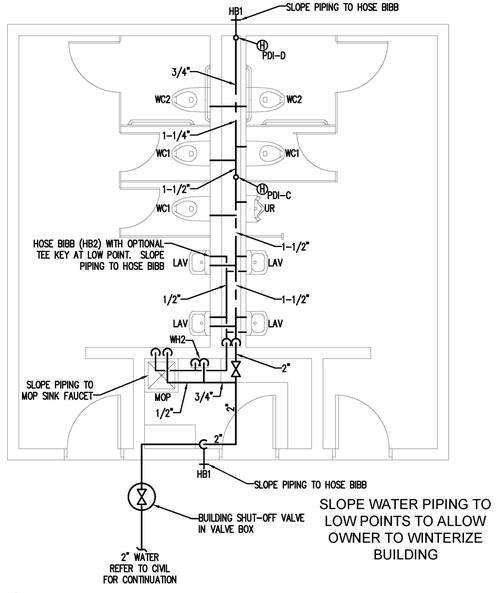
2 NORTH RESTROOM SEWER RISER
SCALE: N.T.S.



3 SOUTH RESTROOM BUILDING PLUMBING PLAN - WATER
SCALE: 1/4"=1'-0"

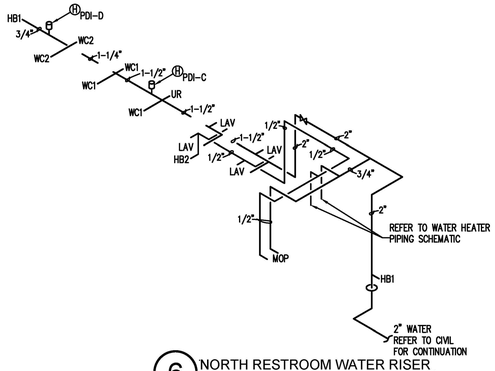


4 SOUTH RESTROOM SEWR RISER
SCALE: N.T.S.

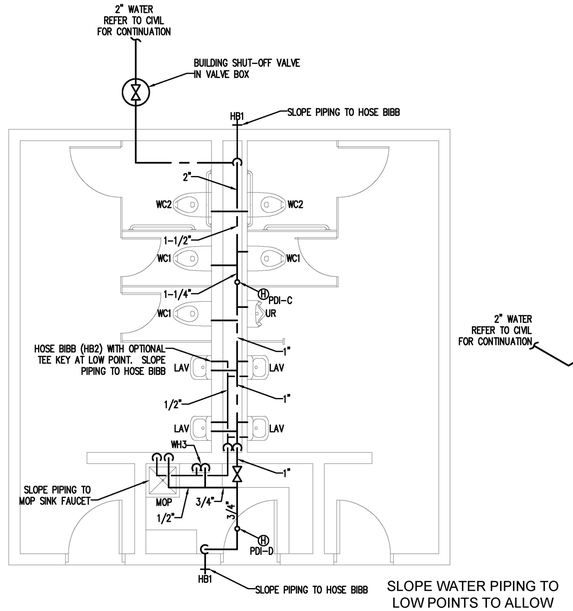


SLOPE WATER PIPING TO LOW POINTS TO ALLOW OWNER TO WINTERIZE BUILDING

5 NORTH RESTROOM BUILDING PLUMBING PLAN - SEWER
SCALE: 1/4"=1'-0"

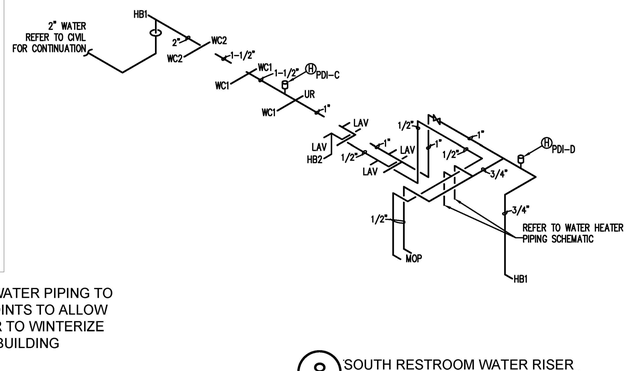


6 NORTH RESTROOM WATER RISER
SCALE: N.T.S.



SLOPE WATER PIPING TO LOW POINTS TO ALLOW OWNER TO WINTERIZE BUILDING

7 SOUTH RESTROOM BUILDING PLUMBING PLAN - SEWER
SCALE: 1/4"=1'-0"



8 SOUTH RESTROOM WATER RISER
SCALE: N.T.S.

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GEORGIA REGISTERED NO. 036854 PROFESSIONAL ENGINEER KRUNAL M. PATEL

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

Drawing Number P3
DATE 04/07/21

TOTAL ENGINEERS
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PROJECT NUMBER 20-119

P3

DATE 04/16/21

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MECHANICAL SPECIFICATIONS

1) Provide all heating, ventilation and air conditioning items indicated on the drawings, described in this specification or required for a complete and proper installation.

2) Comply with all pertinent codes, ordinances and regulations. Refer to website for Dept. of Community Affairs at http://www.dca.state.ga.us/development/constructioncodes/programs/codes2.asp for current Codes Editions.

3) The contractor shall not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearances. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or the actual building construction, shall be made at no additional cost to the owner.

4) Furnish without extra charge, any additional material and labor required to comply with the above codes and standards, even though the work may not be described in the contract documents. Where the requirements of the contract documents exceed the requirements of the above codes and standards, the contract documents shall take precedence.

5) All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings and shall be UL listed.

6) Cooperate and coordinate with other trades in order that all systems in the work may be installed in the best arrangement.

7) Examine the areas and conditions under which work of this section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Notify Architect of any discrepancies. Do not proceed until unsatisfactory conditions have been corrected.

8) Avoid interference with structure, and with work of other trades. Install all equipment per manufacturer's instructions. Install accessible parts, including equipment, coils, valves, dampers, controls, and filters with adequate clearance for inspection, adjustments, repair and replacement.

9) All other materials not specifically described but required for a complete and proper installation shall be as selected by the contractor subject to acceptance by the Engineer.

10) All ductwork shall be fabricated from galvanized sheet metal duct and conform to SMACNA "HVAC Duct Construction Standards–Metal and Flexible. Seal all joints in ductwork with mastic sealant.

11) Thermostats: Provide 24 volt, programmable 24 hour, 7 day thermostat to control heating stages in sequence with delay between stages and supply fan to maintain temperature setting. For Heat Pumps include system selection switch heat–off–cool and fan control switch (auto–on), emergency heat switch (auxiliary/emergency heat indicator lights).

12) Provide fire and smoke rated flexible connections between fans and ducts. Material shall comply with NFPA 90A requirements for material in supply air stream.

13) Install all equipment in accordance with manufacturer's instructions and recommendations including clearances recommended for proper operation or service. All filters and serviceable parts shall be readily accessible.

14) Make all duct elbows right angle type with single –thickness turning vanes or construct with centerline radius 1–1/2 times the duct width.

15) Duct sizes shown on plans are clear, interior dimensions.

16) Do not cut into or reduce the size of any structural member without the permission of the Architect.

17) Provide weather–proof flashing at all duct and pipe penetrations through the building walls and roof. As a minimum, flashings shall be designed and installed in accordance with SMACNA standards. Flashings shall be guaranteed weatherproof.

18) Support all HVAC units, ductwork, piping and other appurtenances from structure, provide vibration isolation at all fans which are not internally isolated. Provide hanger rod with built in rubber–in–shear isolator. Between drain pan and unit provide 4 each rubber–in–shear isolator. Do not attach vibration isolator to drain pan. Do not screw or drive fasteners into non–structural components such as roof decks or non–load bearing walls.

19) Thoroughly clean all components and remove all dirt, scale, oil, and other foreign substances. Provide clean air filters for all equipment.

20) Perform all tests necessary to demonstrate the integrity of the complete installation to the approval of the Engineer and all other authorities having jurisdiction. Make all adjustments necessary and balance the completed system in accordance with the data shown. Balance the systems in accordance with NEBB or AABC standards. Acceptable tolerances shall be minus ten percent to plus five percent of all measurements. Balancing shall be done by an independent licensed (by NEBB or AABC) TAB contractor. Make the following tests and submit reports to the Architect:
   a) Airflow rate at each exhaust outlet or inlet.
   b) Total airflow rate and total static pressure for each exhaust fan. Test exhaust fans with room doors closed.
   c) Motor speed, for multiple speed fans (e.g. high, medium, low).
   d) For direct drive fans, provide speed settings and actual rpm, including ECM motor driven fans
   e) Provide fan and motor rpm for belt driven fans. Provide sheave sizes.
   f) Motor current (and compare with nameplate data) at all motors.
   g) Heat output capacity for unit heaters, heating devices and coils (kW or MBH).
   h) Manufacturer, model and serial number for each piece of HVAC equipment scheduled on drawings.
   i) Calibrate thermostats to be within one degree of actual temperature at thermostat.
   j) Verify that all HVAC devices operate as scheduled or indicated (i.e. ON–OFF, 2–stage, variable output (SCR heaters), etc.

21) The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. Compressors shall include a minimum of five (5) year parts only warranty from the manufacturer. All labor and materials necessary to repair or replace the system or portions thereof, during that time shall be warranted for a period of one (1) year from the repair of replacement.

22) SUBMITTALS AND SUBMITTAL PROCEDURES:
   a. Contractor shall review the submittal data and check for the purpose of compliance with safety requirements, verification of dimensions, contract documents and methods and means prior to submitting to design professional. Contractor shall indicate approval by indicating such on the submittal.
   b. Transmit each submittal electronically in PDF format.
   c. Sequentially number submittal files and transmittal form. Revise submittals with original number and a sequential alphabetic suffix. File names shall describe item included in file.
   d. Identify Project, the Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy. Each file shall include an index of items included in file.
   e. Apply the Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
   f. Submittal data for all items in project shall be submitted at one time. Submittal shall be divided into groups with file sizes not exceeding 6 MB. If there is unavailable data such as control submittal, etc., these may be submitted later if not doing so would delay project progress. Data shall include capacities, complete installation instructions, dimensional data and electrical data, BHP, motor HP, operating weights and load distribution at mounting points.
   g. Deliver submittals electronically to the Design Professional.
   h. Schedule submittals to expedite the Project, and coordinate submission of related items.
   i. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
   j. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
   k. Provide space for the Contractor and the Architect/ review stamps.
   l. When revised for resubmission, identify all changes made since previous submission.
   m. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
   n. Submittals not requested will not be recognized or processed.
   o. Provide files containing only related items (such as piping, equipment, air distribution, etc.)

23) Instruct Owner's representative in the operation of the systems, using the operation and maintenance manual as a teaching aid.

24) Provide an operation and maintenance manual. As a minimum, the manual shall contain:
   a. A complete list of all equipment and appurtenances with equipment designations (per Drawings), manufacturers, and catalog numbers.
   b. Copies of manufacturers' brochures and instructions for operation and maintenance of all mechanical equipment, including replacement parts lists.
   c. Typed system operation and maintenance instructions, including inspection, lubrication, and service instructions and schedules.
   d. List of names, addresses and phone numbers of distributors of all equipment and appurtenances.
   e. Manufacturers' warranties.

25) Basic motor requirements: basic requirements apply to mechanical equipment motors, unless otherwise indicated. Motors 1/2 hp and larger: Polyphase, unless otherwise scheduled. Motors smaller than 1/2 hp: single phase. Frequency rating: 60 Hz. Service factor: according to NEMA MG 1, general purpose continuous duty, design type "B." Enclosure: open drip–proof, unless otherwise indicated. Efficiency: motors shall have a higher efficiency rating than industry standard average motor as delineated in IEEE Standard 112, test method 13. Thermal protection: where indicated or required, internal protection automatically opens power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal protection device automatically resets when motor temperature returns to normal range, unless otherwise indicated.

26) Hangers and supports: Building attachments: concrete inserts or structural–steel fasteners appropriate for building materials, and beam clamps. Hanger materials: galvanized, sheet steel or round, threaded steel rod. Hangers installed in corrosive atmospheres: electrogalvanized, all–thread rod or galvanized rods with threads painted after installation. Straps and rod sizes: comply with SMACNA's "HVAC Duct Construction Standards––Metal and Flexible" for sheet steel width and thickness and for steel rod diameters. Duct attachments: sheet metal screws, blind rivets, or self–tapping metal screws; compatible with duct materials. Trapeze and riser supports galvanized steel shapes and plates: steel shapes complying with ASTM A 36/A 36M.

27) Sealant materials: joint and seam sealants, general: the term "sealant" is not limited to materials of adhesive or mastic nature but includes tapes and combinations of open–weave fabric strips and mastics. Joint and seam tape: 2 inches wide; glass–fiber fabric reinforced. Joint and seam sealant: one–part, nonsag, solvent–release–curing, polymerized butyl sealant, formulated with a minimum of 75 percent solids. Flanged joint mastics: one–part, acid–curing, silicone, elastomeric joint sealants, complying with ASTM C 920, type S, grade NS, class 25, use O.

