CONSOLIDATED SET FOR CITY OF LEE'S SUMMIT - 05/10/21

JOHN KNOX VILLAGE MEADOWS

PHASE II

LEE'S SUMMIT, MO

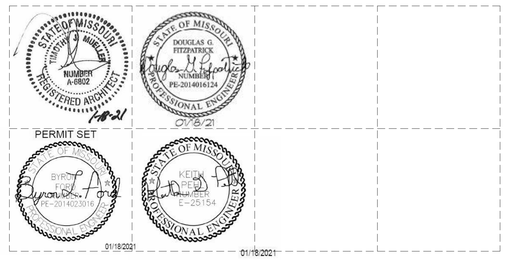
PERMIT SET
VOLUME ONE

DATE: JANUARY 18, 2021

REVISED FOR BID SET: FEBRUARY 25, 2021

COMM. NO. 19132.00

VICINITY MAP



LOCATION MAP

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

Joe Frogge

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THIS SET INCLUDES REVISIONS THAT WERE MADE THROUGH THE PERMITTING PROCESS. REVISION TAGS APPEAR IN THE TITLEBLOCK, BUT THIS IS CONSIDERED THE CLEAN, CONSOLIDATED PERMIT SET. 02/25/21

GENERAL NOTES

1. All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
2. All protection fencing shall be installed prior to demolition/construction activity.
3. Contractor shall verify location of all utilities prior to any excavation or construction activity.
4. Existing storm & structures shall be excavated and removed.
5. Contractor shall provide protective fencing around the critical root zone of all existing trees to remain.

09 DEMOLITION NOTES

01 REMOVE & DISPOSE OF EXISTING ASPHALT.

02 REMOVE & DISPOSE OF EXISTING CURB.

03 REMOVE AND DISPOSE OF CONCRETE SIDEWALK.

06 REMOVE ELECTRIC STRUCTURES AND ASSOCIATED UNDERGROUND SERVICE LINES.

07 REMOVE & DISPOSE OF EXISTING UNDERGROUND FIBER.

08 REMOVE EXISTING SANITARY MANHOLE AND SERVICE LINE.

09 REMOVE & DISPOSE OF EXISTING BUILDING.

11 SAW CUT EXISTING PAVEMENT TO FULL DEPTH AND CLEAN EDGE.

12 EXISTING ASPHALT TO BE MILLED AND OVERLAYED, MINIMUM OF 2" TO BE MILLED AND OVERLAYED.

13 REMOVE & DISPOSE OF EXISTING RETAINING WALL.

14 REMOVE & SALVAGE EXISTING LIGHT POLE.

15 REMOVE & DISPOSE OF EXISTING STORM STRUCTURE AND PIPE.

16 REMOVE & DISPOSE OF EXISTING COMMUNICATION LINES.

17 REMOVE & DISPOSE OF EXISTING CURB INLET AND PROTECT END OF PIPE.

18 REMOVE TRUNK AND MAJOR ROOT STRUCTURE. ALL ROOTS 2 INCHES IN DIAMETER AND LARGER SHALL BE REMOVED AND SUITABLE PLANTING SOIL WILL BE PLACED TO FINISHED GRADE.

05

CONTRACTOR BID NOTE

1. Many existing site structures and features shown on this plan have already been abated and demolished by others. General Contractor to perform all remaining work required from status at the time of the pre-bid meeting.

DEMOLITION LEGEND

- SAW CUT LINE
- EXISTING BUILDING TO BE REMOVED
- ASPHALT PAVEMENT TO BE REMOVED
- ASPHALT PAVEMENT TO BE MILLED & OVERLAYED
- CONCRETE SIDEWALK TO BE REMOVED

GRAPHIC SCALE
40 0 40

MENU

CADD VERSION	
PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

BHC RHODES
Civil Engineering • Surveying • Utilities
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STATE OF MISSOURI
ERIC R. BYRD
NUMBER PE-2018013633
03/10/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
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www.sfcs.com

PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021
05	ADDENDUM 1	03/10/2021

DRAWING TITLE

NORTH DEMOLITION PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C1.0	SHEET 1 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

DEMOLITION LEGEND

- SAW CUT LINE
- EXISTING BUILDING TO BE REMOVED
- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE SIDEWALK TO BE REMOVED

GENERAL NOTES

1. All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
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4. Existing storm & structures shall be excavated and removed.
5. Contractor shall provide protective fencing around the critical root zone of all existing trees to remain.

DEMOLITION NOTES

00

01 REMOVE & DISPOSE OF EXISTING ASPHALT.

02 REMOVE & DISPOSE OF EXISTING CURB.

03 REMOVE AND DISPOSE OF CONCRETE SIDEWALK.

04 REMOVE & DISPOSE OF EXISTING BUILDING.

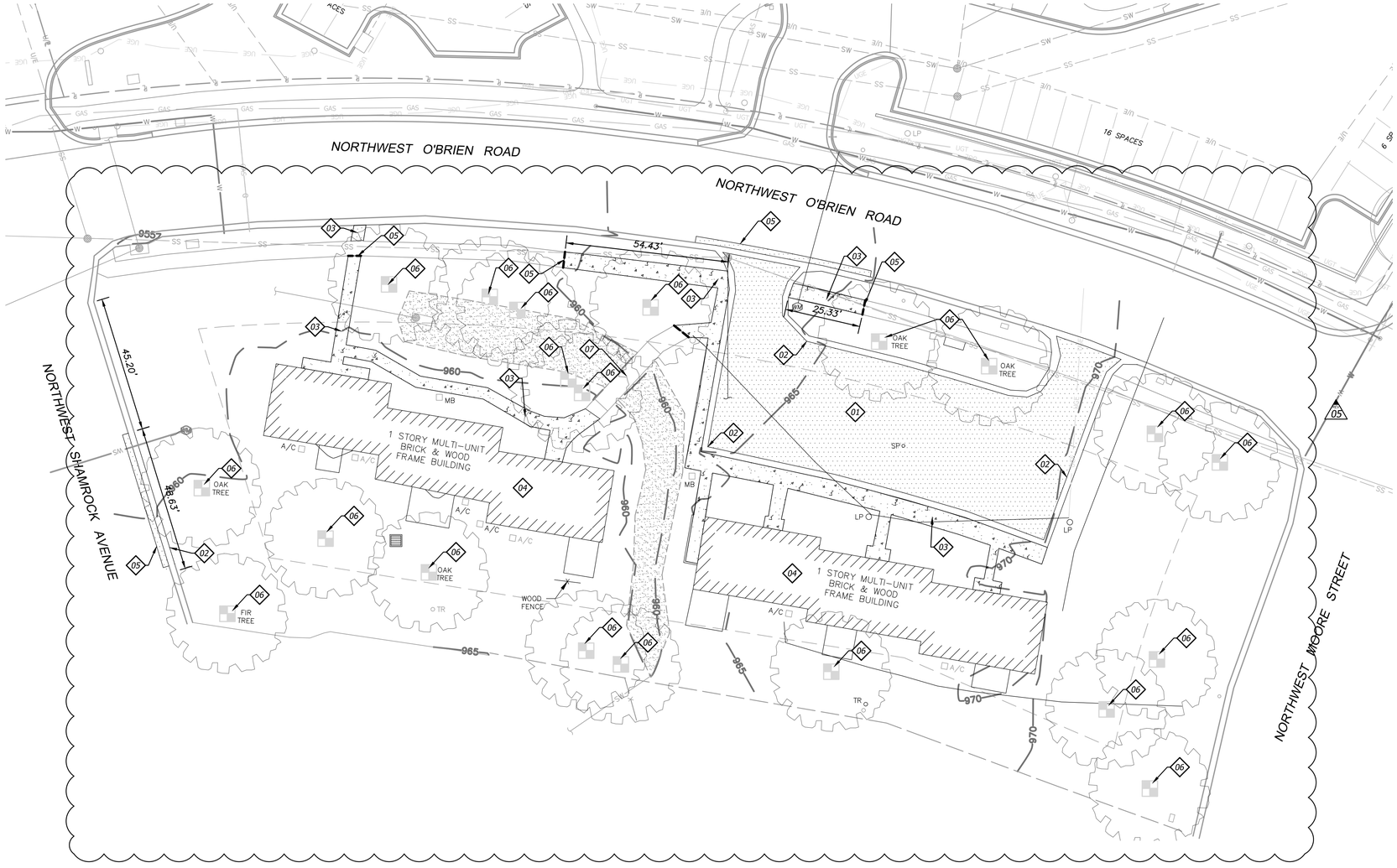
05 SAW CUT EXISTING PAVEMENT TO FULL DEPTH AND CLEAN EDGE.

06 REMOVE TRUNK AND MAJOR ROOT STRUCTURE. ALL ROOTS 2 INCHES IN DIAMETER AND LARGER SHALL BE REMOVED AND SUITABLE PLANTING SOIL WILL BE PLACED TO FINISHED GRADE

07 PROTECT EXISTING PEDESTRIAN BRIDGE TO REMAIN.

CONTRACTOR BID NOTE

1. Many existing site structures and features shown on this plan have already been abated and demolished by others. General Contractor to perform all remaining work required from status at the time of the pre-bid meeting.



GRAPHIC SCALE
20 0 20

MENU

CAD VERSION	
PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

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STATE OF MISSOURI
ERIC R. BYRD
NUMBER PE-2018013633
PROFESSIONAL ENGINEER
05/10/2021

PROJECT TITLE

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PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

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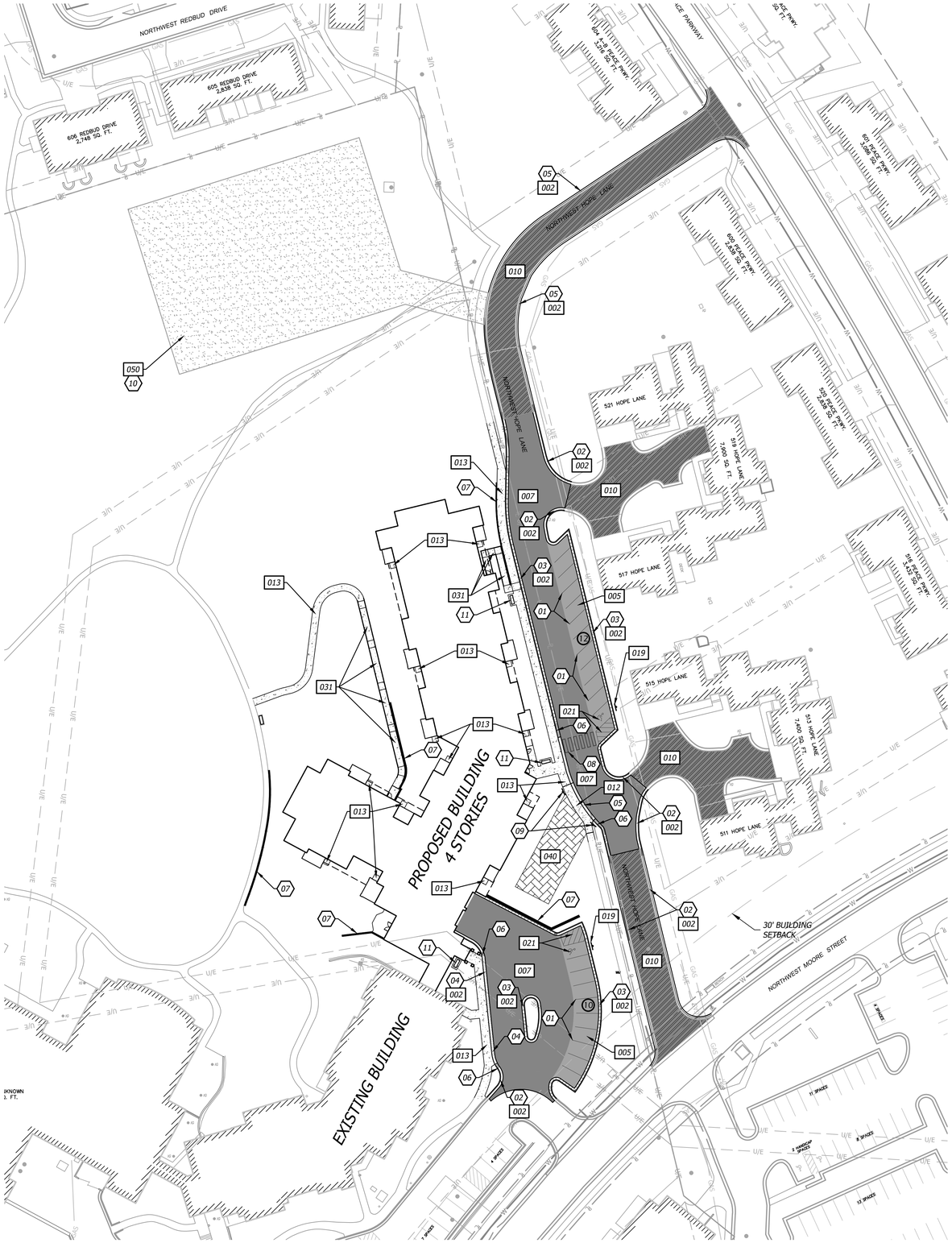
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021
05	ADDENDUM 1	03/10/2021

DRAWING TITLE

SOUTH DEMOLITION PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C1.1	SHEET 2 OF 29



GENERAL NOTES

1. CONTRACTOR TO PROVIDE & MAINTAIN 8' CHAIN LINK SECURITY FENCE FOR THE DURATION OF THE PROJECT.

SITE DATA

BUILDING	
TOTAL FLOOR AREA:	89,930 SF
NUMBER OF DWELLING UNITS:	52
LAND AREA:	6.13 AC
PARKING	
PARKING REQUIRED 1 PER DWELLING UNIT	52
PARKING PROVIDED:	53 GARAGE 22 SURFACE 1 HANDICAP (1 VAN)
IMPERVIOUS SURFACE:	49,500 SF
FLOOR AREA RATIO:	0.34

ZONING

PMIX (PLANNED MIXED USE)

LEGAL DESCRIPTION

John Knox Retirement Village 13th Plat Lots 1A & 2A.

OIL - GAS WELLS

ACCORDING TO THE DNR OIL AND GAS LOGS FOR THE COUNTY OF JACKSON, THERE ARE NOT OIL AND GAS WELLS NEAR THE PROPERTY AS SURVEYED HEREON.

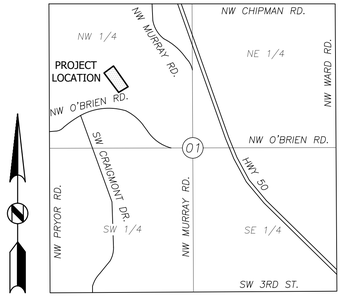
000 DETAILS

SEE CONSTRUCTION DETAILS

002	CONCRETE CURB & GUTTER
005	MEDIUM DUTY ASPHALT PAVEMENT
007	HEAVY DUTY ASPHALT PAVEMENT
010	ASPHALT PAVEMENT OVERLAY
012	CONCRETE PAVEMENT SECTION
013	CONCRETE SIDEWALK SECTION
019	(ADA) HANDICAP PARKING SIGNAGE
021	(ADA) HANDICAP PARKING STRIPING
022	SIDEWALK RAMP
031	ADA ACCESSIBLE CONCRETE RAMP
040	GRASS PAVER FIRE LANE
050	DESIGNATED CONTRACTOR PARKING

00 CONSTRUCTION NOTES

01	LEAD FREE, WATER-BORNE EMULSION BASED WHITE TRAFFIC PAINT FOR PARKING LOT STRIPING.
02	WET CURB & GUTTER.
03	DRY CURB & GUTTER.
04	WET ZERO-HEIGHT CURB.
05	ROLL BACK CURB.
06	TRANSITION CURB. REFER TO GRADING PLAN.
07	ENGINEERED MODULAR BLOCK RETAINING WALL. CONTRACTOR RESPONSIBLE FOR THE ENGINEERING DESIGN OF WALL.
08	CROSSWALK ROAD STRIPING
09	FIRE LANE SIGNAGE
10	CONTRACTOR TO PROVIDE DESIGNATED CONTRACTOR PARKING. CONTRACTOR TO GRADE AND RESTORE AREA TO ORIGINAL CONDITION UPON PROJECT COMPLETION
11	CONTRACTOR TO INSTALL BENCH



SECTION MAP

SECTION 01-T47N-R32W

SITE LEGEND

- (#) PARKING STALL COUNT
- PROPOSED BUILDING
- STANDARD CURB & GUTTER
- RETAINING WALL
- FULL DEPTH ASPHALT PAVEMENT
- ASPHALT PAVEMENT OVERLAY
- CONCRETE SIDEWALK
- STANDARD CURB & GUTTER
- DRY CURB & GUTTER
- ZERO HEIGHT CURB
- TRANSITION CURB
- ROLLOVER CURB & GUTTER

GRAPHIC SCALE

40 0 40

MENU

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APPROVED BY	:	

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DRAWING TITLE

NORTH SITE PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C2.0	SHEET 3 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

SITE DATA

LAND AREA:	44,752 SF
PARKING	
PARKING PROVIDED:	48 STALLS
IMPERVIOUS SURFACE:	21,100 SF

ZONING

PMIX (PLANNED MIXED USE)

LEGAL DESCRIPTION

John Knox Retirement Village 8th Plat Resurvey Lot 4.

OIL - GAS WELLS

ACCORDING TO THE DNR OIL AND GAS LOGS FOR THE COUNTY OF JACKSON, THERE ARE NOT OIL AND GAS WELLS NEAR THE PROPERTY AS SURVEYED HEREON.

SITE LEGEND

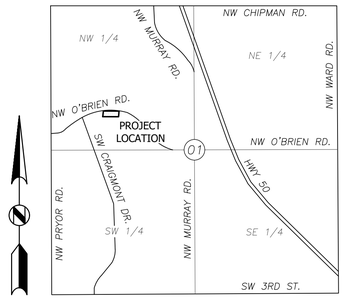
- (#) PARKING STALL COUNT
- STANDARD CURB & GUTTER
- FULL DEPTH ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- STANDARD CURB & GUTTER
- DRY CURB & GUTTER
- ZERO HEIGHT CURB
- TRANSITION CURB

000 DETAILS

SEE CONSTRUCTION DETAILS
001 CONCRETE DRIVEWAY ENTRANCE
002 CONCRETE CURB & GUTTER
005 MEDIUM DUTY ASPHALT PAVEMENT
007 HEAVY DUTY ASPHALT PAVEMENT
013 CONCRETE SIDEWALK SECTION
022 SIDEWALK RAMP
605 ENERGY DISSIPATER (RIP RAP)

00 CONSTRUCTION NOTES

01 LEAD FREE, WATER-BORNE EMULSION BASED WHITE TRAFFIC PAINT FOR PARKING LOT STRIPING.
02 WET CURB & GUTTER.
03 DRY CURB & GUTTER.
04 WET ZERO-HEIGHT CURB.
05 DRY ZERO-HEIGHT CURB.
06 TRANSITION CURB. REFER TO GRADING PLAN.
07 W11-2 AND W16-7P CROSSING SIGNAGE WITH CARMANAH R920 SOLAR RECTANGULAR RAPID FLASHING BEACON (RRFB) AND PEDESTRIAN PUSH BUTTON.
08 COMPOSITE FENCE TO MATCH JKV-MEMORY CARE 3 FENCE.
09 CROSSWALK ROAD STRIPING



SECTION MAP
SECTION 01-T47N-R32W

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20 0 20

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03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

DRAWING TITLE

SOUTH SITE PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C2.1	SHEET 4 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

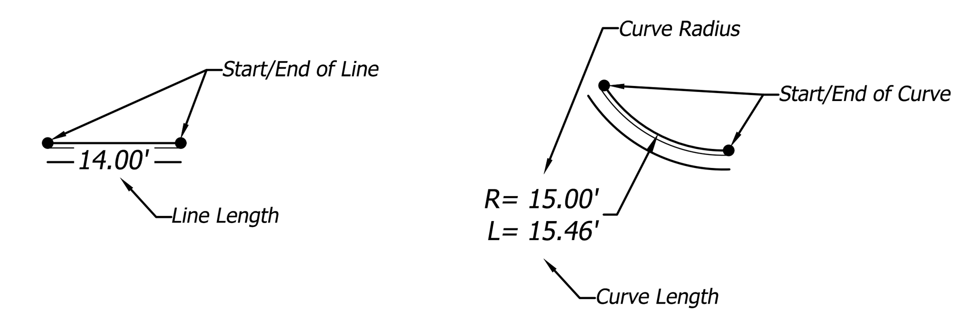
SITE LEGEND

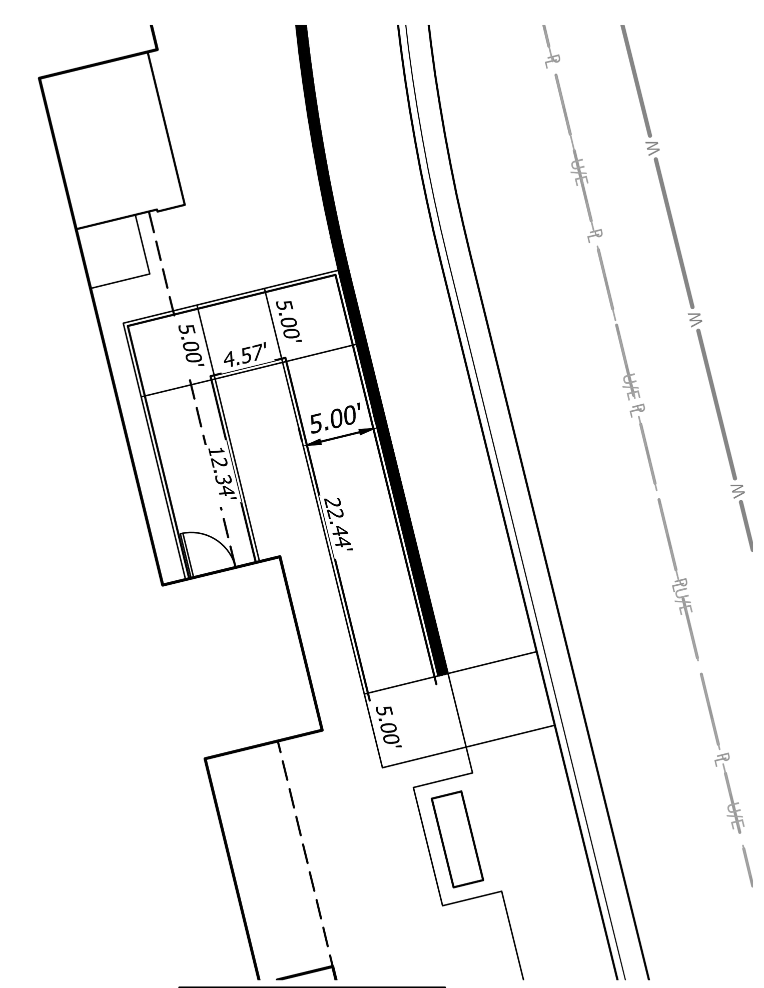
PROPOSED BUILDING

STANDARD CURB & GUTTER

RETAINING WALL

DIMENSION LEGEND





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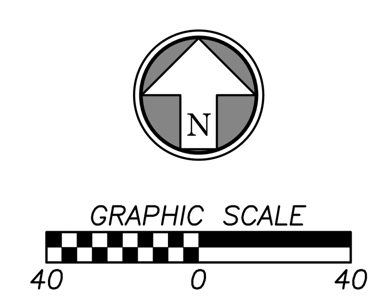

MENU

CADD VERSION

PLOT SCALE

PLOT DATE

COMM NO.

DRAWING NO.

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STATE OF MISSOURI
ERIC BYRD
NUMBER PE-2018013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village

Meadows Building - Phase II

SFCS
Architecture
Engineering
Planning
Interiors

SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

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DRAWING TITLE

NORTH DIMENSION PLAN

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020

DRAWING	SHEET
C2.2	5 OF 29

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

ADDRESS UNKNOWN
79,795 SQ. FT.

NORTHWEST O'BRIEN ROAD

NORTHWEST O'BRIEN ROAD

NORTHWEST SHAMROCK AVENUE

NORTHWEST MOOR

2 HANDICAP SPACES

3 SPACES

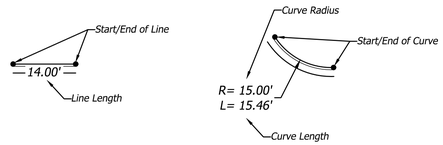
3 SPACES

3 SPACES

16 SPACES

WOOD FENCE

DIMENSION LEGEND



MENU

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PLOT SCALE
PLOT DATE
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GRAPHIC SCALE
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DRAWING TITLE

SOUTH DIMENSION PLAN

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING C2.3	SHEET 6 OF 29

GRADING LEGEND

- RETAINING WALL
- 980 — FINISH GRADE MAJOR CONTOURS
- 982 — FINISH GRADE MINOR CONTOURS
- 980 — EXISTING GRADE MAJOR CONTOURS
- 982 — EXISTING GRADE MINOR CONTOURS
- STM — PROPOSED STORM SEWER LINE
- ℄ — PROPERTY LINE
- R/W — RIGHT-OF-WAY LINE

GRADING GENERAL NOTES

1. Contractor shall obtain a copy of the Geotechnical Services Report, prepared by KTI on January 18, 2021, for the project and satisfy himself as to the existing conditions and recommendations contained in the report.
2. As discussed in the Geotechnical Report, over excavation of existing unsuitable soils will be required under building and pavement areas. Contractor shall perform over excavation of unsuitable soils as a part of this work.
3. Contractor shall obtain soils suitable as structural fill from off-site sources. All borrow materials must be tested and approved by the Geotechnical Engineer prior to importing the soils to the project site.
4. Contractor shall operate under the terms and permits included in the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project and permitted through the State of Missouri. Contractor shall employ a qualified person to conduct regular inspections of the site erosion control measures and document such inspections in the SWPPP document maintained by the Contractor, as required by AHJ's.
5. All topsoil, vegetation, root structures, and deleterious materials shall be stripped from the ground surface prior to the placement of embankments. Contractor shall obtain the on-site geotechnical representative's acceptance of the existing ground surface materials and the proposed fill material prior to the placement of fill. Topsoil stockpile location on-site to be approved by the Owner.
6. All proposed contour lines and spot elevations shown are finish ground elevations. Contractor shall account for pavement depths, building pads, topsoil, etc when grading the site.
7. All disturbed areas that are not to be paved (green spaces) shall be finish graded with a minimum of six inches of topsoil. Contractor to import topsoil as required to meet this requirement without adjustment to the contract price.
8. All excavation and embankments shall comply with the recommendations provided by the geotechnical engineer.
9. Prior to placing any concrete or asphalt pavement the contractor shall perform a proof roll of the pavement sub-grade with a fully loaded tandem axle dump truck. The proof roll shall be conducted in the presence of the Engineer and the on-site geotechnical representative. Areas that display rutting or pumping that are unsatisfactory to the engineer shall be re-worked and a follow-up proof roll shall be conducted prior to acceptance of the sub-grade for paving. The contractor may, at its own expense, stabilize the sub-grade using Class C fly ash or quicklime.
10. Finished grades shall not be steeper than 3:1.
11. A 2.0% maximum cross slope shall be maintained on all pedestrian sidewalks and paths.
12. Contractor to provide all-inclusive unit price for rock excavation per CY, to include breaking of rock, excavation of rock, suitable off-site disposal of rock, and replacement with suitable fill material per the project requirements."

FLOOD STATEMENT

The subject property lies within Flood Zone " X " (unshaded) (Areas determined to be outside the 0.2% annual chance floodplain.), as shown on the Jackson County, Missouri and Incorporated Areas Flood Insurance Rate Map (F.I.R.M.).

Map Number: 29095C0416G
Panel No: 416 of 625
Map Revised Date: January 20, 2017

NOTE: This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.

BENCHMARKS (DATUM: NAVD88)

BM/CP #5002
SET CUT "+" ± ℄ OF CONCRETE SIDEWALK IN EAST CURB RETURN, NORTH SIDE OF NORTHWEST O'BRIEN ROAD
NORTH = 1002910.185
EAST = 2814693.406
ELEVATION = 963.93

BM/CP #13314
SET CUT "+" IN CONCRETE SIDEWALK, SOUTHWEST CORNER OF NORTHWEST MOORE STREET & NORTHWEST HOPE LANE (NOT SHOWN HEREON)
NORTH = 1003090.460
EAST = 2815069.800
ELEVATION = 974.62

BM/CP #13315
SET CUT "+" IN CONCRETE SIDEWALK, NORTHEAST CORNER OF NORTHWEST O'BRIEN ROAD & NORTHWEST MOORE STREET (NOT SHOWN HEREON)
NORTH = 1002830.710
EAST = 2814916.010
ELEVATION = 974.65

GRAPHIC SCALE
40 0 40

RELEASE FOR CONSTRUCTION
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LEE'S SUMMIT, MISSOURI
05/10/2021

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STATE OF MISSOURI
ERIC "BYRON" [illegible]
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

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Meadows Building - Phase II

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DRAWING TITLE

OVERALL GRADING PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C3.0	SHEET 7 OF 29

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
COMM NO.
DRAWING NO.

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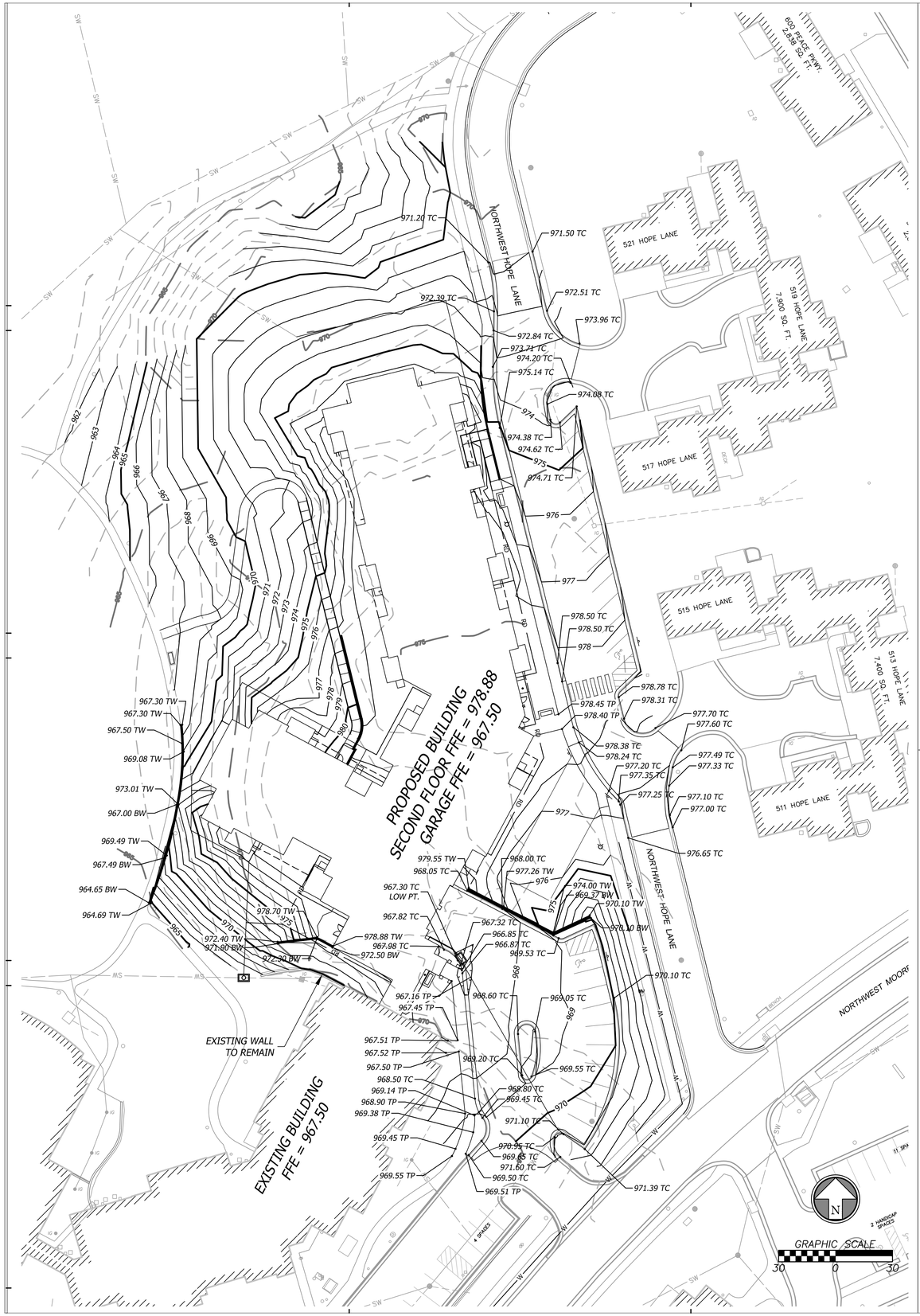
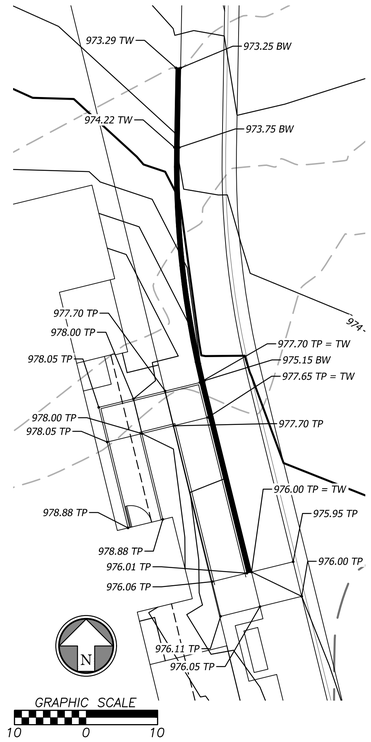
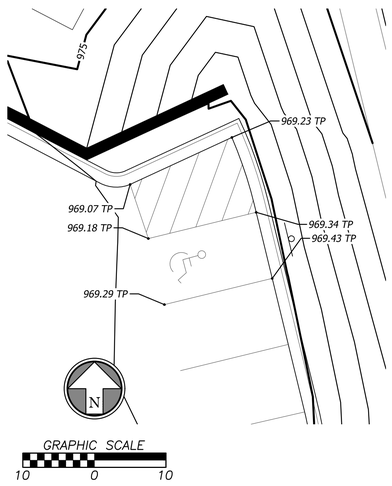
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021





GRADING DETAIL 1



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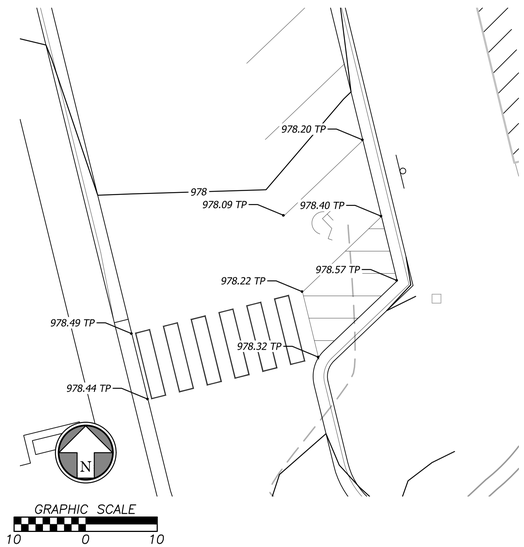

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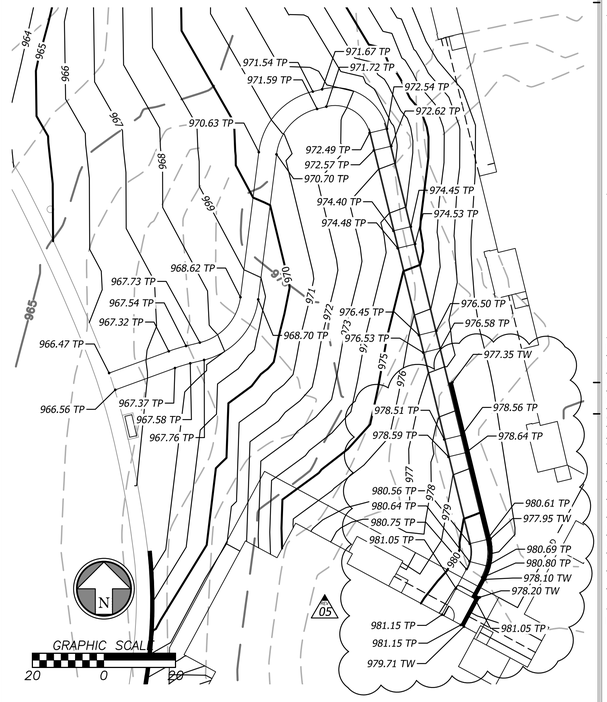

GRADING DETAIL 4

MENU

CAD VERSION	
PLOT SCALE	
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STATE OF MISSOURI
ERIC R. BYRD
NUMBER PE-2010013633
03/10/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

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05	ADDENDUM 1	03/10/2021

DRAWING TITLE

NORTH GRADING PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C3.1	SHEET 8 OF 29

RELEASE FOR CONSTRUCTION
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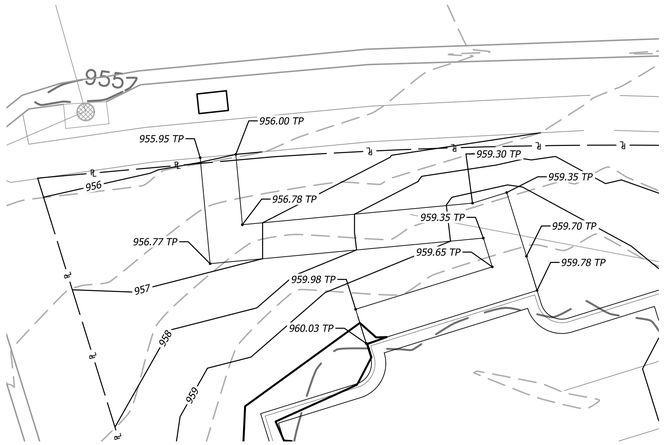
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



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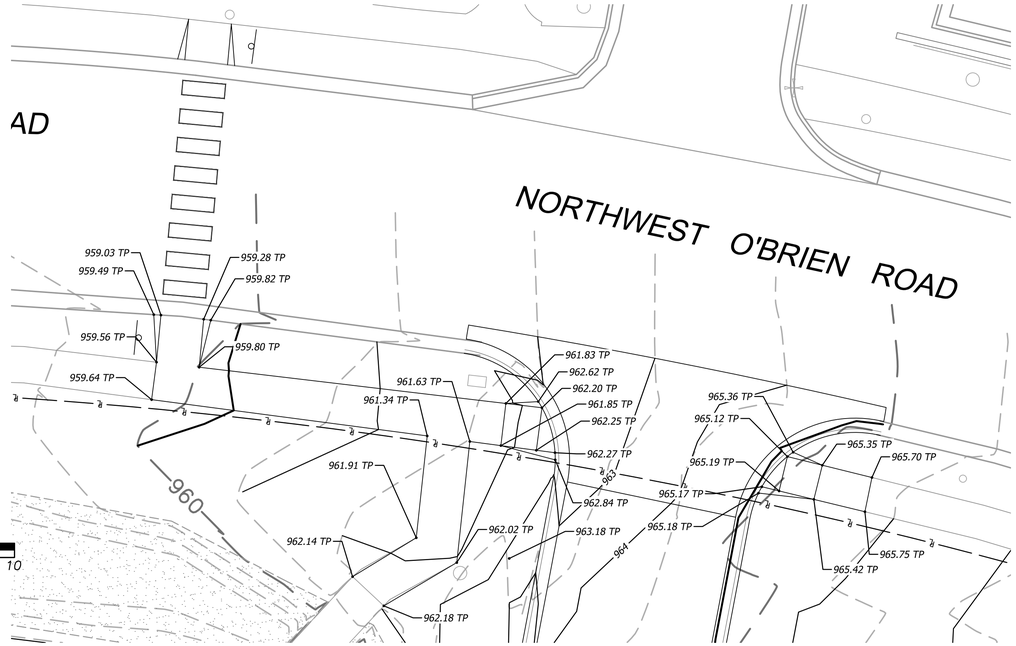

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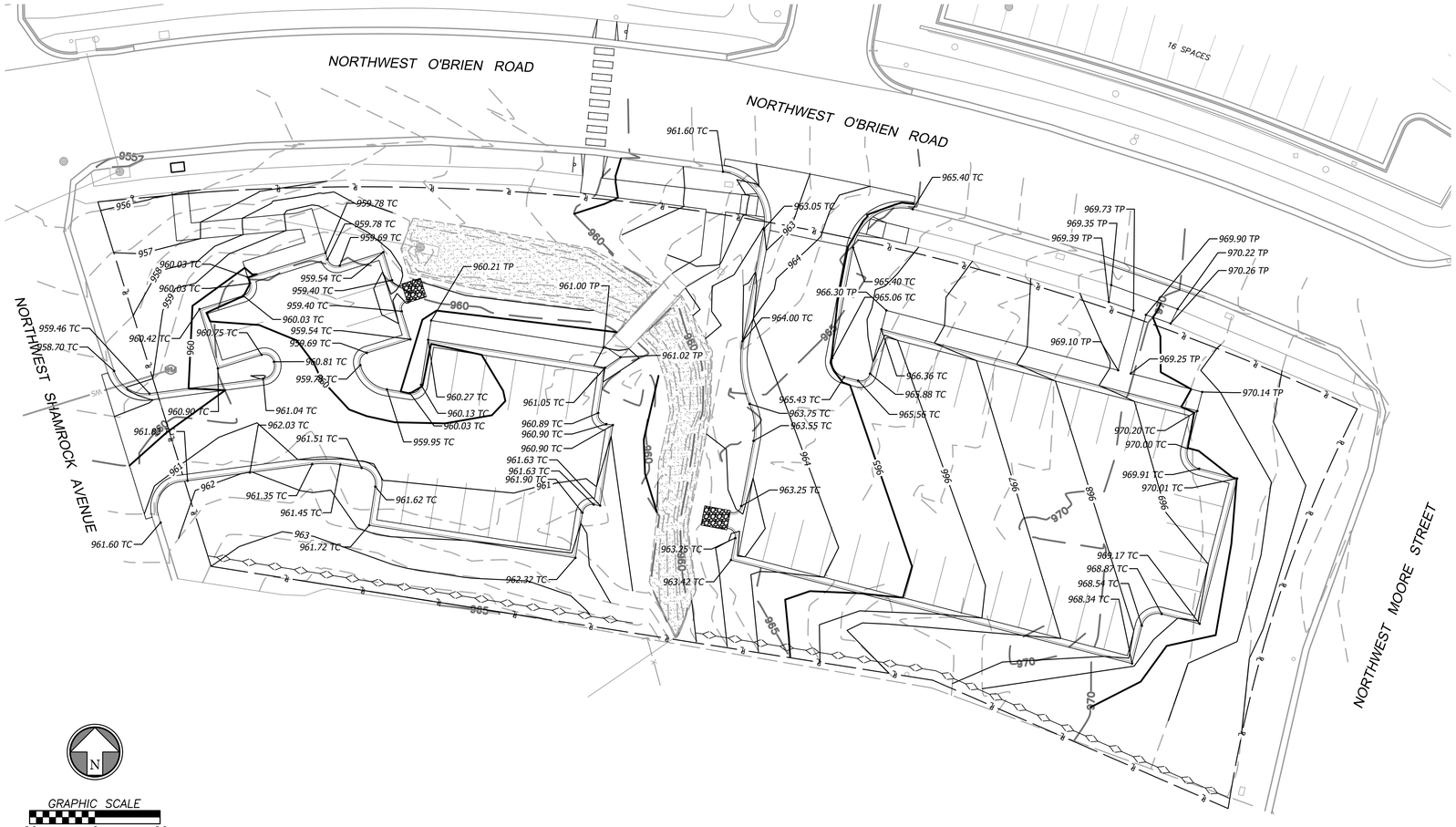

GRAPHIC SCALE
20 0 20

MENU

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PLOT SCALE	
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DRAWING NO.	

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02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

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SOUTH GRADING PLAN

COMM. NO.	DATE
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DRAWING C3.2	SHEET 9 OF 29

RELEASE FOR CONSTRUCTION
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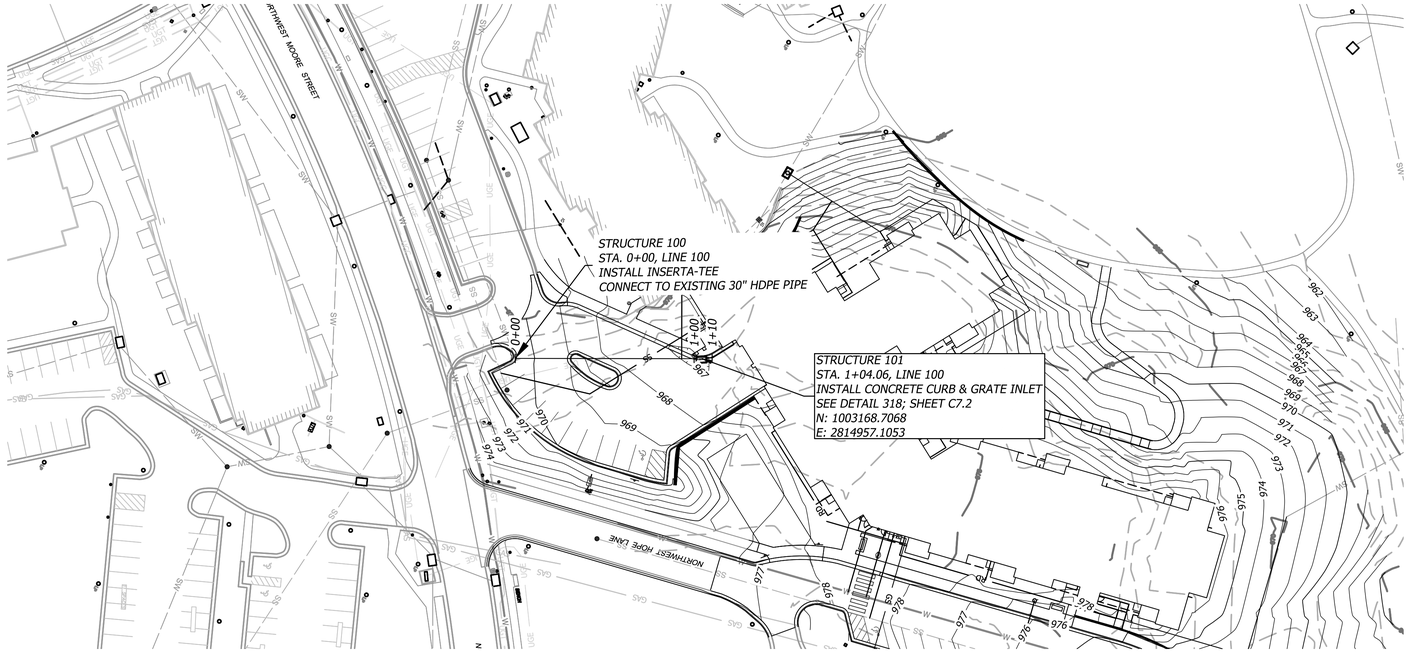
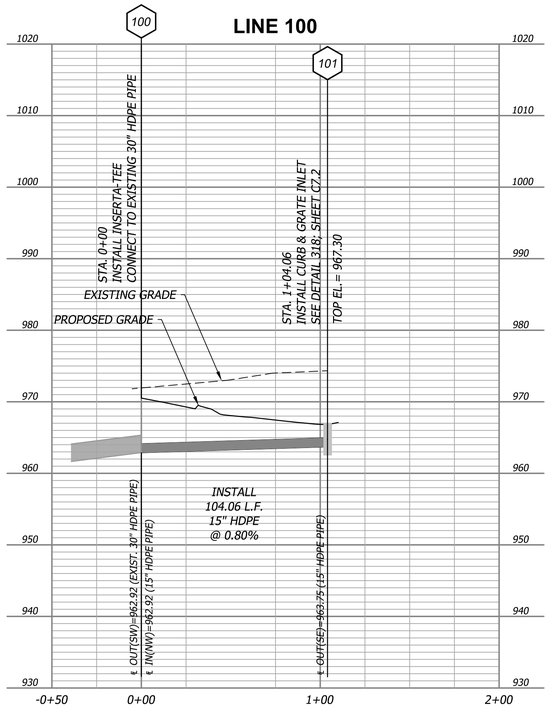
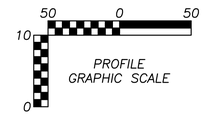
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

STORM NOTE

ALL NORTHINGS, EASTINGS, AND ALIGNMENT STATIONING FOR STORM STRUCTURES ARE TO CENTER OF STRUCTURE UNLESS STATED OTHERWISE.







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MENU

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EROSION CONTROL LEGEND

- DISTURBED AREA (3.95 AC)
- SF — SILT/SEDIMENT FENCE
- INLET PROTECTION FILTER BAGS
- CONSTRUCTION ENTRANCE
- CONCRETE CLEANOUT

000 DETAILS

- *SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING*

600 TEMPORARY CONSTRUCTION ENTRANCE
601 FILTER FABRIC SILT FENCE
603 ROCK BAG DROP INLET BARRIER
613 CONCRETE WASH-OUT

N

GRAPHIC SCALE
60 0 60

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. Prior to Land Disturbance activities, the contractor shall:
   - Delineate the outer limits of any natural stream corridor designated with construction fencing.
   - Install perimeter controls and request the inspection of the pre-construction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
   - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and sediment control plan.

2. The contractor shall comply with all requirements of the Storm Water Pollution Prevention Plan, including but not limited to:
   - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
   - The contractor shall perform inspections of erosion and sediment control measures at the following minimum intervals:
     - o During active construction phases - at least once per week
     - o During periods of inactivity - at least once per 14 days
     - o After each rainfall event of ½ inch or more - within 24 hours of the rain event
   - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The inspection log shall be available for review by the regulatory authority.
   - The contractor shall have the erosion and sediment control plan routinely updated to show all changes and amendments to the plan. A copy of the erosion and sediment control plan shall be kept on site and made available for review by the regulatory authority.

3. Unless otherwise noted in the plans, all seeding must conform to Division II-Construction and Materials Specification-Section 2150 published by the Kansas City Metropolitan Chapter of the American Public Works Association dated May 21, 2008. Permanent seeding shall be installed after completion of final grading except when seeding will occur outside of the acceptable seeding season as specified in Section 2150. When temporary seeding is installed, permanent seeding shall be installed at the next seeding season. Temporary seeding shall not be used as a stabilization measure for a period exceeding 12 months. The Permit will not be closed until permanent seeding has been established to a minimum of 70% density over the entire disturbed area.

4. The contractor shall maintain installed erosion and sediment control devices in a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel.

5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMPs in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.

6. Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc. may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place.

7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials stored outside must be in closed and sealed water-proof containers and located outside of drainage ways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

8. Silt fences and erosion control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction; however, anticipated disturbance by utility construction shall not delay installation.

9. Interior Silt Fence as necessary during construction. Portions may be limited as vegetation is established and hardscape is installed. Entire length may be installed at the contractor's option to aid in stabilizing slopes.

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE–CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	C	Place as shown on plan
		02	Construction Entrance & Staging Area	C	Place as shown on plan
		03	Concrete Wash–Out	C	Place as shown on plan
		04	Existing Inlet Protection	C	Place as shown on plan
Phase II (MID–CON)	B – After Utility Storm Sewer Construction	05	Storm Inlet Protection	C	Place as shown on plan
Phase III (POST–CON)	C – Final Grading, Paving & Landscaping	06	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.

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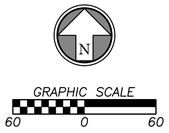
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

DRAWING TITLE

PRE-CONSTRUCTION EROSION CONTROL PLAN

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING C5.0	SHEET 11 OF 29



EROSION CONTROL LEGEND

- DISTURBED AREA (3.95 AC)
- SF — SILT/SEDIMENT FENCE
- INLET PROTECTION FILTER BAGS
- CONSTRUCTION ENTRANCE
- CONCRETE CLEANOUT

000 DETAILS

- SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING

600 TEMPORARY CONSTRUCTION ENTRANCE
601 FILTER FABRIC SILT FENCE
603 ROCK BAG DROP INLET BARRIER
613 CONCRETE WASH-OUT

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE-CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	C	Place as shown on plan
		02	Construction Entrance & Staging Area	C	Place as shown on plan
		03	Concrete Wash-Out	C	Place as shown on plan
		04	Existing Inlet Protection	C	Place as shown on plan
Phase II (MID-CON)	B – After Utility Storm Sewer Construction	05	Storm Inlet Protection	C	Place as shown on plan
Phase III (POST-CON)	C – Final Grading, Paving & Landscaping	06	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
COMM NO.
DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

BHC RHODES
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STATE OF MISSOURI
ERIC BYRD
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
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PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

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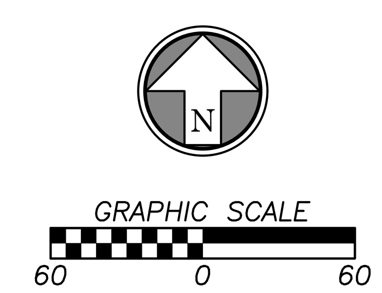
DRAWING TITLE

DURING CONSTRUCTION EROSION CONTROL PLAN

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING C5.1	SHEET 12 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



EROSION CONTROL LEGEND

- DISTURBED AREA (3.95 AC)
- FINAL SEEDING (SOD &/OR LANDSCAPING)
- IMPERVIOUS AREA

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE–CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	C	Place as shown on plan
		02	Construction Entrance & Staging Area	C	Place as shown on plan
		03	Concrete Wash–Out	C	Place as shown on plan
		04	Existing Inlet Protection	C	Place as shown on plan
Phase II (MID–CON)	B – After Utility Storm Sewer Construction	05	Storm Inlet Protection	C	Place as shown on plan
Phase III (POST–CON)	C – Final Grading, Paving & Landscaping	06	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
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ERIC BYRD
NUMBER PE-2018013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

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Interiors
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DRAWING TITLE

POST-CONSTRUCTION EROSION CONTROL PLAN

COMM. NO. 19132.00
DATE DECEMBER 18, 2020
DRAWING C5.2
SHEET 13 OF 29

MENU

CAD VERSION	
PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

X 00 UTILITY CONSTRUCTION NOTES

W - WATER SERVICE INFORMATION - CITY OF LEE'S SUMMIT

08 *01 NEW 12" C900 WATER MAIN LINE. SEE SHEET C6.2*

02 CONTRACTOR TO INSTALL DOMESTIC TAP VALVE ON MAIN LINE.
03 INSTALL 44 LF OF 4" C900 DOMESTIC SERVICE LINE WITH MINIMUM DEPTH OF COVER OF 42".
04 INSTALL 2" WATER METER AND PIT.
05 CONNECT DOMESTIC WATER SERVICE LINE TO BUILDING. RE: PLUMBING PLAN.
06 CONTRACTOR TO INSTALL FIRE PROTECTION CUT-IN TEE ON MAIN LINE.
07 INSTALL 40 LF OF 8" C900 FIRE PROTECTION LINE WITH MINIMUM DEPTH OF COVER OF 42".
08 CONNECT FIRE PROTECTION LINE TO BUILDING. RE: PLUMBING PLAN.
09 INSTALL 4" STORZ FIRE DEPARTMENT CONNECTION.
10 INSTALL RELOCATED FIRE HYDRANT ASSEMBLY.

12 EXISTING WATER METER TO BE USED FOR IRRIGATION
13 INSTALL 1" IRRIGATION SERVICE LINE WITH MINIMUM DEPTH OF COVER OF 42".
14 INSTALL FEBCO LF860 SMALL BACKFLOW PREVENTER, OR APPROVED EQUAL, IN VAULT. SEE VAULT DETAIL ON SHEET C7.2

08 *15 INSTALL 12"X6" TEE AND ISOLATION VALVE.*
16 INSTALL 23 LF OF 6" C900 FIRE HYDRANT LINE WITH MINIMUM DEPTH OF COVER OF 42".

G - GAS SERVICE INFORMATION - SPIRE
01 EXISTING GAS MAIN.
02 TAP EXISTING GAS MAIN FOR SERVICE LINE; COORDINATE W/ SPIRE.
03 INSTALL 79 LF GAS SERVICE LINE.
04 INSTALL GAS METER.
05 GAS CONNECTION TO BLDG.; RE: PLUMBING PLAN.

ST - STORM SEWER INFORMATION - CITY OF LEE'S SUMMIT
01 INSTALL CONCRETE JUNCTION BOX TO CONNECT INTO EXISTING STORM LINE. SEE DETAIL ON SHEET C7.2.
TOP ELEV.= 966.00
FL (N) = 962.00
02 STORM SEWER LINE; RE: SHEET C4.0.
03 CONTRACTOR TO TEE INTO EXISTING STORM LINE.
04 INSTALL 6" HDPE ROOF DRAIN LINE AT 2% MIN SLOPE.
05 CONNECT TO DOWNSPOUT; SEE DETAIL ON SHEET C7.2.
CONNECT TO MOST ADJACENT ROOF DRAIN LINE AS SHOWN.
06 CONNECT TO BUILDING ROOF DRAIN LINE; RE: PLUMBING PLAN.
07 CONNECT TO EXISTING STORM PIPE.

SS - SANITARY SEWER INFORMATION - CITY OF LEE'S SUMMIT
01 SANITARY SEWER SERVICE CUT IN CONNECTION. CONNECT WITH WYE PER CITY REQUIREMENTS
02 INSTALL 50 LF OF 6" PVC SANITARY SEWER SERVICE LINE.
03 CONNECT SANITARY SEWER SERVICE LINE TO BUILDING. RE: PLUMBING PLAN.

04 CONNECT TO EXISTING SANITARY SEWER MAIN WITH A WYE CONNECTION.
FL = 957.70
05 RAISE EXISTING SANITARY MANHOLE #10125 TO FG.
06 INSTALL 126 LF OF 6" PVC SANITARY SEWER SERVICE LINE.
07 CONNECT SANITARY SEWER SERVICE LINE TO BUILDING. RE: PLUMBING PLAN.
08 INSTALL CLEANOUT

UTILITY GENERAL NOTES

1. Contractor shall refer to all specifications, guidelines, and installation drawings from the City of Lee's Summit, Evergy, and Missouri Gas Energy for the installation of all service lines.

2. Contractor to ensure 6" minimum separation between utilities at crossings. Contractor to call civil if any conflicts between utilities are found.

3. Fire Line Notes:
   3.1. All private fire lines shall be installed in accordance with NFPA 24, and other applicable codes and standards.
   3.2. Contact the fire department to schedule inspections prior to private fire lines being backfilled.
   3.3. Contact the fire department to witness scheduled hydrostatic tests and flushes of private fire lines.

GRAPHIC SCALE
30 0 30

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

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STATE OF MISSOURI
ERIC BYRD
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04/19/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

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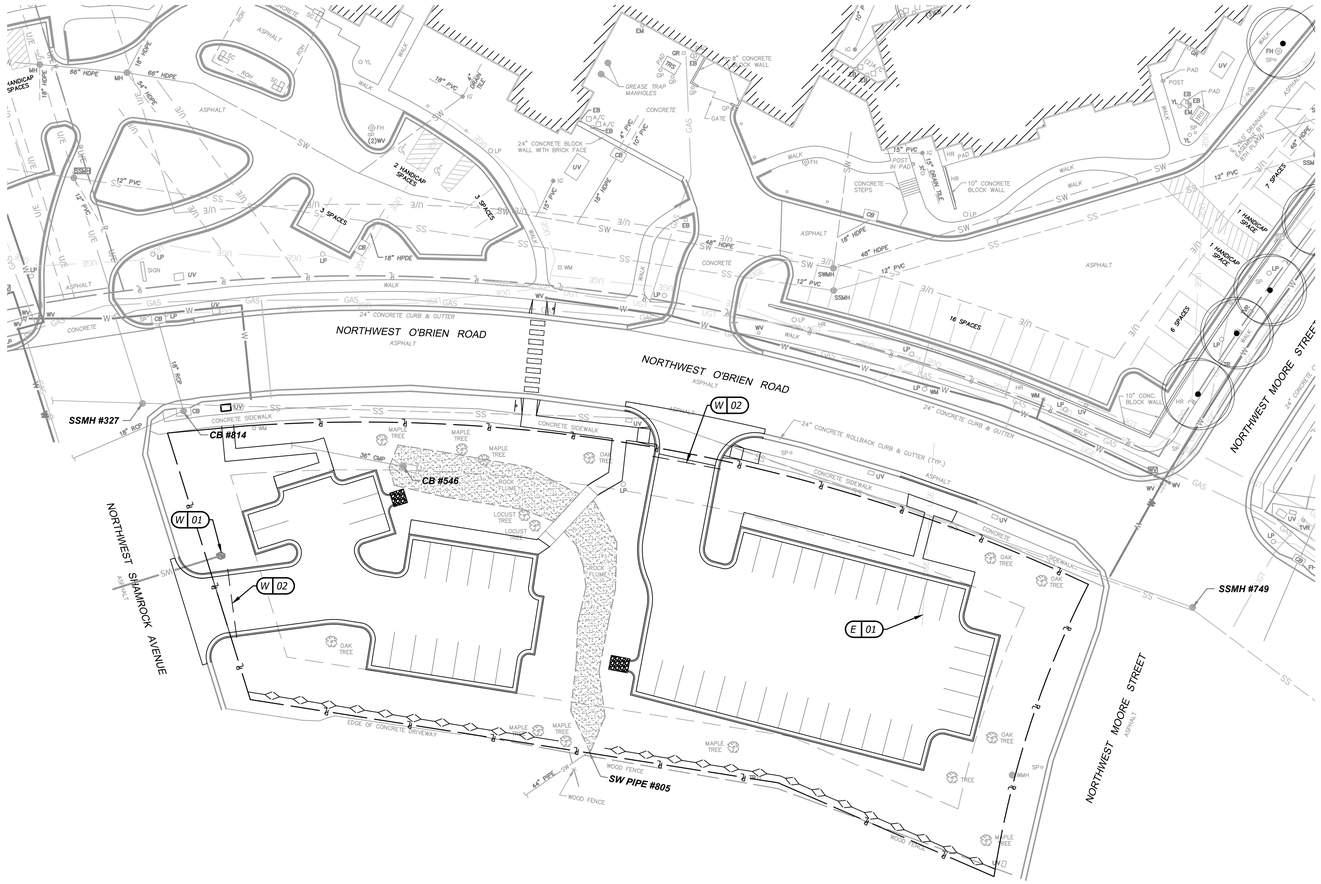
05	ADDENDUM 1	03/10/2021
06	FDP RESPONSES 3	03/26/2021
07	FDP RESPONSES 4	04/06/2021
08	FDP RESPONSES 5	04/19/2021

DRAWING TITLE

NORTH UTILITY PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C6.0	SHEET 14 OF 29



MENU

CADD VERSION	
PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

X 00 UTILITY CONSTRUCTION NOTES

W - WATER SERVICE INFORMATION - CITY OF LEE'S SUMMIT
01 EXISTING WATER METER TO BE USED FOR EXISTING IRRIGATION.
02 INSTALL 3" PVC SLEEVES UNDER ENTRANCE TO BE USED FOR IRRIGATION.

E - ELECTRIC SERVICE INFORMATION - EVERGY
01 CONTRACTOR TO UTILIZE EXISTING UNDERGROUND ELECTRIC LINE TO FEED PROPOSED LIGHT POLES.

UTILITY GENERAL NOTES

1. Contractor shall refer to all specifications, guidelines, and installation drawings from the City of Lee's Summit, Evergy, and Missouri Gas Energy for the installation of all service lines.
2. Contractor to ensure 6" minimum separation between utilities at crossings. Contractor to call civil if any conflicts between utilities are found.
3. Fire Line Notes:
   - 3.1. All private fire lines shall be installed in accordance with NFPA 24, and other applicable codes and standards.
   - 3.2. Contact the fire department to schedule inspections prior to private fire lines being backfilled.
   - 3.3. Contact the fire department to witness scheduled hydrostatic tests and flushes of private fire lines.

GRAPHIC SCALE
30 0 30

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

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STATE OF MISSOURI
ERIC BYRD
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

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Meadows Building - Phase II

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APPROVED BY	:	

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03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

DRAWING TITLE

SOUTH UTILITY PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C6.1	SHEET 15 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

NORTH PARKING AREA PHOTOMETRIC SCHEDULE

AVERAGE FOOT–CANDLES	2.40
MAXIMUM FOOT–CANDLES	8.7
MINIMUM FOOT–CANDLES	0.3
MAXIMUM TO MINIMUM FC RATIO	29.32

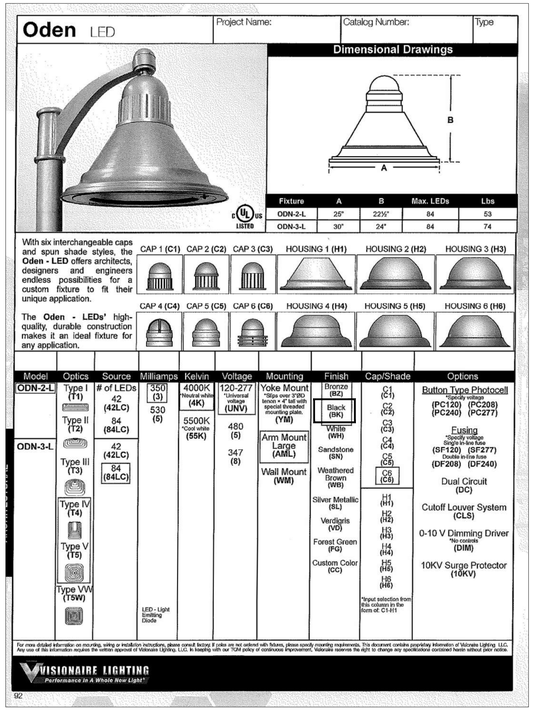
LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	MOUNTING	MODEL	NOTE 1	QUANTITY	MOUNTING HEIGHT
A1		VISIONAIRE LIGHTING – ODEN LED	POLE	Visionaire Lighting LLC, ODN–2–L–T4–80LC–3–4K–		19	15'
X1		VISIONAIRE LIGHTING – ODEN LED	POLE	Visionaire Lighting LLC, ODN–2–L–T4–80LC–3–4K–			15'

PHOTOMETRIC NOTES

A1 EXISTING FIXTURE AND POLE TO BE REUSED IN THIS LOCATION
X1 EXISTING FIXTURE AND POLE TO REMAIN
HSS HOUSE SIDE SHIELD

05



GRAPHIC SCALE
30 0 30

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ERIC BYRD
NUMBER PE-2010013633
03/10/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

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Meadows Building - Phase II

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04	FDP RESPONSES 2	02/23/2021
05	ADDENDUM 1	03/10/2021

DRAWING TITLE

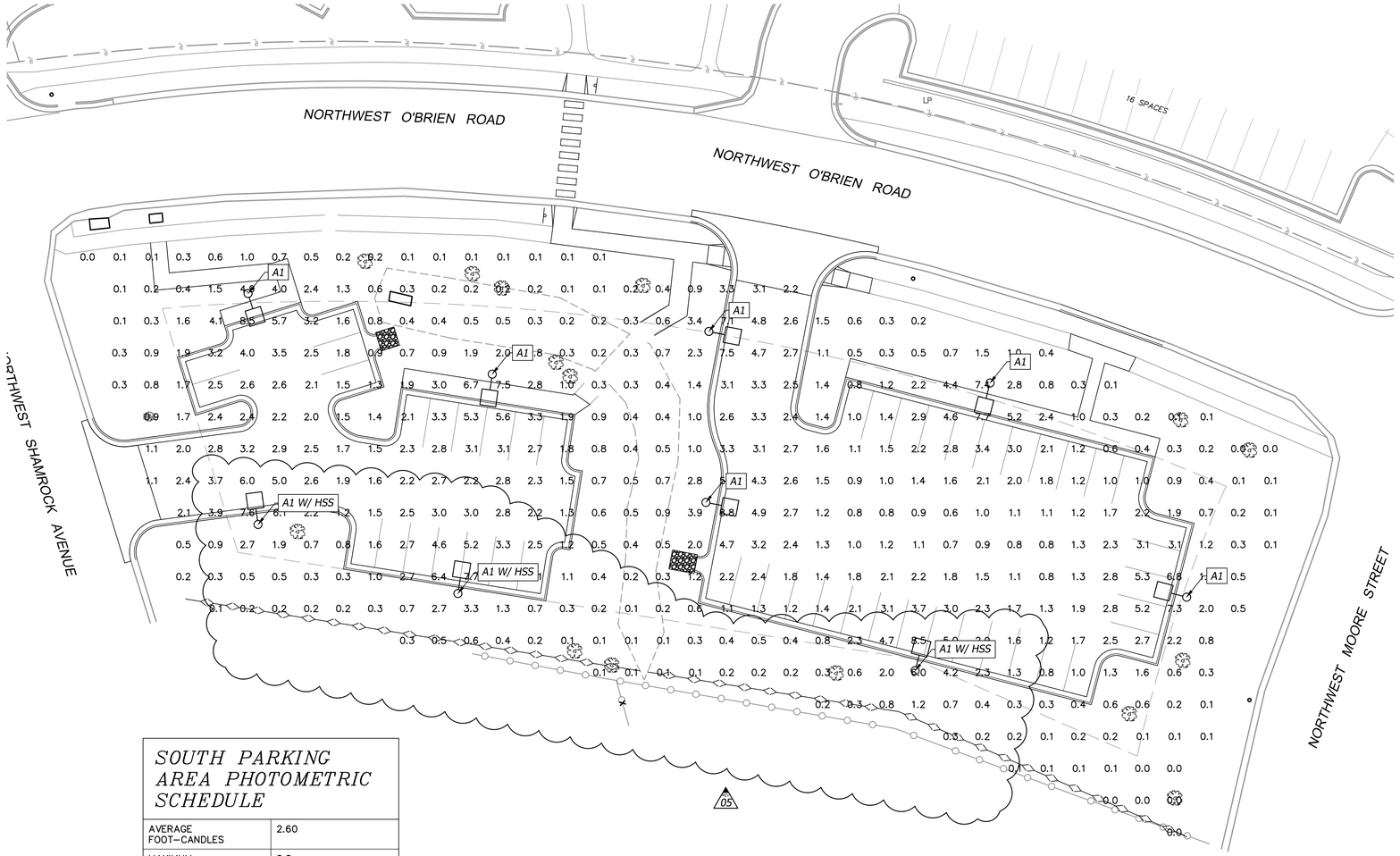
NORTH PHOTOMETRIC PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C6.2	SHEET 16 OF 29

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
CORR NO.
DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



PHOTOMETRIC NOTES

A1 EXISTING FIXTURE AND POLE TO BE REUSED IN THIS LOCATION
X1 EXISTING FIXTURE AND POLE TO REMAIN
HSS HOUSE SIDE SHIELD

05

SOUTH PARKING AREA PHOTOMETRIC SCHEDULE

AVERAGE FOOT–CANDLES	2.60
MAXIMUM FOOT–CANDLES	8.8
MINIMUM FOOT–CANDLES	0.6
MAXIMUM TO MINIMUM FC RATIO	15.86

GRAPHIC SCALE
20 0 20

MENU

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DRAWING TITLE

SOUTH PHOTOMETRIC PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C6.3	SHEET 17 OF 29

MENU

CAD VERSION	
PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

X 00 UTILITY CONSTRUCTION NOTES

W - WATER SERVICE INFORMATION - CITY OF LEE'S SUMMIT

01 INSTALL 12"X6" REDUCER.
02 REPLACE 1,380 LF OF EXISTING 6" WATER MAIN WITH 12" C900 WATER MAIN. INSTALL AT A MINIMUM DEPTH OF 42".
03 INSTALL 12" 22.5° BEND WITH THRUST BLOCKING.
04 INSTALL 12" 60° BEND WITH THRUST BLOCKING.
05 INSTALL 12"X8" TEE WITH THRUST BLOCKING. SEE WATER MAIN NOTE 1.
06 INSTALL 12"X12" TEE WITH THRUST BLOCKING. SEE WATER MAIN NOTE 1.
07 INSTALL 12"X8" CROSS. SEE WATER MAIN NOTE 1.
08 85 LF OF PIPE TO BE JOINT RESTRAINED.

09 APPROXIMATE LOCATION OF EXISTING SERVICE CONNECTION

WATER MAIN NOTE

1. AT ALL NEW CROSS AND TEE JOINT CONNECTIONS, THE CONTRACTOR SHALL RESTRAIN ALL JOINTS CONNECTING THE REDUCER TO THE CONNECTION, ALL JOINTS CONNECTING THE CONNECTION TO THE RESTRAINED JOINT PIPE, AND ALL VALVES TO THE FITTINGS THEY ARE NEAR.

2. CONTRACTOR SHALL RECONNECT ALL EXISTING WATER SERVICE LINES THAT ARE DISCONNECTED DURING THE WATER MAIN DEMOLITION AND CONSTRUCTION.

UTILITY GENERAL NOTES

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3. Fire Line Notes:
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GRAPHIC SCALE
60 0 60

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NUMBER PE-2010013633
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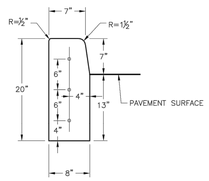
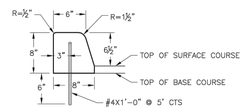
07	FDP RESPONSES 4	04/06/2021
08	FDP RESPONSES 5	04/19/2021

DRAWING TITLE
WATER MAIN PLAN
08

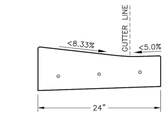
COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C6.4	SHEET ____ OF 29



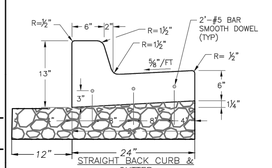
STRAIGHT CURB
(TYPE C-1)



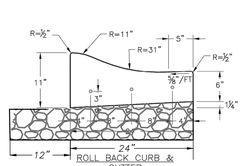
DOWELLED CURB
(TYPE DC)



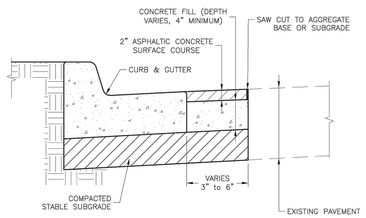
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



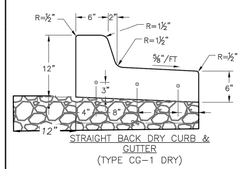
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



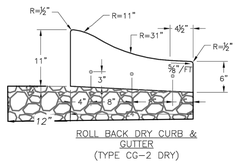
ROLL BACK CURB & GUTTER
(TYPE CG-2)



CURB REPLACEMENT DETAIL



STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-1 DRY)



ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)

GENERAL NOTES

1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

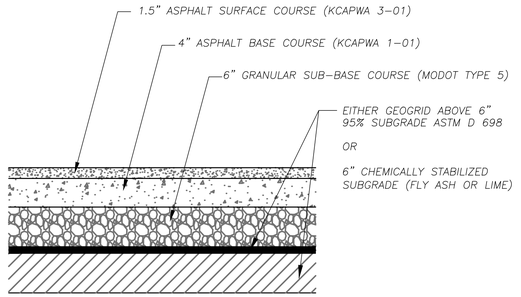
002 **CONCRETE CURB AND GUTTER**

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

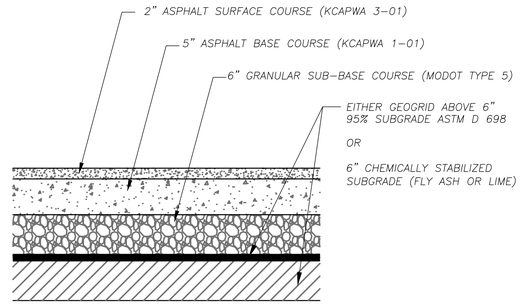
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: DL
Date: 06/17
Proj. #:

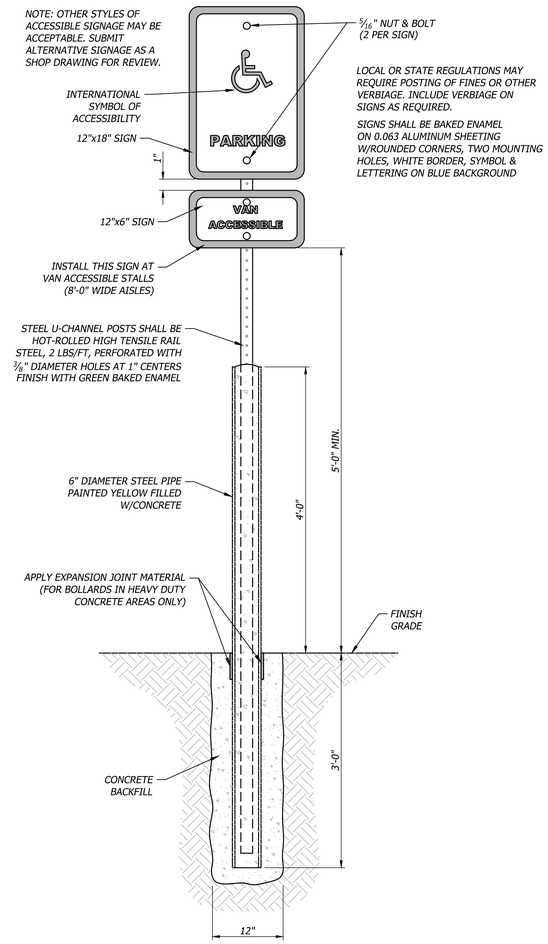
GEN-4



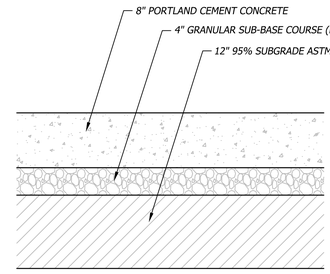
005 Medium Duty Asphalt Section
Not to Scale



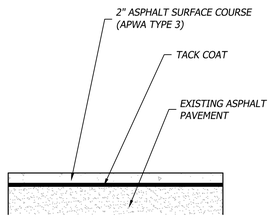
007 Heavy Duty Asphalt Section
Not to Scale



019 (ADA) Handicap Parking Signage
Not to Scale



012 Medium Duty Concrete Section
Not to Scale



010 **Asphalt Pavement Overlay**
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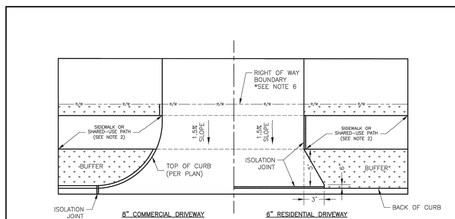
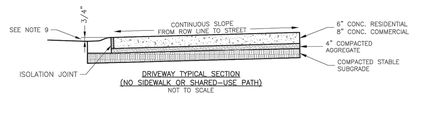
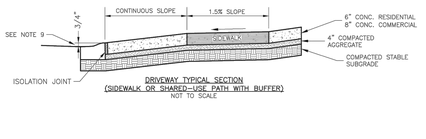


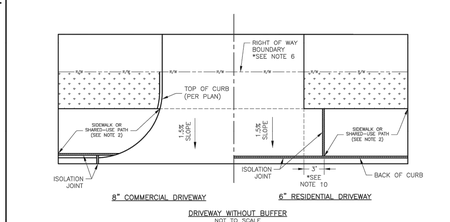
DRIVEWAY WITH BUFFER
NOT TO SCALE



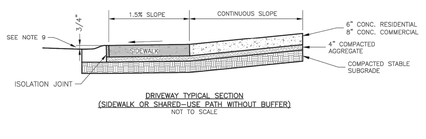
DRIVEWAY TYPICAL SECTION
(NO SIDEWALK OR SHARED-USE PATH)
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITH BUFFER)
NOT TO SCALE



DRIVEWAY WITHOUT BUFFER
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER)
NOT TO SCALE

GENERAL NOTES

1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL GEN-3B, SIDEWALK/SHARED USE PATH RAMP AT DRIVEWAY DETAIL).
3. JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
4. KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
5. COMMERCIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
6. RESIDENTIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, KCMMB 4K CONCRETE MIX IS RECOMMENDED. OTHER CONCRETE MIXES NEEDS TO BE APPROVED BY CITY INSPECTOR.
7. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
9. ¾" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
10. SIDEWALK ADJOINING CURB SHALL BE 4" THICK, EXTENDING 3' FROM THE DRIVEWAY.
11. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.

001 **CONCRETE DRIVEWAY ENTRANCE**

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: DRIVEWAY DETAIL

Drawn By: MJF
Checked By: DL
Date: 06/17
Proj. #:

GEN-1

MENU

CAD VERSION

PLOT SCALE

PLOT DATE

COMM NO.

DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

BHC RHODES
Civil Engineering • Surveying • Utilities
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
p. (913) 663-1900 f. (913) 663-1633
BHC RHODES is a trademark of Brungardt Honomichl & Company, P.A.

STATE OF MISSOURI
ERIC BYRD
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

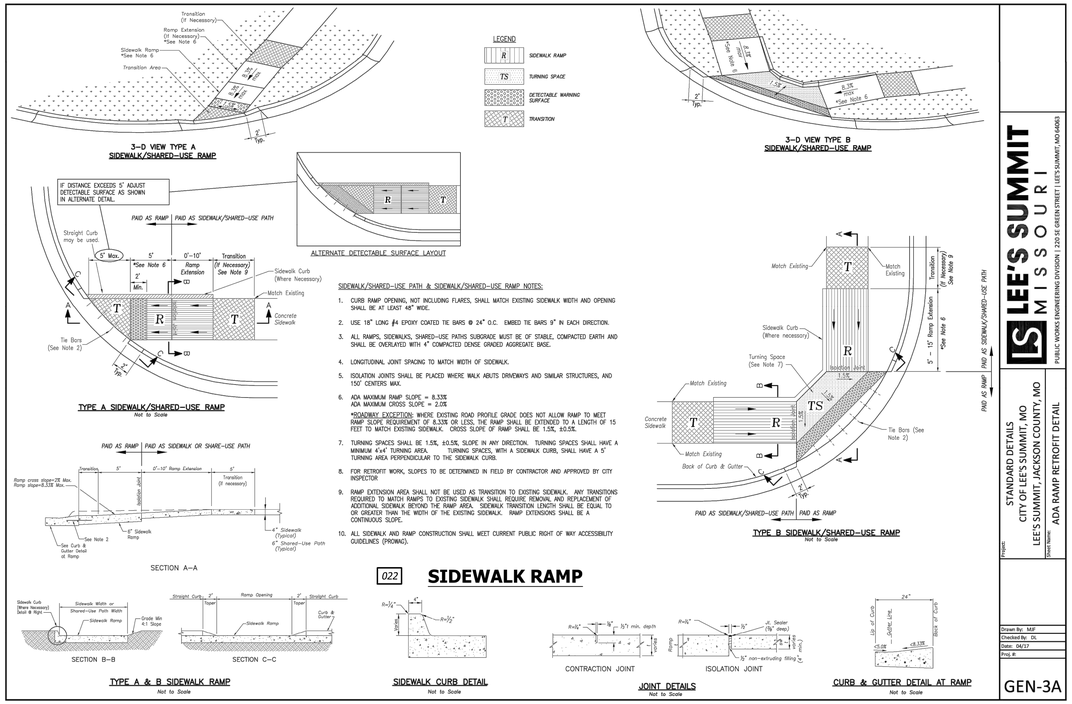
NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

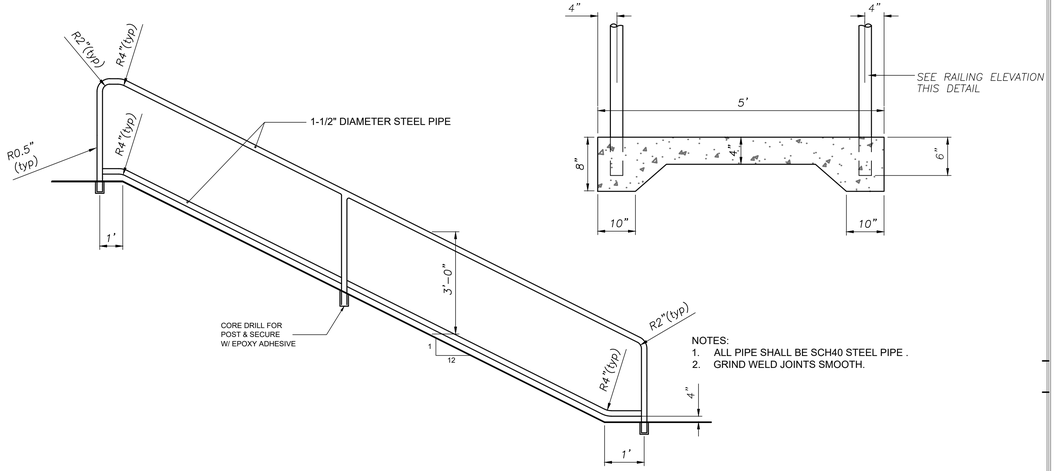
DRAWING TITLE

CONSTRUCTION DETAILS I

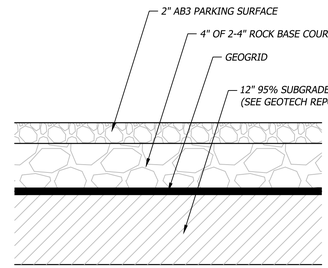
COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING C7.0	SHEET 18 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021





031 **Concrete Ramp with Handrail**
Not to Scale



050 **Contractor Parking Section**
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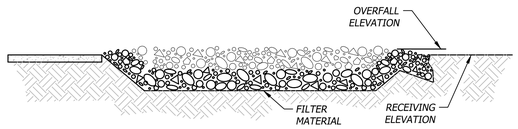
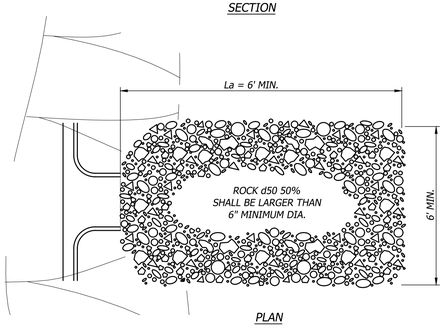


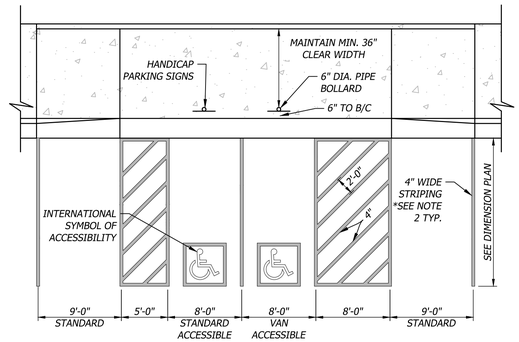
SECTION



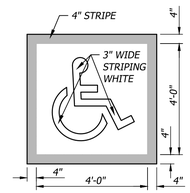
PLAN

NOTES:
1. *'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.*
2. *APRON SHALL BE AT A ZERO GRADE AND ALIGNED STRAIGHT.*
3. *FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK MINIMUM GRADED GRAVEL LAYER.*
4. *SIDE SLOPES SHALL BE 4:1 UNLESS NOTED OTHERWISE.*
5. *ROCK SHALL CONFORM TO KDOT SECTION 1114.2(b) STONE FOR AGGREGATE DITCH LINING.*

605 **Energy Dissipater (Rip Rap)**
Not to Scale

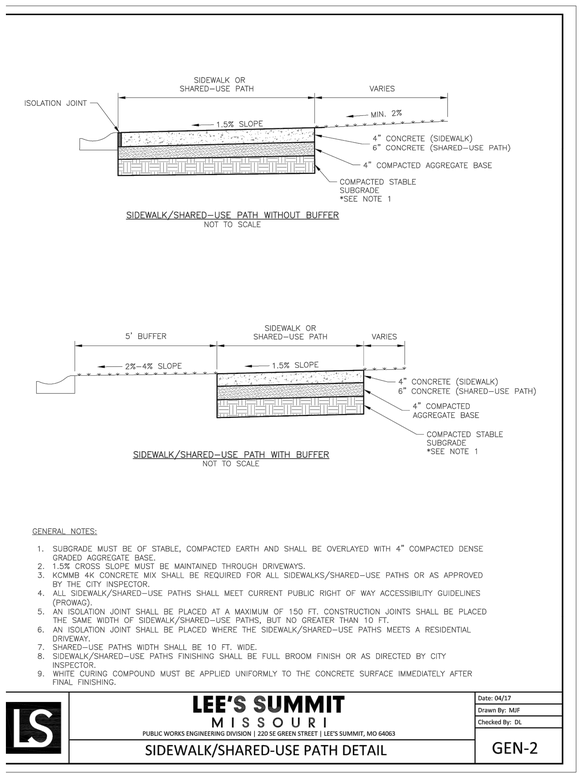


021 **(ADA) Handicap Parking Striping**
Not to Scale



INTERNATIONAL SYMBOL OF ACCESSIBILITY

NOTE:
1. *SEE SITE GRADING AND DRAINAGE PLAN FOR PAVEMENT AND CURB ELEVATIONS, AND ASSOCIATED ALLOWABLE SLOPES FOR ACCESSIBLE PARKING*
2. *PARKING STRIPING COLOR TO BE YELLOW ON CONCRETE AND WHITE ON ASPHALT.*



GENERAL NOTES:
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED–USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
4. ALL SIDEWALK/SHARED–USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED–USE PATHS, BUT NO GREATER THAN 10 FT.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED–USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED–USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED–USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SIDEWALK/SHARED-USE PATH DETAIL
Date: 04/17
Drawn By: MJF
Checked By: DL
GEN-2

013 **CONCRETE SIDEWALK SECTION**

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
COMM NO.
DRAWING NO.

BHC RHODES
Civil Engineering • Surveying • Utilities
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
p. (913) 663-1900 f. (913) 663-1633
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STATE OF MISSOURI
ERIC BYRD
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS | Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

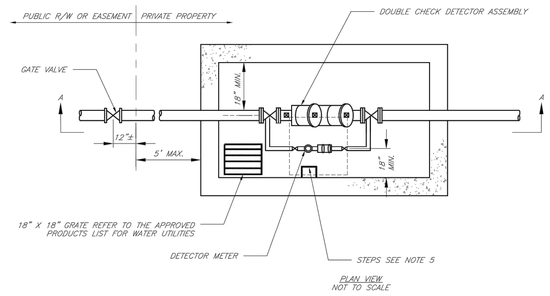
NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

DRAWING TITLE

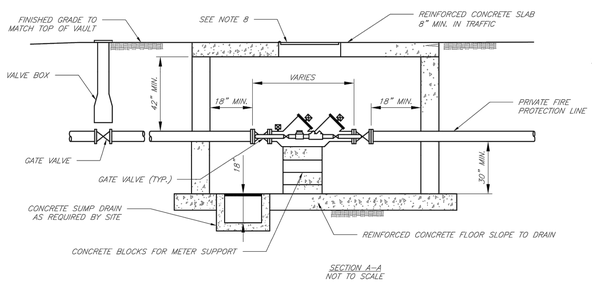
CONSTRUCTION DETAILS II

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING	SHEET
C7.1	19 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



PLAN VIEW
NOT TO SCALE



SECTION A–A
NOT TO SCALE

GENERAL NOTES:

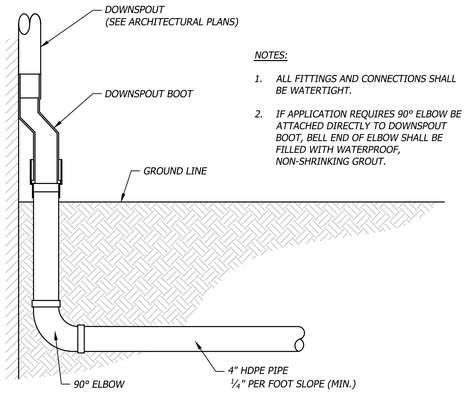
1. METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE WITH OPENING CENTERED OVER DETECTOR METER. REINFORCED WALLS AND SLABS ARE TO BE DESIGNED BY THE OWNER'S ENGINEER OR PRECAST ENGINEER.
2. METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA AND WHERE SURFACE WATER WILL NOT DRAIN INTO IT. PROVIDE CONCRETE SUMP TO DRAIN TO AN ABOVE GROUND DISCHARGE POINT.
3. ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
4. ALL FITTINGS FOR THE DETECTOR METER TO BE BRASS.
5. STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
6. A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTION ASSEMBLIES, CONTACT WATER UTILITIES AT 816-969-1900.
7. ALL VALVES SHALL HAVE RISING STEMS.
8. MANHOLE COVER SHALL BE A BILCO K-1 MODEL UNLESS IN A VEHICLE TRAFFIC AREA. SEE THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR TRAFFIC CONDITIONS. THE COVER SHALL HAVE A 1-3/4" ø HOLE DRILLED FOR A TOUCH/READ DEVICE.
9. A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
10. CONTACT PUBLIC WORKS ENGINEERING FOR VAULTS THAT INCLUDE A FIRE DEPARTMENT CONNECTION OR A 3" OR LARGER METER.

CITY OF LEE'S SUMMIT, MO
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

STANDARD DRAWINGS

VAULT FOR DOUBLE CHECK DETECTOR CHECK

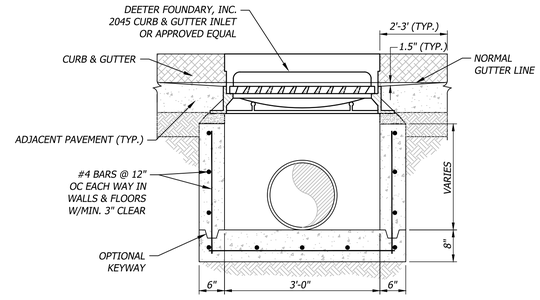
Drawn By: AS
Checked By: DL
Date: 3/4/14
Rev: 1/14
of
WAT-12

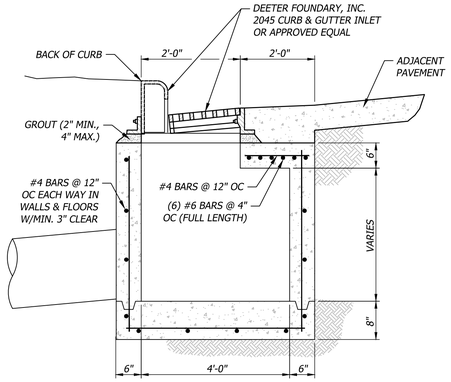


NOTES:

1. ALL FITTINGS AND CONNECTIONS SHALL BE WATERTIGHT.
2. IF APPLICATION REQUIRES 90° ELBOW BE ATTACHED DIRECTLY TO DOWNSPOUT BOOT, BELL END OF ELBOW SHALL BE FILLED WITH WATERPROOF, NON-SHRINKING GROUT.