28) Gravity Ventilators: Heavy gauge arched sheet aluminum with interlocking seams or spun aluminum with base for curb mounting. Provide matching pre–fabricated roof curb and bird screen. Provide normally closed gravity backdraft damper.

29) All HVAC equipment such as AH, CU, EF, AC, HP, and RTU shall have visible nameplates with their associated marks on them.

30) Ceiling Ventilator shall have corrosion resistant galvanized steel housing with four–point mounting capability. It shall be ducted to a cap on wall or roof using round ductwork. Blower assembly shall be removable, have a centrifugal–type blower wheel and a permanently lubricated motor designed for continuous operation. Non–metallic damper/duct connector shall be included. Air delivery shall be no less than scheduled and sound level no greater than 0.3 sones. All air and sound ratings shall be certified by HVI. Ceiling ventilator shall be Energy Star® qualified and have an energy efficient permanent split capacitor motor.

31) Electric Ceiling Heater: Heater shall be UL listed and labelled with terminal box and cover, and built–in controls. Heater shall be made in three pieces consisting of back enclosure, heater assembly and front panel. Ceiling panel shall be attached with concealed fasteners. Heating Elements: Nickel–chromium heating element wire shall be encased in a steel or copper sheath. Aluminum fins shall be pressure bonded to the sheath. Enclosure: Enclosure shall be minimum 20–gauge painted steel for surface mounting. Ceiling Panel: Stamped steel return grilles and supply register. Supply register shall provide adjustable blades to provide narrow pattern dispersion for 14 foot mounting height. Unit shall be fan forced type including fan motor, fan and controls with thermostat adjustment accessible through front grille. Unit shall also include thermal safety cutouts in the event of over temperature conditions. Refer to Schedule on Drawings for additional specifications.

32) Electric Wall Mount Heater: Heater shall be UL listed and labelled with terminal box and cover, and built–in controls. Heater shall be made in three pieces consisting of back enclosure, heater assembly and front panel. Front panel shall be attached with concealed fasteners. Heating Elements: Nickel–chromium heating element wire shall be encased in a steel or copper sheath. Aluminum fins shall be pressure bonded to the sheath. Enclosure: Enclosure shall be minimum 20–gauge painted steel for surface mounting. Front Panel: Bar grille type with down deflection toward floor. Finish shall be paint on steel bars. Grille shall be surrounded by decorative satin finished aluminum accent frame. Unit shall be fan forced type including fan motor, fan and controls with thermostat adjustment accessible through front grille. Unit shall also include thermal safety cutouts in the event of over temperature conditions. Refer to Schedule on Drawings for additional specifications.

33) Acceptable Manufacturers are:

Fans:	Twin–City, Cook, Greenheck, PennBarry, Acme, American CoolAir, Captive Air
Electric Heaters:	Markel, Q–Mark, Raywall
Controls–provided with unit:	Provide thermostats by same manufacturer as equipment

Drawing Number M1

DATE 04/07/21

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GEORGIA REGISTERED NO. 036884 PROFESSIONAL ENGINEER KAUSAL M. PATEL

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20–119

M1

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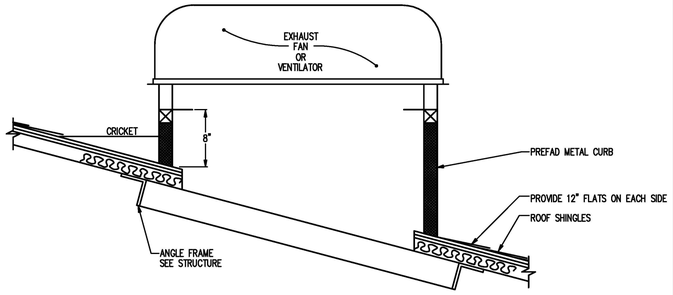
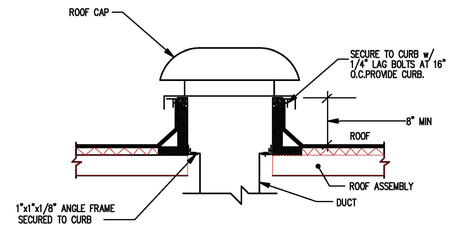


NOTE: REFER TO ARCHITECTURAL FOR ROOF SLOPES

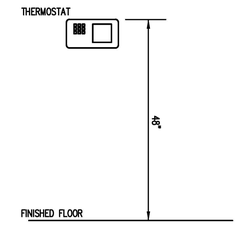
1 FAN/VENTILATOR ON SLOPED ROOF DETAIL
SCALE: N.T.S.



2 ROOF CAP DETAIL
SCALE: N.T.S.

MECHANICAL SYMBOLS & ABBREVIATIONS LEGEND

	NEW PIPE, DUCTWORK OR EQUIPMENT
24x12 24x12	DUCT SIZE: FIRST DIMENSION IS SIDE DRAWN
	FLEXIBLE ROUND DUCTWORK
F, SCD, SD	FIRE DAMPER, SMOKE DAMPER, SMOKE DETECTOR
	CEILING SUPPLY DIFFUSER
	CEILING RETURN OR EXHAUST AIR
	S.A DUCT OUT OF TU BOX WITH DUCT LINER FOR THR FIRST FIVE FEET OF DUCT OUT OF TU BOX
	SIDEWALL REGISTER OR GRILLE
	CHANGE IN PIPE OR DUCT SIZE OR SHAPE
R	REFRIGERANT PIPING
D	CONDENSATE OR OTHER DRAIN PIPING
	ELBOW TURNED DOWN OR TURNED UP IN PIPING
T	THERMOSTAT, ARROW SHOWS CONTROL WIRING PATH
TC	TIME CLOCK
ø	DIAMETER
U.C.	UNDER-CUT DOOR 3/4", UNLESS OTHER SIZE NOTED
AH-1 / E-1	INDICATES EQUIPMENT ON PLANS; TOP ITEM SHOWS TYPE OF EQUIPMENT AND BOTTOM ITEM SHOWS SPECIFIC MARK NUMBER
4 S1 8"ø 300	ITEM IN HEXAGON SHOWS AIR DEVICE MARK NUMBER, ITEM ABOVE LINE SHOWS NECK SIZE, ITEM BELOW LINE SHOWS AIR FLOW THROUGH DEVICE, AND NUMBER IN FRONT SHOWS QUANTITY IF MORE THAN ONE
AFF	ABOVE FINISHED FLOOR
AH	AIR HANDLING UNIT
BD	BYPASS DAMPER
BTUH, MBH	BRITISH THERMAL UNITS, THOUSAND BRITISH THERMAL UNITS
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CU	CONDENSING UNIT
DB, WB	DRY BULB TEMPERATURE, WET BULB TEMPERATURE
EA, EG	EXHAUST AIR, EXHAUST GRILLE
EF	EXHAUST FAN
EXT SP	EXTERNAL STATIC PRESSURE (USUALLY EXPRESSED IN INCHES OF WATER IN GAGE)
HP	HEAT PUMP UNIT
MVD, VD	MANUAL VOLUME DAMPER
OA	OUTSIDE AIR
RA, RG	RETURN AIR, RETURN GRILLE
RTU	PACKAGED ROOFTOP UNIT
SA	SUPPLY AIR
SF	SUPPLY FAN FOR SHOP VENTILATION
VAC, PH	VOLTS ALTERNATING CURRENT, NUMBER OF PHASES
W, KW	WATTS, KILOWATTS
UH	UNIT HEATER
A	AUDIBLE/VISUAL ALARM DEVICE CONNECTED TO DUCT SMOKE DETECTOR
	RADIUS ELBOW (R=1.5)



3 T-STAT DETAIL
SCALE: N.T.S.

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FAN SCHEDULE

MARK	CFM	EXT. SP IN W.G.	DRIVE TYPE	MOTOR (HP/W)	MAX FAN (RPM)	MAX SONES	POWER/ PHASE	BASIS OF DESIGN	SERVES	NOTES
EF-1	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	CONCESSION	1:2:3:4:7
EF-2	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	RESTROOM	1:2:3:4:5
EF-3	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	RESTROOM	1:2:3:4:5
EF-4	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	RESTROOM	1:2:3:4:5
EF-5	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	RESTROOM	1:2:3:4:5
EF-6	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	RESTROOM	1:2:3:4:5
EF-7	210	0.30	DIRECT	52.0 W	893	2.0	115/1	GREENHECK SP-A200	RESTROOM	1:2:3:4:5
EF-8	70	0.25	DIRECT	20.0 W	690	1.3	115/1	GREENHECK SP-B90	STORAGE	1:2:3:4:7:8
EF-9	70	0.25	DIRECT	20.0 W	690	1.3	115/1	GREENHECK SP-B90	JANITOR	1:2:3:4:6:8
EF-10	70	0.25	DIRECT	20.0 W	690	1.3	115/1	GREENHECK SP-B90	JANITOR	1:2:3:4:6:8
EF-11	70	0.25	DIRECT	20.0 W	690	1.3	115/1	GREENHECK SP-B90	JANITOR	1:2:3:4:6:8

1. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION.
2. PROVIDE FACTORY SOLID STATE FAN SPEED CONTROLLER.
3. DIRECT DRIVE CENTRIFUGAL CEILING FAN. PROVIDE FACTORY SUPPLIED DISCONNECT, BACK DRAFT DAMPER AND MOTOR WITH THERMAL OVERLOAD. FAN SHALL BE ENERGY STAR RATED.
4. PROVIDE MANUFACTURER'S DESIGNER GRILLE.
5. INTERLOCK FAN WITH LIGHTS SUCH THAT FAN COMES ON WHEN LIGHTS ARE ON. ELECTRICAL TO PROVIDE 15 MINUTE TIME DELAY.
6. FAN SHALL BE CONTROLLED BY A SWITCH LOCATED IN ROOM IT SERVES.
7. FAN SHALL BE CONTROLLED BY LINE VOLTAGE THERMOSTAT. THERMOSTAT SHALL BE PROVIDED AND INSTALLED BY MECHANICAL.
8. PROVIDE MANUFACTURER'S FIRE RADIATION DAMPER.

ELECTRIC CABINET HEATER SCHEDULE

MARK	HEATER KW	VOLTS/PH	BASIS OF DESIGN	NOTES
EWH-1	4.0	208/1	Q-MARK AWH4408	1:2:3
EWH-2	1.5	120/1	BROAN 174	1:2:3
EWH-3	1.5	120/1	BROAN 174	1:2:3
EWH-4	1.5	120/1	BROAN 174	1:2:3

1. MOUNT UNIT HEATERS AT 8" AFF.
2. VERTICAL WALL MOUNTED EXPOSED HEATER.
3. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION.

ELECTRIC CEILING HEATER SCHEDULE

EQUIPMENT NO.	VOLTS/PHASE	AIR FLOW (CFM)	TOTAL WATTS	MANUFACTURER & MODEL	NOTES
CLH-1	208/1	300	5000	Q-MARK CDF-558 W/CDF-SE	1:2:3
CLH-2	208/1	300	4000	Q-MARK CDF-548 W/CDF-SE	1:2:3
CLH-3	208/1	300	4000	Q-MARK CDF-548 W/CDF-SE	1:2:3
CLH-4	208/1	300	4000	Q-MARK CDF-548 W/CDF-SE	1:2:3
CLH-5	208/1	300	4000	Q-MARK CDF-548 W/CDF-SE	1:2:3
CLH-6	208/1	300	4000	Q-MARK CDF-548 W/CDF-SE	1:2:3
CLH-7	208/1	300	4000	Q-MARK CDF-548 W/CDF-SE	1:2:3

1. PROVIDE SURFACE MOUNTING ENCLOSURE.
2. PROVIDE WALL MOUNTED THERMOSTAT, TRANSFORMERS AND RELAYS TO CONTROL HEATERS.
3. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION.