308 Downspout Connection
Not to Scale





318 Curb & Grate Inlet
Not to Scale

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Civil Engineering • Surveying • Utilities
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ERIC R. BYRD
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

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PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

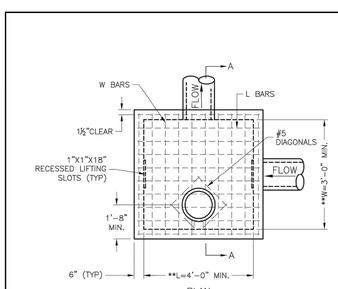
DRAWING TITLE

CONSTRUCTION DETAIL III

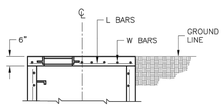
COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING C7.2	SHEET 20 OF 29

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
COMM NO.
DRAWING NO.



PLAN

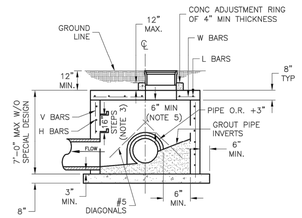


SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

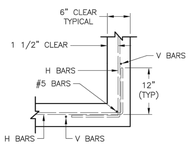
** INCREASE IN MULTIPLES OF 6" (7'-0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6



SECTION A–A



WALL CORNER DETAIL

GENERAL NOTES:

1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE AND THE MINIMUM DISTANCE BETWEEN BOXOUTS IS 6".
5. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

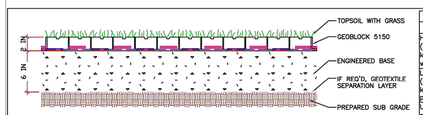
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

JUNCTION BOX DETAIL

Drawn By: MJF
Checked By: DL
Date: 06/17
Proj. #:

STM-3



DESIGN 1

DESIGN GUIDELINES

LOAD DESCRIPTION	CBR 2 – 4%	CBR > 4%
Heavy Fire Truck Access & H/HS-20 loading. Typical 110 psi (758 kPa) tire pressure. Single axle loadings of 32 kips (145 kN), tandem axle loadings of 48 kips (220 kN). Gross vehicle weight of 80,000 lbs) (36.3 MT). Infrequent passes.	Design 1 – 6" Base	Design 2 – 4" Base
Light Fire Truck Access & H/HS-15 loading. Typical 85 psi (586 kPa) tire pressure. Single axle loadings of 24 kips (110 kN). Gross vehicle loads of 60,000 lbs (27.2 MT). Infrequent passes.	Design 2 – 4" Base	Design 3 – 2" Base
Utility & Delivery Truck Access & H/HS-10 loading. Typical 60 psi (414 kPa) tire pressure. Single axle loadings of 16 kips (75 kN). Gross vehicle loads of 40,000 lbs (18.1 MT). Infrequent passes.	Design 3 – 2" Base	Design 3 – 2" Base
Cars & Pick-up Truck Access. Typical 45 psi (310 kPa) tire pressure. Single axle loadings of 4 kips (18 kN). Gross vehicle loads of 8,000 lbs (3.6 MT). Infrequent passes.	Design 4 – No Base	Design 4 – No Base
Trail Use. Loading for pedestrian, wheelchair, equestrian, bicycle, motorcycle and ATV traffic.	Design 4 – No Base	Design 4 – No Base

Notes:

1. This information is based on the use of Geoblock 5150 manufactured by Presto Products Co. All rights reserved. Any use of this information for any rigid porous paver product other than that manufactured by Presto is strictly prohibited and makes this information invalid.
2. Engineered base is a homogenous mixture consisting of open graded crushed aggregate having an AASHTO # 5 or similar designation blended with pulverized topsoil and a void component, generally containing air and/or water. This homogenous mixture will promote vegetative growth and provide required structural support. The aggregate portion shall have a particle range from 9.5 mm to 25 mm (0.375 to 1.0 in) with a D50 of 13 mm (0.5 in). The percentage void-space of the aggregate portion when compacted shall be at least 30%. The pulverized topsoil portion shall equal 33% +/- of the total volume and be added and blended to produce a homogenous mixture prior to placement.
3. If required, provide a non-woven geotextile separation layer and install in accordance with Manufacturer recommendations including overlaps based on sub grade CBR.
4. Connect Geoblock 5150 panels with the interlocking offset tab so that adjacent sections have horizontally level profiles.
5. Refer to the Geoblock 5150 Design and Construction Overview for a complete description of the design and construction methods.

PRESTO® PRODUCTS CO.
670 NORTH PERKINS STREET
APPLETON, WI 54914
920-738-1340
WWW.PRESTOGEO.COM

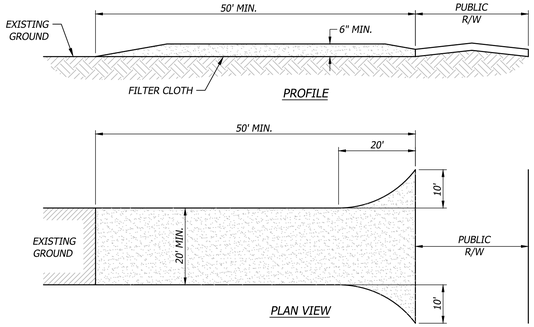
GEOSYSTEMS

GEOBLOCK 5150
POROUS PAVEMENT SYSTEM

PRESTO, GEOSYSTEMS® AND GEOBLOCK® ARE REGISTERED TRADEMARKS OF PRESTO PRODUCTS.

DATE:	OCTOBER 2019	FILE NAME	GB5150S1.dwg
SCALE:	NTS	SHEET	1

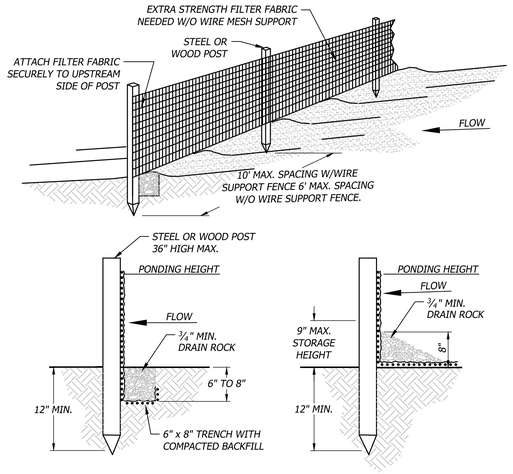
040 GRASS PAVER FIRE LANE



CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE (2) INCH STONE, OR RECLAIMED OR RECYCLED EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN (50) FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 3:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AS NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

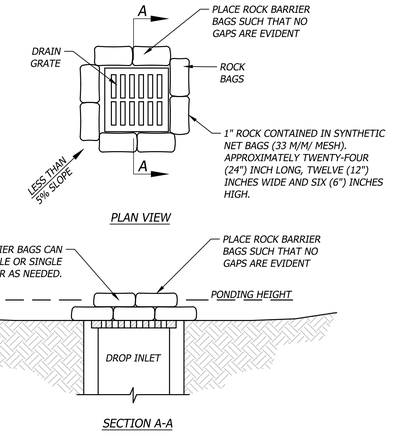
600 Temporary Construction Entrance
Not to Scale



NOTES:

1. MUST BE INSTALLED PROPERLY TO AVOID NOTICE OF VIOLATION.
2. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE POUNDING EFFICIENCY.
3. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
4. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

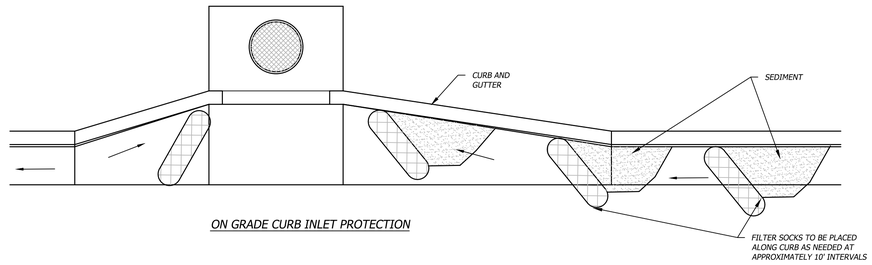
601 Filter Fabric Silt Fence
Not to Scale

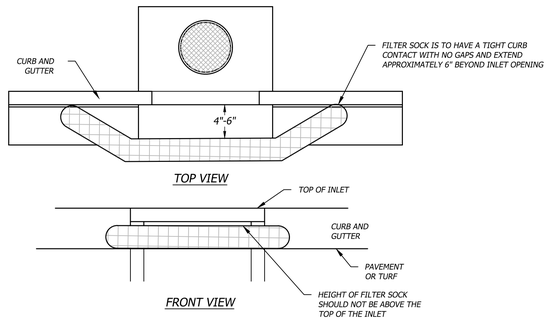


NOTES:

1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%.)
2. A "REASONABLE" DESIGN SIZE PARTICLE TO CAPTURE MUST BE SELECTED.
3. SIZE DISTRIBUTION OF UPSTREAM SOIL PARTICLES MUST BE EVALUATED.
4. INFLOW AND OUTFLOW FROM THE SYSTEM FOR A SPECIFIC FREQUENCY STORM MUST BE KNOWN.
5. POND VOLUME IS DIRECTLY PROPORTIONAL TO THE DISCHARGE RATE OF WATER FROM THE SYSTEM.
6. POND VOLUME IS INVERSELY PROPORTIONAL TO THE MASS OF THE DESIGN SIZE SUSPENDED PARTICLE.
7. A SYSTEM MUST PROVIDE SUFFICIENT FLOW TO ALLOW FOR DEPOSITION OF DESIGN SIZE PARTICLES.
8. THE PONDING HEIGHT MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

603 Rock Bag Drop Inlet Barrier
Not to Scale





SUMP INLET SEDIMENT FILTER

617 Inlet Filter Bags
Not to Scale

MENU

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PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

BHC RHODES
Civil Engineering • Surveying • Utilities
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
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BHC RHODES is a trademark of Brungardt Honomichl & Company, P.A.

STATE OF MISSOURI
ERIC BYRD
NUMBER PE-2010013633
02/24/2021
PROFESSIONAL ENGINEER

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

DRAWING TITLE

EROSION CONTROL DETAILS

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING C7.3	SHEET 21 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/10/2021

MEADOW - EXISTING TREE SCHEDULE

EXISTING Trees on site that do not need protection or removal. -	12
PIN OAK Tree to be saved and protected during construction. -	7
DEMO PIN OAK Tree to be removed during construction. -	28
DEMO EVERGREEN Tree to be removed during construction. -	3

REV 7

PARKING - EXISTING TREE SCHEDULE

DEMO PIN OAK Tree to be removed during construction. -	20

N

GRAPHIC SCALE
50 0 50

LEGEND

980	PROPOSED FINISH GRADE MAJOR CONTOUR
982	PROPOSED FINISH GRADE MINOR CONTOUR
980	EXISTING GRADE MAJOR CONTOUR
982	EXISTING GRADE MINOR CONTOUR
STM	PROPOSED STORM SEWER LINE
RD	PROPOSED ROOF LINE DRAIN
PL	PROPERTY LINE
R/W	RIGHT-OF-WAY LINE

MENU

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STATE OF MISSOURI
NINAH A. BUTLER
NUMBER PLA-2018036558
04/06/2021
PROFESSIONAL LANDSCAPE ARCHITECT

PROJECT TITLE

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Meadows Building - Phase II

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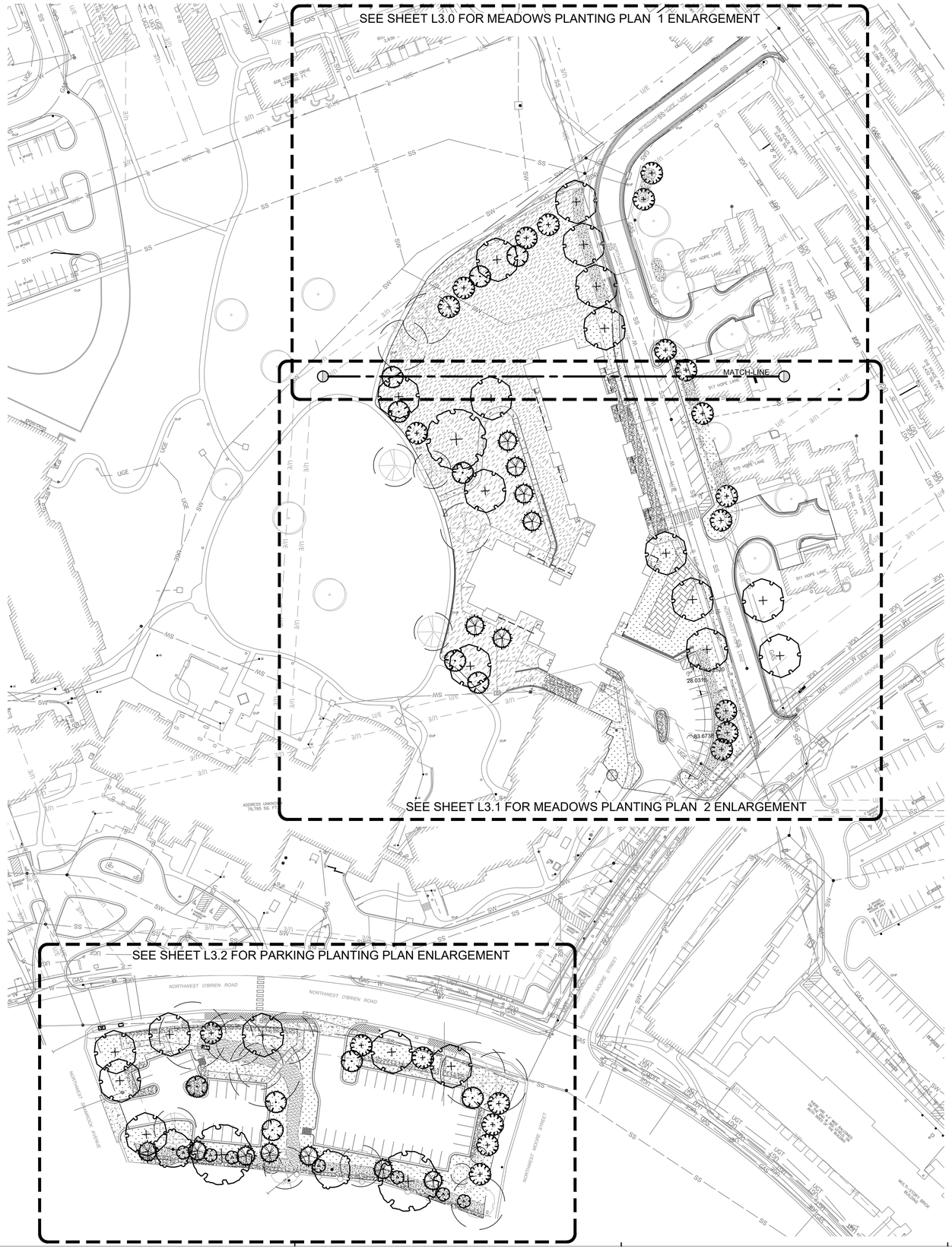
05	ADDENDUM 1	03/10/2021
06	FDP RESPONSES 3	03/26/2021
07	FDP RESPONSES 4	04/06/2021

DRAWING TITLE

TREE CONSERVATION PLAN

COMM. NO. 19132.00	DATE DECEMBER 18, 2020
DRAWING L1.0	SHEET 22 OF 29



PLANT LEGEND

EVERGREEN TREE	BOTANICAL / COMMON NAME
	Picea abies / Norway Spruce

ORNAMENTAL TREE	BOTANICAL / COMMON NAME
	Amelanchier x grandiflora `Autumn Brilliance` / Autumn Brilliance Apple Serviceberry
	Prunus cerasifera `Newport` / Newport Flowering Plum

SHADE TREE	BOTANICAL / COMMON NAME
	Acer rubrum `Franksred` TM / Red Sunset Maple
	Quercus bicolor / Swamp White Oak
	Quercus robur x bicolor `Long` TM / Regal Prince Oak
	Ulmus parvifolia `Lacebark Elm` / Chinese Elm Tree

EXISTING TREE LEGEND

HONEYLOCUST	-
MAPLE	-
OAK	-
REDBUD	-
EXISTING	-

GENERAL IRRIGATION NOTES

Irrigation plan to be provided by contractor before construction for review.

1. Irrigation plan to not interfere with any proposed improvements shown.
2. Irrigation system design to be based on available psi. Minimum operating pressure for spray heads shall be 30 psi and minimum operating pressure for drip zones shall be 40 psi.
3. The contractor shall be responsible for providing uninterrupted, 110 v electrical service to the controller and for all hook-ups. All exposed low voltage wire shall be enclosed in a conduit.
4. Place valve boxes 12" minimum from and parallel to curbs and walks, grouped valves to be equally spaced.
5. Install all mainlines to 1% minimum slope to drain valves located at low points of main system.
6. Irrigation controller and rain sensor shall be located in owner approved locations.

GENERAL LANDSCAPE NOTES

1. The Contractor shall verify and coordinate all final grades with the Landscape Architect and or design team prior to completion.
2. Location and placement of all plant material shall be coordinated with the Landscape Architect prior to installation.
3. Location of all utilities are approximate, the Contractor shall field verify locations prior to commencement of construction operations.
4. Refer to Civil Drawings for all grading and berming, erosion control, storm drainage, utilities and site layout.
5. The Contractor shall arrange and conduct a pre-construction meeting onsite with Landscape Architect prior to work.
6. Plant quantities are for information only, drawing shall prevail if conflict occurs. Contractor is responsible for calculating own quantities and bid accordingly.
7. The Contractor is to notify Landscape Architect after staking is complete and before plant pits are excavated.
8. Tree locations in areas adjacent to drives, walks, walls and light fixtures may be field adjusted as approved by Landscape Architect.
9. The Contractor shall report subsurface soil or drainage problems to the Landscape Architect.
10. The plan is subject to changes based on plant size and material availability. All changes or substitutions must be approved by the City of Lees Summit/Lees Summit, Missouri and the Landscape Architect.
11. Aluminum landscape edging to be used on all landscape beds adjoining turf areas as noted on landscape plans.
12. Landscape Contractor shall be responsible for watering all plant material until the time that a permanent water source is ready.
13. The Contractor shall show proof of procurement, sources, quantities, and varieties for all shrubs, perennials, ornamental grasses, and annuals within 21 days following the award of the contract.
14. Contractor shall provide full maintenance for newly landscaped areas for a period of 30 days after the date of final acceptance. At the end of the maintenance period, a healthy, well-rooted, even-colored, viable turf and landscaped area must be established. The landscaped areas shall be free of weeds, open joints, bare areas, and surface irregularities.
15. Landscape Contractor shall provide rock mulch sample to owner for approval.

GRAPHIC SCALE
50 0 50

MENU

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PLOT SCALE	
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DRAWING TITLE

LANDSCAPE KEY PLAN

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING	SHEET
L2.0	23 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

MEADOW - PLANT SCHEDULE

EVERGREEN TREE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	HEIGHT
	6	Picea abies / Norway Spruce	B & B	2"Cal	8` Ht
ORNAMENTAL TREE	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**HEIGHT**
	7	Prunus cerasifera `Newport` / Newport Flowering Plum	B & B	2"Cal	
SHADE TREE	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**HEIGHT**
	14	Acer rubrum `Franksred` TM / Red Sunset Maple	B & B	2"Cal	
	1	Quercus bicolor / Swamp White Oak	B & B	2"Cal	
	15	Quercus robur x bicolor `Long` TM / Regal Prince Oak	B & B	2"Cal	
SHRUBS	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**HEIGHT**	
	9	Hydrangea macrophylla `Nikko Blue` / Nikko Blue Hydrangea	5 gal	2` height	
	10	Rosa x `Knockout` TM / Rose	5 gal	2` height	
	10	Spiraea japonica `Goldmound` / Spirea	5 gal	12"-18" H	
EVERGREEN SHRUB	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**HEIGHT**	
	88	Buxus microphylla `Winter Gem` / Globe Winter Gem Boxwood	5 gal	2` height	
UPRIGHT EVERGREEN	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**HEIGHT**	
	10	Juniperus chinensis `Spartan` / Spartan Juniper	5 gal	6` Ht	
GROUND COVERS	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**		
	45,810 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue	seed		
	10,922 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue	sod		
	2,403 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue	sod		

MEADOW - MULCH SCHEDULE

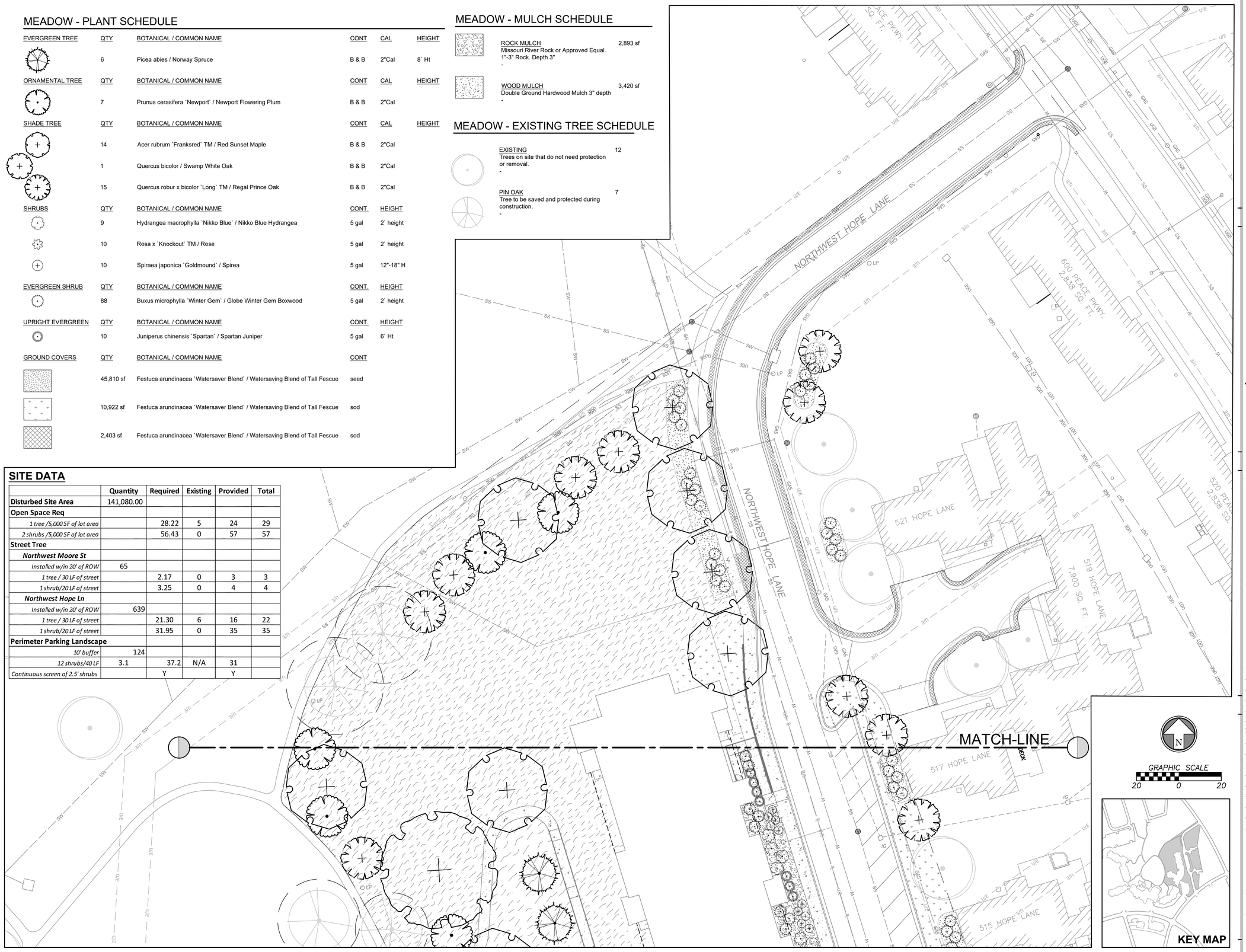
ROCK MULCH Missouri River Rock or Approved Equal. 1"-3" Rock. Depth 3" -	2,893 sf
WOOD MULCH Double Ground Hardwood Mulch 3" depth -	3,420 sf

MEADOW - EXISTING TREE SCHEDULE

EXISTING Trees on site that do not need protection or removal. -	12
PIN OAK Tree to be saved and protected during construction. -	7

SITE DATA

	Quantity	Required	Existing	Provided	Total
Disturbed Site Area	141,080.00				
Open Space Req					
1 tree /5,000 SF of lot area		28.22	5	24	29
2 shrubs /5,000 SF of lot area		56.43	0	57	57
Street Tree					
Northwest Moore St					
Installed w/in 20' of ROW	65				
1 tree / 30 LF of street		2.17	0	3	3
1 shrub/20 LF of street		3.25	0	4	4
Northwest Hope Ln					
Installed w/in 20' of ROW	639				
1 tree / 30 LF of street		21.30	6	16	22
1 shrub/20 LF of street		31.95	0	35	35
Perimeter Parking Landscape					
10' buffer	124				
12 shrubs/40 LF	3.1	37.2	N/A	31	
Continuous screen of 2.5' shrubs		Y		Y	



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DRAWING TITLE

MEADOWS PLANTING PLAN 1

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING: L3.0	SHEET: 24 OF 29

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

MATCH-LINE

517 HOPE LANE
515 HOPE LANE
511 HOPE LANE
NORTHWEST HOPE LANE
BENCH
12.2520
28.0319
83.6738

PLANT LEGEND

EVERGREEN TREE	BOTANICAL / COMMON NAME
	Picea abies / Norway Spruce
ORNAMENTAL TREE	**BOTANICAL / COMMON NAME**
	Amelanchier x grandiflora `Autumn Brilliance` / Autumn Brilliance Apple Serviceberry
	Prunus cerasifera `Newport` / Newport Flowering Plum
SHADE TREE	**BOTANICAL / COMMON NAME**
	Acer rubrum `Franksred` TM / Red Sunset Maple
	Quercus bicolor / Swamp White Oak
	Quercus robur x bicolor `Long` TM / Regal Prince Oak
	Ulmus parvifolia `Lacebark Elm` / Chinese Elm Tree
SHRUBS	**BOTANICAL / COMMON NAME**
	Hydrangea macrophylla `Nikko Blue` / Nikko Blue Hydrangea
	Rosa x `Knockout` TM / Rose
	Spiraea japonica `Goldmound` / Spirea
	Viburnum rhytidophyllum `Cree` / Leatherleaf Viburnum
EVERGREEN SHRUB	**BOTANICAL / COMMON NAME**
	Buxus microphylla `Winter Gem` / Globe Winter Gem Boxwood
	Ilex crenata `Hetzi / Hetzii Japanese Holly
UPRIGHT EVERGREEN	**BOTANICAL / COMMON NAME**
	Juniperus chinensis `Keteleeri` / Keteleeri Chinese Juniper
	Juniperus chinensis `Spartan` / Spartan Juniper
	Juniperus virginiana `Skyrocket` / Skyrocket Juniper
GROUND COVERS	**BOTANICAL / COMMON NAME**
	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue
	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue
	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue

MEADOW - MULCH SCHEDULE

ROCK MULCH	Missouri River Rock or Approved Equal. 1"-3" Rock. Depth 3" -	2,893 sf
WOOD MULCH	Double Ground Hardwood Mulch 3" depth -	3,420 sf

MEADOW - EXISTING TREE SCHEDULE

EXISTING	Trees on site that do not need protection or removal. -	12
PIN OAK	Tree to be saved and protected during construction. -	7

GRAPHIC SCALE
20 0 20

KEY MAP

MENU

CAD VERSION	
PLOT SCALE	
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BHC RHODES
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STATE OF MISSOURI
NINAH A. BUTLER
NUMBER PLA-2018036558
PROFESSIONAL LANDSCAPE ARCHITECT
02/24/2021

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

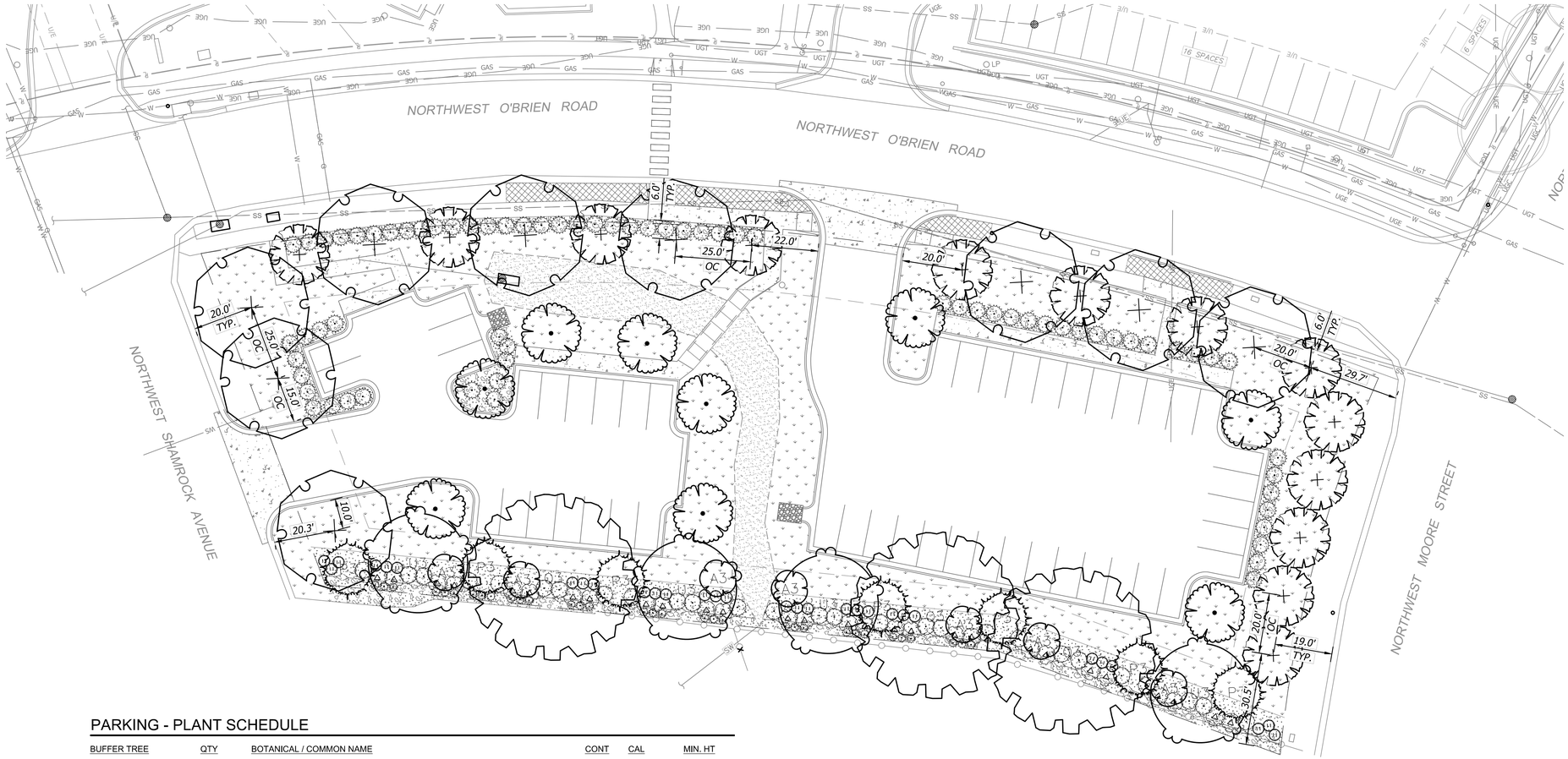
PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

DRAWING TITLE

MEADOWS PLANTING PLAN 2

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING L3.1	SHEET 25 OF 29



PARKING - PLANT SCHEDULE

BUFFER TREE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	MIN. HT
A3	7	Amelanchier x grandiflora `Autumn Brilliance` / Autumn Brilliance Apple Serviceberry FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	3"Cal	
P3	7	Picea abies / Norway Spruce FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	3"Cal	8` Ht
∞	3	Quercus bicolor / Swamp White Oak FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	3"Cal	
U3	4	Ulmus parvifolia `Lacebark Elm` / Chinese Elm Tree FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	3"Cal	
ORNAMENTAL TREE	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**MIN. HT**
	9	Prunus cerasifera `Newport` / Newport Flowering Plum FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	2"Cal	
SHADE TREE	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**CAL**	**MIN. HT**
	9	Acer rubrum `Franksred` TM / Red Sunset Maple FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	2"Cal	
	13	Quercus robur x bicolor `Long` TM / Regal Prince Oak FOR PLANTING SPECIFICATIONS SEE DETAIL 801 & 802, SHEET L-200	B & B	2"Cal	
SHRUBS	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**HEIGHT**	
	28	Viburnum rhytidophyllum `Cree` / Leatherleaf Viburnum FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L-200	5 gal	24"- 30" H	
EVERGREEN SHRUB	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**HEIGHT**	
	70	Buxus microphylla `Winter Gem` / Globe Winter Gem Boxwood FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L-200	5 gal	2` height	
	30	Ilex crenata `Hetzi / Hetzii Japanese Holly FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L-200	5 gal	24"- 30" H	
UPRIGHT EVERGREEN	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**HEIGHT**	
	27	Juniperus chinensis `Keteleeri` / Keteleeri Chinese Juniper FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L-200	B & B	6` Ht	
	33	Juniperus virginiana `Skyrocket` / Skyrocket Juniper FOR PLANTING SPECIFICATIONS SEE DETAIL 803 & 804, SHEET L-200	B & B	6` Ht	
GROUND COVERS	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**		
	16,210 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue LANDSCAPE EDGING WHERE GRASS ADJOINS PLANTING BED. FOR PLANTING SPECIFICATIONS SEE DETAIL 806, SHEET L-200	sod		
	894 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue MINIMUM 2 FT STRIP OF SOD ALONG ALL NEW CURB.	sod		

PARKING - MULCH SCHEDULE

	ROCK MULCH Missouri River Rock or Approved Equal. 1"-3" Rock. Depth 3" -	3,382 sf
	WOOD MULCH Double Ground Hardwood Mulch 3" depth -	2,876 sf

SITE DATA

	Quantity	Required	Existing	Provided	Total
Site Area	44,956.00				
Open Space Req					
1 tree /5,000 SF of lot area		8.99	0	9	9
2 shrubs /5,000 SF of lot area		17.98	0	18	18
Street Tree					
Northwest O'Brien Rd					
Installed w/in 20' of ROW	368.25				
1 tree / 30 LF of street		12.28	0	13	13
1 shrub/20 LF of street		18.41	0	28	28
Northwest Shamrock Ave					
Installed w/in 20' of ROW	94.39				
1 tree / 30 LF of street		3.15	0	4	4
1 shrub/20 LF of street		4.72	0	5	5
Northwest Moore St					
Installed w/in 20' of ROW	128.77				
1 tree / 30 LF of street		4.29	0	5	5
1 shrub/20 LF of street		6.44	0	8	8
Perimeter Parking Landscape					
10' buffer					
12 shrubs/40 LF	279	83.7	0	70	70
Continuous screen of 2.5' shrubs		Y	N/A	Y	
Island/Interior Landscape	19,981.00				
parking area >10 spaces	48				
5% of parking area		999.05	N/A	1,406.00	
Buffer Planting					
20' width					
6' fence	328				
2 shade trees/100 LF		6.56	0	7	7
2 ornamental trees/100 LF		6.56	N/A	7	7
2 evergreen trees/100 LF		6.56	N/A	7	7
10 shrub/100 LF		32.8	N/A	77	77

MENU

CAD VERSION
PLOT SCALE
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DRAWING NO.

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GRAPHIC SCALE
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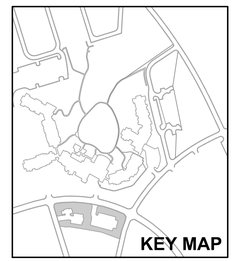
SHEET UPDATED PER REV 5



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NINA M. BUTLER
NUMBER PLA-2018036558
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03/09/2021

PROJECT TITLE

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Meadows Building - Phase II

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APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
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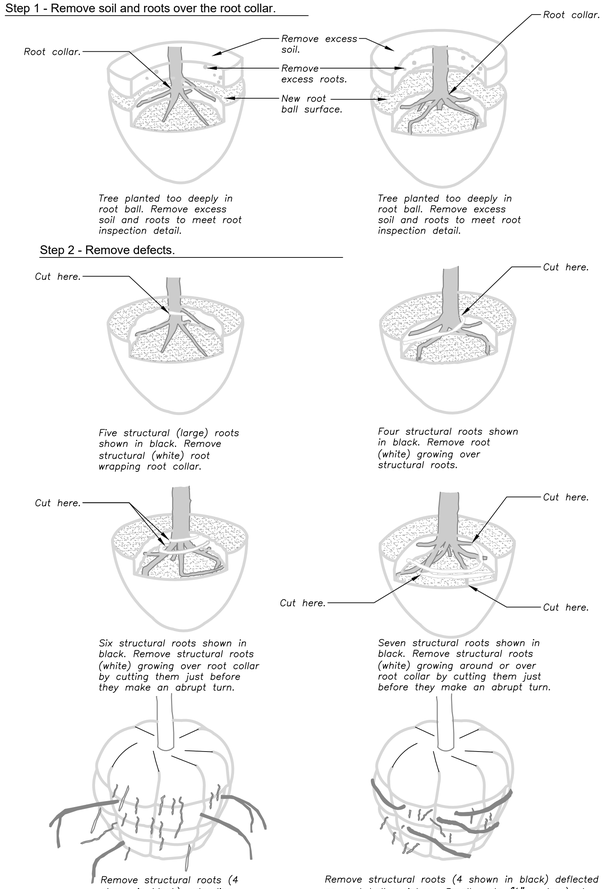
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021
05	ADDENDUM 1	03/10/2021

DRAWING TITLE

PARKING PLANTING PLAN

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING	SHEET
L3.2	26 OF 29

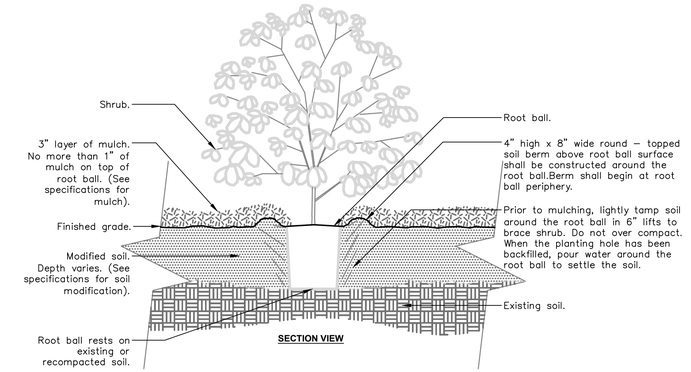


Notes:
1– All trees shown are rejectable unless they undergo recommended correction.
2– First step 1, then step 2. Adjust hole depth to allow for the removal of excess soil and roots over the root collar.
3– Roots and soil may be removed during the correction process; substrate/soil shall be replaced after the correction has been completed.
4– Trees shall pass root observations detail following correction.

URBAN TREE FOUNDATION© 2014

801 Not to Scale

ROOT BALL CORRECTION DETAIL



Notes:
1– Shrubs shall be of quality prescribed in the root observations detail and specifications.

2– See specifications for further requirements related to this detail.

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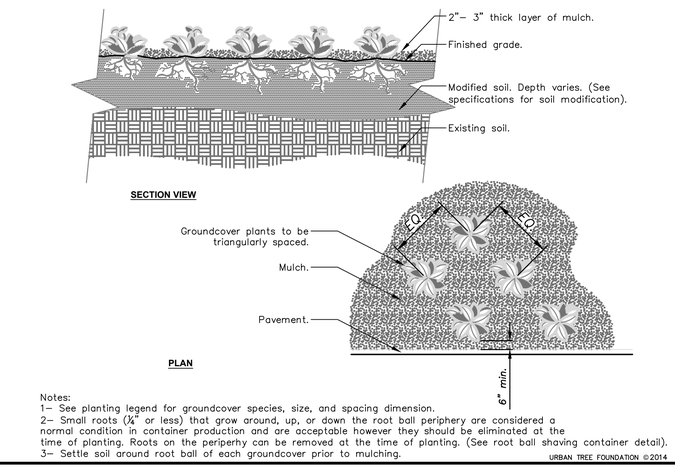
SHRUB PLANTING DETAIL



Notes:
1– See planting legend for groundcover species, size, and spacing dimension.
2– Small roots (¼" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. Roots on the periperhy can be removed at the time of planting. (See root ball shaving container detail).
3– Settle soil around root ball of each groundcover prior to mulching.

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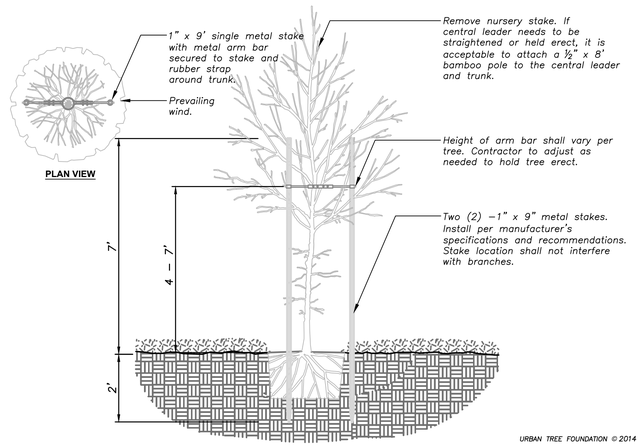
GROUNDCOVER SPACING DETAIL



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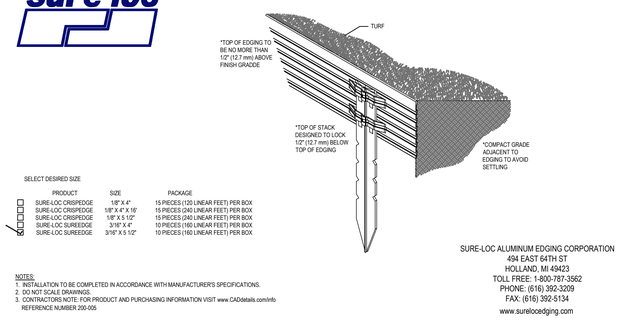
TREE STAKING DETAIL



805 Not to Scale

ALUMINUM LANDSCAPE EDGING DETAIL

PLANTING NOTES

1. Location of all existing utilities needs to be done before commencing work.
2. The planting plan graphically illustrates overall plant massings. Each plant species massing shall be placed in the field to utilize the greatest coverage of ground plane. The following applies for individual plantings:
   A. Creeping groundcover shall be a minimum of 6" from paving edge.
   B. All trees shall be a minimum of 3 ft. from paving edge.
   C. All plants of the same species shall be equally spaced apart and placed for best aesthetic viewing.
   D. All shrubs shall be a minimum of 2 ft. from paved edge.
3. Mulch all planting bed areas to a minimum depth of 3". Mulch individual trees to a minimum depth of 2".
4. Note: If plants are not labeled - they are existing and shall remain.
5. All landscaped areas in right of way shall be sodded and irrigated unless otherwise specified.

MATERIALS:
1. Plant material shall be healthy, vigorous, and free of disease and insects as per AAN standards.
2. Kind, size and quality of plant material shall conform to American Standard for nursery stock, ANSI-260-2004, or most recent edition.
3. Shredded bark mulch installed at trees shall be finely chipped and shredded hardwood chips, consisting of pure wood products and free of all other foreign substances. Pine bark compost mulch installed at planting bed areas shall be free of all other foreign substances.

INSTALLATION:
1. All compacted soil within the area to be landscaped shall be removed to a depth of not less than two (2) feet and shall be backfilled with topsoil.
2. Prepare planting beds by incorporating an approved composed organic soil into existing soil for all shrub, perennial, and annual planting beds at a minimum depth of 6". Thoroughly mix organic material into the existing soil by roto-tilling or other approved method to a minimum depth of 12".
3. Planting of trees, shrubs, and seeded groundcover shall be commenced during either the spring (March 15 - June15) or fall (September 1 - October 15) planting season and with water available for hand irrigation purposes.
4. Apply liquid, root stimulator, to all shrubs and groundcovers at rates recommended by manufacturer during first planting watering following installation.
5. All planting beds will be prepared with polypropylene landscape fabric before plant material is installed. Rock mulch to be placed over polypropylene landscape fabric at a depth of 2" - 4".
6. Landscape fabric should be installed flat with all folds either pinned down with 4" landscape pins, overlap adjoining sheets a minimum of 2 - 4" steel landscape staples to be used to pin down the corners before mulch is installed.
7. After plants have been installed, all planting beds shall be treated with dacthal pre-emergent herbicide prior to mulch application.
8. Plant pit backfill for trees and shrubs shall be 20% peat or well composted manure and 80% topsoil.
9. Trees planted in landscaped planting areas shall be situated a minimum of three (3) feet from any curb.
10. Plant material shall be maintained and guaranteed for a period of one year after owner's acceptance of finished job. All dead or damaged plant material shall be replaced at landscape contractor's expense.
11. Landscape contractor shall maintain all plant material until final acceptance, at which point the one year guarantee begins.
12. All landscape beds shall be level with surrounding hardscape.
13. Top of mulch bed to remain a minimum of 3" below the thru wall flashing at the brick facade of the building.

SOD NOTES

1. All disturbed areas shall be sodded/seeded with turf-type tall fescue sod with a minimum of three cultivars.
2. All landscaped areas shall receive a minimum 6-inch depth of topsoil compacted to 85% density at optimum moisture content.
3. The entire surface to be landscaped should be reasonable smooth and free from stones, roots or other debris.
4. Sod shall be machine stripped at a uniform soil thickness of approximately one inch (plus or minus 1/4-inch). The measurement for thickness shall exclude top growth and thatch, and shall be determined at the time of cutting in the field. Precautions shall be taken to prevent drying and heating. sod damaged by heat and dry conditions, and sod cut more than 18 hours before being incorporated into the work shall not be used.
5. Handling of sod shall be done in a manner that will prevent tearing, breaking, drying and other damage. Protect exposed roots from dehydration. Do not deliver more sod than can be laid within 24 hours.
6. Moisten prepared surface immediately prior to laying sod. water thoroughly and allow surface to dry before installing sod, fertilize, harrow or rake fertilizer in the top 1-1/2-inches of topsoil, at a uniform rate.
7. Fertilizer shall be 20-10-5 commercial fertilizer of the grade, type, and form specified and shall comply with the rules of the state dept. of agriculture. fertilizer shall be identified according to the percent N,P,K in that order.
8. Saturate sod with fine water spray within two hours of planting. During the first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of four inches.

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PLANTING DETAILS

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DRAWING L4.0	SHEET 27 OF 29

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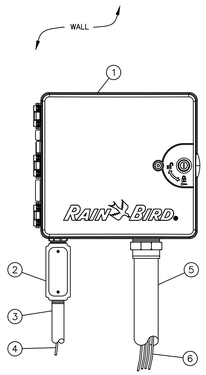
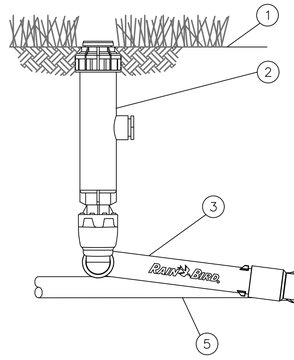


1. IRRIGATION CONTROLLER: RAIN BIRD ESP–LXME CONTROLLER IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1–INCH CONDUIT AND FITTINGS TO POWER SUPPLY
4. POWER SUPPLY WIRE
5. 2–INCH CONDUIT AND FITTINGS FOR STATION WIRES
6. WIRES TO REMOTE CONTROL VALVES

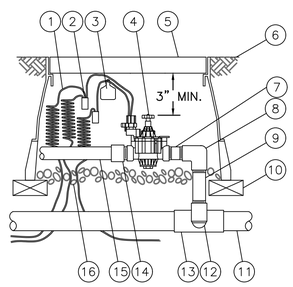
NOTES:
1. ESP–LXME CONTROLLER IS AVAILABLE IN 8– OR 12–STATION BASE MODELS. ADDITIONAL MODULES IN 4–, 8– AND 12–STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

901 RAINBIRD ESP-LXME CONTRILLER DETAIL
Not to Scale



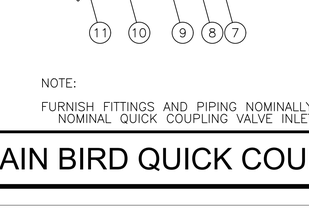
1. FINISH GRADE
2. ROTOR POP–UP SPRINKLER: RAIN BIRD 5006 5006–FC/PC–SAM
3. PRE–FABRICATED SWING JOINT: RAIN BIRD TSJ–075–PRS WITH 45 PSI PRESSURE REGULATOR
4. PVC SCH 40 TEE OR ELL
5. LATERAL PIPE

904 RAINBIRD ROTOR POP-UP SPRINKLER DETAIL
Not to Scale



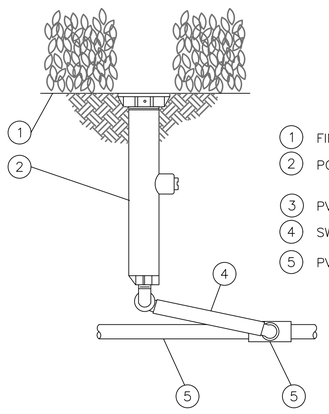
1. 30–INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION: RAIN BIRD SPLICE–1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PGA
5. VALVE BOX WITH COVER: RAIN BIRD VB–STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2–INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL

902 RAINBIRD REMOTE CONTROL VALVE DETAIL
Not to Scale



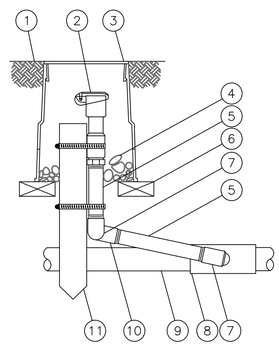
STANDARD VALVE BOX DIMENSIONS

905 STANDARD VALVE BOX DETAIL
Not to Scale



1. FINISH GRADE
2. POP–UP SPRAY SPRINKLER: RAIN BIRD 1806 –SAM–PRS WITH 1800 VPC WITH RAIN BIRD ROTARY NOZZLE
3. PVC LATERAL PIPE
4. SWING ASSEMBLY: RAIN BIRD MODEL SA 6050
5. PVC SCH 40 TEE OR ELL

903 POP-UP SPRINKLER W/SWING PIPE DETAIL
Not to Scale



1. FINISH GRADE/TOP OF MULCH
2. QUICK–COUPLING VALVE: RAIN BIRD MODEL 5NP
3. VALVE BOX WITH COVER: RAIN BIRD VB–6RND
4. 3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL
5. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
6. BRICK (1 OF 2)
7. PVC SCH 40 STREET ELL
8. PVC SCH 40 TEE OR ELL
9. PVC MAINLINE PIPE
10. PVC SCH 40 ELL
11. 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

NOTE:

FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

906 RAIN BIRD QUICK COUPLER VALVE DETAIL
Not to Scale

IRRIGATION NOTES

1. The system design assumes a minimum available static pressure for the irrigation system of 75 psi at the 1 inch meter. Contractor to verify pressure and flow on site prior to construction and report and discrepancies between these assumptions and actual field conditions in writing to the owner's representative.
2. Read thoroughly and become familiar with the specifications and instillation details for this and related work prior to construction.
3. Coordinate location and marking of underground utilities prior to construction. Notify the owner's representative of any conflict with any underground utility.
4. Do not proceed with the instillation of the irrigation system when it is obvious in the field that obstructions or grade differences existing that might not have been considered in the engineering, or if discrepancies in construction details, legend, notes, or specifications are discovered. Bring all such obstructions or discrepancies to the attention of the owner's representative in writing prior to construction.
5. These drawings are diagrammatic. therefore, the following should be noted:
   A. Avoid conflicts between the irrigation system, planting materials and architectural features. Instill irrigation pipe and wiring in landscaped areas whenever possible.
   B. Use only standard tees and elbow fittings. use of cross type fittings is not permitted.
   C. Irrigation pipe and valves may be shown outside of the planting area, in the hardscape, or outside of property lines for graphic clarity only. Install all irrigation components within landscapes areas or through sleeving and within the property boundary.
6. Provide the following components to the owner's representative prior to the completion of the project.
   A. Two operating keys for each type of manually operated valves.
   B. Two of each servicing wrench or tool needed for complete access, adjustment, and repair of all sprinklers and emitters.
7. Select nozzles for spray and rotary sprinklers with arcs that provide complete and uniform coverage with minimum overspray for the site conditions. To minimize overspray, install pressure compensating nozzles or pressure compensating screens if uniform lateral pressure cannot be attained with pressure adjustment at the remote control valve. Carefully adjust the radius of the throw and arc of coverage of each spray and rotary sprinkler to provide the best performance.
8. The irrigation contractor is responsible for coordinating with the general contractor for the instillation of irrigation sleeving. All sleeving will be schedule 40 PVC. All pipe and wire will be installed in separate sleeves at all paved surfaces, sidewalks, driveways, walls, footings, and hardscape areas. All sleeves may not be shown and/or sized in the plans. The general contractor is responsible for coordinating with the irrigation contractor for the instillation of all required sleeving, proper sizing, and coordinating instillation of sleeving with other trades. Any pipe or wire which passes beneath existing hardscape where sleeving was not installed, requires horizontal boring by the irrigation contractor. Sleeve and conduit sizes shall be a minimum of twice the aggregate diameter of all pipe and wire contained within sleeve or conduit pipe. Minimum sleeve size is 2-inch. Indicate all sleeve locations on "as-built" record drawings.
9. Coordinate and install all electrical power to the irrigation control system in accordance with the national electric code and all applicable local electric utility codes.
10. Gate valves shall be ported to provide for full flow. Labeled and nominal size of valve opening shall be the same.
11. All materials and workmanship shall be true to type, form, finish and of the highest standards of the trade. Damaged or inferior materials shall be removed from the site without delay.
12. Install pressure regulating module for all drip valve assemblies, set discharge pressure to 35 psi.
13. Install irrigation pipe and components a minimum of 8 feet from tree root balls. Pipe routings shown on drawings are diagrammatic.
14. Provide #12-1 AWG bare copper tracing wire along the entire mainline routing. Provide 24 inch coil of tracing wire in each valve box along mainline routing.
15. Contractor shall furnish and install material and equipment pertaining to the irrigation system herein specified or shown on the drawings. This shall include all items necessary to complete installation.
16. Irrigation contractor to cap all flush ends hand tight prior to backfill.
17. Irrigation contractor shall coordinate work with planting plans to avoid conflicting locations between piping and plant pits.
18. All materials shall be installed as detailed in the plans. If the contract drawings and/or specifications do not thoroughly describe the method or techniques to be used, then the contractor shall install as per manufacturers specifications. If a contradiction occurs, notify the landscape architect immediately.
19. Irrigation contractor to use Teflon tape on all threaded joints.
20. No pipes shall be installed parallel and directly over another line.
21. Brand each valve box with 1" lettering showing zone number and controller letter. This stamp is to match the zone and controller associates with the valve's operation.
22. Contractor shall perform the following:
   A. Visit site and verify existing grades, construction and conditions.
   B. Notify landscape architect of discrepancies between plan and field conditions.
   C. Restore contractor damaged existing work to the satisfaction of the engineer or landscape architect without cost to the owner.
   D. Be satisfied that the plan can be constructed, functional and complete.
23. All equipment shall be maintained while under construction. Maintenance includes: water scheduling, replacement of defective or damaged equipment, adjustment and re-adjustment of heads and other equipment.
24. Contractor to ensure the following:
   A. Lines and valves are to be placed within planting beds and project limits. These plans are schematic. contractor shall size all pipe.
   B. 100% coverage of irrigation system to all plants regardless of size or type and shall confirm all non-irrigated areas prior to submitting a bid.
25. Install two (2) spare #14-1 AWG control wires for each unused station and one spare #12-1 AWG common wire from the respective controller to this location for use as a spare wires in each remote control valve box along the entire wire routing for this controller. Seal wire ends water tight and contain within valve box at this location.
26. Should field adjustments be made to the site plan, irrigation contractor shall make all necessary adjustments to the irrigation system to ensure proper functionality. Landscape architect is to be notified of any and all changes made to the irrigation system, prior to instillation of said changes.

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STATE OF MISSOURI
NINAH A. BUTLER
NUMBER PLA-2018036558
PROFESSIONAL LANDSCAPE ARCHITECT
02/24/2021

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS | Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon St., Ste 207
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	TJM
PROJECT ARCHITECT	:	DAS
PROJECT ENGINEER	:	ERB
DRAWN BY	:	SKT
CHECKED BY	:	ERB
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
01	REVISION 1	02/08/2021
02	FDP RESPONSES	02/09/2021
03	BID SET	02/24/2021
04	FDP RESPONSES 2	02/23/2021

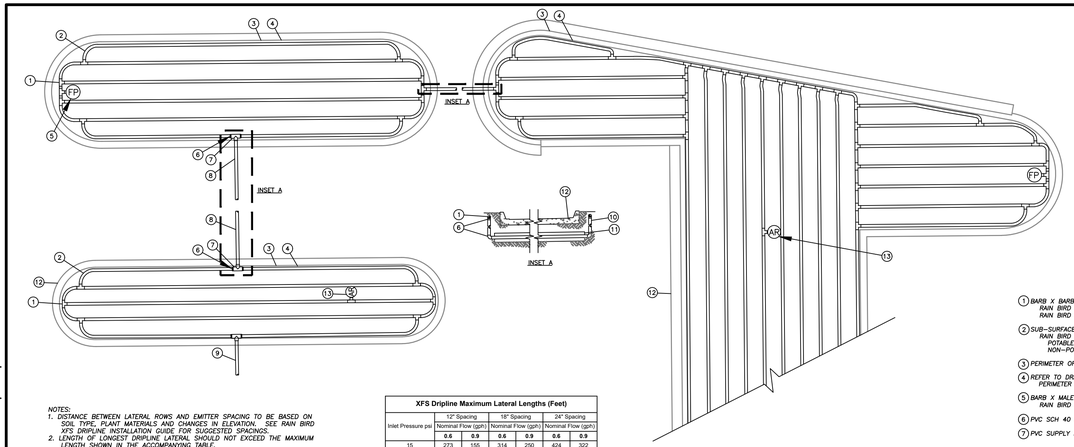
DRAWING TITLE

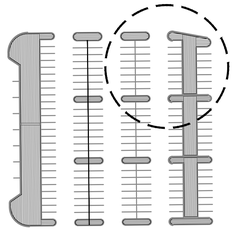
IRRIGATION DETAILS 1

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING L4.1	SHEET 28 OF 29

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
CORE NO.
DRAWING NO.





NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT ALL HIGH POINTS.
4. DISTANCE FROM CURB TO ADJACENT DRIP LINE TO BE SPECIFIED BY DESIGN CONSULTANT (SEE DRAWINGS AND SPECIFICATIONS).
5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

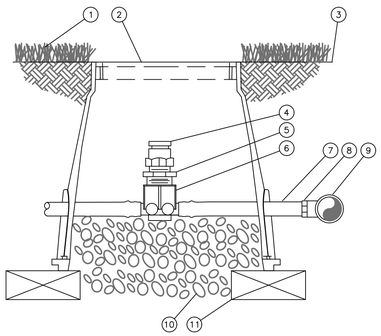
XFS Dripline Maximum Lateral Lengths (Feet)

	12" Spacing		18" Spacing		24" Spacing	
Inlet Pressure psi	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	**0.9**	**0.6**	**0.9**	**0.6**	**0.9**
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	526	420	720	488
60	460	290	596	455	780	514

1. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFT–TEE OR RAIN BIRD XFD–CROSS (TYPICAL)
2. SUB–SURFACE DRIPLINE PIPE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON–POTABLE: XFSP DRIPLINE
3. PERIMETER OF AREA
4. REFER TO DRAWINGS AND SPECIFICATIONS FOR PERIMETER DRIPLINE PIPE DISTANCE TO EDGE.
5. BARB X MALE FITTING: RAIN BIRD XFT–MA FITTING (TYPICAL)
6. PVC SCH 40 TEE OR EL (TYPICAL)
7. PVC SUPPLY MANIFOLD
8. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFS FLUSH POINT"
9. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
10. PVC SCH 40 RISER PIPE
11. PVC SCH 40 SLEEVE PIPE SIZED TWICE SIZE OF MANIFOLD PIPE SIZE.
12. PAVEMENT AND CURB
13. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION

907 Not to Scale

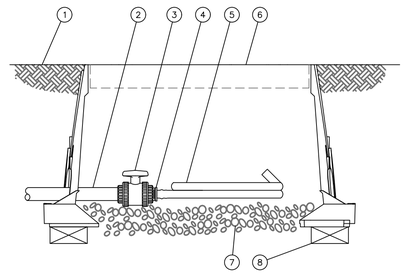
TYPICAL ISLAND DRIPLINE LAYOUT DETAIL



1. TURF GRASS
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. FINISH GRADE
4. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
5. ½" X ¾" PVC REDUCER BUSHING
6. BARB X FEMALE THREAD CONNECTOR: RAIN BIRD XFD–TFA FITTING
7. ½" BLANK DRIPLINE TUBING: RAIN BIRD XF SERIES
8. BARB X MALE THREAD CONNECTOR: RAIN BIRD XFF–MA FITTING
9. PVC TEE CONNECTED TO PVC HEADER PIPE
10. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL
11. BRICK (1 OF 2)

908 Not to Scale

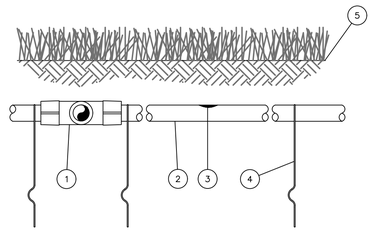
DRIPLINE AIR RELIEF VALVE DETAIL



1. FINISH GRADE
2. PVC DRIP MANIFOLD PIPE
3. PVC 1" X ¾" TRUE UNION BALL VALVE
4. EASY FIT MALE X BARB ADAPTER: RAIN BIRD XFF–MA–075
5. SUB–SURFACE DRIPLINE: RAIN BIRD XF SERIES BLANK TUBING
6. 12–INCH VALVE BOX WITH COVER: RAIN BIRD VB–STD
7. 3–INCH MINIMUM DEPTH OF ¾" WASHED GRAVEL
8. BRICK (1 OF 2)

908 Not to Scale

DRIPLINE FLUSH POINT W/BALL VALVE DETAIL



1. EASY FIT COMPRESSION TEE: RAIN BIRD MDCFTEE
2. SUB–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON–POTABLE: XFSP DRIPLINE
3. INLINE DRIP EMITTER
4. TIE DOWN STAKE: RAIN BIRD TDS–050 WITH BEND (TYPICAL)
5. TURF/FINISH GRADE OR SHRUB BED WITH MULCH

NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE–DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. INSERTION FLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN STAKES.

909 Not to Scale

XFS SUB-SURFACE DRIPLINE BURIAL DETAIL

MENU

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PLOT SCALE	
PLOT DATE	
COMM NO.	
DRAWING NO.	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

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DRAWING TITLE

IRRIGATION DETAILS 2

COMM. NO.	DATE
19132.00	DECEMBER 18, 2020
DRAWING L4.2	SHEET 29 OF 29

ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT
ADD	ADDENDUM
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ARCH	ARCHITECTURAL
BLDG	BUILDING
BR	BEDROOM
CG	CORNER GUARD
CI	CAST IRON
CJ	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONF	CONFERENCE
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CR	CHAIR RAIL
CW	CASEWORK
DEFS	DIRECT APPLIED EXTERIOR FINISH SYSTEM
DIA	DIAMETER
DWG	DRAWING
EB	EXPANSION BOLT
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EPS	EXTRUDED POLYSTYRENE
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXT	EXTERIOR
F	FILLER
FEC	FIRE EXTINGUISHER CABINET
FL	FLOOR
FRT	FIRE RETARDANT TREATED
FRP	FIBERGLASS REINFORCED POLYESTER
GALV	GALVANIZED
GWB	GYPSUM WALL BOARD
HORZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HR	HANDRAIL
ID	INSIDE DIAMETER
IL	INDEPENDENT LIVING
INT	INTERIOR
ISOL	ISOLATION
J.C.	JANITOR CLOSET
LOC	LIMITS OF CONSTRUCTION
LP	LOW POINT
MACH	MACHINE
MAINT	MAINTENANCE
MECH	MECHANICAL
MO	MASONRY OPENING
MTD	MOUNTED
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OH	OPPOSITE HAND
PT	PRESSURE TREATED
R	RADIUS
RE	REFER
RECPT	RECEPTION
RES	RESIDENT
RM	ROOM
RO	ROUGH OPENING
SA	SELF-ADHERING
SCHED	SCHEDULED
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
STOR	STORAGE
STRUCT	STRUCTURAL
TLT	TOILET
TOJ	TOP OF JOIST
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRN	TRAINING
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W/	WITH
WHL CHR	WHEELCHAIR
W/O	WITHOUT
WRB	WEATHER RESISTANT BARRIER

MENU

CAD VERSION:

PLOT SCALE:

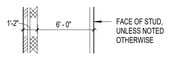
PLOT DATE: 3/11/2021 5:31:13 AM

SAVE DATE:

COMM. NO.:

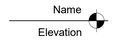
DRAWING NO.:

ARCHITECTURAL SYMBOLS



Dimension Line

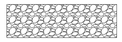
New Construction



Building Elevation

Limits Of Construction

Earth



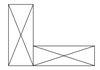
Porous Fill
(Stone Or Gravel)

Cast-in-place Concrete

Brick

Concrete Masonry Units

Steel



Wood Blocking

Finish Wood

Plywood

Batt Insulation

Rigid Insulation

Gypsum Wall Board

Glass

Sand, Cement, Grout

NOTE: THESE ARE STANDARD SYMBOLS AND ALL SYMBOLS NOTED ON THIS SHEET MAY NOT APPLY.

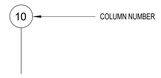
ARCHITECTURAL SHEET NUMBERING SERIES

A0.	GENERAL INFORMATION, FIRE PROTECTION PLANS
AD1.	ARCHITECTURAL DEMOLITION
A1.	FLOOR PLANS, ROOF PLAN
A2.	ENLARGED PLANS
A3.	REFLECTED CEILING PLANS
A4.	SCHEDULES
A5.	EXTERIOR ELEVATIONS, BUILDING SECTIONS
A6.	WALL SECTIONS, AND EXTERIOR DETAILS
A7.	INTERIOR DETAILS, ELEVATIONS, SECTIONS
A8.	VERTICAL CIRCULATION
A9.	SPECIAL CONSTRUCTION

NOTE: THESE ARE STANDARD SHEET SERIES NUMBERS AND ALL SHEET SERIES NOTED ON THIS SHEET MAY NOT APPLY.

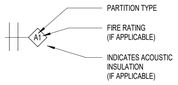
ARCHITECTURAL SYMBOLS

North Symbol



Column Grid Line

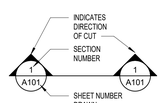
Plan Note



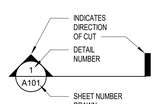
Partition Information

Door Information

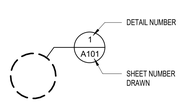
Room Information



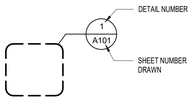
Plan & Vertical Section Reference



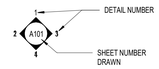
Section Detail Reference



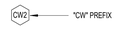
Plan Detail Reference



Enlarged Plan Reference



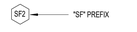
Elevation: Multiple Elevation



Curtain Wall Type

Glass Type

Window Type

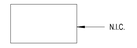


Storefront Type

Toilet Accessories

Revision Number

Supplemental Drawing Reference Number



Equipment Not In Contract

Equipment Number

Matchline

Center Line

Plan Spot Elevation

NOTE: THESE ARE STANDARD SYMBOLS AND ALL SYMBOLS NOTED ON THIS SHEET MAY NOT APPLY.

PROJECT DATA

PROJECT DESCRIPTION

THE WORK INCLUDES 52 NEW APARTMENTS AND A NEW UNDERGROUND PARKING GARAGE

DESIGN CRITERIA

2018 INTERNATIONAL BUILDING CODE (IBC)

SQUARE FOOTAGE

GARAGE FLOOR	26,130
SECOND FLOOR	22,895
THIRD FLOOR	22,345
FOURTH FLOOR	22,345
FIFTH FLOOR	22,345
TOTAL	116,060 sf

UNIT NAME	PATIO/BALCONY	SCREENED PORCH	SUNROOM
UNIT C - MONARCH	4	4	4
UNIT F - WESTPORT	0	4	4
UNIT G - BROOKSIDE	4	8	4
UNIT H1 - ROYAL	0	0	8
UNIT H2 - PLAZA	0	0	8
TOTAL	**12**	**16**	**24**

UNIT NAME	HEATED SF	FLOOR 2	FLOOR 3	FLOOR 4	FLOOR 5	TOTAL
UNIT C - MONARCH	1,034 SF	2	3	3	3	**11**
UNIT F - WESTPORT	1,222 SF	2	2	2	2	**8**
UNIT G - BROOKSIDE	1,289 SF	4	4	4	4	**16**
UNIT H1 - ROYAL	1,420 SF	2	2	2	2	**8**
UNIT H2 - PLAZA	1,400 SF	2	2	2	2	**8**
ACCESSIBLE UNITS						
UNIT C - MONARCH HC	1,034 SF	1	0	0	0	**1**
TOTAL		**13**	**13**	**13**	**13**	**52**

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: DAS
CHECKED BY	: AAT
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

PROJECT DATA, SYMBOLS AND ABBREVIATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.0

SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

2018 APPENDIX B BUILDING CODE SUMMARY - FIRE AREA 1

NAME OF PROJECT: JOHN KNOX VILLAGE - MEADOWS PHASE II
ADDRESS: 520 HOPE LN, LEE'S SUMMIT, MISSOURI
PROPOSED USE: RETIREMENT LIVING COMMUNITY
OWNER/AUTHORIZED AGENT:
OWNED BY: ☐ CITY/COUNTY ■ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ■ CITY ☐ COUNTY ■ STATE

LEAD DESIGN PROFESSIONAL:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	EMAIL
ARCHITECTURAL	SFCS INC.	TIMOTHY J MUELLER	# 006802	540.682.8062	tmueller@sfcs.com
CIVIL	BHC RHODES	ERIC BYRD	# 22713	913.706.2518	eric.byrd@bhc.com
ELECTRICAL	OPTIMA ENGINEERING	KEITH PEHL	# PE025154	704.338.1292	kpehl@optimaengineering.com
FIRE ALARM	OPTIMA ENGINEERING	KEITH PEHL	# PE025154	704.338.1292	kpehl@optimaengineering.com
PLUMBING	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
MECHANICAL	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
SPRINKLER-STANDPIPE	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
STRUCTURAL	FITZPATRICK ENGINEERING	DOUGLAS G FITZPATRICK	# PE201401124	704.987.9114	dfitzpatrick@fegstructural.com
RETAINING WALLS >5' HIGH	FITZPATRICK ENGINEERING	DOUGLAS G FITZPATRICK	# PE201401124	704.987.9114	dfitzpatrick@fegstructural.com

2018 EDITION OF IBC CODE FOR: ■ NEW CONSTRUCTION ☐ ADDITION ☐ UPFIT

EXISTING: ☐ RECONSTRUCTION ☐ ALTERATION ☐ REPAIR

CONSTRUCTED _____ **ORIGINAL USE** _____ **RENOVATED** _____ **CURRENT USE** _____

BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ■ I-B ☐ II-A ☐ II-B ■ NO ☐ III-A ☐ III-B ☐ YES ☐ IV ☐ V-A ☐ V-B
MIXED CONSTRUCTION: TYPES: _____

SPRINKLERS: ☐NO ☐PARTIAL ■YES ■NFPA 13 ☐NFPA 13R ☐NFPA 13D
STANDPIPES: ☐NO ■YES CLASS ☐ I ☐ II ☐III ☐WET ☐DRY
FIRE DISTRICT: ■NO ☐YES FLOOD HAZARD AREA: ■NO ☐YES
BUILDING HEIGHT: FEET 11-4 NUMBER OF STORIES 1 + BELOW GRADE
MEZZANINE: ■NO ☐YES

GROSS BUILDING AREA:

BUILDINGS	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
GARAGE	N/A	26,130	26,174
TOTAL			

ALLOWABLE AREA

PRIMARY OCCUPANCY:
ASSEMBLY ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ BUSINESS ☐ EDUCATIONAL FACTORY ☐ F-1 MODERATE ☐ F-2 LOW
HAZARDOUS ☐ H-1 DETONATE ☐ H-2 DEFLAGRATE ☐ H-3 COMBUST ☐ H-4 HEALTH ☐ H-5 HPM
INSTITUTIONAL ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 CONDITION ☐1 ☐2 ☐3 ☐4 ☐5
☐ MERCANTILE RESIDENTIA ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
STORAGE ☐ S-1 MODERATE ■ S-2 LOW ☐ HIGH-PILED
☐ UTILITY & MISCELLANEOUS ■ PARKING GARAGE ☐ OPEN ■ ENCLOSED ☐ REPAIR GARAGE

SECONDARY OCCUPANCY: _____

SPECIAL USES: ☐402 ☐403 ☐404 ☐405 ☐406 ☐407 ☐408 ☐409 ☐410 ☐411 ☐412 ☐413 ☐414 ☐415 ☐416 ☐417 ☐418 ☐419 ☐420 ☐421 ☐422 ☐423

SPECIAL PROVISIONS: ☐509.2 ☐509.3 ☐509.4 ☐509.5 ☐509.6 ☐509.7 ☐509.8

MIXED OCCUPANCY: ■NO ☐YES SEPARATION:_____HR. EXCEPTION:_____

INCIDENTAL USE SEPARATION (508.2)
ALL INCIDENTAL USE SPACES ARE LESS THAN 10% OF THE TOTAL FLOOR AREA.

NON-SEPARATED USE (508.3)
THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT & AREA LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION.

SEPARATED USE (508.4)-SEE BELOW FOR AREA CALCULATIONS
FOR EACH STORY, THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1.

ACTUAL AREA OF OCCUPANCY A / ALLOWABLE AREA OF OCCUPANCY A + ACTUAL AREA OF / ALLOWABLE AREA OF OCCUPANCY B ≤1

THERE ARE NO MIXED OCCUPANCIES WITHIN EACH BUILDING

_____ + _____ + ... = <1.00

BUILDING NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503[3] AREA	(C) AREA FOR FRONTAGE INCREASE			(F) MAXIMUM BUILDING AREA[4]
GARAGE	S-2	26,174	316,000	N/A			316,000

1. FRONTAGE AREA INCREASE FROM SECTION 506.2 ARE COMPUTED THUS:
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM _____ (F)
B. TOTAL BUILDING PERIMETER=_____ (P)
C. RATIO (F/P)= (F/P)
D. W=MINIMUM WIDTH OF PUBLIC _____(W)
E. PERCENT OF FRONTAGE INCREASE, I =100 [F/P-0.25] X W/30 = (%)
2. THE SPRINKLER INCREASE PER SECTION 506.3 IS AS FOLLOWS:
A. MULTI-STORY BUILDING I =200 PERCENT
B. SINGLE STORY BUILDING I =300 PERCENT
3. UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS GROUP B, F, M, S, A-3, A-4 (507); GROUP A MOTION PICTURE (507.10); COVERED MALL BUILDINGS (402.6); AND H-2 AIRCRAFT PAINT HANGERS (507.8).
4. MAXIMUM BUILDING AREA=TOTAL NUMBER OF STORIES IN THE BUILDING x E (506.4).
5. THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.3.5. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.12.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE I-B		TYPE I-B	
BUILDING HEIGHT IN FEET	FEET 180	FEET=H+20'= N/A	11'-4"	504.2
BUILDING HEIGHT IN STORIES:	STORIES: 12	STORIES + 1= N/A	1 STORY	504.2

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION*)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	N/A	2 HR	2 HR	A0.2			
BEARING WALLS	N/A	2 HR	2 HR	A0.2			
EXTERIOR	N/A	2 HR	2 HR	A0.2			
NORTH	N/A	2 HR	2 HR	A0.2			
EAST	N/A	2 HR	2 HR	A0.2			
SOUTH	N/A	2 HR	2 HR	A0.2	U347		
WEST	N/A	2 HR	2 HR	A0.2			
INTERIOR	N/A	2 HR	2 HR	A0.2			
NONBEARING WALLS AND PARTITIONS							
EXTERIOR WALLS							
NORTH	N/A	0	0	N/A	N/A		
EAST	N/A	0	0	N/A	N/A		
SOUTH	VARIES - A0.2	1	2	N/A	N/A		
WEST	N/A	0	0	N/A	N/A		
INTERIOR WALLS AND PARTITIONS	N/A	0	0	N/A	N/A		
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	N/A	2 HR	N/A	N/A	N/A		
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	N/A	1 HR	2 HR	A0.2	TABLE 722.1.1.1		
SHAFT ENCLOSURES-EXIT	N/A	2 HR	2 HR	A0.2	TABLE 722.1.1.1		
SHAFT ENCLOSURES-OTHER	N/A	2 HR	2 HR	A0.2	TABLE 722.1.1.1		
CORRIDOR SEPARATION	N/A	N/A	N/A	N/A	N/A		
OCCUPANCY SEPARATION	N/A	N/A	N/A	N/A	N/A		
PARTY/FIRE WALL SEPARATION	N/A	N/A	N/A	N/A	N/A		
SMOKE BARRIER SEPARATION	N/A	N/A	N/A	N/A	N/A		
INCIDENTAL USE SEPARATION	N/A	N/A	N/A	N/A	U423		

* INDICATE SECTION NUMBER PERMITTING REDUCTION

LIFE SAFETY REQUIREMENTS

EMERGENCY LIGHTING: ☐NO ■YES
EXIT SIGNS: ☐NO ■YES
FIRE ALARM: ☐NO ■YES
SMOKE DETECTION SYSTEMS: ☐NO ■YES ☐PARTIAL_____
PANIC HARDWARE: ☐NO ■YES

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM[2] NUMBER OF EXITS REQUIRED	MINIMUM[2] NUMBER OF EXITS SHOWN ON PLANS	TRAVEL DISTANCE ALLOWABLE TRAVEL DISTANCE (TABLE 1016.2)	TRAVEL DISTANCE ACTUAL TRAVEL DISTANCE SHOWN ON PLANS		
GARAGE	2	3	400'	125'		

1. CORRIDOR DEAD ENDS (SECTION 1017.3)
2. BUILDINGS WITH SINGLE EXITS (TABLE 1019.2), SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1)
3. COMMON PATH OF TRAVEL (SECTION 1014.3)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(A) AREA[1] SQ. FT.	(B) AREA[1] PER OCCUPANT (TABLE 1004.1.2)	CALCULATED OCCUPANT LOAD a / b	(C) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)		EXIT WIDTH (IN)[2,3,4,5,6] REQUIRED WIDTH (SECTION 1005.1) (a / b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
GARAGE	26,174	200 GROSS	131	0.3"	0.2"	44"	44"	48"	78"

1. SEE TABLE 1004.1.2 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE.
SEE DEFINITION "AREA, GROSS" AND "AREA, NET" (SECTION 1002)
2. MINIMUM STAIRWAY WIDTH (SECTION 1009.1); MIN. CORRIDOR WIDTH (SECTION 1018.2); MIN. DOOR WIDTH (SECTION 1008.1)
3. MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1023.2)
4. SEE SECTION 1004.6 FOR CONVERGING EXITS.
5. THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE TOTAL REQUIRED (SECTION 1005.1)
6. ASSEMBLY OCCUPANCIES (SECTION 1028)

STRUCTURAL DESIGN

DESIGN LOADS:

IMPORTANCE FACTORS: WIND (I_W) _____ SNOW (I_S) _____ SEISMIC (I_E) _____

LIVE LOADS: ROOF _____ PSF MEZZANINE _____ PSF FLOOR _____ _____ _____

GROUND SNOW LOAD: _____ PSF

WIND LOAD: BASIC WIND _____ MPH (ASCE-7) EXPOSURE CATEGORY _____ WIND BASE SHEARS _____
AUDITORIUM: V_x _____ V_y _____
DINING: V_x _____ V_y _____
WELLNESS: V_x _____ V_y _____

SEISMIC DESIGN CATEGORY ☐A ☐B ☐C
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
OCCUPANCY CATEGORY ☐ I ☐ II ☐ IV
SPECTRAL RESPONSE ACCELERATION S_{DS} _____ %g S_{D1} _____ %g
SITE CLASSIFICATION _____ ☐ FIELD TEST ☐PRESUMPTIVE ☐HISTORICAL DATA
BASIC STRUCTURAL SYSTEM (CHECK ONE)
_____ BEARING WALL _____ DUAL W/SPECIAL MOMENT FRAME
_____ BUILDING FRAME _____ DUAL W/INTERMEDIATE R/C OR SPECIAL
_____ MOMENT _____ INVERTED PENDULUM
SEISMIC BASE SHEAR, V_{US} _____
ANALYSIS _____ SIMPLIFIED _____ EQUIVALENT LATERAL FORCE _____ MODAL
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? _____

LATERAL DESIGN CONTROL: EARTHQUAKE_____ WIND_____

SOIL BEARING CAPACITIES:
FIELD TEST (PROVIDE COPY OF TEST _____ PSF
PRESUMPTIVE BEARING CAPACITY _____ PSF
PILE SIZE, TYPE, AND CAPACITY _____

SEE STRUCTURAL DRAWINGS

PLUMBING FIXTURE REQUIREMENTS

USE		WATER CLOSETS	URINALS	LAVATORIES	SHOWERS / TUBS	DRINKING FOUNTAINS
SPACE	EXISTING					
	PROVIDED	N/A				
	REQUIRED					

ACCESSIBLE PARKING

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED REGULAR WITH 5' ACCESS AISLE	# OF ACCESSIBLE SPACES PROVIDED VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
		SEE CIVIL DRAWINGS			
TOTAL					

SPECIAL APPROVALS

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF ENERGY COST BUDGET METHOD, ANNUAL ENERGY COST BUDGET VS ALLOWABLE ANNUAL ENERGY COST BUDGET.

THERMAL ENVELOPE

METHOD OF COMPLIANCE: SEE A6 SERIES
■ PRESCRIPTIVE ____% GLAZED WALL AREA
☐ PERFORMANCE ☐ENERGY COST BUDGET

ROOF/CEILING ASSEMBLY (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
SKYLIGHTS IN EACH
U-VALUE OF SKYLIGHT
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY

EXTERIOR WALLS (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
OPENINGS (WINDOWS OR DOORS WITH GLA)U-VALUE OF ASSEMBLY
SHADING COEFFICIENT
PROJECTION FACTOR
LOW E REQUIRED
DOOR R-VALUES

WALLS ADJACENT TO UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
OPENINGS (WINDOWS OR DOORS WITH GLA)U-VALUE OF ASSEMBLY
LOW E REQUIRED, IF
DOOR R-VALUES

WALLS BELOW GRADE (EACH ASSEMBLY)
DESCRIPTION OF
U-VALUE OF TOTAL
R-VALUE OF INSULATION

FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL
R-VALUE OF INSULATION

FLOORS SLAB ON GRADE
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
HORIZONTAL/VERTICAL REQUIREMENTS
SLAB HEATED

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT:
METHOD OF COMPLIANCE:
☐PRESCRIPTIVE ☐ PERFORMANCE ☐ ENERGY COST BUDGET
LIGHTING SCHEDULE
LAMP TYPE REQUIRED IN
NUMBER OF LAMPS IN FIXTURE
BALLAST TYPE USED IN THE
NUMBER OF BALLASTS IN
TOTAL WATTAGE PER FIXTURE
TOTAL INTERIOR WATTAGE SPECIFIED
TOTAL EXTERIOR WATTAGE SPECIFIED
ALLOWED
EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)
MOTOR HORSEPOWER
NUMBER OF PHASES
MINIMUM EFFICIENCY
MOTOR TYPE
OF POLES

SEE ELECTRICAL DRAWINGS

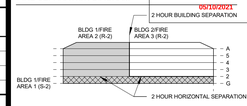
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT:
METHOD OF COMPLIANCE:
☐PRESCRIPTIV ☐ENERGY COST BUDGET
F
CLIMATE ZONE
THERMAL ZONE
WINTER DRY BULB
SUMMER DRY BULB
INTERIOR DESIGN CONDITIONS
WINTER DRY BULB
SUMMER DRY BULB
RELATIVE HUMIDITY
BUILDING HEATING LOAD
BUILDING COOLING LOAD
MECHANICAL SPACING CONDITIONING SYSTEM
UNITARY
DESCRIPTION OF
HEATING EFFICIENCY
COOLING EFFICIENCY
HEAT OUTPUT OF UNIT
COOLING OUTPUT OF UNIT
BOILER
TOTAL BOILER OUTPUT ___ OVERSIZED, STATE REASON.
CHILLER
TOTAL CHILLER CAPACITY. IF OVERSIZED, STATE REASON.
LIST EQUIPMENT EFFICIENCIES
EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS)
MOTOR HORSEPOWER
NUMBER OF PHASES
MINIMUM EFFICIENCY
MOTOR TYPE
OF POLES

SEE MECHANICAL DRAWINGS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI TIMOTHY J. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

APPENDIX B - GARAGE

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.1a SHEET ____ OF ____

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 2/24/2021 7:14:15 AM
SAVE DATE
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

2018 APPENDIX B BUILDING CODE SUMMARY - FIRE AREA 2

NAME OF PROJECT: JOHN KNOX VILLAGE - MEADOWS PHASE II
ADDRESS: 520 HOPE LN, LEE'S SUMMIT, MISSOURI
PROPOSED USE: RETIREMENT LIVING COMMUNITY
OWNER/AUTHORIZED AGENT:
OWNED BY: ☐ CITY/COUNTY ■ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ■ CITY ☐ COUNTY ■ STATE

LEAD DESIGN PROFESSIONAL:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	EMAIL
ARCHITECTURAL	SFCS INC.	TIMOTHY J MUELLER	# 006802	540.682.8062	tmueller@sfcs.com
CIVIL	BHC RHODES	ERIC BYRD	# 22713	913.706.2518	eric.byrd@bhc.com
ELECTRICAL	OPTIMA ENGINEERING	KEITH PEHL	# PE025154	704.338.1292	kpehl@optimaengineering.com
FIRE ALARM	OPTIMA ENGINEERING	KEITH PEHL	# PE025154	704.338.1292	kpehl@optimaengineering.com
PLUMBING	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
MECHANICAL	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
SPRINKLER-STANDPIPE	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
STRUCTURAL	FITZPATRICK ENGINEERING	DOUGLAS G FITZPATRICK	# PE201401124	704.987.9114	dfitzpatrick@fegstructural.com
RETAINING WALLS >5' HIGH	FITZPATRICK ENGINEERING	DOUGLAS G FITZPATRICK	# PE201401124	704.987.9114	dfitzpatrick@fegstructural.com

2018 EDITION OF IBC CODE FOR: ■ NEW CONSTRUCTION ☐ ADDITION ☐ UPFIT

EXISTING: ☐ RECONSTRUCTION ☐ ALTERATION ☐ REPAIR

CONSTRUCTED _____ **ORIGINAL USE** _____ **RENOVATED** _____ **CURRENT USE** _____

BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ■ NO ☐ III-A ☐ III-B ☐ YES ☐ IV ■ V-A ☐ V-B
MIXED CONSTRUCTION: TYPES: _____

SPRINKLERS: ☐NO ☐PARTIAL ■YES ☐NFPA 13 ■ NFPA 13R ☐NFPA 13D
STANDPIPES: ☐NO ■YES CLASS ☐ I ☐ II ☐III ☐WET ☐DRY
FIRE DISTRICT: ■NO ☐YES FLOOD HAZARD AREA: ■NO ☐ YES
BUILDING HEIGHT: FEET 55 NUMBER OF STORIES 4
MEZZANINE: ■NO ☐YES

GROSS BUILDING AREA:

LEVELS	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
SECOND FLOOR	N/A	10,301	10,301
THIRD FLOOR	N/A	9,821	9,821
FOURTH FLOOR	N/A	9,821	9,821
FIFTH FLOOR	N/A	9,821	9,821
TOTAL			39,764

ALLOWABLE AREA

PRIMARY OCCUPANCY: ASSEMBLY ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ BUSINESS ☐ EDUCATIONAL FACTORY ☐ F-1 MODERATE ☐ F-2 LOW
HAZARDOUS ☐ H-1 DETONATE ☐ H-2 DEFLAGRATE ☐ H-3 COMBUST ☐ H-4 HEALTH ☐ H-5 HPM
INSTITUTIONAL ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 CONDITION ☐1 ☐2 ☐3 ☐4 ☐5
☐ MERCANTILE RESIDENTIA ☐R-1 ■R-2 ☐R-3 ☐R-4
STORAGE ☐ S-1 MODERATE ☐ S-2 LOW ☐ HIGH-PILED
☐ UTILITY & MISCELLANEOUS ☐ PARKING GARAGE ☐ OPEN ☐ ENCLOSED ☐ REPAIR GARAGE

SECONDARY OCCUPANCY: _____

SPECIAL USES: ☐402 ☐403 ☐404 ☐405 ☐406 ☐407 ☐408 ☐409 ☐410 ☐411 ☐412 ☐413 ☐414 ☐415 ☐416 ☐417 ☐418 ☐419 ☐420 ☐421 ☐422 ☐423

SPECIAL PROVISIONS: ☐509.2 ☐509.3 ☐509.4 ☐509.5 ☐509.6 ☐509.7 ☐509.8

MIXED OCCUPANCY: ■NO ☐YES SEPARATION:_____HR. EXCEPTION:_____

INCIDENTAL USE SEPARATION (508.2)
ALL INCIDENTAL USE SPACES ARE LESS THAN 10% OF THE TOTAL FLOOR AREA.

NON-SEPARATED USE (508.3)
THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT & AREA LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION.

SEPARATED USE (508.4)-SEE BELOW FOR AREA CALCULATIONS
FOR EACH STORY, THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1.

ACTUAL AREA OF OCCUPANCY A / ALLOWABLE AREA OF OCCUPANCY A + ACTUAL AREA OF / ALLOWABLE AREA OF OCCUPANCY B ≤1

THERE ARE NO MIXED OCCUPANCIES WITHIN EACH BUILDING

_____ + _____ + ... = <1.00

BUILDING NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA [5]	(C) AREA FOR FRONTAGE INCREASE [1]	(D) AREA FOR SPRINKLER INCREASE [2]	(E) ALLOWABLE AREA OR UNLIMITED [3]	(F) MAXIMUM BUILDING AREA [4]
APARTMENTS AREA A	R-2	10,301	12,000	9,000	N/A	21,000	84,000

1. FRONTAGE AREA INCREASE FROM SECTION 506.2 ARE COMPUTED THUS:
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM _____ (F)
B. TOTAL BUILDING PERIMETER=_____ (P)
C. RATIO (F/P)= (F/P)
D. W=MINIMUM WIDTH OF PUBLIC _____(W)
E. PERCENT OF FRONTAGE INCREASE, I =100 [F/P-0.25] X W/30 = (%)
2. THE SPRINKLER INCREASE PER SECTION 506.3 IS AS FOLLOWS:
A. MULTI-STORY BUILDING I =200 PERCENT
B. SINGLE STORY BUILDING I =300 PERCENT
3. UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS GROUP B, F, M, S, A-3, A-4 (507); GROUP A MOTION PICTURE (507.10); COVERED MALL BUILDINGS (402.6); AND H-2 AIRCRAFT PAINT HANGERS (507.8).
4. MAXIMUM BUILDING AREA=TOTAL NUMBER OF STORIES IN THE BUILDING x E (506.4).
5. THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.3.5. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.12.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 504.3)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE V-A		TYPE V-A	
BUILDING HEIGHT IN FEET	FEET 60	FEET=H+20'= N/A	55'	504.3
BUILDING HEIGHT IN STORIES:	STORIES: 4	STORIES + 1= N/A	4 STORY	504.3

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION)*	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	N/A	1 HR	1 HR	A0.3	L569/P522		
BEARING WALLS	N/A	1 HR	1 HR	A0.3	U356/GA 3510		
EXTERIOR	N/A	1 HR	1 HR	A0.3	U356		
NORTH	N/A	1 HR	1 HR	A0.3	U356		
EAST	N/A	1 HR	1 HR	A0.3	U356		
SOUTH	-	2 HR	2 HR	A0.3	U347/U356		
WEST	N/A	1 HR	1 HR	A0.3	U356		
INTERIOR	N/A	1 HR	1 HR	A0.3	U311/GA 3510		
NONBEARING WALLS AND PARTITIONS							
EXTERIOR WALLS							
NORTH	N/A	0	0	N/A	N/A		
EAST	N/A	0	0	N/A	N/A		
SOUTH	N/A	0	0	N/A	N/A		
WEST	N/A	0	0	N/A	N/A		
INTERIOR WALLS AND PARTITIONS	N/A	0	0	N/A	N/A		
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	N/A	1 HR	1 HR	A0.3	L563/L569		
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	N/A	1 HR	1 HR	A0.3	P522		
SHAFT ENCLOSURES-EXIT	N/A	2 HR	2 HR	A0.3	U347		
SHAFT ENCLOSURES-OTHER	N/A	2 HR	2 HR	A0.3	U905		
CORRIDOR SEPARATION	N/A	1 HR	1 HR	A0.3	U311/GA 3510		
OCCUPANCY SEPARATION	N/A	N/A	N/A	N/A	N/A		
PARTY/FIRE WALL SEPARATION	N/A	2 HR	2 HR	A0.3	U347		
SMOKE BARRIER SEPARATION	N/A	1 HR	1 HR	A0.3	U305		
INCIDENTAL USE SEPARATION	N/A	1 HR	1 HR	A0.3	U305		

* INDICATE SECTION NUMBER PERMITTING REDUCTION

LIFE SAFETY REQUIREMENTS

EMERGENCY LIGHTING: ☐NO ■YES
EXIT SIGNS: ☐NO ■YES
FIRE ALARM: ☐NO ■YES
SMOKE DETECTION SYSTEMS: ☐NO ■YES ☐PARTIAL_____
PANIC HARDWARE: ☐NO ■YES

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM[2] NUMBER OF EXITS: REQUIRED	MINIMUM[2] NUMBER OF EXITS: SHOWN ON PLANS	TRAVEL DISTANCE: ALLOWABLE TRAVEL DISTANCE (TABLE 1017.2)	TRAVEL DISTANCE: ACTUAL TRAVEL DISTANCE SHOWN ON PLANS		
SECOND FLOOR	2	4	250'	125'		
THIRD FLOOR	2	4	250'	125'		
FOURTH FLOOR	2	3	250'	125'		
FIFTH FLOOR	2	3	250'	125'		

1. CORRIDOR DEAD ENDS (SECTION 1017.3)
2. BUILDINGS WITH SINGLE EXITS (TABLE 1019.2), SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1)
3. COMMON PATH OF TRAVEL (SECTION 1014.3)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(A) AREA[1] SQ. FT.	(B) AREA[1] PER OCCUPANT (TABLE 1004.1.2)	CALCULATED OCCUPANT LOAD a / b	(C) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)		EXIT WIDTH (IN)[2,3,4,5,6] REQUIRED WIDTH (SECTION 1005.1) (a / b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
SECOND FLOOR	10,301	200 GROSS	52	0.3"	0.2"	44"	44"	48"	78"
THIRD FLOOR	9,821	200 GROSS	50	0.3"	0.2"	44"	44"	48"	78"
FOURTH FLOOR	9,821	200 GROSS	50	0.3"	0.2"	44"	44"	48"	78"
FIFTH FLOOR	9,821	200 GROSS	50	0.3"	0.2"	44"	44"	48"	78"

1. SEE TABLE 1004.1.2 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE.
SEE DEFINITION "AREA, GROSS" AND "AREA,NET" (SECTION 1002)
2. MINIMUM STAIRWAY WIDTH (SECTION 1009.1); MIN. CORRIDOR WIDTH (SECTION 1018.2); MIN. DOOR WIDTH (SECTION 1008.1)
3. MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1023.2)
4. SEE SECTION 1004.6 FOR CONVERGING EXITS.
5. THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE TOTAL REQUIRED (SECTION 1005.1)
6. ASSEMBLY OCCUPANCIES (SECTION 1028)

STRUCTURAL DESIGN

DESIGN LOADS:

IMPORTANCE FACTORS: WIND (I_W) _____ SNOW (I_S) _____ SEISMIC (I_E) _____

LIVE LOADS: ROOF _____ PSF MEZZANINE _____ PSF FLOOR _____ _____ PSF _____ PSF

GROUND SNOW LOAD: _____ PSF

WIND LOAD: BASIC WIND _____ MPH (ASCE-7) EXPOSURE CATEGORY _____ WIND BASE SHEARS _____ AUDITORIUM: V_x _____ V_y _____ DINING: V_x _____ V_y _____ WELLNESS: V_x _____ V_y _____

SEE STRUCTURAL DRAWINGS

SEISMIC DESIGN CATEGORY ☐A ☐B ☐C ☐D ☐E ☐F
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
OCCUPANCY CATEGORY ☐ I ☐ II ☐ III ☐ IV
SPECTRAL RESPONSE ACCELERATION S_{DS}_____%g S_{D1}_____%g
SITE CLASSIFICATION_____ ☐ FIELD TEST ☐PRESUMPTIVE ☐HISTORICAL DATA
BASIC STRUCTURAL SYSTEM (CHECK ONE)
_____BEARING WALL _____DUAL W/SPECIAL MOMENT FRAME
_____BUILDING FRAME _____DUAL W/INTERMEDIATE R/C OR SPECIAL
_____MOMENT _____INVERTED PENDULUM
SEISMIC BASE SHEAR, V_{US} _____
ANALYSIS _____SIMPLIFIED _____EQUIVALENT LATERAL FORCE _____MODAL
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED?

LATERAL DESIGN CONTROL: EARTHQUAKE_____ WIND_____

SOIL BEARING CAPACITIES:
FIELD TEST (PROVIDE COPY OF TEST _____ PSF
PRESUMPTIVE BEARING CAPACITY _____ PSF
PILE SIZE, TYPE, AND CAPACITY _____

PLUMBING FIXTURE REQUIREMENTS

USE		WATERCLOSETS RESID. (R-2)	URINALS RESID. (R-2)	LAVATORIES RESID. (R-2)	SHOWERS/TUBS RESID. (R-2)	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXISTING						
	PROVIDED						
	REQUIRED						

PROVIDED IN UNITS

NOTE: 1 LAVATORY AND 1 WC LOCATED IN EACH RESIDENT UNIT BATH MIN.

ACCESSIBLE PARKING

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	# OF ACCESSIBLE SPACES PROVIDED: VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
TOTAL					

SEE CIVIL DRAWINGS

SPECIAL APPROVALS

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF ENERGY COST BUDGET METHOD, ANNUAL ENERGY COST BUDGET VS ALLOWABLE ANNUAL ENERGY COST BUDGET.

THERMAL ENVELOPE

METHOD OF COMPLIANCE: SEE A6 SERIES
■ PRESCRIPTIVE ___% GLAZED WALL AREA
☐ PERFORMANCE ☐ENERGY COST BUDGET

ROOF/CEILING ASSEMBLY (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
SKYLIGHTS IN EACH
U-VALUE OF SKYLIGHT
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY

EXTERIOR WALLS (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U-VALUE OF ASSEMBLY
SHADING COEFFICIENT
PROJECTION FACTOR
LOW E REQUIRED
DOOR R-VALUES

WALLS ADJACENT TO UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U-VALUE OF ASSEMBLY
LOW E REQUIRED, IF
DOOR R-VALUES

WALLS BELOW GRADE (EACH ASSEMBLY)
DESCRIPTION OF
U-VALUE OF TOTAL
R-VALUE OF INSULATION

FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL
R-VALUE OF INSULATION

FLOORS SLAB ON GRADE
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
HORIZONTAL/VERTICAL REQUIREMENTS
SLAB HEATED

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT:
METHOD OF COMPLIANCE:
☐PRESCRIPTIVE ☐ PERFORMANCE ☐ ENERGY COST BUDGET

LIGHTING SCHEDULE
LAMP TYPE REQUIRED IN
NUMBER OF LAMPS IN FIXTURE
BALLAST TYPE USED IN THE
NUMBER OF BALLASTS IN
TOTAL WATTAGE PER FIXTURE
TOTAL INTERIOR WATTAGE SPECIFIED
TOTAL EXTERIOR WATTAGE SPECIFIED
ALLOWED

EQUIPMENT SCHEDULES WITH MOTORS (MOTORS NOT USED FOR MECHANICAL SYSTEMS)
MOTOR HORSEPOWER
NUMBER OF PHASES
MINIMUM EFFICIENCY
MOTOR TYPE
OF POLES

SEE ELECTRICAL DRAWINGS

MECHANICAL SUMMARY

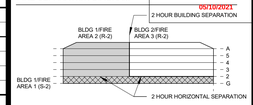
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT:
METHOD OF COMPLIANCE:
☐PRESCRIPTIV ☐ENERGY COST BUDGET
E
CLIMATE ZONE
THERMAL ZONE
WINTER DRY BULB
SUMMER DRY BULB
INTERIOR DESIGN CONDITIONS
WINTER DRY BULB
SUMMER DRY BULB
RELATIVE HUMIDITY
BUILDING HEATING LOAD
BUILDING COOLING LOAD
MECHANICAL SPACING CONDITIONING SYSTEM
UNITARY
DESCRIPTION OF
HEATING EFFICIENCY
COOLING EFFICIENCY
HEAT OUTPUT OF UNIT
COOLING OUTPUT OF UNIT
BOILER
TOTAL BOILER OUTPUT OVERSIZED, STATE REASON.
CHILLER
TOTAL CHILLER CAPACITY. IF OVERSIZED, STATE REASON.
LIST EQUIPMENT EFFICIENCIES

EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS)
MOTOR HORSEPOWER
NUMBER OF PHASES
MINIMUM EFFICIENCY
MOTOR TYPE
OF POLES

SEE MECHANICAL DRAWINGS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI TIMOTHY J MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

APPENDIX B - APARTMENTS - AREA A

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.1b SHEET _____ OF _____

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 2/24/2021 7:14:52 AM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

2018 APPENDIX B BUILDING CODE SUMMARY - FIRE AREA 3

NAME OF PROJECT: JOHN KNOX VILLAGE - MEADOWS PHASE II
ADDRESS: 520 HOPE LN, LEE'S SUMMIT, MISSOURI
PROPOSED USE: RETIREMENT LIVING COMMUNITY
OWNER/AUTHORIZED AGENT:
OWNED BY: ☐ CITY/COUNTY ■ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ■ CITY ☐ COUNTY ■ STATE

LEAD DESIGN PROFESSIONAL:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	EMAIL
ARCHITECTURAL	SFCS INC.	TIMOTHY J MUELLER	# 006802	540.682.8062	tmueller@sfcs.com
CIVIL	BHC RHODES	ERIC BYRD	# 22713	913.706.2518	eric.byrd@bhc.com
ELECTRICAL	OPTIMA ENGINEERING	KEITH PEHL	# PE025154	704.338.1292	kpehl@optimaengineering.com
FIRE ALARM	OPTIMA ENGINEERING	KEITH PEHL	# PE025154	704.338.1292	kpehl@optimaengineering.com
PLUMBING	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
MECHANICAL	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
SPRINKLER-STANDPIPE	OPTIMA ENGINEERING	BYRON FORD	# PE2014023016	704.338.1292	bford@optimaengineering.com
STRUCTURAL	FITZPATRICK ENGINEERING	DOUGLAS G FITZPATRICK	# PE201401124	704.987.9114	dfitzpatrick@fegstructural.com
RETAINING WALLS >5' HIGH	FITZPATRICK ENGINEERING	DOUGLAS G FITZPATRICK	# PE201401124	704.987.9114	dfitzpatrick@fegstructural.com

2018 EDITION OF IBC CODE FOR: ■ NEW CONSTRUCTION ☐ ADDITION ☐ UPFIT

EXISTING: ☐ RECONSTRUCTION ☐ ALTERATION ☐ REPAIR

CONSTRUCTED _____ **ORIGINAL USE** _____ **RENOVATED** _____ **CURRENT USE** _____

BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B ☐ IV ■ V-A ☐ V-B
MIXED CONSTRUCTION: ■ NO ☐ YES TYPES: _____

SPRINKLERS: ☐ NO ☐ PARTIAL ■ YES ☐ NFPA 13 ■ NFPA 13R ☐ NFPA 13D
STANDPIPES: ☐ NO ■ YES CLASS ☐ I ☐ II ☐ III ☐ WET ☐ DRY
FIRE DISTRICT: ■ NO ☐ YES FLOOD HAZARD AREA: ■ NO ☐ YES
BUILDING HEIGHT: FEET 55 NUMBER OF STORIES 4
MEZZANINE: ■ NO ☐ YES

GROSS BUILDING AREA:

LEVELS	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
SECOND FLOOR	N/A	13,879	13,879
THIRD FLOOR	N/A	13,879	13,879
FOURTH FLOOR	N/A	13,879	13,879
FIFTH FLOOR	N/A	13,879	13,879
TOTAL			55,516

ALLOWABLE AREA

PRIMARY OCCUPANCY: ASSEMBLY ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ BUSINESS ☐ EDUCATIONAL FACTORY ☐ F-1 MODERATE ☐ F-2 LOW
HAZARDOUS ☐ H-1 DETONATE ☐ H-2 DEFLAGRATE ☐ H-3 COMBUST ☐ H-4 HEALTH ☐ H-5 HPM
INSTITUTIONAL ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 CONDITION ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ MERCANTILE RESIDENTIA ☐ R-1 ■ R-2 ☐ R-3 ☐ R-4
STORAGE ☐ S-1 MODERATE ☐ S-2 LOW ☐ HIGH-PILED
☐ UTILITY & MISCELLANEOUS ☐ PARKING GARAGE ☐ OPEN ☐ ENCLOSED ☐ REPAIR GARAGE

SECONDARY OCCUPANCY: _____

SPECIAL USES: ☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421 ☐ 422 ☐ 423

SPECIAL PROVISIONS: ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8

MIXED OCCUPANCY: ■ NO ☐ YES SEPARATION: _____ HR. EXCEPTION: _____

INCIDENTAL USE SEPARATION (508.2)
ALL INCIDENTAL USE SPACES ARE LESS THAN 10% OF THE TOTAL FLOOR AREA.

NON-SEPARATED USE (508.3)
THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT & AREA LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION.

SEPARATED USE (508.4)-SEE BELOW FOR AREA CALCULATIONS
FOR EACH STORY, THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1.

ACTUAL AREA OF OCCUPANCY A / ALLOWABLE AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B / ALLOWABLE AREA OF OCCUPANCY B ≤1

THERE ARE NO MIXED OCCUPANCIES WITHIN EACH BUILDING

_____ + _____ + ... = <1.00

BUILDING NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA [5]	(C) AREA FOR FRONTAGE INCREASE [1]	(D) AREA FOR SPRINKLER INCREASE [2]	(E) ALLOWABLE AREA OR UNLIMITED [3]	(F) MAXIMUM BUILDING AREA [4]
APARTMENTS AREA A	R-2	13,879	12,000	9,000	N/A	21,000	84,000

1. FRONTAGE AREA INCREASE FROM SECTION 506.2 ARE COMPUTED THUS:
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM _____ (F)
B. TOTAL BUILDING PERIMETER=_____ (P)
C. RATIO (F/P)= (F/P)
D. W=MINIMUM WIDTH OF PUBLIC _____(W)
E. PERCENT OF FRONTAGE INCREASE, I =100 [F/P-0.25] X W/30 = (%)
2. THE SPRINKLER INCREASE PER SECTION 506.3 IS AS FOLLOWS:
A. MULTI-STORY BUILDING I =200 PERCENT
B. SINGLE STORY BUILDING I =300 PERCENT
3. UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS GROUP B, F, M, S, A-3, A-4 (507); GROUP A MOTION PICTURE (507.10); COVERED MALL BUILDINGS (402.6); AND H-2 AIRCRAFT PAINT HANGERS (507.8).
4. MAXIMUM BUILDING AREA=TOTAL NUMBER OF STORIES IN THE BUILDING x E (506.4).
5. THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.3.5. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.12.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 504.3)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE V-A		TYPE V-A	
BUILDING HEIGHT IN FEET	FEET 60	FEET=H+20'= N/A	55'	504.3
BUILDING HEIGHT IN STORIES:	STORIES: 4	STORIES + 1= N/A	4 STORY	504.3

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION*)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	N/A	1 HR	1 HR	A0.3	L569/P522		
BEARING WALLS	N/A	1 HR	1 HR	A0.3	U356/GA 3510		
EXTERIOR	N/A	1 HR	1 HR	A0.3	U356		
NORTH	N/A	1 HR	1 HR	A0.3	U356		
EAST	N/A	1 HR	1 HR	A0.3	U356		
SOUTH	-	2 HR	2 HR	A0.3	U347/U356		
WEST	N/A	1 HR	1 HR	A0.3	U356		
INTERIOR	N/A	1 HR	1 HR	A0.3	U311/GA 3510		
NONBEARING WALLS AND PARTITIONS							
EXTERIOR WALLS							
NORTH	N/A	0	0	N/A	N/A		
EAST	N/A	0	0	N/A	N/A		
SOUTH	N/A	0	0	N/A	N/A		
WEST	N/A	0	0	N/A	N/A		
INTERIOR WALLS AND PARTITIONS	N/A	0	0	N/A	N/A		
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	N/A	1 HR	1 HR	A0.3	L563/L569		
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	N/A	1 HR	1 HR	A0.3	P522		
SHAFT ENCLOSURES-EXIT	N/A	2 HR	2 HR	A0.3	U347		
SHAFT ENCLOSURES-OTHER	N/A	2 HR	2 HR	A0.3	U905		
CORRIDOR SEPARATION	N/A	1 HR	1 HR	A0.3	U311/GA 3510		
OCCUPANCY SEPARATION	N/A	N/A	N/A	N/A	N/A		
PARTY/FIRE WALL SEPARATION	N/A	2 HR	2 HR	A0.3	U347		
SMOKE BARRIER SEPARATION	N/A	1 HR	1 HR	A0.3	U305		
INCIDENTAL USE SEPARATION	N/A	1 HR	1 HR	A0.3	U305		

* INDICATE SECTION NUMBER PERMITTING REDUCTION

LIFE SAFETY REQUIREMENTS

EMERGENCY LIGHTING: ☐ NO ■ YES
EXIT SIGNS: ☐ NO ■ YES
FIRE ALARM: ☐ NO ■ YES
SMOKE DETECTION SYSTEMS: ☐ NO ■ YES ☐ PARTIAL_____
PANIC HARDWARE: ☐ NO ■ YES

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM[2] NUMBER OF EXITS: REQUIRED	MINIMUM[2] NUMBER OF EXITS: SHOWN ON PLANS	TRAVEL DISTANCE: ALLOWABLE TRAVEL DISTANCE (TABLE 1017.2)	TRAVEL DISTANCE: ACTUAL TRAVEL DISTANCE SHOWN ON PLANS		
SECOND FLOOR	2	3	250'	175'		
THIRD FLOOR	2	2	250'	175'		
FOURTH FLOOR	2	2	250'	175'		
FIFTH FLOOR	2	2	250'	175'		

1. CORRIDOR DEAD ENDS (SECTION 1017.3)
2. BUILDINGS WITH SINGLE EXITS (TABLE 1019.2), SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1)
3. COMMON PATH OF TRAVEL (SECTION 1014.3)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(A) AREA[1] SQ. FT.	(B) AREA[1] PER OCCUPANT (TABLE 1004.1.2)	CALCULATED OCCUPANT LOAD a / b	(C) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)		EXIT WIDTH (IN)[2,3,4,5,6] REQUIRED WIDTH (SECTION 1005.1) (a / b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
SECOND FLOOR	13,879	200 GROSS	70	0.3"	0.2"	44"	44"	48"	78"
THIRD FLOOR	13,879	200 GROSS	70	0.3"	0.2"	44"	44"	48"	78"
FOURTH FLOOR	13,879	200 GROSS	70	0.3"	0.2"	44"	44"	48"	78"
FIFTH FLOOR	13,879	200 GROSS	70	0.3"	0.2"	44"	44"	48"	78"

1. SEE TABLE 1004.1.2 TO DETERMINE WHETHER NET OR GROSS AREA IS APPLICABLE.
SEE DEFINITION "AREA, GROSS" AND "AREA,NET" (SECTION 1002)
2. MINIMUM STAIRWAY WIDTH (SECTION 1009.1); MIN. CORRIDOR WIDTH (SECTION 1018.2); MIN. DOOR WIDTH (SECTION 1008.1)
3. MINIMUM WIDTH OF EXIT PASSAGEWAY (SECTION 1023.2)
4. SEE SECTION 1004.6 FOR CONVERGING EXITS.
5. THE LOSS OF ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE TOTAL REQUIRED (SECTION 1005.1)
6. ASSEMBLY OCCUPANCIES (SECTION 1028)

STRUCTURAL DESIGN

DESIGN LOADS:

IMPORTANCE FACTORS: WIND (I_W)_____ SNOW (I_S)_____ SEISMIC (I_E)_____

LIVE LOADS: ROOF _____PSF MEZZANINE _____PSF FLOOR _____ _____ _____

GROUND SNOW LOAD:_____PSF

WIND LOAD: BASIC WIND _____MPH (ASCE-7) EXPOSURE CATEGORY_____ WIND BASE SHEARS _____

SEE STRUCTURAL DRAWINGS

AUDITORIUM: V_x_____ V_y_____
DINING: V_x_____ V_y_____
WELLNESS: V_x_____ V_y_____

SEISMIC DESIGN CATEGORY ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
OCCUPANCY CATEGORY ☐ I ☐ II ☐ III ☐ IV
SPECTRAL RESPONSE ACCELERATION S_{DS}_____%g S_{D1}_____%g
SITE CLASSIFICATION_____ ☐ FIELD TEST ☐ PRESUMPTIVE ☐ HISTORICAL DATA
BASIC STRUCTURAL SYSTEM (CHECK ONE)
_____BEARING WALL _____DUAL W/SPECIAL MOMENT FRAME
_____BUILDING FRAME _____DUAL W/INTERMEDIATE R/C OR SPECIAL
_____MOMENT _____INVERTED PENDULUM
SEISMIC BASE SHEAR/ME V_{EQ}_____
ANALYSIS _____SIMPLIFIED _____EQUIVALENT LATERAL FORCE _____MODAL
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? _____

LATERAL DESIGN CONTROL: EARTHQUAKE_____ WIND_____

SOIL BEARING CAPACITIES:
FIELD TEST (PROVIDE COPY OF TEST _____PSF
PRESUMPTIVE BEARING CAPACITY_____ PSF
PILE SIZE, TYPE, AND CAPACITY_____

PLUMBING FIXTURE REQUIREMENTS

USE		WATERCLOSETS RESID. (R-2)	URINALS RESID. (R-2)	LAVATORIES RESID. (R-2)	SHOWERS/TUBS RESID. (R-2)	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXISTING						
	PROVIDED						
	REQUIRED						

PROVIDED IN UNITS

NOTE: 1 LAVATORY AND 1 WC LOCATED IN EACH RESIDENT UNIT BATH MIN.

ACCESSIBLE PARKING

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	# OF ACCESSIBLE SPACES PROVIDED: VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
TOTAL					

SEE CIVIL DRAWINGS

SPECIAL APPROVALS

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF ENERGY COST BUDGET METHOD, ANNUAL ENERGY COST BUDGET VS ALLOWABLE ANNUAL ENERGY COST BUDGET.

THERMAL ENVELOPE

METHOD OF COMPLIANCE: SEE A6 SERIES
■ PRESCRIPTIVE ____% GLAZED WALL AREA
☐ PERFORMANCE ☐ ENERGY COST BUDGET

ROOF/CEILING ASSEMBLY (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
SKYLIGHTS IN EACH
U-VALUE OF SKYLIGHT
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY

EXTERIOR WALLS (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U-VALUE OF ASSEMBLY
SHADING COEFFICIENT
PROJECTION FACTOR
LOW E REQUIRED
DOOR R-VALUES

WALLS ADJACENT TO UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U-VALUE OF ASSEMBLY
LOW E REQUIRED, IF
DOOR R-VALUES

WALLS BELOW GRADE (EACH ASSEMBLY)
DESCRIPTION OF
U-VALUE OF TOTAL
R-VALUE OF INSULATION

FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL
R-VALUE OF INSULATION

FLOORS SLAB ON GRADE
DESCRIPTION OF ASSEMBLY
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION
HORIZONTAL/VERTICAL REQUIREMENTS
SLAB HEATED

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT:
METHOD OF COMPLIANCE:
☐ PRESCRIPTIVE ☐ PERFORMANCE ☐ ENERGY COST BUDGET
LIGHTING SCHEDULE
LAMP TYPE REQUIRED IN
NUMBER OF LAMPS IN FIXTURE
BALLAST TYPE USED IN THE
NUMBER OF BALLASTS IN
TOTAL WATTAGE PER FIXTURE
TOTAL INTERIOR WATTAGE SPECIFIED
TOTAL EXTERIOR WATTAGE SPECIFIED
ALLOWED
EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)
MOTOR HORSEPOWER
NUMBER OF PHASES
MINIMUM EFFICIENCY
MOTOR TYPE
OF POLES

SEE ELECTRICAL DRAWINGS

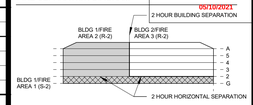
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT:
METHOD OF COMPLIANCE:
☐ PRESCRIPTIV ☐ ENERGY COST BUDGET
E
CLIMATE ZONE
THERMAL ZONE
WINTER DRY BULB
SUMMER DRY BULB
INTERIOR DESIGN CONDITIONS
WINTER DRY BULB
SUMMER DRY BULB
RELATIVE HUMIDITY
BUILDING HEATING LOAD
BUILDING COOLING LOAD
MECHANICAL SPACING CONDITIONING SYSTEM
UNITARY
DESCRIPTION OF
HEATING EFFICIENCY
COOLING EFFICIENCY
HEAT OUTPUT OF UNIT
COOLING OUTPUT OF UNIT
BOILER
TOTAL BOILER OUTPUT ____ OVERSIZED, STATE REASON.
CHILLER
TOTAL CHILLER CAPACITY. IF OVERSIZED, STATE REASON.
LIST EQUIPMENT EFFICIENCIES
EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS)
MOTOR HORSEPOWER
NUMBER OF PHASES
MINIMUM EFFICIENCY
MOTOR TYPE
OF POLES

SEE MECHANICAL DRAWINGS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI TIMOTHY J MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

APPENDIX B - APARTMENTS - AREA B

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.1c SHEET _____ OF _____

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 2/24/2021 7:15:24 AM
SAVE DATE
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LIFE SAFETY INFO: GARAGE

PRIMARY USE GROUP:	S-2
TOTAL BLDG. AREA:	26,174 s.f.
ALLOW. AREA for S-2 USE GROUP:	316,000 (TABLE 506.2)
CONSTRUCTION TYPE:	TYPE IB
SPRINKLED:	YES, NFPA 13
STANDPIPE:	YES
ACTUAL HEIGHT:	11'-4" (1 STORY)
ALLOWABLE HEIGHT	180' ABOVE GRADE PLANE (TABLE 504.3) 12 STORIES (TABLE 504.4)

ASSEMBLY REQUIREMENTS (TABLE 601)

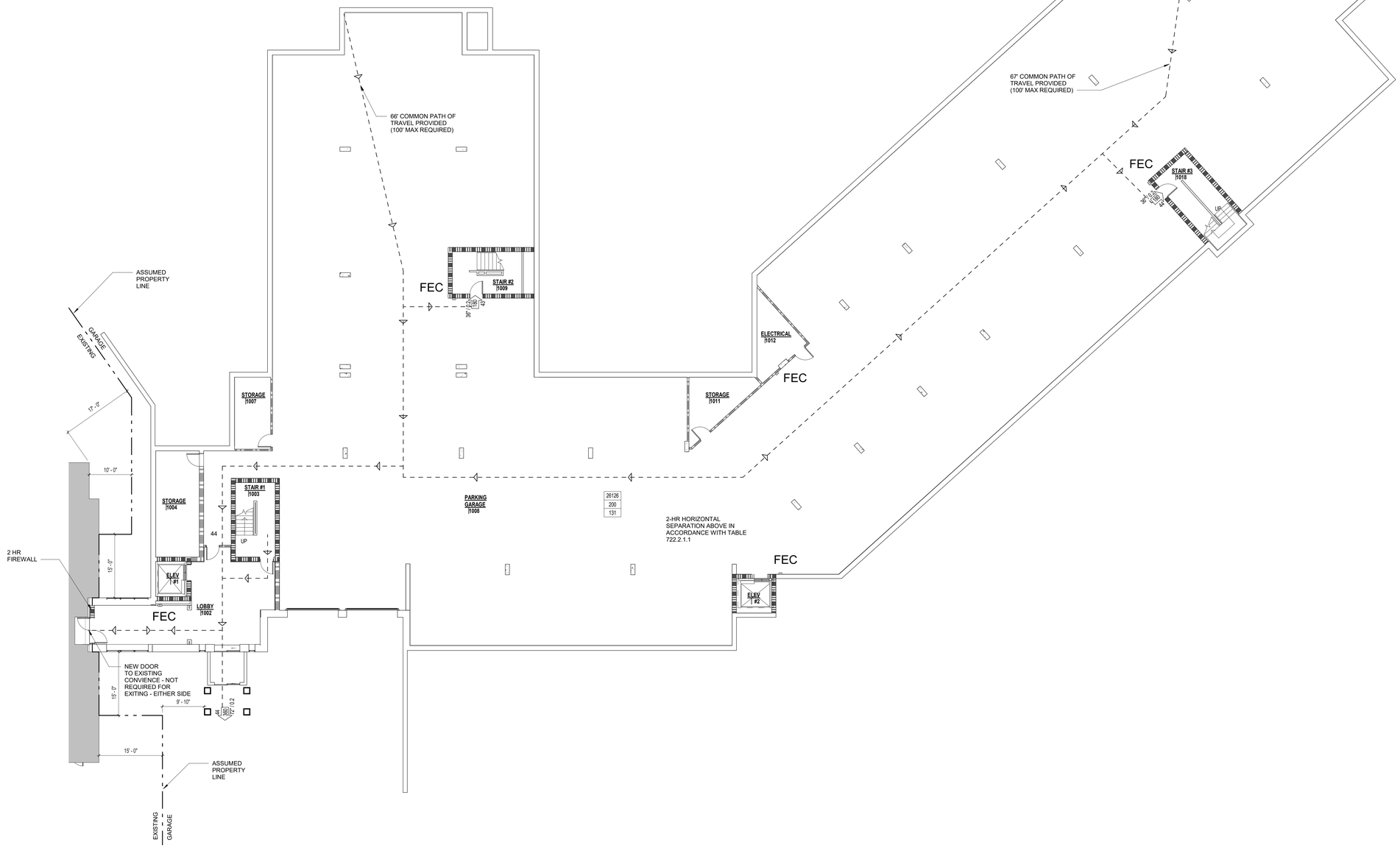
BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	2 HR	TABLE 722.1.1.1
FLOOR CONST.	2 HR	NA
STR. FRAME	2 HR	NA
ROOF CONST.	1 HR	NA
CORRIDOR WALLS	0 HR	NA
STAIRWELL/SHAFT	2 HR	TABLE 722.1.1.1

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS
26,126 SF / 200 SF PER OCCUPANT
(TABLE 1004.1.2) = 131 PEOPLE

PARKING GARAGE
- ENCLOSED AND VENTILATED PER IBC 2018
- 400' ALLOWABLE TRAVEL DISTANCE PER TABLE 1017.2
- 100' ALLOWABLE COMMON PATH OF TRAVEL PER TABLE 1006.2.1
- 3 EXITS PROVIDED THIS LEVEL PER TABLE 1006.3.1
- 52 PARKING SPACES INCLUDING 3 ACCESSIBLE SPACES



1 GARAGE LIFE SAFETY PLAN
3/32" = 1'-0"

LIFE SAFETY LEGEND

- SMOKE PARTITION
- 1 HR SMOKE BARRIER
- 1 HR FIRE PARTITION
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR RATED FIREWALL
- 3 HR RATED FIREWALL
- 4 HR RATED FIREWALL

EGRESS LEGEND

OCCUPANT LOAD CALCULATIONS

3000 — FLOOR AREA IN S.F.
100 — ALLOWABLE S.F. PER PERSON
30 — OCCUPANT LOAD

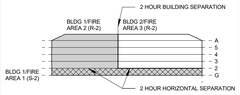
MEANS OF EGRESS

123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH
PATH OF EGRESS

EGRESS CAPACITY OF EXITS

45 / .2
123
123
ALONG EGRESS PATH WIDTH OF EGRESS COMPONENT
CODE ALLOWED WIDTH / PERSON
CAPACITY OF EGRESS COMPONENT
ACTUAL OCCUPANT LOAD

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI TIMOTHY A. AUBUCHON NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

GARAGE LIFE SAFETY PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A0.2	____ OF ____

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
2/24/2021 7:17:13 AM
SAVE DATE
COMM NO.
DRAWING NO.

LIFE SAFETY INFO: SECOND FLOOR - AREA A

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	10,301 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 102

LIFE SAFETY INFO: SECOND FLOOR - AREA B

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	13,879 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

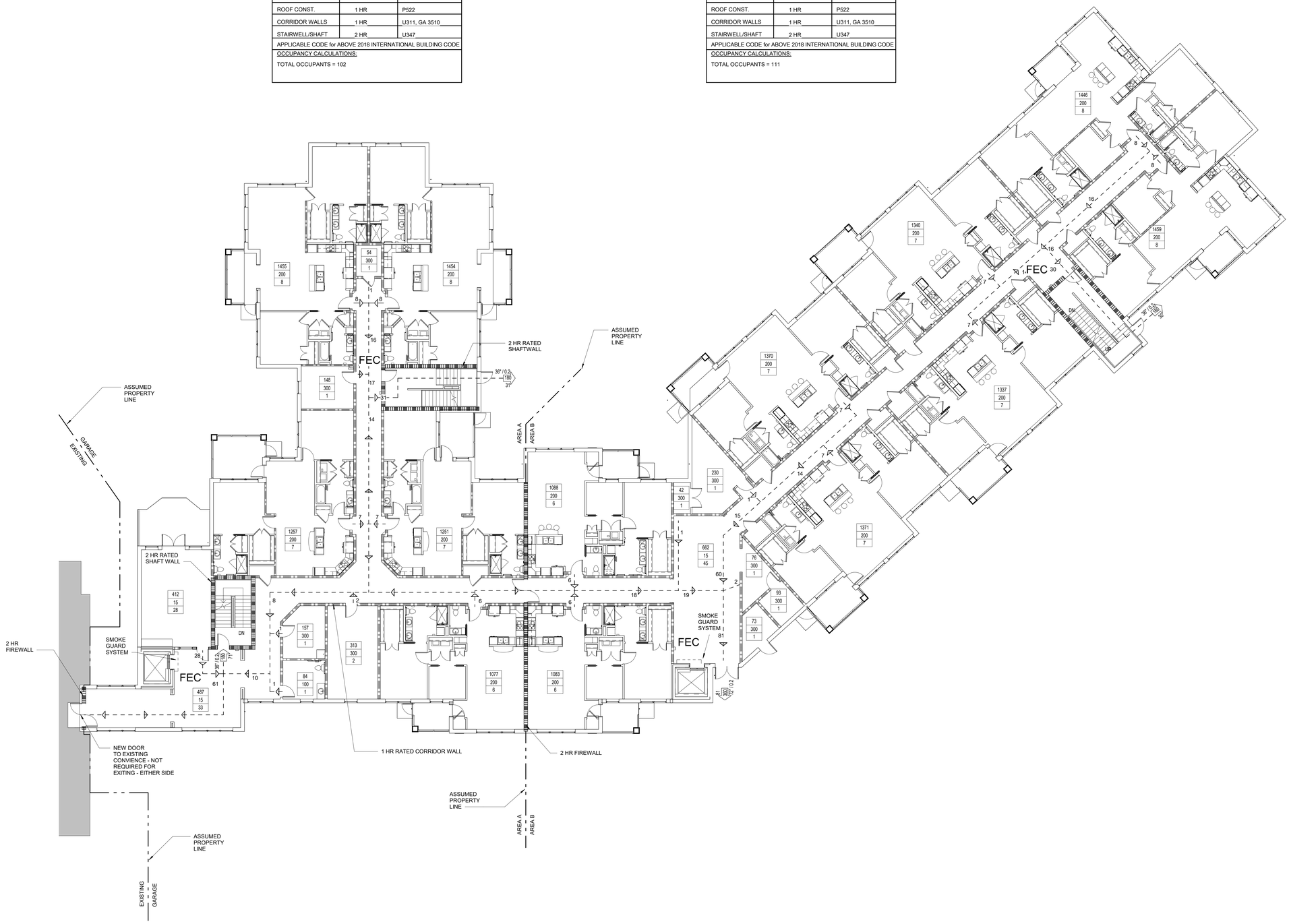
ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 111



1 SECOND FLOOR LIFE SAFETY PLAN

3/32" = 1'-0"

LIFE SAFETY LEGEND

- SMOKE PARTITION
- 1 HR SMOKE BARRIER
- 1 HR FIRE PARTITION
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR RATED FIREWALL
- 3 HR RATED FIREWALL
- 4 HR RATED FIREWALL

EGRESS LEGEND

OCCUPANT LOAD CALCULATIONS

3000 — FLOOR AREA IN S.F.
100 — ALLOWABLE S.F. PER PERSON
30 — OCCUPANT LOAD

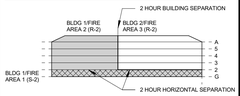
MEANS OF EGRESS

123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH
PATH OF EGRESS

EGRESS CAPACITY OF EXITS

45 / .2 — ALONG EGRESS PATH WIDTH OF EGRESS COMPONENT
CODE ALLOWED WIDTH / PERSON
123 / 123 — CAPACITY OF EGRESS COMPONENT / ACTUAL OCCUPANT LOAD

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI — TIMOTHY A. AMELUNG — NUMBER A-6802 — REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

SECOND FLOOR LIFE SAFETY PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.3 SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

MENU

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PLOT SCALE
PLOT DATE
2/24/2021 7:18:11 AM
SAVE DATE
COMM. NO.
DRAWING NO.

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LIFE SAFETY INFO: SECOND FLOOR - AREA A

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	9,821 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 66

LIFE SAFETY INFO: SECOND FLOOR - AREA B

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	13,879 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

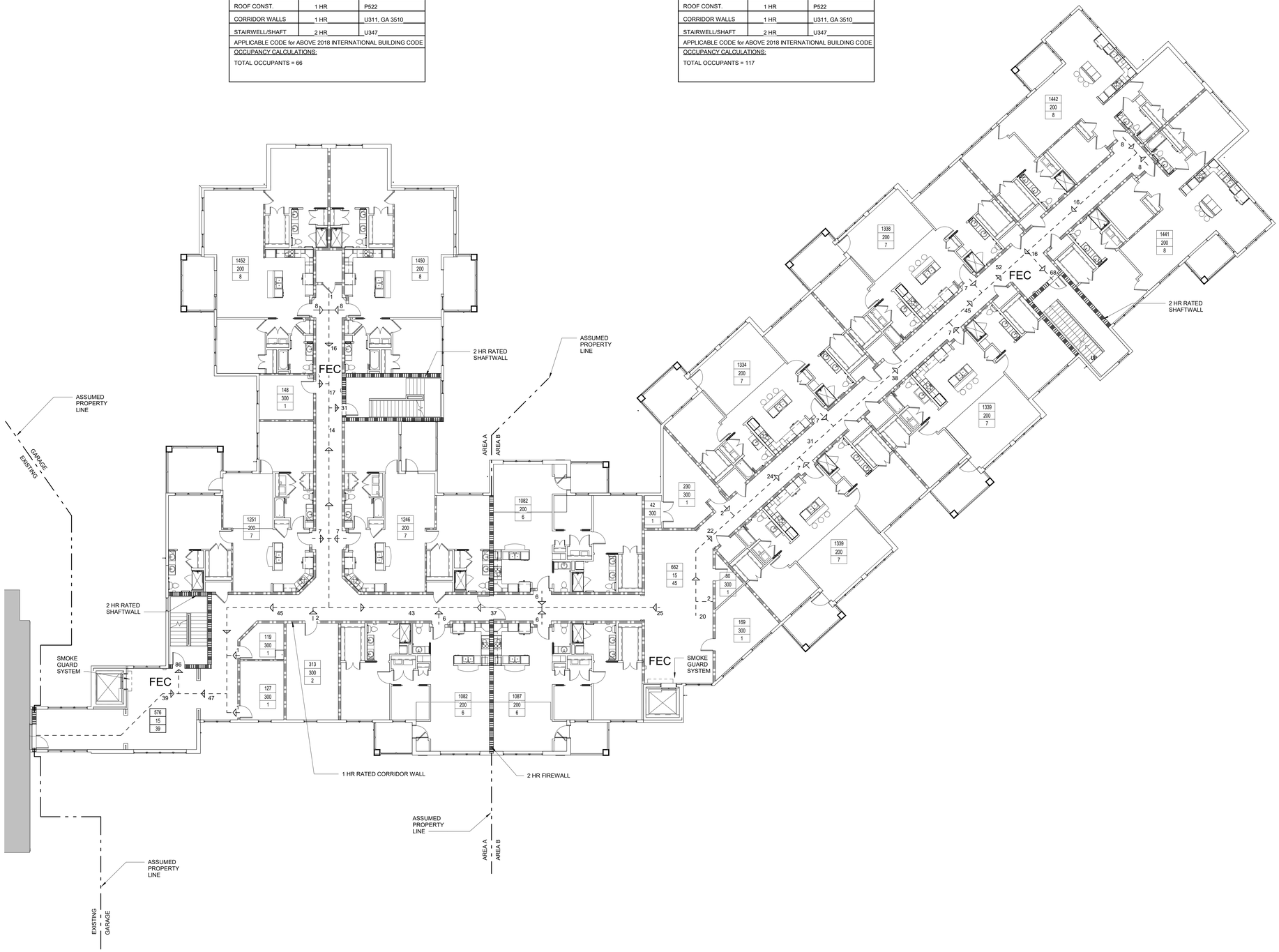
ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 117



1 THIRD FLOOR LIFE SAFETY PLAN
3/32" = 1'-0"

LIFE SAFETY LEGEND

- SMOKE PARTITION
- 1 HR SMOKE BARRIER
- 1 HR FIRE PARTITION
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR RATED FIREWALL
- 3 HR RATED FIREWALL
- 4 HR RATED FIREWALL

EGRESS LEGEND

OCCUPANT LOAD CALCULATIONS

3000	FLOOR AREA IN S.F.
100	ALLOWABLE S.F. PER PERSON
30	OCCUPANT LOAD

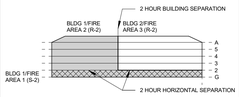
MEANS OF EGRESS

123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH
PATH OF EGRESS

EGRESS CAPACITY OF EXITS

45 / 2 — ALONG EGRESS PATH WIDTH OF EGRESS COMPONENT
CODE ALLOWED WIDTH / PERSON
123 / 123 — CAPACITY OF EGRESS COMPONENT / ACTUAL OCCUPANT LOAD

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI — TIMOTHY A. MUELLER — NUMBER A-6802 — REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

THIRD FLOOR LIFE SAFETY PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.4 — SHEET ____ OF ____

MENU

CAD0 VERSION
PLOT SCALE
PLOT DATE
2/24/2021 7:18:56 AM
SAVE DATE
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

LIFE SAFETY INFO: SECOND FLOOR - AREA A

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	9,821 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 66

LIFE SAFETY INFO: SECOND FLOOR - AREA B

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	13,879 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

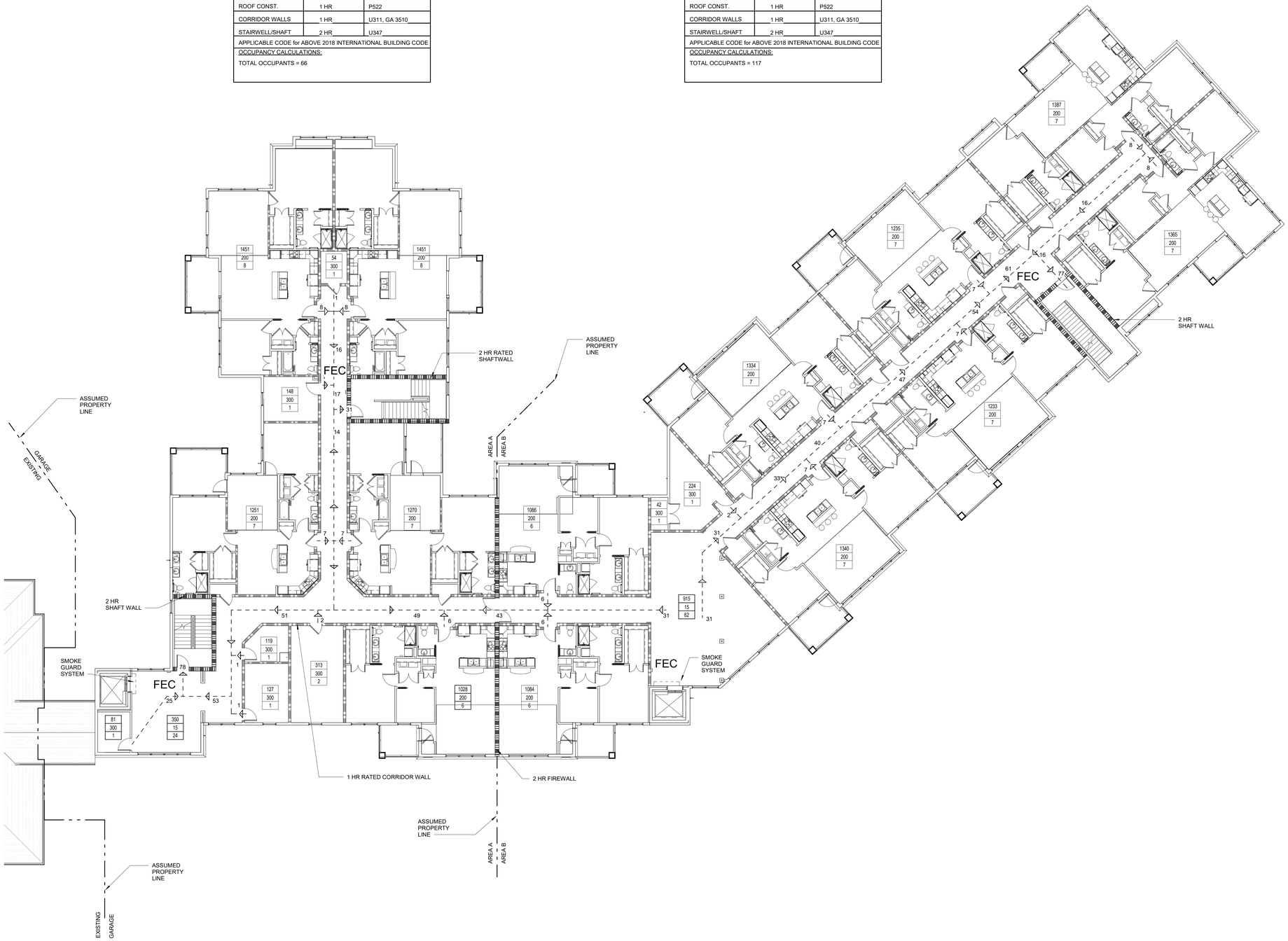
ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 117



1 FOURTH FLOOR LIFE SAFETY PLAN
3/32" = 1'-0"

LIFE SAFETY LEGEND

- SMOKE PARTITION
- 1 HR SMOKE BARRIER
- 1 HR FIRE PARTITION
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR RATED FIREWALL
- 3 HR RATED FIREWALL
- 4 HR RATED FIREWALL

EGRESS LEGEND

OCCUPANT LOAD CALCULATIONS

3000 — FLOOR AREA IN S.F.
100 — ALLOWABLE S.F. PER PERSON
30 — OCCUPANT LOAD

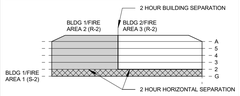
MEANS OF EGRESS

123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH
PATH OF EGRESS

EGRESS CAPACITY OF EXITS

45 / 2 — ALONG EGRESS PATH WIDTH OF EGRESS COMPONENT
CODE ALLOWED WIDTH / PERSON
123 / 123 — CAPACITY OF EGRESS COMPONENT / ACTUAL OCCUPANT LOAD

FIRE SEPARATION DIAGRAM



PERMIT SET

STATE OF MISSOURI — TIMOTHY A. MUELLER — NUMBER A-6802 — REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: KLM
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

FOURTH FLOOR LIFE SAFETY PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A0.5	SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 2/24/2021 7:19:28 AM
SAVE DATE
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

LIFE SAFETY INFO: SECOND FLOOR - AREA A

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	9,821 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 66

LIFE SAFETY INFO: SECOND FLOOR - AREA B

PRIMARY USE GROUP:	R-2
TOTAL BLDG. AREA:	13,879 s.f.
ALLOW. AREA for R-2 USE GROUP:	21,000 (TABLE 506.2)*
CONSTRUCTION TYPE:	TYPE VA
SPRINKLED:	YES, NFPA 13R
STANDPIPE:	YES
ACTUAL HEIGHT:	40'-7" (4 STORIES)
ALLOWABLE HEIGHT	50' + 20' = 60' MAX PER 13R(*) (4 STORIES)

* ALLOWABLE AREA & HEIGHT INCORPORATES INCREASE FOR INCLUSION OF SPRINKLER SYSTEM per. IBC 504.2 and FRONTAGE INCREASE PER IBC 506.3

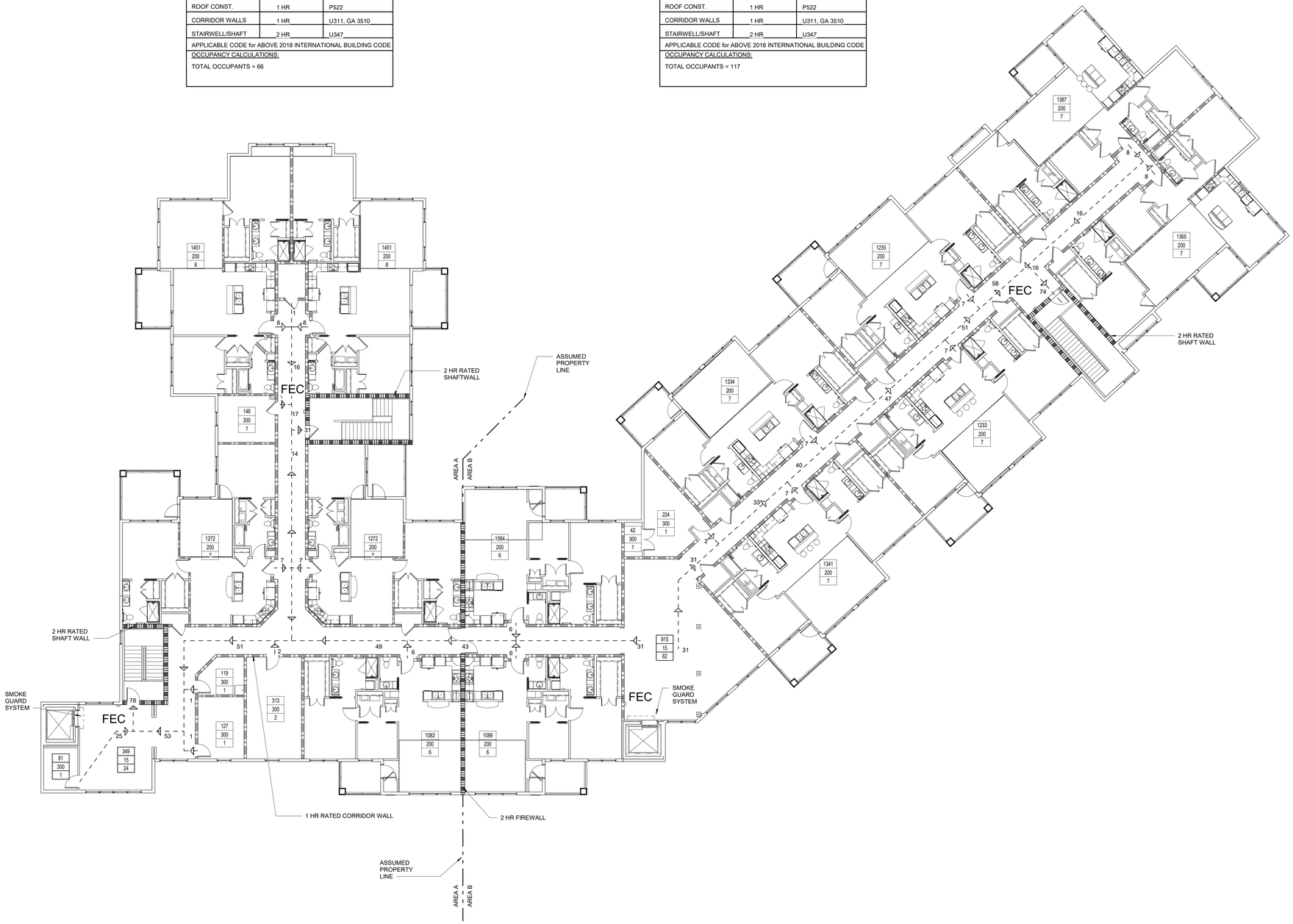
ASSEMBLY REQUIREMENTS (TABLE 601)

BLDG. ELEMENT	HR. RATING	ASSEMBLY
EXT. BRG. WALL	1 HR	U356
FLOOR CONST.	1 HR	L563, L569
STR. FRAME	1 HR	NA
ROOF CONST.	1 HR	P522
CORRIDOR WALLS	1 HR	U311, GA 3510
STAIRWELL/SHAFT	2 HR	U347

APPLICABLE CODE for ABOVE 2018 INTERNATIONAL BUILDING CODE

OCCUPANCY CALCULATIONS:

TOTAL OCCUPANTS = 117



1 FIFTH FLOOR LIFE SAFETY PLAN
3/32" = 1'-0"

LIFE SAFETY LEGEND

- SMOKE PARTITION
- 1 HR SMOKE BARRIER
- 1 HR FIRE PARTITION
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR RATED FIREWALL
- 3 HR RATED FIREWALL
- 4 HR RATED FIREWALL

EGRESS LEGEND

OCCUPANT LOAD CALCULATIONS

3000 — FLOOR AREA IN S.F.
100 — ALLOWABLE S.F. PER PERSON
30 — OCCUPANT LOAD

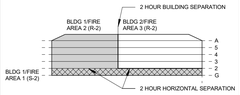
MEANS OF EGRESS

123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH
PATH OF EGRESS

EGRESS CAPACITY OF EXITS

45 / .2
123
123
ALONG EGRESS PATH WIDTH OF EGRESS COMPONENT
CODE ALLOWED WIDTH / PERSON
CAPACITY OF EGRESS COMPONENT
ACTUAL OCCUPANT LOAD

FIRE SEPARATION DIAGRAM



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

FIFTH FLOOR LIFE SAFETY PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A0.6

SHEET ____ OF ____

MENU

CAD VERSION
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PLOT DATE
2/24/2021 7:19:52 AM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

UL U305 - 1 HR ASSEMBLY

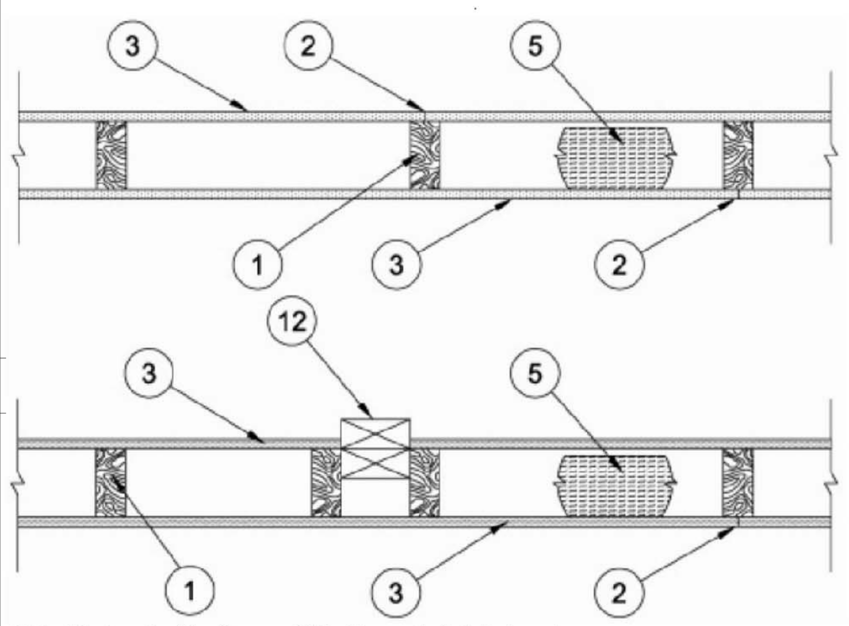
Design No. U305

July 15, 2020

Bearing Wall Rating — 1 Hr

Finish Rating — See Items 3, 3A, 3D, 3E, 3F, 3G, 3H, 3J and 3L.

STC Rating - 56 (See Item 9)



1. **Wood Studs —** Nom 2 by 4 in. spaced 16 in. OC max, effectively firestopped.

2. **Joints and Nail-Heads —** Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound.

3. **Gypsum Board* —** 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Items 6 through 6F, **Steel Framing Members***.

When Items 6, 6B, 6C, 6D, 6E, or 6F, **Steel Framing Members***, are used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When Item 6A, **Steel Framing Members***, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. One layer of gypsum board attached to opposite side of wood stud without furring channels as described in Item 3.

When Item 7, resilient channels are used, 5/8 in. thick, 4 ft wide gypsum panels applied vertically. Screw attached furring channels with 1 in. long, self-drilling, self-tapping Type S or S-12 steel screws spaced 8 in. OC, vertical joints located midway between studs.

When Item 5K, **Foamed Plastic** (CCVW) is used, 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field.

AMERICAN GYPSUM CO — Types AGX-1(finish rating 23 min.), M-Glass (finish rating 23 min.), Type AGX-11 (finish rating 26 min), Type AGX-12 (finish rating 22 min), Type LightRoc (finish rating 23 min.) or Type AG-C

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1 (finish rating 24 min)

CABOT MANUFACTURING ULC — Type X (finish rating 22 min), 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

CERTAINTEED GYPSUM INC — Type C, Type X or Type X-1 (finish rating 26 min); Type EGRG or GlasRoc (finish rating 23 min), GlasRoc-2, Type Habito (finish rating 26 min).

CGC INC — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min), Type ULIX (finish rating 20 min)

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A (finish rating 34 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX (finish rating 21 min), Type CLLX (finish rating 24 min)

GEORGIA-PACIFIC GYPSUM L L C — Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Type 9 (finish rating 26 min), Type C (finish rating 26 min), Type DGG (finish rating 20 min), Type GPFS1 (finish rating 20 min), Type GPFS2 (finish rating 20 min), Type GPFS6 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), Type DA, Type DAPC, Type LS (finish rating 23 min), Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX (finish rating 22 min), Veneer Plaster Base-Type LWX (finish rating 22 min), Water Rated-Type LWX (finish rating 22 min), Sheathing Type-LWX (finish rating 22 min), Soffit-Type LWX (finish rating 22 min), Type DGLW (finish rating 22 min), Water Rated-Type DGLW (finish rating 22 min), Sheathing Type- DGLW (finish rating 22 min), Soffit-Type DGLW (finish rating 22 min), Type LWX (finish rating 22 min), Type LW2X (finish rating 22 min), Veneer Plaster Base - Type LW2X (finish rating 22 min), Water Rated - Type LW2X (finish rating 22 min), Sheathing - Type LW2X (finish rating 22 min), Soffit - Type LW2X (finish rating 22 min), Type DGL2W (finish rating 22 min), Water Rated - Type DGL2W (finish rating 22 min), Sheathing - Type DGL2W (finish rating 22 min)

NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min), Type FSW-8, Type FSLX (finish rating 21 min), Type RSX (finish rating 26 min).

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-2 (finish rating 20 min), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS, PGS-WRS (finish rating 20 min), Types PG-5, PG-9 (finish rating 26 min), PG-11 PG-13 (Nails increased to 2 in.), or Type PG-C

PANEL REY S A — Type GREX, GRIX, PRX, PRC, PRC2; Types RHX, Guard Rey, MDX, ETX (finish rating 22 min), PRX2 (finish rating 21 min)

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1 (finish rating 26 min)

THAI GYPSUM PRODUCTS PCL — Type C, Type X (finish rating 26 min)

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type ULIX (finish rating 20 min)

USG BORAL DRYWALL SFZ LLC — Type SGX (finish rating 24 min).

USG MEXICO S A DE C V — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), SCX (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type ULX (finish rating 22 min)

3A. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.
AMERICAN GYPSUM CO — Types AGX-1 (finish rating 25 min.), M-Glass (finish rating 25 min.), AG-C (finish rating 25 min.), LighttRoc (finish rating 25 min.)

CERTAINTEED GYPSUM INC — Type C, Type X or Type X-1 (finish rating 26 min)

CGC INC — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min)

NATIONAL GYPSUM CO — Type FSW (finish rating 24 min)

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type FRX-G (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min)

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX (finish rating 24 min).

USG MEXICO S A DE C V — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX, Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min)

3B. **Gypsum Board* —** (As an alternate to Item 3) — Nom 3/4 in. thick, installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-3/8 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A.
CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

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

3C. **Gypsum Board* —** (As an alternate to Items 3, 3A and 3B) — 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally to one side of the assembly. Installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-1/4 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A. Joint covering (Item 2) not required.
CGC INC — Type SHX

UNITED STATES GYPSUM CO — Type SHX

USG MEXICO S A DE C V — Type SHX

3D. **Gypsum Board* —** (As an alternate to Items 3, 3A, 3B, or 3C — Not Shown) — For Direct Application to Studs Only- Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs or tabs may be used in lieu of or in addition to the lead batten strips or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath screw locations prior to the installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RAY-BAR ENGINEERING CORP — Type RB-LBG (finish rating 24 min)

3E. **Gypsum Board* —** (As an alternate to Items 3, 3A, 3B, 3C, and 3D) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.
GEORGIA-PACIFIC GYPSUM L L C — Type DGG (finish rating 20 min), GreenGlass Type X (finish rating 23 min)

3F. **Gypsum Board* —** (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) — 5/8 in. glass-mat faced with square edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC around the perimeter and in the field with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Nails shall be placed 1 inch and 3 inch from horizontal joints and 7 inch OC thereafter.
CGC INC — Type USGX (finish rating 22 min)

UNITED STATES GYPSUM CO — Type USGX (finish rating 22 min.)

USG BORAL DRYWALL SFZ LLC — , Type USGX (finish rating 22 min.)

USG MEXICO S A DE C V — Type USGX (finish rating 22 min.)

3G. **Gypsum Board* —** (As an alternate to Items 3 through 3F) — 5/8 in. thick paper surfaced applied vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.
GEORGIA-PACIFIC GYPSUM L L C — Type X ComfortGuard Sound Deadening Gypsum Board (finish rating 27 min)

3H. **Gypsum Board* —** (As an alternate to Items 3) — Not to be used with items 6 or 7. 5/8 in. thick paper surfaced applied vertically only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.
NATIONAL GYPSUM CO — Type SBWB

3I. **Gypsum Board* —** (As an alternate to Items 3 through 3H, Not Shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound. Nailheads covered with two layers of joint compound.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES (finish rating 20 min)

3J. **Gypsum Board* —** (As an alternate to Item 3) — Not to be used with items 6 or 7. 5/8 in. thick paper surfaced applied vertically or horizontally. Gypsum panels secured per item 3 or 3A.
CERTAINTEED GYPSUM INC — Type SilentFX

3K. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 8 in. OC with the last screw 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min).

3L. **Gypsum Board* —** (As an alternate to Item 3) — For Direct Application to Studs Only — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick. compression fitted or adhered over the screw heads. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".
MAYCO INDUSTRIES INC — "X-Ray Shielded Gypsum"

3M. **Gypsum Board* —** (As an alternate to Items 3) — For Direct Application to Studs Only — For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4.
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

3N. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick, 4 ft. wide, applied horizontally or vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in Item 3 or 3A.
CERTAINTEED GYPSUM INC — Easi-Lite Type X (finish rating 24 min), Easi-Lite Type X-2 (finish rating 24 min)

3O. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 3, Not Shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound. Nailheads covered with two layers of joint compound.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527 (finish rating 24 min).

3P. **Gypsum Board* —** (As an alternate to Item 3, Not Shown) — Two layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by wood studs. Horizontal joints on the same side between face and base layers need not be staggered. Base layer gypsum panels fastened to studs with 1-1/4 in. long drywall nails spaced 8 in. OC. Face layer gypsum panels fastened to studs with 1-7/8 in. long drywall nails spaced 8 in. OC starting with a 4" stagger.
NATIONAL GYPSUM CO — Type FSW (finish rating 25 min)

3Q. **Gypsum Board* —** (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

3R. **Gypsum Board* —** (As an alternate to Item 3. For use with Item 5H) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 3 above. Applied either horizontally or vertically, and screwed to panels with 1-5/8 in. long Type W coarse thread steel screws at 8 in. OC at perimeter and in the field with the last two screws 4 and 3/4 in. from the edges of the board when applied as the base layer. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

3S. **Gypsum Board* —** 3/4 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels secured as described in Item 3 with nail length increased to 2 in.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-13

3T. **Wall and Partition Facings and Accessories* —** (As an alternate to 5/8 in. thick board as outlined in Item 3) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

3U. **Gypsum Board* —** (As an alternate to Item 3 - For use with Foamed Plastic products, Item 5J) — 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.
AMERICAN GYPSUM CO — Types AGX-1

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — Type X

CERTAINTEED GYPSUM INC — Type X

CGC INC — Type SCX

PANEL REY S A — Type PRX

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type X

UNITED STATES GYPSUM CO — Types SCX and SGX

USG BORAL DRYWALL SFZ LLC — Types SCX and SGX

USG MEXICO S A DE C V — Type SCX

4. **Steel Corner Fasteners —** (Optional) — For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6d cement coated nails.

5. **Batts and Blankets* —** (Optional — Required when Item 6A is used (RC-1)) — Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be friction-fitted to completely fill the stud cavities.
CERTAINTEED CORP

JOHNS MANVILLE

KNAUF INSULATION LLC

MANSON INSULATION INC

ROCKWOOL — Types Acoustical Fire Batts and Type AFB, min. density 1.69 pcf / 27.0 kg/m³

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

ROCK WOOL MANUFACTURING CO — Delta Board

THERMAFIBER INC — Type SAFB, SAFB FF

5A. **Fiber, Sprayed* —** (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INS735, INS745, INS750LD, INS765LD or INS773LD.
U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only

5B. **Fiber, Sprayed* —** (Not Shown - Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

5C. **Batts and Blankets* —** Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, friction-fitted to fill interior of wall.
THERMAFIBER INC — Type SAFB, SAFB FF

5D. **Glass Fiber Insulation —** (As an alternate to Item 5C) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

5E. **Batts and Blankets* —** (Required for use with Wall and Partition Facings and Accessories, Item 3D) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.

5F. **Fiber, Sprayed* —** (Optional, Not Shown — Not for use with Items 6, 6A, 6B, 6C, or 6D) — As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied granulated mineral fiber material. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

5G. **Fiber, Sprayed* —** (Optional, Not Shown — Not for use with Items 6, 6A, 6B, 6C, or 6D). — As an alternate to Batts and Blankets (Item 5) and Item 5A - Brown Colored Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed stud cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

5H. **Foamed Plastic* —** (Optional -For use with Item 3R) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity.
SES FOAM INC — Nexseal™ 2.0 or Nexseal™ 2.0 LE Spray Foam and Sucraseal Spray Foam.

5I. **Fiber, Sprayed* —** (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft³.
APPLEGATE HOLDINGS L L C — Applegate Advanced Stabilized Cellulose Insulation

5J. **Foamed Plastic* —** (Optional, Not Shown - For use with Item 3U) — Spray applied, foamed plastic insulation, to completely filling stud cavity.
GACO WESTERN L L C — Types GacoEZSpray F4500, GacoProFill FR6500R, Gaco 052N, GacoOnePass F1850, GacoOnePass Low GWP F1880, and Gaco WallFoam 183M

5K. **Foamed Plastic* —** (Optional, Not Shown - For use with Item 3) — Spray applied, foamed plastic insulation completely filling stud cavity. The 5/8 in. thick, 4 ft. wide gypsum board described in item 3 shall only be applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field.
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.

6. **Steel Framing Members* —** (Optional, Not Shown) — 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 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 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.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)

6A. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members on one side of studs as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Aa) to one side of studs only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax

6B. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ba) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
PLITEQ INC — Type Genie Clip

6C. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with No. 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6D. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a double strand of No. 18 AWG twisted steel wire. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

6E. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC - Type RC+ Assurance Clip

6F. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

7. **Furring Channel —** Optional — Not Shown — For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.

8. **Caulking and Sealants —** (Not Shown, Optional) — A bead of acoustical sealant applied around the partition perimeter for sound control.

9. **STC Rating —** The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:

A. Item 2, above — Nailheads Shall be covered with joint compound.

B. Item 2, above — Joints As described, shall be covered with fiber tape and joint compound.

C. Item 5, above — Batts and Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

D. Item 6, above — Steel Framing Members* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

E. Item 8, above — Caulking and Sealants (Not Shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.

10. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing,

6E. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC - Type RC+ Assurance Clip

6F. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

7. **Furring Channel —** Optional — Not Shown — For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.

8. **Caulking and Sealants —** (Not Shown, Optional) — A bead of acoustical sealant applied around the partition perimeter for sound control.

9. **STC Rating —** The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:

A. Item 2, above — Nailheads Shall be covered with joint compound.

B. Item 2, above — Joints As described, shall be covered with fiber tape and joint compound.

C. Item 5, above — Batts and Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

D. Item 6, above — Steel Framing Members* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

E. Item 8, above — Caulking and Sealants (Not Shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.

10. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing,

except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-510

11. **Cementitious Backer Units* —** (Optional Item Not Shown — For Use On Face Of 1 Hr Systems With All Standard Items Required) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide. Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. for steel framing members, and a minimum of 3/4 in. for wood framing members spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing.
NATIONAL GYPSUM CO — Type DuraBacker, PermaBase, DuraBacker Plus, or PermaBase Plus

12. **Non-Bearing Wall Partition Intersection —** (Optional) —Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together with two 3 in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

13. **Mesh Netting —** (Not Shown) — Any thin, woven or non-woven fibrous netting material attached with staples to the outer face of one row of studs to facilitate the installation of the sprayed fiber from the opposite row.

14. **Mineral and Fiber Board* —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with 2 in. long Type W steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
HOMASOTE CO — Homasote Type 440-32

14A. **Mineral and Fiber Board* —** (Optional, Not Shown) — For use with Items 14B-14E) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with minimum 1-3/8 in. long ring shanked nails or 1-1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
HOMASOTE CO — Homasote Type 440-32

14B. **Glass Fiber Insulation —** (For use with Item 14A) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) categories for names of Classified companies.

14C. **Batts and Blankets* —** (As an alternate to Item 14B, For use with Item 14A), 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC.
THERMAFIBER INC — Type SAFB, SAFB FF

14D. **Adhesive —** (For use with Item 14A) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).

14E. **Gypsum Board* —** (For use with Item 14A) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 14A). Secured to outermost studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound. Finish Rating 30 Min.
AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2, IPC-AR

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

NATIONAL GYPSUM CO — Types FSK-C, FSW-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C

PANEL REY S A — Type PRC

THAI GYPSUM PRODUCTS PCL — Type C

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

14F. **Mineral and Fiber Board —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 3). Fiber boards installed with 1-1/4 in. long, Type W, bugle head, coarse thread gypsum board screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 3) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
BLUE RIDGE FIBERBOARD INC — SoundStop

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

PERMIT SET

STATE OF MISSOURI
TIMOTHY J. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
1-18-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS
Architecture
Engineering
Planning
Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: KLM
CHECKED BY	: AAT
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

FIRE RATED ASSEMBLIES

COMM. NO. 19132.00	DATE JANUARY 18, 2021
DRAWING A0.7	SHEET ____ OF ____

MENU

CADD VERSION

PLOT SCALE

PLOT DATE
1/17/2021
8:23:52 AM

SAVE DATE

COMM NO.

DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

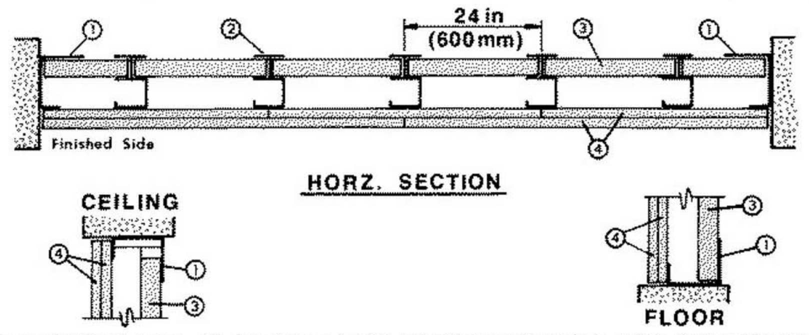
UL U438 - 2 HR ASSEMBLY

Design No. U438

March 12, 2020

Nonbearing Wall Rating — 2 HR.

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



1. **Floor and Ceiling Runners —** "J" -shaped runner, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG when Item 4B is used). Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs —** "C-H" -shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from 25 MSG galv steel (min 20 MSG when Item 4B, 4D, or 4E is used). Cut to lengths 3/8 to 1/2 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4B, 4D, 4E is used).

2A. **Steel Studs —** (Not shown)-"E" -shaped studs installed in place of "C-H" -shaped studs (Item 2) to secure the closure liner panels at the ends of walls. Fabricated from 25 MSG galv steel (min 20 MSG when Item 4B, 4D, or 4E is used), 2-1/2 in. wide, with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 in. less than floor to ceiling height. Sill and lintel of opening formed with "J" -shaped runners (Item 1) secured to "E" -shaped studs with angle clips and steel screws.

3. **Gypsum Board* —** 1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. or 600 mm (for metric spacing) widths. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" -shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" -runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC.
CGC INC — Type SLX.

UNITED STATES GYPSUM CO — Type SLX.

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX.

4. **Gypsum Board* —** 1/2 in. thick, 4 ft. or 1200 mm (for metric spacing) wide wallboard applied vertically in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC along the edges and in the field of the boards. Outer or face layer attached to studs and "J" -runners with 1-5/8 in. long Type S steel screws spaced 12 in. along the edges and in the field of the boards, staggered from screws in inner layer. Joints between inner and outer layers staggered. Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound.

As an alternate method, inner wallboard layer applied vertically, outer wallboard layer applied horizontally. Inner layer attached to studs with 1 in. Type S steel screws spaced 24 in. OC along vertical edges and in the field. Outer layer attached to the studs and "J" runners over the inner layer with 1-5/8 in. long Type S steel screws spaced 12 in. OC in the field, along the vertical edges and to the floor and ceiling runners. Outer layer secured to inner layer wallboard with 1-1/2 in. long Type G steel screws located midway between studs and 1 in. from the horizontal joint.

AMERICAN GYPSUM CO — Types AG-C .

CABOT MANUFACTURING ULC — Type C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Type C, IP-X2, or WRC.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C, FSMR-C.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C.

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C.

UNITED STATES GYPSUM CO — Type C, IP-X2 or WRC.

USG BORAL DRYWALL SFZ LLC — Type C

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

4A. **Gypsum Board* —** (As an alternate to Item 4) — 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Inner or base layer attached to studs with 1 in. long Type S or S-12 steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S or S-12 steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CGC INC — Type AR, IP-AR, IP-X1, SCX, ULX, or WRX.

UNITED STATES GYPSUM CO — Type AR, FRX-G, IP-AR, IP-X1, SCX, ULX or WRX.

USG BORAL DRYWALL SFZ LLC — Type SCX

USG MEXICO S A DE C V — Type AR, IP-AR, IP-X1, SCX, ULX, or WRX.

4B. **Gypsum Board* —** (Not Shown) - May be used in lieu of Items 4 or 4A for the base layer - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints.
RAY-BAR ENGINEERING CORP — Type RB-LBG

4C. **Gypsum Board* —** (As an alternate to Item 4, 4A, 4B) — 5/8 in. thick. Two layers installed as described in Item 4.
NATIONAL GYPSUM CO — Type FSMR-C.

4D. **Gypsum Board* —** (Not Shown) - May be used in lieu of Items 4 for the base layer - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints. To be used with Lead Batten Strips (see Item 6B) or Lead Discs (see Item 6C).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4E. **Gypsum Board* —** (Not Shown) - May be used in lieu of Items 4 for the base layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4F. **Gypsum Board* —** (As an alternate to Item 4) — 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Inner or base layer attached to studs with 1 in. long Type S or S-12 steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S or S-12 steel screws spaced 8 in. OC when installed vertically and staggered min. 8 in. from base layer screws or 8 in. OC when installed horizontally and staggered min. 6 in. from base layer screws. Horizontal joints between inner and outer layers need not to be staggered. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound. When used in widths other than 48 in., gypsum panels to be installed horizontally.
UNITED STATES GYPSUM CO — Type ULIX.

5. **Batts and Blankets* —** (Optional) — (Not shown) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt material bearing the UL Classification Marking as to Fire Resistance.

5A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C — INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

5C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

5D. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft^3.
APPLEGATE HOLDINGS L L C — Applegate Advanced Stabilized Cellulose Insulation

6. **Lead Batten Strips —** For Use with Item 4B - (Not Shown) - Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. **Lead Discs or Tabs —** (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6B. **Lead Batten Strips —** (Not Shown, for use with Item 4D) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

6C. **Lead Discs —** (Not Shown, for use with Item 4D) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

GA #3510 - 1 HR ASSEMBLY

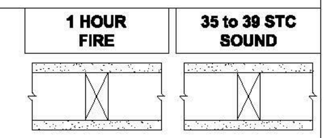
WALLS AND INTERIOR PARTITIONS, WOOD-FRAMED

GA FILE NO. WP 3510	GENERIC	1 HOUR FIRE	35 to 39 STC SOUND

GYPSUM WALLBOARD, WOOD STUDS

One layer 5/8" type X gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 2 x 4 wood studs 24" o.c. with 6d coated nails, 1 7/8" long, 0.0915" shank, 1/4" heads, 7" o.c.

Joints staggered 24" on opposite sides. (LOAD-BEARING)



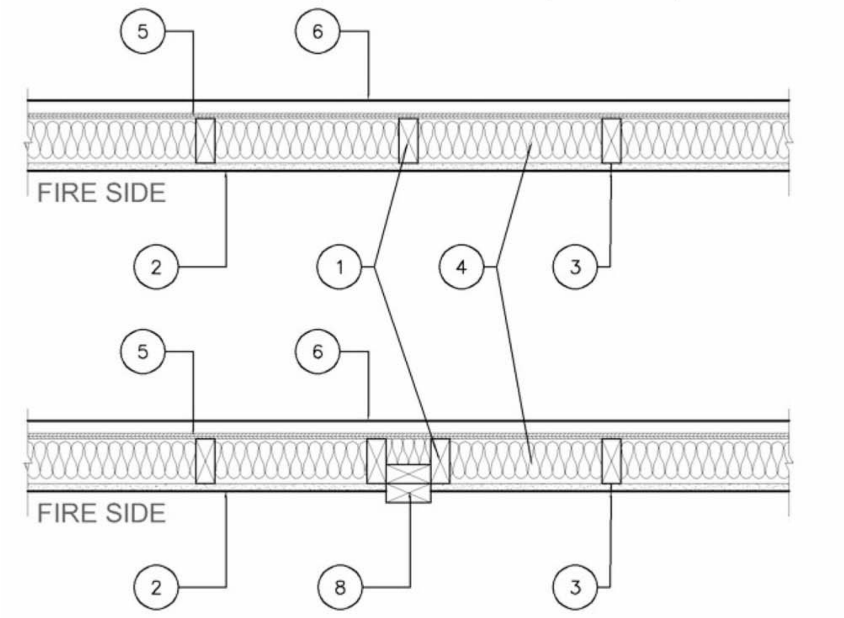
Thickness:	4 7/8"
Approx. Weight:	7 psf
Fire Test:	UL R3501-47, -48, 9-17-65, Design U309; UL R1319-129, 7-22-70, UL Design U314
Sound Test:	NGC 2404, 10-14-70

UL U356 - 1 HR ASSEMBLY

Design No. U356

March 11, 2020

Bearing Wall Rating - 1 Hr Rating Exposed to Fire on Interior Face Only
Bearing Wall Rating — 1 Hr Rating Exposed to Fire on Exterior Face (See Item 6E)
Finish Rating — 23 Min or 25 Min (See Item 2C)



1. **Wood Studs —** Nom 2 by 4 in. spaced 16 in. OC with two 2 by 4 in. top and one 2 by 4 in. bottom plates. Studs laterally-braced by wood structural panel sheathing (Item 5). When **Mineral and Fiber Boards*** (Item 5A) are considered as bracing for the studs, the load is restricted to 76% of allowable axial load. Walls effectively fire stopped at top and bottom of wall.

2. **Gypsum Board* — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305.** Nom 5/8 in. thick, 4 ft wide, applied vertically and nailed to studs and bearing plates 7 in. OC with 6d cement-coated nails, 1-7/8 in. long with 1/4 in. diam head.
When Item 7, 7B, 7C, 7D or 7E **Steel Framing Members***, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.
When Item 7A **Steel Framing Members***, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers.

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C (View Classification) — CKNX.R18482

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

LOADMASTER SYSTEMS INC (View Classification) — CKNX.R11809

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

PANEL REY S A (View Classification) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNX.R38438

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

2A. **Gypsum Board* —** (As an alternate to Item 2, Not Shown) — Any 5/8 in. thick 4 ft wide gypsum panels that are eligible for use in Design Nos. L501, G512 or U305, supplied by the Classified Companies listed below shown in the **Gypsum Board*** (CKNX) category. Applied vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.
CGC INC

UNITED STATES GYPSUM CO

USG BORAL DRYWALL SFZ LLC

USG MEXICO S A DE C V

2B. **Gypsum Board* —** (As an alternate to Item 2, Not Shown) — 5/8 in. thick 4 ft wide gypsum panels applied vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.
AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc

CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

CERTAINTEED GYPSUM INC — Type C, Type X, Type X-1, Easi-Lite Type X-2

GEORGIA-PACIFIC GYPSUM L L C — Types X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, Type X ComfortGuard Sound Deadening Gypsum Board.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-11, PGS-WRS.

THAI GYPSUM PRODUCTS PCL — Type C or Type X

2C. **Gypsum Board* —** (As an alternate to Item 2, Not Shown) — For Use with Item 5A only - 5/8 in. thick 4 ft wide gypsum panels applied horizontally and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screws 1 in.and 4 in. from edges of board. Finish Rating is 25 min.
CABOT MANUFACTURING ULC — 5/8 Type X, Type Blueglass Exterior Sheathing

GEORGIA-PACIFIC GYPSUM L L C — Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-11, PGS-WRS

2D. **Gypsum Board* —** (As an alternate to Item 2) — Not to be used with item 7. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam heads, 7 in. OC.
NATIONAL GYPSUM CO — Type SBWB

2E **Gypsum Board* —** (As an alternate to Items 2 through 2D) — Nominal 5/8 in. thick, 4 ft wide panels, secured as described in Item 2.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES.

2F. **Gypsum Board* —** (As an alternate to Item 2) — Not to be used with item 7. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically or horizontally and fastened to the studs and plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.
CERTAINTEED GYPSUM INC — Type SilentFX

2G. **Wall and Partition Facings and Accessories* —** (As an alternate to Items 2 through 2F) — Nominal 5/8 in. thick, 4 ft wide panels, secured as described in Item 2.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.

2H. **Gypsum Board* —** (As an alternate to Item 2) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

2I. **Gypsum Board* —** (As an alternate to Item 2) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.
AMERICAN GYPSUM CO — Types AGX-1 (finish rating 25 min.), M-Glass (finish rating 25 min.), AG-C (finish rating 25 min.), LightRoc (finish rating 25 min.)

NATIONAL GYPSUM CO — Type FSK, Type FSK-G, Type FSW, Type FSW-3, Type FSW-5, Type FSW-G, Type FSK-C, Type FSW-C, Type FSMR-C, Type FSW-6, Type FSL

2J. **Gypsum Board* —** (As an alternate to Item 2) - 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread steel screws spaced a max 8 in. OC with the last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum boards are to be installed horizontally.
CERTAINTEED GYPSUM INC — Type C, Type X or Type X-1(finish rating 26 min), Easi-Lite Type X (finish rating 24 min), Easi-Lite Type X-2, Type EGRG or GlasRoc or GlasRoc Sheathing (finish rating 23 min)

3. **Joints and Fastener Heads —** (Not Shown) — Gypsum board joints covered with tape and joint compound. Fastener heads covered with joint compound.

4. **Batts and Blankets* —** Mineral fiber or glass fiber insulation, 3-1/2 in. thick, pressure fit to fill wall cavities between studs and plates. Mineral fiber insulation to be unfaced and to have a min density of 3 pcf. Glass fiber insulation to be faced with aluminum foil or kraft paper and to have a min density of 0.9 pcf (min R-13 thermal insulation rating).
See **Batts and Blankets*** (BKNV) Category in the Building Materials Directory and **Batts and Blankets*** (BZJZ) Category in the Fire Resistance Directory for names of Classified Companies.

4A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C — INS735 and INS745 for use with wet or dry application. INS515LD, INS541LD, INS735, INS745, INS765LD, and INS773LD are to be used for dry application only.

4B. **Fiber, Sprayed* —** As an alternate to Item 4 and 4A — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.58 lb/ft^3.
NU-WOOL CO INC — Cellulose Insulation

4C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL
4D. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 4) — Spray applied, granulated mineral fiber material. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

5. **Wood Structural Panel Sheathing —** Min 7/16 in. thick, 4 ft wide wood structural panels, min grade "C-D" or "Sheathing". Installed with long dimension of sheet (strength axis) or face grain of plywood parallel with or perpendicular to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 6d cement coated box nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs.

5A. **Mineral and Fiber Boards* —** As an alternate to Item 5 - Min 1/2 in. thick, 4 ft wide sheathing, installed vertically to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 1-1/2 in. long galvanized roofing nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs. As an option a weather resistive barrier may be applied over the Mineral and Fiber Boards.

6. **Exterior Facings —** Installed in accordance with the manufacturer's installation instructions. One of the following exterior facings is to be applied over the sheathing:
A. **Vinyl Siding — Molded Plastic* —** Contoured rigid vinyl siding having a flame spread value of 20 or less.
See **Molded Plastic** (BTAT) category in the Building Materials Directory for names of manufacturers.

B. **Particle Board Siding —** Hardboard exterior sidings including patterned panel or lap siding.

C. **Wood Structural Panel or Lap Siding —** APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.

D. **Cementitious Stucco —** Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. Thickness from 3/8 to 3/4 in., depending on system.

E. **Brick Veneer —** Any type on nom 4 in. wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 8d nail per tie: ties spaced not more than each sixth course of brick and max 32 in. OC horizontally. One in. air space provided between brick veneer and sheathing.

F. **Exterior Insulation and Finish System (EIFS) —** Nom 1 in. **Foamed Plastic*** insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions. See **Foamed Plastic** (BRYX and CCVW) categories for names of Classified companies.

G. **Siding —** Aluminum or steel siding attached over sheathing to studs.

H. **Fiber-Cement Siding —** Fiber-cement exterior sidings including smooth and patterned panel or lap siding.

I. **Wall and Partition Facings and Accessories* —** Stone veneer is mortar bonded to a lath, scratch coat and water resistant barrier applied to sheathing, installed in accordance with the manufacturers installation instructions, and meeting the requirements of local code agencies.
ELDORADO STONE OPERATIONS L L C — Type Eldorado Stone

J. **Cementitious Backer Units —** 1/2 in. or 5/8 in., min. 32 in. wide.- Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum 3/4 in., spaced a max of 8 in. OC. Horizontal joints need not be backed by framing. When Cementitious Backer Units are used, the rating is applicable with exposure on either face. Cementitious Backer Units for use as substrate for exterior finishes such as ceramic tile, slate, marble, natural stone, manufactured stone, thin brick, or Portland cement or synthetic stucco.
NATIONAL GYPSUM CO — Type PermaBase

6A. **Building Units* — As an alternate to Exterior Facing Item 6 —** Insulated steel panels, 12 through 42 in. wide. Attached over sheathing through retainer clips to studs or support steel with No. 14 hex head self-tapping screws located at each joint in the concealed lip of the units and spaced in accordance with the structural design requirements. KINGSPAN INSULATED PANELS INC — Types 200, 300, 400, 900, or KS series, 2 through 6 in. thickness; CWP-V, H, 2 through 3 in. nominal thickness or Designwall 2000 or Designwall 4000, 2 and 3 in. nominal thickness.

7. **Steel Framing Members* —** (Optional, Not Shown) — 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 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7A) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75).

7A. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Two layers of gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to interior side of studs. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax.

7B. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
PLITEQ INC — Type Genie Clip

7C. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ca) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

7D. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

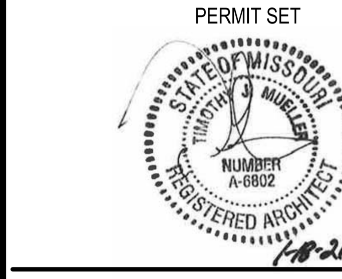
7E. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 7Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

8. **Non-Bearing Wall Partition Intersection —** (Optional) — Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

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

PERMIT SET



PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: KLM
CHECKED BY	: AAT
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

FIRE RATED ASSEMBLIES

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A0.8	____ OF ____

MENU

CADD VERSION
PLOT SCALE
PLOT DATE 2/24/2021 7:22:53 AM
SAVE DATE
COMM. NO.
DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

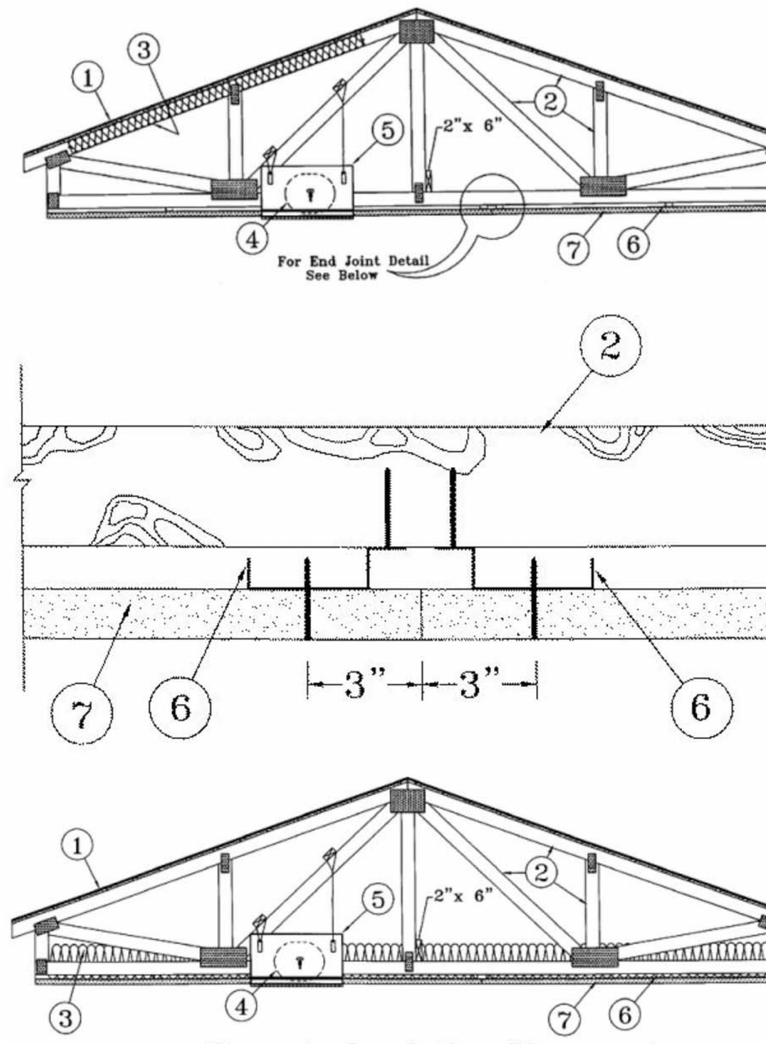
UL P522 - 1 HR ASSEMBLY

Design No. P522

May 05, 2020

Unrestrained Assembly Rating — 1 Hr

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



Alternate Insulation Placement

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^3 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-BT

POTTORFF — Model CFD-521-BT.

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 manufacturer's 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 spaced, 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.

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 (24 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.

b. **Cross tees or channels —** Nom 4 ft long, 15/16 in. or 1-1/2 in. wide face or cross channels, nom 4 ft long, 1-1/2 wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or channels used at 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.

c. **Wall angles or channels —** Used to support steel framing member ends and for screw-attachment of the gypsum wallboard — Min 0.016 in. thick painted or galvanized steel angle with 1 in. legs or min. 0.016 in. thick painted or galvanized steel channel with a 1 by 1-1/2 by 1 in. profile, attached to walls at perimeter of ceiling with fasteners 16 in. OC.
CGC INC — Type DGL or RX

USG INTERIORS LLC — Type DGL or RX

6E. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to items 6, 6A, 6B, and 6C, furring channels and Steel Framing Members as described below.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. When insulation, Items 3 or 3A is used, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to joists as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the wood trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in Item 7.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6F. **Steel Framing Members* —** (Not Shown) — As an alternate to Items 6 through 6E- Not for use with Items 3 or 3A. Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.
USG INTERIORS LLC — Type DGL or RX

6G. **Resilient Channels —** For Use With Item 7B - Formed from min 25 MSG galv steel installed perpendicular to trusses and spaced 16 in. OC. Channels secured to each truss with 1-5/8 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint. Additional channels shall extend min 6 in. beyond each side edge of panel. Insulation, Item 3C is applied over the resilient channel/gypsum panel ceiling membrane.

6H. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to items 6 through 6G, furring channels and Steel Framing Members as described below.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. When insulation, Items 3 or 3A is used, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to joists as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the wood trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in Item 7.
REGUPOL AMERICA — Type SonusClip

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.

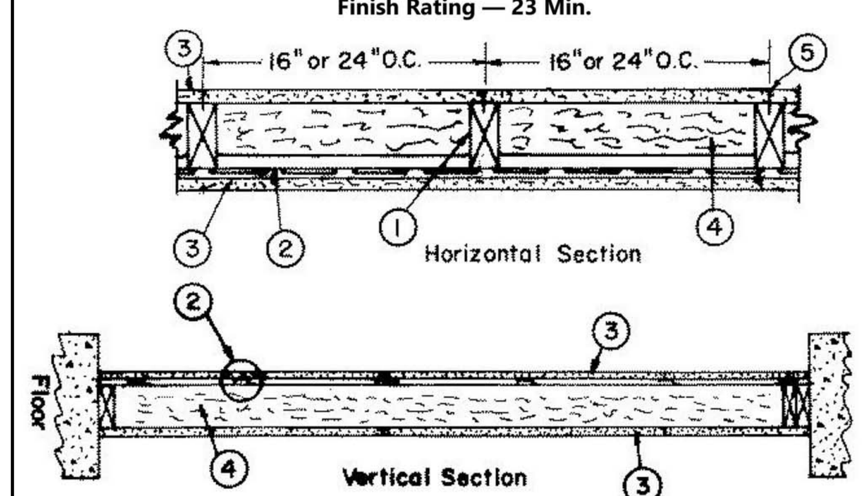
UL U311 - 1 HR ASSEMBLY

Design No. U311

March 11, 2020

Bearing Wall Rating — 1 HR.

Finish Rating — 23 Min.



1. **Wood Studs —** Nom 2 by 4 in., spaced 16 or 24. OC. Effectively cross braced.

2. **Resilient Channel —** 25 MSG galv steel. Resilient channels spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long Type W coarse thread gypsum panel steel screws.

2A. **Steel Framing Members* —** (Optional, Not Shown) — As an alternate to Item 2, 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 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC. and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75).

2B. **Steel Framing Members* —** Furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
PLITEQ INC — Type Genie Clip

2C. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ca) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips — Type A237R

2D. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

2E. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 2.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 2Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

2F. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Fb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. 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. Two layers of gypsum board attached to furring channels as described in Item 3A.

b. **Framing Members* —** Used to attach furring channels (Item 2Fa) to studs (Item 1). Rafts secured to stud, spaced a maximum of 24 in. OC. horizontally, vertically spaced 3 in. from the top and bottom and 24 inch on center along each stud and secured with two 1-1/4 inch (No. 6) Type W drywall screws. One on each side of the core. Fasteners should not be placed closer than 1/4 inch to the edges of the mounts.
BCD LLC — Type HushFrame Raft Connector

3. **Gypsum Board* —** 5/8 in. thick, 4 ft wide. Screw attached on one side of wall to furring channels with 1 in. long, self-drilling, self-tapping steel screws spaced 12 in. OC, vertical joints located midway between studs and back blocked with furring channels, attached with 1 in. long, self-drilling, self-tapping screws, spaced 12 in. OC, along each edge. Gypsum board on opposite side of wall attached directly to studs with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced 12 in. OC. Vertical joints shall be located over studs on this side of the wall.
AMERICAN GYPSUM CO — Types AG-C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2, IPC-AR, ULIX

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

NATIONAL GYPSUM CO — Types -eXP-C, FSK-C, FSW-C, FSW-G

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C or PG-C

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C

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

USG BORAL DRYWALL SFZ LLC — Type C

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

3A. **Gypsum Board* —** (For use with Item 2F) - Any 5/8 in. thick, 4 ft. wide, Gypsum Board UL Classified for Fire Resistance (CKNX) eligible for use in Design No. G512. Two layers, applied vertically, and attached to furring channels (Item 2Fa). Vertical gypsum board side joints offset 24 inches between layers. Horizontal butt joints offset 48 inches from adjacent board horizontal joints and 24 inches from base layer butt joint. Vertical joints staggered one stud cavity on opposite sides of studs. Type S steel screws used to attach gypsum board to furring channels. First layer - 1 in. long, 3 inches from the edge and 24 in. OC. Second layer- 1-5/8 in. long, spaced 1 inch from the edge and 12 in. OC.