GRAVITY VENTILATOR SCHEDULE

MARK	SERVICE	THROAT AREA SF	INTAKE AREA SF	MAX CFM	GREENHECK MODEL	NOTES
GV-1	EXHAUST	0.37	----	210	GRSR 8	1:2
GV-2	EXHAUST	0.37	----	210	GRSR 8	1:2
GV-3	EXHAUST	0.37	----	210	GRSR 8	1:2
GV-4	EXHAUST	0.37	----	210	GRSR 8	1:2
GV-5	EXHAUST	0.37	----	210	GRSR 8	1:2
GV-6	EXHAUST	0.37	----	210	GRSR 8	1:2
GV-7	EXHAUST	0.37	----	210	GRSR 8	1:2

1. SPUN ALUMINUM GRAVITY VENTILATOR.
2. PAINT TO MATCH ROOF COLOR.

Widner & Associates, Inc.
P.O. BOX 102 MACON, GEORGIA 31202
PH.# (478) 746-2010
EMAIL: widner@widner-assoc.com WEBSITE: www.widner-assoc.com

GEORGIA REGISTERED NO. 036884 PROFESSIONAL ENGINEER KRUNAL M. PATEL

Drawing Number M2
DATE 04/07/21

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

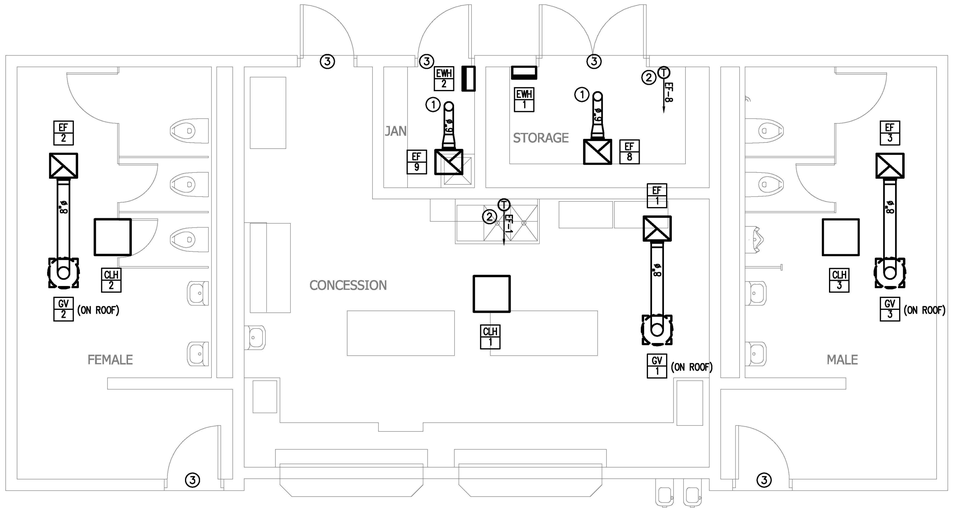
PROJECT NUMBER 20-119

M2

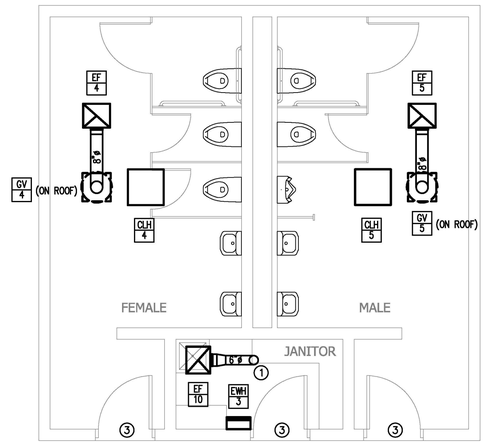
DATE 04/16/21

TOTAL ENGINEERS
169 New Street, Macon, GA 31201
(478)741-4632 - T.E. project #21-025
www.totalengineers.com

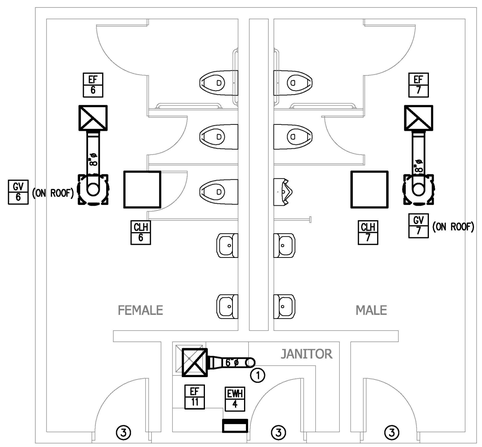
NOTICE: This document is subject to all requirements of the General Conditions of the Contract for Construction, AIA Document 201, August 1976 edition.



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



2 NORTH RESTROOM BUILDING MECHANICAL PLAN
SCALE: 1/4"=1'-0"



3 SOUTH RESTROOM BUILDING MECHANICAL PLAN
SCALE: 1/4"=1'-0"

KEY NOTES (THIS SHEET ONLY):

① 6"ø EXHAUST UP TO ROOF CAP.
② TOP OF THERMOSTAT SHALL BE AT 48" AFF.
③ DOOR WITH GRILLE. REFER TO ARCHITECTURE.

TOTAL ENGINEERS
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www.totalengineers.com

Drawing Number M3
DATE 04/07/21

Widner & Associates, Inc.
P.O. BOX 102 MACON, GEORGIA 31202
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GEORGIA REGISTERED NO. 036824 PROFESSIONAL ENGINEER KRUNAL M. PATEL

BLOOMFIELD RECREATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

M3

DATE 04/16/21

ELECTRICAL SPECIFICATIONS

DIVISION 26

ELECTRICAL

SECTION A: GENERAL ELECTRICAL REQUIREMENTS

1. THESE PLANS AND SPECIFICATIONS APPLY TO BLOOMFIELD RECERATION CENTER MACON, GA. THE WORK DESCRIBED BY THESE PLANS AND SPECIFICATIONS APPLY TO THE INDICATED PROJECT AND MAY NOT BE MODIFIED OR REUSED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
2. ALL WORK SHALL BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR WITH MINIMUM OF TWO YEARS OF EXPERIENCE. LIST OF PREVIOUS JOBS AND REFERENCES SHALL BE MADE AVAILABLE UPON REQUEST. CONTRACTOR SHALL PROVIDE ADEQUATE INSURANCE FOR PERSONNEL AND SHALL REPAIR ANY DAMAGE OCCURRING AS THE RESULT OF THIS PROJECT SITE AND RELATED PROPERTY.
3. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE NFPA 101, ADA CODE, GA ACCESSIBILITY CODE, STATE OF GEORGIA ENERGY CODE AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
4. ALL PERMITS AND FEES SHALL BE OBATINED AND PAID FOR BY THE CONTRACTOR.
5. ALL EQUIPMENT, MATERIAL, AND DEVICES SHALL BE LISTED OR RECOGNIZED BY UNDERWRITER'S LABORATORY OR ELECTRICAL TESTING LABORATORY AND USED AND INSTALLED IN ACCORDANCE WITH IT'S LISTING.
6. ALL WORK PERFORMED SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE THE FINAL COMPLETION DATE EXCEPT FOR FUSES AND LAMPS IN LIGHT FIXTURES. UPON NOTIFICATION OF A PROBLEM, THE CONTRACTOR SHALL INVESTIGATE THE PROBLEM WITHIN 48 HOURS UNLESS A DIFFERENT TIME PERIOD IS AGREED TO. THE CONTRACTOR SHALL INVESTIGATE, REPAIR OR REPLACE ALL FAULTY EQUIPMENT WITHIN A REASONABLE TIME PERIOD WITHOUT CHARGE TO THE OWNER.
7. THE TERM "PROVIDE" SHALL BE UNDERSTOOD TO MEAN, OBTAIN THE ITEM DESCRIBED, INSTALL ITEM IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS.
8. ALL PENETRATIONS MADE IN FIRE RATED BUILDING PORTIONS SHALL BE SEALED WITH A LISTED RESISTANT MATERIAL SUITABLE FOR THE APPLICATION.
9. ALL INSTALLATIONS OF ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION.
10. PLANS ARE DIAGRAMMATIC AND SHOW THE LOCATION OF THE EQUIPMENT, RACEWAY AND FIXTURES, AND ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED AT THE BUILDING SITE.
11. CONTRACTOR SHALL VERIFY AND COORDINATE ALL EQUIPMENT AND DEVICE LOCATIONS WITH OWNER'S PROJECT MANAGER PRIOR TO INSTALLATION.

12. EQUIPMENT BREAKER AND WIRING REQUIREMENTS; THE CONTRACTOR SHALL SUBMIT FOR REVIEW A TABULATED SHEET OF BREAKER AND WIRING REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT REQUIRING POWER AS SPECIFIED IN DIVISION 15. REQUIREMENTS SHALL BE IDENTIFIED BY HORSEPOWER OR KW, OPERATING AMPERAGE, REQUIRED VOLTAGE AND PHASE REQUIREMENTS, AND MANUFACTURERS SUGGESTED OVERCURRENT CIRCUIT PROTECTION DEVICE SIZE AND MINIMUM CIRCUIT AMPACITY SIZE. WHERE THE ELECTRICAL REQUIREMENTS SUBMITTED FOR MECHANICAL EQUIPMENT DIFFERS FROM THE BRANCH CIRCUITRY SHOWN ON THE ELECTRICAL DRAWINGS (WHEN USING THE BASIS OF DESIGN UNIT LISTED IN THE MECHANICAL SCHEDULES/SPECIFICATIONS OR A SIMILAR UNIT OF THE SAME SIZE FROM LISTED ALTERNATE MANUFACTURERS), THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS TO THE BRANCH CIRCUITRY PER THE CURRENT NEC AT NO ADDITIONAL COST TO THE OWNER. WHEN CHANGES ARE MADE TO POWER REQUIREMENTS FOR EQUIPMENT DUE TO OWNER, ARCHITECT/ENGINEER APPROVED VALUE ENGINEERING CHANGES TO EQUIPMENT, THE COST MUST NE INCLUDED IN THE VALUE ENGINEERING OVERALL CHANGE ORDER COST. COSTS DUE TO ADJUSTMENTS IN BRANCH CIRCUITRY TO EQUIPMENT DUE TO VALUE ENGINEERING CHANGES WILL NOT BE ALLOWED AFTER THE OVERALL VALUE ENGINEERING CHANGE ORDER HAS BEEN APPROVED. IN ALL CASES, BREAKER AND WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT MUST BE PROVIDED TO THE ENGINEER BEFORE OR AT THE SAME TIME AS THE SHOP DRAWINGS FOR THE ELECTRICAL DISTRIBUTION GEAR OR EQUIPMENT. IN NO CASE SHALL THE ELECTRICAL DISTRIBUTION GEAR OR EQUIPMENT BE ORDERED OR BRANCH CIRCUITRY ROUGHED IN PRIOR TO ENGINEER REVIEW AND COMMENT ON THIS DOCUMENT. ANY EQUIPMENT ORDERED OR BRANCH CIRCUITRY ROUGHED IN ON THE JOBSITE WITHOUT THIS REVIEW AND COMMENT WILL BE TOTALLY AT THE CONTRACTORS RISK.

SECTION B: BASIC MATERIALS

1. ALL CONDUCTORS USED FOR 600 VOLTS OR LESS SHALL BE HIGH GRADE COPPER CONDUCTORS WITH 75 DEGREE C, THHN OR THWN THERMOPLASTIC INSULATION. ALL CONDUCTORS SHALL BE MADE IN THE USA. ALL CONDUCTORS ROUTED IN UNDERGROUND CONDUIT SHALL BE RATED FOR WET LOCATIONS.
2. ALL INTERIOR 120 VOLT, 20 AMP POWER AND LIGHTING WIRING SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING OR "MC" CABLE (IF NOT EXPOSED) FOR ALL INTERIOR CIRCUITS UNLESS OTHERWISE NOTED. IF "MC" CABLE IS USED, HOMERUNS SHALL BE IN 3/4 IN. EMT. POWER CIRCUITS FOR HVAC EQUIPMENT SHALL BE IN 3/4" ELECTRICAL METALIC CONDUIT MINIMUM. ALL CONDUIT SHALL BE SUPPORTED FROM BUILDING STRUCTURE. IT SHALL NOT BE SUPPORTED FROM DUCTWORK, PIPING, CEILING GRID OR CEILING GRID SUPPORTS, OR ANY OTHER NON-STRUCTURAL ITEM. CONDUIT SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC. CONDUIT IN EXPOSED STRUCTURE AREAS SHALL BE EMT. GALVANIZED RIGID STEEL CONDUIT SHALL BE USED IN AREAS WHERE IT WILL BE EXPOSED TO PHYSICAL DAMAGE.
3. CONDUIT UNDERGROUND SHALL BE SCHEDULE 40 PVC. IF MORE THAN ONE CONDUIT IS PROVIDED IN A SINGLE TRENCH, THE CONDUIT SHALL BE RACKED WITH SPACERS EVERY FOUR FEET TO MAINTAIN A MINIMUM SPACING BETWEEN CONDUIT OF TWO INCHES. BACKFILL USED FOR UNDERGROUND INSTALLATIONS SHALL BE FREE OF FOREIGN MATTER. WHERE EXPOSED TO WEATHER, CONDUIT SHALL BE GALVANIZED RIGID STEEL OR INTERMEDIATE METALLIC CONDUIT. THE CONDUIT SHALL BE TERMINATED WITH LISTED FITTINGS AND ALL CONDUIT ENDS SHALL BE REAMED AND SMOOTH. ALL CONDUIT ENDS IN BOXES SHALL BE PROVIDED WITH INSULATED BUSHINGS.
4. A #12 INSULATED COPPER GROUND CONDUCTOR SHALL BE INCLUDED IN ALL BRANCH CIRCUITS RATED 20 AMPERES. ALL OTHER CIRCUITS AND FEEDERS WILL BE PROVIDED WITH AN INSULATED COPPER CONDUCTOR SIZED AS NOTED OR IN ACCORDANCE WITH THE NEC, WHICHEVER IS GREATER.
5. THE MINIMUM SIZE OF ALL CONDUCTORS NOT OTHERWISE INDICATED IS #12 AND THE MINIMUM SIZE OF ALL CONDUIT UNLESS OTHERWISE INDICATED IS 1/2 IN.
6. ALL JUNCTION BOXES SHALL BE PROVIDED WITH COVERS AND ALL UNUSED OPENINGS SHALL BE PLUGGED. ALL JUNCTION BOXES SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE. COVERS OF BOXES SHALL BE LABELED WITH THE CIRCUIT NUMBER WITH A BLACK PERMANENT MARKER IN 3/4 IN. HIGH LETTERS (LEGIBLE HANDWRITTEN LETTERING IS ACCEPTABLE).
7. ALL OUTLET BOXES SHALL BE SQUARE METAL BOXES. PROVIDE PLASTER RINGS FOR ALL OUTLET BOXES CONTAINING DEVICES TO PROVIDE A FIRM MOUNTING SUPPORT FOR THE DEVICE.
8. ALL CONVENIENCE RECEPTACLES SHALL BE SPECIFICATION GRADE 20 AMP RECEPTACLES, OWNER TO SELECT COLOR.
9. ALL LIGHT SWITCHES SHALL BE SPECIFICATION GRADE 20 AMP TOGGLE SWITCHES FULL LOAD RATED FOR TUNGSTEN-HALOGEN LAMPS, OWNER TO SELECT COLOR.
10. PROVIDE FACEPLATES FOR ALL RECEPTACLES AND SWITCHES. COORDINATE STYLE AND COLOR WITH OWNER'S PROJECT MANAGER.
11. PROVIDE BETWEEN 12 AND 24 INCHES OF LIQUID TIGHT FLEXIBLE CONDUIT BETWEEN RIGID CONDUIT AND ANY EQUIPMENT CONTAINING MOTORS. THE FLEXIBLE CONDUIT SHALL BE SUPPORTED TO PREVENT THE CONDUIT FROM RESTING ON THE GROUND OR CONCRETE PAD.
12. PROVIDE WEATHERPROOF RECEPTACLE WITHIN 25 FEET OF EACH PIECE OF EXTERIOR EQUIPMENT. THIS RECEPTACLE SHALL BE MOUNTED HORIZONTALLY WITH METAL HINGED "IN USE" COVER MOUNTED TO OPEN UP. THIS OUTLET SHALL BE A GFCI RECEPTACLE. THIS RECEPTACLE SHALL BE BE MOUNTED IN DIE CAST NON CORRODING METAL BOX.
13. WHEN OUTLETS OR BOXES ARE INDICATED INSTALLED ON OPPOSITE SIDES OF THE SAME WALL. THE CONTRACTOR SHALL ADJUST THE LOCATION TO OFFSET THE OUTLETS WITH A WALL STUD PROVIDING SEPERATION.