4. **Batts and Blankets* —** 3-1/2 in. thick mineral wool batts, placed to fill interior of wall, attached to the 4-in. face of the studs with staples placed 24 in. OC.
JOHNS MANVILLE

ROCKWOOL — Types Acoustical Fire Batts and AFB, min. density 1.69 pcf / 27.0 kg/m^3

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts.

ROCK WOOL MANUFACTURING CO — Type Delta Board

THERMAFIBER INC — Type SAFB, SAFB FF.

4A. **Glass Fiber Insulation —** (As an alternate to Item 4) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD and INS773LD are to be used for dry application only

4C. **Fiber, Sprayed* —** As an alternate to Items 4, 4A, and 4B — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.58 lb/ft^3.
NU-WOOL CO INC — Cellulose Insulation

4D. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

5. **Joints and Screw Heads —** Wallboard joints covered with paper tape and joint compound. Screw heads covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with joints reinforced with paper tape.

6. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer' recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsun board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitu for the required layer(s) of UL Classified Gypsum Board.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-510

7. **Mineral and Fiber Board —** (Optional, Not Shown) — 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically studs on the side of the wood framing without the resilient channels, in between the wood framing and the UL Classified gypsum board (Item 3). Fiber boards installed with 1-1/4 in. long, Type W, bugle head, coarse thread gypsum board screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 3) installed horizontally or vertically and fastened through the fiber boards to wood framing with 2 in. long Type W coarse thread gyps panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. Gypsum board joints staggered from fib board joints. Fiber boards not evaluated or intended as a substitute for the required layer of UL Classified Gypsum Board.
BLUE RIDGE FIBERBOARD INC — SoundStop

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

PERMIT SET

STATE OF MISSOURI
TIMOTHY J. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
1-18-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: KLM
CHECKED BY	: AAT
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

FIRE RATED ASSEMBLIES

COMM. NO. 19132.00	DATE JANUARY 18, 2021
DRAWING A0.9	SHEET ____ OF ____

MENU

CADD VERSION

PLOT SCALE

PLOT DATE 1/17/2021 8:27:34 AM

SAVE DATE

COMM NO.

DRAWING NO.

UL U347 - 2 HR ASSEMBLY

Design No. U347

July 17, 2020

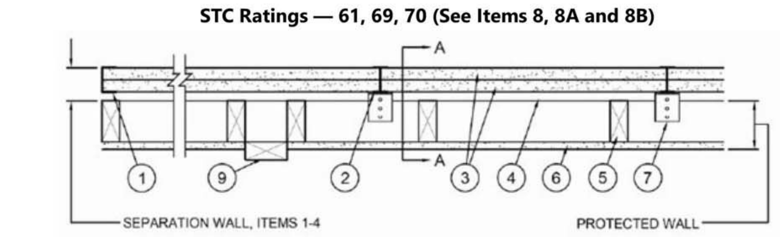
Nonbearing Wall Rating — 2 Hr (See Items 5, 5A and 5B) (Separation Wall, See Items 1,2 and 3)

Bearing Wall Rating 2 Hr. (Protected Wall, See Items 5 and 5A)

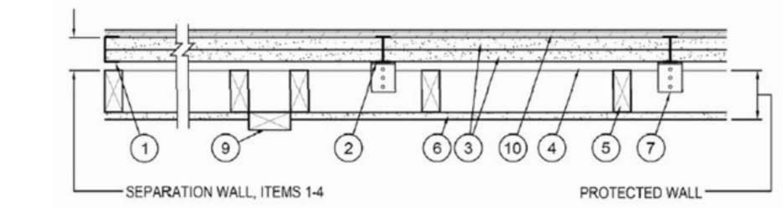
Nonbearing Wall Rating 2-Hr (Protected Wall, See Item 5, 5A and 5B)

Finish Rating — 120 Min (See Item 5)

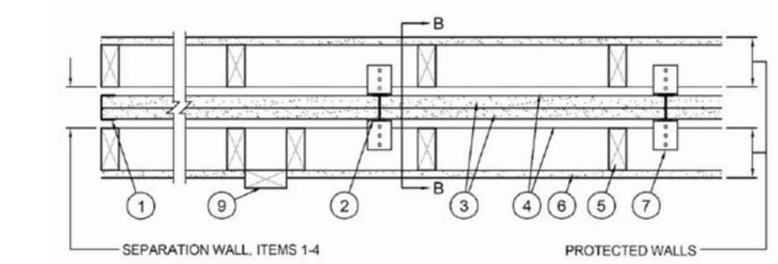
STC Ratings — 61, 69, 70 (See Items 8, 8A and 8B)



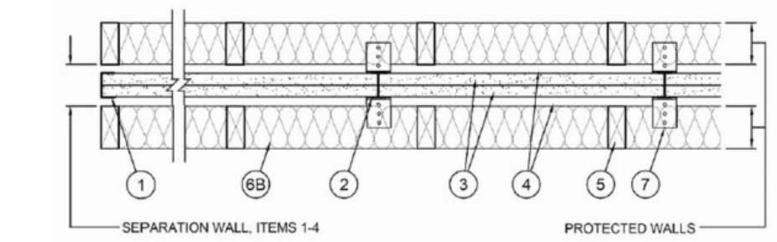
CONFIGURATION A
EXPOSED TO FIRE FROM AREA SEPARATION WALL SIDE ONLY



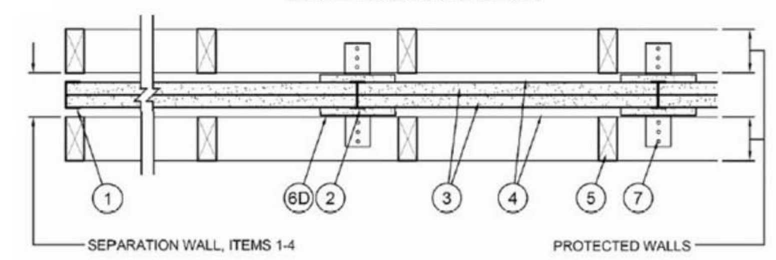
CONFIGURATION B
EXPOSED TO FIRE FROM AREA SEPARATION WALL SIDE ONLY



CONFIGURATION C
EXPOSED TO FIRE FROM EITHER SIDE



CONFIGURATION D
EXPOSED TO FIRE FROM EITHER SIDE



CONFIGURATION E
EXPOSED TO FIRE FROM EITHER SIDE

SEPARATION WALL: (Non-bearing, Max Height - 66 ft - see Item 6)

1. **Steel Track —** Floor, sidewall or top wall track. Nom 2 in. wide channel shaped with nom 1 in. long legs, formed from No. 25 MSG galv steel, secured with suitable fasteners spaced 24 in. OC.

2. **Steel Studs —** "H" shaped studs formed from No. 25 MSG galv steel having an overall depth of approximately 2 in. and flange width 1-3/8 in.

3. **Gypsum Board* —** Two layers of 1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. widths. Vertical edges of panels friction fit into "H" shaped studs.
NATIONAL GYPSUM CO — Types FSW, FSW-B, FSW-7, FSW-9

PROTECTED WALL: (Bearing or Nonbearing Wall, as indicated in Items 4, 4A and 4B. When Bearing, Load Restricted for Canadian Applications — See Guide BXUV7.)

4. **Air Space —** Minimum 3/4-in. air space.

5. **Wood Studs —** For Bearing or Nonbearing Wall Rating — Nom 2 by 4 in. max spacing 24 in. OC. Studs cross braced at mid-height where necessary for clip attachment. Min 3/4 in. separation between wood framing and fire separation wall. Finish rating evaluated for wood studs only.

5A. **Steel Studs —** (As an alternate to Item 5, not shown) — For Bearing Wall Rating — Corrosion protected steel studs, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min 3- 1/2 in. wide, min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, cold formed, shall be designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC. Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications. Top and bottom tracks shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C. Studs cross-braced with stud framing at midheight where necessary for clip attachment. Min 3/4 in. separation between steel framing and area separation wall. Finish rating has not been evaluated for Steel Studs.

5B. **Steel Studs —** (As an alternate to Items 5 and 5A, for use in Configuration B only, not shown) — For Nonbearing Wall Rating — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min 3-1/2 in. wide, min 1-1/4 in. flanges and 1/4 in. return, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height. Top and bottom tracks shall be channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max. Studs cross-braced with stud framing at midheight where necessary for clip attachment. Min 3/4 in. separation between steel framing and area separation wall. Finish rating has not been evaluated for Steel Studs.

6. **Gypsum Board — Classified or Unclassified —** Min 1/2 in. thick, 4 ft wide, applied horizontally or vertically. Wallboard attached to wood studs (Item 5) with 1-1/4 in. long steel drywall screws spaced 12 in. OC. Wallboard attached to steel studs (Item 5A or 5B) with 1 in. long Type S steel screws spaced 12 in. OC. Vertical joints located over studs. Horizontal joints shall be butted tight to form a closed joint. As an option, joints covered with paper tape and joint compound. As an option, screw heads covered with joint compound.

6A. **Plywood Sheathing or OSB —** (not shown) — As an alternate to Item 6, Min 1/2 in. thick plywood or OSB applied horizontally or vertically to wood or steel studs. Vertical joints located over studs. Horizontal joints shall be butted tight to form a closed joint. Fastened to studs with nails or screws of sufficient length, spaced 12 in. OC. Joints and fastener heads are not required to be treated. Aluminum clips shall be spaced as described in Item 7.

6B. **Batts and Blankets* —** (Not shown) — As an alternate to Items 6 and 6A, Glass fiber or mineral wool insulation, min. 3-1/2 in. thick, placed to completely fill the wood or steel stud cavities. When Batts and Blankets are used in place of Items 6 and 6A, the max height is 54 ft and the aluminum clips (Item 7) shall be spaced a max of 5 ft OC vertically. Min 3/4 in. separation between insulation and area separation wall. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies.

6C. **Wall and Partition Facings and Accessories* —** (not shown) — As an alternate to Items 6, 6A and 6B, 4 ft wide panels, applied vertically. Panels attached to wood studs (Item 4) with 1-5/8 in. long steel drywall screws spaced 16 in. OC. Vertical joints located over studs. Joints covered with paper tape and joint compound. As an option, screw heads covered with joint compound.
NATIONAL GYPSUM CO — Type SoundBreak Gypsum Board.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock QR-500, QuietRock QR-510, QuietRock QR-525

6D. **Gypsum Board* —** As an alternate to Item 6 - Min 5/8 in. thick, min. 6 in. wide batten strips, applied on both sides of Steel Studs (Item 2) and horizontal back to back Steel Track (Item 1). Min. 5/8 in. thick, min. 3 in. wide batten strips applied on both sides of single Steel Track (Item 1) at perimeter of assembly. Batten strips secured to studs with 1-1/4 in. long Type S steel screws spaced 12 in. OC. Batten joints shall be butted tight to form a closed joint. As an option, entire sheet of gypsum board may be used in lieu of the battens. Clip placement as in item 7, 7A, 7B, or 7C.
NATIONAL GYPSUM CO — Type FSW-3, FSW, FSW-6.

6E. **Fiber, Sprayed* —** Optional - Not Shown. - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C — SANCTUARY, FRM, INS735, NS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS510LD, INS765LD and INS773LD are to be used for dry application only.

7. **Aluminum Clips —** Aluminum angle, 0.049 in. thick, 2 in. wide with 2 in. and 2-1/2 in. legs. Clips secured with Type S screws 3/8 in. long to "H" studs and with 1-1/4 in. long screws to wood framing or steel framing through holes provided in clip.

7A. Clip placement for separation walls up to 23 ft high: Space clips a max of 10 ft OC vertically between wood or steel framing and "H" studs.

7B. Clip placement for separation walls up to 54 ft high: Space clips as described in Item 6A for upper 24 ft. Remaining wall area below requires clips spaced a max of 5 ft OC vertically between wood or steel framing and "H" studs.

8. **STC Rating —** The STC Rating of the wall assembly is 61 when it is constructed as described by Items 1 through 6, except:
A. Item 5, above — Wood Studs — Shall be spaced 16 in. OC.

B. Item 6, above — Gypsum Board — Min. weight 1.5 psf. Shall be applied vertically and attached to studs with 1-1/4 in. long steel drywall screws spaced 16 in. OC. Joints and screwheads shall be covered with paper tape and joint compound.

C. Item 7, above — Aluminum Clips — Spaced a max of 10 ft OC vertically.

D. Batts and Blankets* - The cavities formed by the wood studs shall be friction fit with 3-1/2 in. thick fiberglass insulation batts, min. 0.80 pcf. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies.

E. Max Height of Separation Wall is 23 ft.

F. The STC rating applies to Configuration B only.

G. Steel Studs (Items 5A, 5B), Plywood Sheathing or OSB (Item 5A and Item 9) and Batts and Blankets (Items 6B) not evaluated as alternatives for obtaining STC rating.

8A. **STC Rating —** The STC Rating of the wall assembly is 69 when it is constructed as described by Items 1 through 6, except:
A. Item 5, above — Wood Studs — Shall be spaced 16 in. OC.

B. Item 6C, above — Wall and Partition Facings and Accessories* — Type QuietRock QR-510 panels shall be installed.

C. Item 7, above — Aluminum Clips — Spaced a max of 10 ft OC vertically.

D. Batts and Blankets* - The cavities formed by the wood studs shall be friction fit with 3-1/2 in. thick fiberglass insulation batts, min. 1.0 pcf. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies.

E. Max Height of Separation Wall is 23 ft.

F. The STC rating applies to Configuration B only.

G. Steel Studs (Items 5A, 5B), Plywood Sheathing or OSB (Item 6A and Item 10) and Batts and Blankets (Items 6B) not evaluated as alternatives for obtaining STC rating.

8B. **STC Rating —** The STC Rating of the wall assembly is 70 when it is constructed as described by Items 1 through 7, except:
A. Item 5, above - Wood Studs - Shall be spaced 16 in. OC.

B. Item 6C, above - Wall and Partition Facings and Accessories* - Type QuietRock QR-525 panels shall be installed as described in Item 5C.

C. Item 7, above — Aluminum Clips - Spaced a max of 10 ft OC vertically.

D. Batts and Blankets* — The cavities formed by the wood studs shall be friction fit with 3-1/2 in. thick fiberglass insulation batts, min. 1.0 pcf. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies.

E. Max Height of Separation Wall is 23 ft.

F. The STC rating applies to Configuration B only.

G. Steel Studs (Items 5A, 5B), Plywood Sheathing or OSB (Item 6A and Item 10) and Batts and Blankets (Items 6B) not evaluated as alternatives for obtaining STC rating.

9. **Non-Bearing Wall Partition Intersection —** (Optional) Wall system consisting of nominal 2 by 4 in. stud or nominal 2 by in. stud. Maximum one non-bearing wall partition intersection per stud cavity.

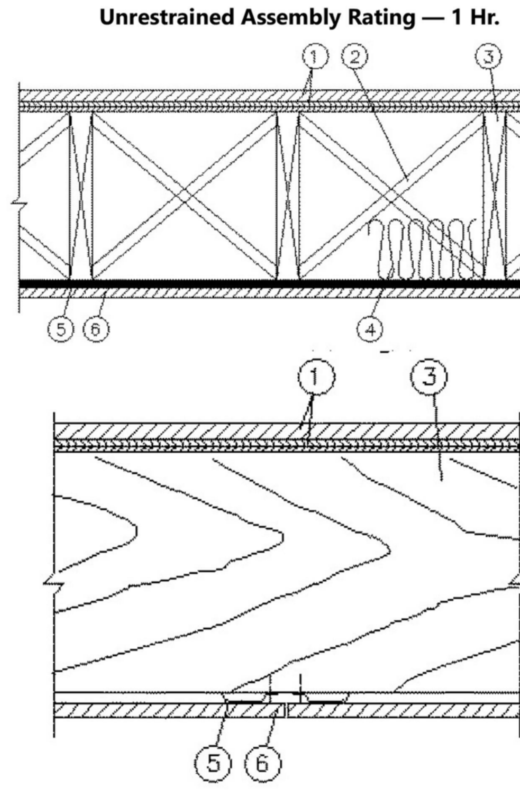
10. **Plywood Sheathing or OSB —** (Optional) — Min 1/2 in. thick plywood or OSB applied horizontally or vertically to "H" studs on area separation wall side of Configuration A or Configuration C. Vertical joints located over studs. Fastened to "H" studs with screws of sufficient length, spaced a maximum of 12 in. OC.

UL L569 - 1 HR ASSEMBLY

Design No. L569

July 01, 2020

Unrestrained Assembly Rating — 1 Hr.



1. **Flooring System —** The flooring system shall consist of one of the following:

System No. 1

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Floor — Min 1 by 4 in. T & G lumber installed perpendicular to the joists, or min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered.

System No. 2

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* —Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Types LRK, HSLRK, CSD

LATICRETE SUPERCAP L L C — Types LRK, HSLRK

USG MEXICO S A DE C V — Types LRK, HSLRK, CSD

Floor Mat Materials* — (Optional) - Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* — (Optional) - Floor mat material loosely laid over the subfloor. Refer to manufacturer's instructions regarding minimum thickness of floor topping over floor mat.

GRASSWORX L L C — SC Types

Alternate Floor Mat Material* — (Optional) - Floor mat material nominal 3/8 in. thick loose laid over the subfloor. Floor topping shall be a min 1/2 in. thick.

System No. 3

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 4

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
MAXXON CORP — Type Maxxon Standard and Maxxon High Strength

Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
MAXXON CORP — Type Encapsulated Sound Mat.

Floor Mat Reinforcement — (Optional) Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material.

System No. 5

Deleted.

System No. 6

Floor Mat Materials* — (Optional) - Floor mat material loose laid over the subfloor. Refer to manufacturer\'s instructions regarding the minimum thickness of floor topping over each floor mat material.
UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

System No. 7

Sub-flooring — Min 19/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered.**Floor Mat Materials* — (Optional) —** Floor mat material nom 1/8 in. (3mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 3/4 in. (19mm)
HACKER INDUSTRIES INC — FIRM-FILL SCM 125

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 1/4 in. (6mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25mm)
HACKER INDUSTRIES INC — Type FIRM-FILL SCM 250

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32mm)
HACKER INDUSTRIES INC — FIRM-FILL SCM 400

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm)**130869004 —** Type FIRM-FILL SCM 750**Alternate Floor Mat Materials - (Optional) —** Floor mat material nom 5/64 in. (2 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of floor-topping mixture. Floor topping thickness a min 1 in. over the floor mat.
HACKER INDUSTRIES INC — Type Hacker Sound-Mat.(HSM1.02)

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 1/4 in. (6mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/4 in. (32mm) of floor-topping mixture.
HACKER INDUSTRIES INC — Type Hacker Sound-Mat II. (HSM2.06)

Metal Lath (Optional) — For use with 3/8 in. (10 mm) or greater floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.**Finish Flooring - Floor Topping Mixture* —**
Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant

System No. 8

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring* — Floor Topping Materials — Min 3/4 in. to 1-1/2 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance with a minimum compressive strength of 1500 psi.
See **Floor- and Roof-Topping Mixtures** (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional) — Floor mat material nom 1/8 in. to 3/4 in. thick. Loose laid over the subfloor. When used, Acousti-flor CSM (crack suppression mat) is loose laid over the floor mat material. Floor topping material thickness is dependent on thickness of floor mat used.
WALFLOR INDUSTRIES INC — Type Acousti-flor, Acousti-flor CSM. Floor topping thickness depends on products used as follows:

Acousti-flor (1/8 in. thick) - Floor topping thickness shall be a minimum of 3/4 in.

Acousti-flor (1/4 in. thick) - Floor topping thickness shall be a minimum of 1 in.

Acousti-flor (3/8 in. thick) - Floor topping thickness shall be a minimum of 1 in.

Acousti-flor (3/4 in. thick) - Floor topping thickness shall be a minimum of 1-1/2 in.

Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb / sq yd loose laid over floor mat material.

Fiberglass Mesh Reinforcement — (Optional) — Coated non-woven glass fiber mesh grid loose laid over floor mat material.

System No. 9

Structural Cement-Fiber Units* — For use with **UNITED STATES GYPSUM CO** gypsum boards only. Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self- countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP

System No. 10

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 1 in. thickness of floor topping mixture having a min compressive strength of 4500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
SIKA DEUTSCHLAND GMBH — Type SCHONOX AP Rapid Plus

System No. 11

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional, Not Shown) - Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
LOW & BONAR INC — EnkaSonic® by Colbond a member of the Low & Bonar group Types 125, 250, 250 Plus, 400, 400 Plus, 750 and 750 Plus.

Floor Mat Reinforcement — (Optional) - Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb / sq yd loose laid over floor mat material.

Fiberglass Mesh Reinforcement — (Optional) — Coated non-woven glass fiber mesh grid loose laid over floor mat material.

2. **Cross Bridging —** 1 by 3 in.

3. **Wood Joists —** 2 by 10 in., spaced 16 in. OC, firestopped. Spacing may increase to 24 in. OC when Item 7, Battens, are used.

4. **Batts and Blankets* —** (Optional) — Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. - When the resilient channels (Item 5) or furring channels (Item 5B) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels (Item 5) or furring channels (Item 5B) are spaced a max of 12 in. OC or when the Steel Framing Members (Item 5A) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient channels (or Steel Framing Members) and gypsum panel membrane.

4A. **Loose Fill Material* —** As an alternate to Item 4, when the resilient channels (Item 5) or furring channels (Item 5B) are spaced a max of 12 in. OC or when the Steel Framing Members (Item 5A) are used - Any loose fill material bearing the UL Classification Marking for Surface Burning Characteristics. There is no limit in the overall thickness of insulation.

4B. **Batts and Blankets* —** (Not Shown) - Not for Direct Attachment - For use with Items 5E and 6A. As an alternative to Items 4 and 4A, any thickness of glass fiber or mineral wool insulation, nom. 0.5 pcf, fitted in the concealed space, draped over the resilient channels and gypsum board ceiling membrane (or Steel Framing Members/gypsum panel). Any glass fiber insulation bearing the UL Classification Marking for Surface Burning Characteristics.
See Batts and Blankets (BKNV) category in the Building Materials Directory for names of manufacturers.

5. **Furring Channels —** Resilient channels formed of 25 MSG thick galv steel. Installed perpendicular to the wood joists, spaced a max of 24 in. OC when no insulation is fitted in the concealed space. Otherwise, the spacing shall be as specified under Item 4 or 4A. Two courses of resilient channel positioned 6 in. OC at gypsum panel butt-joints (3 in. from each end of panel). Channels oriented opposite at panel butt-joints. Channel splices overlapped 4 in. beneath wood trusses. Channels secured to each truss with 1-1/4 in. long Type S screws.

5A. **Alternate Steel Framing Members —** (Not Shown) - As an alternate to Item 5, main runners, cross tees, cross channels and wall angle as listed below.
a. **Main Runners —** Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runner/cross tee intersections. Hanger wires wrapped and twist-tied on 16d nails driven in to side of joists at least 5 in. above the bottom face.

b. **Cross Tees —** Nom 4 ft long, 1-1/2 in. wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or cross channels used at 8 in. from each side of butted gypsum panel end joints. The cross tees or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

c. **Cross Channels —** Nom 4 or 12 ft long, installed perpendicular to main runners, spaced 16 in. OC.

d. **Wall Angle or Channel —** Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum panels.
CGC INC — Type DGL or RX.

USG INTERIORS LLC — Type DGL or RX.

5B. **Alternate Steel Framing Members —** (Not Shown)* — As an alternate to Items 5 and 5A, 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, installed perpendicular to the wood joists, spaced a max of 24 in. OC when no insulation is fitted in the concealed space. Otherwise, the spacing shall be as specified under Item 4 or 4A. Channels secured to joists as described in Item b. 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 the wood joists (Item 2). RSIC-1 and RSIC-1 (2.75) clips secured to consecutive joists with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to consecutive joists with No. 8 x 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 a. 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 panel butt joints, as described in Item 8.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

5C. **Alternate Steel Framing Members —** (Not Shown)* — As an alternate to Items 5 and 5A, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, installed perpendicular to the wood joists, spaced a max of 24 in. OC when no insulation is fitted in the concealed space. When batt insulation (Items 4) is draped over the resilient channel/gypsum board ceiling membrane, the resilient channel spacing shall be reduced to 12 in. OC. Channels secured to joists as described in Item b. 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 the wood joists (Item 2). GenieClips secured to consecutive joists with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. When insulation, Items 4, is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive joists. Furring channels are friction-fitted into clips. Adjoining channels are overlapped as described in Item a. 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 panel butt joints, as described in Item 6. Not evaluated for use with Item 4A.
PLITEQ INC — Type GENIECLIP

5D. **Alternate Steel Framing Members —** (Not Shown)* - As an alternate to items 5-5C, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 24 in OC, perpendicular to joists when no insulation is fitted in the concealed space. Otherwise, the spacing shall be as specified under item 4 or 4A. When batt insulation (Items 4) is draped over the resilient channel/gypsum board ceiling membrane, the resilient channel spacing shall be reduced to 12 in. OC Channels secured to joists as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the wood joists (Item 2). Clips spaced at 48" OC and secured to the bottom of the joists with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire.Additional clips are required to hold the Gypsum Butt joints as described in item 6.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

5E. **Resilient Channels —** (Not Shown) - For Use With Items 4B and 6A - Resilient channels formed of 25 MSG galv steel, installed perpendicular to the joists spaced max 16 in. OC. Channels secured to each joist with 1-5/8 in. long Type S steel screws. Channel splices located beneath joists and overlapped 4 in. Two channels, spaced 6 in. OC, oriented opposite each gypsum board end joint as shown in end joint detail. Additional channels shall extend min 6 in. beyond each side edge of board. Insulation, Item 4B is applied over the resilient channel/gypsum panel ceiling membrane.

5F. **Alternate Steel Framing Members —** (Not Shown)* - As an alternate to items 5-5E, furring channels and Steel Framing Members as described below.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 24 in OC, perpendicular to joists when no insulation is fitted in the concealed space. Otherwise, the spacing shall be as specified under item 4 or 4A. When batt insulation (Items 4) is draped over the resilient channel/gypsum board ceiling membrane, the resilient channel spacing shall be reduced to 12 in. OC Channels secured to joists as described in Item b.
b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the wood joists (Item 2). Clips spaced at 48" OC and secured to the bottom of the joists with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in item 6.

REGUPOL AMERICA — Type SonusClip

5G. **Steel Framing Members* —** (Optional, Not Shown) — As an alternate to Item 5.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 5, perpendicular to the joists. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw through each furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels used at end joints of gypsum board (Item 6), each extending a min of 6 in. beyond both side edges of the board.

b. **Cold Rolled Channels —** 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to joists, friction-fitted into the channel caddy on the Steel Framing Members (Item 5Gc) and secured with two 3/4 in. TEK screws. Adjoining lengths of cold rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. **Steel Framing Members* —** Spaced 48 in. OC. max along joist, and secured to the joist on alternating joists with two, #10 x 1-1/2 in. screws through mounting holes on the hanger bracket.
PAC INTERNATIONAL L L C — Type RSIC-SI-CRC EZ Clip

5H. **Steel Framing Members* —** (Optional, Not Shown) — As an alternate to Item 5.
a. **Furring Channels —** Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 5, perpendicular to joists and friction fit into Steel Framing Members (Item 5Hb). 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 or with two TEK screws along each leg of the 6 in. overlap. Two furring channels used at end joints of gypsum board (Item 6). Butt joint channels held in place by strong back channels placed upside down, on top of, and running perpendicular to primary furring channels, extending 6 in. longer than length of gypsum side joint. Strong back channels spaced maximum 48 in. OC. Strong back channels secured to every intersection of primary furring channels with four 7/16 in. pan head screws, two along each of the legs at intersections. Butt joint channels run perpendicular to strong back channels and shall be minimum 6 in. longer than length of joint, secured to strong back channels with 7/16 in. pan head screws, two along each of the legs at intersection with strong back channels.

b. **Steel Framing Members* —** Used to attach furring channels (Item 5Ha) to joists. Clips spaced 48 in. OC and secured along joist webs at each furring channel intersection with min. 3/4 in. long self-drilling #10 x 1-1/2 in. screws through each of the provided hole locations. Furring channels are friction fitted into clips.
PAC INTERNATIONAL L L C — Type RSIC-S1-1 Ultra

5I. **Steel Framing Members* —** (Optional - Not Shown) — Used to attach resilient channels (Item 5) to joists (Item 2). Clips spaced 48 in. OC and secured to joists with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels secured to clips with one #10 x 1/2 in. pan-head self-drilling screw. Ends of adjoining channels overlapped 6 in. and secured together with two #8 15 x 1/2 in. Philips Modified screws spaced 2-1/2 in. from the center of the overlap. Gypsum board butt joints require additional resilient channels spaced 1-1/2 in. from the butt joint on either side. One edge of the extra channels will extend to an adjacent joist where it is secured with a clip.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

6. **Gypsum Board* —** Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Items 5) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from end joints. End joints secured to both resilient channels as shown in end joint detail. When Steel Framing Members (Item 5B, 5C) are used, gypsum panels installed with long dimensions perpendicular to furring channels. Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the field of the panels. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the joist with one clip at each end of the channel. When Steel Framing Members (Item 5A) are used, gypsum panels installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Panels fastened to cross tees with 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field and 8 in. OC along end joints. Panels fastened to main runners with 1 in. long Type S bugle-head steel screws spaced midway between cross tees. Screws along sides and ends of panels spaced 3/8 to 1/2 in. from panel edge. End joints of panels staggered on adjacent panels not less than 12 in. When **Steel Framing Members** (Item 5D) 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 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 **Steel Framing Members** (Item 5F) 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 joist beyond the width of the gypsum panel and be attached to the adjacent joists with one SonusClip at every joist involved with the butt joint.

When **Steel Framing Members** (Item 5G) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 6. Adjacent butt joints staggered minimum 48 in. OC.

When **Steel Framing Members** (Item 5H) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 6. Butt joints staggered minimum 24 in. OC.

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

6A. **Gypsum Board* —** (Not Shown) - For use with Items 4B and 5E. Nom 5/8 in. thick, 48 in. wide gypsum board installed with long dimension perpendicular to joists attached to resilient channels (5E) - Gypsum board screw-attached to the resilient channels with 1 in. long Type S screws spaced 8 in. OC, starting 1 in. from the side edges. At the end joints, the screws were located 3 in. from the edge.
CGC INC — Type ULIX

UNITED STATES GYPSUM CO — Type ULIX

7. **Battens —** Nom 6 by 22-1/2 by 5/8 in. thick pieces of gypsum board (Item 6) centered under subfloor joints and fastened with staples spaced 7 in. OC along each edge. Staples formed of 16 SWG (0.062 in. thick) steel with 1-1/8 in. legs and 1/2 in. crown, driven flush with gypsum board batten strips. The battens and staples are optional when the finish flooring consists of **Floor Topping Mixture***.

8. **Finishing System —** (Not shown) - Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape 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 panels.

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI
TIMOTHY J. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
1-18-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: KLM
CHECKED BY	: AAT
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

FIRE RATED ASSEMBLIES

COMM. NO. 19132.00

DATE JANUARY 18, 2021

DRAWING A0.10

SHEET ____ OF ____

MENU

CADD VERSION

PLOT SCALE

PLOT DATE 1/17/2021 8:24:25 AM

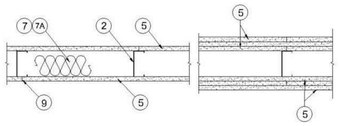
SAVE DATE

COMM NO.

DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

UL U423 - 1 HR ASSEMBLY



1. **Floor and Ceiling Runners** — (Not Shown) — Channel shaped, fabricated from min 0.0329 in., bare metal thickness (No. 20 MSG) corrosion-protected steel, that provide a sound structural connection between steel studs and adjacent assemblies such as floors, ceilings and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

1A. **Floor and Ceiling Runners** — (Not Shown, As an alternate to Item 1, For Use With Item 5A and 5C) — Channel shaped runners min 3-1/2 in. deep with 1-1/4 in. flanges fabricated from min No. 20 MSG corrosion-protected steel. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

2. **Steel Studs** — Min 0.0329 in., bare metal thickness (No. 20 MSG) corrosion-protected steel studs, min 3-1/2 in. wide, cold formed, designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 24 in. OC. Studs attached to floor and ceiling runners with 1/2 in. long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications.

2A. **Steel Studs** — (As an alternate to Item 2, For use with Item 5A, 5C, 5D, and 5E) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min width, min 1-1/2 in. flanges and 1/4 in. return, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners.

2B. **Steel Studs** — (As an alternate to Item 2 and 2A, For Use With Item 5B) — Min 0.0329 in., (No. 20 MSG) corrosion-protected cold formed steel studs, min 3-1/2 in. deep by 1-5/8 in. wide with 1/2 in. returns. Braced at mid-height and designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 24 in. OC. Studs attached to floor and ceiling runners with 1/2 in. long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications.

2C. **Framing Members - Steel Studs** — (As an alternate to Item 2, For use with Item 5C) — Channel shaped, fabricated from min 20 MSG (0.0127 in. thick) corrosion-protected or galv steel, 3-1/2 in. min width, min 1-1/2 in. flanges and 1/4 in. return, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

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3. **Lateral Support Members —** (Not shown) — Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

4. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.
The maximum loading on the steel studs was evaluated with the steel studs braced at mid-height and not braced by the plywood sheathing.

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered when load is reduced to 90 percent of max stud capacity. When load is at 100 percent, horizontal edge joints and horizontal butt joints on opposite sides of studs staggered a min of 12 in. Horizontal edge joints and horizontal butt joints on opposite sides of studs staggered at 100 percent load with Type ULIX. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. When used in widths other than 48 in., gypsum panels to be installed horizontally. The thickness and number of layers and percent of design load for the 45 min, 1 hr, 1-1/2 hr, and 2 hr ratings are as follows:

Wallboard Protection on Each Side of Wall

Rating	No. of Layers & Thkns of Panel	% of Design Load
45 Min	1 layer, 1/2 in. thick	100
1 hr	1 layer, 5/8 in. thick	100
1-1/2 hr	2 layers, 1/2 in. thick	100
2 hr	2 layers, 5/8 in. thick	80
2 hr@	2 layers, 5/8 in. thick	100
2 hr	3 layers, 1/2 in. thick	100
2 hr	2 layers, 3/4 in. thick	100

@Rating applicable when Betts and Blankets (Item 7) are used.

CGC INC — 1/2 in. thick Type IP-X2, IPC-AR, C, WRC, or, 5/8 in. thick Type SCX, SHX, WRX, IP-X1, AR, C, IP-AR, IP-X2, IPC-AR, ULIX, ULX, or WRC; 3/4 in. thick Types AR, IP-AR, IP-X3, ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR, or WRC; 5/8 in. thick Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRX, or WRC; 3/4 in. thick Types AR, IP-AR or IP-X3, ULTRACODE

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USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR, WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, WRX or WRC; 3/4 in. thick Types AR, IP-AR, IP-X3, ULTRACODE

5A. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nom 5/8 in. or 1/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1A, 2A & 8A(a). Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 12) or Lead Discs or Tabs (see Item 13).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5B. **Gypsum Board* —** (As an alternate to Items 5 and 5A) — Nom 5/8 in. thick gypsum panels with square edges, applied horizontally or vertically. For the1 hour single layer system -when the gypsum board panels are installed horizontally the joints are to be staggered by a minimum of 12 in. on opposite sides of assembly, they are to be secured on each side of the studs with 1- 1/4 in. long Type S-12 bugle head steel screws spaced 8 in. OC to the top and bottom tracks and in the field with screws 1 in. and 4 in. from the horizontal joints. When the gypsum board panels are installed vertically all vertical joints must be centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1- 1/4 in. long Type S-12 steel screws spaced 8 in. OC to the top and bottom tracks and in the field with screws 1 in and 4 in. from the perimeter. For the 2 hour double layer system - when the gypsum board panels are installed horizontally the joints need not be staggered on opposite sides of assembly. Base layer secured on each side of the studs with 1- 1/4 in. long Type S-12 bugle head steel screws spaced 16 in. OC to the top and bottom track and in the field with screws beginning 1 in. and 8 in. from the horizontal joints. Face layer horizontal joints staggered 8 in from base layer joints and secured with 1- 5/8 in. long Type S-12 bugle head steel screws spaced 16 in. OC to the top and bottom tracks and in the field with screws beginning 1 in. and 8 in. from the horizontal joints. Face layer screws offset 8 in. from base layer screws. When the gypsum board panels are installed vertically all vertical joints must be centered over studs and staggered min 1 stud cavity on opposite sides of studs. Face layer gypsum boards secured to studs with 1-1/4 in. long Type S -12 steel screws spaced 16 in. OC with screws 2 in. and 16 in. from the perimeter. Base layer gypsum boards secured to studs with 1- 1/4 in. long Type S -12 steel screws spaced 16 in. OC with screws 1 -1/2 in and 8 in. from the perimeter. Face layer screws offset 8 in. from base layer screws.
CGC INC — Type USGX

UNITED STATES GYPSUM CO — 5/8 in. thick Type USGX (Joint tape and compound, Item 9, optional with Type USGX)

USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type USGX (Joint tape and compound, Item 9, optional with Type USGX)

USG MEXICO S A DE C V — Type USGX

5C. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 bir #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

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NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5D. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nom 5/8 in. or 3/4 in. thick may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1A, 2A & 8A(a). Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 12A) or Lead Discs (see Item 13A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5E. **Gypsum Board* —** (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 4) — Nom 5/8 in. may be used as alternate to all 5/8 shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1A, 2A & 8A(a). Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP Lead Lined Drywall

6. **Fasteners —** (Not Shown) — For use with Item 5 - Type S-12 steel screws used to attach panels to runners (Item 1 or 1A) and studs (Item 2 or 2A) or furring channels (Item 8). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1- 1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 12 in. OC when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC along the perimeter and in the field when panels are applied horizontally or vertically. **Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1 -1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in. and 5/8 in. thick panels or 2- 1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three-layer systems:** First layer- 1 in. long for 1/2 in. thick panels, spaced 24 in. OC. Second layer- 1 5/8 in. long for 1/2 in. thick panels, spaced 24 in. OC. Third layer- 2- 1/4 in. long for 1/2 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Batts and Blankets* —** (Required as indicated under Item 5) — Nom 2 in. thick mineral wool batts, friction fitted between studs and runners. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

7A. **Batts and Blankets* —** (Optional, Not Shown) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

7B. **Batts and Blankets* —** (Optional, Not Shown) — Placed in stud cavities, glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
OWENS CORNING — Type QuietZone Acoustic Batts

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7C. **Fiber, Sprayed* —** (Optional) — As an alternate to Batts and Blankets (Item 7) — Not for use with Items 8A or 8B) — Spray applied mineral wool insulation. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

7D. **Batts and Blankets* —** Placed in stud cavities, any 3 -1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

8. **Furring Channels —** (Optional on one or both sides, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 panhead steel screws. Not for use with type FRX G gypsum panels and Item 5A, SC, SD, or SE.

8A. **Steel Framing Members (Not Shown)* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, 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 max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX G gypsum panels and Item 5A, SC, SD, or SE.

b. **Steel Framing Members* —** Used to attach furring channels (Item 8a) to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75).

8B. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2- 3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX G gypsum panels and Item 5A, SC, SD, or SE.

b. **Steel Framing Members* —** Used to attach furring channels to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GBNIECLIP

8C. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced max. 24 in. OC. perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied

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together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX G gypsum panels and Item 5A, SC, SD, or SE.

b. **Steel Framing Members* —** Used to attach furring channels to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8D. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 8Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 6. Not for use with type FRX G gypsum panels and Item 5A, SC, SD, or SE.

b. **Steel Framing Members* —** Used to attach furring channels to studs (Item 2). Clips spaced max. 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

8E. **Steel Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, resilient channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 6. Not for use with type FRX G gypsum panels and Item 5A, SC, SD, or SE.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 8Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2- 1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

8F **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a **Furring Channels —** Formed of No. 25 MSG galv steel, 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.

b **Steel Framing Members* —** Used to attach furring channels (Item 8Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2- 1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

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CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

9. **Joint Tape and Compound —** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layers. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

10. **Siding, Brick or Stucco —** (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

11. **Caulking and Sealants* —** (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.
UNITED STATES GYPSUM CO — Type AS

12. **Lead Batten Strips —** (Not Shown, For Use With Item 5A) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5A) and optional at remaining stud locations. Required behind vertical joints.

12A. **Lead Batten Strips —** (Not Shown, for use with Item 5C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

13. **Lead Discs or Tabs —** (Not Shown, For Use With Item 5A) — Used in lieu of or in addition to the lead batten strips (Item 12) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1- 1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

13A. **Lead Discs —** (Not Shown, for use with Item 5D) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

14. **Lead Batten Strips —** (Not Shown, For Use With Item 5C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5C) and optional at remaining stud locations.

15. **Lead Tabs —** (Not Shown, For Use With Item 5C) — 2 in. wide, 3 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs

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required at each location where a screw (that secures the gypsum boards, Item 5C) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

16. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — For use with Item 1, Item 2 to 2C, Item 3, Item 5, Item 6, Item 7A, Item 8 and Item 9. For a maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 5), install ReflexXor membrane with the gold side facing outwards. Membrane installed with 150 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When ReflexXor membrane is used an additional layer of Gypsum Board identical to the one used in the first layer and as specified in Item 5 shall be installed over the membrane. Additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 5 except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 7A. On the other side of the wall prior to the installation of the Gypsum Board install Resilient Channels as per Item 8. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 5 with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
MBL — ReflexXor membrane, SONOpan panel.

*** 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 2020-09-23

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

STATE OF MISSOURI
TIMOTHY A. AMBERG
NUMBER A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

FIRE RATED ASSEMBLIES

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
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A0.11	____ OF ____

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CARD VERSION

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PLOT DATE
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COMM NO.

DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

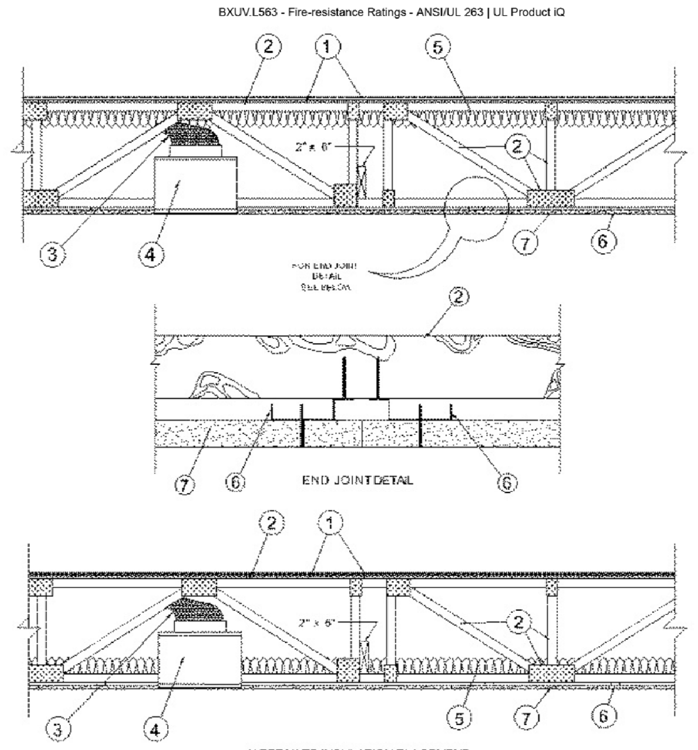
UL U347 - 2 HR ASSEMBLY

Design No. L563

February 05, 2021

Unrestrained Assembly Rating - 1 Hr

Finish Rating - 25 Min (See Items 5 or 5A and 7), 20 Min. (See Items 6E and 7A)



1. **Flooring System —** The flooring system shall consist of one of the following:

System No. 1

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring — Min 1 by 4 in. T & G lumber fastened diagonally to trusses, or min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single Floor". Face grain of plywood or strength axis of panel to be perpendicular to trusses with joints staggered.

System No. 2

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed

features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Floor Mat Materials* - (Optional) — Floor mat material nom 5/64 in. (2 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1 in. of floor-topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 1/4 in. (6 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/4 in. (32 mm) of floor-topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat II.

Alternate Floor Mat Materials - (Optional)— Floor mat material nom 1/8 in. (3 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 3/4 in. (19 mm)

HACKER INDUSTRIES INC — FIRM-FILL SCM 125

Alternate Floor Mat Materials - (Optional)— Floor mat material nom 1/4 in. (6 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25 mm)

HACKER INDUSTRIES INC — Type FIRM-FILL SCM 250, Quiet Qurl 55/025

Alternate Floor Mat Materials - (Optional)— Floor mat material nom 3/8 in. (10 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32 mm)

HACKER INDUSTRIES INC — FIRM-FILL SCM 400, Quiet Qurl 60/040

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 3/4 in. (19 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38 mm)

HACKER INDUSTRIES INC — Type FIRM-FILL SCM 750, Quiet Qurl 65/075

Metal Lath (Optional) — For use with 3/8 in. (10 mm) floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant

System No. 3

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Floor - Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft. All joints to be staggered a min of 12 in. with adjacent sub-floor joints.

HOMASOTE CO — Type 440-32 Mineral and Fiber Board

System No. 4

Subflooring — Min Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting

ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) — Nom 0.010 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Types LRK, HSLRK, CSD

LATICRETE SUPERCAP L L C — Types LRK, HSLRK

USG MEXICO S A DE C V — Types LRK, HSLRK, CSD

Floor Mat Materials* — (Optional) - Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* - (Optional) — Nom 3/8 in. thick floor mat material loose laid over the subfloor.

GRASSWORX L L C — Type SC50

System No. 5

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.

ELASTIZELL CORP OF AMERICA — Type FF

System No. 6

Deleted.

System No. 7

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.2 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5.5 gal of water.

AERIX INDUSTRIES — Floor-Topping Mixture

System No. 8

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 cu ft of sand.

ULTRA QUIET FLOORS — Types UQF-A, UQF-Super Blend, UQF-Plus 200

System No. 9

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ring shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

MAXXON CORP — Type Maxxon Standard and Maxxon High Strength

Floor Mat Materials* - (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

MAXXON CORP — Type Encapsulated Sound Mat.

Floor Mat Reinforcement — (Optional) Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath - (Optional) 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material.

Fiber Glass Reinforcement — (Optional) - 0.015 in. thick PVC coated non-woven fiberglass mesh, 0.368 lbs./sq. yd loose laid over the floor mat material.

System No. 10

Subflooring — Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue, or non-veneer APA Rated "Sturd-I-Floor" T & G panels per APA specifications PRP-108. Plywood or non-veneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

FORMULATED MATERIALS LLC — Types FR-25, FR-30, and SiteMix

Floor Mat Material* — (Optional) Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.

FORMULATED MATERIALS LLC — Types M1, M2, M3, Elite, Duo, R1, and R2

System No. 11

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 12

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring — Min 3/4 in. thickness of lightweight insulating concrete with **Perlite Aggregate*** or **Vermiculite Aggregate***, or gypsum concrete.

See **Perlite Aggregate** (CFFX) and **Vermiculite Aggregate** (CJZZ) categories for names of manufacturers.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 13

Subflooring — Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue, or nonveneer APA Rated "Sturd-I-Floor" T & G panels per APA specifications PRP-108. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

ACG MATERIALS — AccuCrete® Types NexGen, Green, Prime and PrePour, AccuRadiant®, AccuLevel® Types G40, G50 and SD30

Floor Mat Material* — (Optional) — Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.

ACG MATERIALS — AccuQuiet® Types D13, D-18, D25, DX38, EM.125, EM.125S, EM.250, EM.250S, EM.375, EM.375S, EM.750, and EM.750S.

System No. 14

Subflooring — Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue, or nonveneer APA Rated "Sturd-I-Floor" T & G panels per APA specifications PRP-108. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

DEPENDABLE LLC — GSL M3.4, GSL K2.6, GSL-CSD and GSL RH.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 15

Subflooring — Min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered. Plywood or non-veneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss.

Wall and Partition Facings and Accessories* - Sound Barrier (Optional) — Acoustic Sleeper pads stapled to the top of the subfloor, the bottom of the finish floor, or to 5/16 in. thick by 1-1/2 in. wide wood strips and centered over wood trusses. Acoustic Sleeper pads are to be spaced appropriately so that the finish floor panels are fastened through Acoustic Sleeper pads to trusses.
STC ARCHITECTURAL PRODUCTS L L C DBA STC SOUND CONTROL — Acoustic Sleeper

Finish Floor — Min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered. Butt joints of panels have the option of being sealed with any UL Classified caulk or sealant found under - Fill, Void or Cavity Materials* (XHHW).

System No. 16

Subflooring - Structural Cement-Fiber Units* — Nominal 19 mm (3/4 in.) thick tongue and groove structural cement-fiber units. Long dimension of panels to be perpendicular to trusses with end joints staggered. Panels fastened to the trusses with #10 self-drilling, self-tapping cement board screws 1-3/4 in. long. Screws shall be spaced 6 in. OC along the perimeter of each sheet and 12 in. OC in the field of each sheet. Screws shall be spaced 1/2 in. from end joints and 1 in. from side joints.
ECTEK INTERNATIONAL INC — Armoroc Panel

Subflooring (Alternate) — Building Units* — Nom 3/4 in. thick, tongue and grooved boards. Long dimension of boards to be perpendicular to trusses with end joints staggered a min of 4 ft. and centered over the trusses. Boards secured to trusses with 1-1/4 in. long self-drilling, self- tapping screws spaced a max of 12 in. OC in the field with screws located 1 in. from long edge, and max 8 in. OC along the end joints with screws located 1/2 in. from end joint.
ECTEK INTERNATIONAL INC — Type MegaBoard

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring — Min 1 by 4 in. T & G lumber fastened diagonally to trusses, or min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single Floor". Face grain of plywood or strength axis of panel to be perpendicular to trusses with joints staggered.

System No. 17

Structural Cement-Fiber Units* — For use with **UNITED STATES GYPSUM CO** Types C, IP-X2, IPC-AR and ULIX gypsum boards only. Nom 3/4 in. thick, with long edges tongue and grooved. Long dimension of panels to be perpendicular to wood trusses with end joints staggered a min of 2 ft and centered over the trusses. Panels secured to wood trusses with 1-5/8 in. long, No. 8, self- countersinking wood screw spaced a max of 12 in. OC in the field with a screw located 1 in. and 2 in. from

each edge, and 8 in. OC on the perimeter with a screw located 2 in. from each edge, located 1/2 in. from the end edges of the panel.
UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP

System No. 18

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 1 in. thickness of floor topping mixture having a min compressive strength of 4500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
SIKA DEUTSCHLAND GMBH — Type SCHONOX AP Rapid Plus

System No. 19

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional, Not Shown) - Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
LOW & BONAR INC — EnkaSonic® by Colbond a member of the Low & Bonar group Types 125, 250, 250 Plus, 400, 400 Plus, 750 and 750 Plus.

Floor Mat Reinforcement — (Optional) - Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb / sq yd loose laid over floor mat material.

Fiberglass Mesh Reinforcement — (Optional) — Coated non-woven glass fiber mesh grid loose laid over floor mat material.

2. **Trusses —** Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. when Ceiling Dampers* are not used. Min truss depth is 18 in. when Ceiling Damper* is used. Truss members secured together with min 0.036 0356 in. thick galvanized 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 tool 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 approx. 7/8 in. centers with four rows of teeth per inch of plate width.

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

4. **Ceiling Damper* (Optional). To be used with Air Duct Item 3.** — For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 19 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.
AIRE TECHNOLOGIES INC — Models: CRD model 50 w/Boot, CRD model 50EA w/Boot, CRD model 55 w/Boot, CRD model 55 EA w/Boot.

LLOYD INDUSTRIES INC — Model CRD 50-BT, CRD 50-EA-BT, CRD 55-BT, CRD 55 EA-BT

UNITED ENERTECH CORP — Model C-S/R-WT-L, C-S/R-EA-L, C-S/R-BT, C-S/R-EA-BL

4A. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 13 in. long by 13 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 50 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.
LLOYD INDUSTRIES INC — Model CRD 50-BT-6, CRD 50-EA-BT-6, CRD 55-BT-6, CRD 55 EA-BT-6, CRD50-W X-BT-6

4B. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max size ceiling outlet in plenum box nom 12 in. long by 12 in. wide. Plenum box fabricated from galv steel. Aggregate damper openings shall not exceed 72 sq in. per 100 sq ft of ceiling area. Installed in accordance with the manufacturer's installation instructions provided with the damper.
AIRE TECHNOLOGIES INC — Models: CRD model 50 w/Boot, CRD model 50EA w/Boot, CRD model 55 w/Boot, CRD model 55 EA w/Boot.

LLOYD INDUSTRIES INC — Model CRD 50-95BT, CRD 50-EA-95BT, CRD 55-95BT, CRD 55 EA-95BT

4C. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses. Max size ceiling outlet in plenum box nom 16 in. long by 16 in. wide. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.
CROWN PRODUCTS CO INC — Models CRD50-FGPB-4.2-CP, -6.0-CP; CRD50-FGPB-4.2-EA-CP, -6.0-EA-CP.

LLOYD INDUSTRIES INC — Models CRD 50- FGPB-4.2, - 4.2 NI, -6.0, -6.0 NI; CRD50-EA-FGPB-4.2, -4.2 NI, -6.0, -6.0 NI.

4D. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 15 in. long by 15 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 72 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.
LLOYD INDUSTRIES INC — Models 45-CRD-LT-BT and 45-CRD-LTD-BT

4E. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max size ceiling outlet in plenum box nom 10 in. long by 10 in. wide. Plenum box fabricated from galv steel. Aggregate damper openings shall not exceed 50 sq in. per 100 sq ft of ceiling area. Installed in accordance with the manufacturer's installation instructions provided with the damper.
LLOYD INDUSTRIES INC — Model 45-LTD-95-BT-4

4F. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 15 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 96 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

LLOYD INDUSTRIES INC — Model CRD50-W X-BT

4G. **Alternate Ceiling Damper* —** For use with min. 18 in. deep trusses. Max. nom area shall be 349 sq in. Max. overall length and width shall not exceed 18-11/16 in. by 18-11/16 in. with max. 16 in. by 16 in. register opening. Aggregate damper openings shall not exceed 175 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper. An aluminum or steel grille (Item 9) shall be installed in accordance with installation instructions.
MIAMI TECH INC — Model Series RxCRD, RxCRDS or RxCRPD

4H. **Alternate Ceiling Damper* —** For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 19 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.
METAL-FAB INC — Models MSCD-HC and MRCD-HC

4I. **Alternate Ceiling Damper* —** For use with min 18 in. deep trusses Max plenum box size nom 14 in. long by 16 in. wide and 15 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 112 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.
METAL-FAB INC — Model MCCD

5. **Batts and Blankets* —** (Optional) - Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When no insulation is installed in the concealed space resilient channels (Item 6) are spaced 24 in. OC. When the resilient channels (Item 6) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels are spaced a max of 12 in. OC or when the Steel Framing Members (Item 6A) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient channels (or Steel Framing Members) and gypsum panel membrane. The finished rating has only been determined when the insulation is secured to the subflooring.

5A. **Loose Fill Material* —** (Optional) - As an alternate to Item 5, when the resilient channels (Item 6) are spaced a max of 12 in. OC, or when the Steel Framing Members (Item 6A) are used - Any loose fill material bearing the UL Classification Marking for Surface Burning Characteristics. There is no limit in the overall thickness of insulation. The finished rating when loose fill material is used has not been determined

5B. **Cavity Insulation - Batts and Blankets* or Loose Fill Material* - (Not Shown) —** (As described above in Items 5 and 5A) — For Use with Item 7A — Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6E)/gypsum board (Item 7A) ceiling membrane.

6. **Resilient Channels** — Formed from min 25 MSG galv steel installed perpendicular to the trusses. When insulation (Item 5) is secured to the underside of the subfloor, the resilient channels are spaced 16 in. OC. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane, the resilient channels are spaced 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint as shown in the above illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.

6A. **Alternate Steel Framing Members —** (Not Shown) - As an alternate to Items 6, main runners, cross tees, cross channels and wall angle as listed below:

A. **Main Runners —** Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runner/cross tee

intersections. Hanger wires wrapped and twist-tied on 16d nails driven in to side of trusses at least 5 in. above the bottom face.

B. **Cross Tees —** Nom 4 ft long, 1-1/2 in. wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or cross channels used at 8 in. from each side of butted gypsum panel end joints. The cross tees or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

C. **Cross Channels —** Nom 4 or 12 ft long, installed perpendicular to main runners, spaced 16 in. OC.

D. **Wall Angle or Channel —** Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum panel.
CGC INC — Type DGL or RX.

USG INTERIORS LLC — Type DGL or RX.

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

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. 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 a) to trusses (Item 2). Clips spaced 48 in. OC, and secured to the bottom chord of alternating trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. 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

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, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG 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 x 2-1/2 in. course drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. 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-1 (2.75).

6D. **Alternate Steel Framing Members* —** (Not Shown) As an alternate to items 6 to 6C, furring channels and Steel Framing Members as described below.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire.Additional clips are required to hold the Gypsum Butt joints as described in item 7.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

6E. **Resilient Channels - (Not Shown) —** For Use With Item 7A - Formed from min 25 MSG galv steel installed perpendicular to trusses and spaced 16 in. OC. Channels secured to each truss with 1-5/8 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint. Additional channels shall extend min 6 in. beyond each side edge of panel. Insulation, Item 5B is applied over the resilient channel/gypsum panel (Item 7A) ceiling membrane.

6F. **Alternate Steel Framing Members* —** (Not Shown) As an alternate to items 6 to 6E, furring channels and Steel Framing Members as described below.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to wood structural members. When insulation, Items 5 or 5A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in item 7.
REGUPOL AMERICA — Type SonusClip

6G. **Steel Framing Members* — —** (Optional, Not Shown) — As an alternate to Item 6.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 6, perpendicular to the trusses. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw through each furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels used at end joints of gypsum board (Item 7), each extending a min of 6 in. beyond both side edges of the board.

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 6Gd) and secured with two 3/4 in. TEK screws. Adjoining lengths of cold rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws 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. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trusses at the top and bottom of the blocking at each Steel Framing Member (Item 6Gd) location with 16d nails or minimum 2-1/2 in. screws.

d. **Steel Framing Members* —** Spaced 48 in. OC. max along truss, and secured to the truss on alternating trusses with two, #10 x 1-1/2 in. screws through mounting holes on the hanger bracket.
PAC INTERNATIONAL L L C — Type RSIC-SI-CRC EZ Clip

6H. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated in Item 6, perpendicular to trusses and friction fit into Steel Framing Members (Item 6Hc). 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 or with two TEK screws along each leg of the 6 in. overlap. Two furring channels used at end joints of gypsum board (Item 7). Butt joint channels held in place by strong back channels placed upside down, on top of, and running perpendicular to primary furring channels, extending 6 in. longer than length of gypsum side joint. Strong back channels spaced maximum 48 in. OC. Strong back channels secured to every intersection of primary furring channels with four 7/16 in. pan head screws, two along each of the legs at intersections. Butt joint channels run perpendicular to strong back channels and shall be minimum 6 in. longer than length of joint, secured to strong back channels with 7/16 in. pan head screws, two along each of the legs at intersection with strong back channels.

b. **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. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trusses at the top and bottom of the blocking at each Steel Framing Member (Item 6Hc) location with 16d nails or minimum 2-1/2 in. screws.

c. **Steel Framing Members* —** Used to attach furring channels (Item 6Ha) to trusses. Clips spaced 48 in. OC and secured along truss webs at each furring channel intersection with min. 3/4 in. long self-drilling #10 x 1-1/2 in. screws through each of the provided hole locations. Furring channels are friction fitted into clips.
PAC INTERNATIONAL L L C — Type RSIC-S1-1 Ultra

6I. **Steel Framing Members* —** (Optional - Not Shown) — Used to attach resilient channels (Item 6) to trusses (Item 2). Clips spaced 48 in. OC and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels secured to clips with one #10 x 1/2 in. pan-head self-drilling screw. Ends of adjoining channels overlapped 6 in. and secured together with two #8 15 x 1/2 in. Philips Modified screws spaced 2-1/2 in. from the center of the overlap. Gypsum board butt joints require additional resilient channels spaced 1-1/2 in. from the butt joint on either side. One edge of the extra channels will extend to an adjacent truss where it is secured with a clip.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

6J. **Steel Framing Members* —** (Optional, Not Shown) — Used as an alternate method to attach resilient channels to structural members. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 24 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions. Gypsum Board butt joints staggered minimum 24 in. OC and Gypsum Board screws spaced 8 in. OC when used.
PAC INTERNATIONAL L L C — Type RC-1 Boost

7. **Gypsum Board* —** Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Item 6) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from end joints. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane the screw spacing shall be reduced to 8 in. OC. End joints secured to both resilient channels as shown in end joint detail. When Steel Framing Members (Item 6A) are used, gypsum panels installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Panels fastened to cross tees with 1 in. long Type S bugle-head screws spaced 8 in. OC in the

field and along end joints. Panels fastened to main runners with 1 in. long Type S bugle-head screws spaced midway between cross tees. Screws along sides and ends of panels spaced 3/8 to 1/2 in. from board edge. End joints of panels shall be staggered with spacing between joints on adjacent panels not less than 2 ft OC. When **Steel Framing Members** (Item 6B) 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 No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field of the board. Screw spacing is reduced to 8 in. OC when insulation is applied over the furring channel/gypsum panel ceiling membrane. Gypsum board butted end joints shall be staggered minimum 16 in. within the assembly. 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 6 in. on each end. These additional furring channels shall be attached to underside of the truss with Genie clips as described in Item 6B. Screw spacing along the gypsum board butt joint shall be 6 in. OC. When **Steel Framing Members** (Item 6C) are used, gypsum panels installed with long dimensions perpendicular to furring channels. Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the field of the panel. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the truss with one clip at each end of the channel. When **Steel Framing Members** (Item 6D) 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 joint. The two support furring channels shall be spaced approximately 3 in. in from 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 **Steel Framing Members** (Item 6F) 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.

When **Steel Framing Members** (Item 6G) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Adjacent butt joints staggered minimum 48 in. OC.

When **Steel Framing Members** (Item 6H) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Butt joints staggered minimum 24 in. OC.

AMERICAN GYPSUM CO — Type AG-C

CGC INC — Types C, IP-X2, IPC-AR

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A

NATIONAL GYPSUM CO — Types eXP-C, FSW-G, FSW-C, FSK-G, FSK-C.

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

USG BORAL DRYWALL SFZ LLC — Type C

7A. **Gypsum Board* - (Not Shown) —** For use with Items 5B and 6E. 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. Nom 2 in. wide paper tape 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.

9. **Grille —** Aluminum or Steel grille, installed in accordance with the installation instructions provided with the ceiling damper.

*** 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 2021-02-05

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: GMJ
CHECKED BY	: DAS
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

FIRE RATED ASSEMBLIES

COMM. NO. 19132.00	DATE JANUARY 18, 2021
DRAWING A0.12	SHEET ____ OF ____

MENU

CADD VERSION

PLOT SCALE

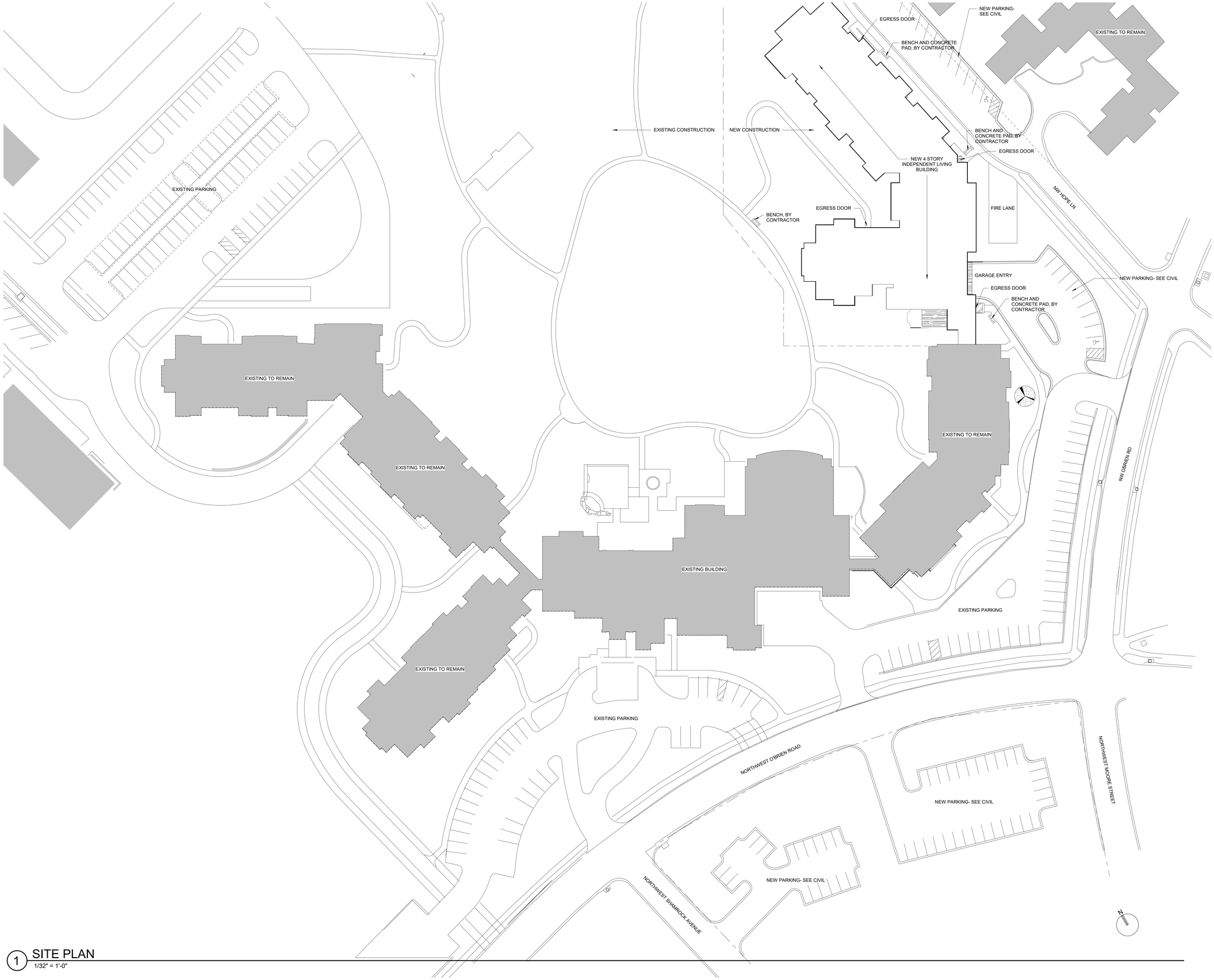
PLOT DATE 2/24/2021 7:25:35 AM

SAVE DATE

COMM NO.

DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt



1 SITE PLAN
1/32" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

NOTE: ARCHITECTURAL SITE PLAN IS FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR ALL SITE INFORMATION.

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. AUBUCHON
NUMBER A-6802
REGISTERED ARCHITECT
2/24/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE
SITE PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A1.0 SHEET ____ OF ____

MENU

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PLOT DATE
2/24/2021
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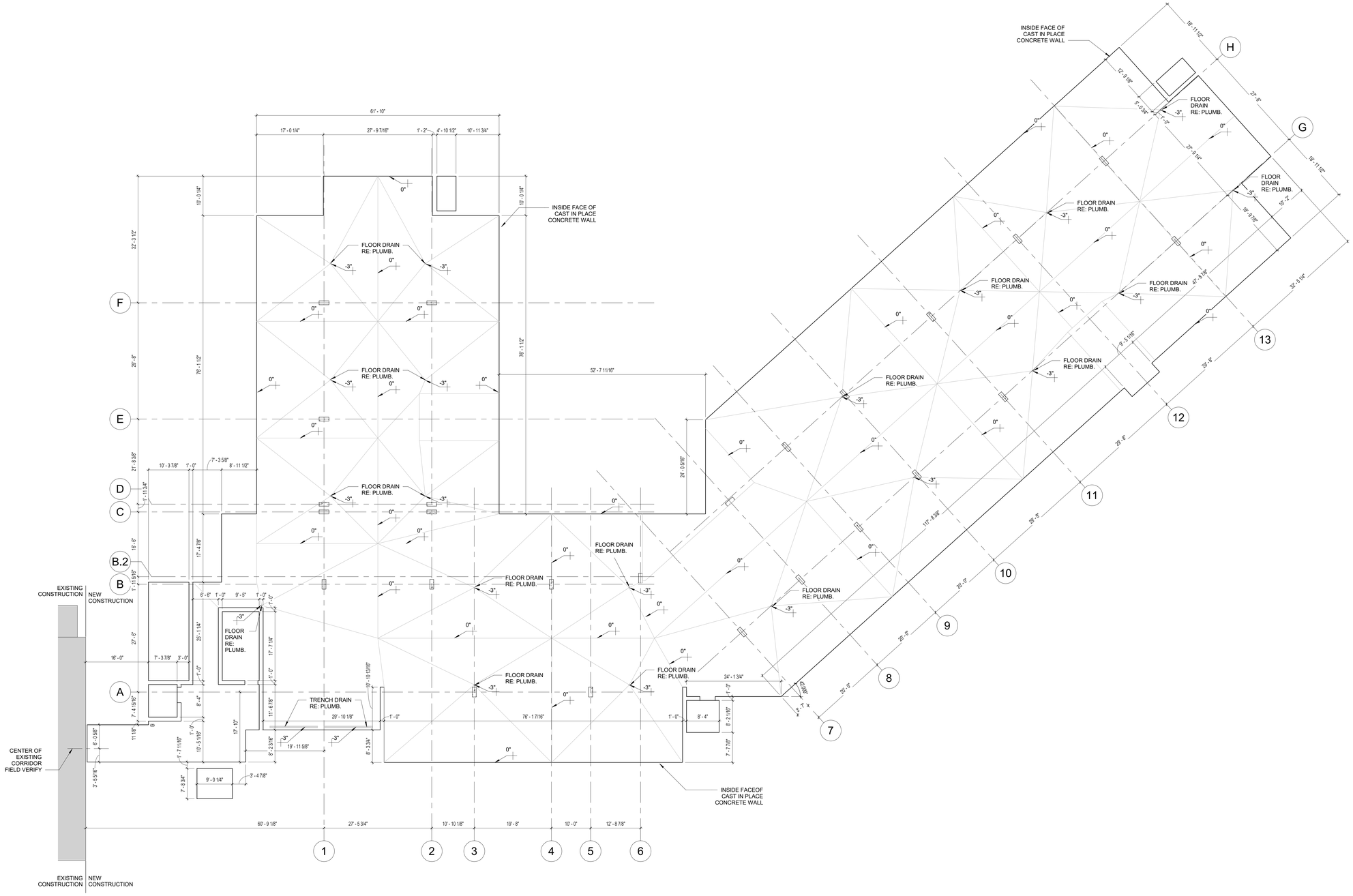
SAVE DATE
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 GARAGE - EDGE OF SLAB PLAN
3/32" = 1'-0"

ADDED GARAGE DRAINAGE 5

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-0802 REGISTERED ARCHITECT
5/10/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

GARAGE FLOOR EDGE OF SLAB PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A1.1	____ OF ____

MENU

CAD VERSION
PLOT SCALE
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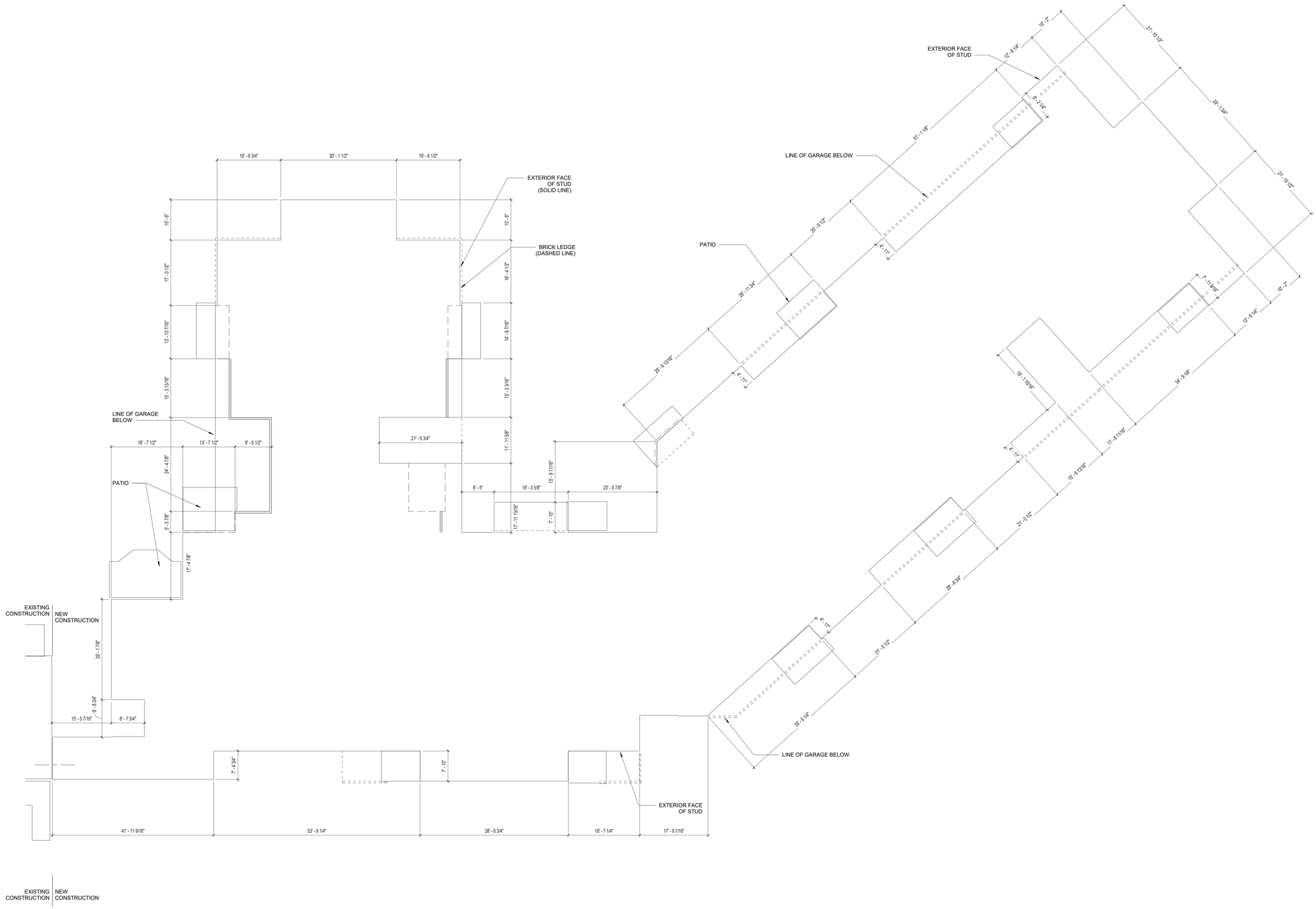
SAVE DATE
COMM NO.
DRAWING NO.



1 SECOND FLOOR - EDGE OF SLAB

3/32" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI
DAVID A. SCHMITT
NUMBER A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	DAS
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

SECOND FLOOR EDGE OF SLAB PLAN

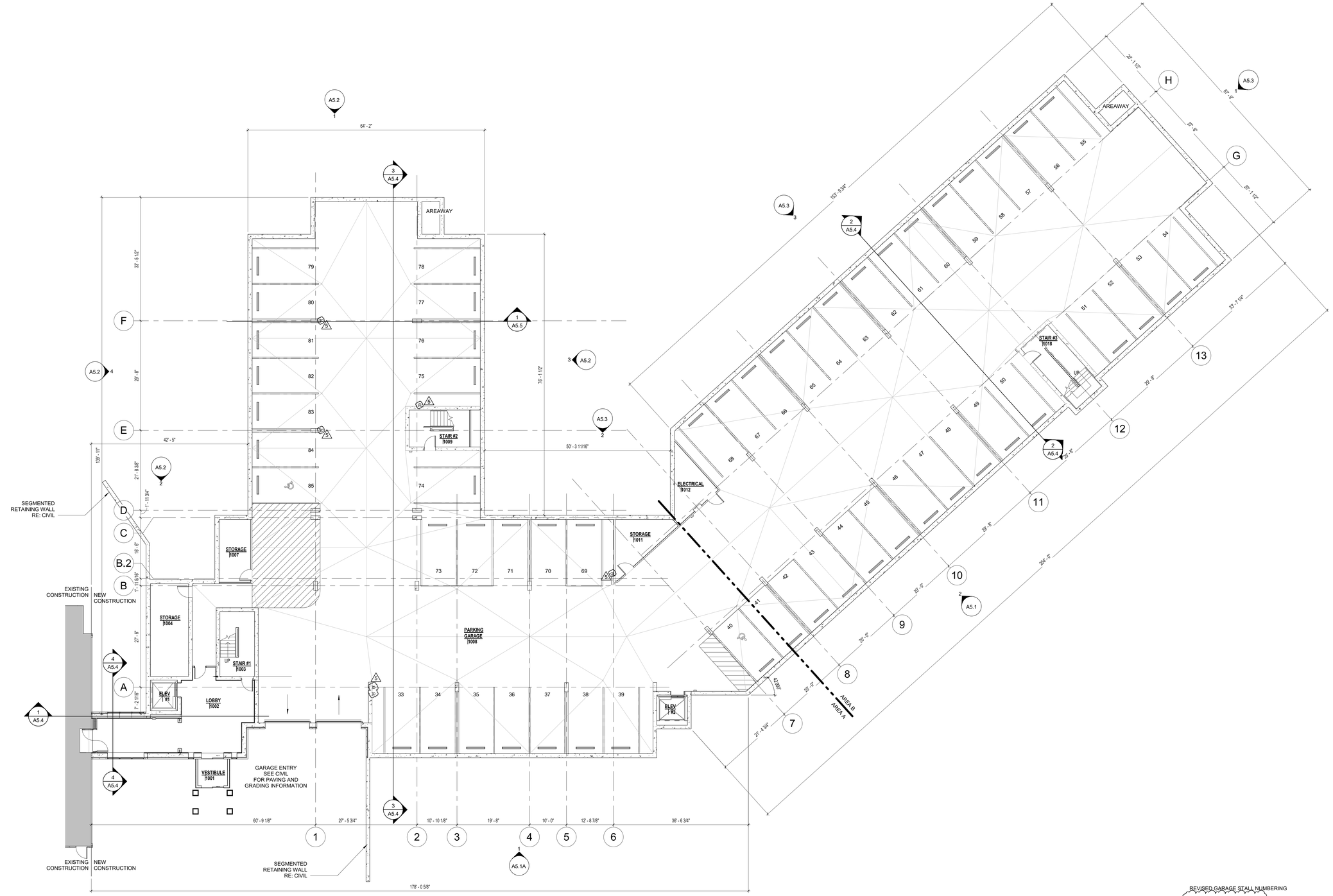
COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A1.2	SHEET ____ OF ____

MENU

CAD© VERSION
PLOT SCALE
PLOT DATE
2/25/2021 7:06:21 AM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



REVISED GARAGE STALL NUMBERING
ADDED GARAGE DRAINAGE
5

1 GARAGE OVERALL PLAN
3/32" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
3/10/2021
3:08:15 PM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. AUBUCHON
NUMBER A-08502
REGISTERED ARCHITECT
3-10-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

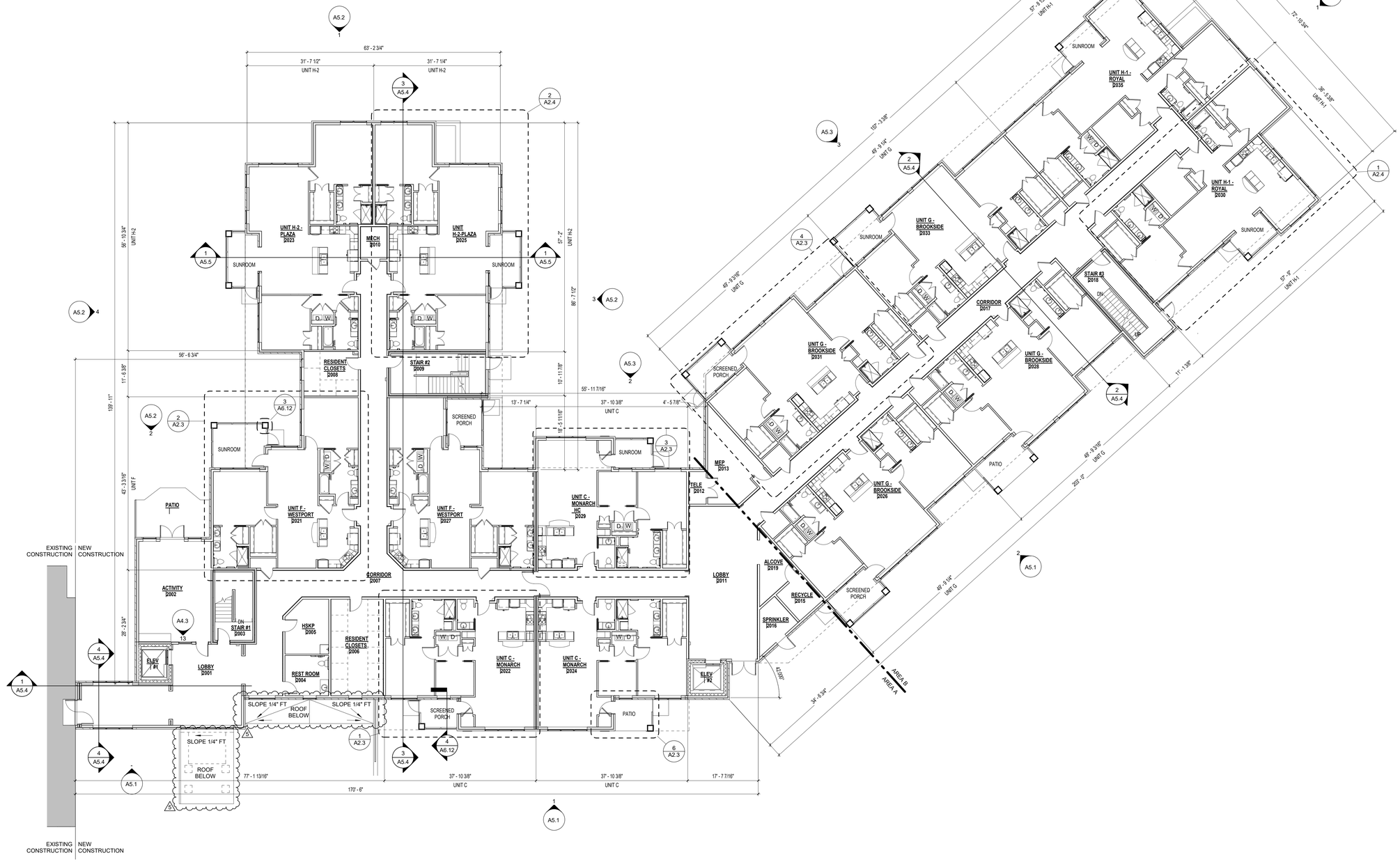
GARAGE OVERALL PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A1.3 SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 SECOND FLOOR OVERALL PLAN

3/32" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
3/11/2021 5:38:25 AM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

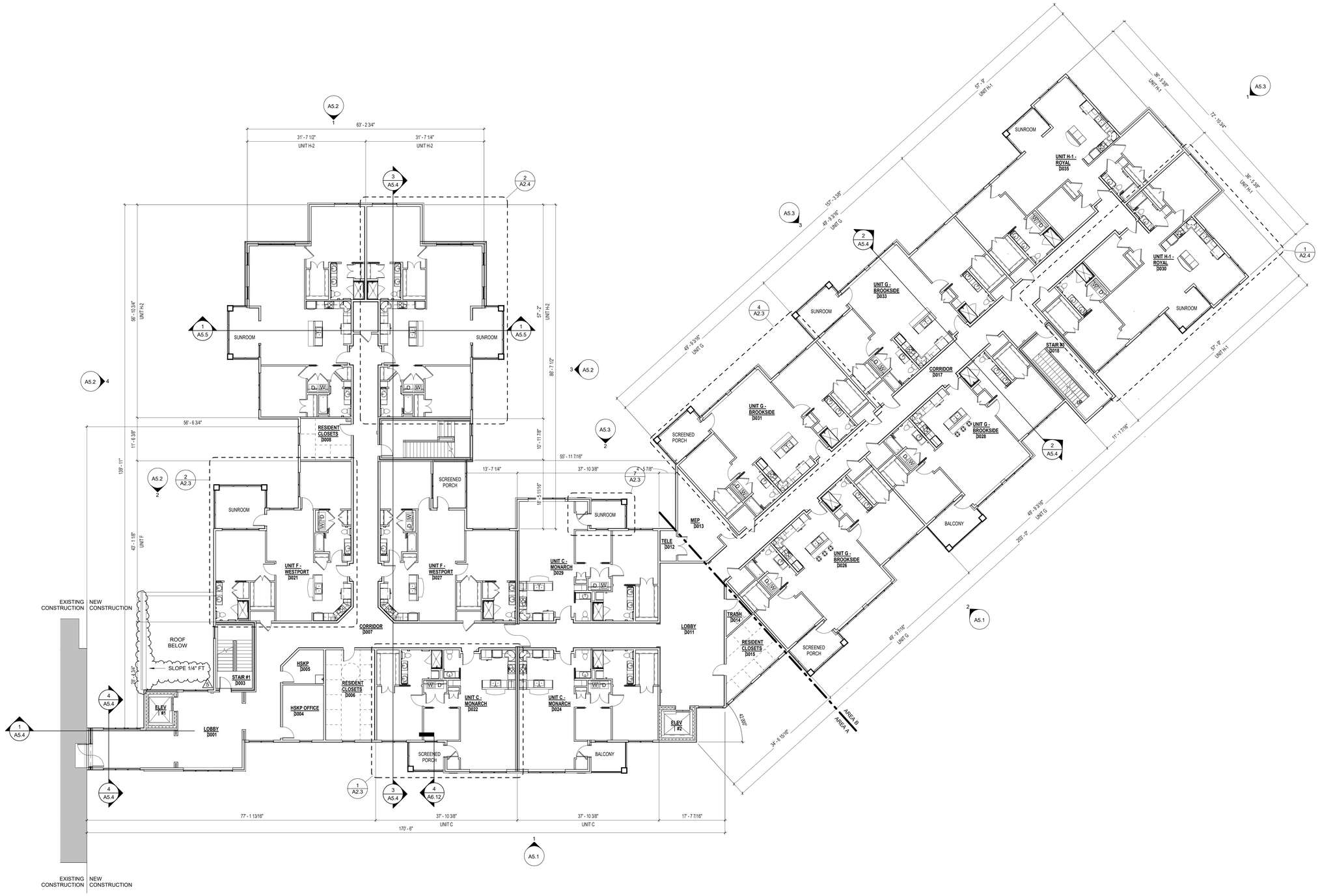
NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

SECOND FLOOR OVERALL PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A1.4	SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 THIRD FLOOR OVERALL PLAN

3/32" = 1'-0"

PERMIT SET

STATE OF MISSOURI — TIMOTHY A. MUELLER — NUMBER A-6802 — REGISTERED ARCHITECT — 4/9/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

THIRD FLOOR OVERALL PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

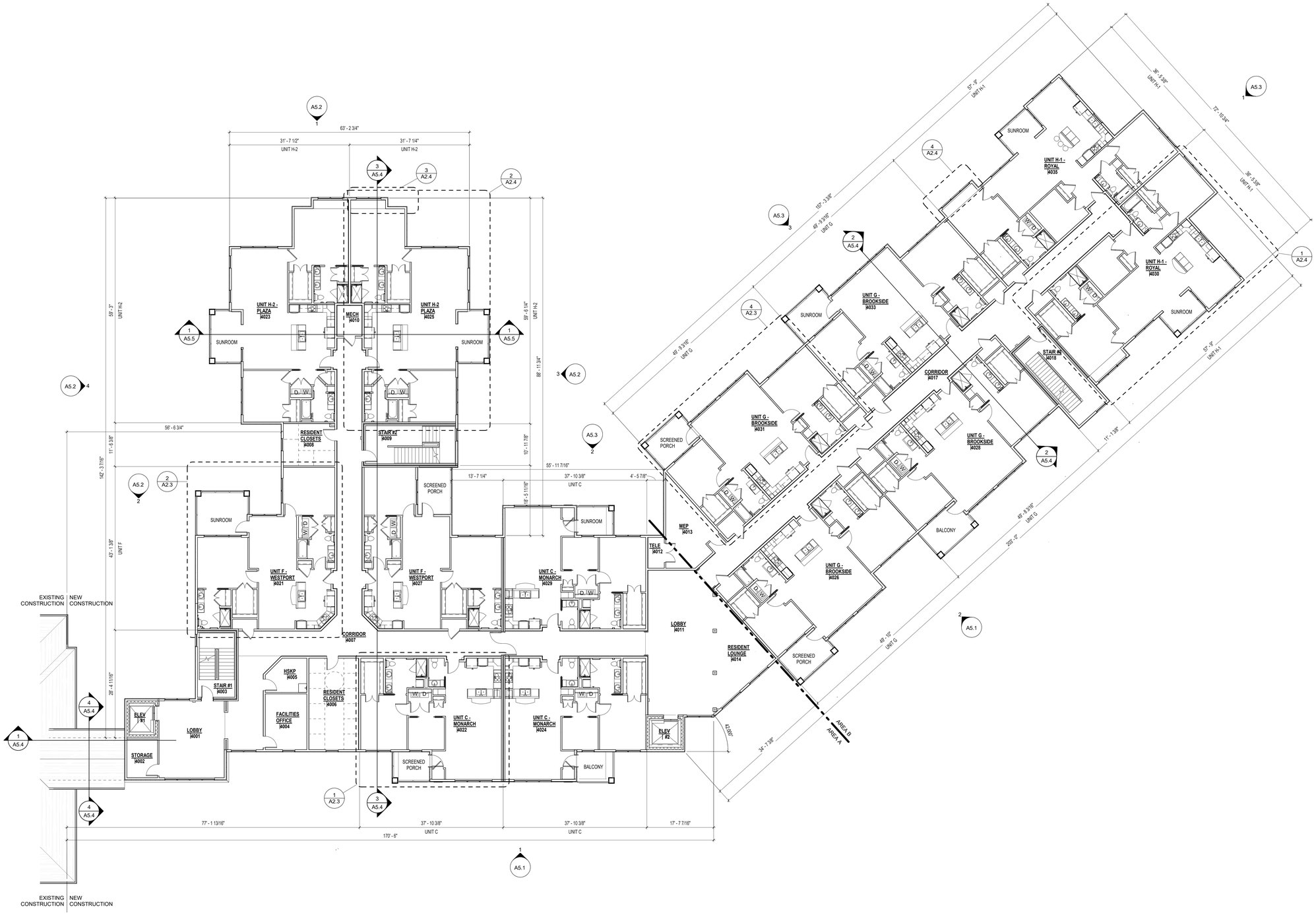
DRAWING A1.5 SHEET ____ OF ____

MENU

CAD0 VERSION
PLOT SCALE
PLOT DATE
3/10/2021 3:08:44 PM
SAVE_DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 FOURTH FLOOR OVERALL PLAN
3/32" = 1'-0"

MENU

CAD5 VERSION
PLOT SCALE
PLOT DATE
2/24/2021 8:08:43 AM
DATE SAVED
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI · TIMOTHY A. MURPHY · NUMBER A-6802 · REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

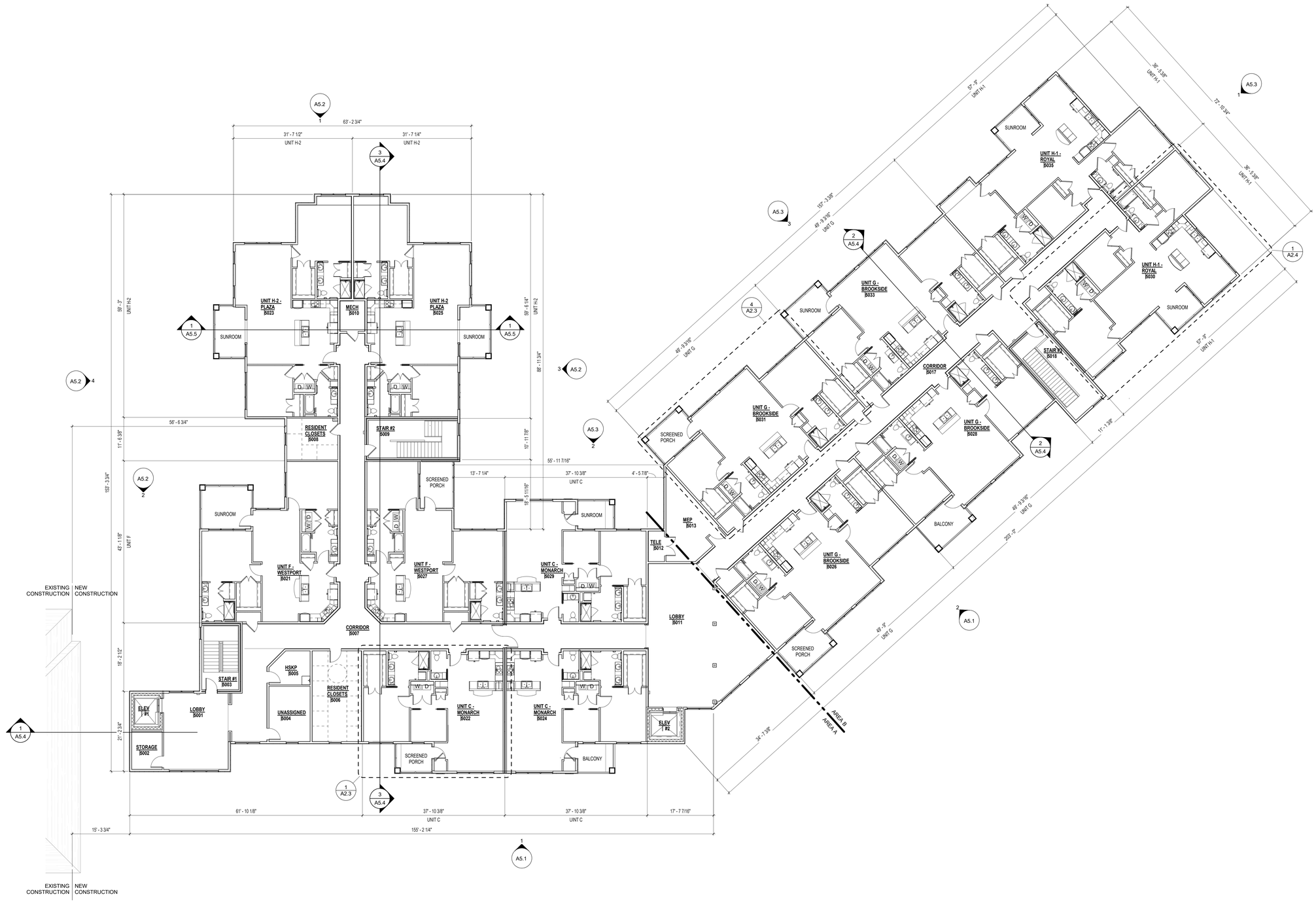
FOURTH FLOOR OVERALL PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A1.6

SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 FIFTH FLOOR OVERALL PLAN
3/32" = 1'-0"

MENU

CAD0 VERSION
PLOT SCALE
PLOT DATE
2/24/2021 8:09:44 AM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI
GREGORY M. JAMES
NUMBER A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

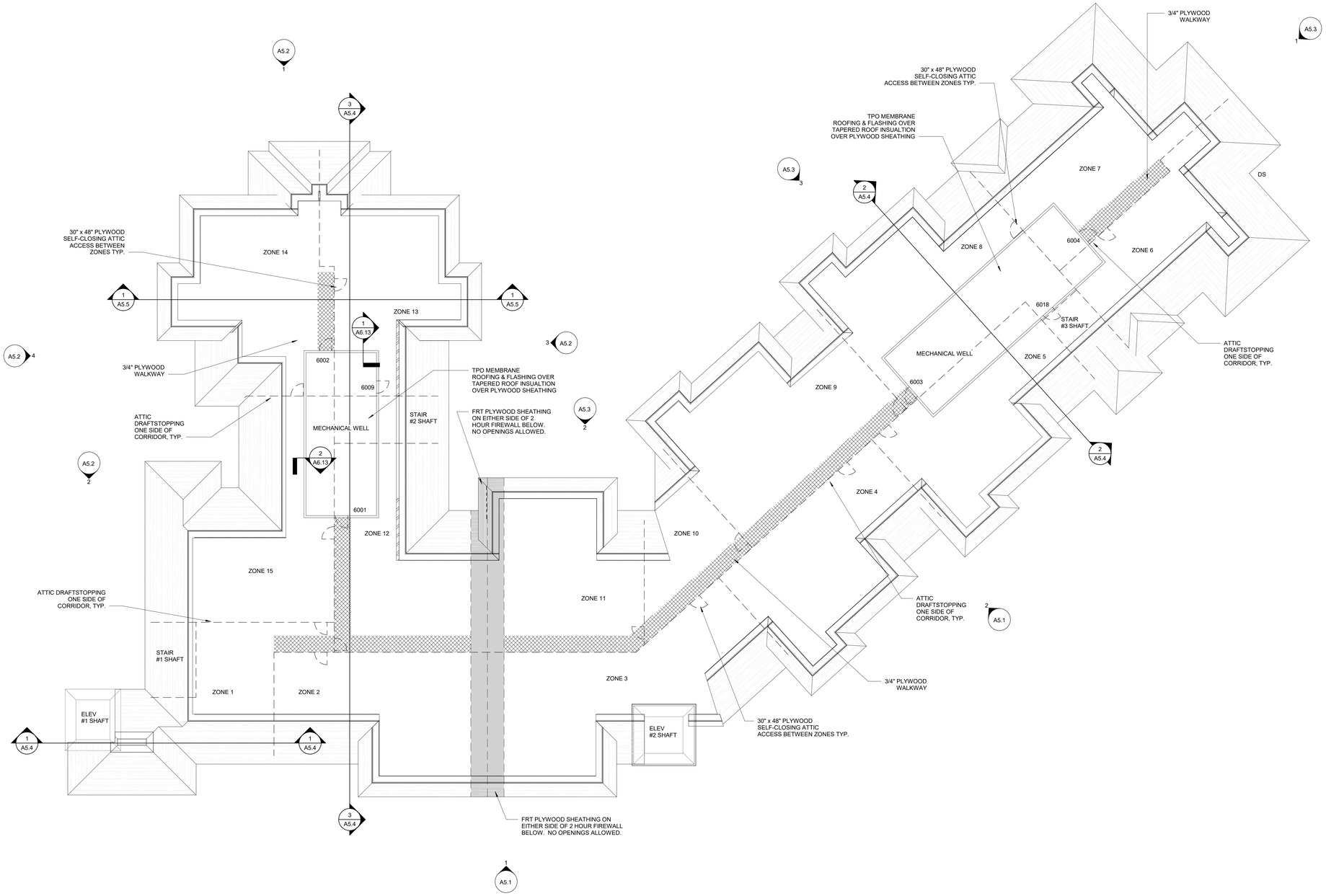
DRAWING TITLE

FIFTH FLOOR OVERALL PLAN

COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING A1.7
SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 ATTIC PLAN

3/32" = 1'-0"

MENU

CAD© VERSION

PLOT SCALE

PLOT DATE
2/24/2021
8:11:52 AM

SAVE_DATE

COMM NO.

DRAWING NO.

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUELLER
NUMBER
A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

ATTIC PLAN

COMM. NO. 19132.00

DATE JANUARY 18, 2021

DRAWING A1.8

SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

ROOF VENT CALCULATIONS:
ZONE 14
1686 SF
MIN. REQ'D NET FREE AREA:
405 SI RIDGE
405 SI SOFFIT

REQUIRED:
48 LINEAR FEET SOFFIT VENT
23 LINEAR FEET RIDGE VENT * *

**NOTE: INSTALL RIDGE VENT OVER ENTIRE RIDGE, DECORATIVE ONLY

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN LIEU OF RIDGE VENT HERE.

ROOF VENT CALCULATIONS:
ZONE 13
1456 SF
MIN. REQ'D NET FREE AREA:
350 SI RIDGE
350 SI SOFFIT

REQUIRED:
42 LINEAR FEET SOFFIT VENT*
20 LINEAR FEET RIDGE VENT * *

*NOTE: INSTALL SOFFIT VENT ONLY FOR THE DISTANCE SHOWN ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE. (47 LF)

**INSTALL MECH WELL VENT

ROOF VENT CALCULATIONS:
ZONE 9
1728 SF
MIN. REQ'D NET FREE AREA:
415 SI RIDGE
414 SI SOFFIT

REQUIRED:
49 LINEAR FEET SOFFIT VENT*
23 LINEAR FEET RIDGE VENT * *

*LEAVE BALCONY CEILING OPEN TO MAIN ATTIC

**NOTE: INSTALL RIDGE VENT OVER ENTIRE RIDGE, BUT ONLY CUT ROOF DECKING BACK FOR THE DISTANCE INDICATED ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE

ROOF VENT CALCULATIONS:
ZONE 10
993 SF
MIN. REQ'D NET FREE AREA:
143 SI RIDGE
143 SI SOFFIT

REQUIRED:
17 LINEAR FEET SOFFIT VENT
8 LINEAR FEET RIDGE VENT * *

**NOTE: INSTALL RIDGE VENT OVER ENTIRE RIDGE, BUT ONLY CUT ROOF DECKING BACK FOR THE DISTANCE INDICATED ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE

ROOF VENT CALCULATIONS:
ZONE 12
1520 SF
MIN. REQ'D NET FREE AREA:
365 SI RIDGE
365 SI SOFFIT

REQUIRED:
43 LINEAR FEET SOFFIT VENT
21 LINEAR FEET RIDGE VENT * *

**NOTE: INSTALL RIDGE VENT OVER ENTIRE RIDGE, BUT ONLY CUT ROOF DECKING BACK FOR THE DISTANCE INDICATED ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE

ROOF VENT CALCULATIONS:
ZONE 11
1368 SF
MIN. REQ'D NET FREE AREA:
329 SI RIDGE
329 SI SOFFIT

REQUIRED:
39 LINEAR FEET SOFFIT VENT*
19 LINEAR FEET RIDGE VENT * *

*LEAVE BALCONY CEILING OPEN TO MAIN ATTIC

**NOTE: INSTALL RIDGE VENT OVER ENTIRE RIDGE, BUT ONLY CUT ROOF DECKING BACK FOR THE DISTANCE INDICATED ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE

ROOF VENT CALCULATIONS:
ZONE 8
1766 SF
MIN. REQ'D NET FREE AREA:
424 SI RIDGE
424 SI SOFFIT

REQUIRED:
50 LINEAR FEET SOFFIT VENT*
24 LINEAR FEET RIDGE VENT * *

*LEAVE BALCONY CEILING OPEN TO MAIN ATTIC

**NOTE: INSTALL MECH WELL VENT

ROOF VENT CALCULATIONS:
ZONE 7
1781 SF
MIN. REQ'D NET FREE AREA:
428 SI RIDGE
428 SI SOFFIT

REQUIRED:
51 LINEAR FEET SOFFIT VENT
24 LINEAR FEET RIDGE VENT * *

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN ADDITION TO RIDGE VENT HERE.

**NOTE: INSTALL MECH WELL VENT

ROOF VENT CALCULATIONS:
ZONE 15
1796 SF
MIN. REQ'D NET FREE AREA:
431 SI RIDGE
431 SI SOFFIT

REQUIRED:
51 LINEAR FEET SOFFIT VENT
24 LINEAR FEET RIDGE VENT * *

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN LIEU OF RIDGE VENT HERE.

**INSTALL MECH WELL VENT

ROOF VENT CALCULATIONS:
ZONE 6
1520 SF
MIN. REQ'D NET FREE AREA:
365 SI RIDGE
365 SI SOFFIT

REQUIRED:
43 LINEAR FEET SOFFIT VENT*
21 LINEAR FEET RIDGE VENT * *

*NOTE: INSTALL SOFFIT VENT ONLY FOR THE DISTANCE SHOWN ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE. (79 LF)

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN ADDITION TO RIDGE VENT HERE.

**NOTE: INSTALL MECH WELL VENT

ROOF VENT CALCULATIONS:
ZONE 5
1348 SF
MIN. REQ'D NET FREE AREA:
324 SI RIDGE
324 SI SOFFIT

REQUIRED:
38 LINEAR FEET SOFFIT VENT
18 LINEAR FEET RIDGE VENT

**NOTE: INSTALL MECH WELL VENT

ROOF VENT CALCULATIONS:
ZONE 4
1348 SF
MIN. REQ'D NET FREE AREA:
324 SI RIDGE
324 SI SOFFIT

REQUIRED:
38 LINEAR FEET SOFFIT VENT
18 LINEAR FEET RIDGE VENT * *

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN LIEU OF RIDGE VENT HERE.

ROOF VENT CALCULATIONS:
ZONE 1
1226 SF
MIN. REQ'D NET FREE AREA:
294 SI RIDGE
294 SI SOFFIT

REQUIRED:
35 LINEAR FEET SOFFIT VENT*
16 LINEAR FEET RIDGE VENT * *

*NOTE: INSTALL SOFFIT VENT ONLY FOR THE DISTANCE SHOWN ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE. (47 LF)

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN LIEU OF RIDGE VENT HERE.

ROOF VENT CALCULATIONS:
ZONE 2
1440 SF
MIN. REQ'D NET FREE AREA:
346 SI RIDGE
346 SI SOFFIT

REQUIRED:
41 LINEAR FEET SOFFIT VENT
20 LINEAR FEET RIDGE VENT * *

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN LIEU OF RIDGE VENT HERE.

ROOF VENT CALCULATIONS:
ZONE 3
1824 SF
MIN. REQ'D NET FREE AREA:
438 SI RIDGE
438 SI SOFFIT

REQUIRED:
52 LINEAR FEET SOFFIT VENT
25 LINEAR FEET RIDGE VENT * *

**NOTE: INSTALL RIDGE VENT OVER ENTIRE RIDGE, BUT ONLY CUT ROOF DECKING BACK FOR THE DISTANCE INDICATED ABOVE, CENTRALLY LOCATED IN THE ROOF ZONE

**NOTE: THE AMOUNT OF RIDGE VENT IN THIS ZONE DOES NOT MEET THE REQUIRED AREA. PROVIDE (1) SOLAR ROOF VENT IN ADDITION TO RIDGE VENT HERE.

1 ROOF PLAN
3/32" = 1'-0"

SHEET WAS LEFT OUT OF PREVIOUS SET

PERMIT SET

STATE OF MISSOURI · TIMOTHY A. MUELLER · NUMBER A-6802 · REGISTERED ARCHITECT · 1-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE
ROOF PLAN

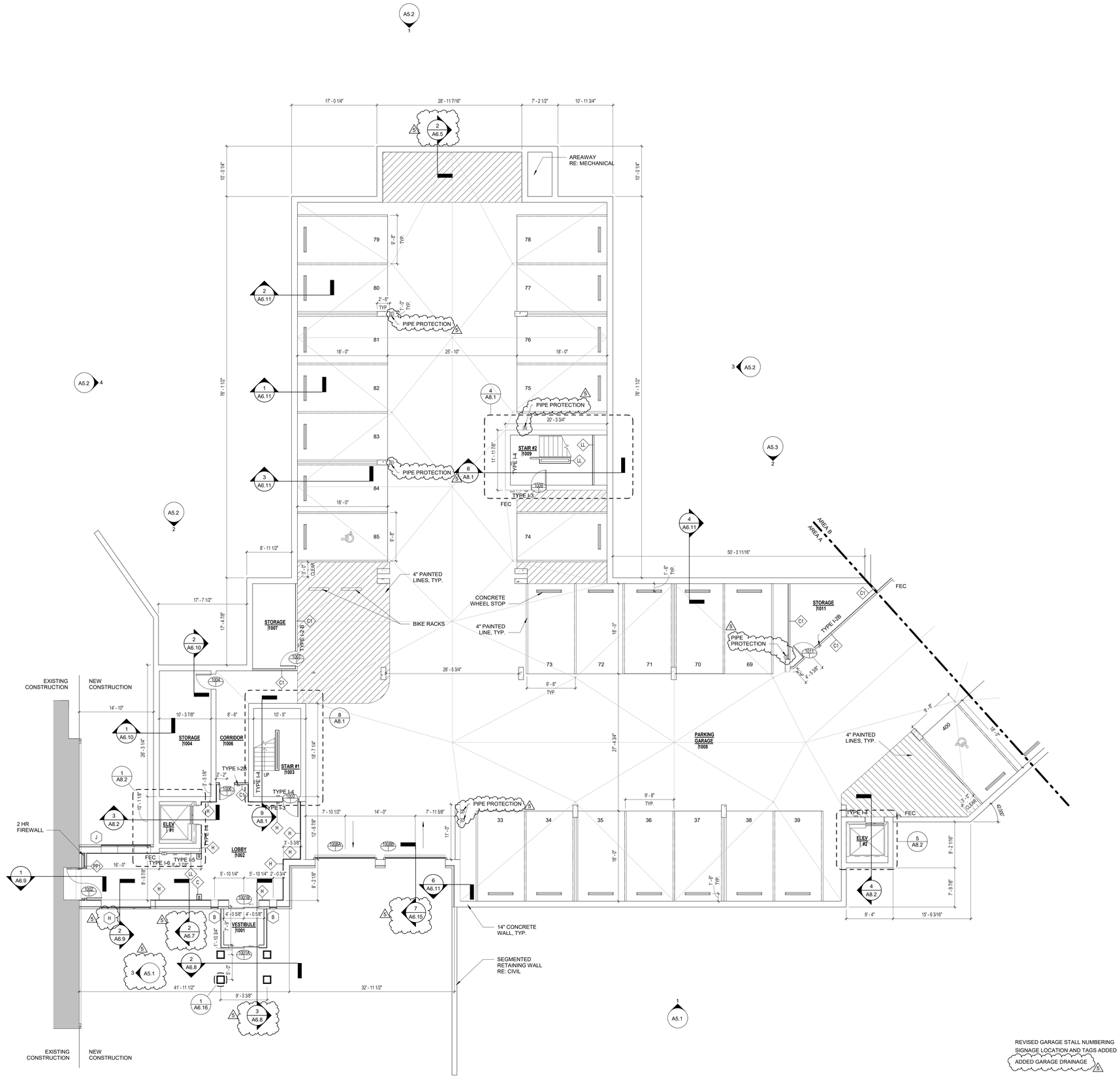
COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING A1.9
SHEET ____ OF ____

MENU

CADD VERSION
PLOT SCALE
PLOT DATE 3/11/2021 5:46:15 AM
SAVE DATE
CSMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 GARAGE ENLARGED PLAN - AREA A
1/8" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
3/11/2021
5:49:17 AM
DATE SAVED
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. HUDSON
NUMBER A-6802
REGISTERED ARCHITECT
7-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

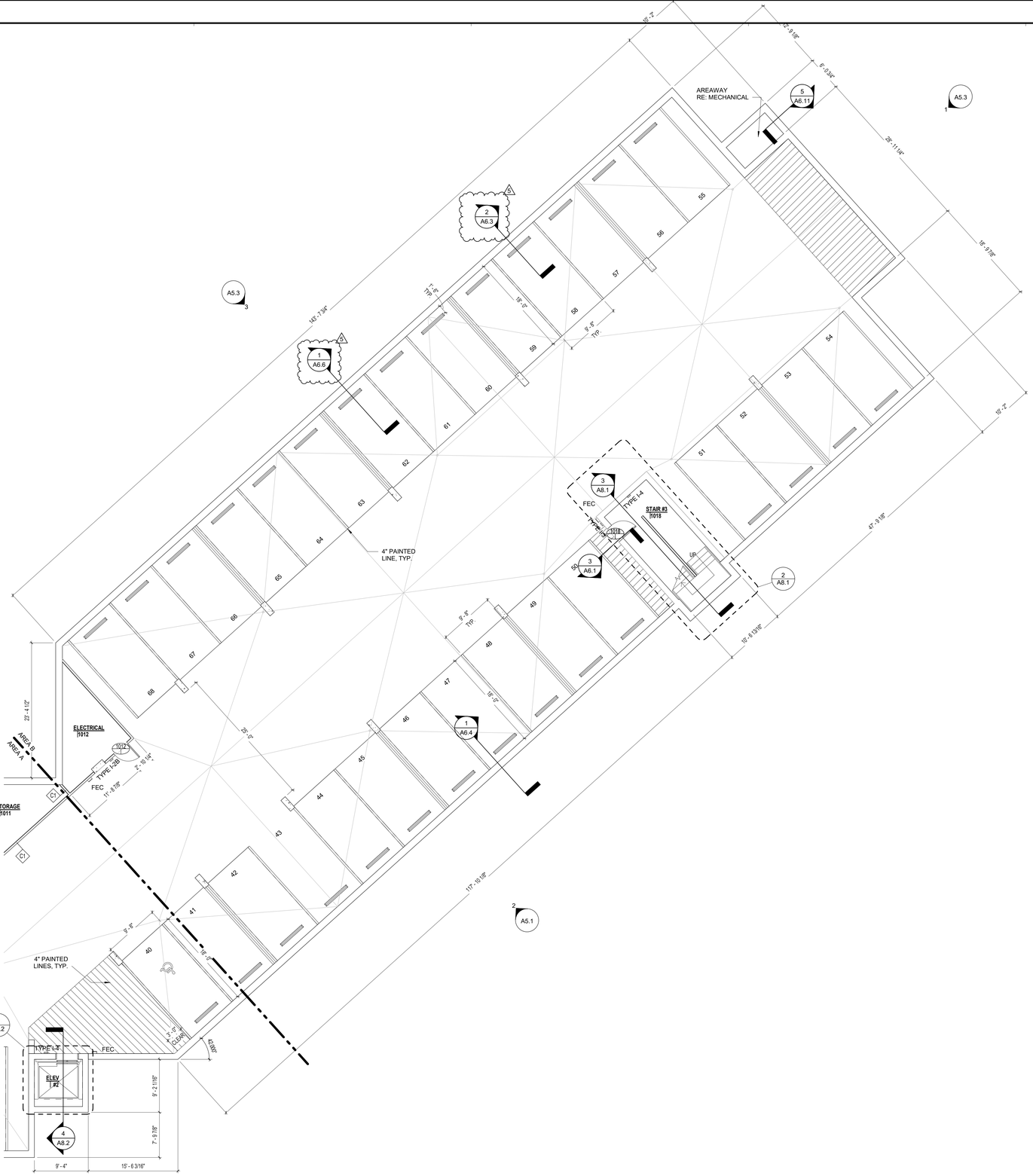
PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

GARAGE ENLARGED PLAN - AREA A

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A1.10a	____ OF ____



1 GARAGE ENLARGED PLAN - AREA B

1/8" = 1'-0"

REVISED GARAGE STALL NUMBERING
SIGNAGE LOCATION AND TAGS ADDED
ADDED GARAGE DRAINAGE
2

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. AUBUCHON
NUMBER A-9802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
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PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

GARAGE ENLARGED PLAN - AREA B

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A1.10b

SHEET ____ OF ____

MENU

CAD# VERSION
PLOT SCALE
PLOT DATE 3/10/2021 3:09:09 PM
SAVE DATE
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
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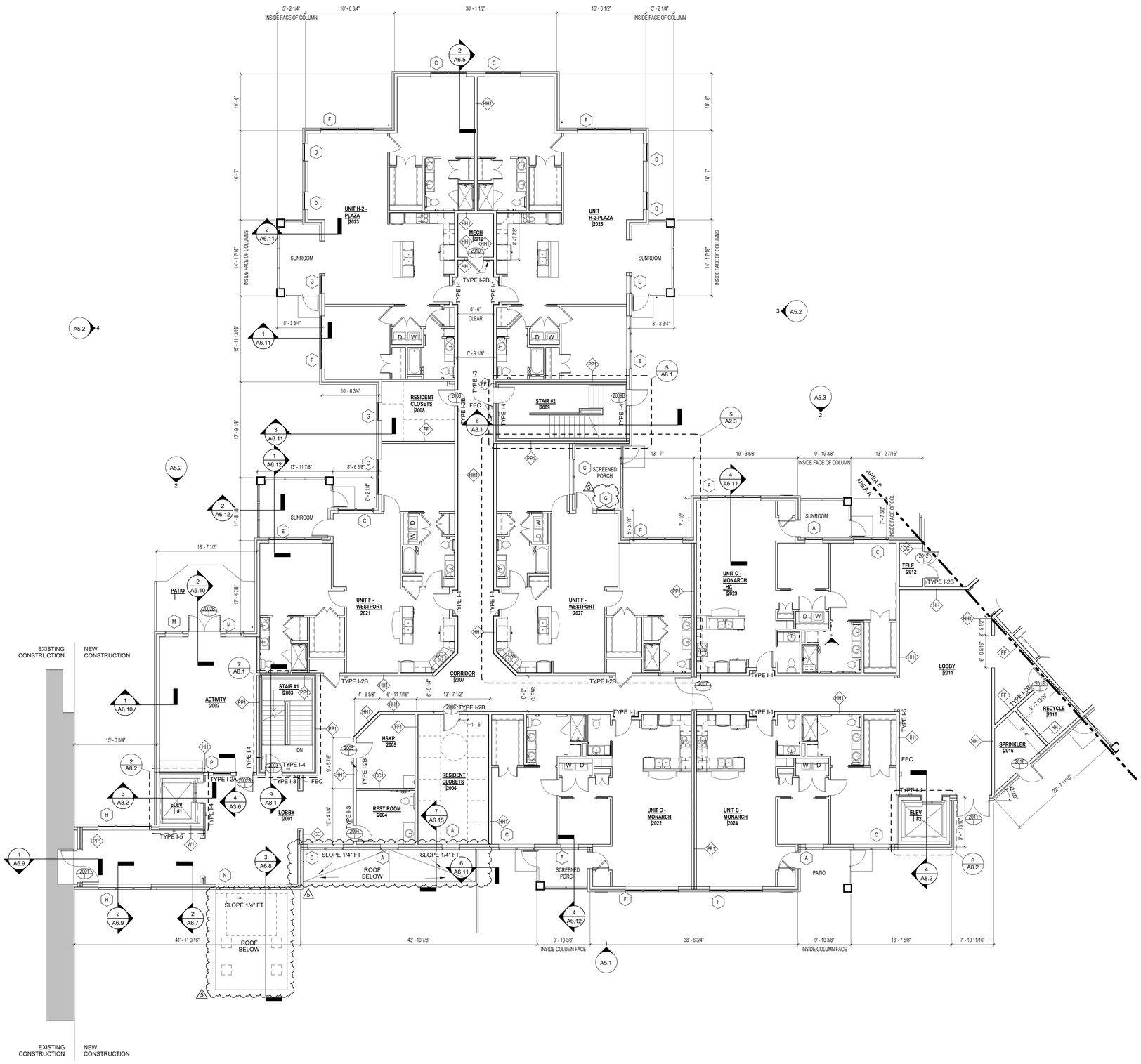
05/10/2021



SECOND FLOOR ENLARGED PLAN - AREA A

1 — 1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 3/11/2021 5:54:24 AM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. AMICK NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

SECOND FLOOR ENLARGED PLAN - AREA A

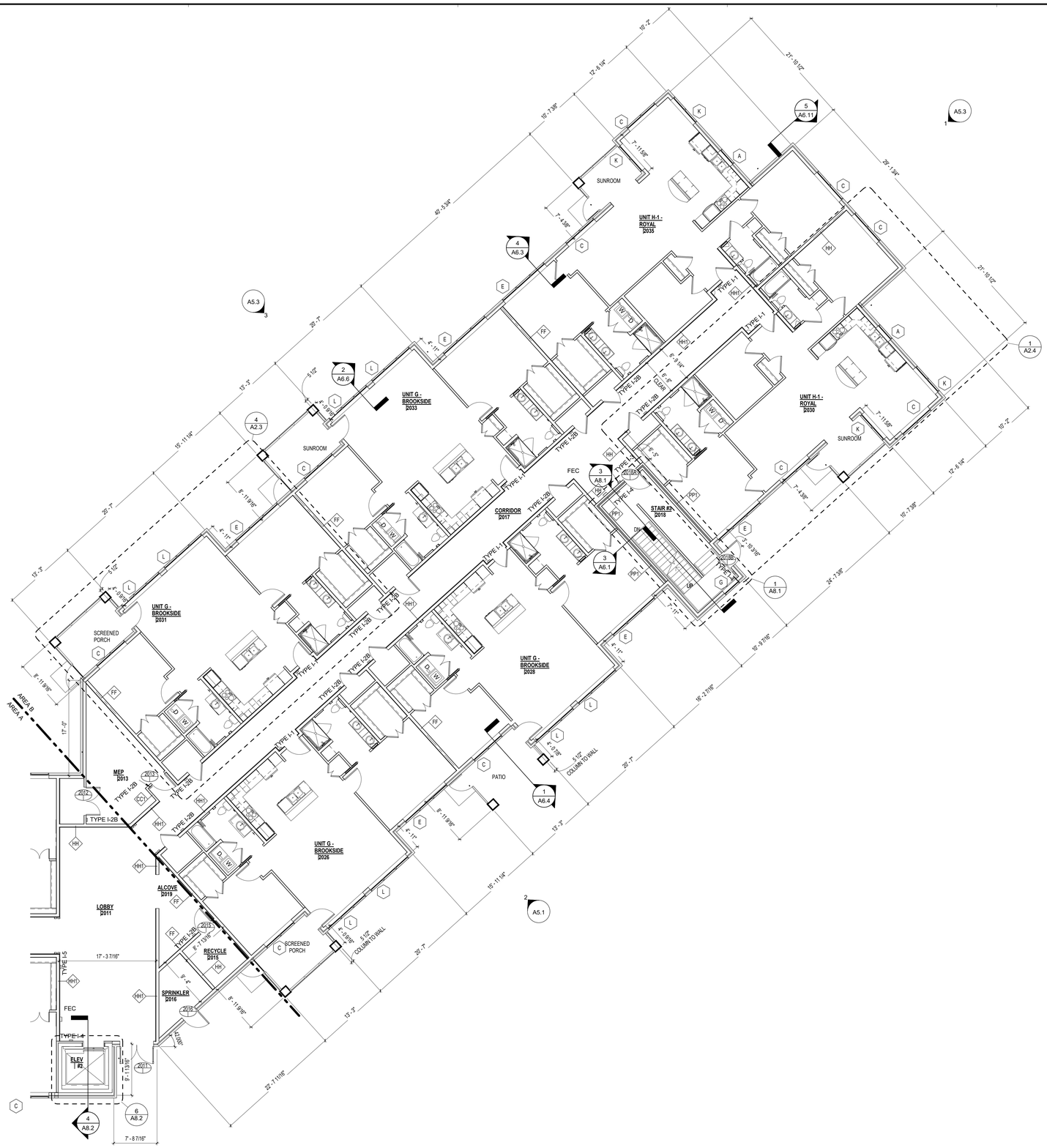
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A1.11a

SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



SECOND FLOOR ENLARGED PLAN - AREA B

1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

MENU

CAD VERSION

PLOT SCALE

PLOT DATE
2/24/2021
4:03:13 PM

SAVE DATE

COMM NO.

DRAWING NO.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-08802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

SECOND FLOOR ENLARGED PLAN - AREA B

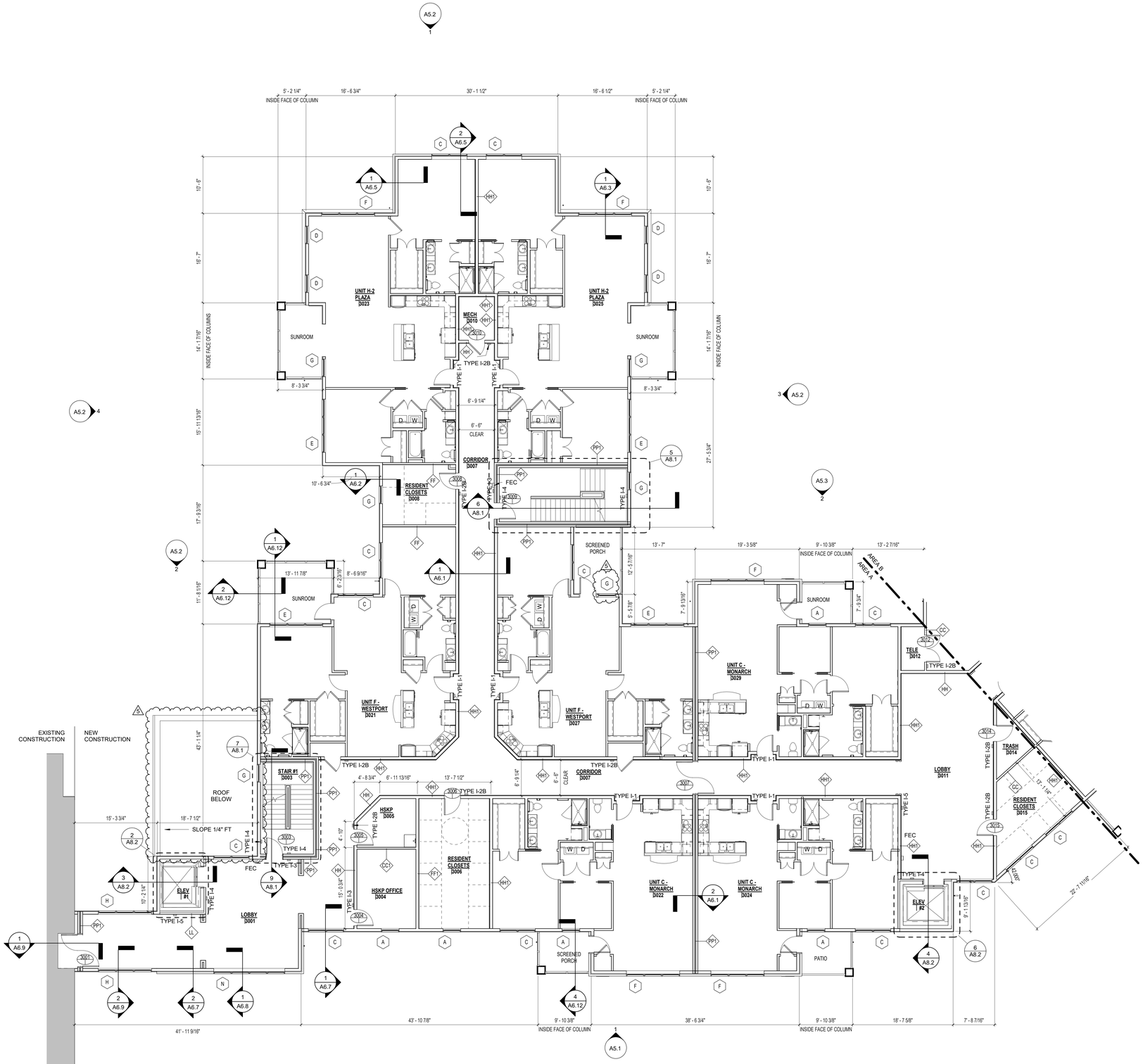
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING
A1.11b

SHEET
____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



THIRD FLOOR ENLARGED PLAN - AREA A

1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

MENU

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SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

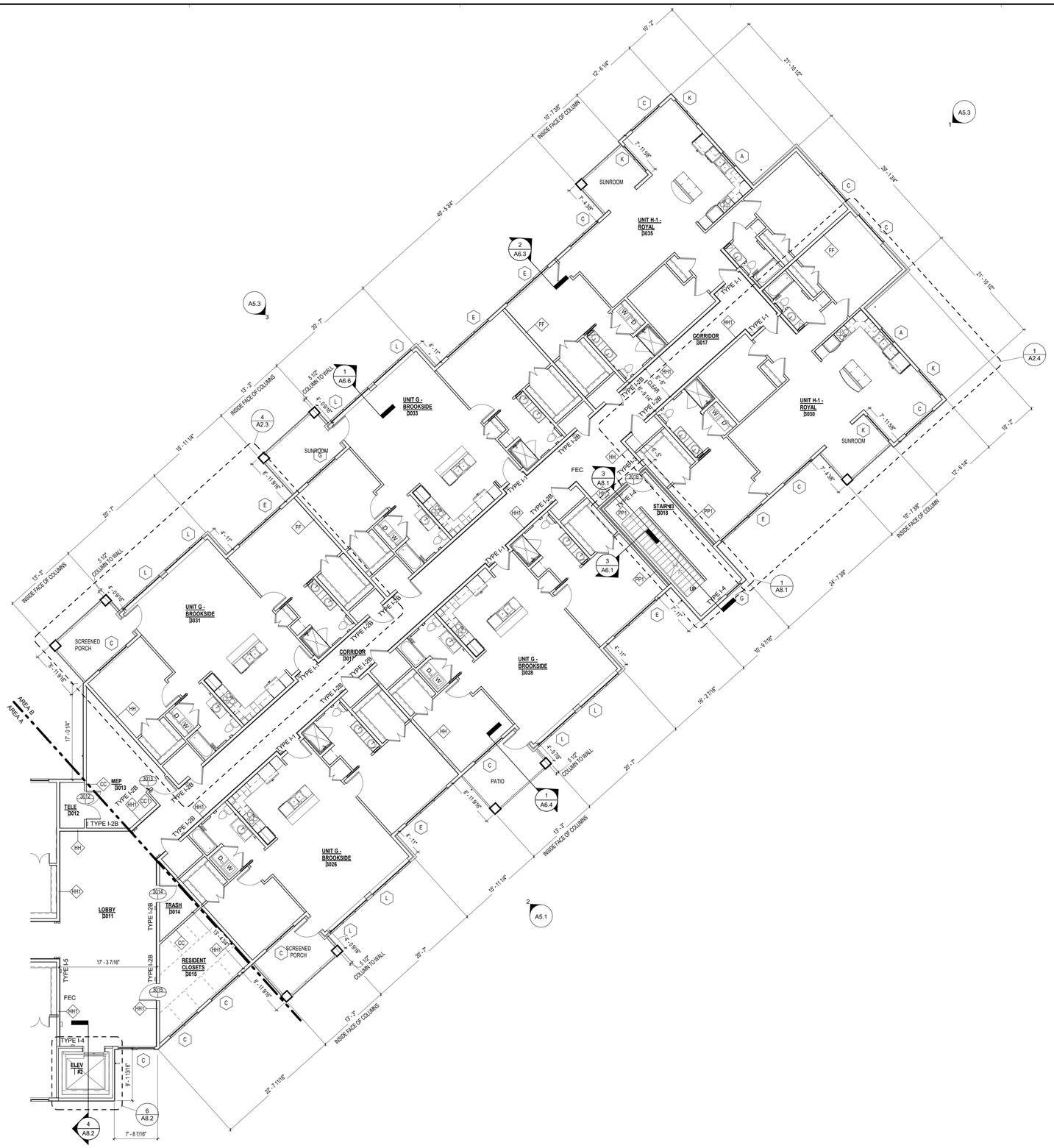
PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

THIRD FLOOR ENLARGED PLAN - AREA A

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A1.12a	SHEET ____ OF ____



THIRD FLOOR ENLARGED PLAN - AREA B

1 — 1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

MENU

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COMM. NO.	
DRAWING NO.	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI — TIMOTHY A. MURPHY — NUMBER A-6802 — REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

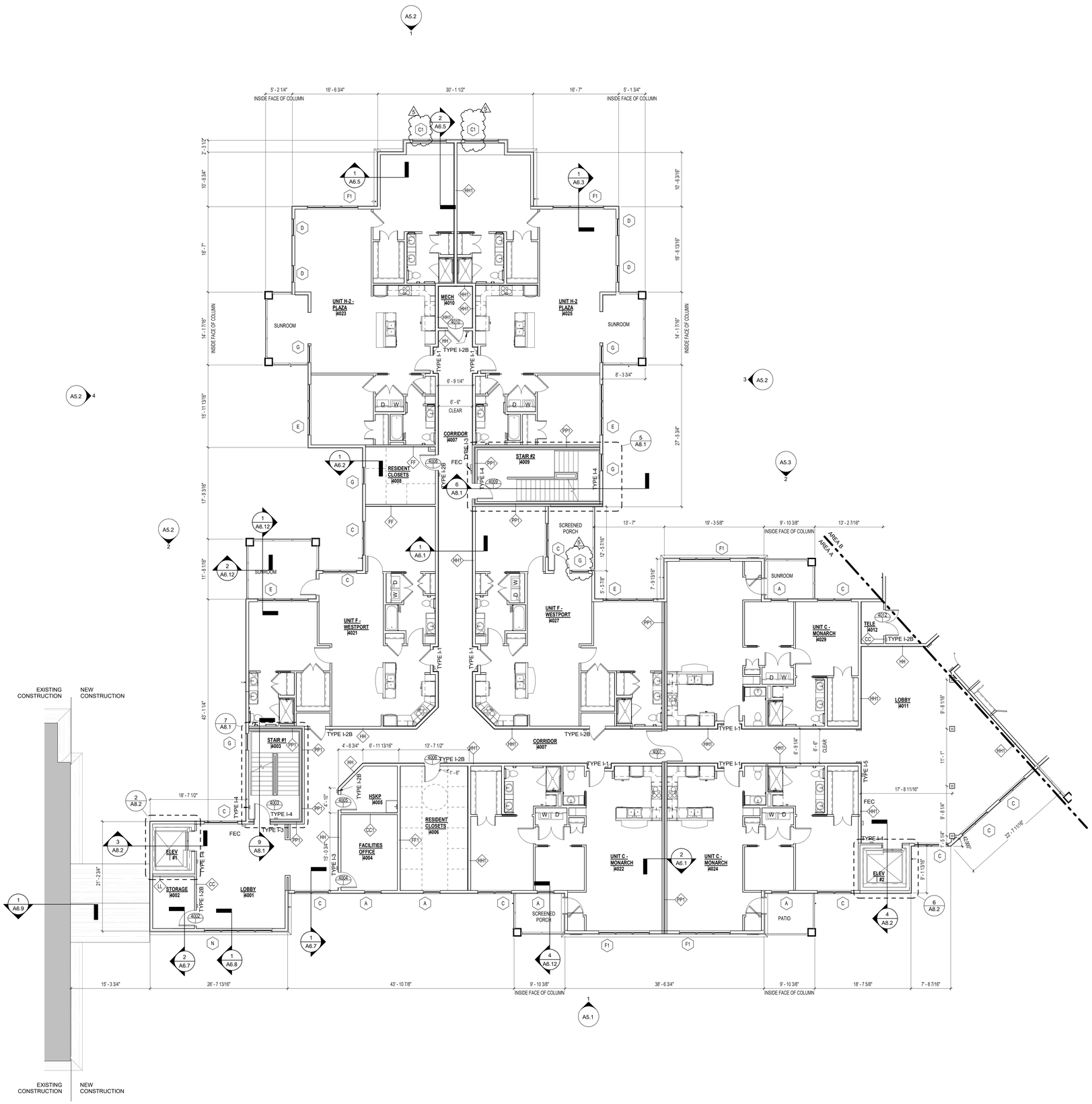
DRAWING TITLE

THIRD FLOOR ENLARGED PLAN - AREA B

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A1.12b	SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



FOURTH FLOOR ENLARGED PLAN - AREA A

1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

PERMIT SET

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

FOURTH FLOOR ENLARGED PLAN - AREA A

COMM. NO. 19132.00	DATE JANUARY 18, 2021
DRAWING A1.13a	SHEET ____ OF ____

MENU

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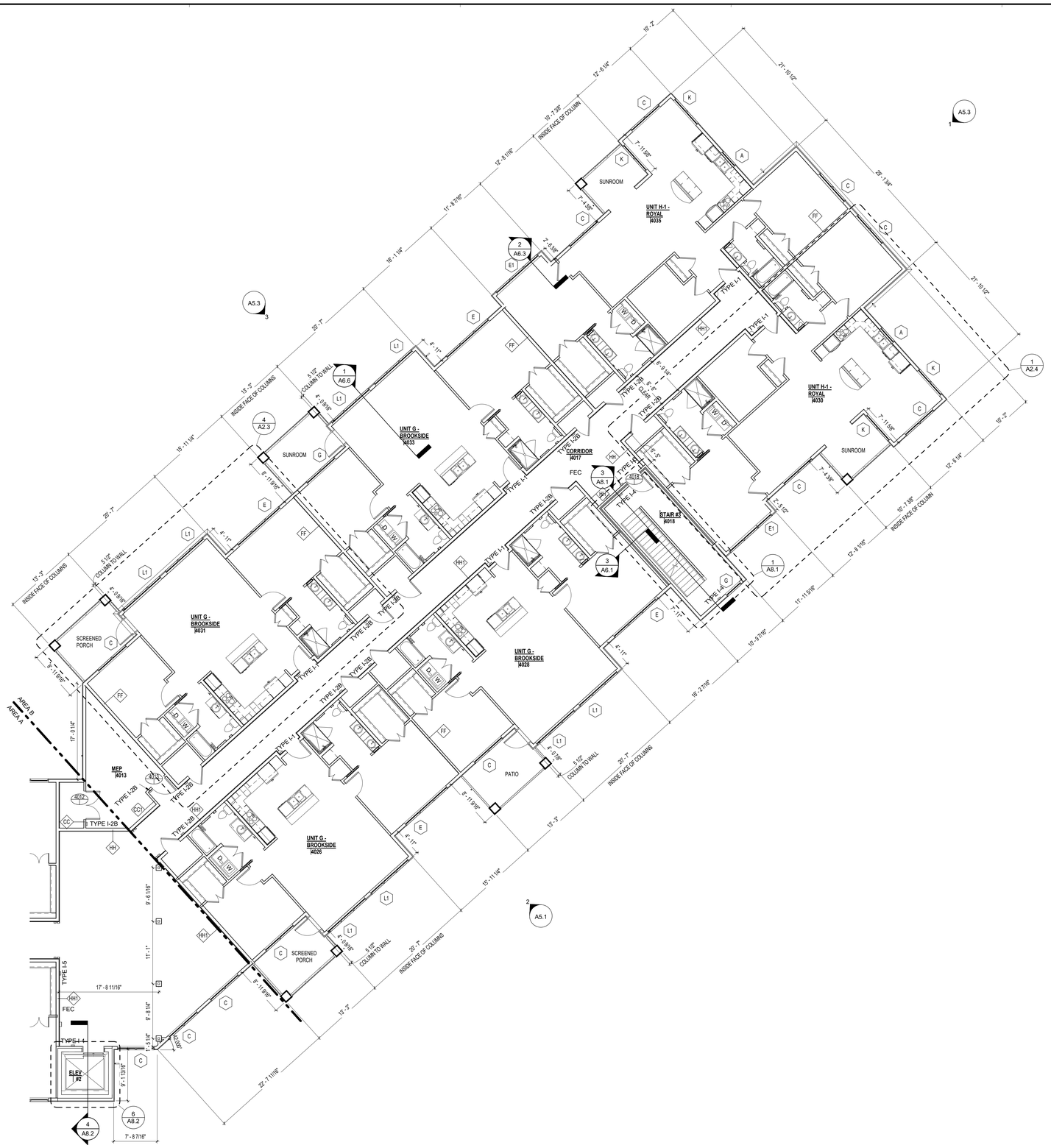
COMM NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



FOURTH FLOOR ENLARGED PLAN - AREA B

1 1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

MENU

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COMM. NO.:
DRAWING NO.:

PERMIT SET

STATE OF MISSOURI TIMOTHY A. AMBERG NUMBER A-08102 REGISTERED ARCHITECT 2/18/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 • Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

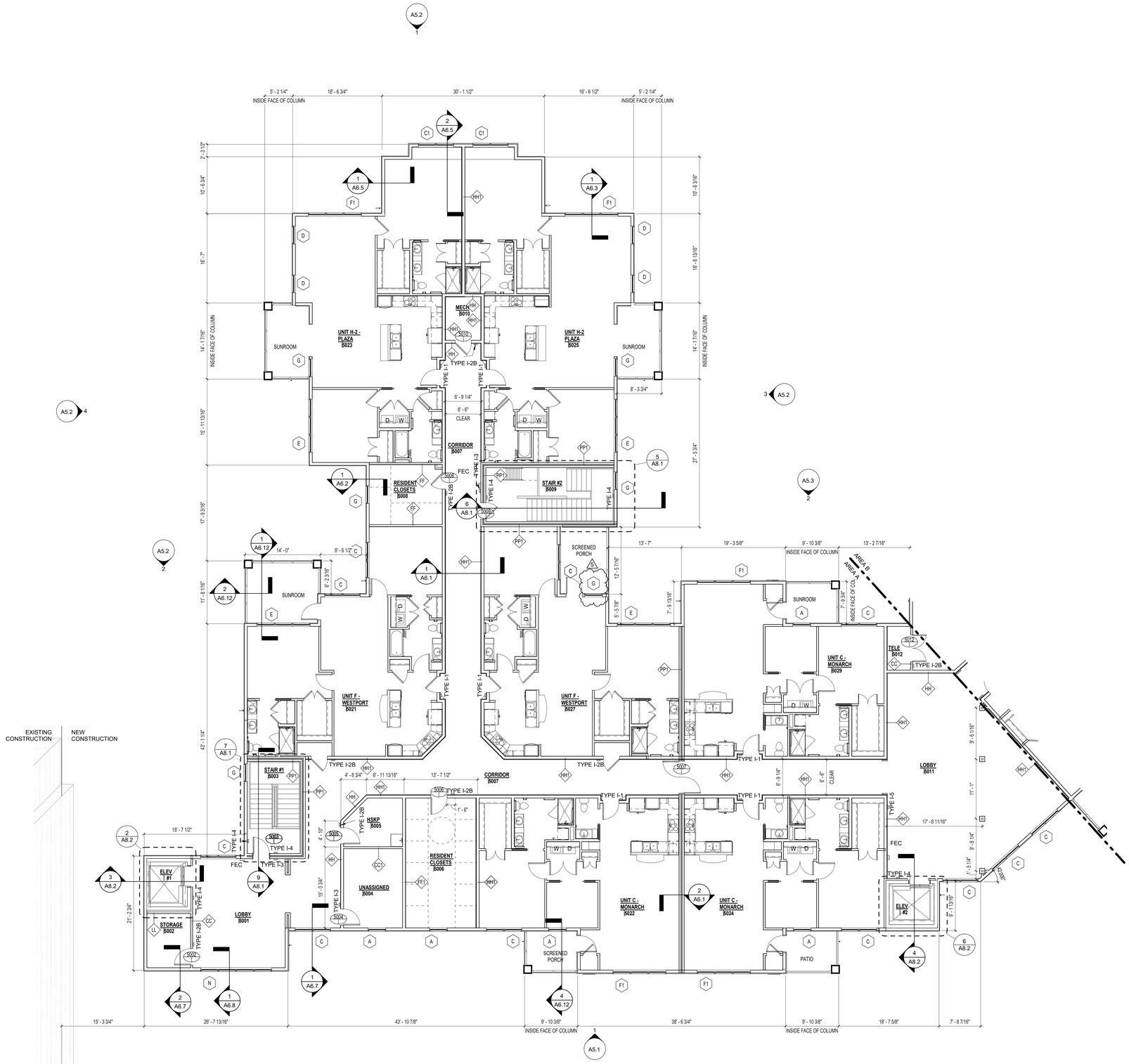
FOURTH FLOOR ENLARGED PLAN - AREA B

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING: A1.13b

SHEET: ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



EXISTING CONSTRUCTION
NEW CONSTRUCTION

EXISTING CONSTRUCTION
NEW CONSTRUCTION

SIGNAGE LOCATION AND TAGS ADDED

1 FIFTH FLOOR ENLARGED PLAN - AREA A

1/8" = 1'-0"

MENU

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COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
2/8/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

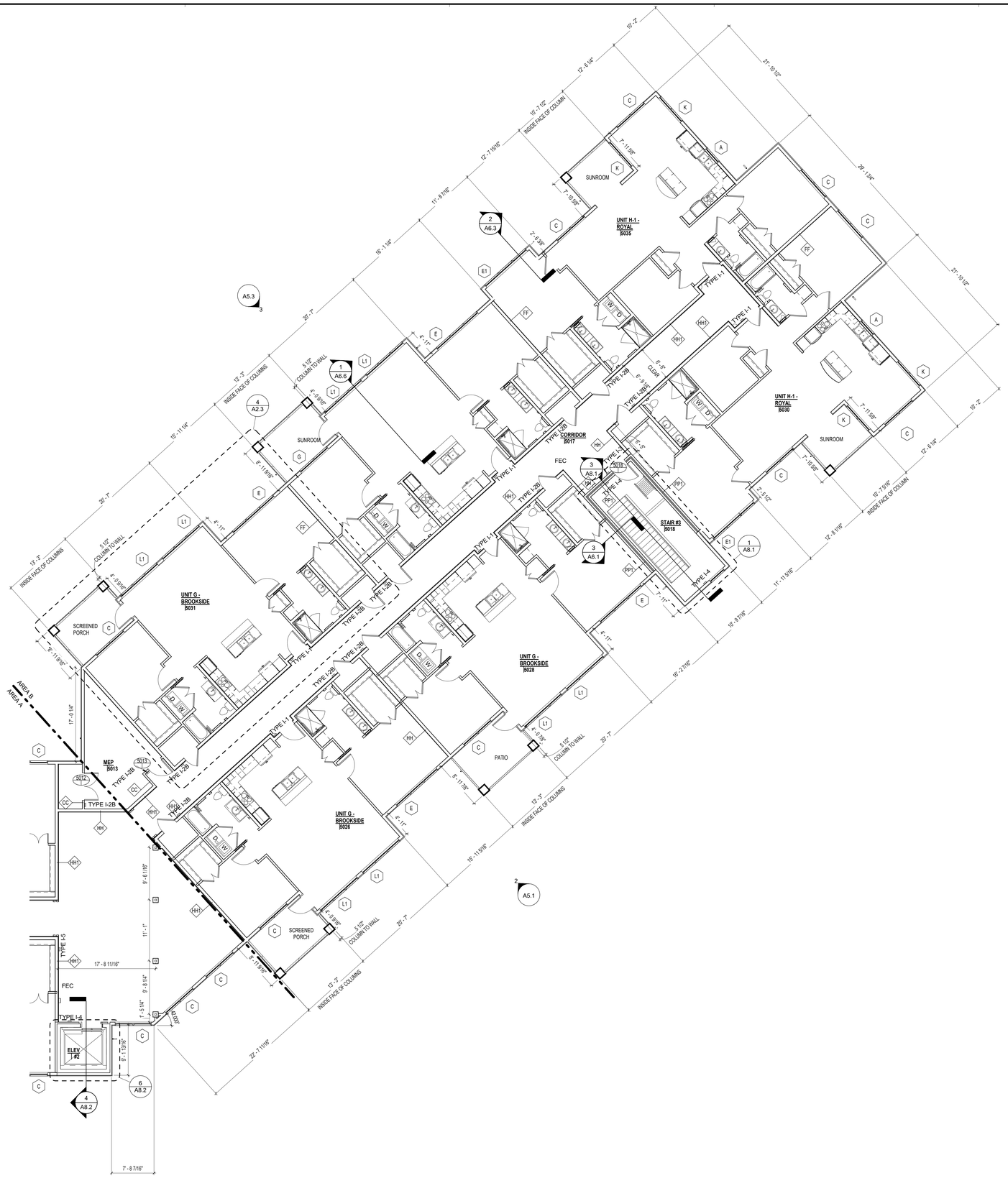
FIFTH FLOOR ENLARGED PLAN - AREA A

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A1.14a

SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



FIFTH FLOOR ENLARGED PLAN - AREA B

1/8" = 1'-0"

SIGNAGE LOCATION AND TAGS ADDED

MENU

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COMM. NO.:
DRAWING NO.:

PERMIT SET

STATE OF MISSOURI TIMOTHY A. AMBERG NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 • Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

FIFTH FLOOR ENLARGED PLAN - AREA B

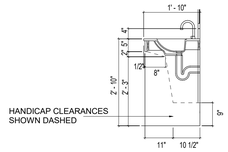
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING: A1.14b

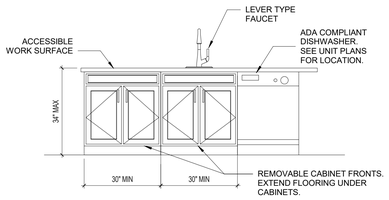
SHEET: ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

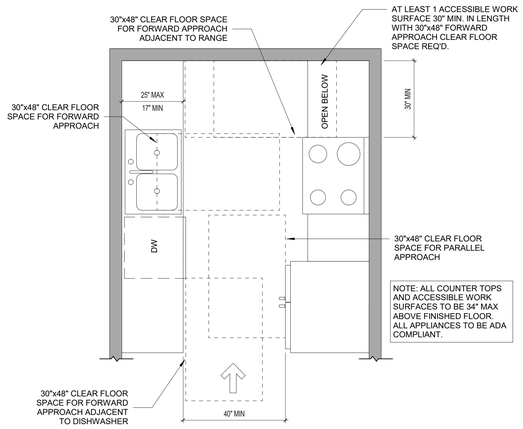
NOTE:
TYPE A ACCESSIBILITY DETAILS APPLY TO UNIT C_HC.
SEE BUILDNG PLANS FOR UNIT LOCATION.



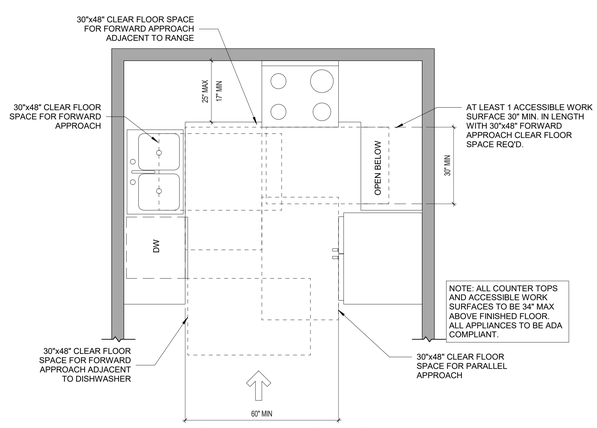
KNEE/TOE CLEARANCE



SINK/ACCESSIBLE WORK SURFACE ELEVATION



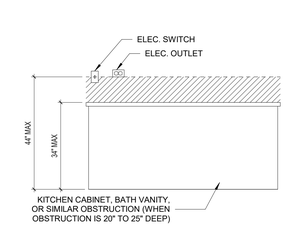
MINIMUM KITCHEN CLEARANCE IN TYPE A UNITS



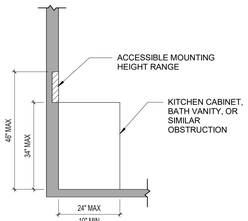
U-SHAPED KITCHEN CLEARANCE IN TYPE A UNITS

7 ACCESSIBLE KITCHENS (ICC/ANSI A117.1-2009)

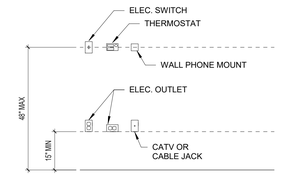
1/2" = 1'-0"



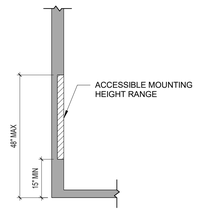
OBSTRUCTED HIGH FORWARD REACH



OBSTRUCTED HIGH SIDE REACH



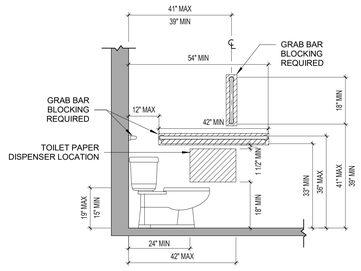
UNOBSTRUCTED FORWARD REACH



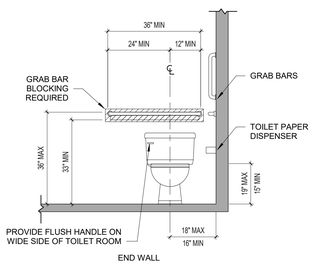
UNOBSTRUCTED SIDE REACH

3 ACCESSIBLE MOUNTING HEIGHTS (ICC/ANSI A117.1-2009)

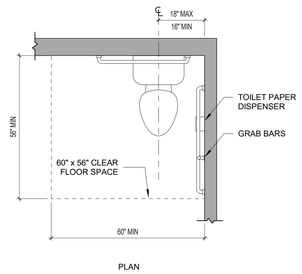
1/2" = 1'-0"



SIDE WALL



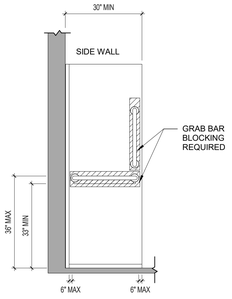
END WALL

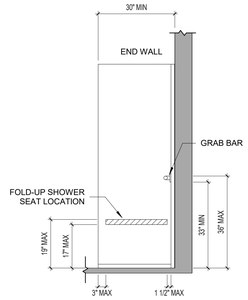


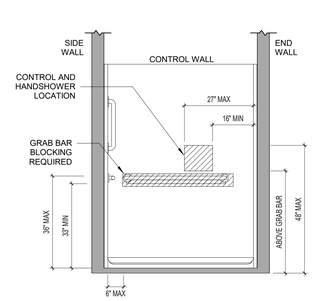
PLAN

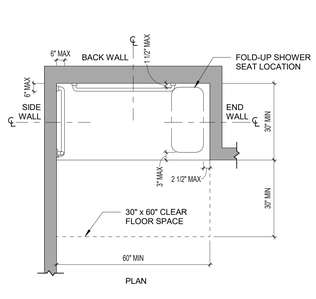
6 ACCESSIBLE WATER CLOSETS (ICC/ANSI A117.1-2009)

1/2" = 1'-0"







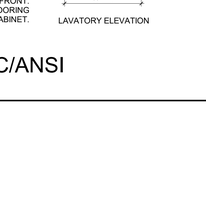


PLAN

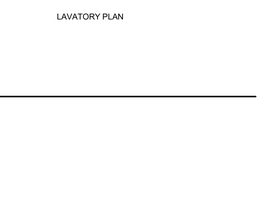
5 ACCESSIBLE SHOWERS (STANDARD ROLL-IN TYPE) (ICC/ANSI A117.1-2009)

1/2" = 1'-0"

KNEE/TOE CLEARANCE



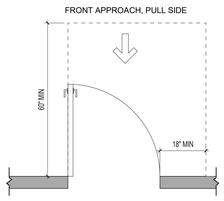
LAVATORY ELEVATION

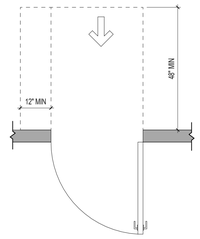


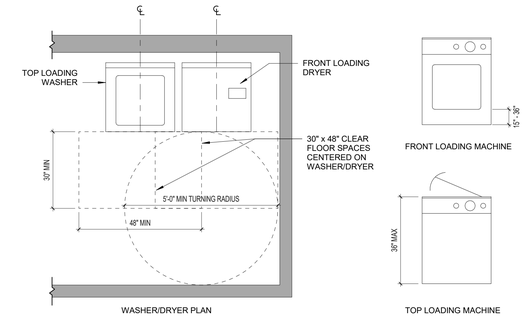
LAVATORY PLAN

2 ACCESSIBLE LAVATORIES (ICC/ANSI A117.1-2009)

1/2" = 1'-0"







WASHER/DRYER PLAN

4 ACCESSIBLE ENTRANCES

1/2" = 1'-0"

1 ACCESSIBLE LAUNDRY EQUIPMENT (ICC/ANSI A117.1-2009)

1/2" = 1'-0"

PERMIT SET

STATE OF MISSOURI — TIMOTHY A. MUELLER — NUMBER A-6802 — REGISTERED ARCHITECT — 1-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	AAT
CHECKED BY	DAS
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

ANSI TYPE A UNIT ACCESSIBILITY DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A2.1 SHEET ____ OF ____

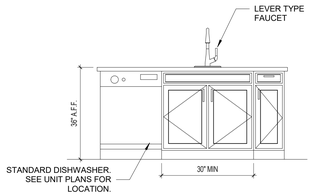
MENU

CAD0 VERSION
PLOT SCALE
1/16/2021 2:58:06 PM
PLOT TIME
COMM. NO.
DRAWING NO.

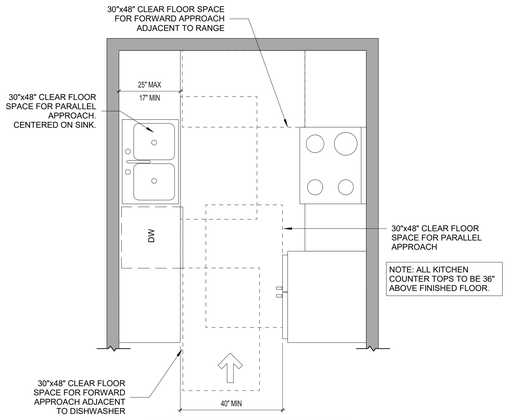
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

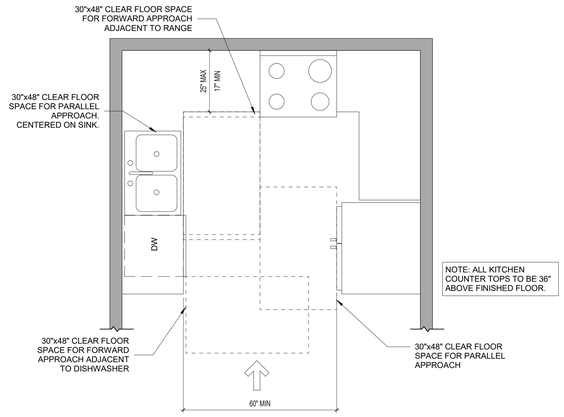
NOTE:
TYPE B ACCESSIBILITY DETAILS APPLY TO ALL RESIDENT UNITS. SEE BUILDNG PLANS FOR UNIT LOCATION.



TYPE B - KITCHEN SINK ELEVATION



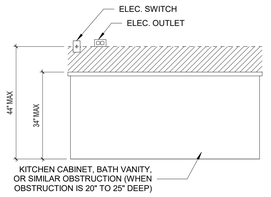
MINIMUM KITCHEN CLEARANCE IN TYPE B UNITS



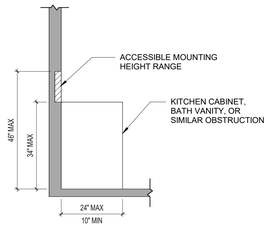
U-SHAPED KITCHEN CLEARANCE IN TYPE B UNITS

8 ACCESSIBLE KITCHENS (ICC/ANSI A117.1-2009) - TYPE B

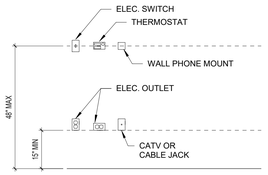
1/2" = 1'-0"



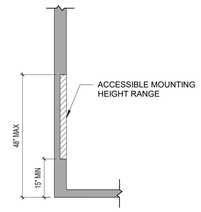
OBSTRUCTED HIGH FORWARD REACH



OBSTRUCTED HIGH SIDE REACH



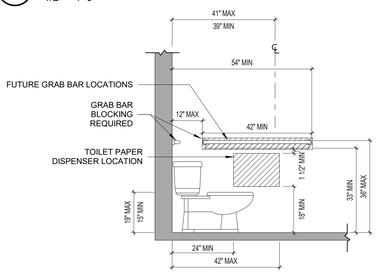
UNOBSTRUCTED FORWARD REACH



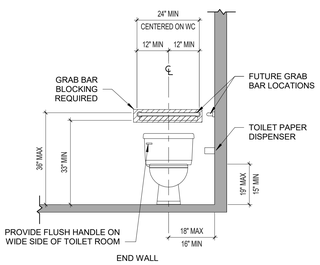
UNOBSTRUCTED SIDE REACH

3 ACCESSIBLE MOUNTING HEIGHTS (ICC/ANSI A117.1-2009) - TYPE B

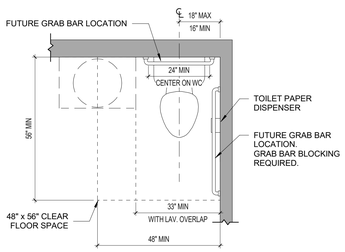
1/2" = 1'-0"



SIDE WALL



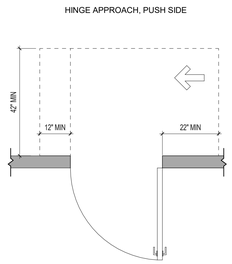
END WALL

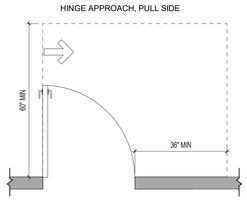


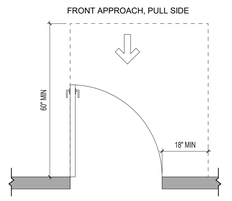
PLAN

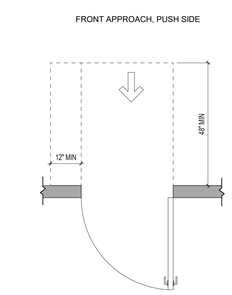
7 ACCESSIBLE WATER CLOSETS (ICC/ANSI A117.1-2009) - TYPE B

1/2" = 1'-0"



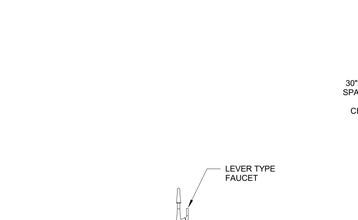


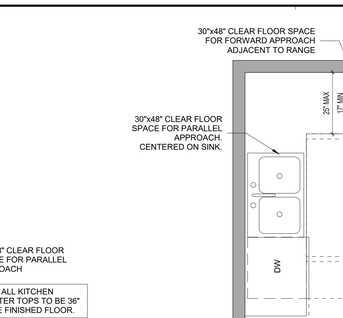




4 ACCESSIBLE ENTRANCES

1/2" = 1'-0"

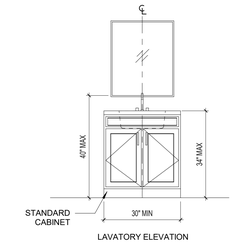




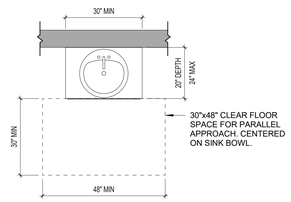
PLAN

6 ACCESSIBLE BATHTUBS W/O PERMANENT SEAT (ICC/ANSI A117.1-2009) - TYPE B

1/2" = 1'-0"



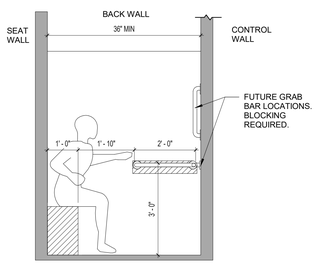
LAVATORY ELEVATION

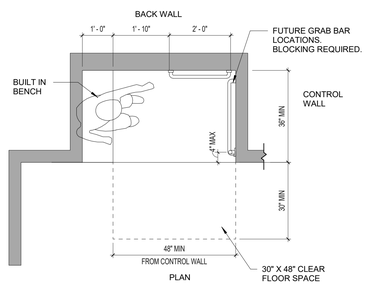


LAVATORY PLAN

2 ACCESSIBLE LAVATORIES (ICC/ANSI A117.1-2009) - TYPE B

1/2" = 1'-0"

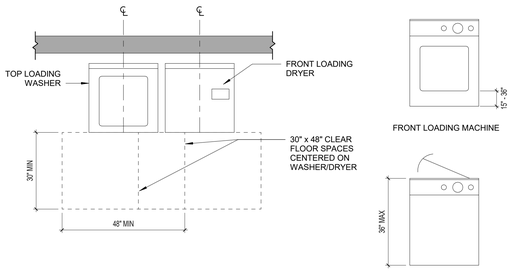




PLAN

5 ACCESSIBLE TRANSFER TYPE SHOWER COMPARTMENT (ICC/ANSI A117.1-2009) - TYPE B

1/2" = 1'-0"



WASHER/DRYER PLAN

FRONT LOADING MACHINE

TOP LOADING MACHINE

1 ACCESSIBLE LAUNDRY EQUIPMENT (ICC/ANSI A117.1-2009) - TYPE B

1/2" = 1'-0"

MENU

CADD VERSION:
PLOT SCALE:
PLOT DATE: 1/16/2021 2:58:54 PM
DATE ISSUE:
COMM. NO.:
DRAWING NO.:

PERMIT SET

STATE OF MISSOURI — TIMOTHY J. HUBBERT — NUMBER A-6802 — REGISTERED ARCHITECT — 1-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	AAT
CHECKED BY	DAS
APPROVED BY	

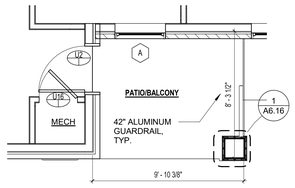
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

ANSI TYPE B UNIT ACCESSIBILITY DETAILS

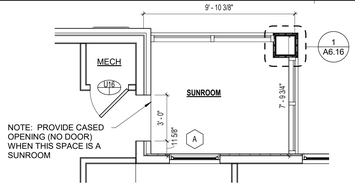
COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A2.2	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

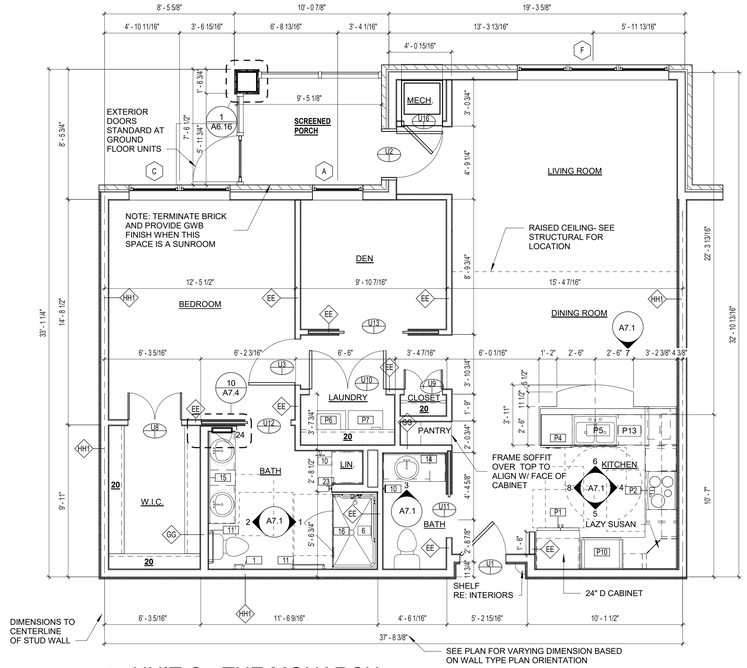


6 UNIT C PATIO
1/4" = 1'-0"

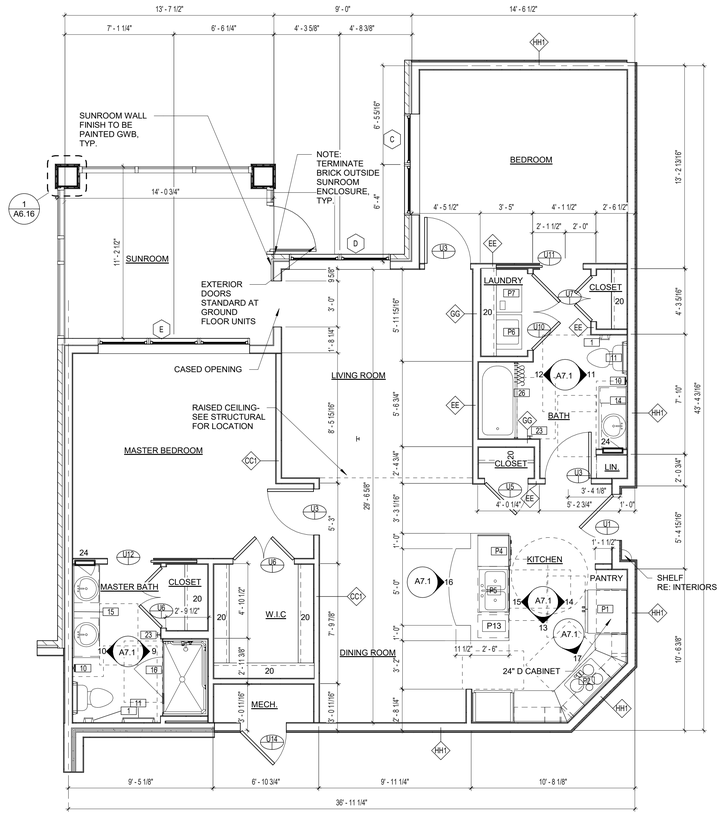
NOTE: SEE BUILDING PLANS FOR PATIO, SCREENED PORCH OR SUNROOM DESIGNATION



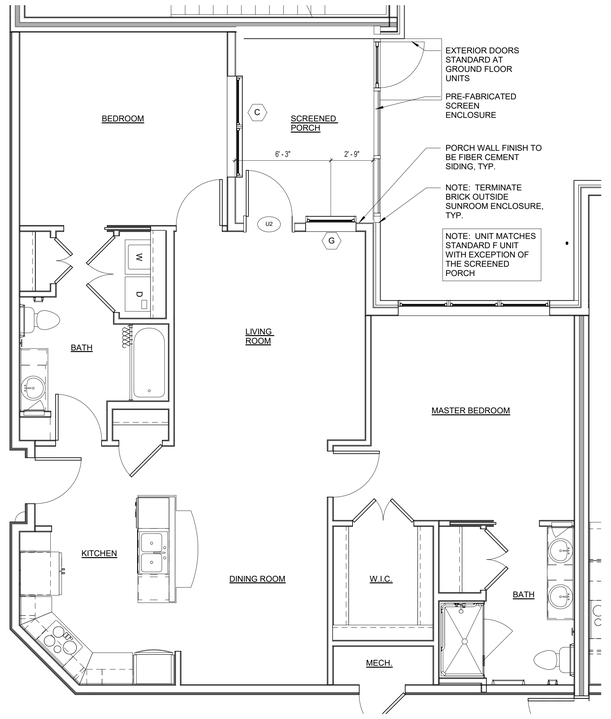
7 UNIT C SUNROOM
1/4" = 1'-0"



1 UNIT C - THE MONARCH
1/4" = 1'-0"



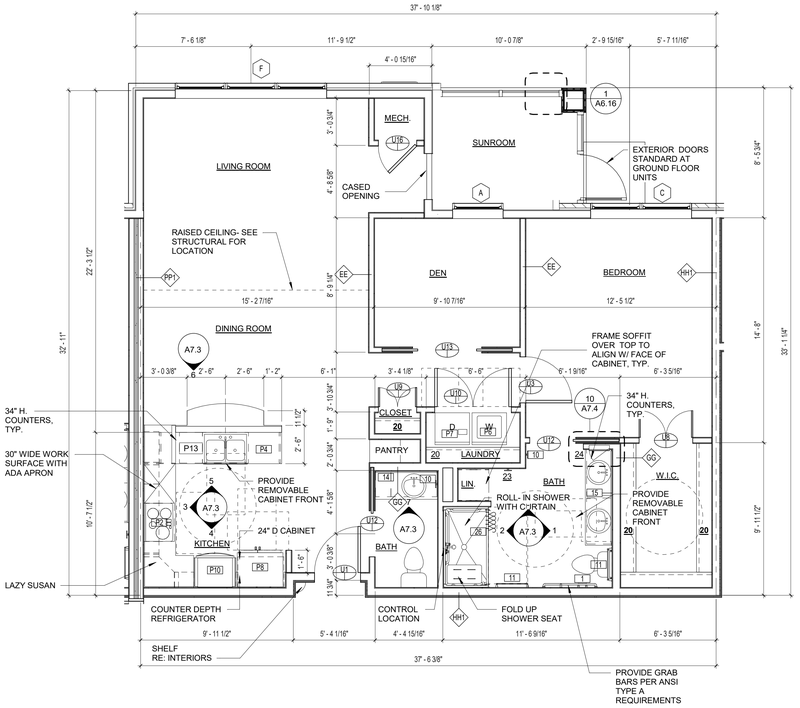
2 UNIT F - THE WESTPORT
1/4" = 1'-0"



5 UNIT F- THE WESTPORT (MIRRORED)

NOTE: SEE BUILDING PLANS FOR LOCATIONS

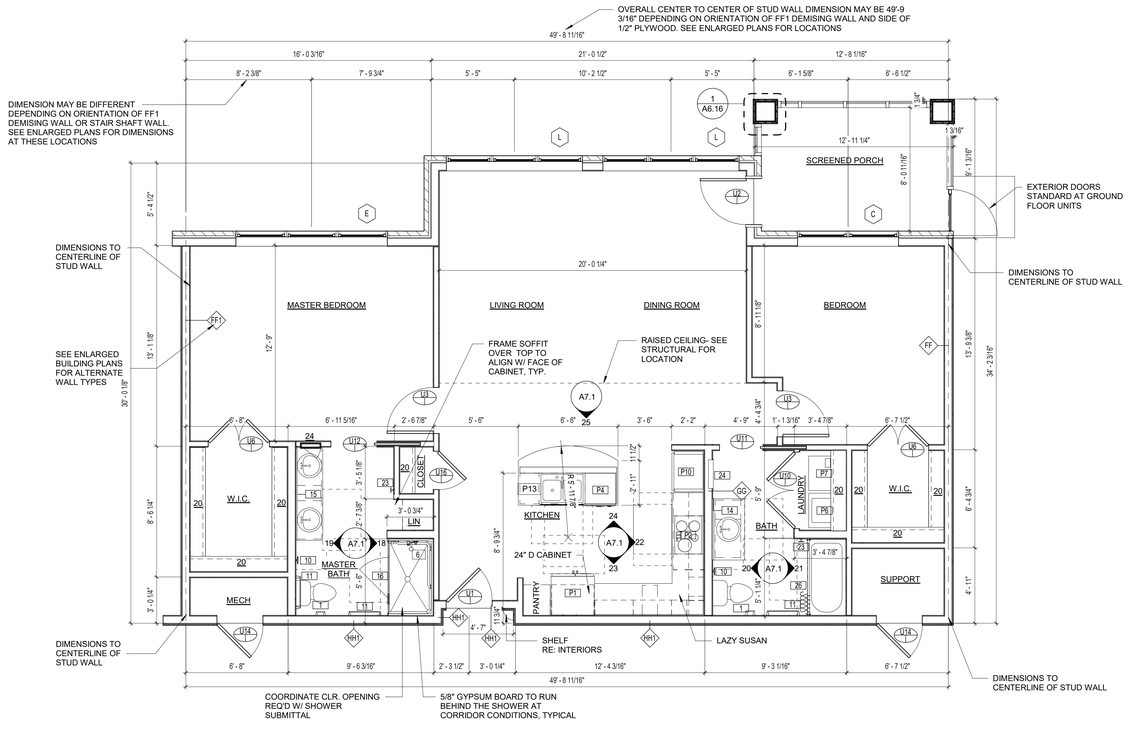
1. ALL RESIDENT ROOMS SHALL COMPLY WITH ANSI TYPE B ACCESSIBILITY STANDARDS FOR ACCESSIBLE UNITS: SEE A2.2 FOR ACCESSIBILITY DETAILS. UNIT C_HC SHALL ALSO COMPLY WITH ANSI TYPE A ACCESSIBILITY STANDARDS FOR ACCESSIBLE UNITS- SEE SHEET A2.1 FOR ACCESSIBILITY DETAILS.
2. ALL UNITS TO CONTAIN THE FOLLOWING TOILET ACCESSORIES: (1) 18" TOWEL BAR, (1) 24" TOWEL BAR, 1 TOILET PAPER HOLDER, 1 TOWEL RING, 1 ROBE HOOK.
3. INSTALL ALL GRAB BAR BLOCKING AT TIME OF CONSTRUCTION. GRAB BARS TO BE INSTALLED AT RESIDENT REQUEST, TYP. INSTALL MASTER SHOWER 18" VERTICAL GRAB BARS AND WRAP AROUND GRAB BARS AT TIME OF CONSTRUCTION.
4. ALL UNDIMENSIONED DOORS TO BE CENTERED OR 4" OFF SIDE WALL.
5. ALL UNDESIGNATED DIMENSIONED WALLS TO BE 3 1/2" WOOD STUD.
6. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL LAYOUTS.
7. REFER TO INTERIOR FINISH PLANS & LEGEND FOR ALL UNIT INTERIORS.
8. DIMENSIONS ARE TO FACE OF STUD UNLESS OTHERWISE NOTED.
9. CORRIDOR WALLS AT UNIT AND DEMISING WALLS BETWEEN UNITS SHALL BE TREATED AS SOUND RATED WALLS.
13. SEE BUILDING PLANS FOR DESIGNATION OF BALCONY/ SCREENED PORCH OR SUNROOM.



3 UNIT C - THE MONARCH _ HC
1/4" = 1'-0"

SEE LEVEL 2 BUILDING PLAN FOR LOCATION

THIS UNIT TO COMPLY WITH ANSI TYPE A UNIT REQUIREMENTS



4 UNIT G - THE BROOKSIDE
1/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	DAS
PROJECT ARCHITECT	:	GMJ
PROJECT ENGINEER	:	
DRAWN BY	:	KLM
CHECKED BY	:	AAT
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21

DRAWING TITLE

ENLARGED UNIT PLANS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A2.3	SHEET ____ OF ____

MENU

CAD VERSION

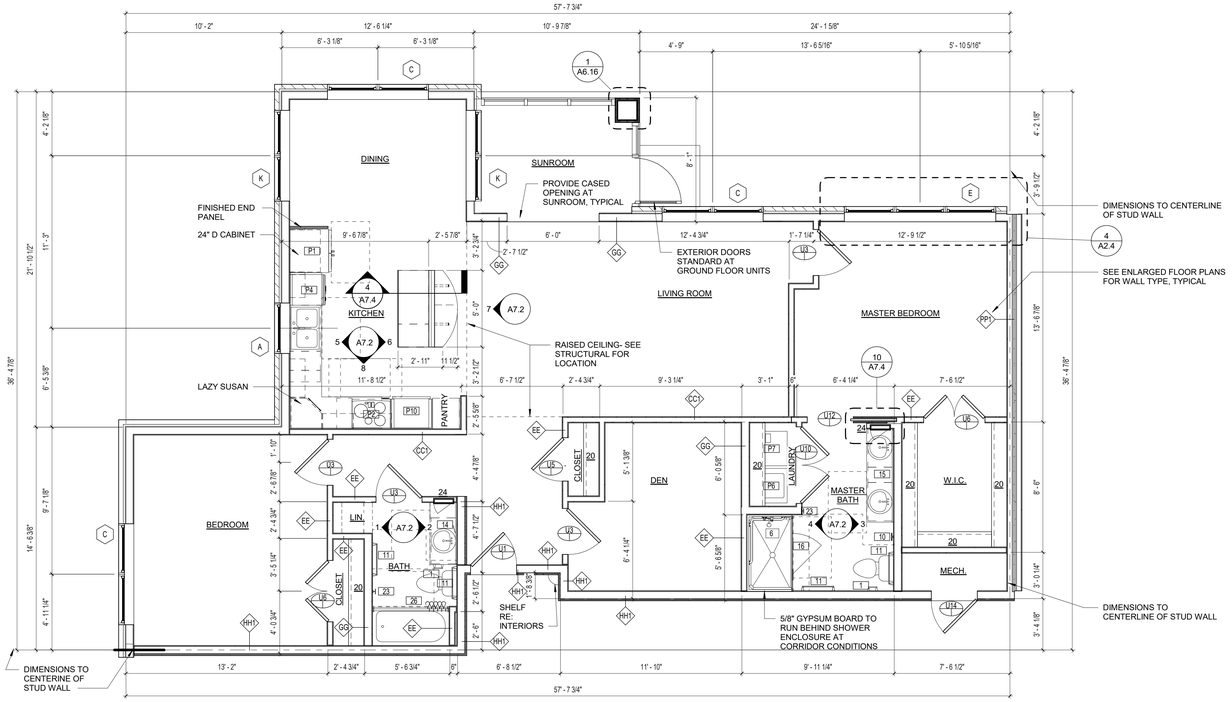
PLOT SCALE

PLOT DATE 3/11/2021 10:02:39 AM

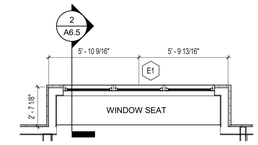
COMM NO.

DRAWING NO.

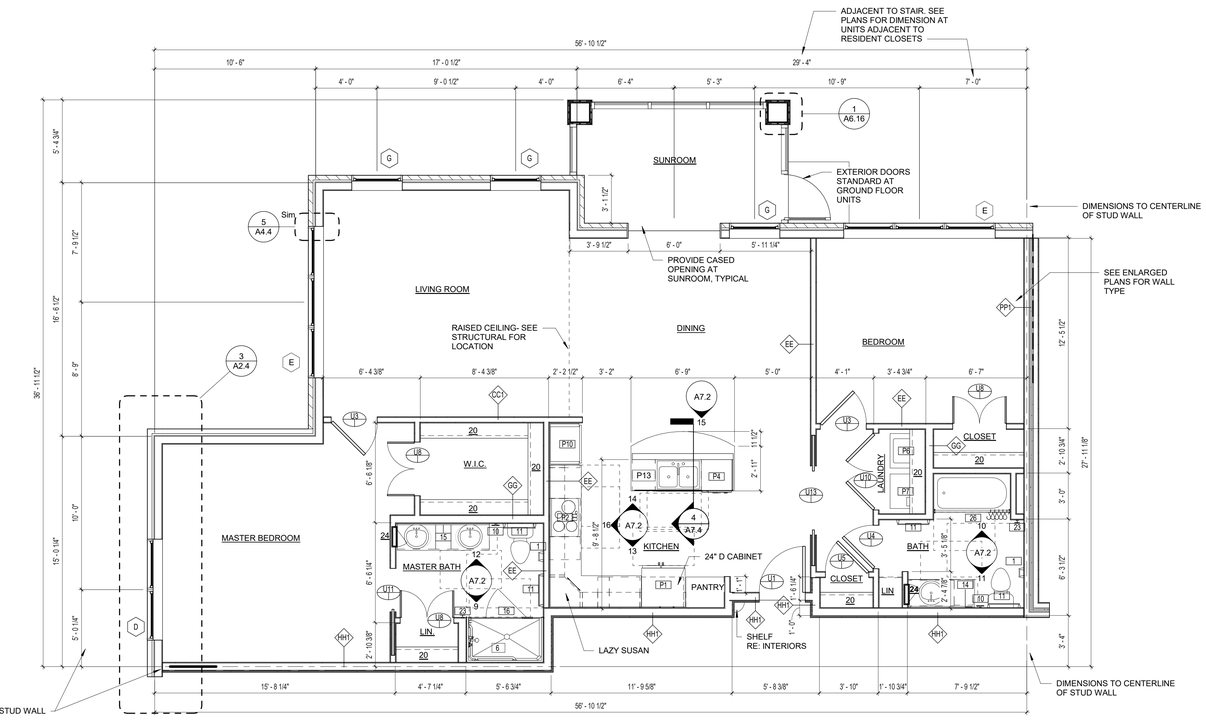
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/12/2021



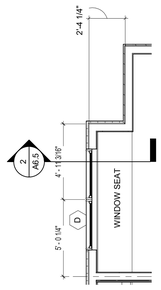
1 UNIT H-1 - THE ROYAL
1/4" = 1'-0"



4 UNIT H-1 WINDOW SEAT (4TH/5TH FLOORS ONLY)
1/4" = 1'-0"



2 UNIT H-2 - THE PLAZA
1/4" = 1'-0"



3 UNIT H-2 WINDOW SEAT (4TH/5TH FLOORS ONLY)
1/4"=1'-0"

1. ALL RESIDENT ROOMS SHALL COMPLY WITH ANSI TYPE B ACCESSIBILITY STANDARDS FOR ACCESSIBLE UNITS. SEE A2.2 FOR ACCESSIBILITY DETAILS. UNIT C_HC SHALL ALSO COMPLY WITH ANSI TYPE A ACCESSIBILITY STANDARDS FOR ACCESSIBLE UNITS- SEE SHEET A2.1 FOR ACCESSIBILITY DETAILS.
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5. ALL UNDESIGNATED DIMENSIONED WALLS TO BE 3 1/2" WOOD STUD.
6. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL LAYOUTS.
7. REFER TO INTERIOR FINISH PLANS & LEGEND FOR ALL UNIT INTERIORS.
8. DIMENSIONS ARE TO FACE OF STUD UNLESS OTHERWISE NOTED.
9. CORRIDOR WALLS AT UNIT AND DEMISING WALLS BETWEEN UNITS SHALL BE TREATED AS SOUND RATED WALLS.
13. SEE BUILDING PLANS FOR DESIGNATION OF BALCONY/ SCREENED PORCH OR SUNROOM.

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUESSIG
NUMBER A-6802
REGISTERED ARCHITECT
4-9-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

ENLARGED UNIT PLANS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A2.4	____ OF ____

MENU

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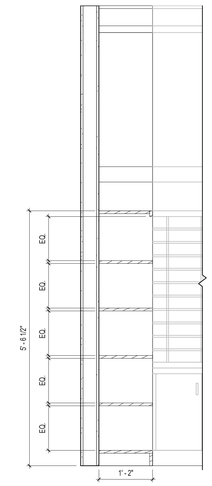
3/11/2021 10:02:17 AM DATE
COMM NO.
DRAWING NO.

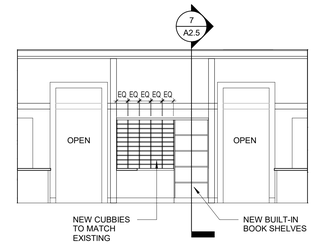
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



7 BOOKSHELF SECTION
3/4" = 1'-0"

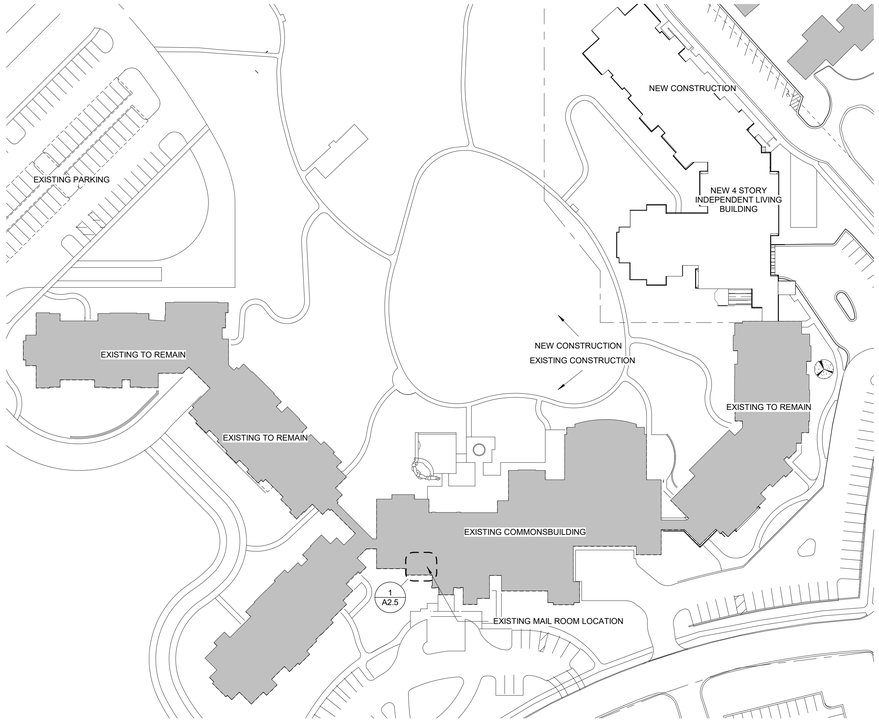
4 MAIL RM ELEV 4
1/4" = 1'-0"



5 MAIL RM ELEV 5
1/4" = 1'-0"

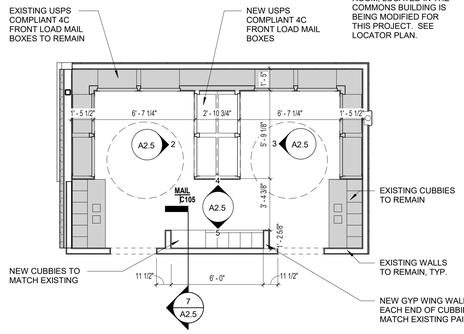
2 MAIL RM ELEV 2
1/4" = 1'-0"

3 MAIL RM ELEV 3
1/4" = 1'-0"



6 MAIL ROOM LOCATOR PLAN
1" = 60'-0"

NOTE: EXISTING MAIL ROOM, LOCATED IN THE COMMONS BUILDING IS BEING MODIFIED FOR THIS PROJECT. SEE LOCATOR PLAN.