SECTION C: DISTRIBUTION EQUIPMENT

1. CONTRACTOR SHALL PROVIDE CONDUCTORS AND CONDUIT FOR ALL FEEDERS IN ACCORDANCE WITH THE PLANS.
2. SEPERATELY MOUNTED CIRCUIT BREAKERS SHALL BE MOUNTED IN NEMA TYPE 1 ENCLOSURES IN INDOOR APPLICATIONS AND IN NEMA 3R ENCLOSURES IN EXTERIOR OR WET LOCATIONS. ALL CIRCUIT BREAKER ENCLOSURES SHALL BE PROVIDED WITH HINGED COVERS AND PROVISIONS FOR PADLOCKING THE COVERS.

3. ALL EQUIPMENT CONTAINING MOTORS SHALL BE PROVIDED WITH A DISCONNECTING MEANS WITHIN TEN FEET OF THE UNIT UNLESS OTHERWISE NOTED. THIS DISCONNECTING MEANS SHALL AS A MINIMUM BE A NON-FUSED SWITCH OR TOGGLE STARTER SIZED TO MATCH THE EQUIPMENT. PROVIDE OTHER DEVICES AS NOTED ON THE PLANS. PROVIDE NEMA TYPE 1ENCLOSURES INDOORS AND NEMA 3R OUTDOORS.

4. PROVIDE GFCI CIRCUIT BREAKERS AND RECEPTACLES AS INDICATED ON THE PLANS AND IN THESE SPECIFICATIONS. THESE DEVICES SHALL BE CLASS A GFCI DEVICES.

5. PROVIDE PANELS AS SCHEDULED ON PLANS. CIRCUIT BREAKERS SHALL BE THERMAL-MAGNETIC BREAKERS WITH A MINIMUM INTERRUPTING RATING OF 10,000 AIC FOR 120/208V AND 14,000 AIC FOR 277/480V OR AS INDICATED ON THE PLANS. BREAKERS SHALL HAVE 65/75 DEGREE C RATED TERMINATIONS. PANEL NOTED SHALL BE SERVICE ENTRANCE RATED. MOUNT PANELS WITH TOP OF PANEL 6 FT. ABOVE FLOOR, PROVIDE 3/4 IN., GREY PAINTED PLYWOOD BACKBOARD FOR ALL PANELS SECURED TO WALL WITH 1/4 IN. TOGGLE BOLTS. PANEL MANUFACTURERS: SQUARE D, GE, SEIMENS, AND CULTER HAMMER. ALL CURRENT CARRYING PARTS SHALL BE COPPER.
6. SYSTEM COORDINATION: THE MANUFACTURER OF THE PANELBOARDS SHALL PROVIDE SERIES RATED EQUIPMENT BASED ON U.L. LISTED TEST RESULTS. THE CONTRACTOR SHALL VERIFY THE AVAILABLE SHORT CIRCUIT CURRENT AT THE SERVING TRANSFORMER.
7. PROVIDE EACH PANELBOARD WITH A TYPEWRITTEN CIRCUIT BREAKER DIRECTORY CARD INSIDE A PLASTIC COVERING (EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. THE INDETIFICATION SHALL INCLUDE SUFFICIENT DETAIL TO ALLOW EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS). THE DIRECTORY AND COVERING SHALL BE LOCATED INSIDE A STEEL FRAME PROVIDED INSIDE THE DOOR OF EACH PANELBOARD. THE DIRECTORY SHALL BE TYPED TO IDENTIFY THE LOAD FED BY EACH CIRCUIT BREAKER AND THE AREAS SERVED.
8. PROVIDE NAMEPLATES FOR ALL PANELBOARDS, DISCONNECT SWITCHES, ENCLOSED CIRCUIT BRAKERS, COMBINATION STARTERS, CONTACTORS, AND ALL OTHER ELECTRICAL DISTRIBUTION EQUIPMENT PANELS. MOUNT NAMEPLATES ON EXTERIOR OF THE DOOR OF ALL SURFACE MOUNTED PANELS AND EQUIPMENT. NAME PLATES SHALL BE LAMINATED PLASTIC PLATES WITH 3/16 IN. HIGH WHITE LETTERS ETCHED ON BLACK BACKGROUND. NAME PLATES SHALL BE INSTALLED PARALLEL TO EQUIPMENT LINES. THE NAME OR USEAGE OF EACH DEVICE OR BRANCH CIRCUIT SHALL BE ETCHED IN THE NAMEPLATE. CONTRACTOR TO COORDINATE EXACT EQUIPMENT IDENTIFICATION WITH THE OWNER. SECURE NAMEPLATES VIA EPOXY GLUE.

SECTION E: LIGHTING

1. TYPES AND SPECIFIC REQUIREMENTS ARE PROVIDED ON THE LIGHTING FIXTURE SCHEDULE ON THE PLANS. ALL LIGHT FIXTURES SHALL BE PROVIDED WITH LAMPS, DRIVERS, BALLASTS, AND FULLY FUNCTIONING AT COMPLETION OF PROJECT.
2. ALL LED FIXTURES SHALL BE U.L. LISTED AND HAVE A MINIMUM OF 5 YEAR ON-SITE REPLACEMENT WARRANTY FOR DEFECTIVE OR NON-STARTING LED SOURCE ASSEMBLIES, DRIVERS, AND FOR LUMINAIRES EXHIBITING INADEQUATE LUMEN OUTPUT. IT SHALL COVER MATERIAL, FIXTURE FINISH, WORKMANSHIP, AND SHIPPING. ON-SITE REPLACEMENT SHALL INCLUDE TRANSPORTATION, REMOVAL, AND INSTALLATION OF NEW FIXTURE.
3. RATED LUMINAIRE WATTAGE SHALL BE ACTUAL, ACCOUNTING FOR ANY REDUCTION IN EFFICIENCY DUE TO SUB-OPTIMAL LOADING OF DRIVERS.
4. DRIVERS SHALL BE CAPABLE OF ACCEPTING THE VOLTAGE INDICATED ON THE LIGHTING FIXTURE SCHEDULE AND CAPABLE OF DIMMING IF REQUIRED. DRIVERS SHALL HAVE A CLASS A RATING, TOTAL HARMONIC DISTORTION OF LESS THAN 20%, AND SHALL NOT CONTAIN ANY POLYCHLORINATED BIPHENYL (PCB).
5. ALL LED FIXTURES SHALL BE TESTED TO IES LM-79 AND IES LM-80 STANDARDS. OUTDOOR FIXTURES SHALL BE IP65 RATED. LED'S, DRIVERS AND ALL COMPONENTS SHALL HAVE A SYSTEM LIFETIME OF 50,000 HOURS OR MORE AT 25 DEGREES CELSIUS AND SHALL MAINTAIN A MINIMUM OF 85% OF INITIAL LUMEN OUTPUT AFTER 55,000 HOURS OF OPERATION. LED'S SHALL HAVE COLOR RENDERING INDEX (CRI) OF 80 OR GREATER.
6. ALL SURFACE MOUNTED FIXTURES SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE. ALL CEILING MOUNTED FIXTURES SHALL BE SUPPORTED FROM STRUCTURE AND BRACED TO PREVENT MOVEMENT IF IMPACTED.
7. ALL RECESSED FIXTURES IN LAY IN TYPE CEILINGS SHALL BE PROVIDED WITH GRID CLIPS TO FASTEN FIRMLY TO CEILING SUPPORT GRID. THE CEILING GRID SHALL BE SUPPORTED AT EACH CORNER OF A FIXTURE.
8. CONNECTION TO ALL FIXTURES IN LAYIN CEILING SHALL BE BY FLEXIBLE CONDUIT OF FOUR TO SIX FEET IN LENGTH. A GROUND CONDUCTOR WILL BE INCLUDED WITH THIS CONNECTION.
9. ALL LENSES ON FIXTURES SHALL BE 0.125 INCH THICK MINIMUM. ALL HOUSINGS SHALL BE 22 GAUGE STEEL MIN. AND HAVE A POST FABRICATION HIGH REFLECTIVE WHITE FINISH.

SECTION F: TELEPHONE/DATA SYSTEMS (CONDUIT ONLY)

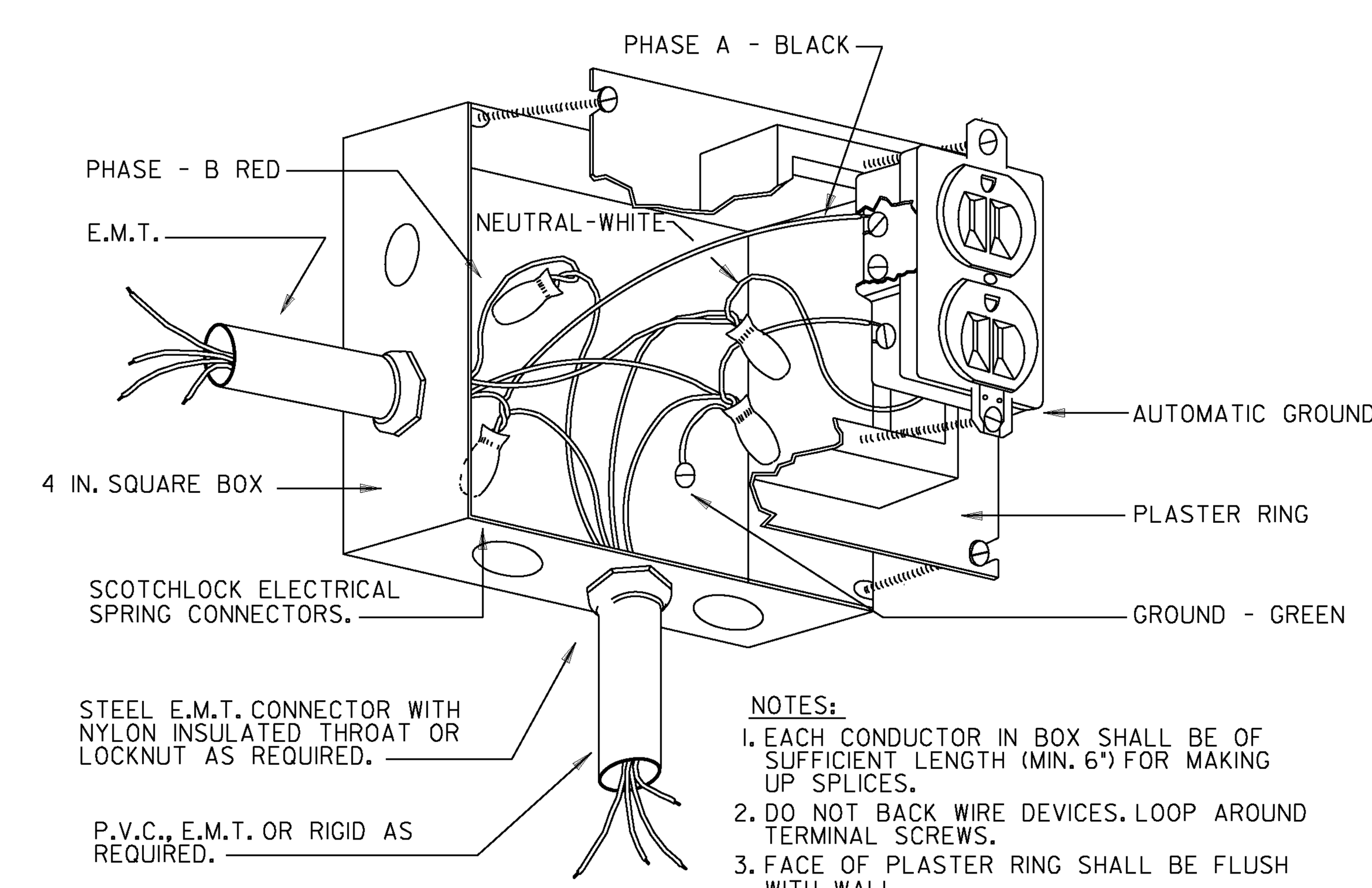
WORK INCLUDED:

1. PROVIDE 3/4 IN. EMT FROM EACH OUTLET TO ABOVE 12 INCHES ABOVE BACKBOARD. PROVIDE 4 IN. SQUARE BACKBOX WITH SINGLE GANG PLASTER RING FOR EACH TELEPHONE/DATA OUTLET. ALL CONDUIT SHALL BE CONCEALED. PROVIDE FACEPLATE WITH MODULAR JACKS. PROVIDE PULL STRING IN ALL EMPTY CONDUITS.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER
A	4 FT LED STRIPLIGHT, WITH FROSTED DIFFUSE LENS, SURFACE/PENDANT MOUNTED, STANDARD 0-10 DIMMING. PROVIDE WIRE GUARD. LAMPS: LED, 5000 LUMENS, 42 WATTS, 3500 DEGREE K DRIVER: UNV. VOLT DRIVER	LITHONIA "CLX" SER., COLUMBIA "MPS" SER., METALUX "SNL" SER., LUMAX "CNLED" SER.
B	VAPOR TIGHT, VANDAL RESISTANT, POLYCARBONITE LENS. LAMPS: LED, 4000 LUMENS MINIMUM, 39 WATTS, 3500 DEGREE K DRIVER: UNV. VOLT	LITHONIA "VAP" SER., METALUX, LIGHTOLIER, COLUMBIA
B1	SAME AS TYPE B.	
C	COMMERCIAL DOWNLIGHT, RECESSED SELF FLANGED, 6 IN. APERTURE CLEAR SPECULAR LOW IRIDESCENT REFLECTOR; ACCESS FROM BELOW OR ABOVE CEILING; STANDARD 0-10 DIMMING. IC RATED. LAMPS: LED, 2000 LUMENS, 23 WATTS, 3500 DEGREE K DRIVER: UNV. VOLT	PRESCOLITE "LTR-6RD" SER., APPROVED EQUALS BY COOPER, LITHONIA, CREE
OA	BUILDING MOUNTED WALL PACK WITH DIE-CAST ALUMINUM HOUSING AND GLASS LENS; UL LISTED FOR WET LOCATION. LAMPS: LED, 5000 LUMENS, 41 WATTS, 4000 DEGREE K DRIVER: UNV. VOLT DRIVER	COOPER INVUE SER., GARDCO, MCGRAW EDISON, SPAULDING, LSI
	ARCHITECURAL LOW PROFILE OUTDOOR LED AC/EMERGENCY UNIT, SELF DIAGNOSTICS STANDARD.(PROVIDE 90 MIN. BACK-UP BATTERY). LAMPS: LED (2) 3W BALLAST:UNV. VOLT	EMERGENCY "DBEL ACEM" SER., COMPASS "CUW" SER., LITHONIA, LIGHTALARMS CAMRAY
⊗	LED THERMOPLASTIC EXIT, IMPACT/SCRATCH RESISTANT AND CORROSION PROOF; TOP, END, OR BACK MOUNTING STANDARD. (PROVIDE 90 MIN. BACK-UP BATTERY). LAMPS: LED (2) 1.5W BALLAST:UNV. VOLT	LITHONIA "LESWIRELN" SER., SURELITE, EMERGI-LITE

NOTES:
1. CONTRACTOR TO VERIFY ALL VOLTAGES, GRID AND CEILING TYPES WITH THE ARCHITECT AND COORDINATE FIXTURE DIMENSION SIZE TO ENSURE A PROPER FIT IN ALL CEILING TYPES PRIOR TO ORDERING.



NOTES:
1. EACH CONDUCTOR IN BOX SHALL BE OF SUFFICIENT LENGTH (MIN. 6") FOR MAKING UP SPLICES.
2. DO NOT BACK WIRE DEVICES. LOOP AROUND TERMINAL SCREWS.
3. FACE OF PLASTER RING SHALL BE FLUSH WITH WALL.

1 / E0.1 TYP. RECEPTACLE CONNECTION DETAIL

NOT TO SCALE

ELECTRICAL LEGEND

	LIGHTING AND POWER
	CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALL, HASH MARKS INDICATE NUMBER OF CONDUCTORS. (3 WIRE UNLESS SHOWN)
	CONDUIT RUN CONCEALED BELOW FLOOR SLAB, OR UNDERGROUND.
A-2,4	HOMERUN TO PANELBOARD, LETTER OR LETTERS INDICATE PANELBOARD. NUMBERS INDICATES CIRCUIT NUMBERS.
	LIGHT FIXTURE, SEE SCHEDULE FOR MOUNTING AND TYPE.
	LIGHT FIXTURE, SEE SCHEDULE FOR MOUNTING AND TYPE. PROVIDE WITH 1100 LUMEN, 90 MINUTE BATTERY PACK.
○	LIGHT FIXTURE, SEE SCHEDULE FOR MOUNTING AND TYPE.
	LIGHTING FIXTURE, WALL BRACKET MOUNTED. (SEE ARCHITECTURAL FOR MOUNTING HEIGHT.)
	JUNCTION BOX FLUSH WALL MOUNTED, 18 IN. TO CENTER LINE UNLESS OTHERWISE NOTED.
	DUPLEX CONVENIENCE OUTLET, 18 IN. ABOVE FLOOR UNLESS OTHERWISE NOTED.
	DUPLEX CONVENIENCE OUTLET, GFI TYPE. 8 IN. ABOVE COUNTER TOP OR 42 IN. MOUNTING HEIGHT.
WP	DUPLEX CONVENIENCE OUTLET, GFI TYPE. 18 IN. MOUNTING HEIGHT. "WP" WHERE SHOWN INDICATES WEATHERPROOF. PROVIDE METAL IN-USE WEATHERPROOF COVERPLATE.
	QUADRUPLEX CONVENIENCE OUTLET. 18 IN. TO CENTERLINE UNLESS OTHERWISE NOTED.
$	SINGLE POLE TOGGLE SWITCH, 42 IN. MOUNTING HEIGHT.
K	KEY SWITCH TO USE "CYLINDER" TYPE KEY. 42 IN. A.F.F. MOUNTING HEIGHT.
$M	MANUAL MOTOR RATED SWITCH.
	PANELBOARD, SEE SCHEDULE.
	DISCONNECT SWITCH, SIZE AS NOTED ON DRAWINGS.
	DATA SYSTEM
	DATA OUTLET, FLUSH WALL MOUNTED AT 8 IN. ABOVE COUNTER TOP OR 42 IN. ABOVE FLOOR.
▷	DATA OUTLET, FLUSH WALL MOUNTED AT 18 IN.
	LIGHTING CONTROL SENSORS (RACEWAY AND BOXES ONLY)
③	COMBINATION 360 DEGREE, ULTRASONIC AND PASSIVE INFRARED SENSOR (WATT STOPPER "DT-300", GREENGATE, NOVITAS, HUBBELL, LEVITON, SENSOR SWITCH).
	INTRUSION ALARM SYSTEM (RACEWAY AND BOXES ONLY)
	INTRUSION ALARM DETECTOR, INFRARED, CEILING MOUNTED UNIT.
K	INTRUSION ALARM KEY PAD, MOUNTED 54 IN. ABOVE FINISHED FLOOR.
CP	INTRUSION ALARM CONTROL PANEL.
DC	DOOR CONTACT. PROVIDE 1/2" CONDUIT TO ACCESS PANELS AND 120V ABOVE FRAME FROM CLOSEST RECEPTACLE.

NOTE: ALL MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET OR DEVICE.

GENERAL NOTES:

A. ALL FLUSH RECESSED OUTLET BOXES SHALL BE INSTALLED SUCH THAT FRONT EDGE OF THE BOX WILL NOT BE SET BACK OF THE FINISHED SURFACE MORE THAN 1/4 IN. IN ORDER TO COMPLY WITH N.E.C. 314-20. SUPPORT OF OUTLET BOX BY RECEPTACLE AND COVERPLATE IS NOT ACCEPTABLE. CAREFULLY COORDINATE ROUGH-IN WITH BLOCK MASONS AND GROUT-IN CELL CONTAINING OUTLET BOX.

B. ALL VOICE AND DATA SYSTEM CABLING, DEVICES AND CONTROL EQUIPMENT BY OTHERS EXCEPT AS NOTED. RACEWAY SYSTEMS ONLY PROVIDED BY ELECTRICAL CONTRACTOR.

C. DO NOT SCALE DRAWINGS TO LOCATE EQUIPMENT OR OUTLETS. MOUNTING HEIGHTS AS INDICATED ON THE DRAWINGS SHALL BE FROM THE FINISHED FLOOR TO THE CENTER LINE OF THE OUTLET BOX.

D. THE ELECTRICAL DRAWINGS ARE ONLY A PART OF THE CONTRACT DOCUMENTS. ALL OF THE DRAWINGS AND SPECIFICATIONS MUST BE REVIEWED FOR THEIR INTERRELATIONSHIP AND REQUIRED COORDINATION BETWEEN DISCIPLINES.

E. ALL RECEPTACLE OUTLETS SHALL BE TAMPER RESISTANT.

ELECTRICAL DESIGN
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Drawing Number E0.1
ISSUE SET
DATE: 4/13/2021

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[illegible]

BLOOMFILED RECERATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

E0.1

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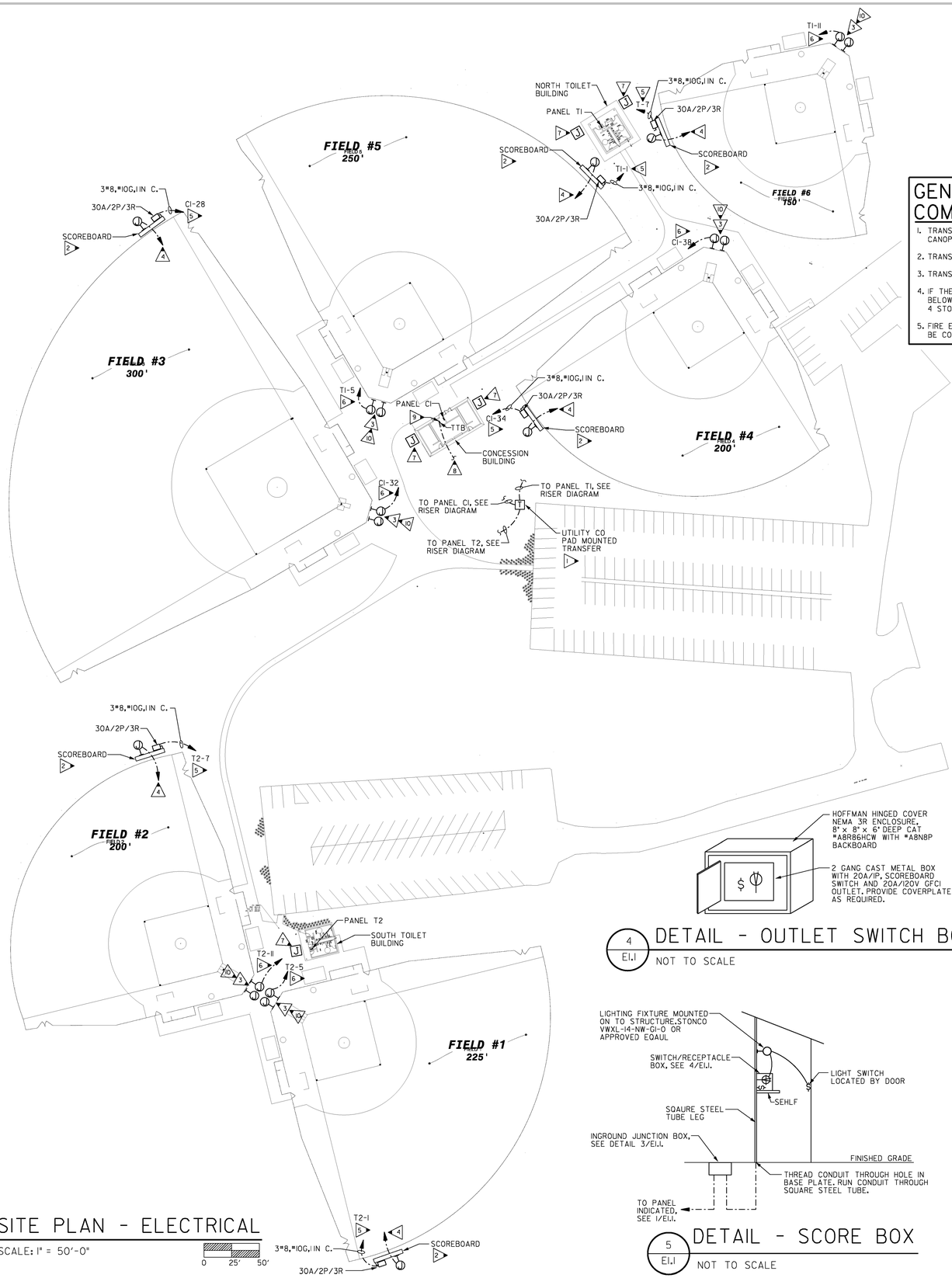


SITE PLAN - ELECTRICAL

1 / E1.1

SCALE: 1" = 50'-0"

0 25' 50'

GENERAL NOTES:

A. SURVEY AND SITE INFORMATION PROVIDED BY OTHERS. VERIFY ALL CONDITIONS ON SITE AND WITH OFFICIAL SURVEYS AND OTHER TRADES.