1 MAIL ROOM PLAN
1/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
4-9-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	AAT
CHECKED BY	DAS
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

MAIL ROOM PLANS AND ELEVATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A2.5 SHEET ____ OF ____

MENU

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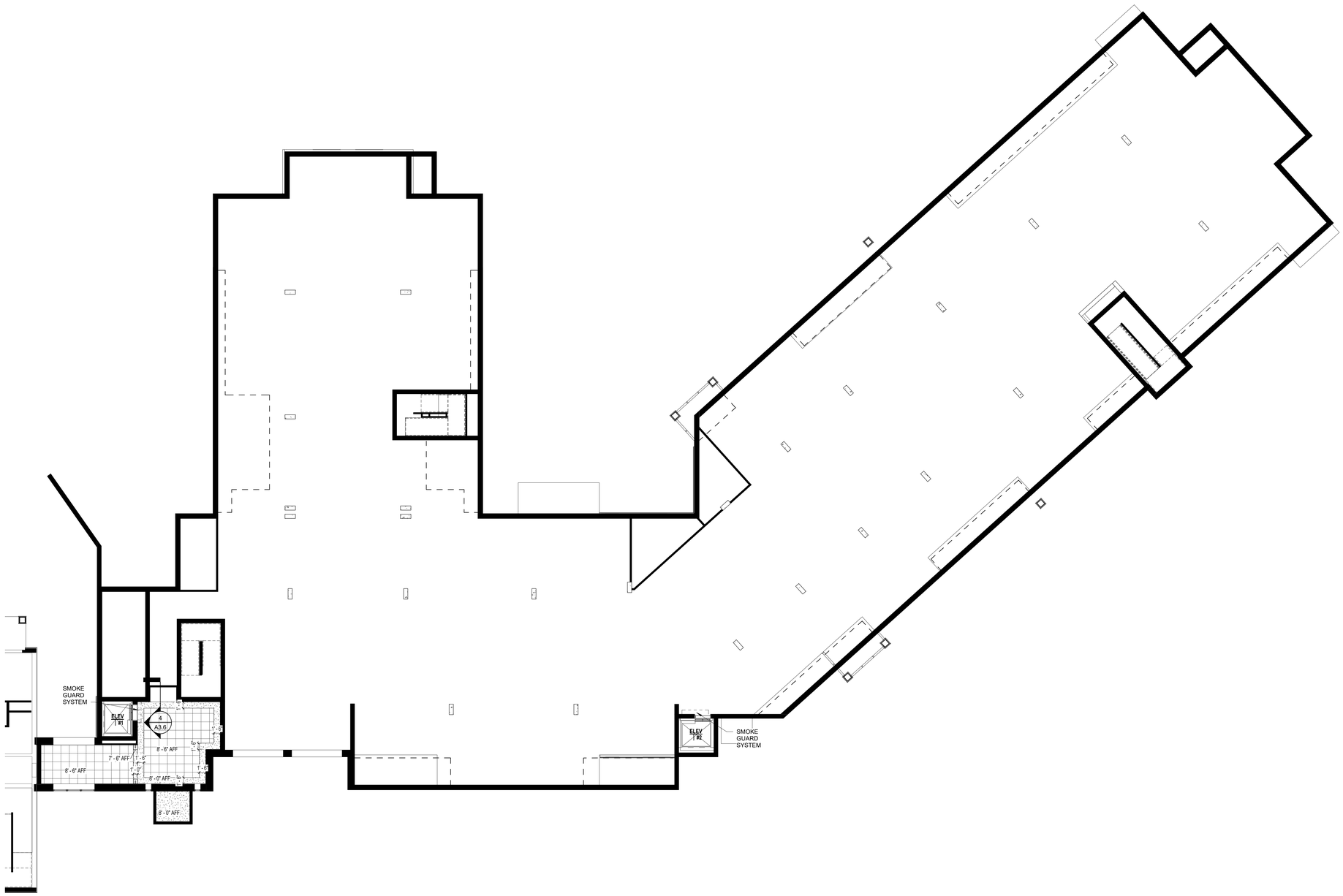
PLOT SCALE
PLOT DATE
2/24/2021 10:36:14 AM
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt



1 GARAGE REFLECTED CEILING PLAN
3/32" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

REFLECTED CEILING PLAN LEGEND

- PAINTED GYPSUM BOARD
- SUSPENDED ACOUSTIC CEILING SYSTEM
- RECESSED TROFFER
- RECESSED DOWNLIGHT
- SURFACE FIXTURE LIGHT
- CEILING DIFFUSER
- CEILING OUTLET
- CEILING DATA
- SMOKE DETECTOR
- SPEAKER
- SPRINKLER
- HEAT DETECTOR
- FIRE ALARM SPEAKER
- EXIT SIGN
- SUSPENDED LINEAR LIGHT FIXTURE
- LINEAR DIFFUSER
- STRUCTURAL BEAM - RE: STRUCT.

GENERAL NOTES

1. ALL ACOUSTICAL CEILINGS SHALL BE CENTERED IN THE ROOMS WITH EQUAL SIZE PANELS AT OPPOSITE SIDES OF THE ROOM - TYPICAL WHETHER INDICATED OR NOT.

2. ACOUSTICAL CEILINGS IN ADJACENT EXT DOORS SHALL HAVE HOLD DOWN CLIPS - TYP

3. GYPSUM CEILING ROOMS W/HTOUT CEILING HEIGHTS ARE PART OF THE CEILING/ROOF ASSEMBLY GYPSUM.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. AMBERG NUMBER A-6802 REGISTERED ARCHITECT
1/18/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 • Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

GARAGE REFLECTED CEILING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A3.1	____ OF ____

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
1/18/2021
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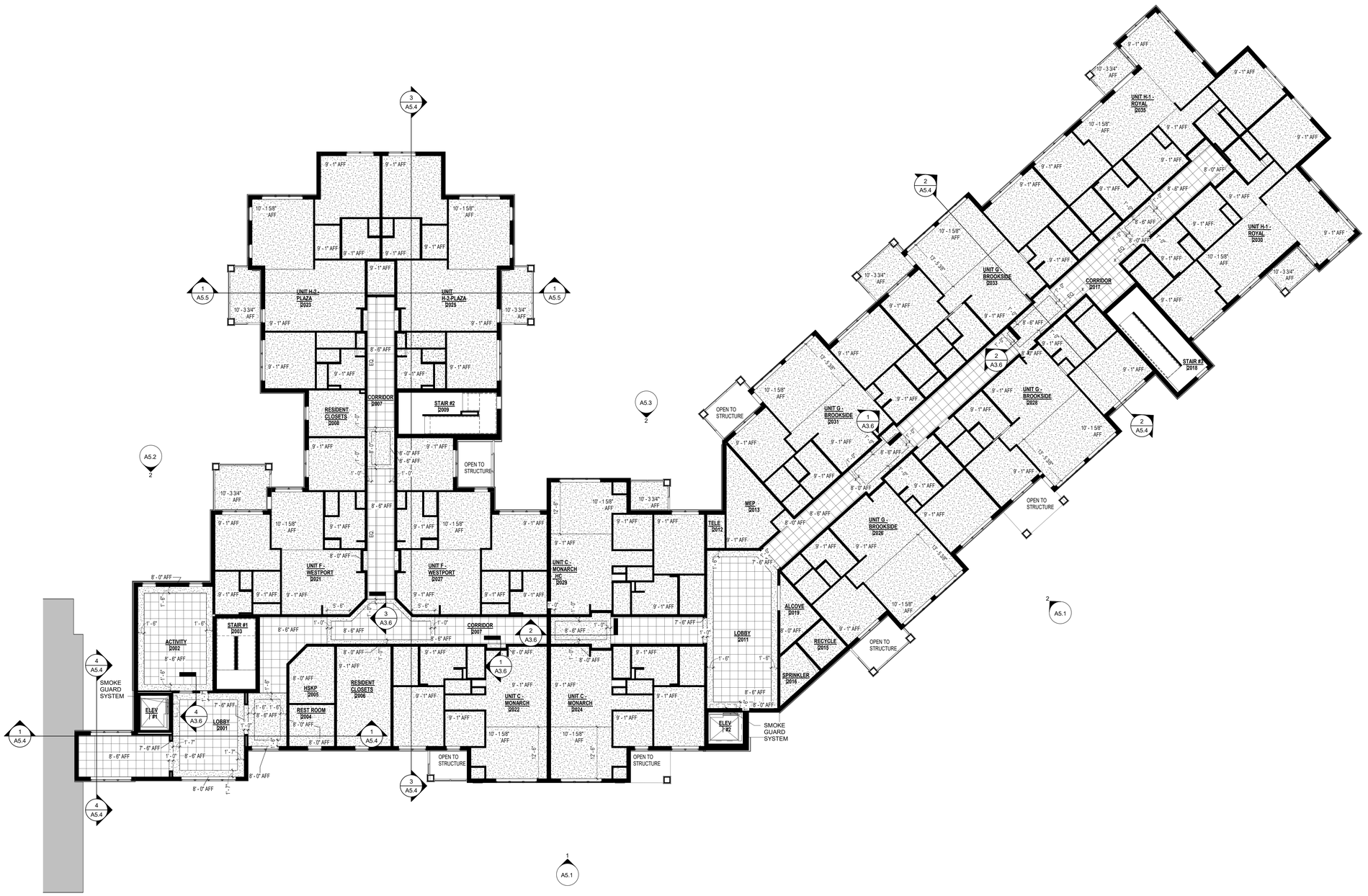
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt



1 SECOND FLOOR REFLECTED CEILING PLAN
3/32" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- PAINTED GYPSUM BOARD
- SUSPENDED ACOUSTIC CEILING SYSTEM
- RECESSED TROFFER
- RECESSED DOWNLIGHT
- SURFACE FIXTURE LIGHT
- CEILING DIFFUSER
- CEILING OUTLET
- CEILING DATA
- SMOKE DETECTOR
- SPEAKER
- SPRINKLER
- HEAT DETECTOR
- FIRE ALARM SPEAKER
- EXIT SIGN
- SUSPENDED LINEAR LIGHT FIXTURE
- LINEAR DIFFUSER
- STRUCTURAL BEAM - RE: STRUCT.

GENERAL NOTES

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI · GREGORY J. MUELLER · NUMBER A-6802 · REGISTERED ARCHITECT · 4-9-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
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PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21

DRAWING TITLE

SECOND FLOOR REFLECTED CEILING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A3.2	SHEET ____ OF ____

MENU

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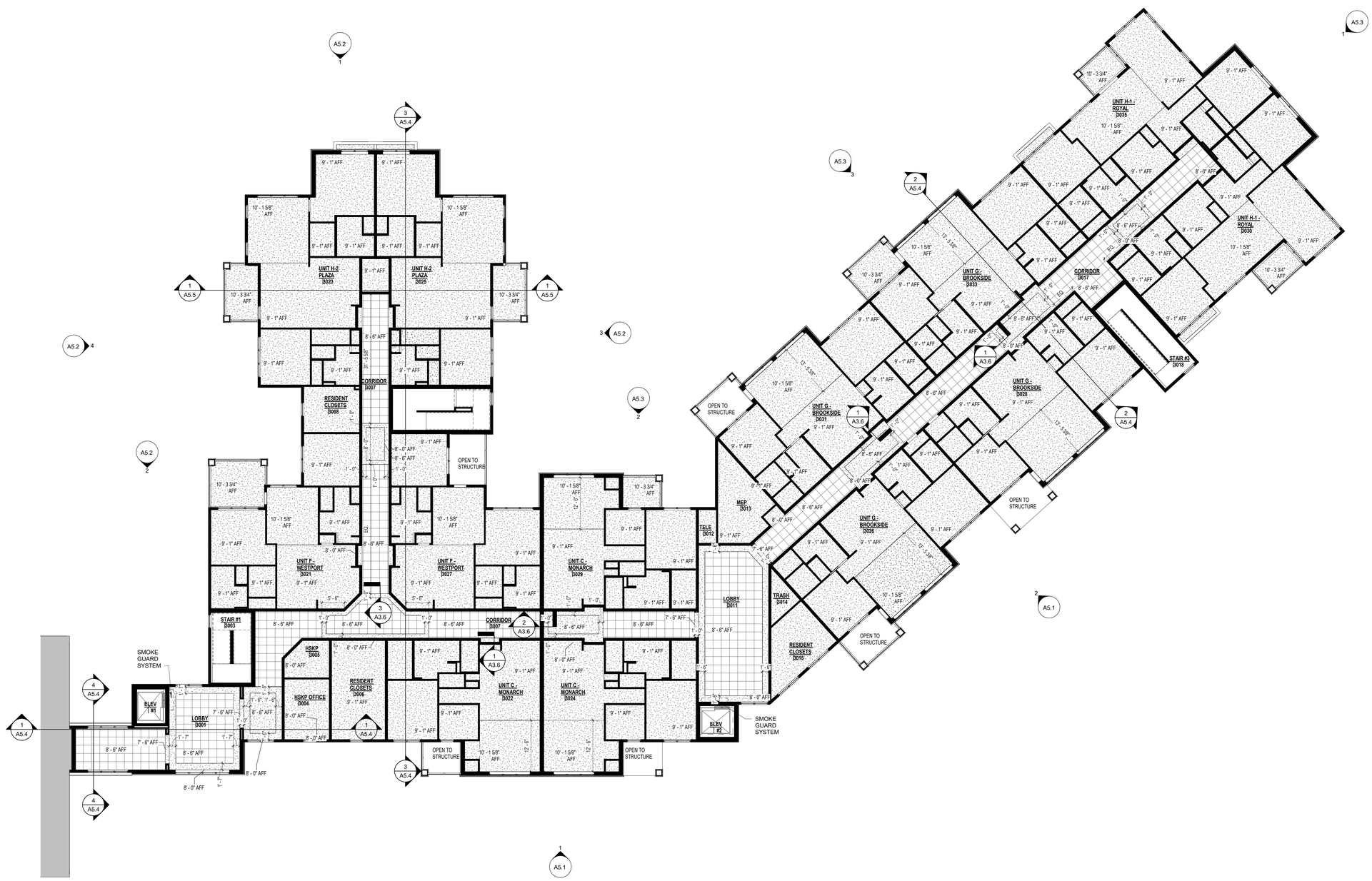
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



THIRD FLOOR REFLECTED CEILING PLAN

1 3/32" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- PAINTED GYPSUM BOARD
- SUSPENDED ACOUSTIC CEILING SYSTEM
- RECESSED TROFFER
- RECESSED DOWNLIGHT
- SURFACE FIXTURE LIGHT
- CEILING DIFFUSER
- CEILING OUTLET
- CEILING DATA
- SMOKE DETECTOR
- SPEAKER
- SPRINKLER
- HEAT DETECTOR
- FIRE ALARM SPEAKER
- EXIT SIGN
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- STRUCTURAL BEAM - RE: STRUCT.

GENERAL NOTES

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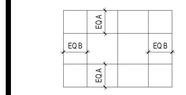

2. ACOUSTICAL CEILINGS IN ADJACENT EXT DOORS SHALL HAVE HOLD DOWN CLIPS - TYP

3. GYPSUM CEILING ROOMS W/HTOUT CEILING HEIGHTS ARE PART OF THE CEILING/ROOF ASSEMBLY GYPSUM.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

THIRD FLOOR REFLECTED CEILING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A3.3 SHEET ____ OF ____

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DRAWING NO.

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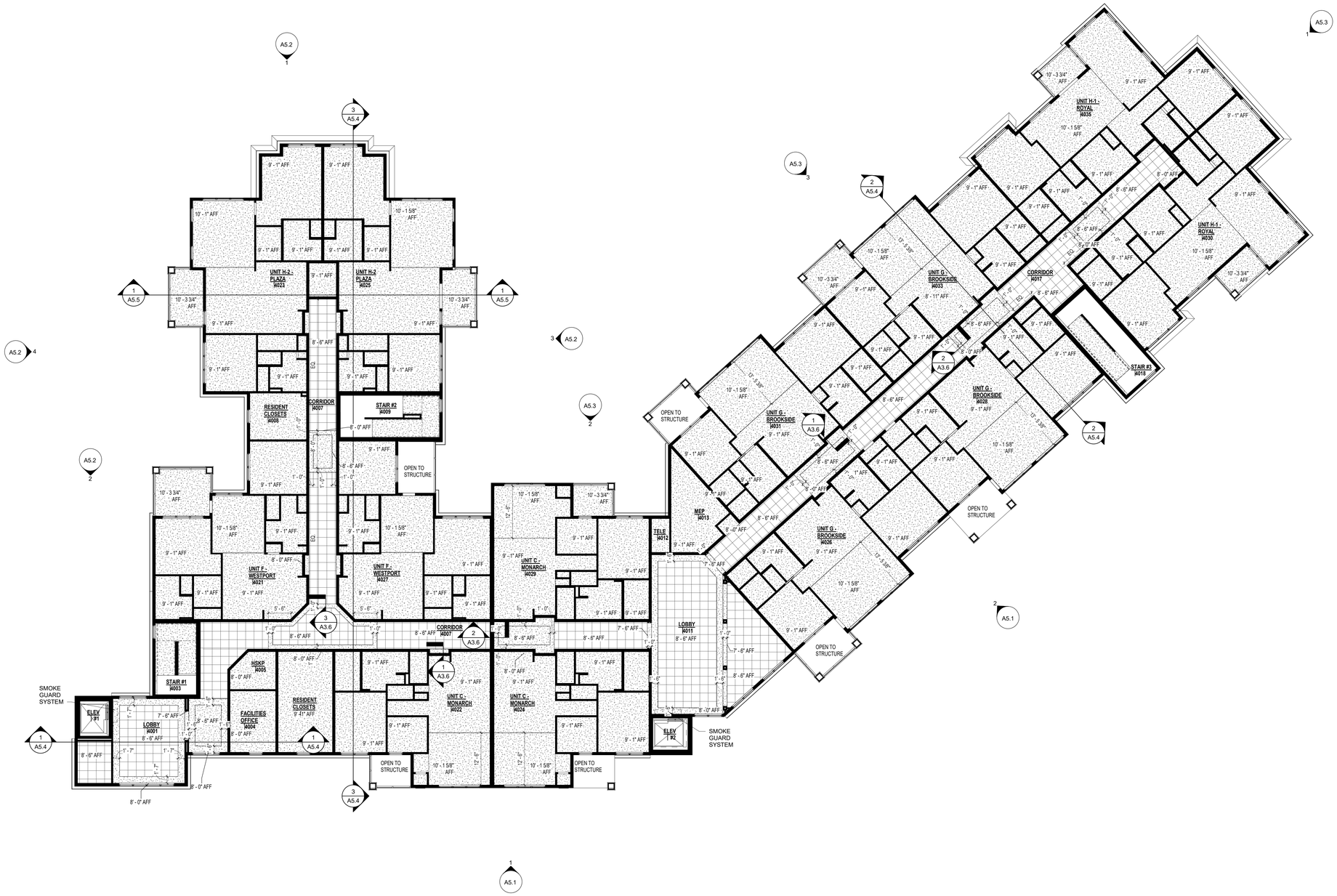
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



FOURTH FLOOR REFLECTED CEILING PLAN

1 — 3/32" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- PAINTED GYPSUM BOARD
- SUSPENDED ACOUSTIC CEILING SYSTEM
- RECESSED TROFFER
- RECESSED DOWNLIGHT
- SURFACE FIXTURE LIGHT
- CEILING DIFFUSER
- CEILING OUTLET
- CEILING DATA
- SMOKE DETECTOR
- SPEAKER
- SPRINKLER
- HEAT DETECTOR
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- EXIT SIGN
- SUSPENDED LINEAR LIGHT FIXTURE
- LINEAR DIFFUSER
- STRUCTURAL BEAM - RE: STRUCT.

GENERAL NOTES

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PERMIT SET

STATE OF MISSOURI · GREGORY M. JUNEMANN · NUMBER A-6802 · REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

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SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
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PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

FOURTH FLOOR REFLECTED CEILING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A3.4	SHEET ____ OF ____

MENU

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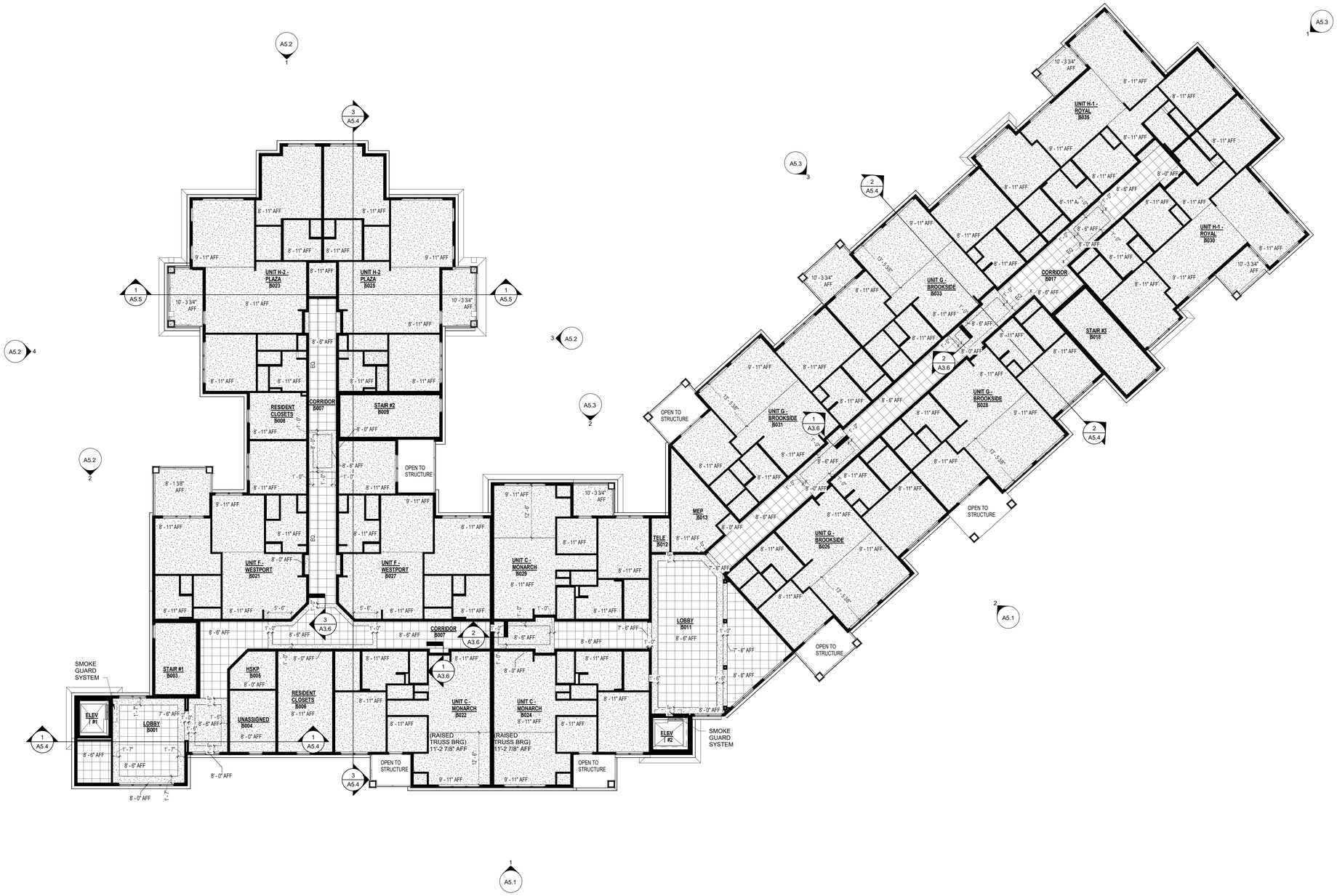
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



FIFTH FLOOR REFLECTED CEILING PLAN
1 3/32" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- PAINTED GYPSUM BOARD
- SUSPENDED ACOUSTIC CEILING SYSTEM
- RECESSED TROFFER
- RECESSED DOWNLIGHT
- SURFACE FIXTURE LIGHT
- CEILING DIFFUSER
- CEILING OUTLET
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PERMIT SET

PROJECT TITLE

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PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21

DRAWING TITLE

FIFTH FLOOR REFLECTED CEILING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A3.5	____ OF ____

MENU

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PLOT SCALE
PLOT DATE
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RELEASE FOR CONSTRUCTION
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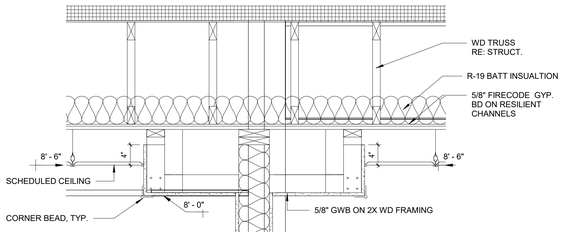
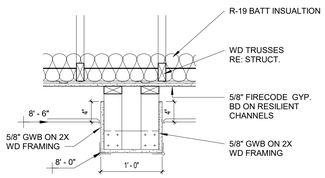
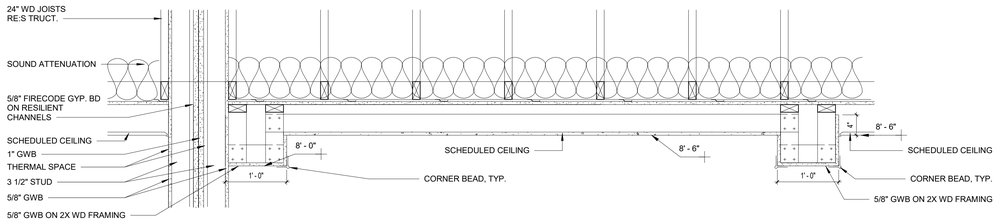
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



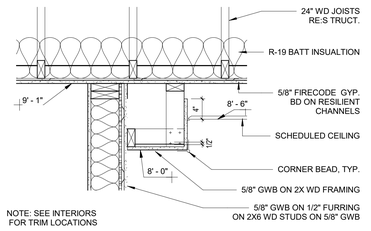
4 DETAIL AT ACTIVITY ROOM/LOBBY
1" = 1'-0"



3 BULKHEAD AT CORRIDOR
1" = 1'-0"



2 BULKHEAD DETAIL AT UNIT CORRIDOR
1" = 1'-0"



1 BULKHEAD AT UNIT DOOR
1" = 1'-0"

GENERAL NOTES

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PERMIT SET

PROJECT TITLE

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Meadows Building - Phase II

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PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

RCP DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A3.6	SHEET ____ OF ____

MENU

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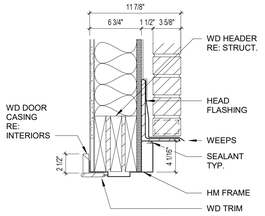
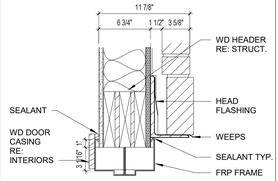
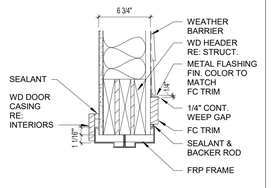
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



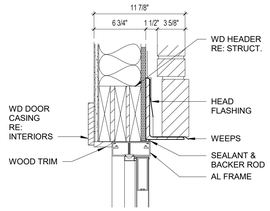
H1 - HM HEAD @ BRICK



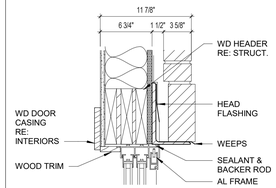
H2 - FBG HEAD @ BRICK



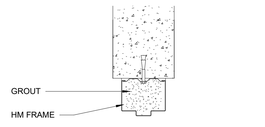
H3 - FBG HEAD @ SIDING



H4 - AL HEAD @ ENTRY



H5 - AL SLIDING HEAD @ ENTRY



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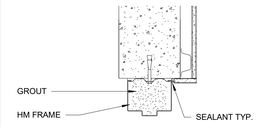
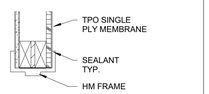
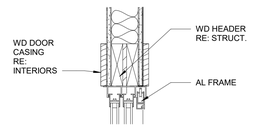


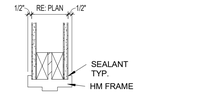
H7 - HM HEAD @ CIP W/ GYP ONE SIDE



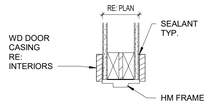
H8 - HM HEAD @ MECH WELL



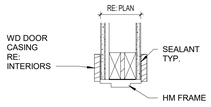
H9 - AL SLIDING HEAD @ GYP WALL



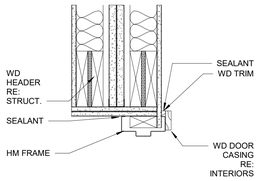
H10 - HM HEAD @ INT GYP



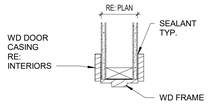
H11 - HM HEAD @ INT GYP W/CASING



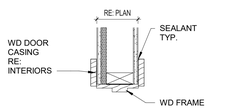
H12 - HM HEAD @ INT GYP FURRING W/CASING



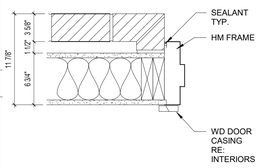
H13 - HM HEAD @ INT GYP SHAFT WALL



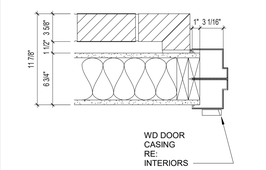
H14 - WD HEAD PRE-HUNG



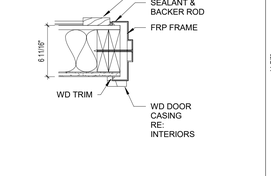
H15 - WD HEAD PRE-HUNG - FURRING



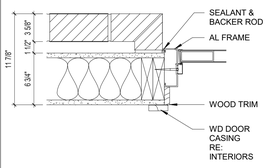
J1 - HM JAMB @ BRICK



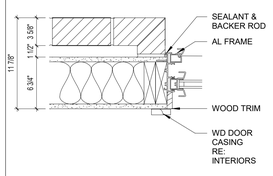
J2 - FBG JAMB @ BRICK



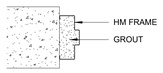
J3 - FBG JAMB @ SIDING



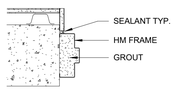
J4 - AL JAMB @ BRICK



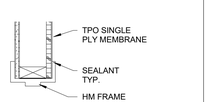
J5 - AL SLIDING JAMB @ SIDING



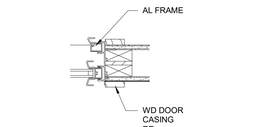
J6 - HM JAMB @ CIP



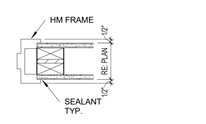
J7 - HM JAMB @ CIP W/ GYP ONE SIDE



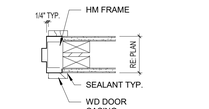
J8 - HM JAMB @ MECH WELL



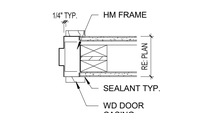
J9 - AL SLIDING JAMB @ GYP CASING



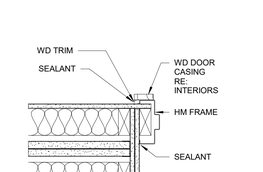
J10 - HM JAMB @ GYP NO CASING



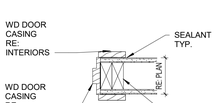
J11 HM JAMB @ GYP W/CASING



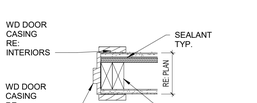
J12 - HM JAMB @ GYP W/FURRING CASING



J13 - HM JAMB @ INT CYP SHAFT WALL



J14 - WD JAMB PRE-HUNG



J15 - WD JAMB PRE-HUNG - FURRING

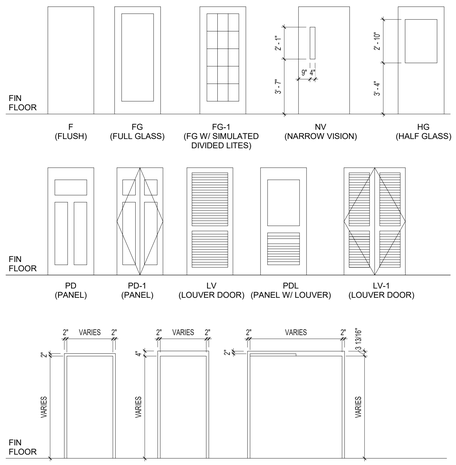
DOOR SCHEDULE

ROOM	TYPE	DOOR MATERIAL	WIDTH	DOOR PAIR	DOOR HEIGHT	FIRE RATING	FRAME ELEV	FRAME HEAD	FRAME JAMB	HW SET	COMMENTS
1001A	FG	AL	6' - 0"		6' - 8"		1	H5	J5	10	
1001B	FG	AL	6' - 0"		6' - 8"		1	H9	J9	10	CARD ACCESS
1002	F	HM	6' - 0"		6' - 8"	90 MIN	2	H13	J13	6	HOLD OPEN
1003	NV	HM	3' - 0"		6' - 8"	90 MIN	2	H7	J7	7	CARD ACCESS - AUTO OP.
1004	F	HM	3' - 0"		6' - 8"	45 MIN	2	H6	J6	14	
1006	NV	HM	3' - 0"		6' - 8"	20 MIN	2	H11	J10	7	CARD ACCESS - AUTO OP.
1007	F	HM	3' - 0"		6' - 8"	45 MIN	2	H10	J10	14	
1008A	GAR	AL	12' - 0"		9' - 0"	-	-			11	
1008B	GAR	AL	12' - 0"		9' - 0"	-	-			11	
1009	NV	HM	3' - 0"		6' - 8"	90 MIN	2	H6	J6	7	CARD ACCESS
1011	F	HM	3' - 0"		6' - 8"	45 MIN	2	H10	J10	14	
1012	F	HM	3' - 0"		6' - 8"	45 MIN	2	H10	J10	14	
1018	NV	HM	3' - 0"		6' - 8"	90 MIN	2	H6	J6	7	CARD ACCESS
2001	F	HM	6' - 0"		6' - 8"	90 MIN	2	H13	J13	6	HOLD OPEN
2002A	FG	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	2	
2002B	FG	AL	6' - 0"		7' - 0"	-	1	H4	J4	12	
2003	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
2004	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	4	AUTO OPERATOR
2005	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
2006	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
2007	F	HM	6' - 0"		6' - 8"	90 MIN	3	H10	J10	6	HOLD OPEN
2008	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
2009A	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
2009B	NV	HM	3' - 0"		7' - 0"	-	2	H1	J1	9	CARD ACCESS
2010	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	14	
2011	FG	AL	6' - 0"		7' - 0"	-	1	H4	J4	13	CARD ACCESS - AUTO OP.
2012	F	WD	5' - 0"		6' - 8"	-	1	H10	J10	5	
2013	F	WD	3' - 0"		6' - 8"	45 MIN	1	H12	J12	14	
2015	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
2016	F	HM	3' - 0"		7' - 0"	-	2	H1	J1	15	
2018A	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
2018B	NV	HM	3' - 0"		6' - 8"	-	2	H1	J1	9	CARD ACCESS
3001	F	HM	6' - 0"		6' - 8"	90 MIN	2	H13	J13	6	HOLD OPEN
3003	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
3004	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	1	
3005	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
3006	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
3007	F	HM	6' - 0"		6' - 8"	90 MIN	3	H10	J10	6	HOLD OPEN
3008	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
3009	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
3010	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	14	
3012	F	WD	5' - 0"		6' - 8"	-	1	H10	J10	5	
3013	F	WD	3' - 0"		6' - 8"	45 MIN	1	H12	J12	14	
3014	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
3015	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
3018	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
4002	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	14	
4003	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
4004	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	1	
4005	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
4006	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
4007	F	HM	6' - 0"		6' - 8"	90 MIN	1	H10	J10	6	HOLD OPEN
4008	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
4009	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
4010	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	14	
4012	F	WD	5' - 0"		6' - 8"	-	1	H10	J10	5	
4013	F	WD	3' - 0"		6' - 8"	45 MIN	1	H12	J12	14	
4018	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
5002	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	14	
5003	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
5004	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	1	
5005	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
5006	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
5007	F	HM	6' - 0"		6' - 8"	90 MIN	3	H10	J10	6	HOLD OPEN
5008	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	3	
5009	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
5010	F	WD	3' - 0"		6' - 8"	20 MIN	1	H12	J12	14	
5012	F	WD	5' - 0"		6' - 8"	-		H10	J10	5	
5013	F	WD	3' - 0"		6' - 8"	45 MIN	1	H12	J12	14	
5018	NV	HM	3' - 0"		6' - 8"	90 MIN	1	H13	J13	8	
6001	F	HM	3' - 0"		5' - 0"	-	1	H8	J8	15	
6002	F	HM	3' - 0"		5' - 0"	-	1	H8	J8	15	
6003	F	HM	3' - 0"		5' - 0"	-	1	H8	J8	15	
6004	F	HM	3' - 0"		5' - 0"	-	1	H8	J8	15	
6009	F	HM	3' - 0"		3' - 0"	90 MIN	1	H13	J13	14	
6018	F	HM	3' - 0"		3' - 0"	90 MIN	1	H13	J13	14	

MARK	DOOR TYPE	DOOR MATERIAL	DOOR WIDTH	DOOR PAIR	DOOR HEIGHT	FIRE RATING	FRAME ELEV	FRAME HEAD	FRAME JAMB	HW SET	COMMENTS
U1	PD	MDF	3'-0"		6'-8"	20 MIN		H15	J15	16	
U2	FG-1	FBG	3'-0"		6'-8"			H2/H3	J2/J3	20	EXTERIOR - INTEGRAL BLINDS
U3	PD	DF	3'-0"		6'-8"			H14	J14	19	
U4	PD	DF	2'-10"		6'-8"			H14	J14	19	
U5	PD	DF	2'-10"		6'-8"			H14	J14	17	
U6	PD-1	DF	PAIR 2'-0"		6'-8"			H14	J14	18	
U7	PD-1	DF	PAIR 1'-6"		6'-8"			H14	J14	18	
U8	PD-1	DF	PAIR 1'-9"		6'-8"			H14	J14	18	
U9	PD-1	DF	PAIR 1'-3"		6'-8"			H14	J14	18	
U10	LV-1	DF	PAIR 2'-6"		6'-8"			H14	J14	18	
U11	PD/PKT	DF	2'-10"		6'-8"			H14	J14	21	
U12	PD/PKT	DF	3'-0"		6'-8"			H14	J14	21	
U13	PD/PKT	DF	PAIR 2'-4"		6'-8"			H14	J14	22	
U14	PD	DF	3'-0"		6'-8"			H14	J14	14	
U15	LV-1	DF	PAIR 2'-4"		6'-8"			H14	J14	18	
U16	PD	DF	2'-6"		6'-8"			H14	J14	16	

FIBERGLASS DOORS BASIS OF DESIGN - JELD WEN DESIGN-PRO SERIES

NOTE: ALL GLAZING IN FIXED AND OPERABLE PANELS OF DOORS SHALL BE SAFETY GLAZING PER SECTION 2406.



DOOR TYPE ABBREVIATIONS

AE- AUTOMATIC ENTRANCE
AL-ALUMINUM
ALC-ALUMINUM CLAD
DA-DOUBLE ACTING
DF-DIE FORMED
FBG-FIBERGLASS DOOR
HC-HOLLOW CORE
HM-HOLLOW METAL
MDF-MDF SOLID COMPOSITE DOOR
OC-OVERHEAD COILING DOOR
PKT-POCKET DOOR
PL-PLASTIC LAMINATE
SC-SOLID CORE
SL-SLIDING DOOR
SR-SOUND RATED
SS-STAINLESS STEEL
TR-THERMAL RATED
WD-WOOD SOLID CORE

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	DAS
PROJECT ARCHITECT	:	GMJ
PROJECT ENGINEER	:	
DRAWN BY	:	KLM/DAS
CHECKED BY	:	AAT
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

DOOR SCHEDULE & DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A4.1	SHEET ____ OF ____

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 2/24/2021 10:50:48 AM
DATE
COMM. NO.
DRAWING NO.

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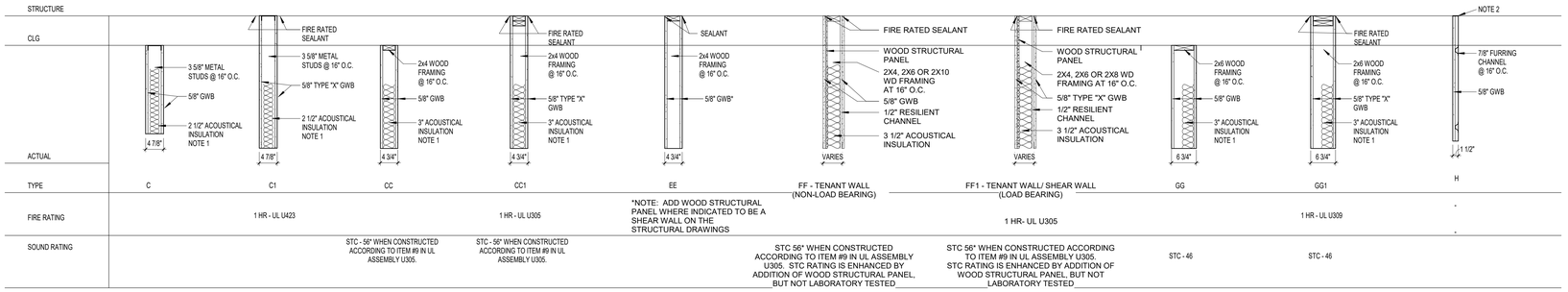

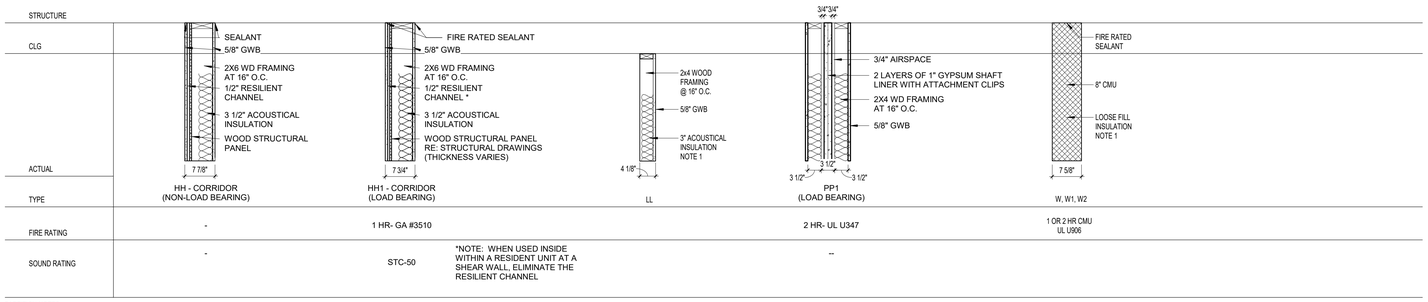

PARTITION NOTES:

NOTE 1: SOUND RATING WHERE NOTED ON PLANS.

NOTE 2: LINE OF SUBSTRATE.

NOTE 3: FOR GWB PARTITIONS RECEIVING CERAMIC TILE APPLICATIONS, THE PARTITION SHALL CONSIST OF 20 GAUGE STUDS AND 1/2" TILE BACKER BOARD IN LIEU OF THE CMU.

NOTE 4: GWB SHALL BE ACOUSTICALLY SEALED TO STRUCTURE AT SOUND RATED PARTITIONS. APPLY SEALANT AROUND ALL CUT OUTS IN GWB WALL. CAULK SIDES AND BACK OF ELECTRICAL BOXES.

NOTE 5: STEEL DECK FLUTES AT RATED PARTITION TOP TRACK RUNNER TERMINATION SHALL BE FIRMLY PACKED WITH FIRESAFING MATERIAL (DECK PLUGS) AND SEALED WITH FIRESTOP SEALANT OR FIRESTOP JOINT SPRAY ON BOTH SIDES OF PARTITION.

NOTE 6: PROVIDE DEEP LEG TOP TRACK RUNNERS FOR MINIMUM 5/8" DEFLECTION GAP.

NOTE 7: DESIGNATED STC RATINGS APPLY TO SOUND RATED PARTITIONS.

PARTITION TYPES
3/4" = 1'-0"

APPLIANCE SCHEDULE

MARK	ITEM	MANUF	MODEL #	DESCRIPTION
P1	REFRIGERATOR	GENERAL ELECTRIC	GSS23	HSHSS STAINLESS STEEL
P2	ELECTRIC COOKTOP	GENERAL ELECTRIC	JP3030	SJSS STAINLESS STEEL
P3	SINGLE WALL OVEN	GENERAL ELECTRIC	JTS3000	SNSS STAINLESS STEEL
P4	DISHWASHER	GENERAL ELECTRIC	GDF645	SSNSS STAINLESS STEEL
P5	GARBAGE DISPOSAL	GENERAL ELECTRIC	GFC530V	
P6	FRONT LOAD WASHER	GENERAL ELECTRIC	GFW5500SSNWW	WHITE SEE UNIT PLANS FOR LOCATION
P7	FRONT LOAD DRYER	GENERAL ELECTRIC	GFD55ESSNWW	WHITE SEE UNIT PLANS FOR LOCATION
P8	REFRIGERATOR	GENERAL ELECTRIC	GZS22DSJSS	ACCESSIBLE UNITS (SS = STAINLESS STEEL) - COUNTER-DEPTH
P9	DISHWASHER	GENERAL ELECTRIC	GLDA696F	ACCESSIBLE UNITS (SS = STAINLESS STEEL)
P10	MICROWAVE	GENERAL ELECTRIC	PES7227	SLSS STAINLESS STEEL
P11	UNDER THE CABINET HOOD	GENERAL ELECTRIC	JVX3300	SJSS STAINLESS STEEL
P12	WASHER/DRYER PEDESTAL	GENERAL ELECTRIC	GFP1528SNWW	16" PEDESTAL- UPGRADE OPTION
P13	TRASH/RECYCLE PULLOUT	REV-A-SHELF	4WCTM-2150BBSCDM-2	

APPLIANCE SCHEDULE
12" = 1'-0"

TOILET ACCESSORY SCHEDULE

MARK	ITEM	MODEL #/FIN	MANUF	MT.HT.	SIZE	REMARKS
1	TOILET PAPER HOLDER	YB5408BN	MOEN: KINGSLEY SERIES/BRUSHED NICKEL	CENTERLINE AT 19" AFF		TO BE INSTALLED IN ALL RESIDENT UNIT TOILETS
2	TOILET PAPER DISPENSER	56798	GEORGIA PACIFIC	CENTERLINE AT 19" AFF		TO BE INSTALLED IN ALL PUBLIC TOILETS
3	VERTICAL GRAB BAR	YG5418BN	MOEN: KINGSLEY SERIES/BRUSHED NICKEL	BOTTOM AT 41" AFF	18"	PROVIDE BLOCKING ALL UNITS AND INSTALL WHERE NOTED IN CUSTOMIZATION
4	GRAB BAR	YG5436BN	MOEN: KINGSLEY SERIES/BRUSHED NICKEL	TOP AT 36" AFF	36"	PROVIDE BLOCKING ALL UNITS AND INSTALL WHERE NOTED IN CUSTOMIZATION
5	GRAB BAR	YG5442BN	MOEN: KINGSLEY SERIES/BRUSHED NICKEL	TOP AT 36" AFF	42"	PROVIDE BLOCKING ALL UNITS AND INSTALL WHERE NOTED IN CUSTOMIZATION
6	VERTICAL GRAB BAR	B-6806X18	BOBRICK/SATIN FINISH	BOTTOM AT 41" AFF	18"	INSTALL AT ALL UNIT MASTER BATH SHOWERS
7	GRAB BAR	B-6806X36	BOBRICK/SATIN FINISH	TOP AT 36" AFF	36"	PROVIDE BLOCKING/TO BE INSTALLED IN ALL PUBLIC TOILETS
8	GRAB BAR	B-6806X42	BOBRICK/SATIN FINISH	TOP AT 36" AFF	42"	PROVIDE BLOCKING/TO BE INSTALLED IN ALL PUBLIC TOILETS
9	COMBINATION GRAB BAR	CUSTOM-SEE PLAN	BY SHOWER MANUFACTURER	TOP AT 36" @ SHOWER FF		INSTALL AT ALL UNIT MASTER BATH SHOWERS
10	TOWEL RING	YB5486BN	MOEN: KINGSLEY SERIES/BRUSHED NICKEL	CENTERLINE AT 46" AFF		PROVIDE BLOCKING/TO BE INSTALLED IN ALL RESIDENT UNIT TOILETS
11	TOWEL BAR	YG5424BN	MOEN: KINGSLEY SERIES/BRUSHED NICKEL	CENTERLINE AT 46" AFF	24"	PROVIDE BLOCKING/TO BE INSTALLED IN ALL RESIDENT UNIT TOILETS
12	MIRROR	CUSTOM	GUARDIAN INDUSTRIES W/ 2" FLAT STOCK FRAME	MIRROR BOTTOM AT 40" AFF	30"W X 38" H	MIRROR BOTTOM AT 38" AFF IN ACCESSIBLE UNITS
13	MIRROR	CUSTOM	GUARDIAN INDUSTRIES W/ 2" FLAT STOCK FRAME	MIRROR BOTTOM AT 40" AFF	45"W X 38" H	MIRROR BOTTOM AT 38" AFF IN ACCESSIBLE UNITS
14	MIRROR	CUSTOM	GUARDIAN INDUSTRIES W/ 2" FLAT STOCK FRAME	MIRROR BOTTOM AT 40" AFF	48"W X 38" H	MIRROR BOTTOM AT 38" AFF IN ACCESSIBLE UNITS
15	MIRROR	CUSTOM		MIRROR BOTTOM AT 40" AFF	72"W X 38" H	MIRROR BOTTOM AT 38" AFF IN ACCESSIBLE UNITS
16	SHOWER DOOR		SOUTHEASTERN ALUMINUM CRYSTAL LINE HINGE			FINISH 16 (ARCHITECTURAL) TO BE INSTALLED IN ALL RESIDENT UNIT SHOWERS
17	SOAP DISPENSER	52054	GEORGIA PACIFIC			TO BE INSTALLED IN ALL PUBLIC TOILETS
18	SANITARY NAPKIN DISPOSAL	B-270	BOBRICK/SATIN FINISH	TOP AT 30" AFF		PROVIDE BLOCKING/TO BE INSTALLED IN ALL WOMENS PUBLIC TOILETS AND UNI-SEX TOILETS
19	TOWEL DISPENSER/WASTE REC.	59451	GEORGIA PACIFIC	TOWEL DISPENSER AT 48" AFF		TO BE INSTALLED IN ALL PUBLIC TOILETS
20	CLOSET SHELF AND ROD	CLOSETMAID VINYL	COATED STEEL 12" DEPTH SHELF & ROD WIRE SHELF	CENTERLINE AT 66" AFF		PROVIDE BLOCKING/TO BE INSTALLED IN ALL RESIDENT UNITS. CENTERLINE AT 48" AFF AT ALL ACCESSIBLE UNITS
21	CLOSET SHELF AND ROD	CLOSETMAID VINYL	COATED STEEL 8" DEPTH SHELF & ROD WIRE SHELF	CENTERLINE AT 66" AFF		PROVIDE BLOCKING/TO BE INSTALLED IN ALL RESIDENT UNITS. CENTERLINE AT 48" AFF AT ALL ACCESSIBLE UNITS
22	DOUBLE ROBE HOOK	6727	BOBRICK/SATIN FINISH	CENTERLINE AT 48" AFF		TO BE INSTALLED IN ALL PUBLIC TOILETS
23	DOUBLE ROBE HOOK		LIBERTY HARDWARE WINDEMERE (BRUSHED NICKEL)	CENTERLINE AT 60" AFF		PROVIDE BLOCKING/TO BE INSTALLED IN ALL RESIDENT UNITS. CENTERLINE AT 48" AFF AT ALL ACCESSIBLE UNITS
24	MIRRORED MEDICINE CABINET	175-10	BRADLEY (SEMI-RECESSED)	BOTTOM AT 4'-0" AFF (ALIGN TOP WITH MIRROR)	17"W X 30"H X 4"D	PROVIDE BLOCKING/TO BE INSTALLED IN ALL RESIDENT UNIT TOILETS. 40" MAX TO BOTTOM OF MIRROR AT ACCESSIBLE UNITS
25	MOLDED SOAP DISH		HCP INDUSTRIES			TO BE INSTALLED IN ALL UNIT SHOWERS
26	SHOWERCURTAIN ROD	DN2160BN	MOEN/BRUSHED NICKEL	CENTERLINE AT 74" AFF		TO BE INSTALLED IN RESIDENT UNIT TUBS

TOILET ACCESSORY SCHEDULE
12" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

PERMIT SET

STATE OF MISSOURI TIMOTHY A. AMICK NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

PARTITION TYPES, APPLIANCE SCH. & TOILET ACCESSORY SCH.

COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING A4.2
SHEET ____ OF ____

MENU

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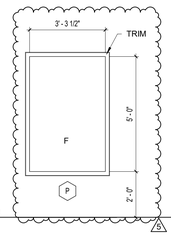
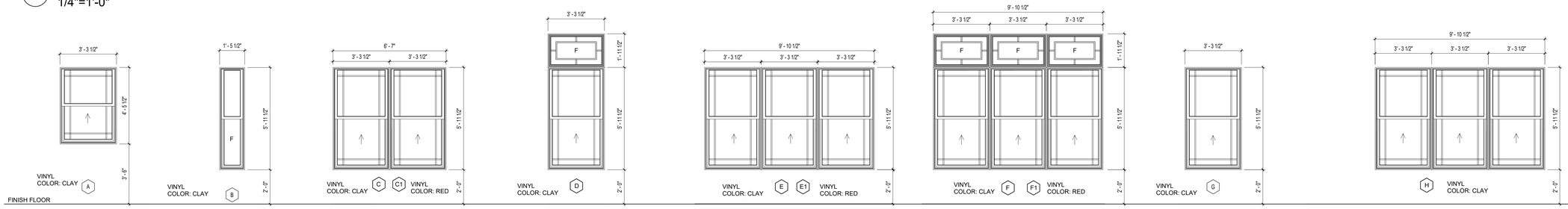
PLOT SCALE
PLOT DATE 1/18/2021 5:32:28 PM
PLOT BY
COMM NO.
DRAWING NO.

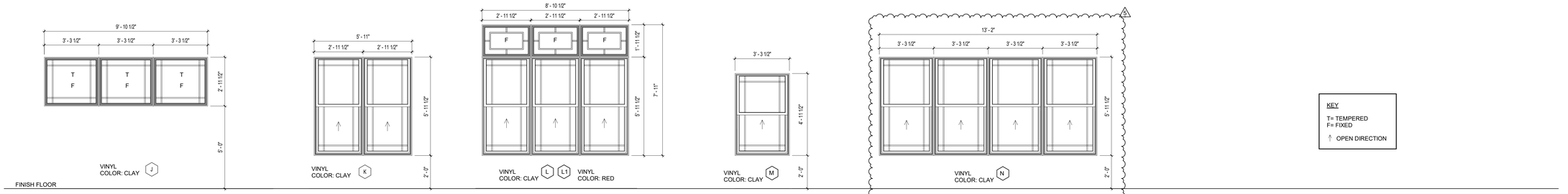
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



INTERIOR WINDOW ELEVATIONS
1/4"=1'-0"





KEY
T= TEMPERED
F= FIXED
OPEN DIRECTION

EXTERIOR WINDOW ELEVATIONS
1/4"=1'-0"

MENU

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PLOT SCALE:
3/10/2021
1:39:27 PM
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COMM. NO.:
DRAWING NO.:

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MURPHY
NUMBER A-6802
REGISTERED ARCHITECT
3-10-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM/DAS
CHECKED BY	AAT
APPROVED BY	

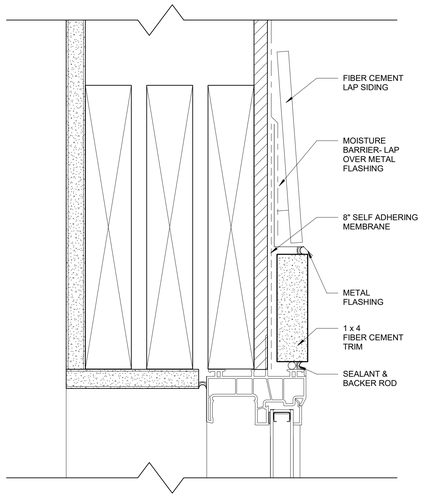
NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE
WINDOW ELEVATIONS

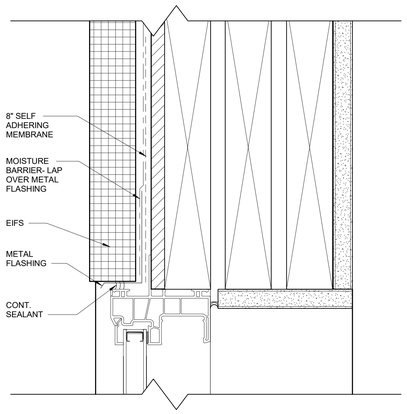
COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING A4.3
SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

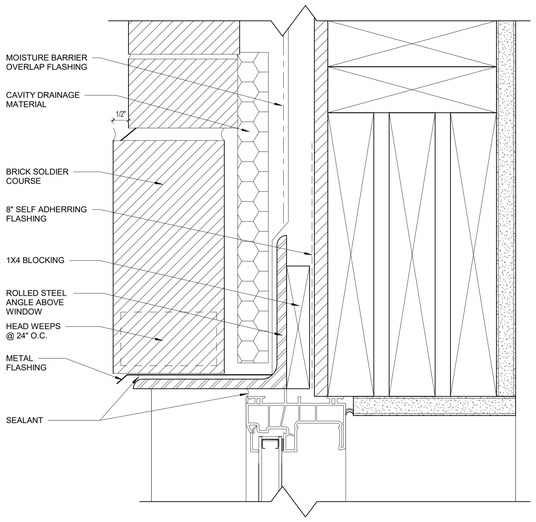
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



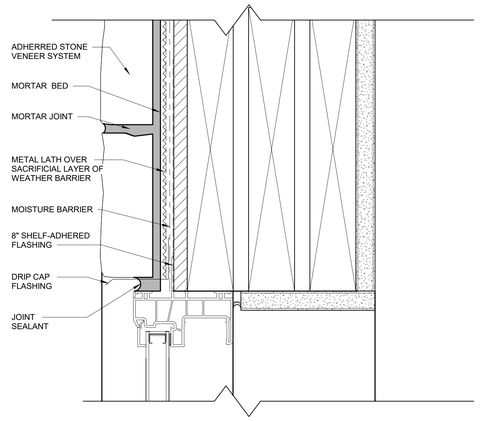
12 ENLARGED SIDING HEAD DETAIL
6" = 1'-0"



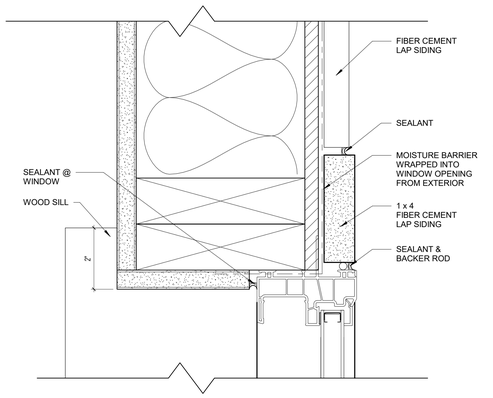
9 ENLARGED EIFS HEAD DETAIL
6" = 1'-0"



6 ENLARGED BRICK HEAD DETAIL
6" = 1'-0"



3 ENLARGED STONE HEAD DETAIL
6" = 1'-0"



11 ENLARGED SIDING JAMB DETAIL
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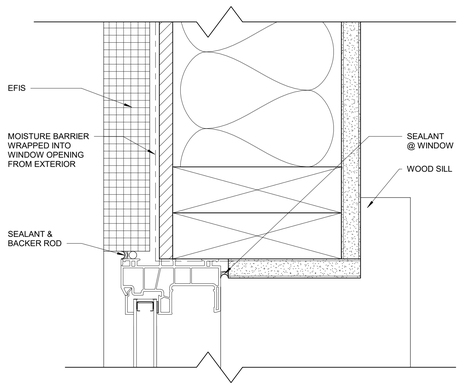

8 ENLARGED EIFS JAMB DETAIL
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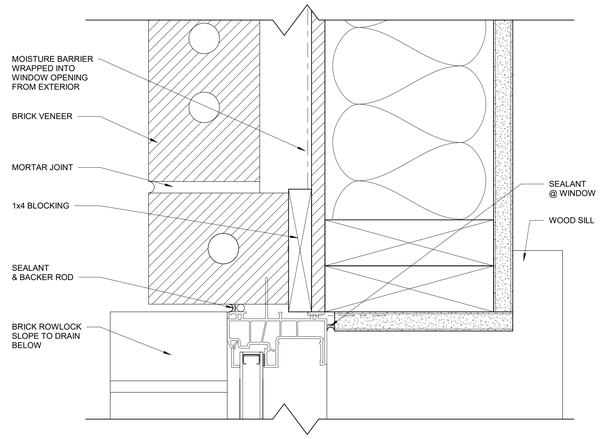

5 ENLARGED BRICK JAMB DETAIL
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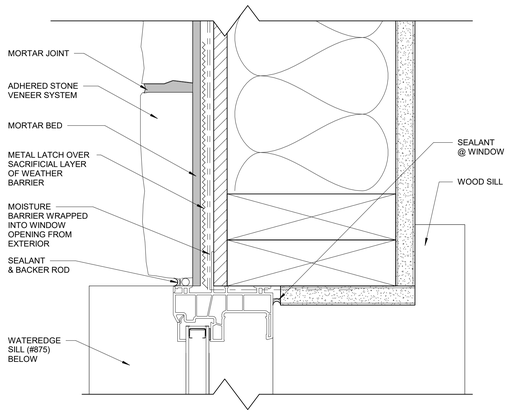
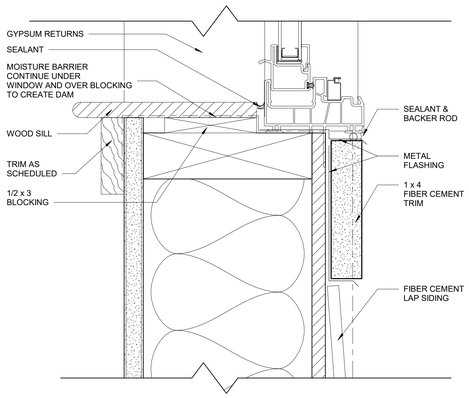
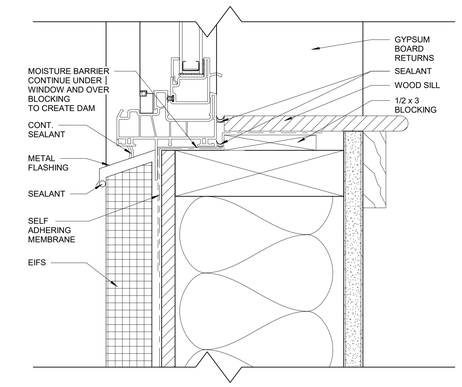


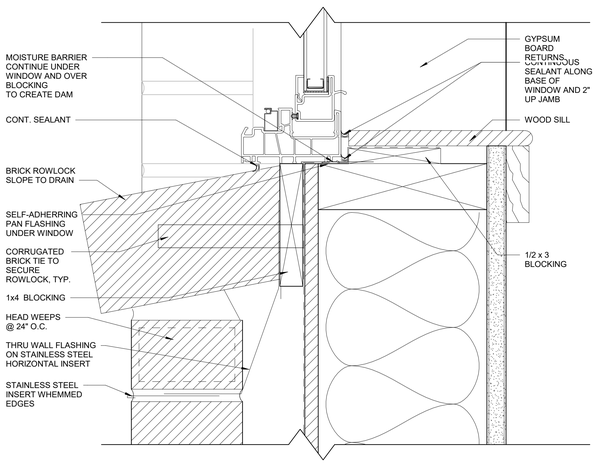
2 ENLARGED STONE JAMB DETAIL
6" = 1'-0"



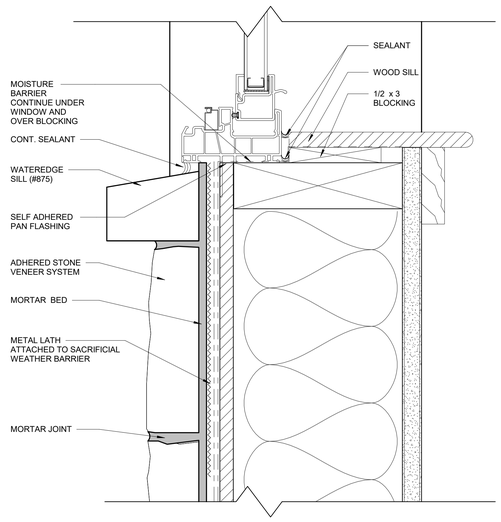
10 ENLARGED SIDING SILL DETAIL
6" = 1'-0"



7 ENLARGED EIFS SILL DETAIL
6" = 1'-0"



4 ENLARGED BRICK SILL DETAIL
6" = 1'-0"



1 ENLARGED STONE SILL DETAIL
6" = 1'-0"

MENU

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PLOT DATE
1/16/2021 3:09:00 PM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
10-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

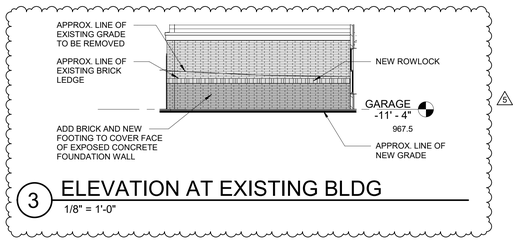
DRAWING TITLE

WINDOW HEAD, JAMB, & SILL DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

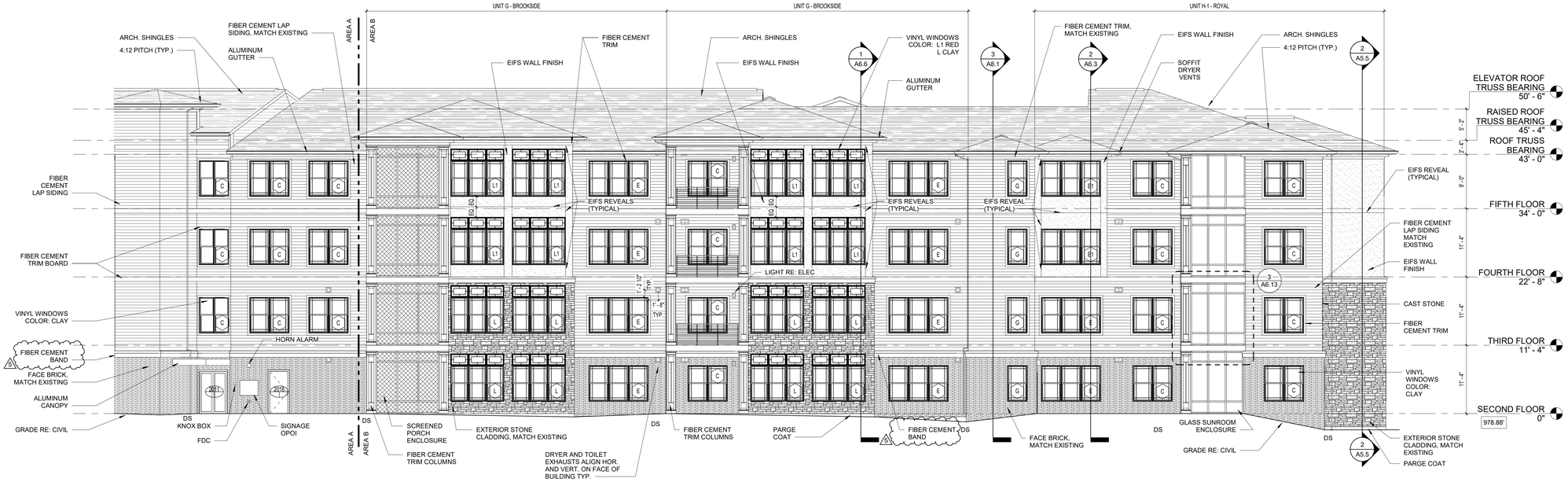
DRAWING A4.4

SHEET ____ OF ____



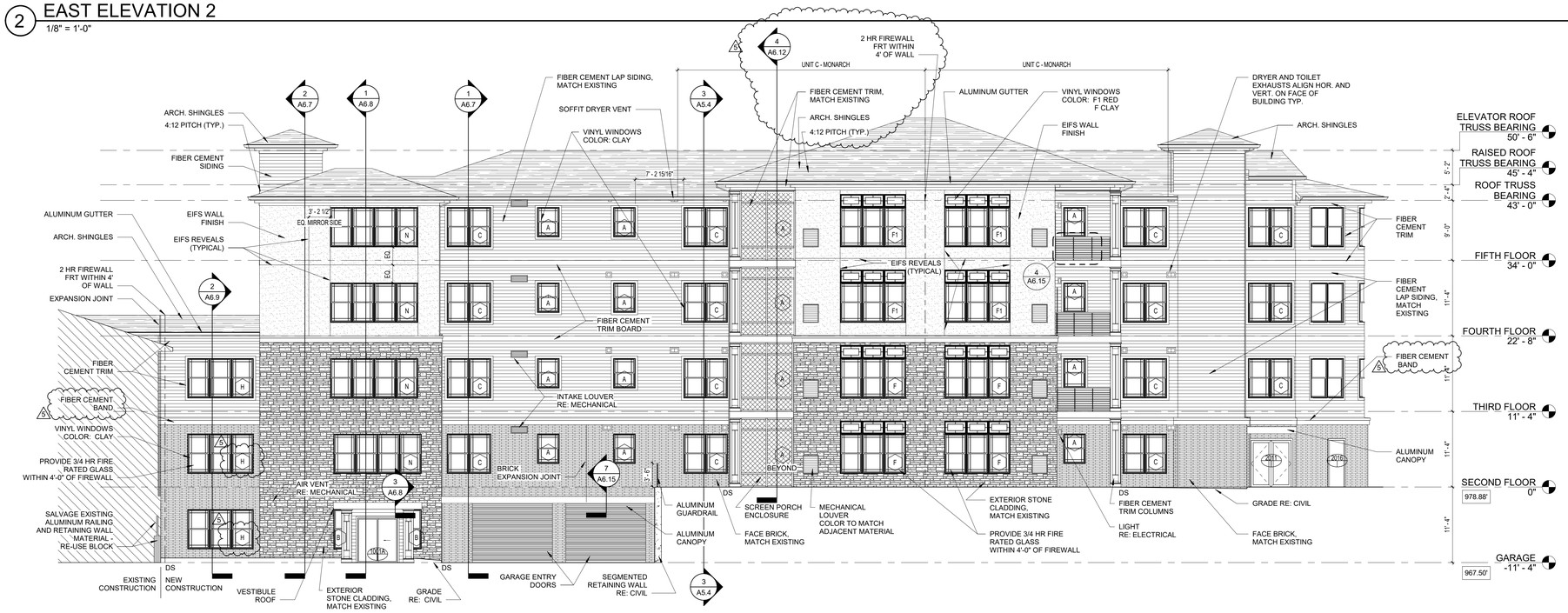
3 ELEVATION AT EXISTING BLDG

1/8" = 1'-0"



2 EAST ELEVATION 2

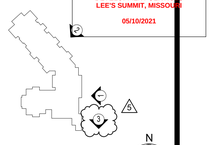
1/8" = 1'-0"



1 EAST ELEVATION

1/8" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



KEY PLAN

PERMIT SET

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	EHH/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

EXTERIOR ELEVATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A5.1 SHEET ____ OF ____

MENU

CAD VERSION

PLOT SCALE

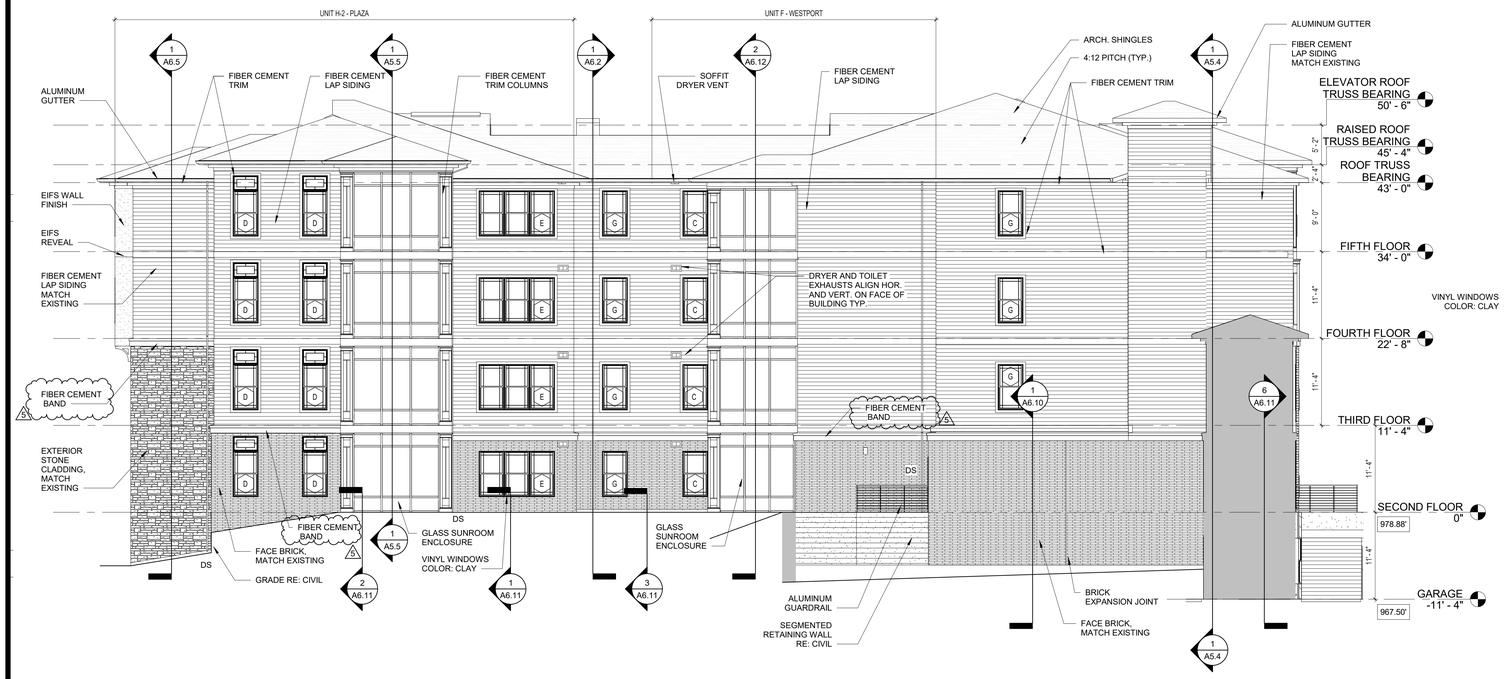
PLOT DATE 3/11/2021 10:03:40 AM

COMM NO.

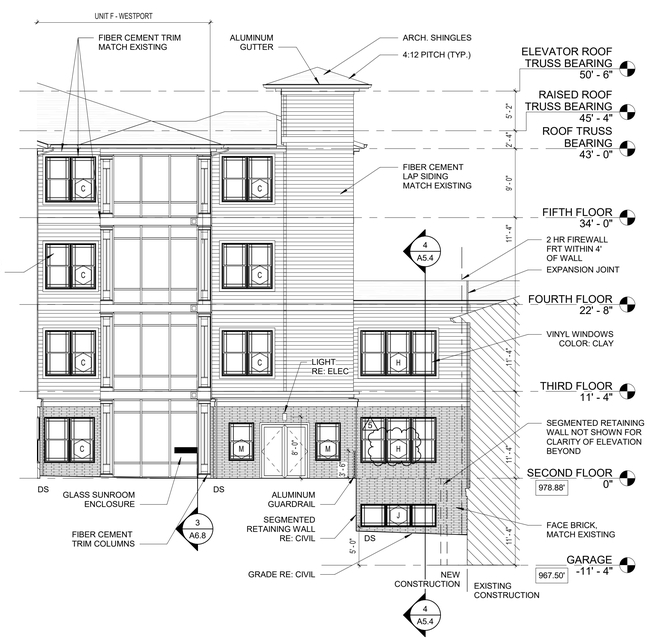
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

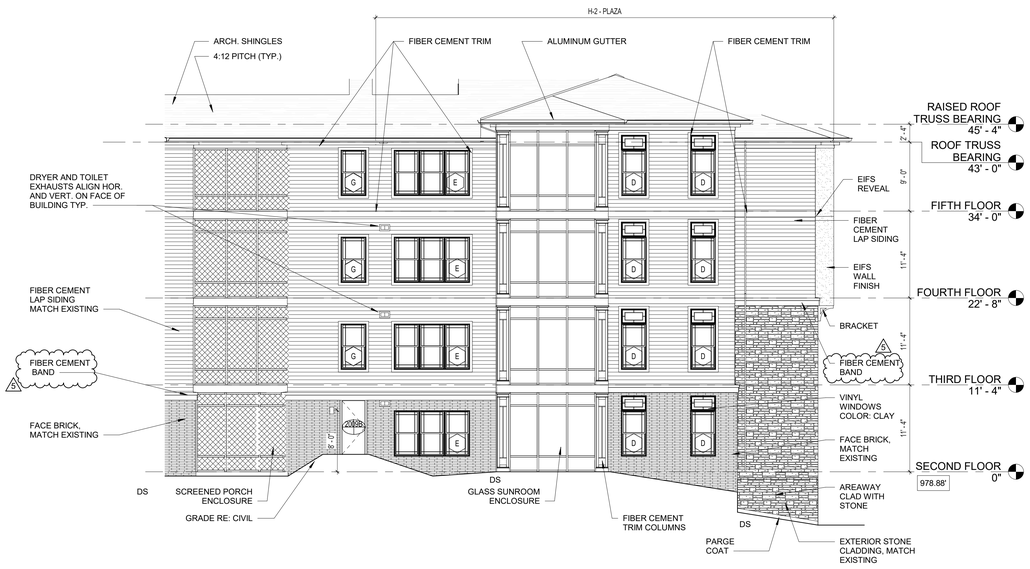
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



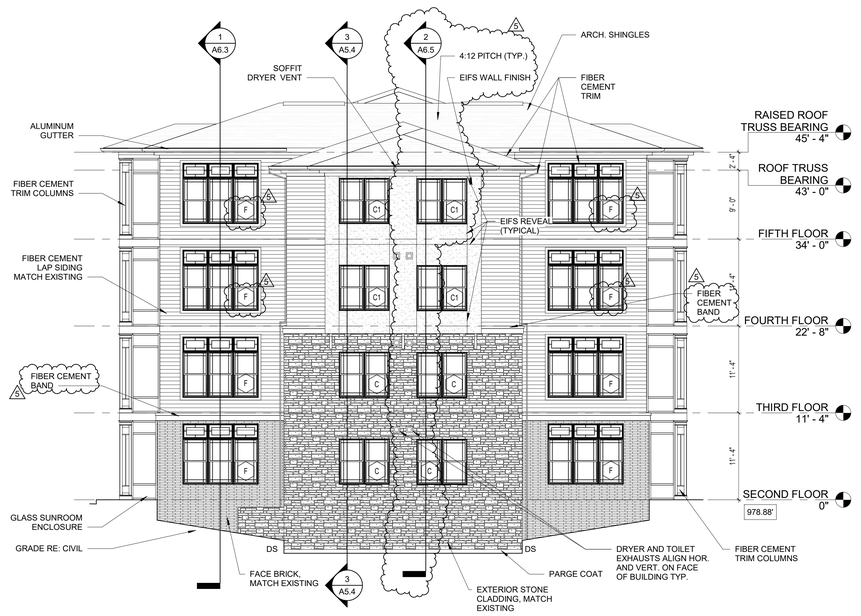
4 SOUTH ELEVATION
1/8" = 1'-0"



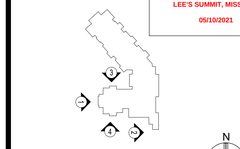
2 WEST ELEVATION - PATIO
1/8" = 1'-0"



3 NORTH INSIDE CORNER ELEVATION
1/8" = 1'-0"



1 WEST ELEVATION - PENINSULA
1/8" = 1'-0"



KEY PLAN

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUEGGE
NUMBER A-6802
REGISTERED ARCHITECT
12-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	EHH/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

EXTERIOR ELEVATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A5.2	____ OF ____

MENU

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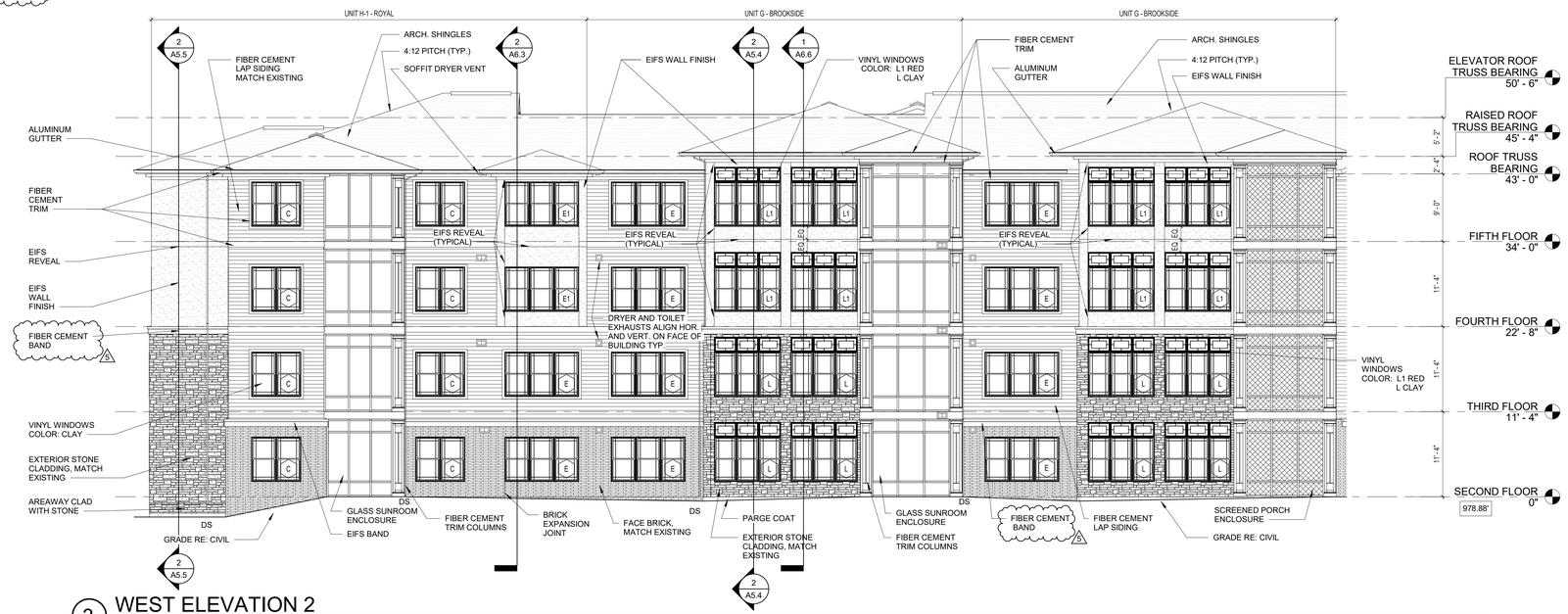
PLOT SCALE
3/11/2021 6:07:31 AM
DATE / TIME
COMM. NO.
DRAWING NO.

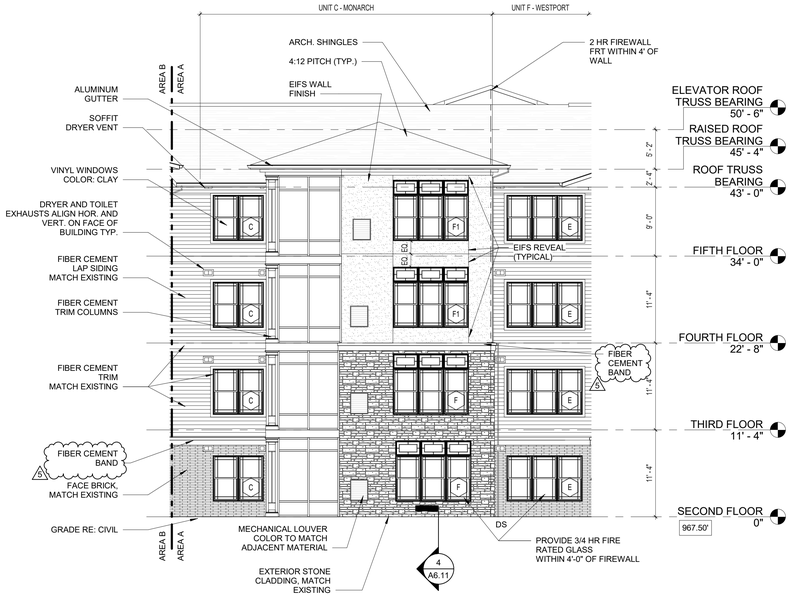
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

ADDED SECTION TAGS



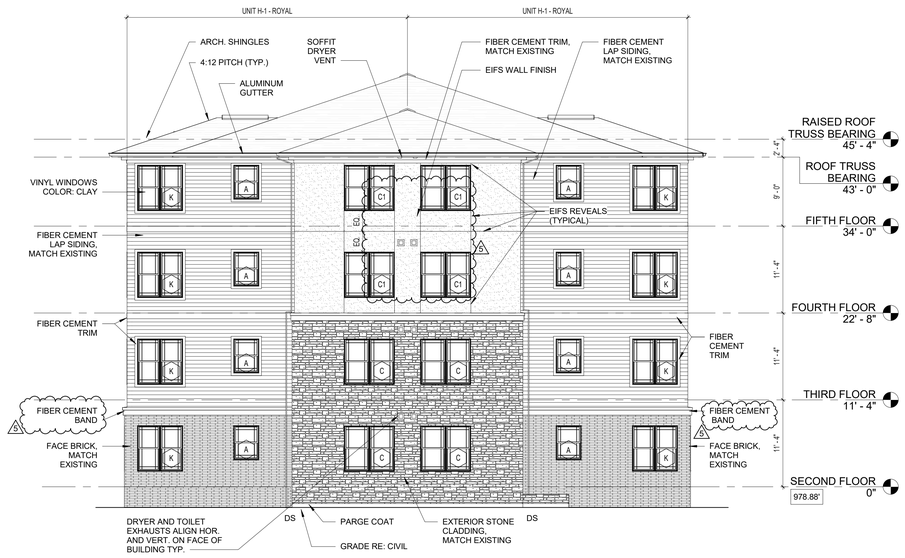
3 WEST ELEVATION 2

1/8" = 1'-0"



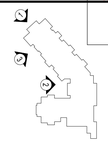
2 WEST ELEVATION

1/8" = 1'-0"



1 NORTH ELEVATION

1/8" = 1'-0"



KEY PLAN

N

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUESSIG
NUMBER A-6802
REGISTERED ARCHITECT
7-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	EHH/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
5	Addendum 1	03/10/21

DRAWING TITLE

EXTERIOR ELEVATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A5.3 SHEET ____ OF ____

MENU

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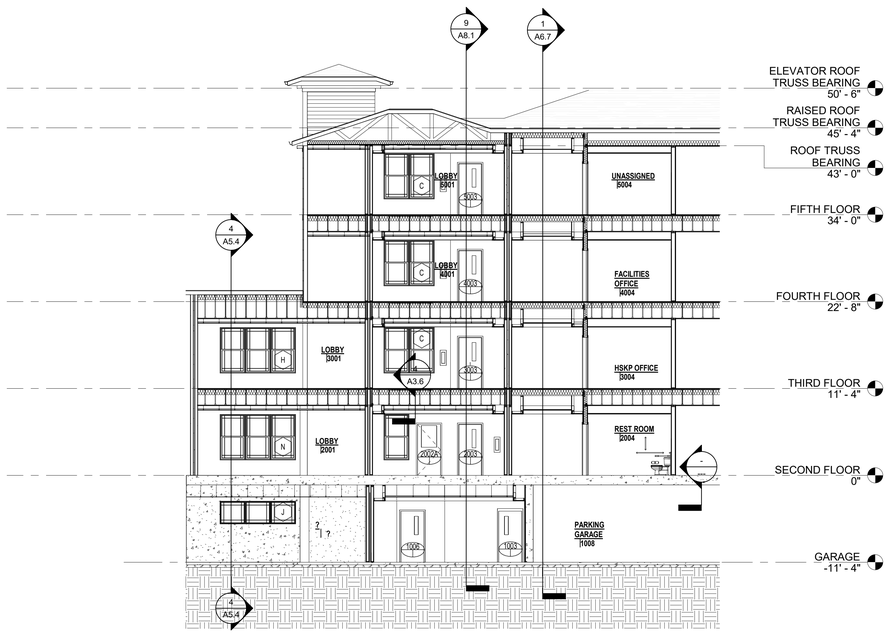
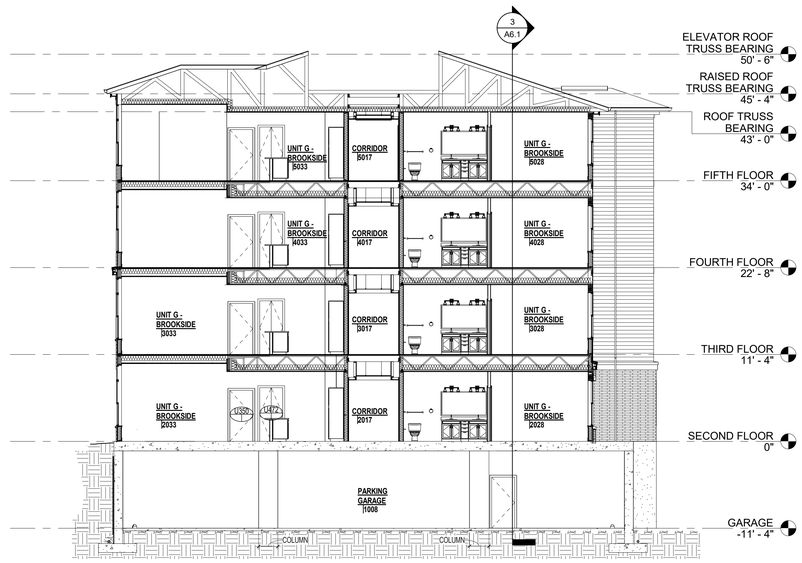
PLOT SCALE
PLOT DATE
3/11/2021 6:08:31 AM
DRWG. TITLE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

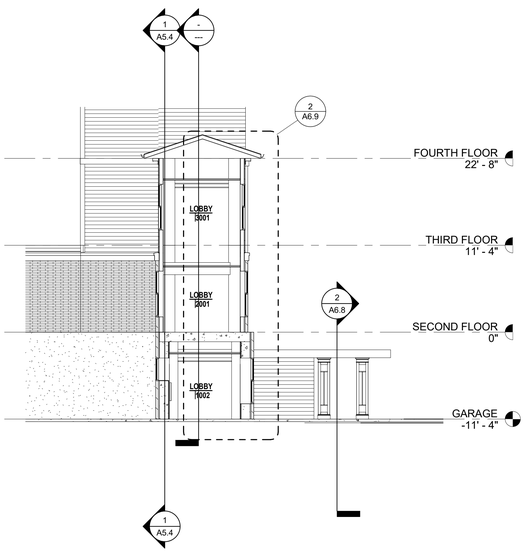


1 BUILDING SECTION AT CONNECTION TO PH. 1
1/8" = 1'-0"



2 BUILDING SECTION AT UNITS
1/8" = 1'-0"

3 BUILDING SECTION
1/8" = 1'-0"



4 BUILDING SECTION AT CONNECTOR
1/8" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
2/24/2021
10:07:34 AM
COMM. NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI
GREGORY M. JUNEMANN
NUMBER A-6802
REGISTERED ARCHITECT
2-24-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

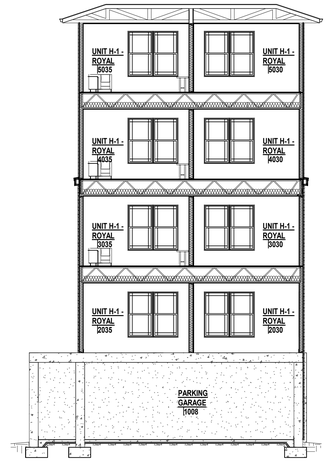
NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

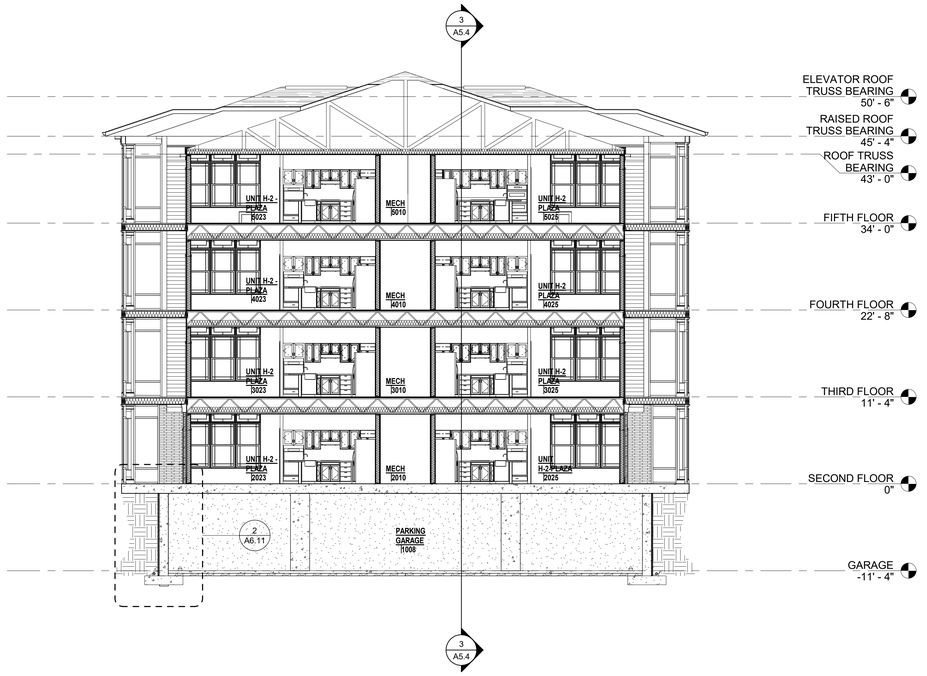
BUILDING SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A5.4	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



2 BUILDING SECTION @ END / AREAWAY
1/8" = 1'-0"



1 BUILDING SECTION AT AREA A
1/8" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
1/19/2021 8:25:26 AM
SHEET NO.
COMM NO.
DRAWING NO.