B. CALL UNDERGROUND UTILITY CENTER AND VERIFY ALL UNDERGROUND UTILITIES.

C. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC.

D. COORDINATE WITH SERVING UTILITY COMPANIES FOR EXACT SERVICE LOCATIONS. CONTRACTOR SHALL PAY ALL ADDITIONAL COSTS TO PROVIDE SERVICES SHOWN.

E. PROVIDE HAND-HOLES AS REQUIRED BY 2020 NEC FOR UNDERGROUND FEEDERS SHOWN.

F. SPORTS LIGHTING AND SITE LIGHTING BY OTHERS.

GENERAL NOTES - LOCATION OF UTILITY COMPANY PAD MOUNTED TRANSFORMER:

1. TRANSFORMER PAD LOCATIONS SHALL BE A MINIMUM OF 10 FT.-0 IN. FROM ANY BUILDING OVERHANGS, CANOPIES, EXTERIOR WALLS, BALCONY, EXTERIOR STAIRS AND OR WALKWAYS CONNECTED TO THE BUILDING.

2. TRANSFORMER PAD EDGE SHALL BE NO LESS THAN 14 FT.-0 IN. FROM ANY DOOR WAY.

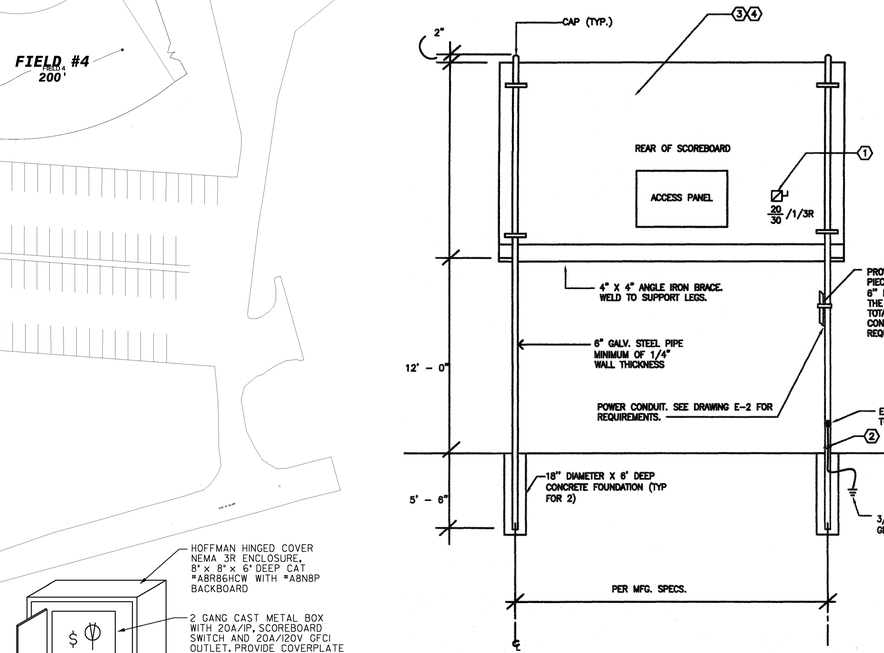
3. TRANSFORMER PAD EDGE SHALL BE NO LESS THAN 10 FT.-0 IN. FROM ANY WINDOWS OR OTHER OPENINGS.

4. IF THE BUILDING HAS ON OVERHANG THE 10 FT.-0 IN. CLEARANCE SHALL BE MEASURED FROM A POINT BELOW THE EDGE OF THE OVERHANG ONLY IF THE BUILDING IS 3 STORIES OR LESS. IF THE BUILDING IS 4 STORIES OR MORE 10 FT.-0 IN. SHALL BE MEASURED FROM THE OUTSIDE BUILDING WALL.

5. FIRE ESCAPES, OUTSIDE STAIRS, AND COVERED WALKWAYS ATTACHED TO OR BETWEEN BUILDINGS, SHALL BE CONSIDERED PART OF THE BUILDING.

KEYED NOTES: (THIS SHEET ONLY)

1. COORDINATE EXACT LOCATION OF POWER COMPANY TRANSFORMER WITH POWER COMPANY, ARCHITECT AND CIVIL ENGINEER.
2. SCOREBOARD, BY OTHERS. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH SCOREBOARD MANUFACTURER PRIOR TO ROUGH-IN. DESIGN BASIS IS 208V/1PH/20A. COORDINATE EXACT LOCATION OF SCOREBOARD WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. SEE DETAIL 2/E1.1.
3. (1) JUNCTION BOX FOR SCORE BOX POWER AND (1) JUNCTION BOX FOR SCOREBOARD CONTROLS. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE QUAZITE PC STYLE JUNCTION BOX OR APPROVED EQUAL AS REQUIRED. SEE DETAIL 3/E1.1.
4. 1"C TO FIELD SCORE BOX JUNCTION BOX FOR CONTROLS.
5. ROUTE SCOREBOARD BRANCH CIRCUIT VIA INGROUND JUNCTION BOX TO SWITCH IN SCORE BOX THEN ROUTE TO SWITCH LOCATED NEXT TO PANEL SERVING SCOREBOARD. SEE KEYED NOTE 7. FOR SWITCH LOCATIONS SEE 1/E2.1, 1/E2.2 AND 3/E2.2.
6. ROUTE SCORE BOX BRANCH CIRCUIT VIA INGROUND JUNCTION BOX TO PANEL INDICATED. SEE KEYED NOTE 7. 3*10, 3/4 IN C.
7. INGROUND JUNCTION BOX FOR SCOREBOARD AND SCORE BOX WIRING. COORDINATE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. PROVIDE QUAZITE PG STYLE JUNCTION BOX OR APPROVED EQUAL. SEE DETAIL 3/E1.1.
8. PROVIDE 2-3 IN.C. FOR TELEPHONE SERVICE AND SPARE. PROVIDE HAND-HOLES AS REQUIRED BY 2020 NEC IN GRASS AREA. COORDINATE STUB-OUT LOCATION AT PROPERTY LINE WITH SERVICE PROVIDERS.
9. STUB UP UNDER TEL BOARD.
10. IN THE SCORE BOX PROVIDE (1) SWITCH FOR SCOREBOARD AND (1) GFCI DUPLEX RECEPTACLE MOUNTED IN NEMA 3R ENCLOSURE. SEE KEYED NOTE 5 AND DETAILS 4 AND 5/E1.1.



SCOREBOARD DETAIL NOTES:

1. CONTRACTOR SHALL INSTALL DISCONNECT SWITCH ONTO THE BACK OF THE SCOREBOARD. LOCATE APPROXIMATELY 24" FROM POINT OF ENTRY INTOTHE BACK OF THE UNIT. MOUNT SUCH THAT THE ACCESS PANEL IS NOT INTERFERED WITH.
2. CONTRACTOR SHALL GROUND EACH SCOREBOARD AS PER THE MANUFACTURER'S REQUIREMENTS. RUN 1 #4 CU IN 1/2" PVC CONDUIT FROM THE GROUND POINT ON THE SCOREBOARD TO A 10' X 3/4" GROUND ROD DRIVEN NEAR ONE OF THE SUPPORT LEGS. CONNECT TO GROUND ROD AS REQUIRED.
3. CONTRACTOR SHALL INSTALL SCOREBOARD AS SHOWN PER MFG. SPECS. SCOREBOARD IS BY OTHERS.
4. CONTRACTOR SHALL PRIME AND PAINT ALL POSTS, STEEL ANGLES AND BRACKETS W/ GALVANIZED PAINT, TWO COATS.

2 / E1.1 DETAIL - SCOREBOARD

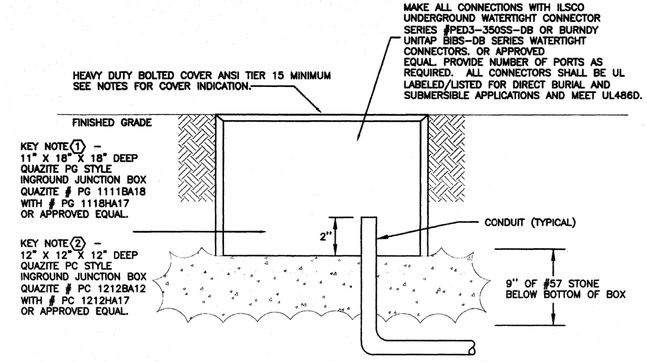
NOT TO SCALE

4 / E1.1 DETAIL - OUTLET SWITCH BOX

NOT TO SCALE

5 / E1.1 DETAIL - SCORE BOX

NOT TO SCALE



3 / E1.1 DETAIL - IN GROUND JUNCTION BOX INSTALLATION

NOT TO SCALE

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EDC# M21039

Drawing Number E1.1
ISSUE SET
DATE: 4/13/2021

BLOOMFILED RECERATION CENTER
NEW CONCESSIONS / TOILETS
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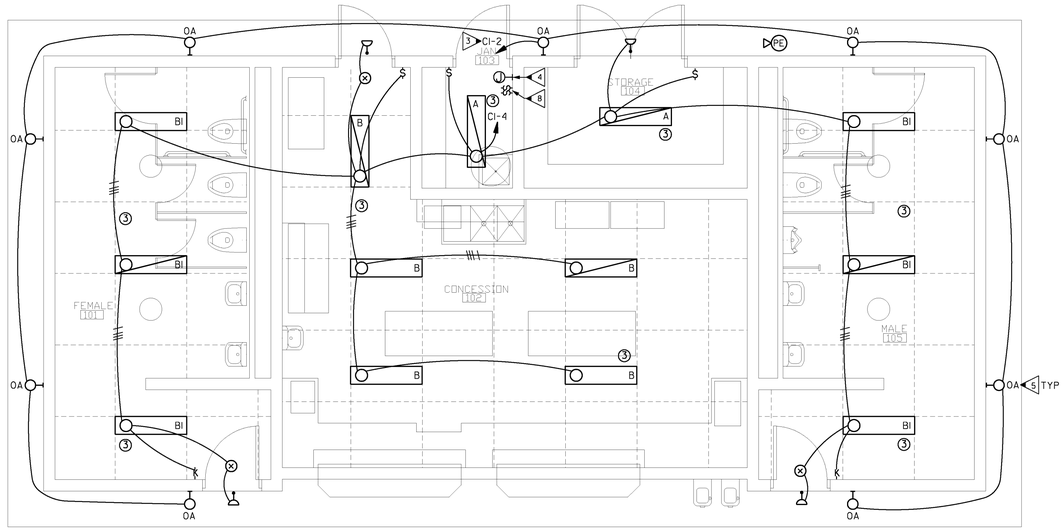


1 E2.1 FLOOR PLAN - CONCESSION LIGHTING

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

0 2' 4'

KEYED NOTES: (THIS SHEET ONLY)

1. TELCO BACKBOARD. SEE E1.1. COORDINATE EXACT REQUIREMENTS WITH OWNER. SEE DETAIL 6/3.1.
2. DISCONNECT AND KNOX BOX, SEE RISER DIAGRAM E3.1.
3. ROUTE VIA EXTERIOR LIGHTING CONTACTOR. ONE 20A1/P CONTACT PER CIRCUIT. CONTROL CONTACTOR BY P.E. CELL MOUNTED ON NORTHSIDE OF BUILDING SHIELDED FROM MAN-MADE LIGHTING SOURCES. MOUNT IN EXTERIOR CAST METAL BOX WITH GASKETED COVER.
4. TIME CLOCK AND CONTACT.
5. COORDINATE MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
6. JUNCTION BOX FOR IRRIGATION CONTROL. COORDINATE EXACT ELECTRICAL REQUIREMENTS AND LOCATION WITH OWNER PRIOR TO ROUGH-IN.
7. INTRUSION ALARM CONTROL PANEL. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
8. PROVIDE AND INSTALL (1) 2 GANG METAL FD BOX WITH (2) 20A 1POLE LIGHT SWITCHES FOR CONTROL OF SCOREBOARDS. PROVIDE PHENOLIC TAG FOR EACH SWITCH INDICATING WITH SCOREBOARD THE SWITCH CONTROLS.
9. TRANSFORMER SUSPENDED FROM STRUCTURE, SEE RISER DIAGRAM AND DETAIL 7/3.1.

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT. PRIOR TO ELECTRICAL ROUGH-IN.

B. ALL FLEXIBLE CONDUIT SHALL BE METALLIC WATERPROOF.

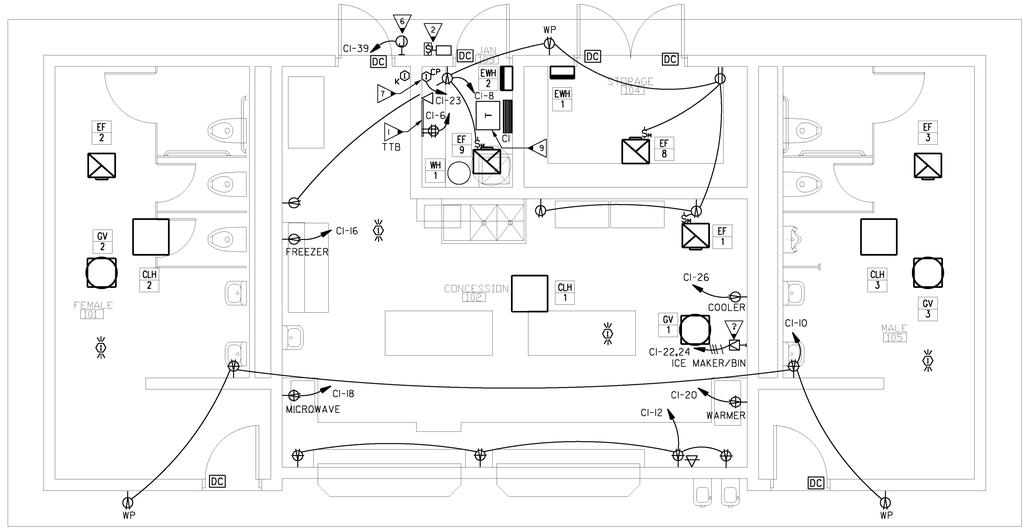
C. COORDINATE FINAL RECEPTACLE AND DATA OUTLET LOCATIONS WITH ARCHITECTURAL CASEWORK AND OWNER PRIOR TO ROUGH-IN. NO EXCEPTIONS.

D. COORDINATE EXACT CONDUIT REQUIREMENTS FOR THERMOSTATS TO ALL AIR HANDLING UNITS. SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS.

E. FIRE SEAL ALL FIREWALL PENETRATIONS.

F. CONTRACTOR TO FIELD VERIFY AND COORDINATE ALL EQUIPMENT UTILITY REQUIREMENTS PRIOR TO START OF ROUGH-IN PER NEC 2020.

G. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC.



2 E2.1 FLOOR PLAN - CONCESSION POWER AND SYSTEMS

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

0 2' 4'

MECHANICAL EQUIPMENT POWER SCHEDULE

UNIT NAME	VOLTAGE/ PHASE	CIRCUIT BREAKER	PANEL NAME/ CIRCUIT NUMBER	FEEDER	DISCONNECT SWITCH	NOTES
EWH-1	208V/1Ø	25A/2P	CI-17	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
EWH-2	120V/1Ø	20A/1P	CI-21	3#12,1/2 IN C.	MOTOR RATED SWITCH	1
EWH-3	120V/1Ø	20A/1P	TI-10	3#12,1/2 IN C.	MOTOR RATED SWITCH	1
EWH-4	120V/1Ø	20A/1P	T2-10	3#12,1/2 IN C.	MOTOR RATED SWITCH	1
CLH-1	208V/1Ø	30A/2P	CI-5	4#10,3/4 IN C.	MOTOR RATED SWITCH	1
CLH-2	208V/1Ø	25A/2P	CI-9	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
CLH-3	208V/1Ø	25A/2P	CI-13	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
CLH-4	208V/1Ø	25A/2P	TI-12	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
CLH-5	208V/1Ø	25A/2P	TI-16	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
CLH-6	208V/1Ø	25A/2P	T2-12	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
CLH-7	208V/1Ø	25A/2P	T2-16	3#12,#10G,1/2 IN C.	MOTOR RATED SWITCH	1
EF-1	115/1Ø	20A/1P	SEE NOTE 5	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,3,5
EF-2	115/1Ø	20A/1P	SEE NOTE 4	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,4
EF-3	115/1Ø	20A/1P	SEE NOTE 4	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,4
EF-4	115/1Ø	20A/1P	SEE NOTE 4	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,4
EF-5	115/1Ø	20A/1P	SEE NOTE 4	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,4
EF-6	115/1Ø	20A/1P	SEE NOTE 4	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,4
EF-7	115/1Ø	20A/1P	SEE NOTE 4	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,4
EF-8	115/1Ø	20A/1P	SEE NOTE 5	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,3,5
EF-9	115/1Ø	20A/1P	SEE NOTE 5	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,2,5
EF-10	115/1Ø	20A/1P	SEE NOTE 5	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,2,5
EF-11	115/1Ø	20A/1P	SEE NOTE 5	3#12,1/2 IN C.	MOTOR RATED SWITCH	1,2,5
WH-1	208V/1Ø	60A/2P	CI-2	3#6,#10G,1IN C.	60A/2P	
WH-2	208V/1Ø	90A/2P	TI-13	3#3,#8G,1/4 IN C.	100A/2P	
WH-3	208V/1Ø	90A/2P	T2-13	3#3,#8G,1/4 IN C.	100A/2P	

NOTES:
1. SEE MECHANICAL FOR EXACT CONTROL REQUIREMENTS.
2. PROVIDE WALL SWITCH ADJACENT LIGHT SWITCH FOR CONTROL.
3. FAN SHALL BE CONTROLLED BY LINE VOLTAGE THERMOSTAT.
4. INTERLOCK AND POWER FAN VIA LIGHTING CIRCUIT IN AREA SERVED. PROVIDE TIME DELAY RELAY (15 MIN.).
5. POWER FAN VIA RECEPTACLE CIRCUIT LOCATED IN ROOM SERVING, SEE FLOOR PLAN.

ELECTRICAL DESIGN
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Drawing Number E2.1
ISSUE SET
DATE: 4/13/2021

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GEORGIA REGISTERED 031787 PROFESSIONAL ENGINEER JEFFREY H. McGEE

BLOOMFILED RECERATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

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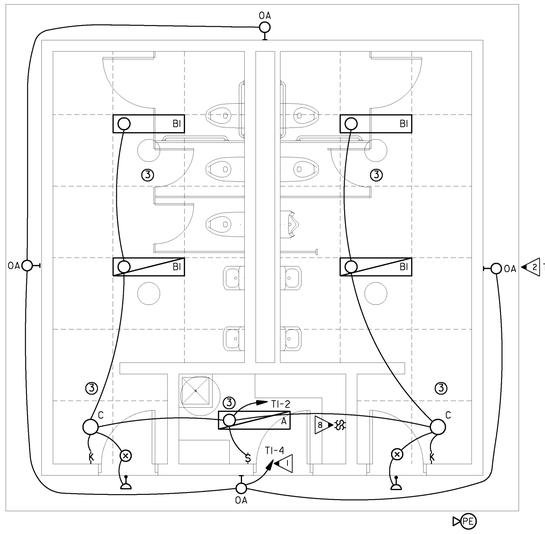
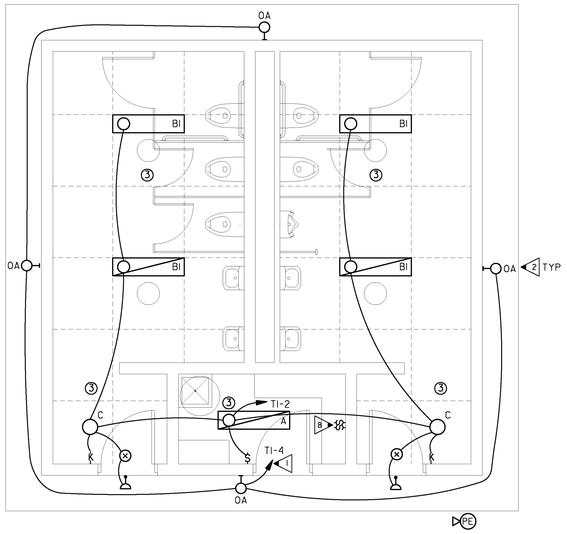


1 E2.2 FLOOR PLAN - NORTH TOILET LIGHTING

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

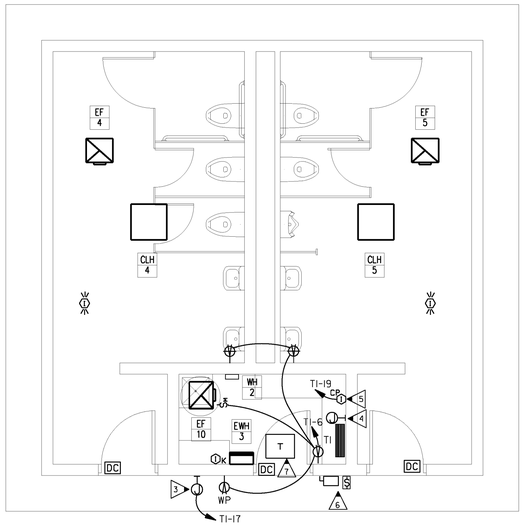
0 4' 8'



3 E2.2 FLOOR PLAN - SOUTH TOILET LIGHTING

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

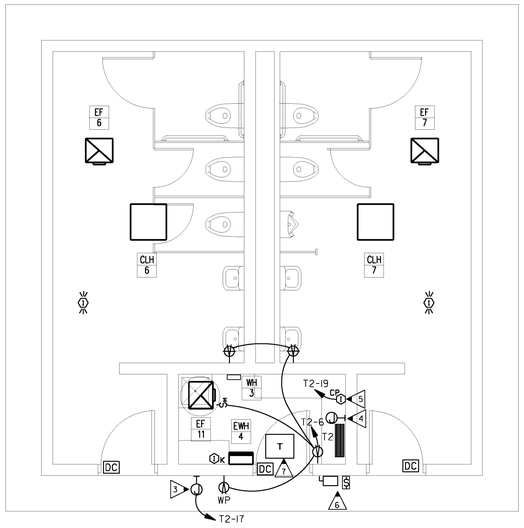
0 4' 8'



2 E2.2 FLOOR PLAN - NORTH TOILET POWER AND SYSTEMS

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

0 4' 8'



4 E2.2 FLOOR PLAN - SOUTH TOILET POWER AND SYSTEMS

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

0 4' 8'

KEYED NOTES: (THIS SHEET ONLY)

1. ROUTE VIA EXTERIOR LIGHTING CONTACTOR. ONE 20AI/P CONTACT PER CIRCUIT. CONTROL CONTACTOR BY P.E. CELL MOUNTED ON NORTHSIDE OF BUILDING SHIELDED FROM MAN-MADE LIGHTING SOURCES. MOUNT IN EXTERIOR CAST METAL BOX WITH GASKETED COVER.
2. COORDINATE MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
3. JUNCTION BOX FOR IRRIGATION CONTROL. COORDINATE EXACT ELECTRICAL REQUIREMENTS AND LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. TIME CLOCK AND CONTACT.
5. INTRUSION ALARM CONTROL PANEL. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
6. DISCONNECT AND KNOX BOX, SEE RISER DIAGRAM E3.1.
7. TRANSFORMER SUSPENDED FROM STRUCTURE, SEE RISER DIAGRAM AND DETAIL 7/3.1.
8. PROVIDE AND INSTALL (1) 2 GANG METAL FD BOX WITH (2) 20A 1POLE LIGHT SWITCHES FOR CONTROL OF SCOREBOARDS. PROVIDE PHENOLIC TAG FOR EACH SWITCH INDICATING WITH SCOREBOARD THE SWITCH CONTROLS.

GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT. PRIOR TO ELECTRICAL ROUGH-IN.

B. ALL FLEXIBLE CONDUIT SHALL BE METALLIC WATERPROOF.

C. COORDINATE FINAL RECEPTACLE AND DATA OUTLET LOCATIONS WITH ARCHITECTURAL CASEWORK AND OWNER PRIOR TO ROUGH-IN. NO EXCEPTIONS.