STATE OF MISSOURI TIMOTHY A. NUMBERS NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

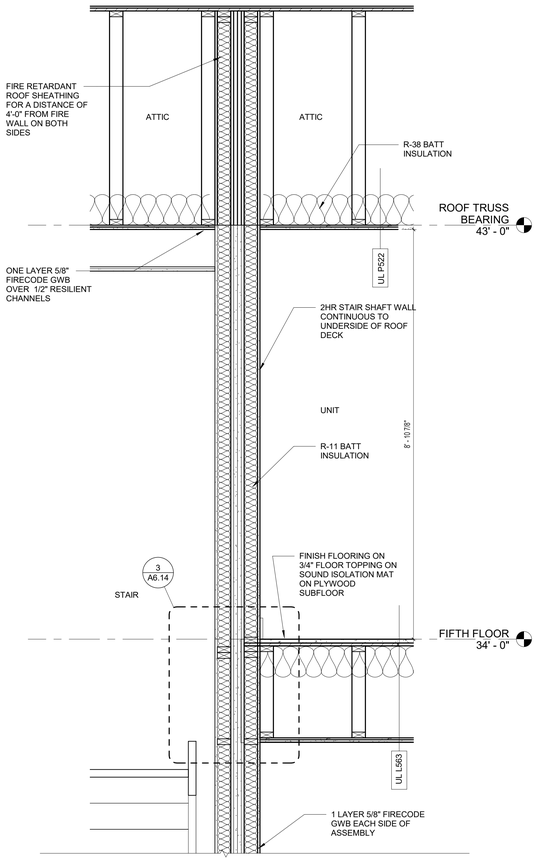
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

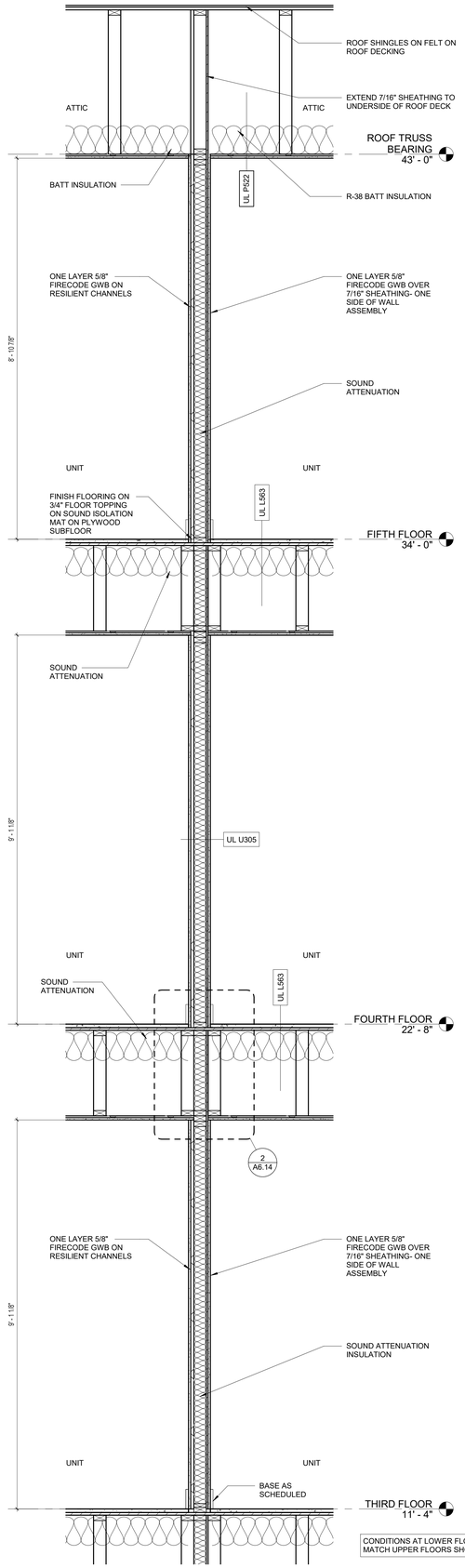
BUILDING SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A5.5	SHEET ____ OF ____

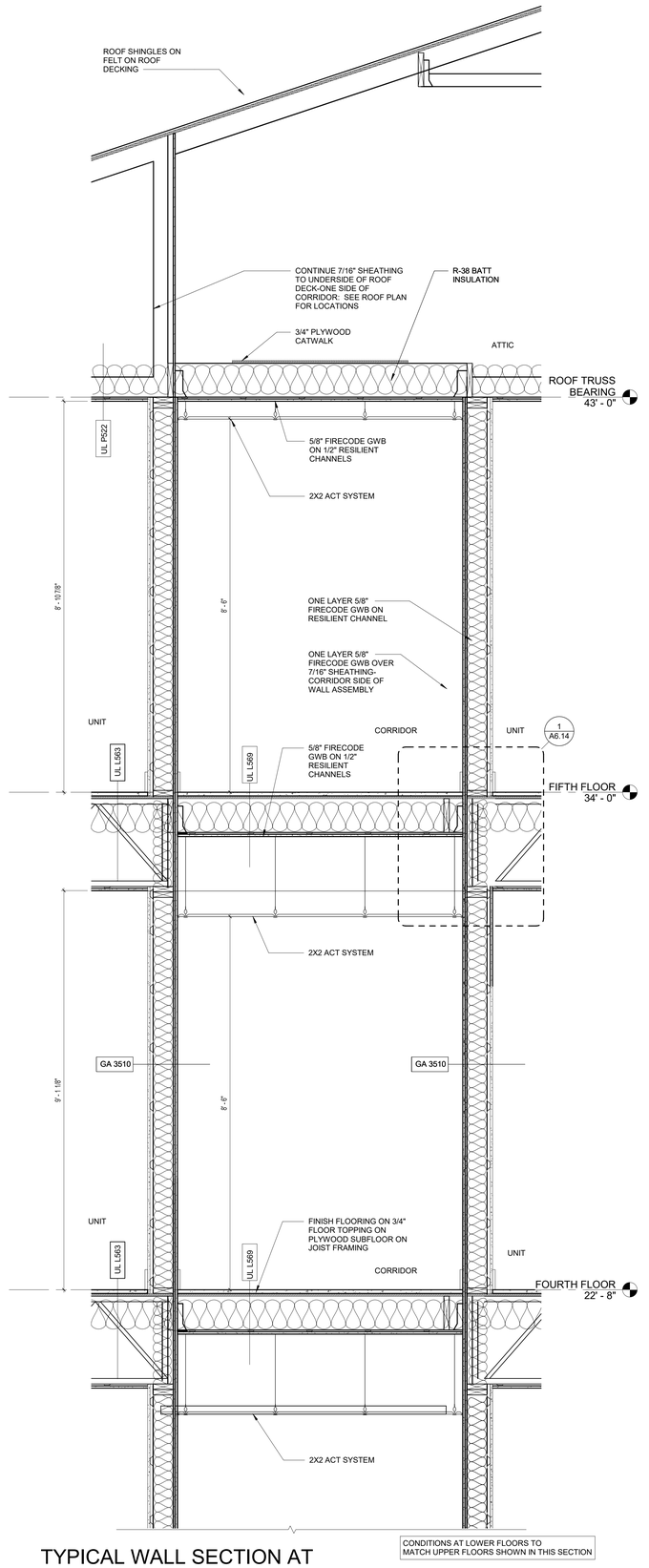
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/22/2021



3 TYPICAL SHAFT WALL
3/4" = 1'-0"



2 TYPICAL TENANT WALL SECTION
3/4" = 1'-0"



1 TYPICAL WALL SECTION AT CORRIDOR
3/4" = 1'-0"

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.

PERMIT SET

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

WALL SECTIONS - TYPICAL

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A6.1 SHEET ____ OF ____

MENU

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PLOT SCALE
PLOT DATE
2/24/2021 10:57:19 AM
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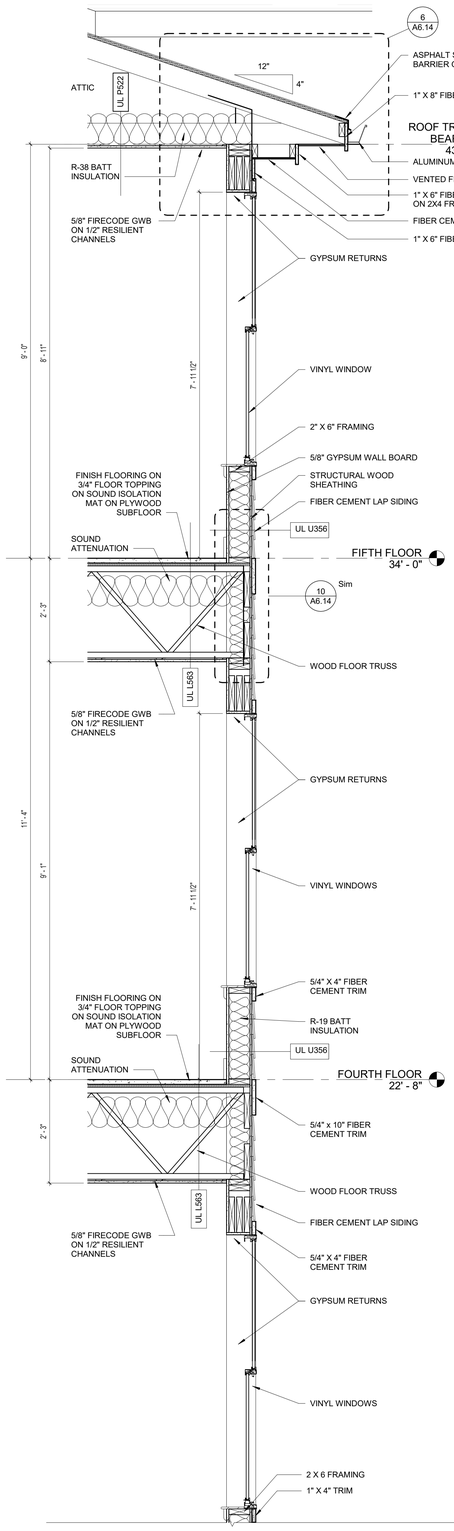
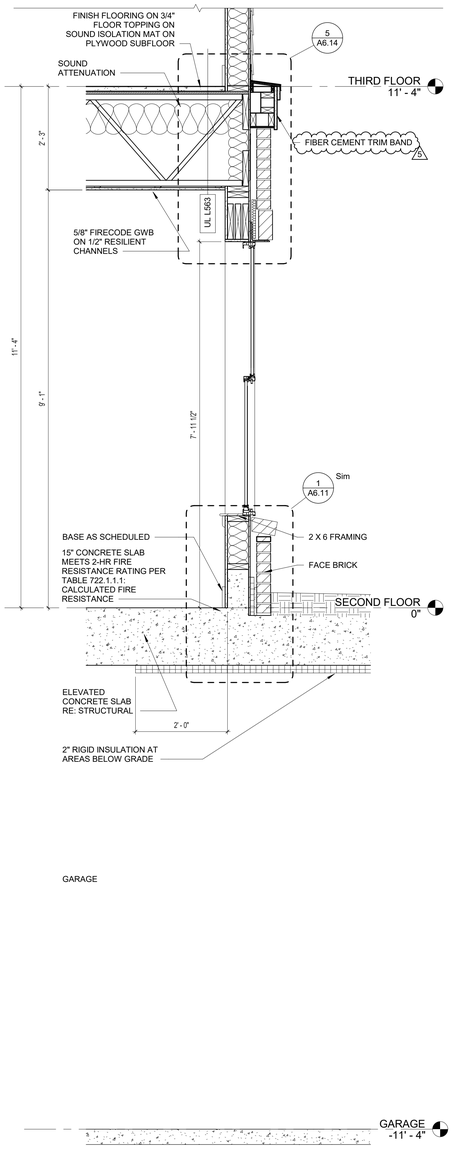
DRAWING NO.

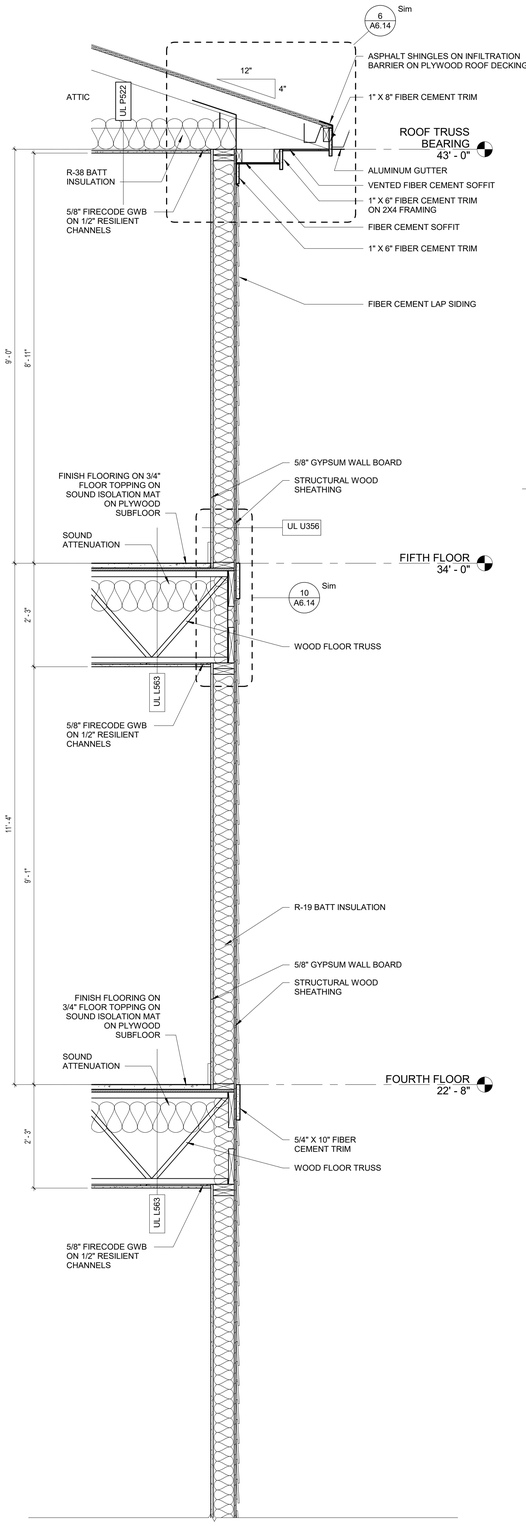
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

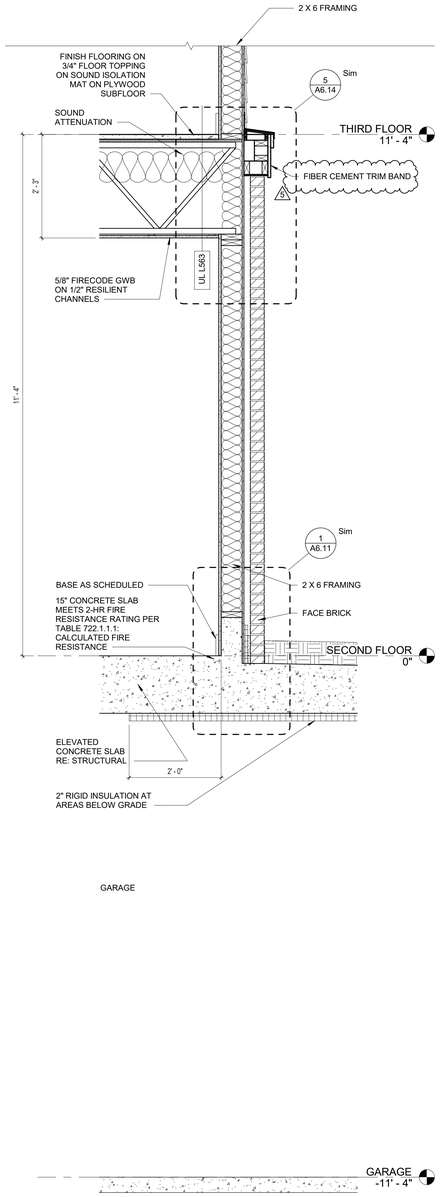




TYP WALL SECTION AT 1 STORY
BRICK - WINDOW STACK - OVER ELEVATED SLAB

2 3/4" = 1'-0"





TYP. WALL SECTION AT 1 STORY
BRICK - OVER ELEVATED SLAB

1 3/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/02/2021

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.

PERMIT SET

STATE OF MISSOURI · TIMOTHY A. MUELLER · NUMBER A-6802 · REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A6.2 SHEET ____ OF ____

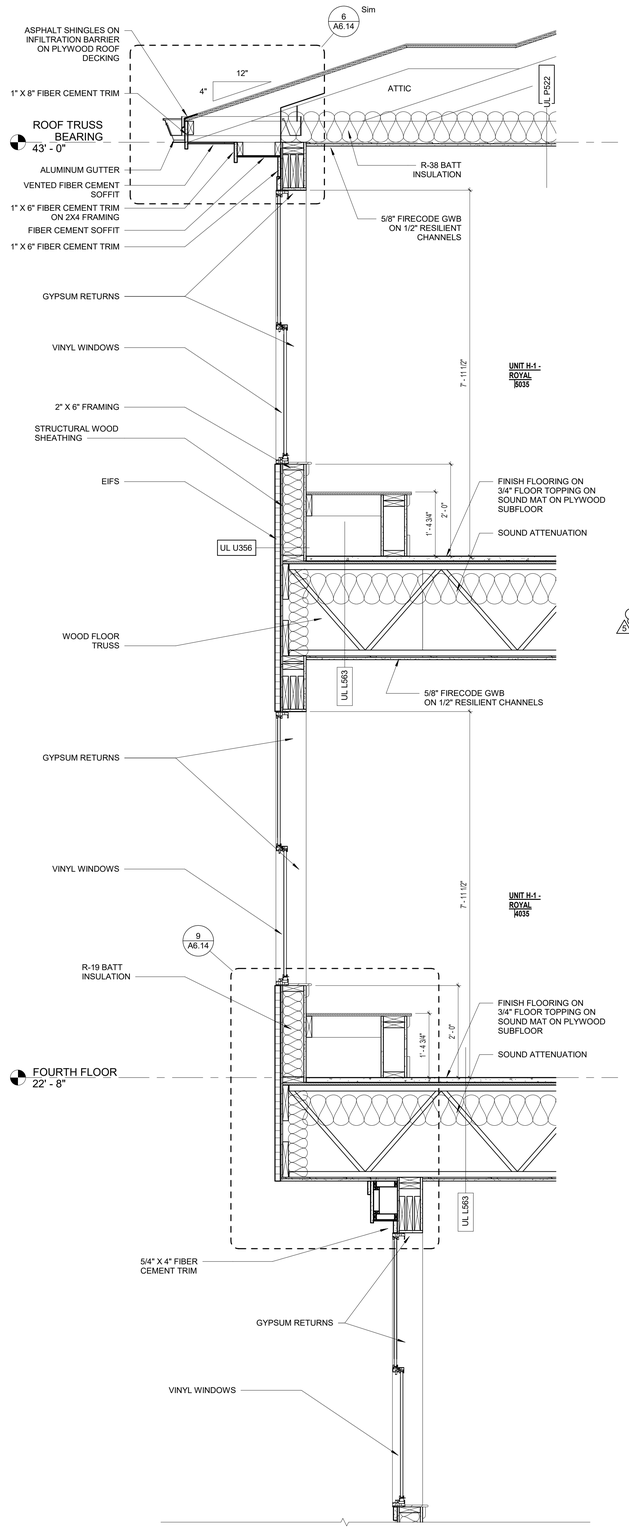
MENU

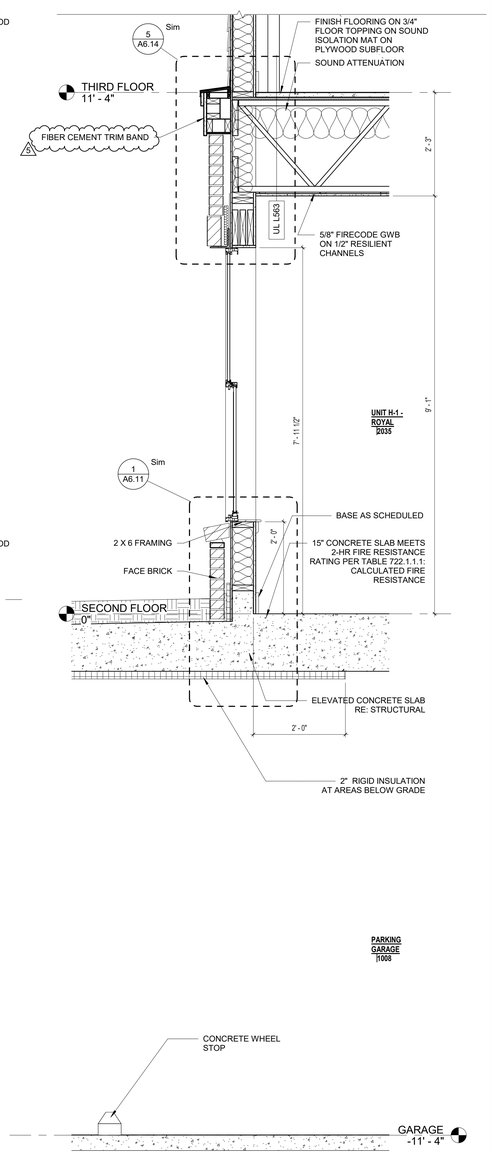
CAD VERSION
PLOT SCALE
PLOT DATE 3/11/2021 6:11:21 AM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Mar 10, 2021

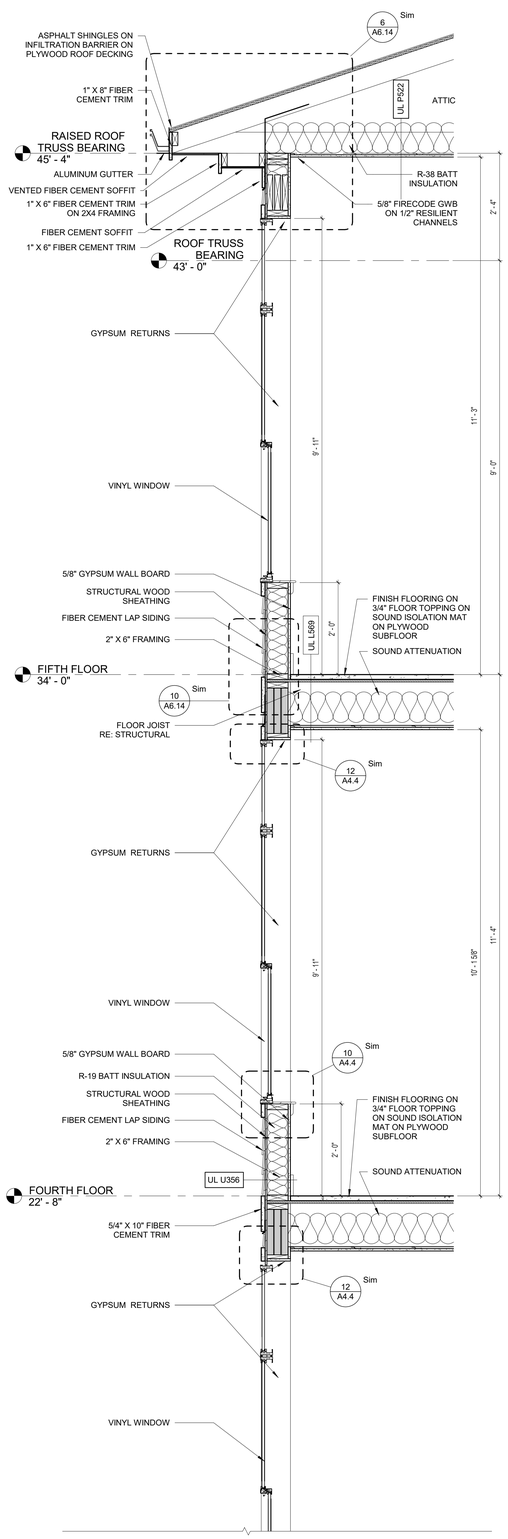
1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.

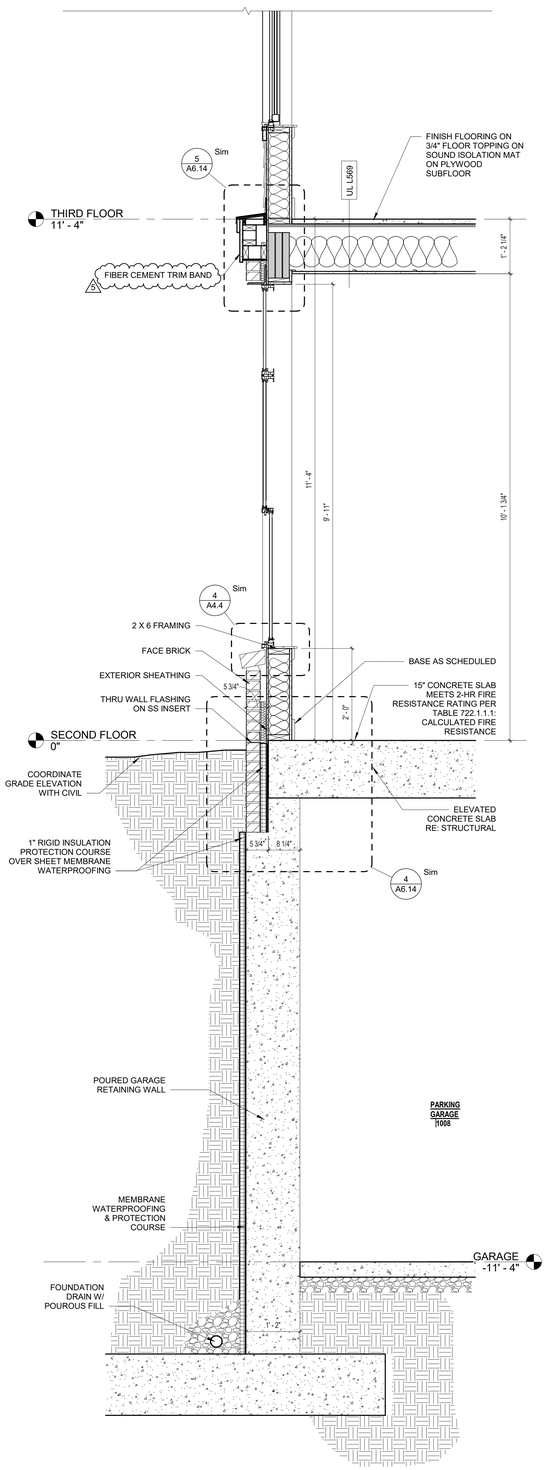




WALL SECTION AT 1 STORY BRICK - BAY WINDOW

2 3/4" = 1'-0"





TYP WALL SECTION AT 1 STORY BRICK - TRANSOM

1 3/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI — TIMOTHY A. MUELLER — NUMBER A-6802 — REGISTERED ARCHITECT — 12-31

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: KLM/DAS
CHECKED BY	: AAT
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE
2	FDP Responses	02/09/21
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

COMM. NO. 19132.00	DATE JANUARY 18, 2021
DRAWING A6.3	SHEET ____ OF ____

MENU

CAD VERSION
PLOT SCALE
PLOT DATE 3/11/2021 6:14:34 AM
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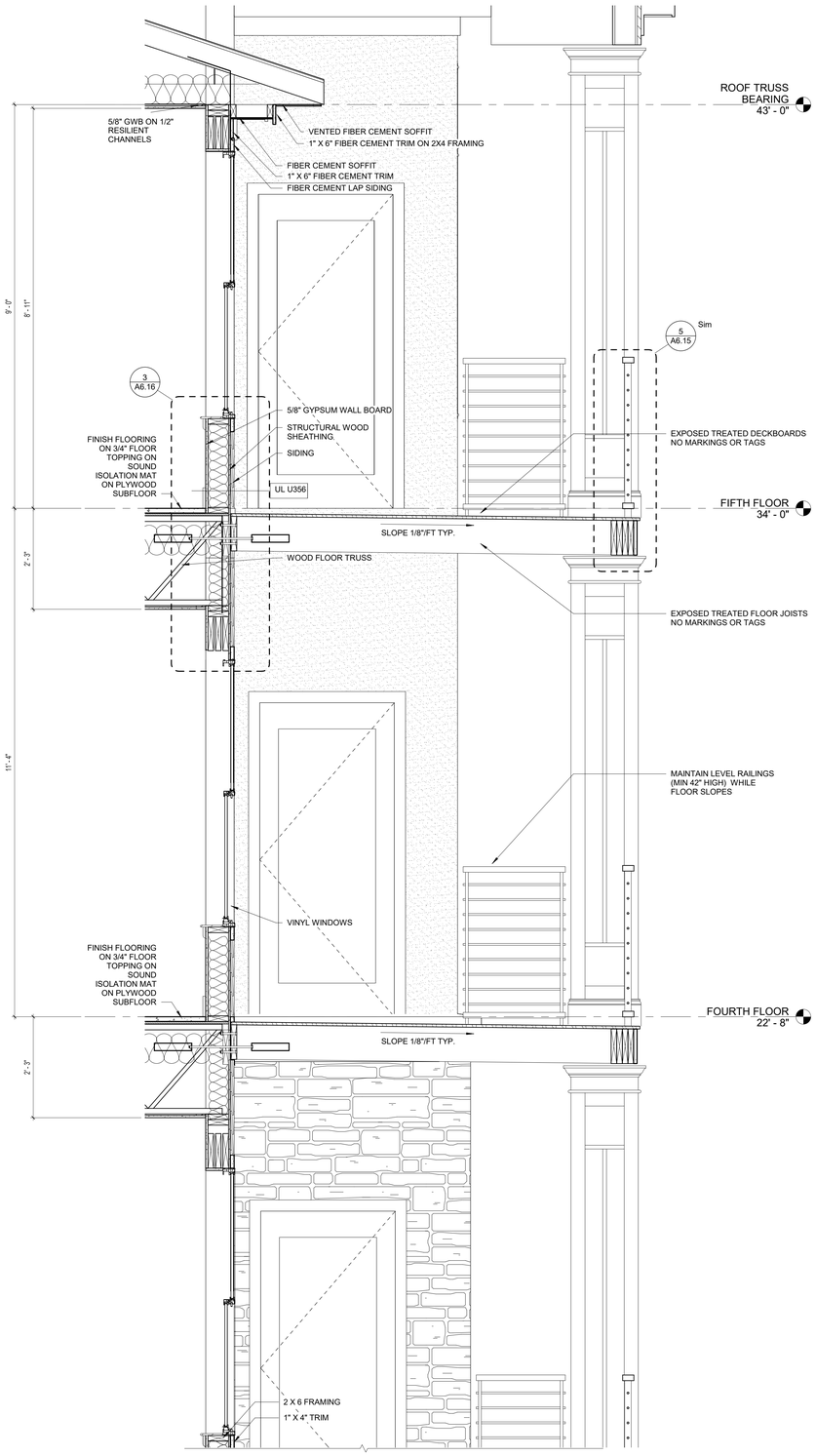
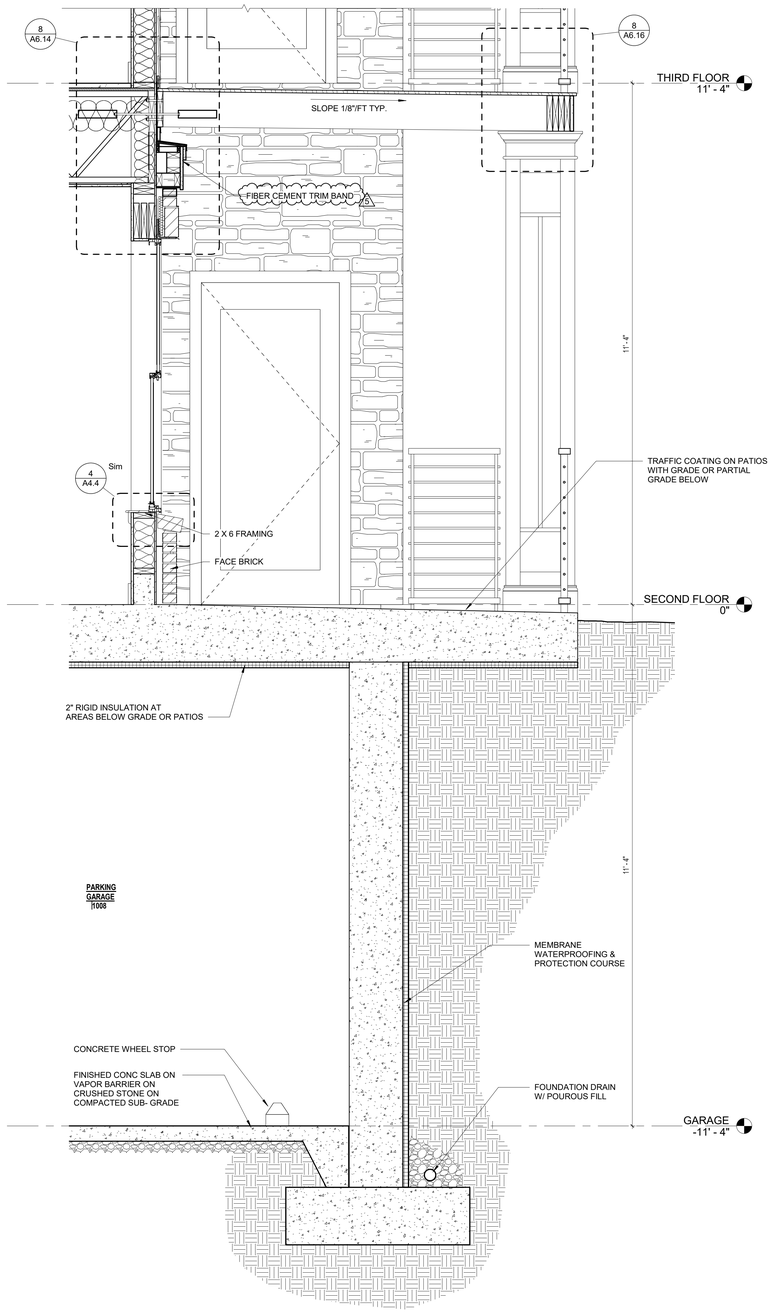
DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/10/2021





1 WALL SECTION AT 1 STORY BRICK - BALCONY
3/4" = 1'-0"

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.

PERMIT SET

STATE OF MISSOURI · DAVID A. SCHMITT · NUMBER A-6802 · REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A6.4	SHEET ____ OF ____

MENU

CAD VERSION
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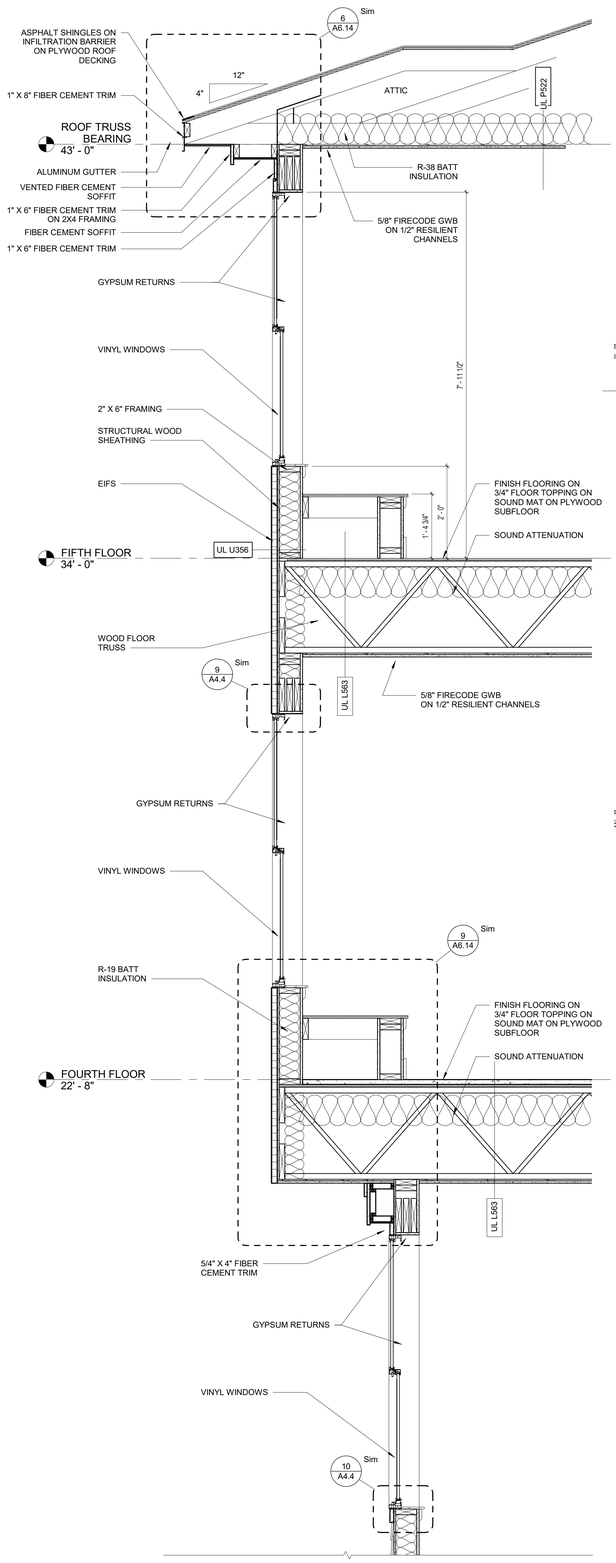
PLOT DATE 3/11/2021 6:15:46 AM
SAVE DATE
COMM. NO.
DRAWING NO.

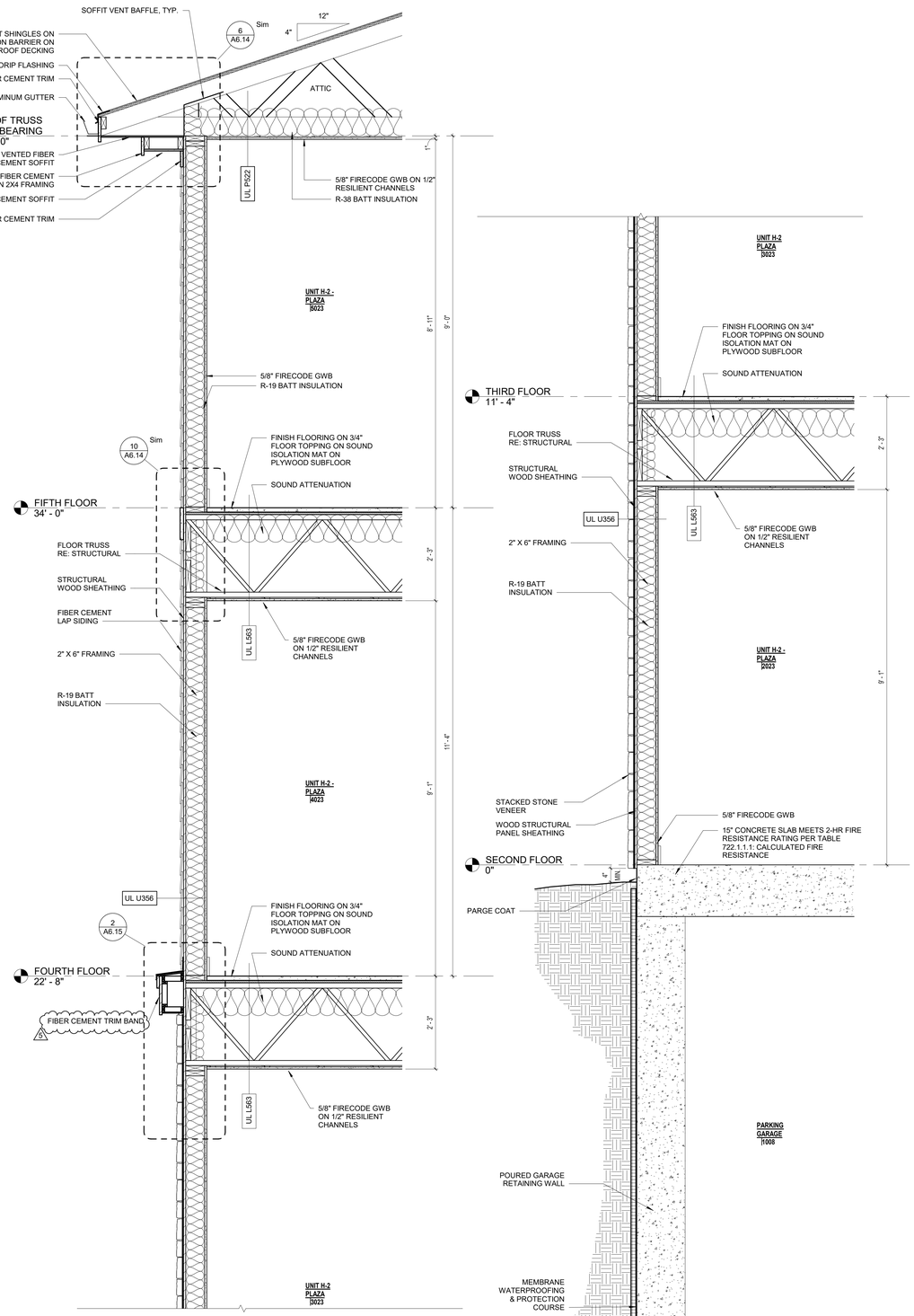
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/22/2021

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



2 WALL SECTION AT 2 STORY STONE - BAY WINDOW
3/4" = 1'-0"



1 WALL SECTION AT 2 STORY STONE
3/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MURPHY NUMBER A-5802 REGISTERED ARCHITECT
3-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A6.5 SHEET ____ OF ____

MENU

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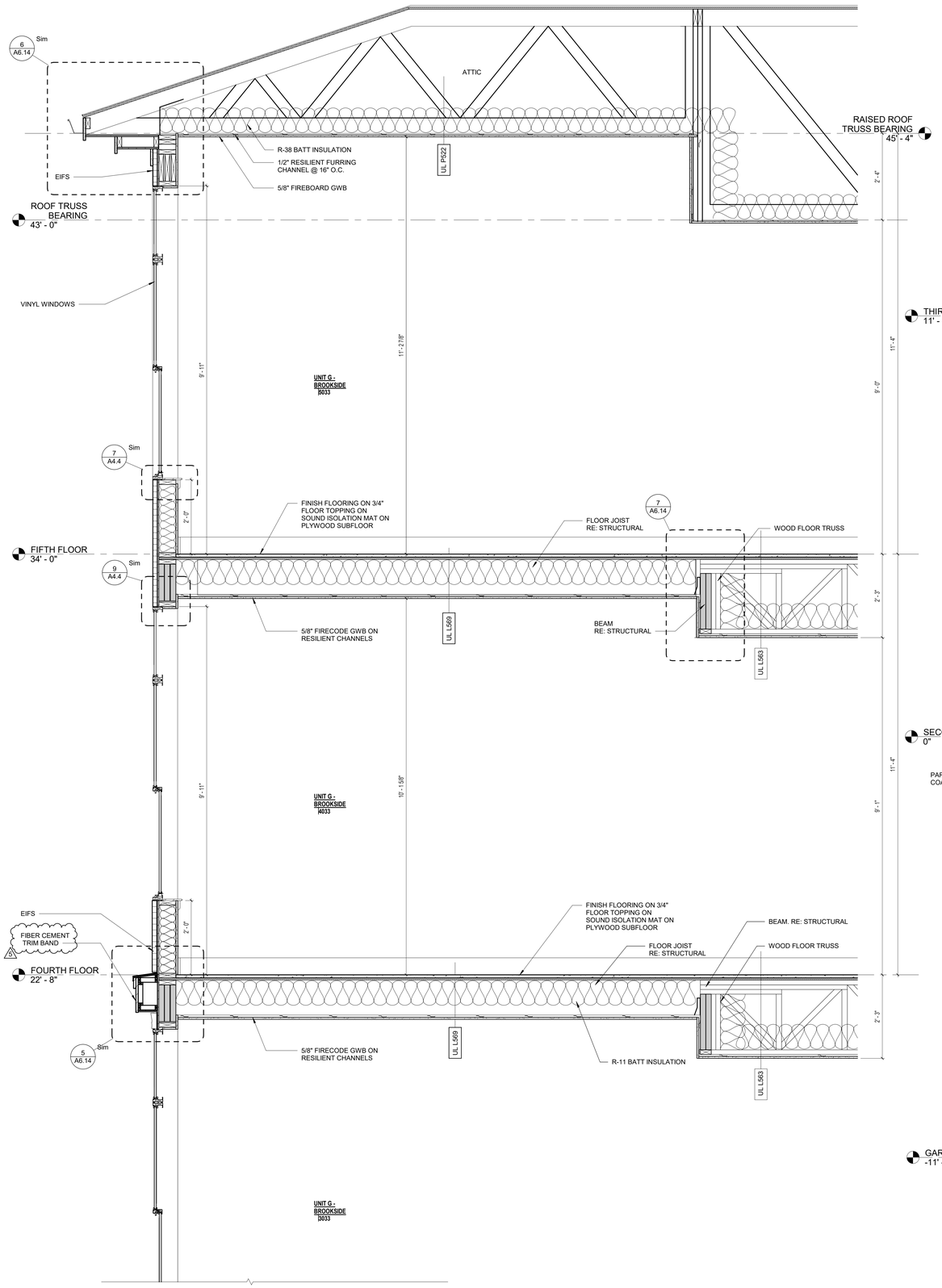
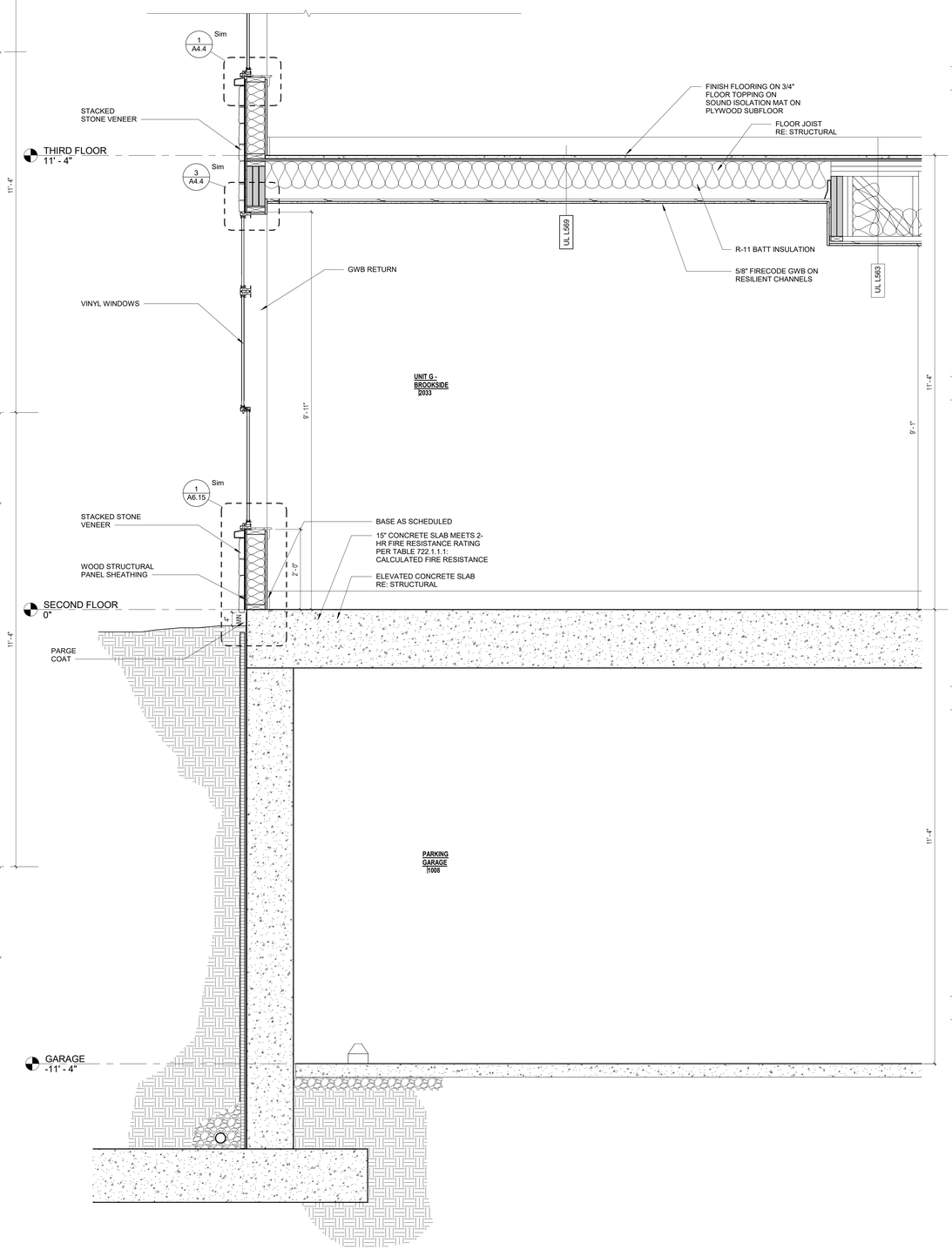
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/10/2021

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.





1 WALL SECTION AT RAISED CEILING/ TRANSOM

3/4" = 1'-0"

MENU

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PLOT DATE 3/11/2021 6:18:43 AM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM/DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
5	Addendum 1	03/10/21

DRAWING TITLE

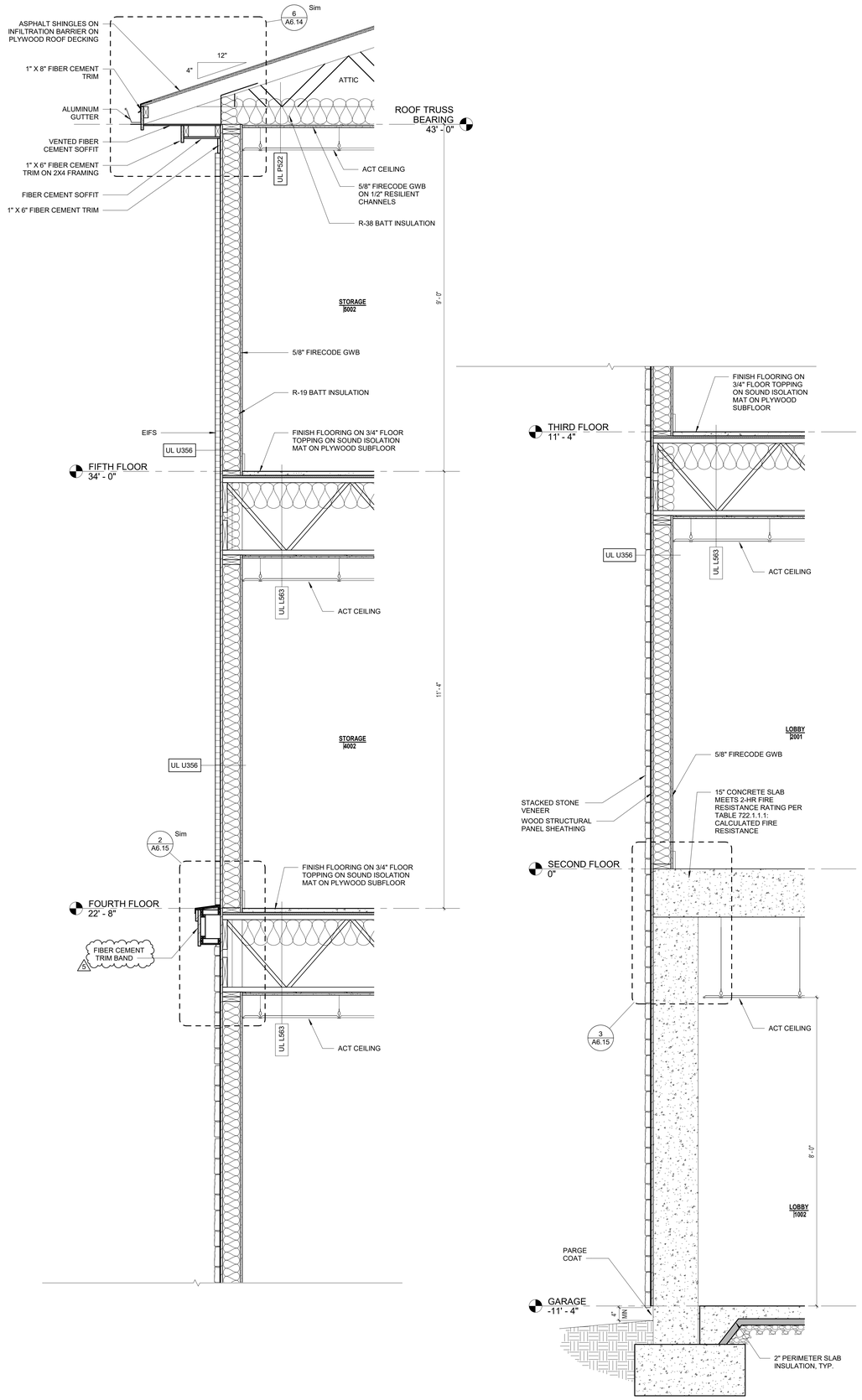
WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A6.6	____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

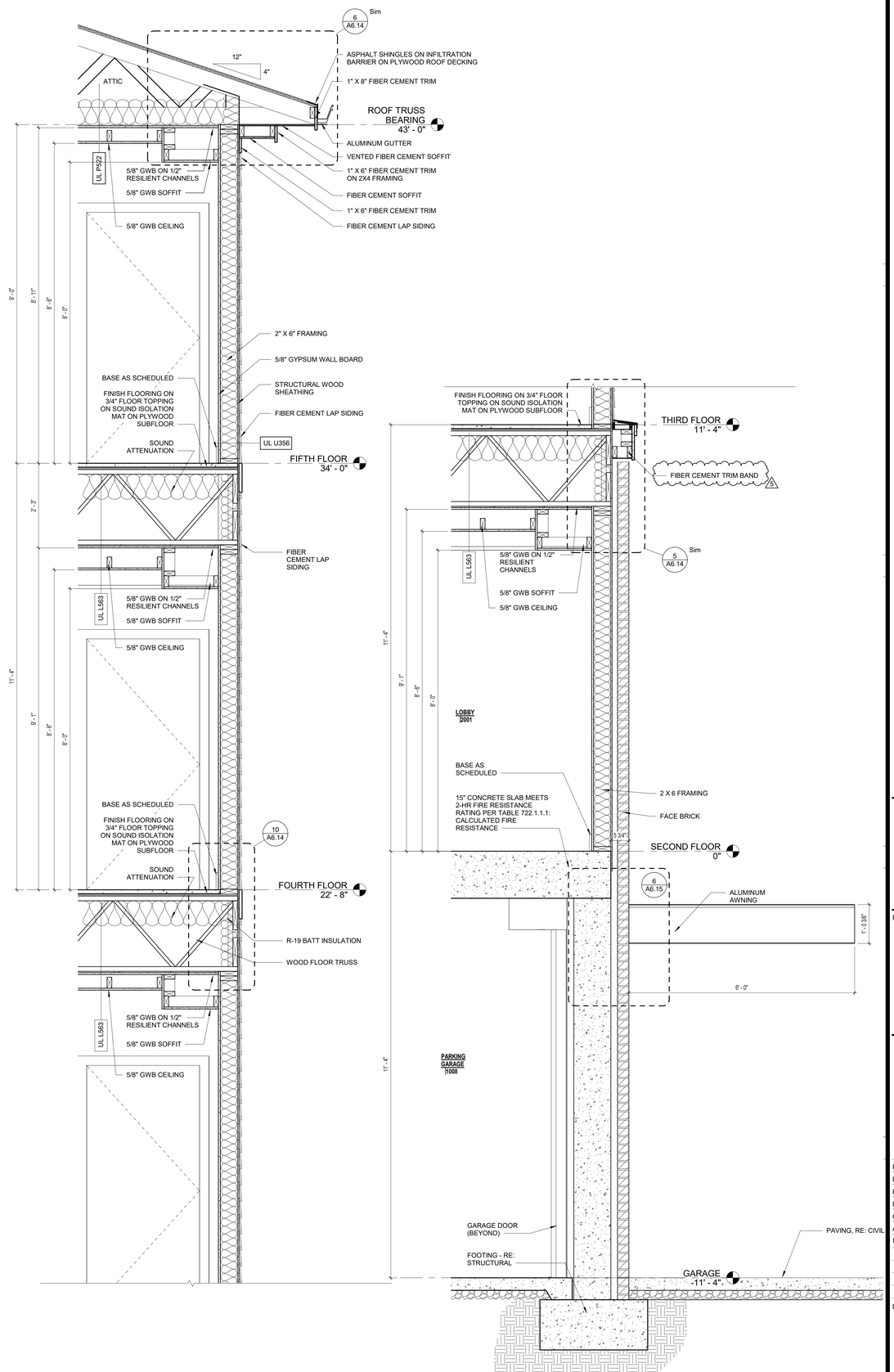
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/22/2021

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



WALL SECTION AT 3 STORY STONE - ENTRY

2 3/4" = 1'-0"



WALL SECTION AT GARAGE ENTRANCE

1 3/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI — TIMOTHY A. HUBER — NUMBER A-6802 — REGISTERED ARCHITECT — 3-9-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A6.7	SHEET ____ OF ____

MENU

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PLOT DATE 3/11/2021 6:22:33 AM
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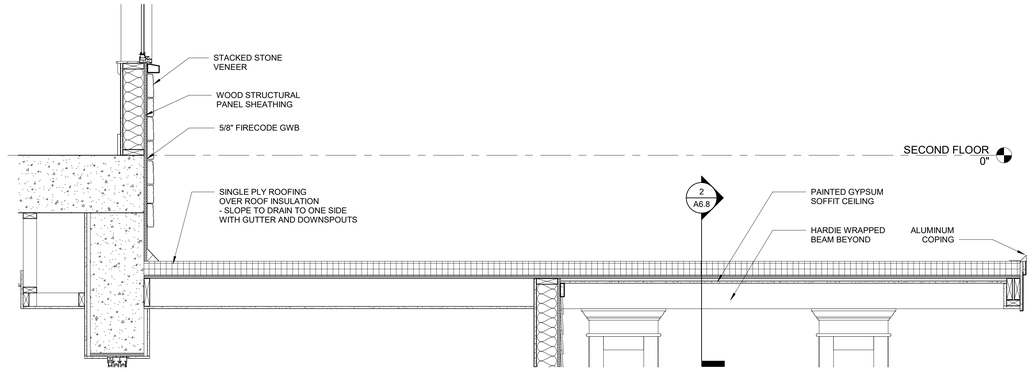
DRAWING NO.

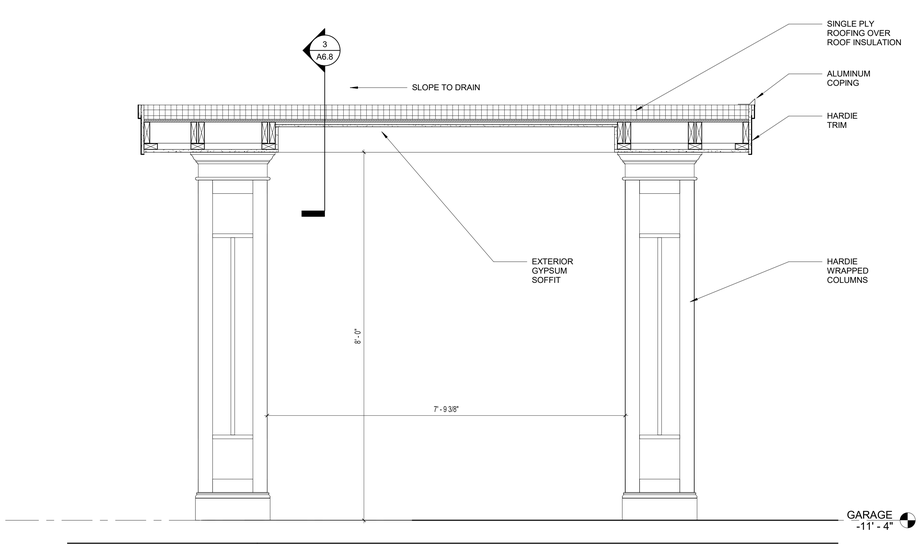
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/22/2021

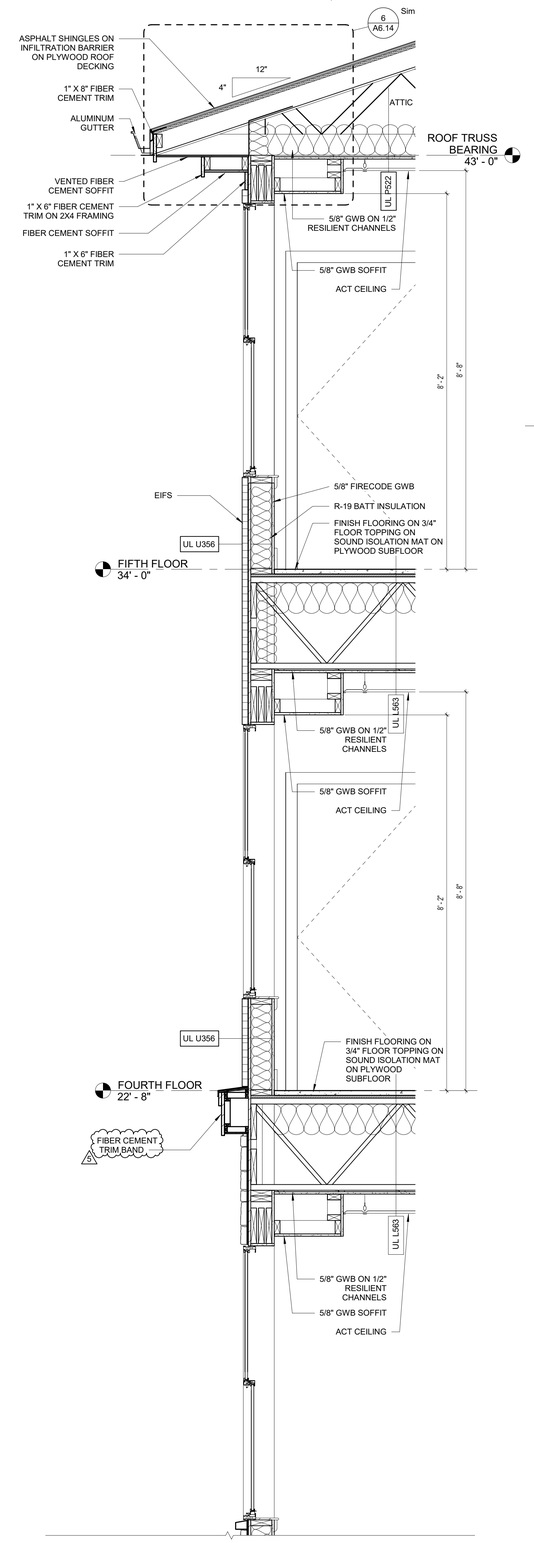
1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



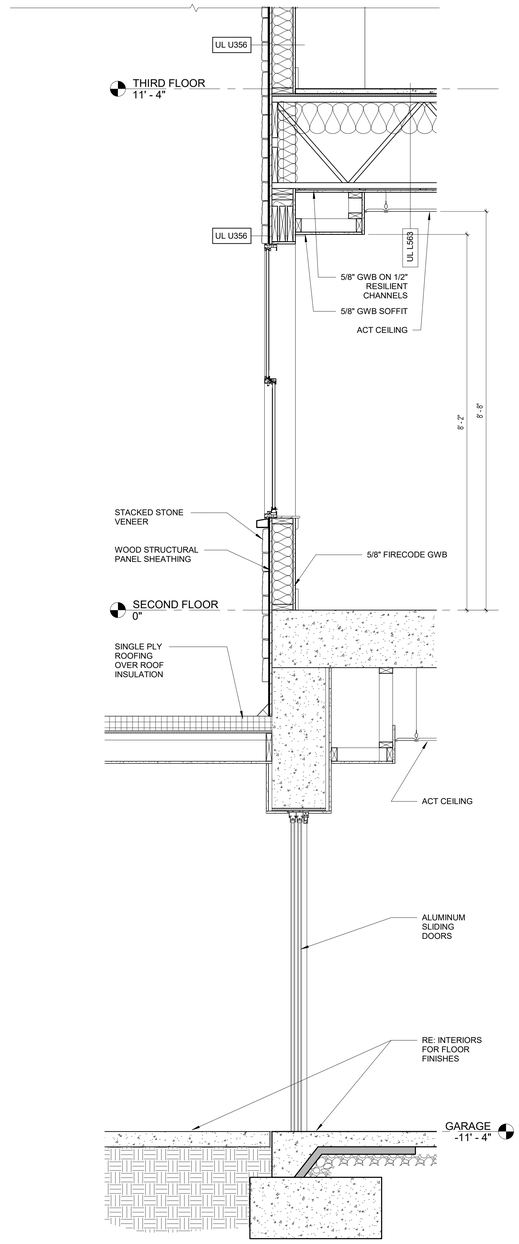
3 SECTION - ENTRY CANOPY
3/4" = 1'-0"



2 ENTRY - CROSS
3/4" = 1'-0"



1 WALL SECTION AT 3 STORY STONE - WINDOWS
3/4" = 1'-0"



MENU

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PLOT DATE: 3/11/2021 6:23:39 AM
PLOT BY:
COMM. NO.:
DRAWING NO.:

PERMIT SET

STATE OF MISSOURI TIMOTHY A. AMBERG NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 • Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	KLM/DAS
CHECKED BY	AAT
APPROVED BY	

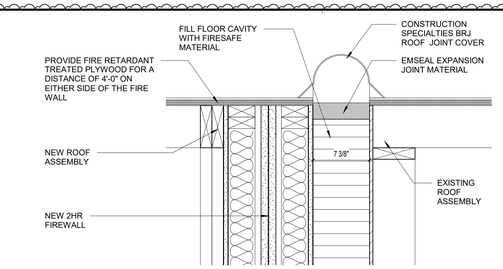
NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

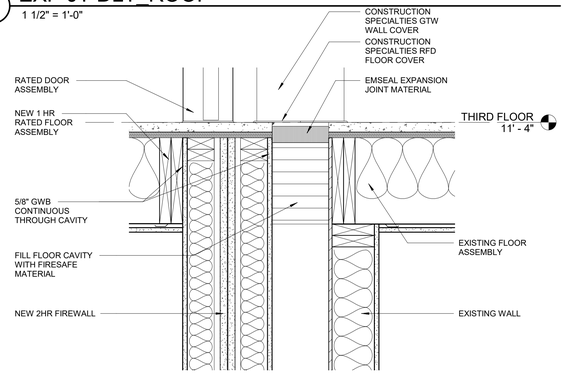
WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

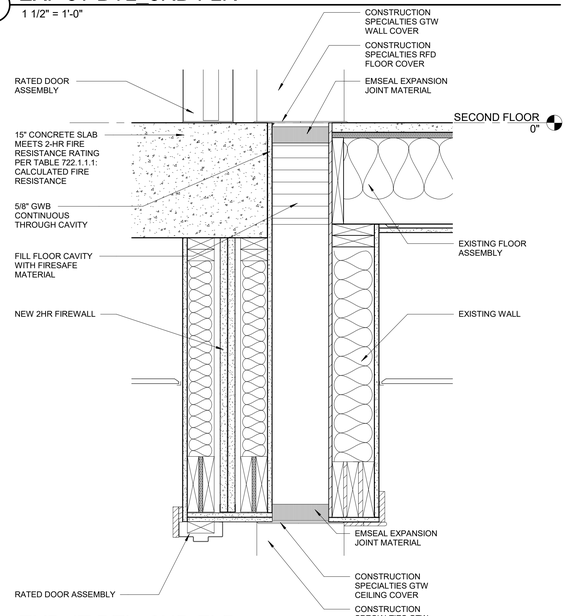
DRAWING A6.8 SHEET ____ OF ____



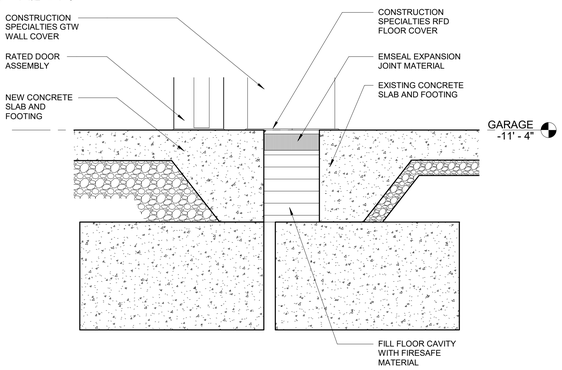
6 EXP JT DLT_ROOF
1 1/2" = 1'-0"



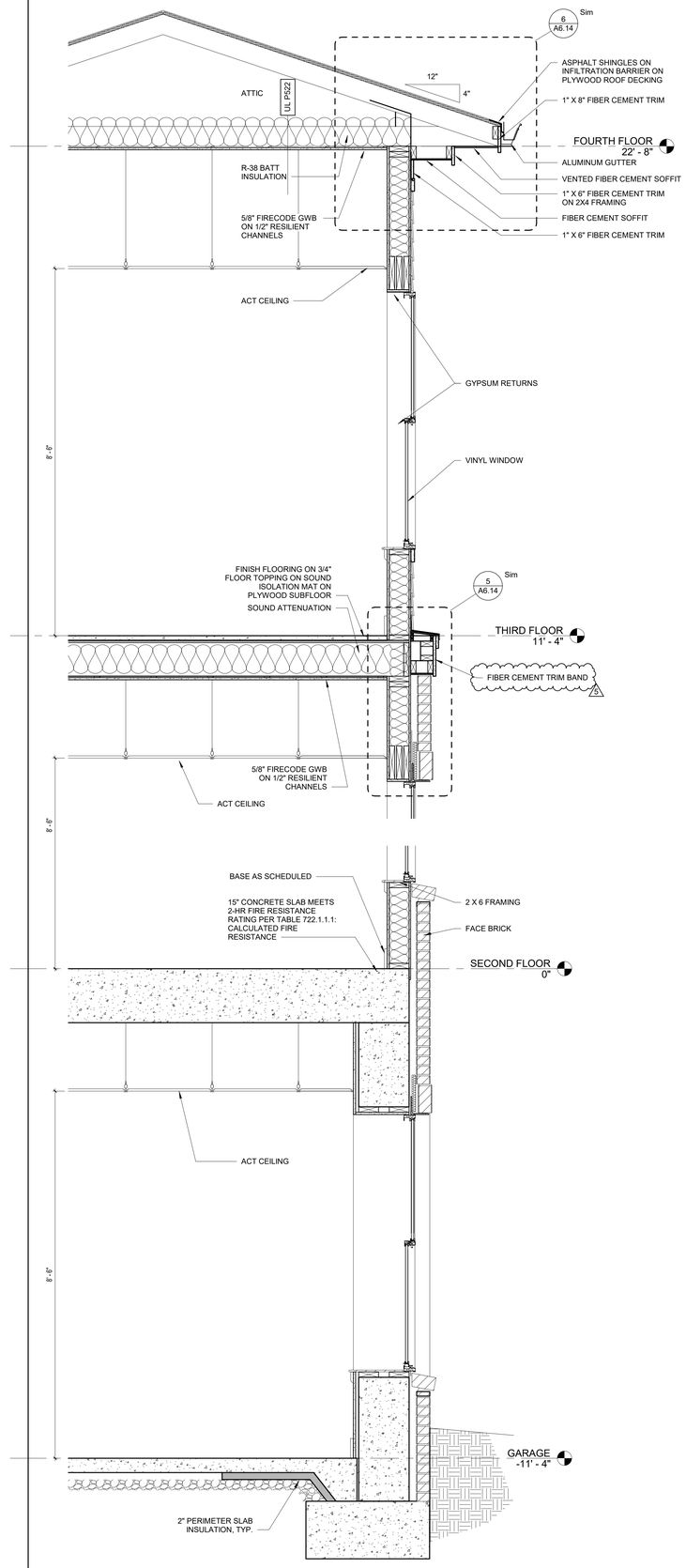
5 EXP JT DTL_3RD FLR
1 1/2" = 1'-0"



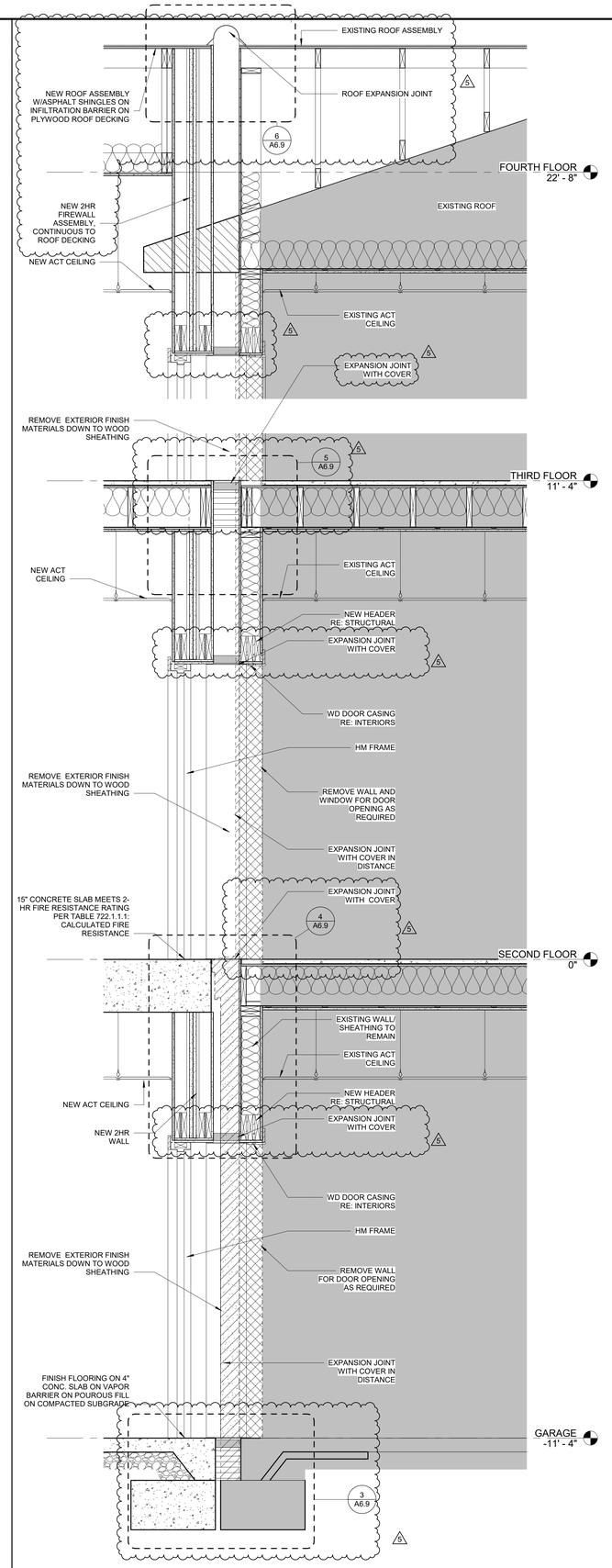
4 EXP JT DTL_2ND FLR
1 1/2" = 1'-0"



3 EXP JT DTL_1ST FLR
1 1/2" = 1'-0"



2 CORRIDOR CONNECTION - CROSS
3/4" = 1'-0"



1 CORRIDOR CONNECTION - TO EXISTING
3/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/02/2021

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.

PERMIT SET

STATE OF MISSOURI · TIMOTHY A. MUELLER · NUMBER A-6802 · REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
4	FDP Responses 2	02/23/21
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A6.9 SHEET ____ OF ____

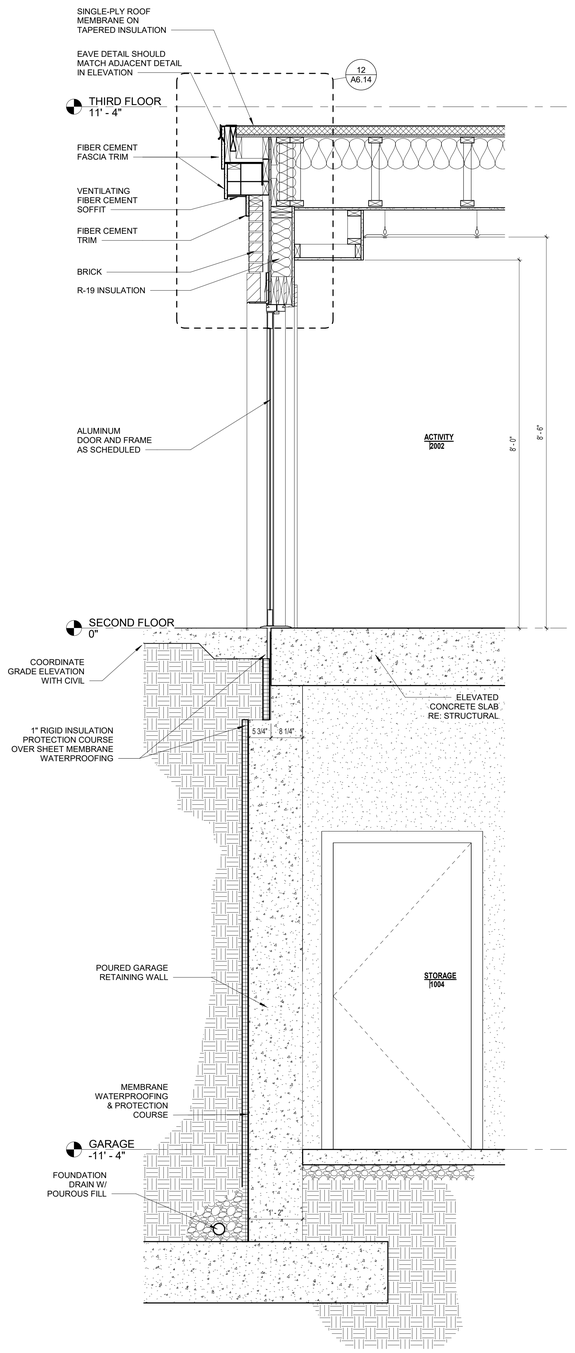
MENU

CAD VERSION
PLOT SCALE
PLOT DATE 3/11/2021 10:04:17 AM
COMM. NO.
DRAWING NO.

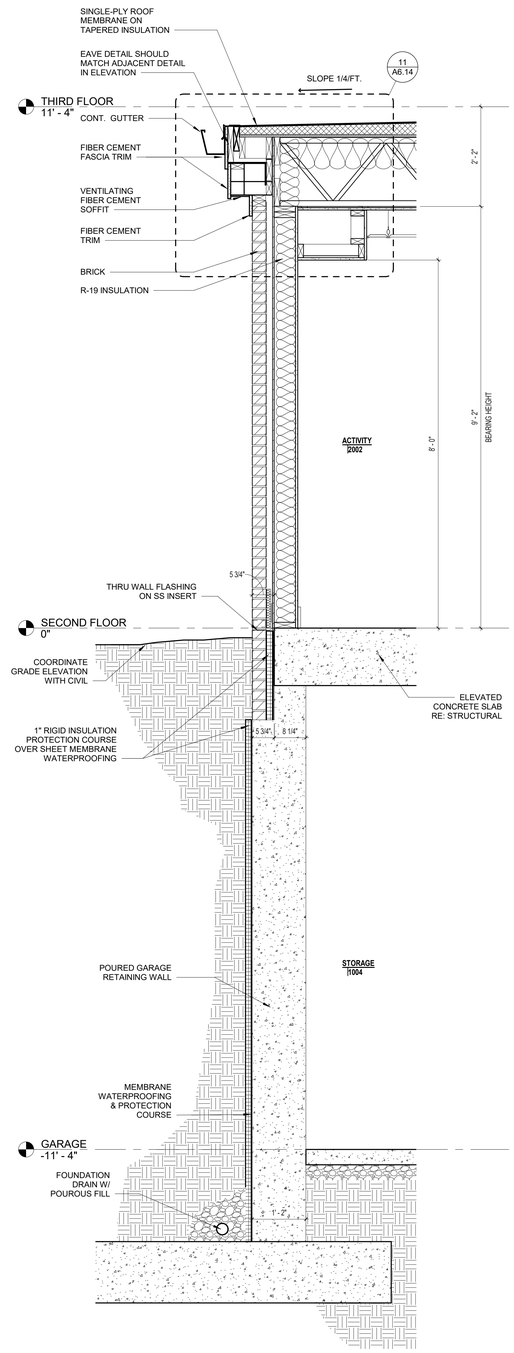
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Jan 22, 2021

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



2 LOW ROOF - PATIO
3/4" = 1'-0"



1 LOW ROOF
3/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. AMICK
NUMBER A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A6.10 SHEET ____ OF ____

MENU

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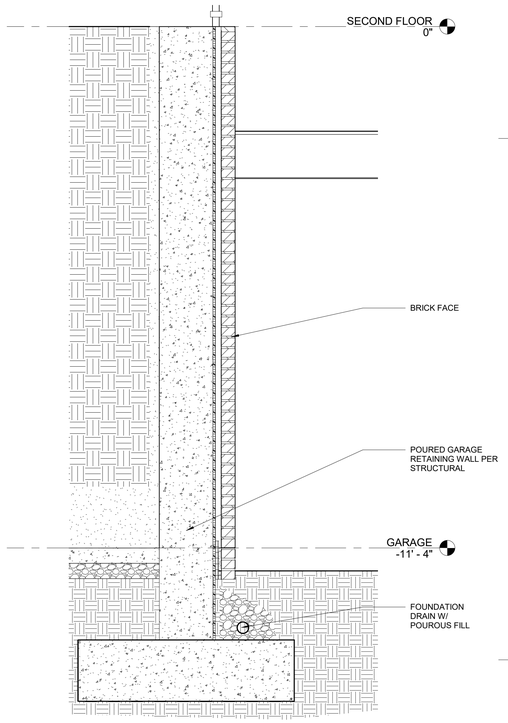
PLOT SCALE
PLOT DATE 1/19/2021 7:59:58 AM
SAVE DATE
COMM NO.
DRAWING NO.

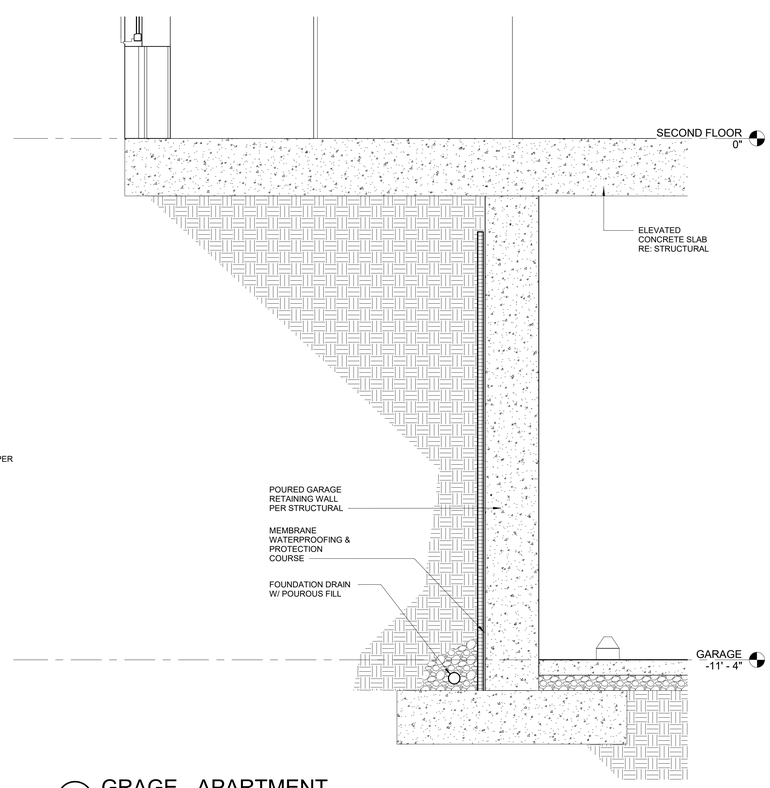
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/22/2021

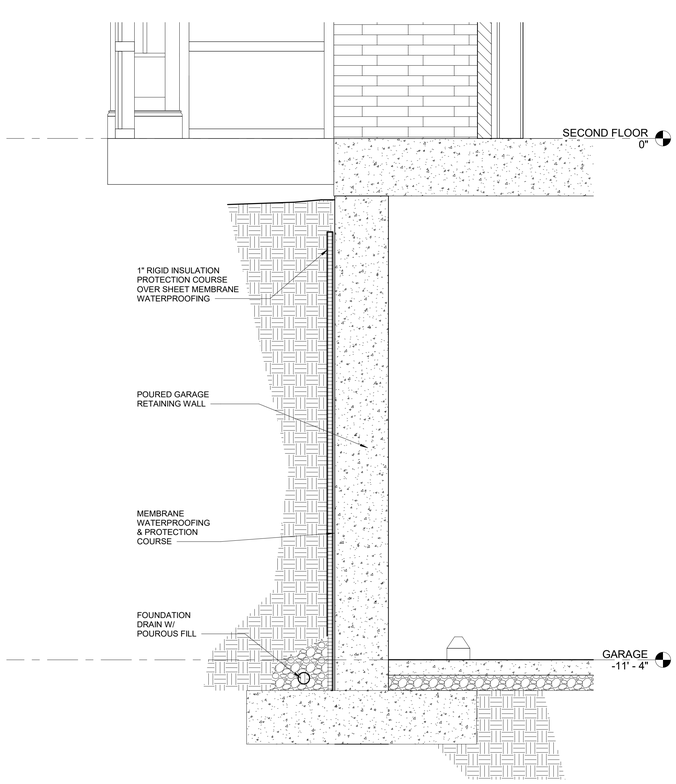
1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



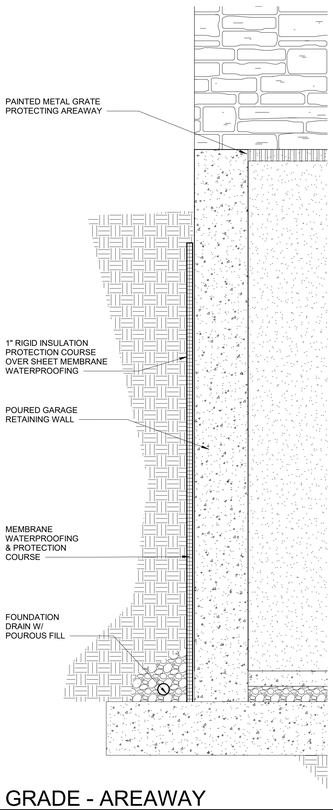
6 GRADE - RETAINING WALL
3/4" = 1'-0"



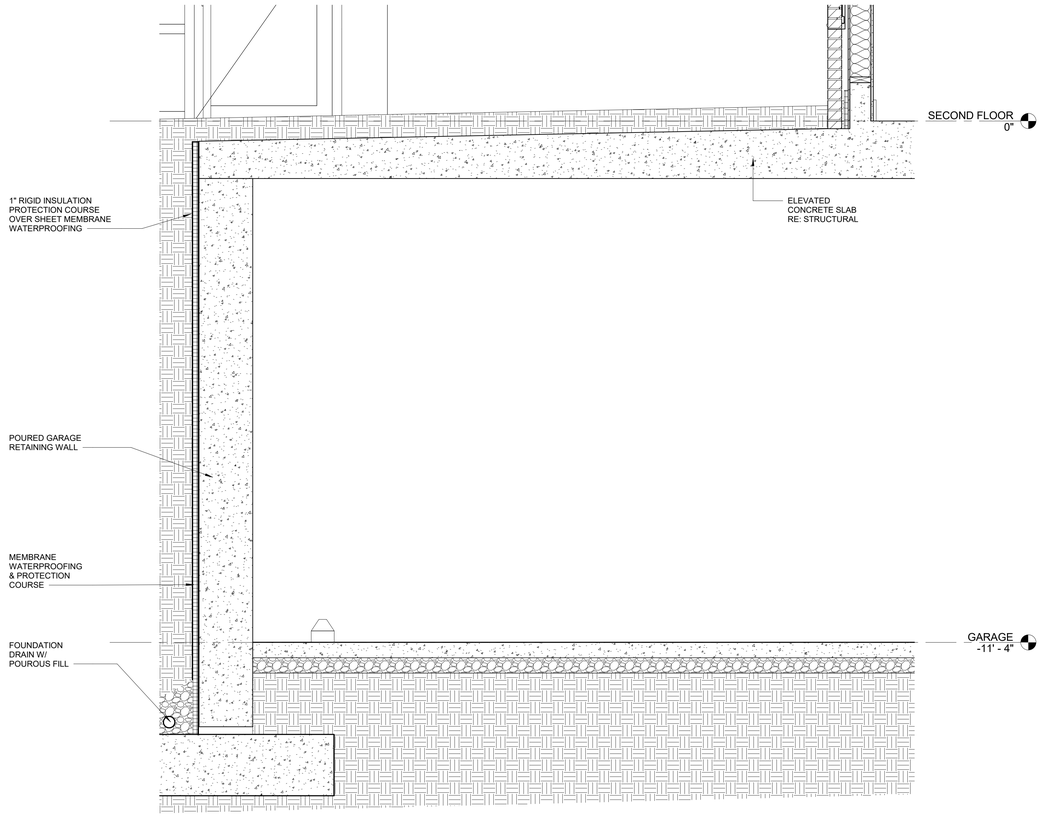
4 GRAGE - APARTMENT
3/4" = 1'-0"



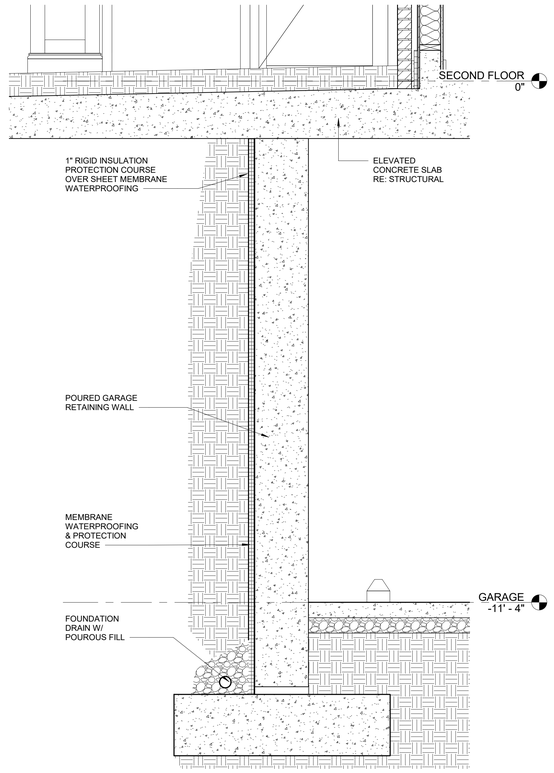
2 GRADE - SUNROOM/PATIO
3/4" = 1'-0"



5 GRADE - AREAWAY
3/4" = 1'-0"



3 GRADE - LARGE
3/4" = 1'-0"

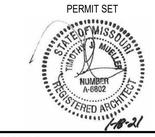


1 GRADE - SMALL
3/4" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
2/24/2021
5:09:19 PM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET



PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

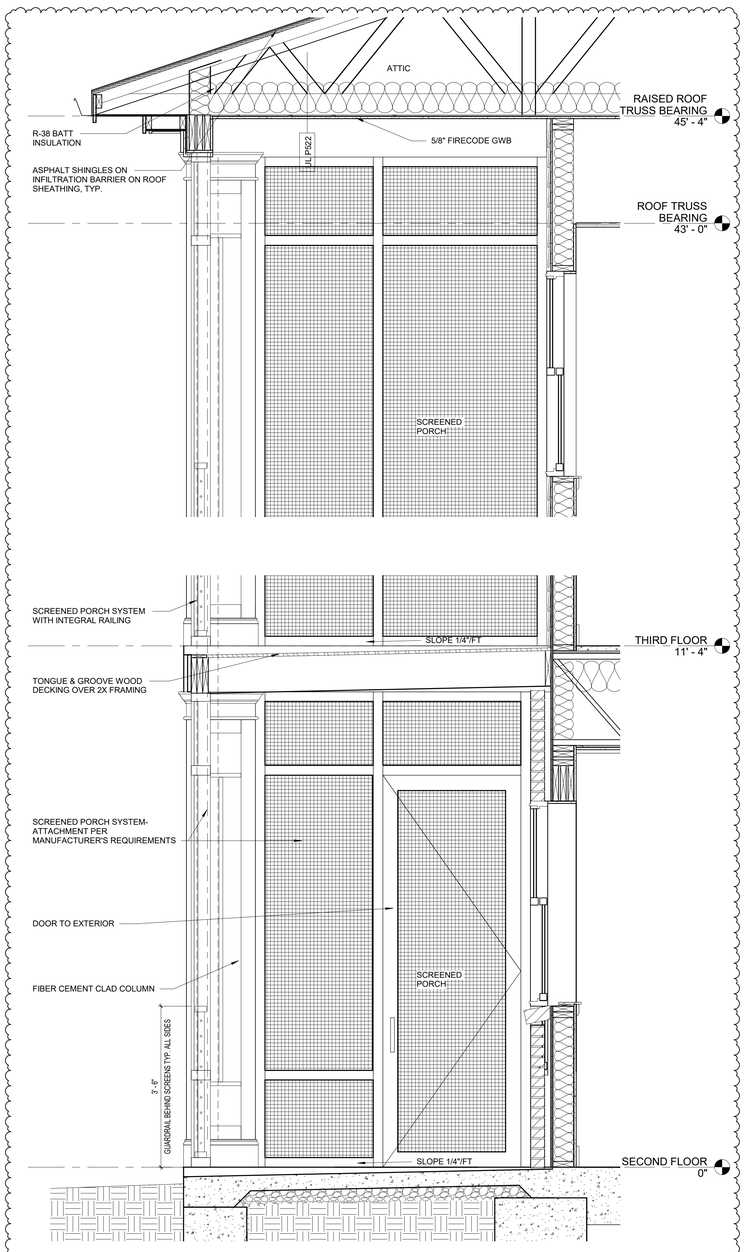
WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A6.11	____ OF ____

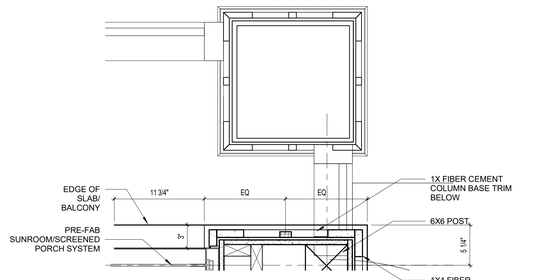
BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/02/2021

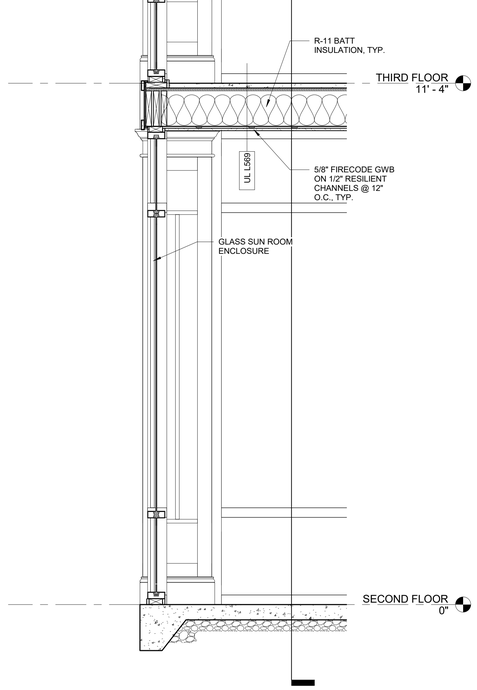
1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



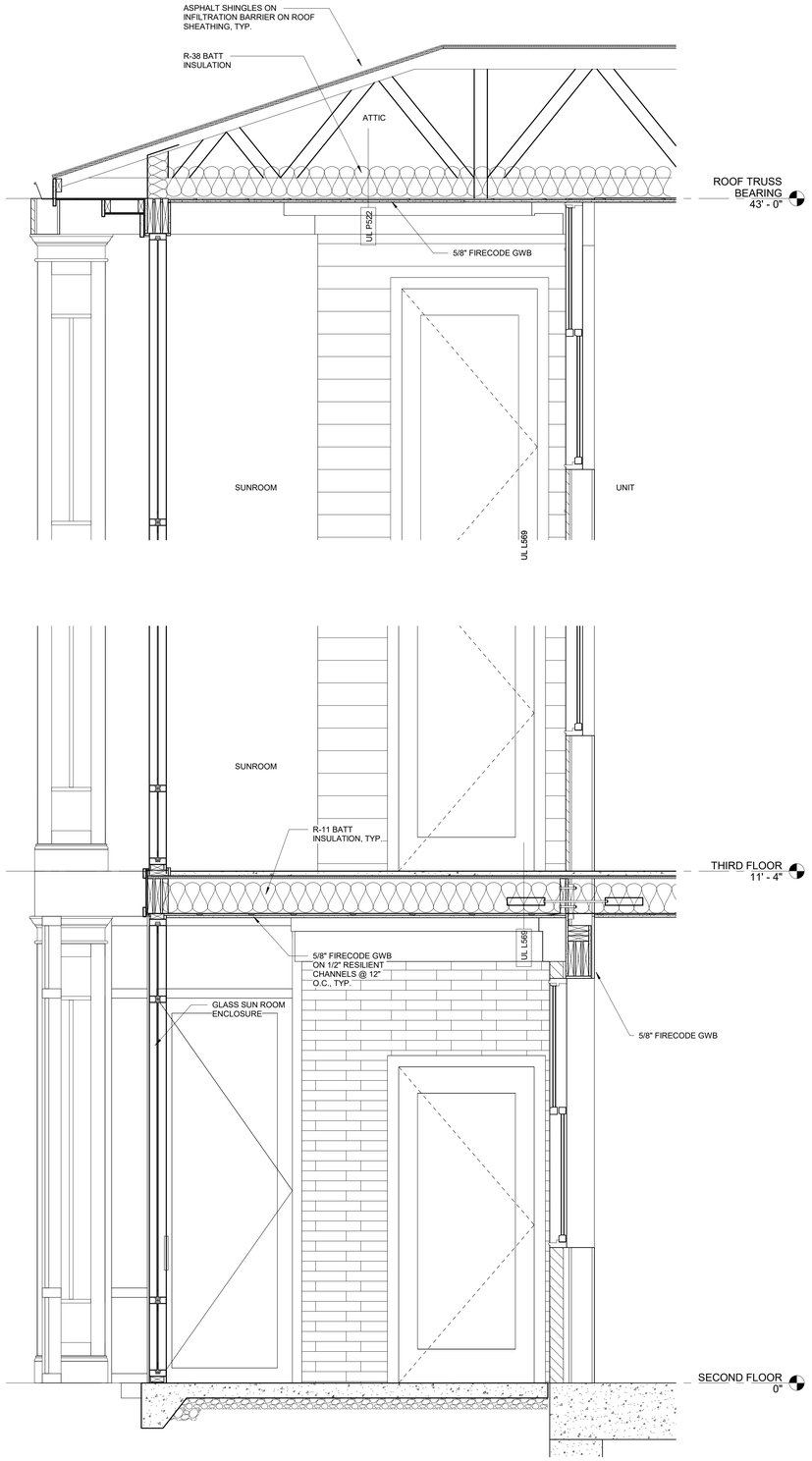
4 SCREENED PORCH
3/4" = 1'-0"



3 SUNROOM COLUMN PLAN DETAIL
1 1/2" = 1'-0"



2 SUNROOM - SHORT
3/4" = 1'-0"



1 SUNROOM - LONG
3/4" = 1'-0"

MENU

CAD0 VERSION

PLOT SCALE

PLOT DATE
3/9/2021
3:15:24 PM

SAVE DATE

COMM NO.