D. COORDINATE EXACT CONDUIT REQUIREMENTS FOR THERMOSTATS TO ALL AIR HANDLING UNITS. SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS.

E. FIRE SEAL ALL FIREWALL PENETRATIONS.

F. CONTRACTOR TO FIELD VERIFY AND COORDINATE ALL EQUIPMENT UTILITY REQUIREMENTS PRIOR TO START OF ROUGH-IN PER NEC 2020.

G. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC.

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Drawing Number E2.2

ISSUE SET DATE: 4/13/2021

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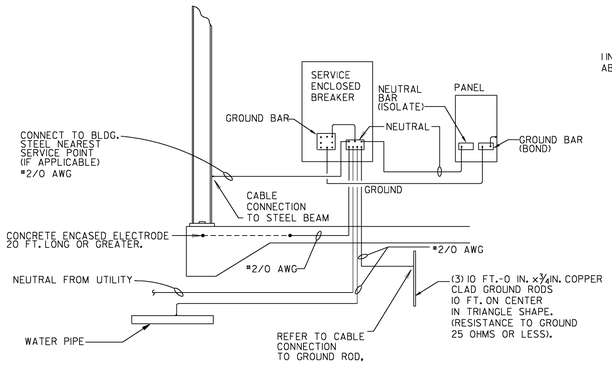
PROJECT NUMBER 20-119

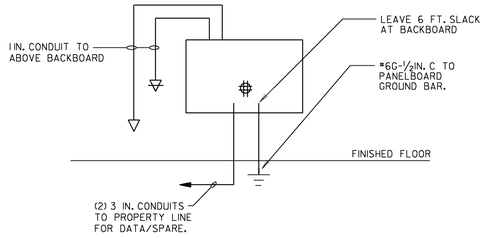
E2.2

ISSUE SET
DATE: 4/13/2021



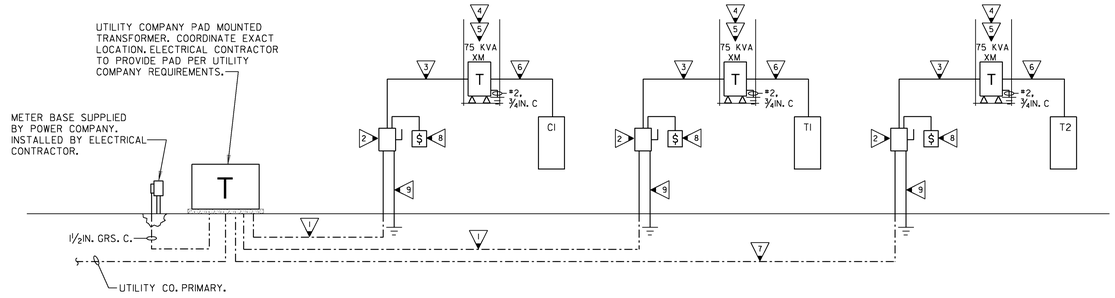
2 E3.1 SERVICE GROUNDING DETAIL

NOT TO SCALE



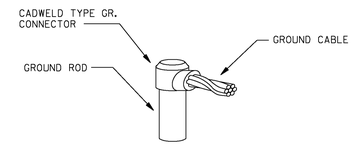
6 E3.1 TELEPHONE RISER

NOT TO SCALE



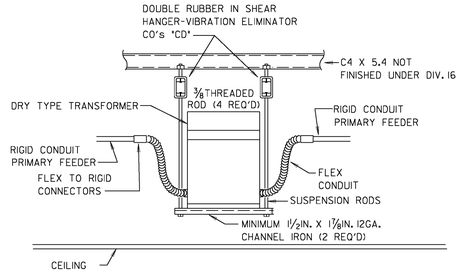
1 E3.1 POWER RISER DIAGRAM

NOT TO SCALE



3 E3.1 CABLE CONNECTION TO GROUND ROD

NOT TO SCALE

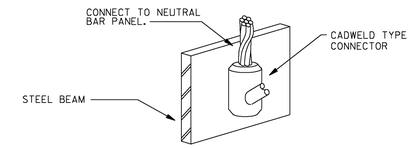


7 E3.1 SUSPENDED TRANSFORMER DETAIL

NOT TO SCALE

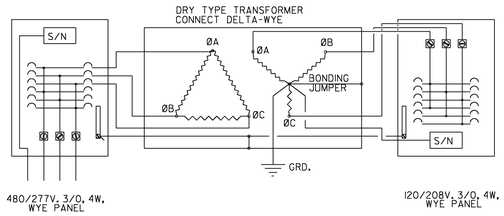
KEYED NOTES: (THIS SHEET ONLY)

1. 4#1/0,2 IN C.
2. 150A/3P/3R SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER. COORDINATE AIC RATING WITH POWER COMPANY.
3. 4#1/0,#6G, 2 IN C.
4. SEE TRANSFORMER CONNECTION DETAIL, 8/E3.1.
5. SEE SUSPENDED TRANSFORMER DETAIL, 7/E3.1.
6. 4#4/0,#4G,2 1/2 IN C.
7. 4#2/0,2 IN C. (SIZED FOR VOLTAGE DROP, APROX. DISTANCE IS 450 FEET).
8. SURFACE MOUNTED NEMA 3R KNOX REMOTE POWER BOX PRODUCT NUM. "MKT-KBSPEC-0169". CONNECT TO 150A, (480/277V), 3PH ENCLOSED CIRCUIT BREAKER WITH SHUNT TRIP TO REMOTELY DISCONNECT POWER.
9. SEE SERVICE GROUNDING DETAIL 2/E3.1.



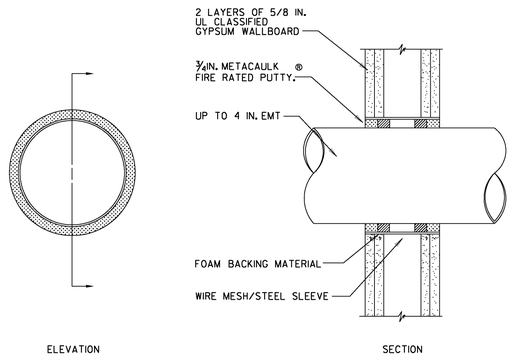
4 E3.1 CABLE CONNECTION TO STEEL BEAM

NOT TO SCALE



8 E3.1 DRY TYPE TRANSFORMER CONNECTION

NOT TO SCALE



NOTE: WHERE CONDUIT IS USED AS A SLEEVE FOR ROUTING LOW VOLTAGE CABLES THROUGH A RATED WALL, LOCATE CONDUCTORS IN CENTER OF SLEEVE AND FILL OPENING WITH FIRE RATED PUTTY AT EACH END OF SLEEVE. COORDINATE EXACT REQUIREMENT WITH DIVISION 7.

5 E3.1 DETAIL - GYPSUM WALLBOARD PENETRATION

NOT TO SCALE

VOLTAGE 120/208 | PHASE 3 WIRE 4 | BUS AMPS 225 | PANEL C1 | MAIN AMPS 225 | LOCATION MOUNTING MAIN | JAN 103 SURFACE BREAKER

DESCRIPTION	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	BRKR AMP	P	CKT NO	BUS CONN	CKT NO	P	BRKR AMP	VOLT AMPS C	VOLT AMPS B	VOLT AMPS A	DESCRIPTION
WH-1	4493			60	2	1	A	2	1	20			533	LIGHTING
		4493				3	B	4	1	20		369		EXTR LIGHTING
CLH-1			2496	30	2	5	C	6	1	20	500			TTB
	2496					7	A	8	1	20			150	RECEPTS/EX FANS
CLH-2		1997		25	2	9	B	10	1	20		800		RECEPTS
			1997			11	C	12	1	20	800			RECEPTS
CLH-3	1997			25	2	13	A	14	1	20				SPARE
		1977				15	B	16	1	20		460		FREEZER
EWH-1			2000	25	2	17	C	18	1	20	1200			MICROWAVE
	2000					19	A	20	1	20			648	WARMER
EWH-2		1500		20	1	21	B	22	2	20		1344		ICE MAKER
SECURITY PANEL			100	20	1	23	C	24	1		1344			
IRRIGATION CONTROLS	100			20	1	25	A	26	1	20			345	COOLER
SPARE				20	1	27	B	28	2	20		800		FIELD 3 SCOREBOARD
SPARE				20	1	29	C	30	1		800			
SPARE				20	1	31	A	32	1	20			1000	FIELD 3 SCORE BOX
SPARE				20	1	33	B	34	2	20		800		FIELD 4 SCOREBOARD
SPARE				20	1	35	C	36			800			
SPACE					1	37	A	38	1	20			1000	FIELD 4 SCORE BOX
SPACE					1	39	B	40	1	20				SPARE
SPACE					1	41	C	42	1	20				SPARE
TOTALS	11086	9967	6593								5444	4573	4676	

VOLT AMPS — BUS A 15762 | BUS B 14540 | BUS C 12037 | TOTAL 42339

REMARKS: COORDINATE AIC RATING WITH POWER CO. PROVIDE FEED THRU LUGS

VOLTAGE 120/208 | PHASE 3 WIRE 4 | BUS AMPS 225 | PANEL T2 | MAIN AMPS 225 | LOCATION MOUNTING MAIN | TOILETS SOUTH SURFACE BREAKER

DESCRIPTION	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	BRKR AMP	P	CKT NO	BUS CONN	CKT NO	P	BRKR AMP	VOLT AMPS C	VOLT AMPS B	VOLT AMPS A	DESCRIPTION
FIELD 1SCOREBOARD	800			20	1	1	A	2	1	20			254	TOILET LTS
		800				3	B	4	1	20		164		EXTR BLDG LTS
FIELD 1SCORE BOX			1000	20	1	5	C	6	1	20	850			TOILET RECEPTS
FIELD 2 SCOREBOARD	800			20	2	7	A	8	1	20				SPARE
		800				9	B	10	1	20		1500		EWH-4
FIELD 2 SCORE BOX			1000	20	1	11	C	12	2	25	1997			CLH-6
WH-3	6968			90	2	13	A	14					1997	
		6968				15	B	16	2	25		1997		CLH-7
IRRIGATION CONTROLS			100	20	1	17	C	18			1997			
SECURITY PANEL	100			20	1	19	A	20	1	20				SPARE
SPARE				20	1	21	B	22	1	20				SPARE
SPARE				20	1	23	C	24	1	20				SPARE
SPACE					1	25	A	26	1					SPACE
SPACE					1	27	B	28	1					SPACE
SPACE					1	29	C	30	1					SPACE
TOTALS	8668	8568	2100								4844	3661	2251	

VOLT AMPS — BUS A 10919 | BUS B 12229 | BUS C 6944 | TOTAL 30092

REMARKS: COORDINATE AIC RATING WITH POWER CO. 30 POLE PANEL.

VOLTAGE 120/208 | PHASE 3 WIRE 4 | BUS AMPS 225 | PANEL T1 | MAIN AMPS 225 | LOCATION MOUNTING MAIN | TOILETS NORTH SURFACE BREAKER

DESCRIPTION	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	BRKR AMP	P	CKT NO	BUS CONN	CKT NO	P	BRKR AMP	VOLT AMPS C	VOLT AMPS B	VOLT AMPS A	DESCRIPTION
FIELD 5 SCOREBOARD	800			20	2	1	A	2	1	20			254	TOILET LTS
		800				3	B	4	1	20		164		EXTR BLDG LTS
FIELD 5 SCORE BOX			1000	20	1	5	C	6	1	20	850			TOILET RECEPTS
FIELD 6 SCOREBOARD	800			20	2	7	A	8	1	20				SPARE
		800				9	B	10	1	20		1500		EWH-3
FIELD 6 SCORE BOX			1000	20	1	11	C	12	2	25	1997			CLH-4
WH-2	6968			90	2	13	A	14					1997	
		6968				15	B	16	2	25		1997		CLH-5
IRRIGATION CONTROLS			100	20	1	17	C	18			1997			
SECURITY PANEL	100			20	1	19	A	20	1	20				SPARE
SPARE				20	1	21	B	22	1	20				SPARE
SPARE				20	1	23	C	24	1	20				SPARE
SPACE					1	25	A	26	1					SPACE
SPACE					1	27	B	28	1					SPACE
SPACE					1	29	C	30	1					SPACE
TOTALS	8668	8568	2100								4844	3661	2251	

VOLT AMPS — BUS A 10919 | BUS B 12229 | BUS C 6944 | TOTAL 30092

REMARKS: COORDINATE AIC RATING WITH POWER CO. 30 POLE PANEL.

ELECTRICAL DESIGN CONSULTANTS, INC.
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MACON, GA 31201
EDC# M21039

Drawing Number E3.1 ISSUE SET DATE: 4/13/2021

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GEORGIA REGISTERED PROFESSIONAL ENGINEER JEFFREY H. McGEE

BLOOMFILED RECERATION CENTER
NEW CONCESSIONS / TOILETS
MACON, GEORGIA

PROJECT NUMBER 20-119

E3.1 ISSUE SET DATE: 4/13/2021