DRAWING NO.

PERMIT SET

STATE OF MISSOURI — NUMBER A-6802 — REGISTERED ARCHITECT — 3/9/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

WALL SECTIONS

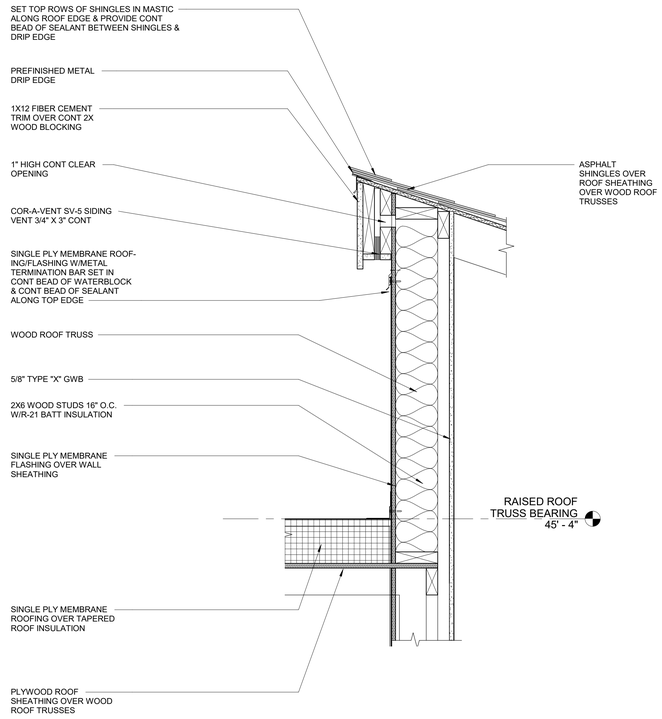
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A6.12

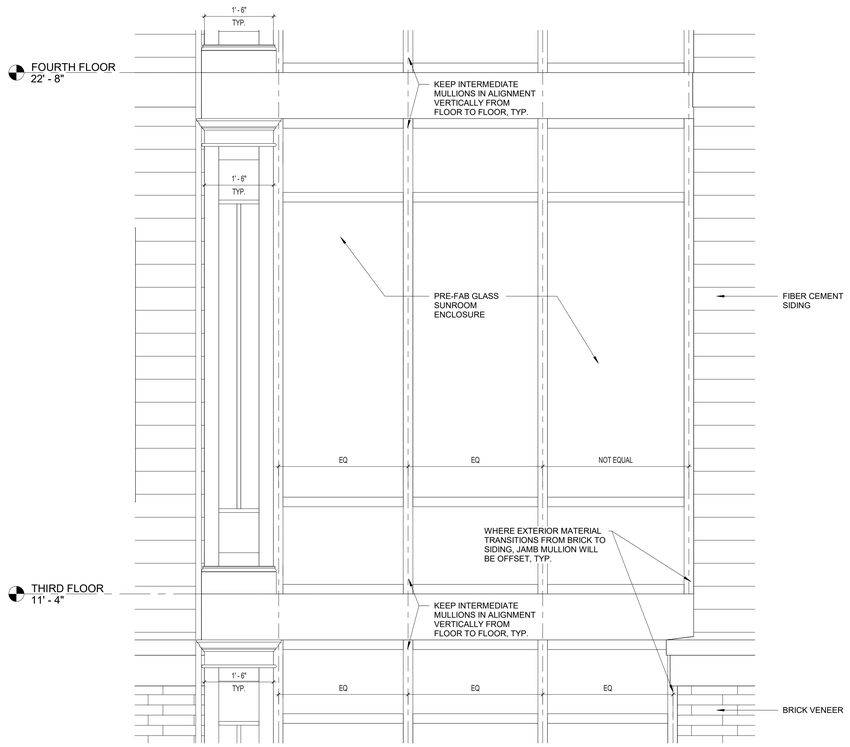
SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/25/2021

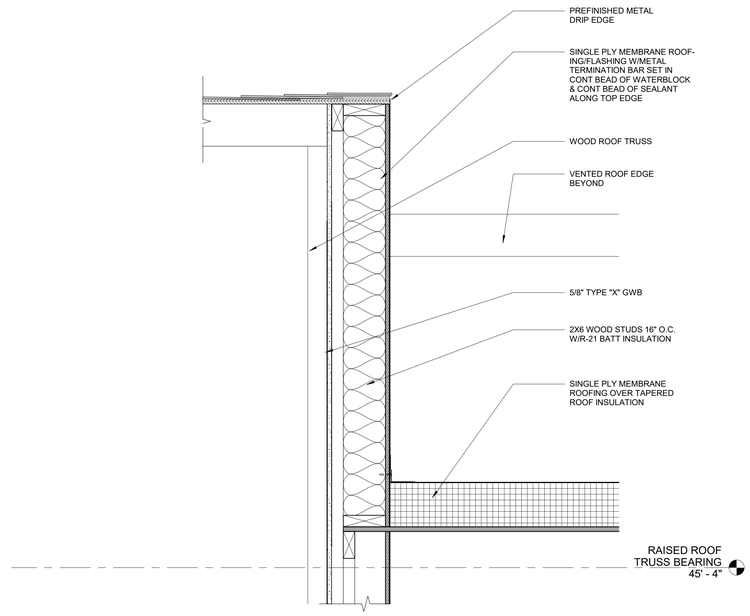
1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



2 MECHANICAL WELL - SHORT
1 1/2" = 1'-0"



3 SUNROOM ELEVATION
3/4" = 1'-0"



1 MECHANICAL WELL - LONG
1 1/2" = 1'-0"

PERMIT SET

STATE OF MISSOURI · JOSEPH A. MUEGGE · NUMBER A-6802 · REGISTERED ARCHITECT
2/25/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21

DRAWING TITLE

WALL SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A6.13	____ OF ____

MENU

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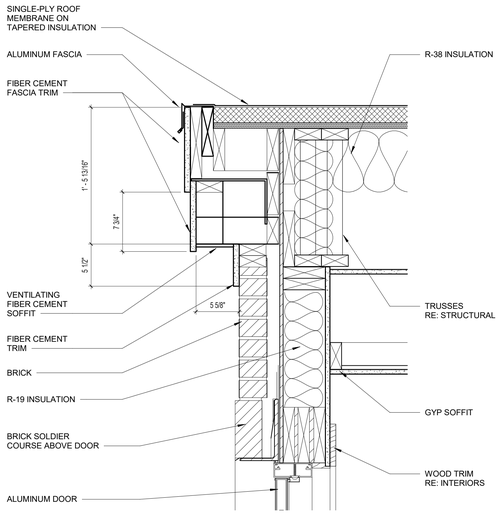
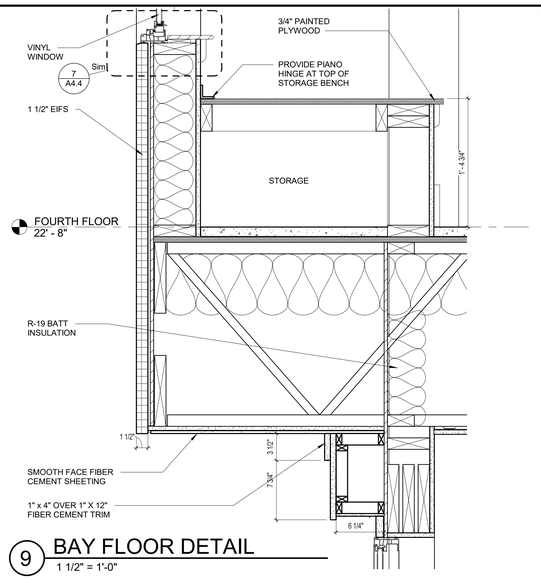
PLOT DATE
2/25/2021 4:30:26 AM
SAVE DATE
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

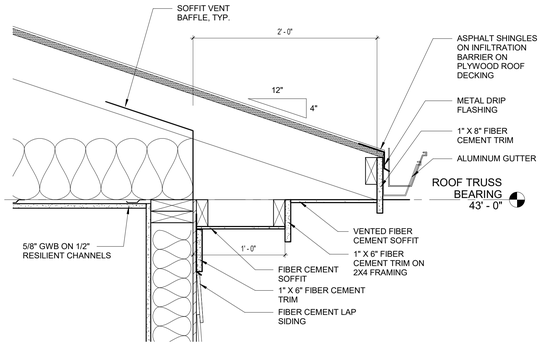
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Jan 27, 2021



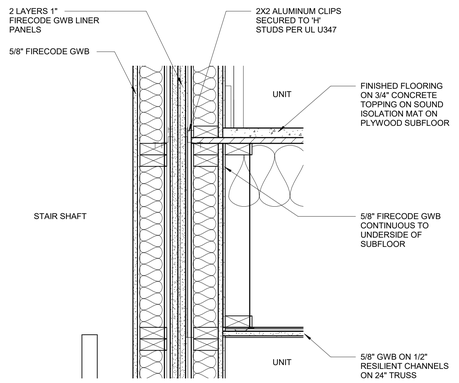
12 EAVE DETAIL AT ACTIVITY
1 1/2" = 1'-0"



9 BAY FLOOR DETAIL
1 1/2" = 1'-0"

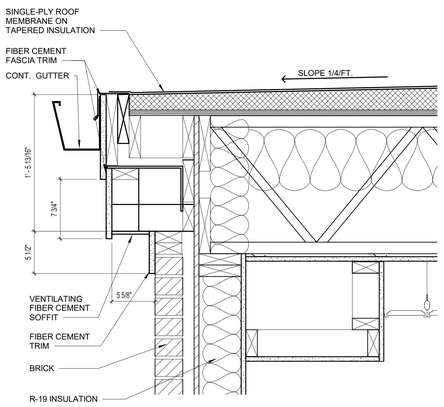


6 TYPICAL FASCIA DETAIL
1 1/2" = 1'-0"

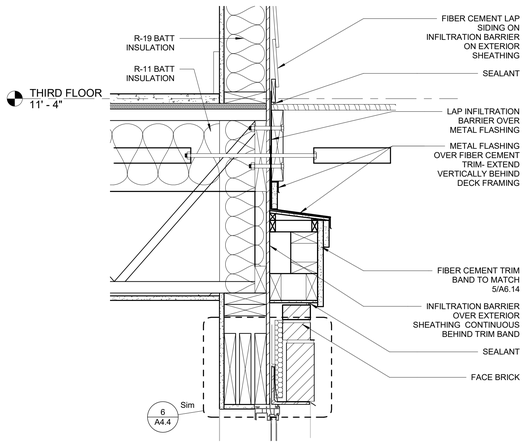


3 DETAIL AT 2 HR WALL
1 1/2" = 1'-0"

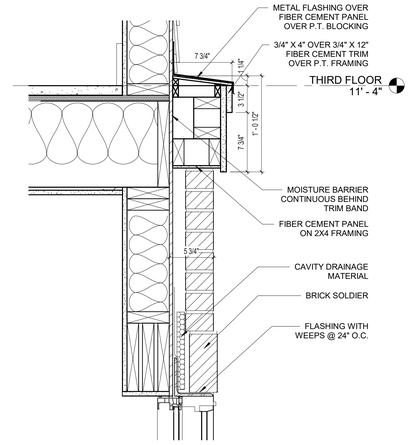
1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.



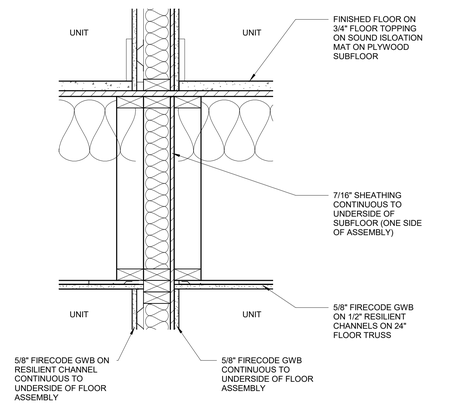
11 EAVE DETAIL AT ACTIVITY @ SLOPE
1 1/2" = 1'-0"



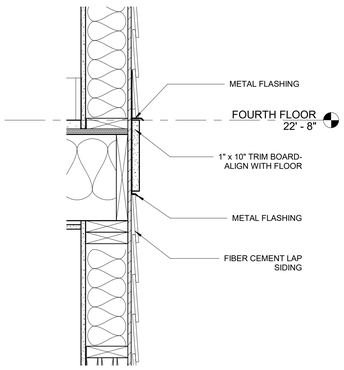
8 DETAIL AT BRICK BELOW BALCONY
1 1/2" = 1'-0"



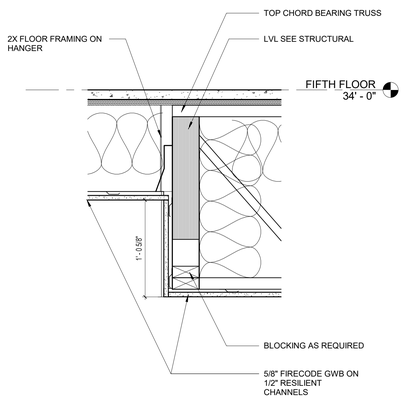
5 TRIM BAND AT BRICK/SIDING
1 1/2" = 1'-0"



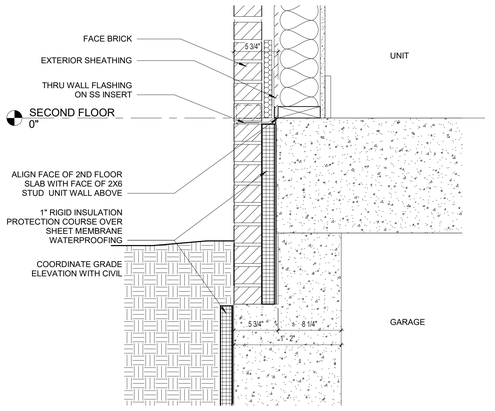
2 DETAIL AT TENANT WALL
1 1/2" = 1'-0"



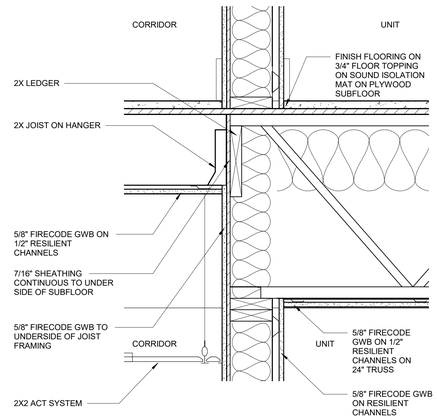
10 TRIM BAND AT SIDING
1 1/2" = 1'-0"



7 DETAIL AT RAISED CEILING
1 1/2" = 1'-0"



4 DETAIL AT BRICK ABOVE GARAGE WALL
1 1/2" = 1'-0"



1 DETAIL AT UNIT/CORRIDOR
1 1/2" = 1'-0"

MENU

CAD5 VERSION

PLOT SCALE

1/19/2021 8:00:40 AM
DATE / TIME

COMM. NO.

DRAWING NO.

PERMIT SET

STATE OF MISSOURI
GREGORY M. JOHNSON
NUMBER A-6802
REGISTERED ARCHITECT
1-28-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

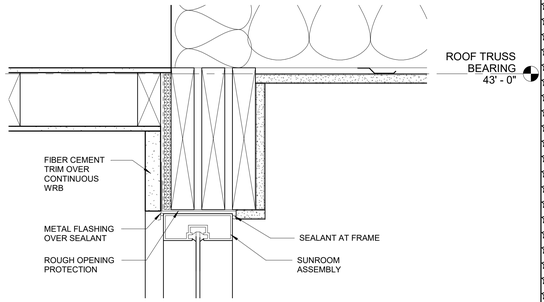
WALL SECTION DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

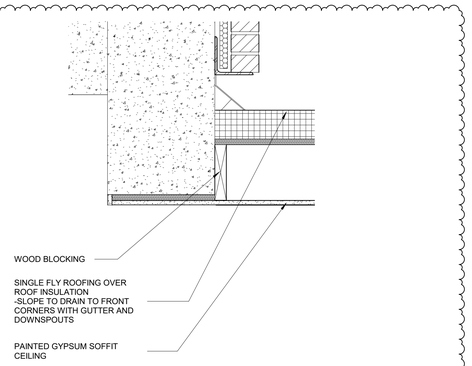
DRAWING A6.14 SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

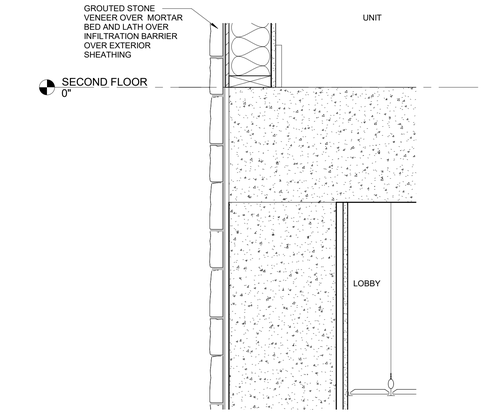
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



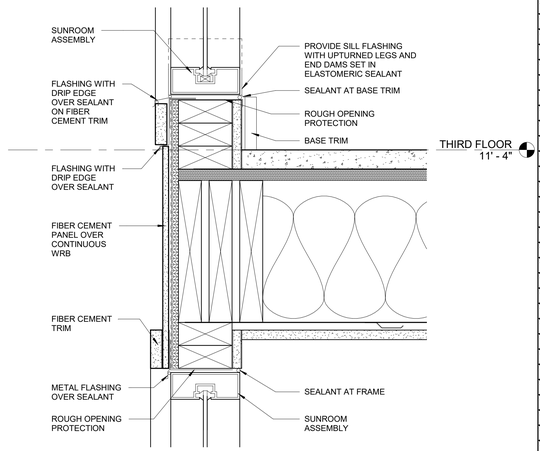
10 SUNROOM DETAIL_ROOF
3" = 1'-0"



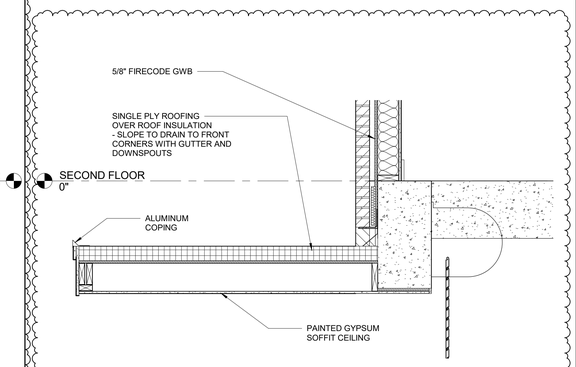
6 GARAGE CANOPY DETAIL
1 1/2" = 1'-0"



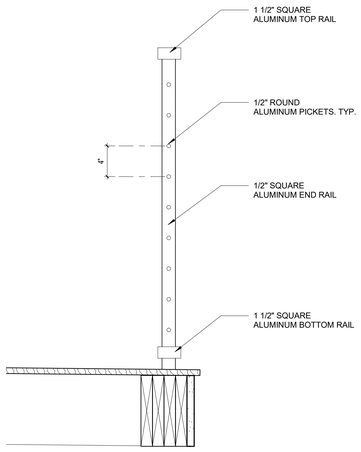
3 DETAIL AT GARAGE WITH STONE
1 1/2" = 1'-0"



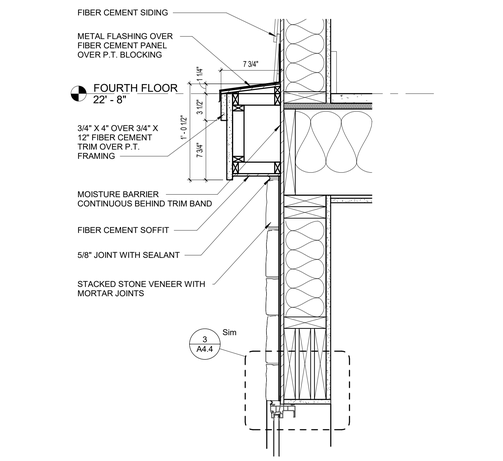
9 SUNROOM DETAIL_3RD FLR
3" = 1'-0"



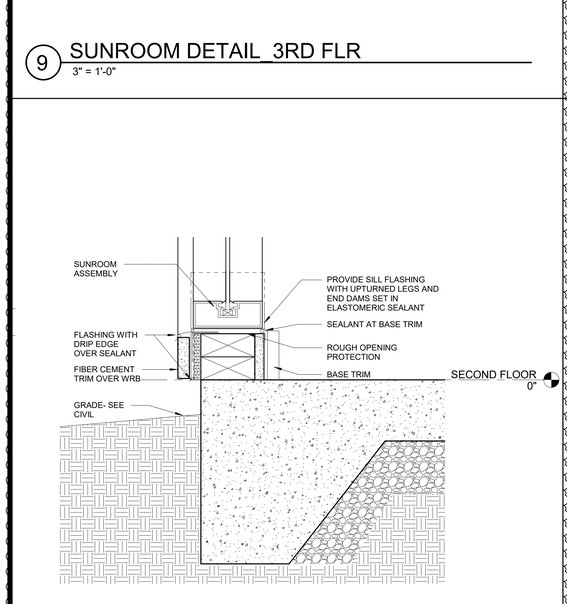
7 SECTION - GARAGE CANOPY
3/4" = 1'-0"



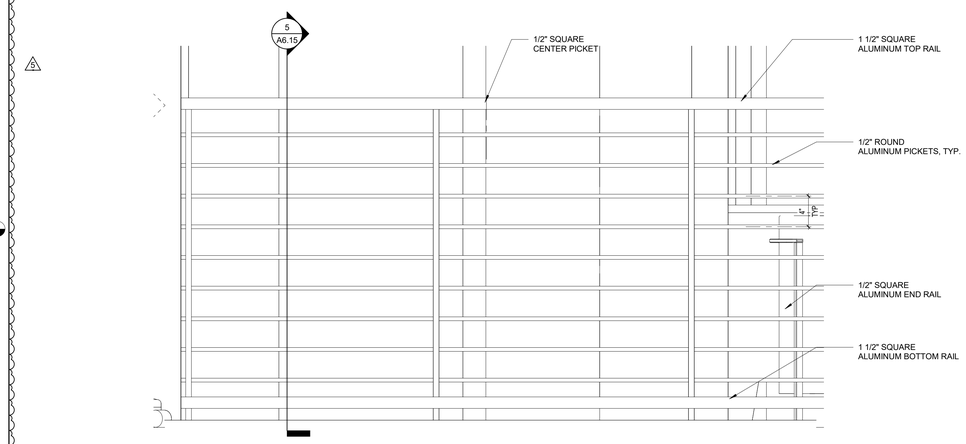
5 SECTION AT BALONY RAIL
1 1/2" = 1'-0"



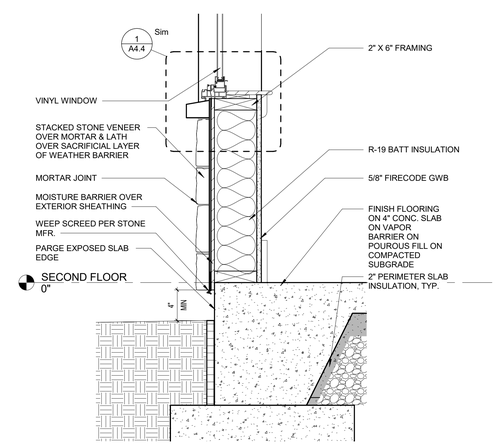
2 TRIM BAND AT STONE/SIDING
1 1/2" = 1'-0"



8 SUNROOM DETAIL_2ND FLR
3" = 1'-0"



4 ENLARGED BALCONY RAIL ELEVATION
1 1/2" = 1'-0"



1 STONE SILL DETAIL
1 1/2" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
3/10/2021 9:49:24 PM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI — JOSEPH G. MUNSON — NUMBER A-6802 — REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

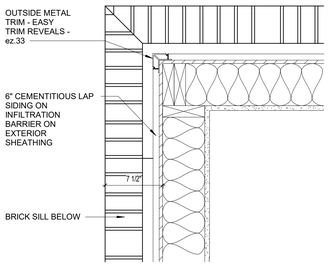
DRAWING TITLE

WALL SECTION DETAILS

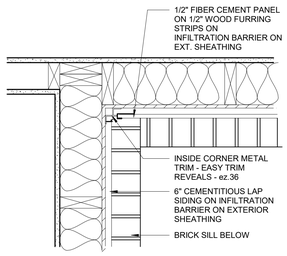
COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING A6.15
SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

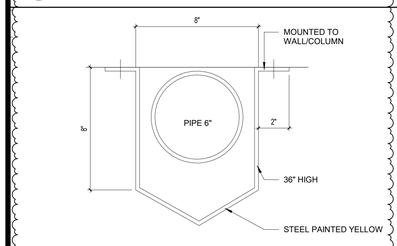
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Oct 12, 2021



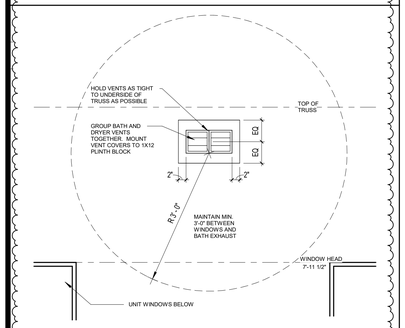
14 SIDING CORNER DETAIL
1 1/2" = 1'-0"



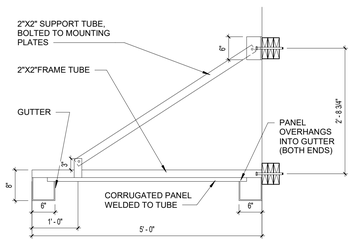
13 CORNER PANEL/SIDING
1 1/2" = 1'-0"



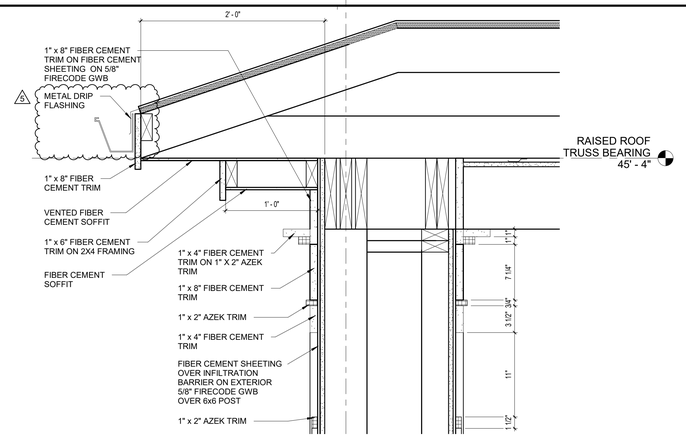
12 PIPE PROTECTION
3" = 1'-0"



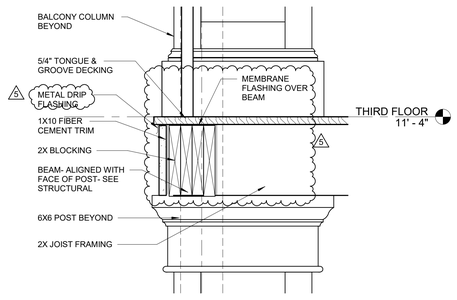
11 DRYER VENT DETAIL
3/4" = 1'-0"



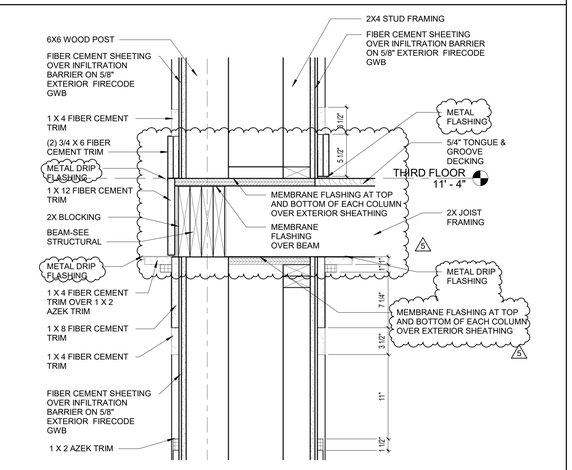
10 ALUMINUM CANOPY SECTION
3/4" = 1'-0"



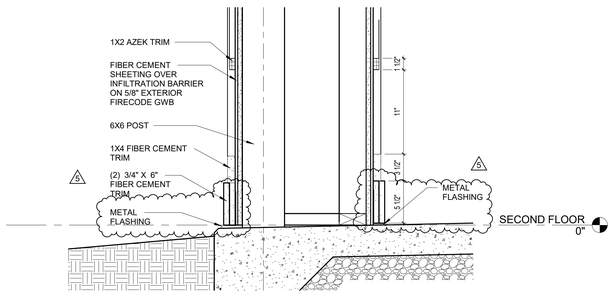
9 DETAIL AT BALCONY FASCIA
1 1/2" = 1'-0"



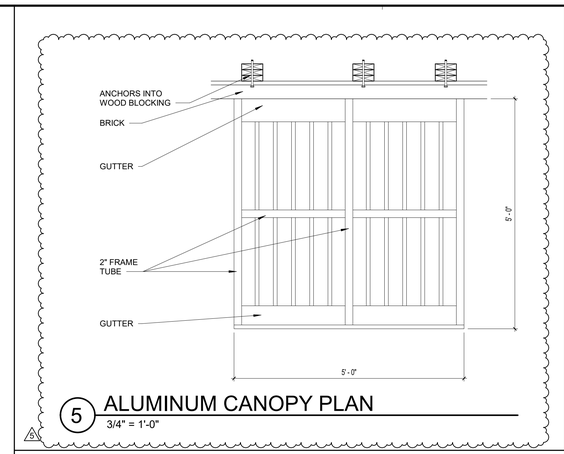
8 DETAIL AT BALCONY BEAM
1 1/2" = 1'-0"



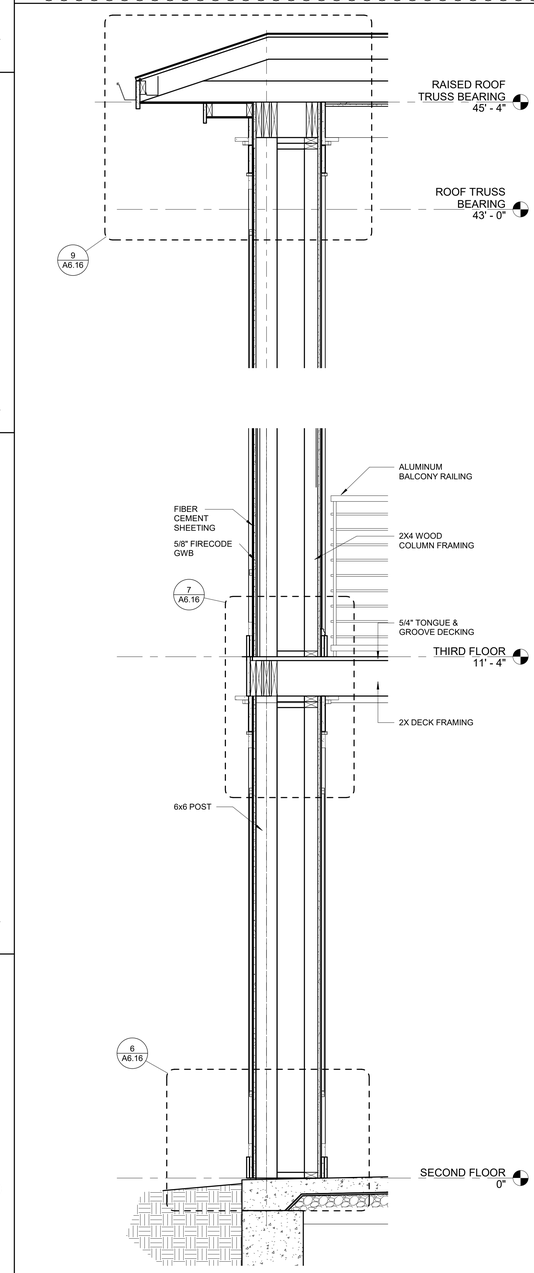
7 DETAIL AT BALCONY POST
1 1/2" = 1'-0"



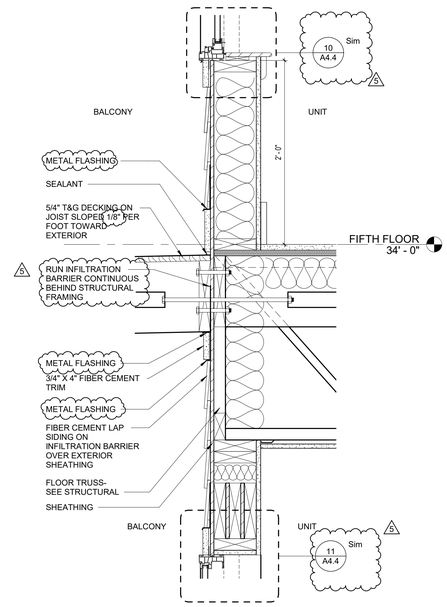
6 DETAIL AT BALCONY COLUMN BASE
1 1/2" = 1'-0"



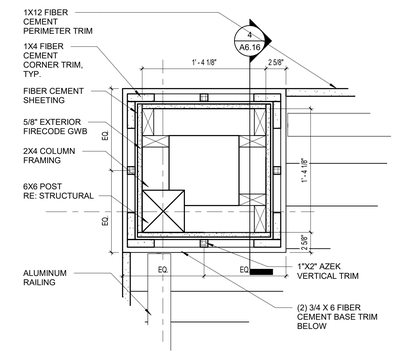
5 ALUMINUM CANOPY PLAN
3/4" = 1'-0"



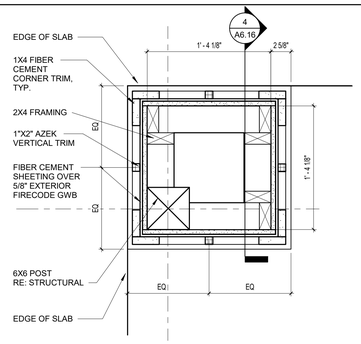
4 SECTION AT BALCONY COLUMN
3/4" = 1'-0"



3 FLOOR DETAIL AT BALCONY
1 1/2" = 1'-0"



2 BALCONY COLUMN DETAIL
1 1/2" = 1'-0"



1 PATIO COLUMN DETAIL AT GROUND FLOOR
1 1/2" = 1'-0"

1. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	DAS
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

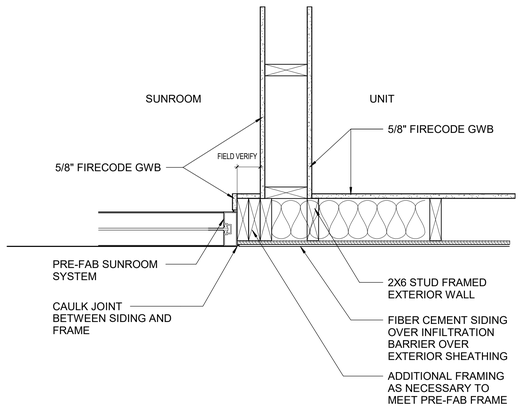
DRAWING A6.16 SHEET ____ OF ____

MENU

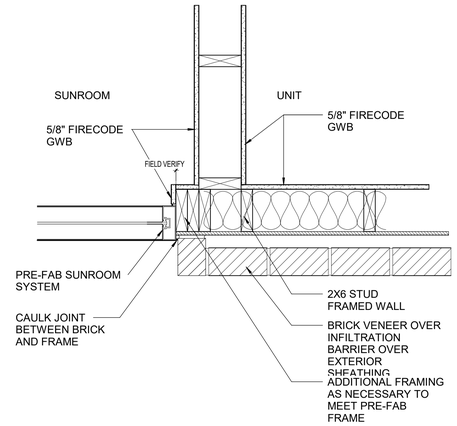
CAD VERSION
PLOT SCALE
PLOT DATE 3/11/2021 10:04:40 AM
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

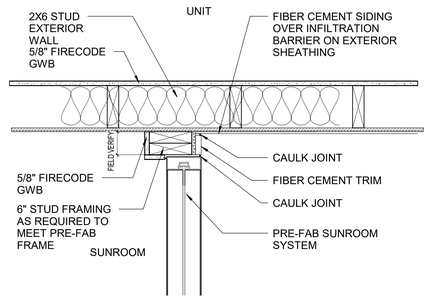


H) SUNROOM FRAME PLAN AT SIDING

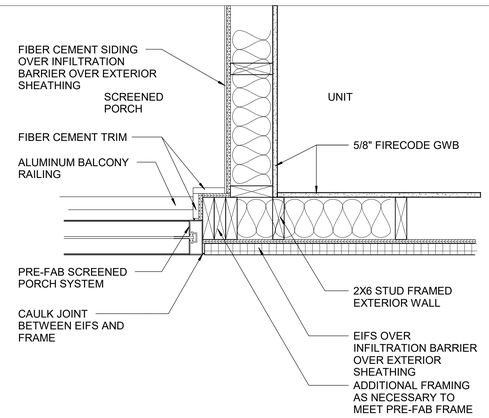


C) SUNROOM FRAME PLAN AT BRICK

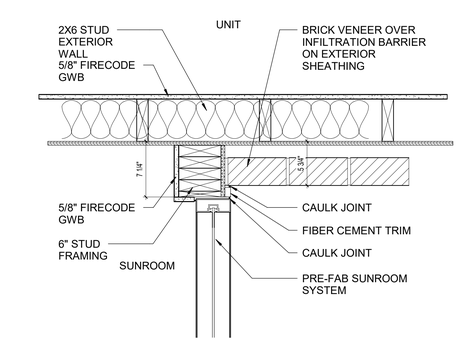
NOTE: PROVIDE ROUGH OPENING PROTECTION AND WATERPROOFING MER MANUFACTURER'S REQUIREMENTS, TYP.



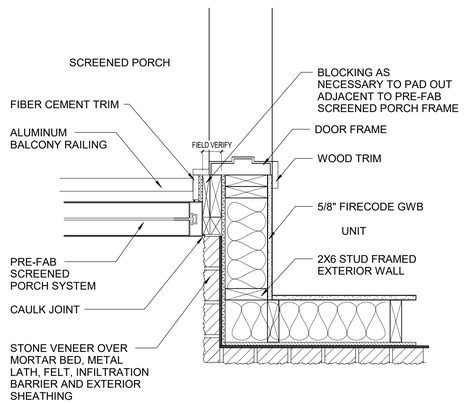
G) SUNROOM FRAME AT FACE WITH SIDING



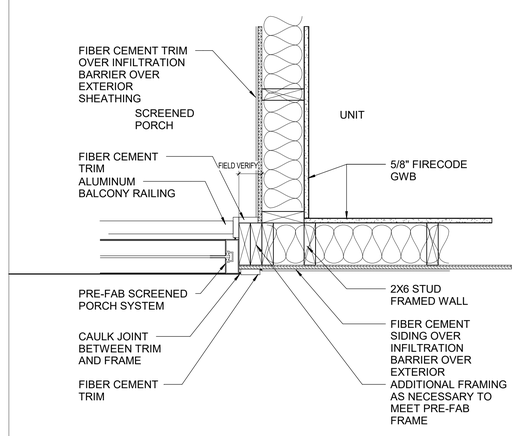
E) SCREENED PORCH PLAN AT EIFS WITH DOOR FRAME



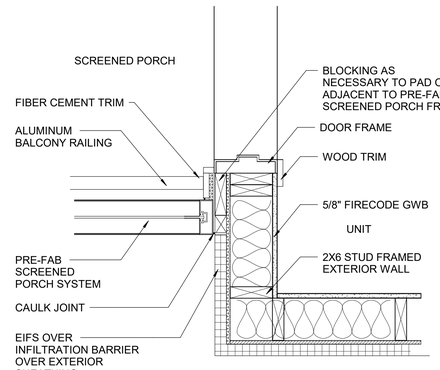
B) SUNROOM FRAME AT FACE WITH BRICK



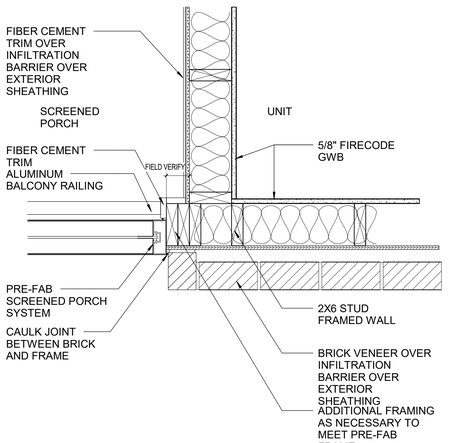
I) SCREENED PORCH DETAIL AT STONE



F) SCREENED PORCH DETAIL AT SIDING



D) SCREENED PORCH DETAIL AT EIFS



A) SCREENED PORCH DETAIL AT BRICK

NEW SHEET

1 SUNROOM PLAN DETAILS
1 1/2" = 1'-0"

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
3/11/2021 10:05:08 AM
COMM. NO.
DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

STATE OF MISSOURI TIMOTHY A. MURPHY NUMBER A-6802 REGISTERED ARCHITECT
3-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

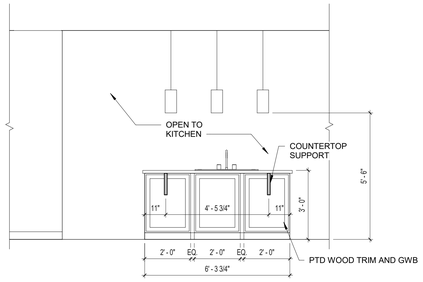
SUNROOM PLAN DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A6.17	____ OF ____

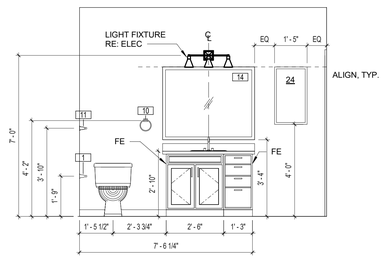
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/05/2021

NOTES

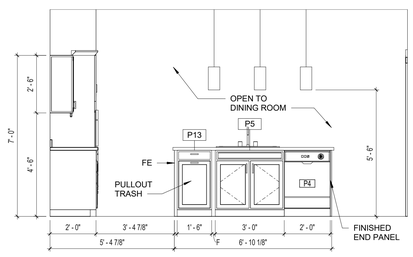
1. PROVIDE BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS IN ALL ANSI TYPE B UNITS PER ANSI REQUIREMENTS. (ALL UNITS ARE TYPE B UNITS BESIDES 2029, WHICH IS A TYPE A UNIT)
2. PROVIDE BLOCKING AND GRAB BARS FOR 18" VERTICAL GRAB BAR AND WRAP AROUND GRAB BAR AT ALL MASTER BATHROOM SHOWERS.
3. PROVIDE WALL TILE AT ALL SHOWERS AND BATHTUBS PER INTERIORS.
4. PROVIDE GRAB BARS AT TIME OF CONSTRUCTION IN ANSI TYPE A (HC) UNIT PER ANSI REQUIREMENTS.



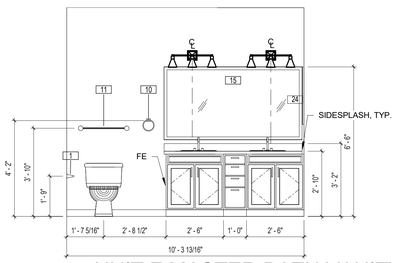
25 UNIT G KITCHEN ISLAND
3/8" = 1'-0"



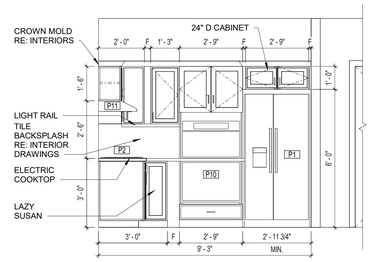
20 UNIT G BATH VANITY
3/8" = 1'-0"



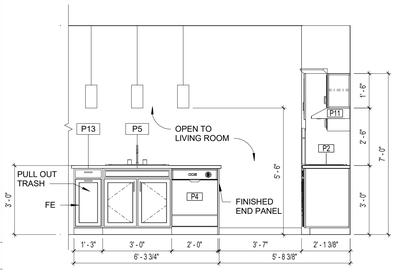
15 UNIT F KITCHEN SINK
3/8" = 1'-0"



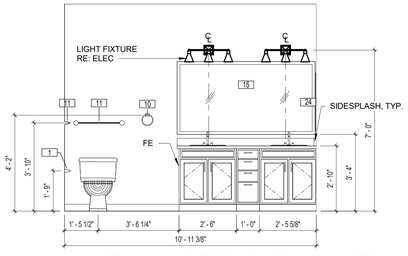
10 UNIT F MASTER BATH VANITY
3/8" = 1'-0"



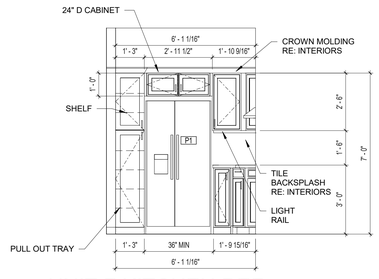
5 UNIT C KITCHEN REF.
3/8" = 1'-0"



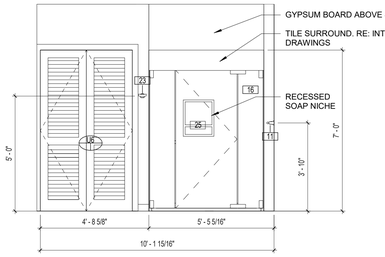
24 UNIT G KITCHEN SINK
3/8" = 1'-0"



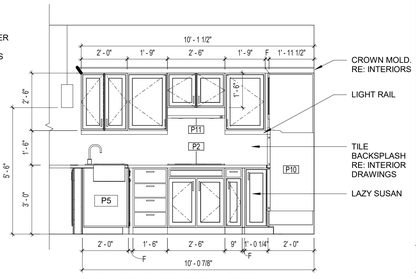
19 UNIT G MASTER BATH VANITY
3/8" = 1'-0"



14 UNIT F KITCHEN REF.
3/8" = 1'-0"



9 UNIT F MASTER BATH SHOWER
3/8" = 1'-0"



4 UNIT C KITCHEN
3/8" = 1'-0"

23 UNIT G KITCHEN REF.
3/8" = 1'-0"

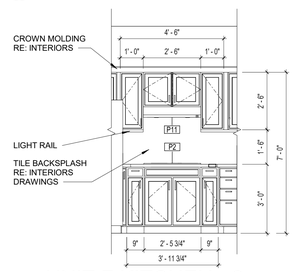
18 UNIT G BATH SHOWER
3/8" = 1'-0"

13 UNIT F KITCHEN
3/8" = 1'-0"

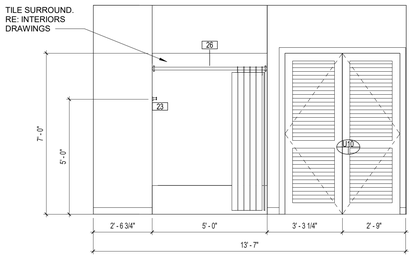
8 UNIT C PANTRY
3/8" = 1'-0"

3 UNIT C HALF BATH
3/8" = 1'-0"

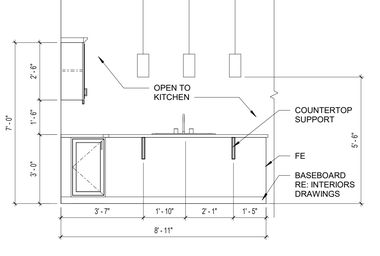
22 UNIT G KITCHEN
3/8" = 1'-0"



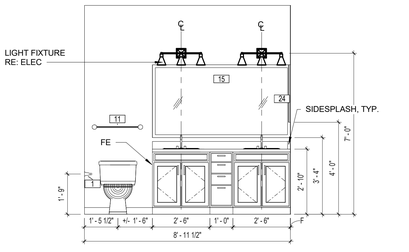
17 UNIT F KITCHEN - 2
3/8" = 1'-0"



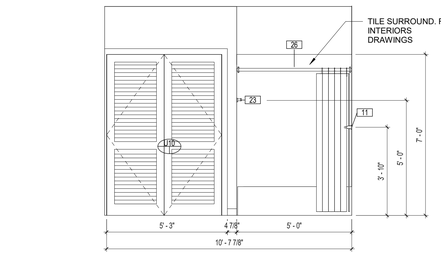
12 UNIT F BATH LAUNDRY
3/8" = 1'-0"



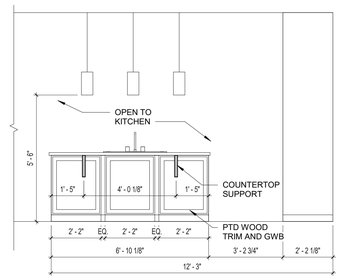
7 UNIT C KITCHEN PENINSULA
3/8" = 1'-0"



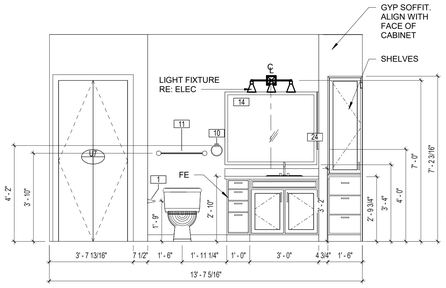
2 UNIT C BATH VANITY
3/8" = 1'-0"



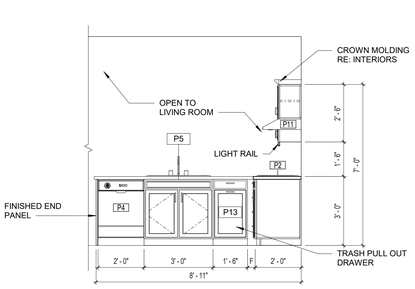
21 UNIT G BATH LAUNDRY
3/8" = 1'-0"



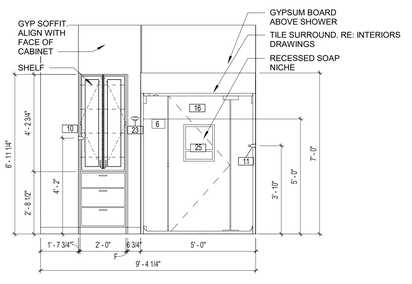
16 UNIT F KITCHEN ISLAND
3/8" = 1'-0"



11 UNIT F BATH VANITY
3/8" = 1'-0"



6 UNIT C KITCHEN SINK
3/8" = 1'-0"



1 UNIT C BATH BATHROOM
3/8" = 1'-0"

MENU

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PLOT SCALE:
PLOT DATE: 3/11/2021 9:53:53 AM
SAVE DATE:
COMM. NO.:
DRAWING NO.:

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT
5/5/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	WAH/KLM/GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

INTERIOR ELEVATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A7.1 SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/05/2021

NOTES

1. PROVIDE BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS IN ALL ANSI TYPE B UNITS PER ANSI REQUIREMENTS. (ALL UNITS ARE TYPE B UNITS BESIDES 2029, WHICH IS A TYPE A UNIT)
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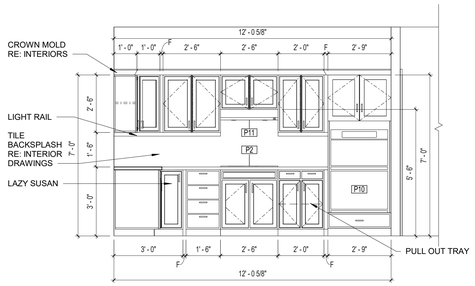
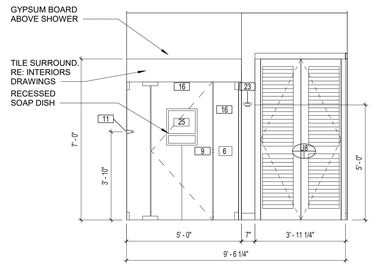
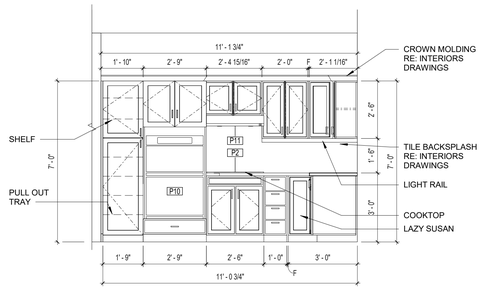


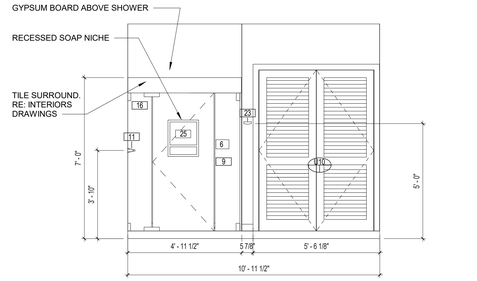
16 UNIT H-2 KITCHEN RANGE
3/8" = 1'-0"



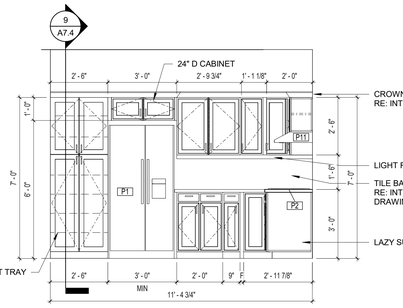
9 UNIT H-2 MASTER BATH SHOWER
3/8" = 1'-0"



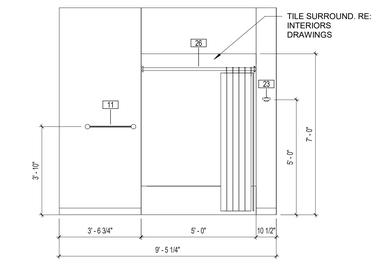
8 UNIT H-1 KITCHEN RANGE
3/8" = 1'-0"



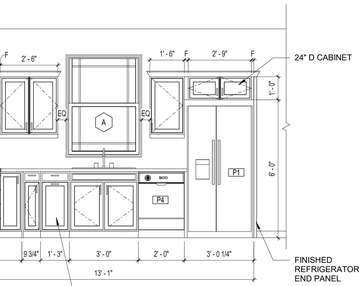
4 UNIT H-1 MASTER BATH LAUNDRY
3/8" = 1'-0"



15 UNIT H-2 KITCHEN ISLAND
3/8" = 1'-0"



12 UNIT H-2 MASTER BATH VANITY
3/8" = 1'-0"



7 UNIT H-1 KITCHEN ISLAND 2
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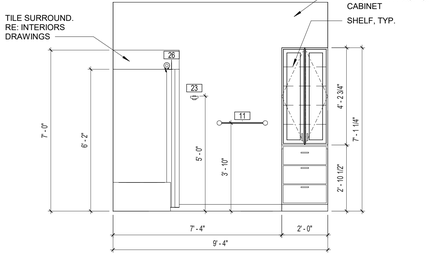
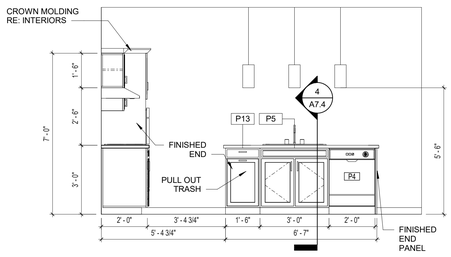
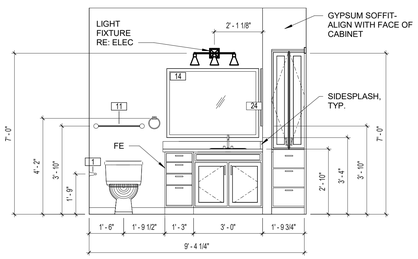


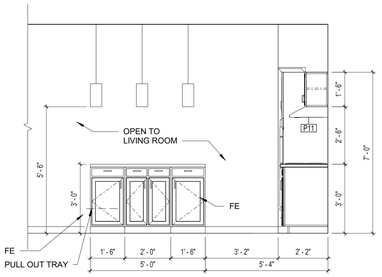
3 UNIT H-1 MASTER BATH VANITY
3/8" = 1'-0"



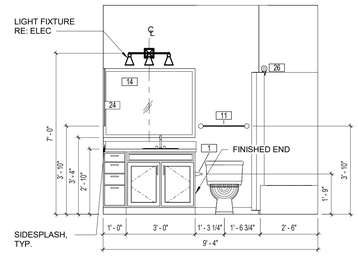
14 UNIT H-2 KITCHEN SINK
3/8" = 1'-0"



11 UNIT H-2 BATH VANITY
3/8" = 1'-0"



6 UNIT H-1 KITCHEN ISLAND 1
3/8" = 1'-0"



2 UNIT H-1 BATH 2 VANITY
3/8" = 1'-0"

13 UNIT H-2 KITCHEN REF.
3/8" = 1'-0"

10 UNIT H-2 BATH
3/8" = 1'-0"

5 UNIT H-1 KITCHEN REF.
3/8" = 1'-0"

1 UNIT H-1 BATH 2
3/8" = 1'-0"

MENU

CAD VERSION

PLOT SCALE

3/11/2021
9:53:27 AM
DATE / TIME

COMM. NO.

DRAWING NO.

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUEGGE
NUMBER A-6802
REGISTERED ARCHITECT
3-9-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	WAH/KLM/GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
3	Bid Set	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

INTERIOR ELEVATIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A7.2 SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/05/2021

NOTES

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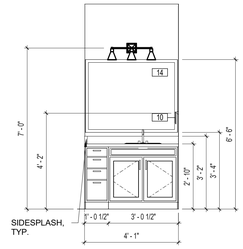
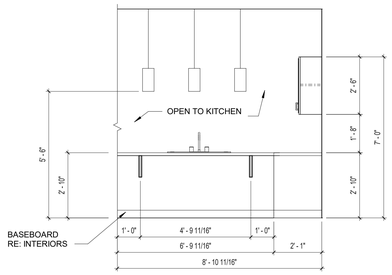
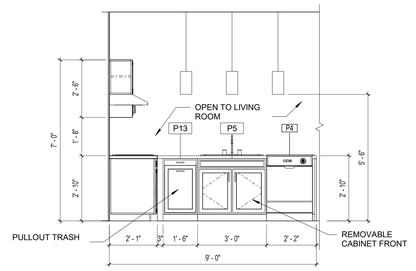


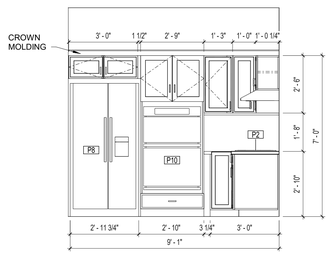
7 UNIT C_HC HALF BATH
3/8" = 1'-0"



6 UNIT C_HC KITCHEN PENINSULA
3/8" = 1'-0"



5 UNIT C_HC KITCHEN SINK
3/8" = 1'-0"



4 UNIT C_HC KITCHEN
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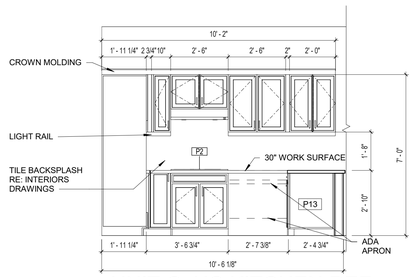

3 UNIT C_HC KITCHEN REF
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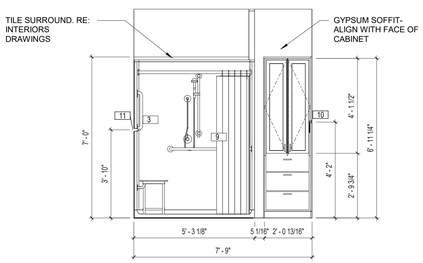

2 UNIT C_HC BATH SHOWER
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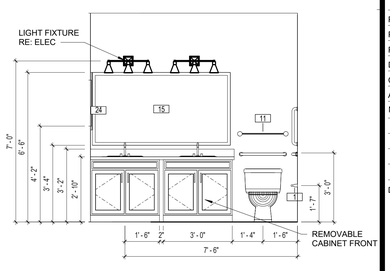

1 UNIT C_HC BATH VANITY
3/8" = 1'-0"

MENU

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COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT
3-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
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www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
5	Addendum 1	03/10/21

DRAWING TITLE

INTERIOR ELEVATIONS

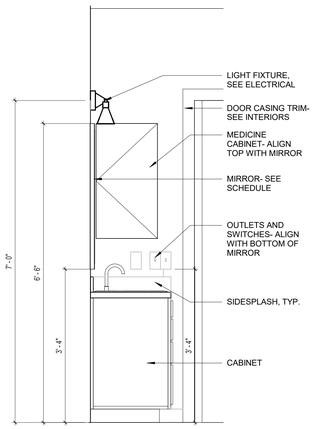
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A7.3

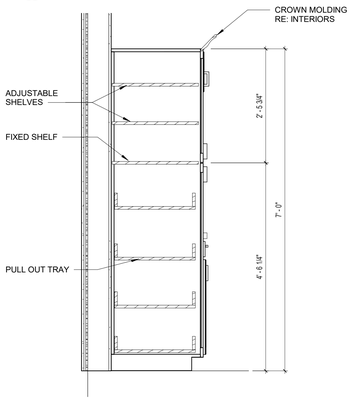
SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

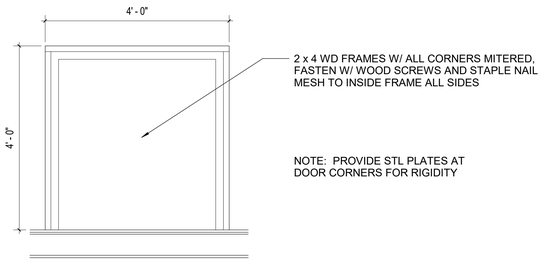
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

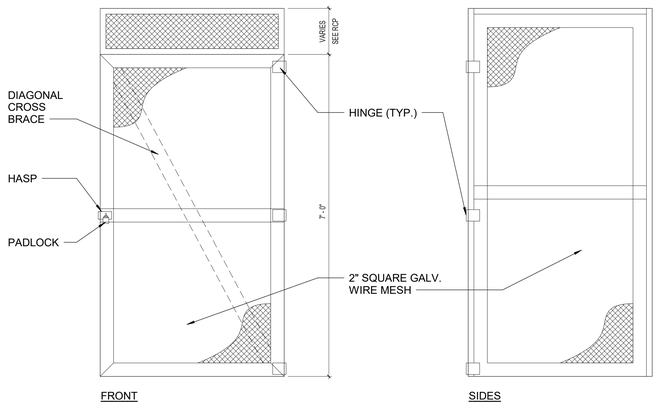


11 TYP. ELEVATION @ VANITY SIDE WALL
3/4" = 1'-0"

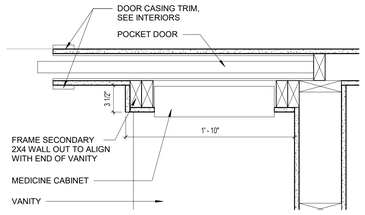


9 TYP. SECTION @ PANTRY
3/4" = 1'-0"

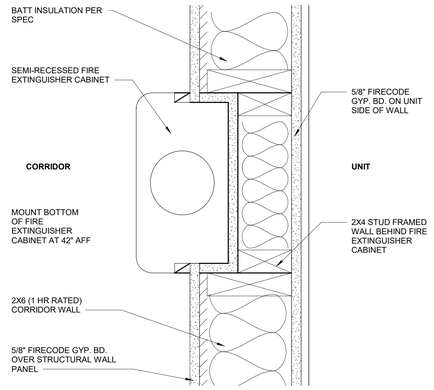




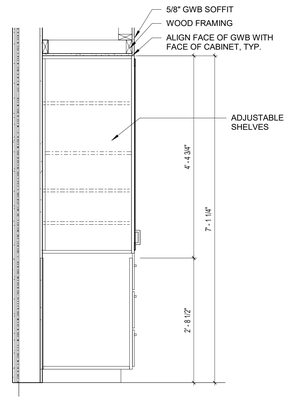
8 STORAGE LOCKERS
3/4" = 1'-0"



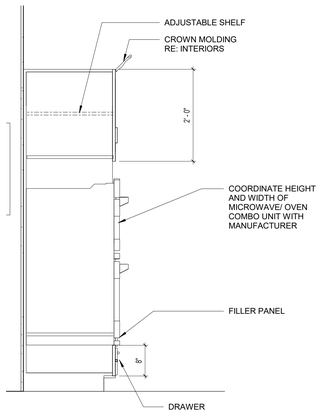
10 POCKET DOOR PLAN DETAIL
1 1/2" = 1'-0"



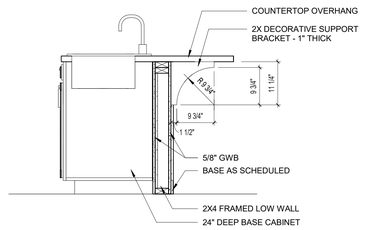
7 FIRE EXTINGUISHER CABINET PLAN DETAIL
3" = 1'-0"



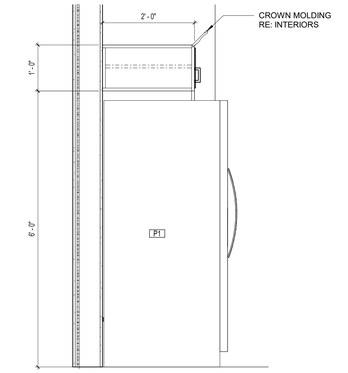
6 TYP. SECTION @ BATH LINEN CABINET
3/4" = 1'-0"



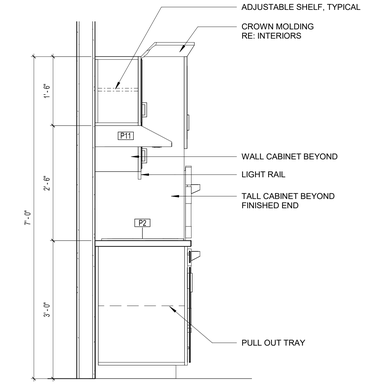
5 TYPICAL SECTION @ WALL OVENS
3/4" = 1'-0"



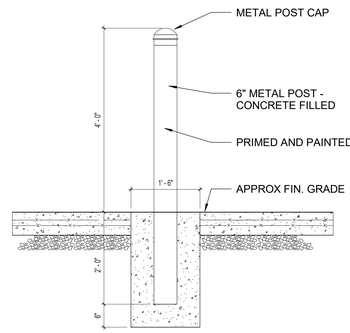
4 TYP. SECTION @ KITCHEN COUNTER OVERHANG
3/4" = 1'-0"



3 TYP. SECTION @ REFRIGERATOR
3/4" = 1'-0"



2 TYP. SECTION @ COOKTOP
3/4" = 1'-0"



1 BOLLARD DETAIL
3/4" = 1'-0"

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	AAT
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

INTERIOR DETAILS

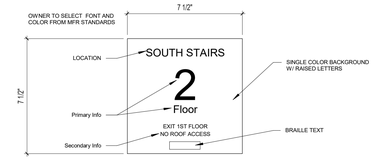
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

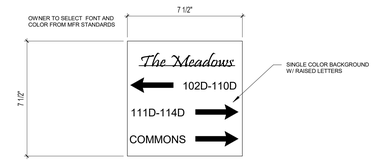
DRAWING A7.4 SHEET ____ OF ____

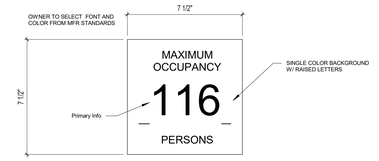
MENU

CAD VERSION:
PLOT SCALE:
PLOT DATE: 1/16/2021 3:22:30 PM
SAVE DATE:
COMM NO.:
DRAWING NO.:

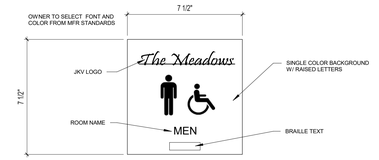
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

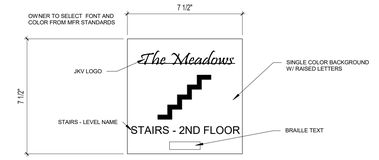




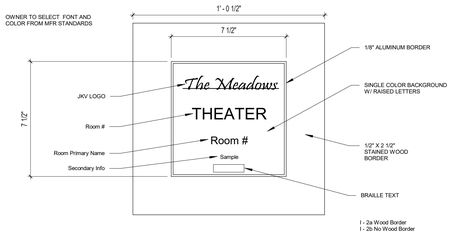


4 TYPE I-4 INFORMATION
3" = 1'-0"





3 TYPE I-3 STAIR/RESTROOM
3" = 1'-0"



2 TYPE I-2 ROOM
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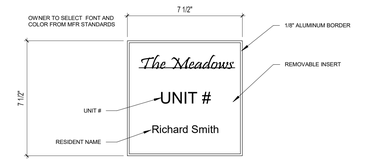


1 TYPE I-1 UNIT
3" = 1'-0"

6 TYPE I-6 DIRECTORY
3" = 1'-0"

5 TYPE I-5 WAYFINDING
3" = 1'-0"

MENU

CARD VERSION:
PLOT SCALE:
PLOT DATE:
1/16/2021
3:24:56 PM
SAVE DATE:
COMM. NO.:
DRAWING NO.:

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

STATE OF MISSOURI
TIMOTHY A. AUBUCHON
NUMBER A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS | Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	: DAS
PROJECT ARCHITECT	: GMJ
PROJECT ENGINEER	:
DRAWN BY	: DAS
CHECKED BY	: AAT
APPROVED BY	:

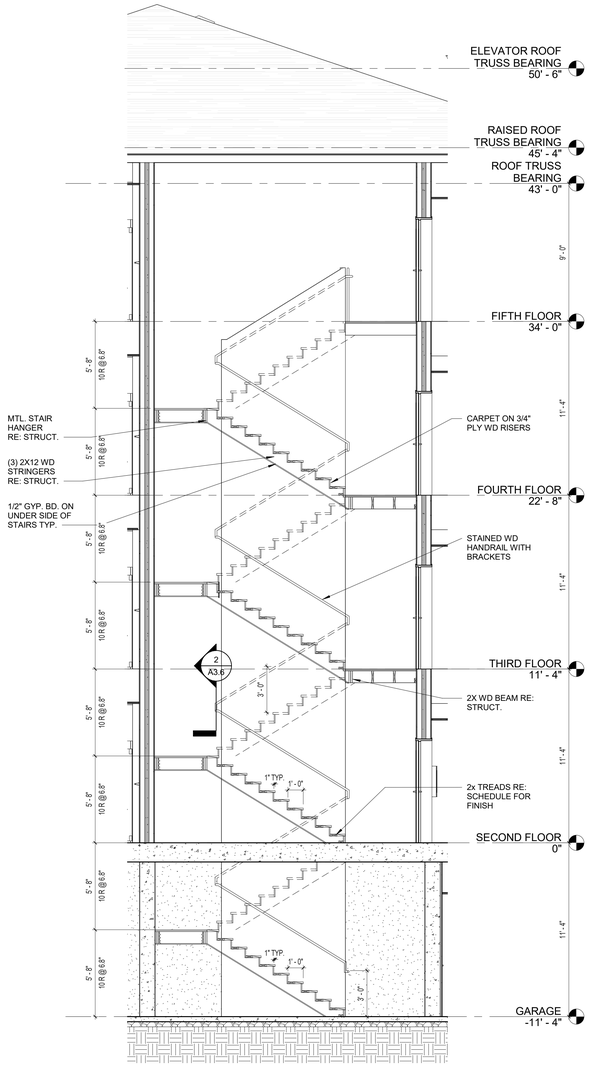
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

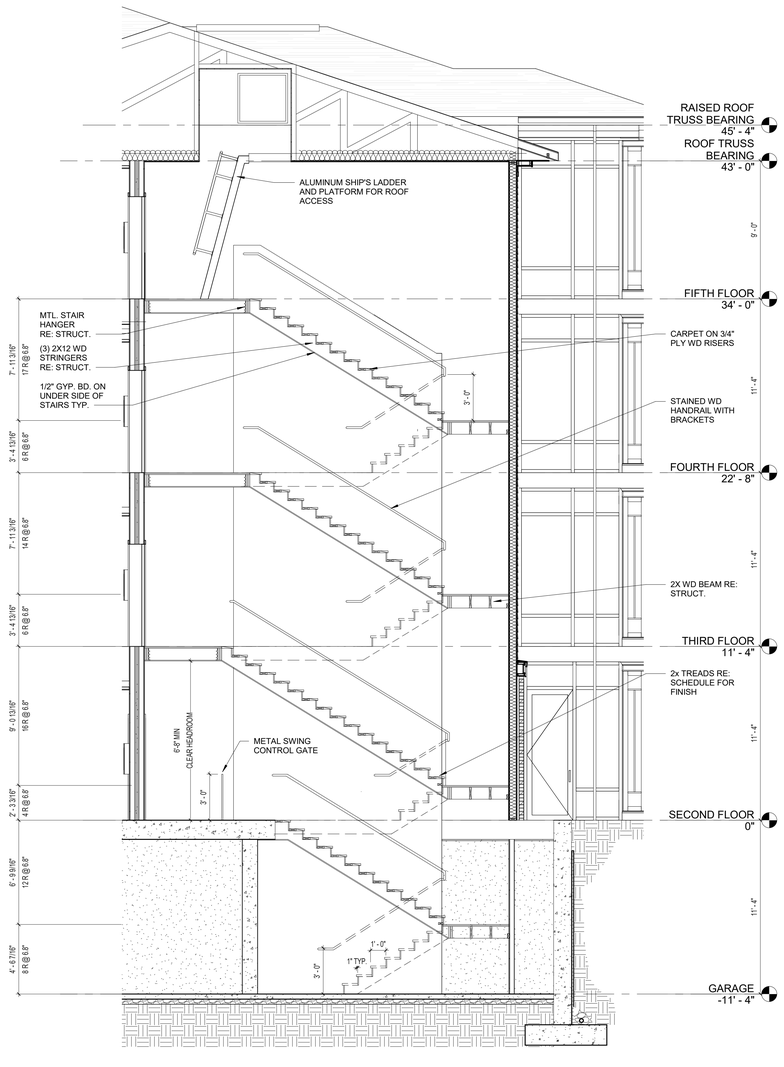
BUILDING SIGNAGE

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A7.5	SHEET ____ OF ____

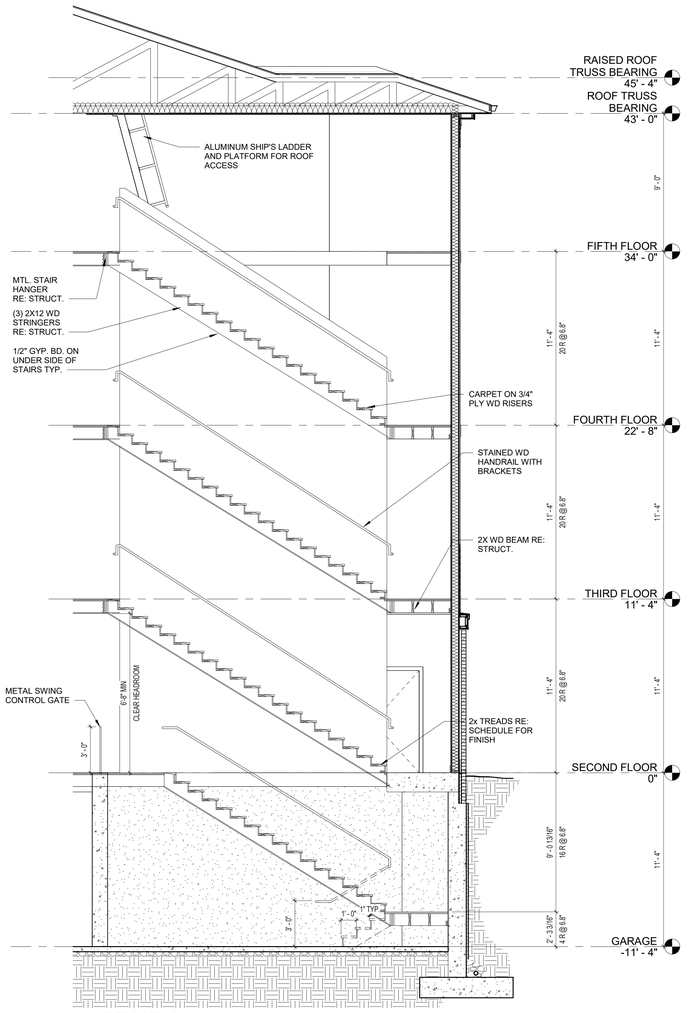
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



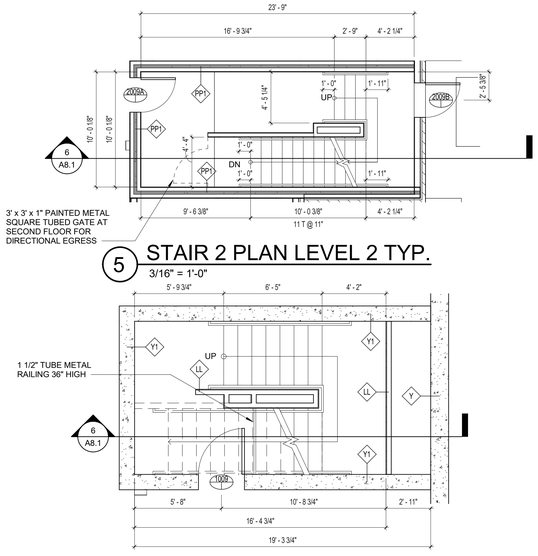
9 STAIR 1 - LONG
1/4" = 1'-0"



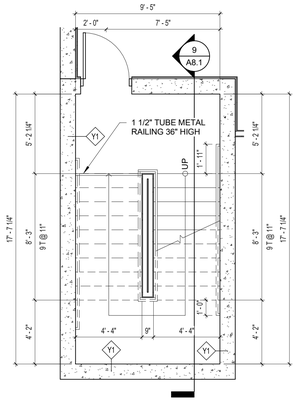
6 STAIR 2
1/4" = 1'-0"



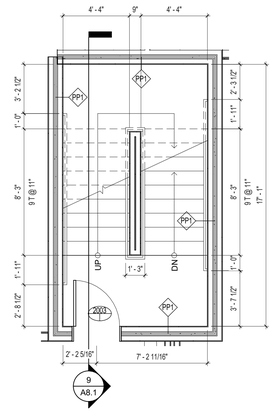
3 STAIR 3
1/4" = 1'-0"



5 STAIR 2 PLAN LEVEL 2 TYP.
3/16" = 1'-0"

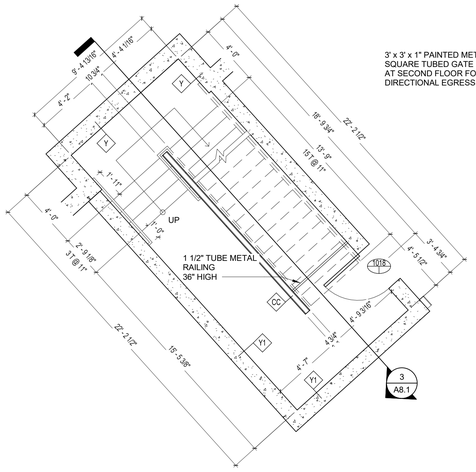


8 STAIR 1 GARAGE PLAN
1/4" = 1'-0"

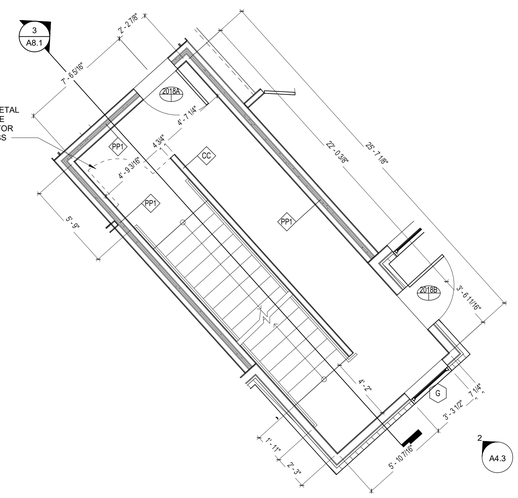


7 STAIR 1 PLAN LEVEL 2 TYP.
1/4" = 1'-0"

4 STAIR 2 GARAGE PLAN
1/4" = 1'-0"



2 STAIR 3 GARAGE PLAN
1/4" = 1'-0"



1 STAIR 3 PLAN LEVEL 2 TYP.
1/4" = 1'-0"

MENU

CAD VERSION
PLOT SCALE
PLOT DATE
2/25/2021 5:09:38 AM
SAVE DATE
COMM NO.
DRAWING NO.

PERMIT SET

STATE OF MISSOURI TIMOTHY A. MUELLER NUMBER A-6802 REGISTERED ARCHITECT
7-8-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
3	Bid Set	02/24/21

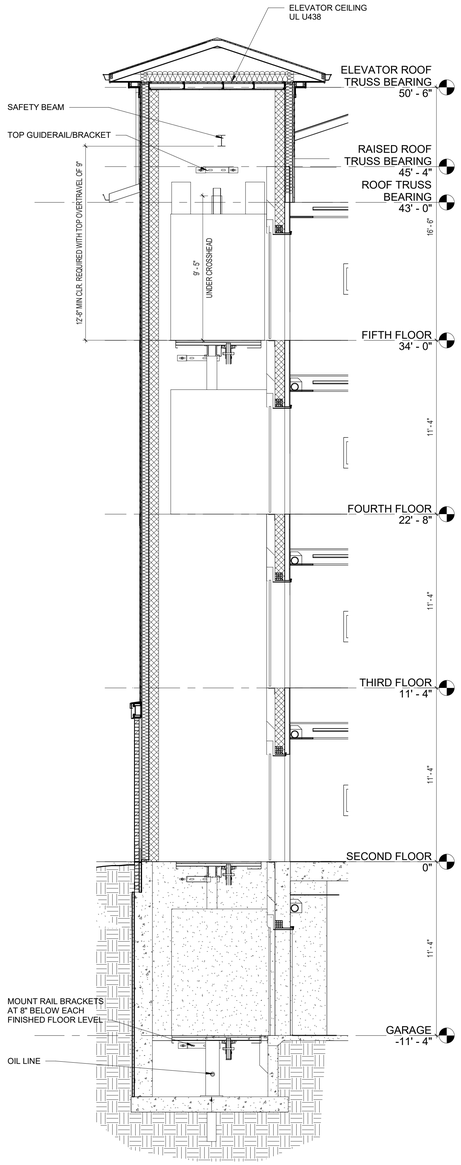
DRAWING TITLE

STAIR PLANS AND SECTIONS

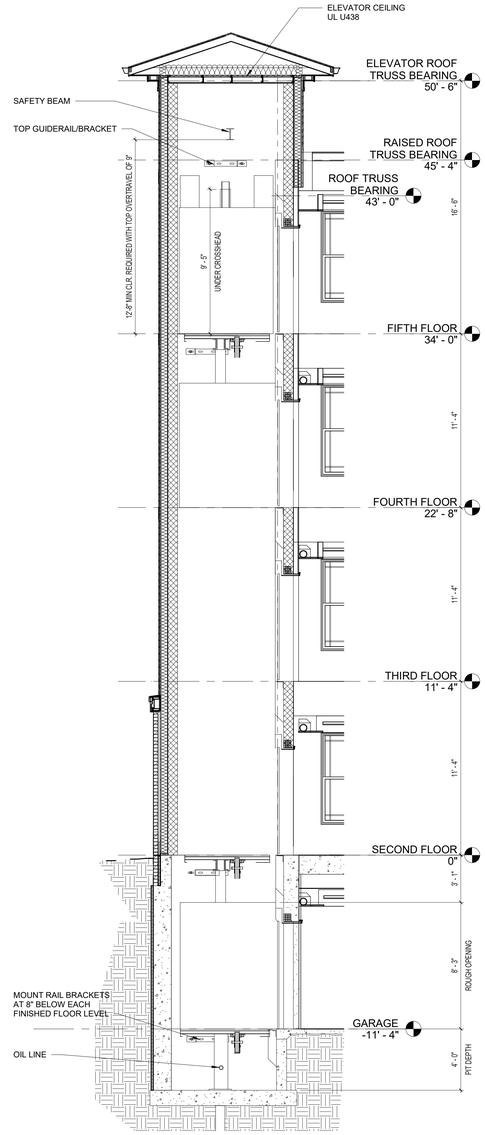
COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING A8.1	SHEET ____ OF ____

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

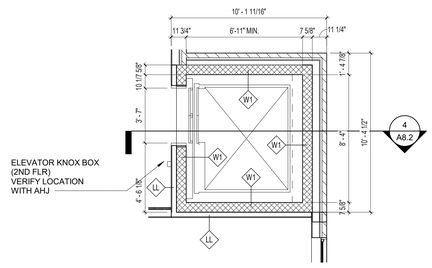
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



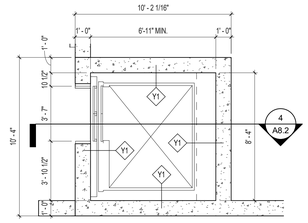
4 ELEV 2 A
1/4" = 1'-0"



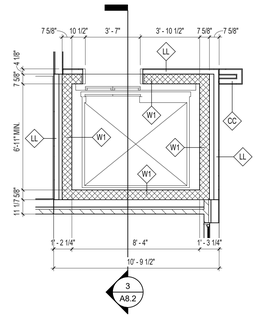
3 ELEV 1 - A
1/4" = 1'-0"



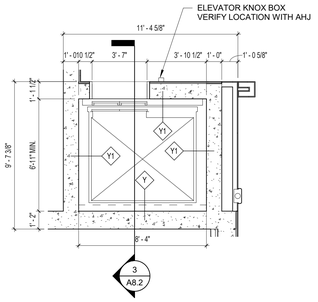
6 ELEV 2 PLAN TYP AT LEVELS 2-5
1/4" = 1'-0"



5 ELEV 2 GARAGE PLAN
1/4" = 1'-0"



2 ELEV 1 PLAN TYP. AT LEVELS 2-5
1/4" = 1'-0"



1 ELEV 1 GARAGE PLAN
1/4" = 1'-0"

MENU

CAD VERSION

PLOT SCALE

PLOT DATE
2/24/2021
10:17:51
AM DATE

COMM NO.

DRAWING NO.

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI TIMOTHY G. AUBUCHON NUMBER A-6802 REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

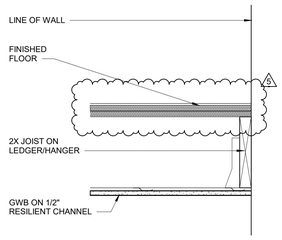
NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

ELEVATOR PLANS AND SECTIONS

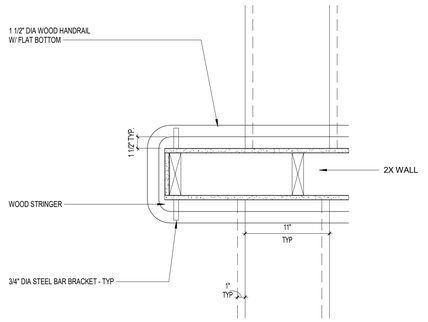
COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
A8.2	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

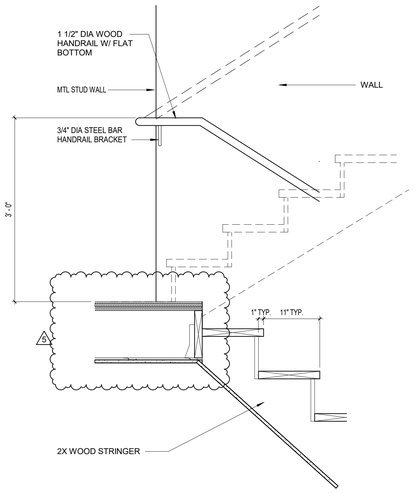


4 LANDING DETAIL
1 1/2" = 1'-0"

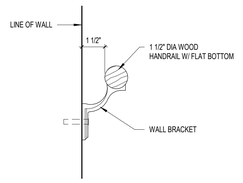
NOTE 1: 1/2" GAP BETWEEN STRINGERS. GUARDRAILS SHALL BE MOUNTED ON STRINGER CENTERLINES. PROVIDE 1 1/2" CLEAR DIMENSION FROM HANDRAIL TO GUARDRAIL.



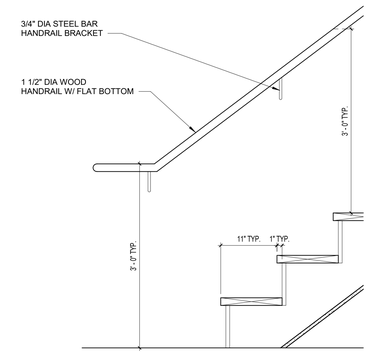
3 CENTER RAIL PLAN
1 1/2" = 1'-0"



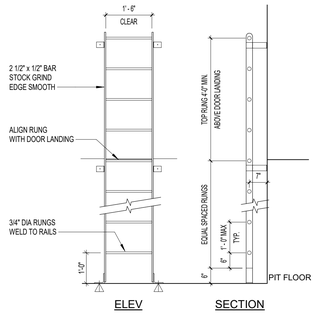
6 LANDING SECTION
1" = 1'-0"



2 HANDRAIL DETAIL
3" = 1'-0"



5 SECTION DETAIL
1" = 1'-0"



1 PIT LADDER DETAIL
1/2" = 1'-0"

MENU

CAD VERSION:
PLOT SCALE:
PLOT DATE:
3/10/2021
4:14:06 PM
SAVE DATE:
COMM NO.:
DRAWING NO.:

BIM 360://19132.00 John Knox Village – Meadows Phase II/19132.00 JKV_Meadows Phase II_Arch Central.rvt

PERMIT SET

STATE OF MISSOURI
TIMOTHY A. MUELLER
NUMBER A-6802
REGISTERED ARCHITECT

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	DAS
PROJECT ARCHITECT	GMJ
PROJECT ENGINEER	
DRAWN BY	GMJ
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

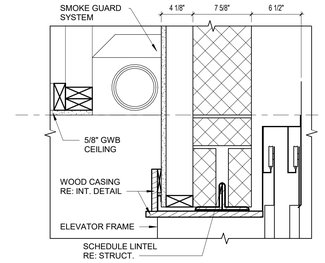
STAIR DETAILS & SECTIONS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

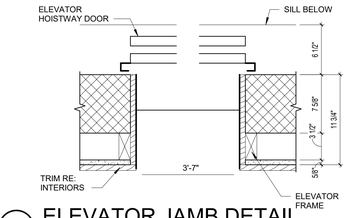
DRAWING A8.3

SHEET ____ OF ____

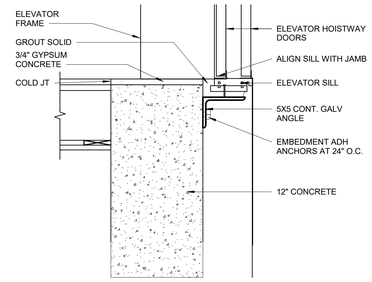
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



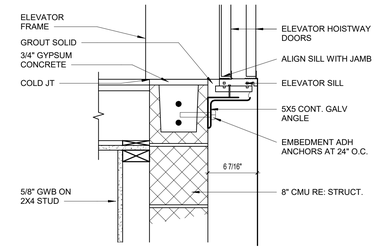
5 ELEVATOR SMOKE GUARD HEAD DETAIL
1 1/2" = 1'-0"



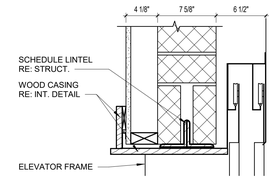
4 ELEVATOR JAMB DETAIL
1 1/2" = 1'-0"



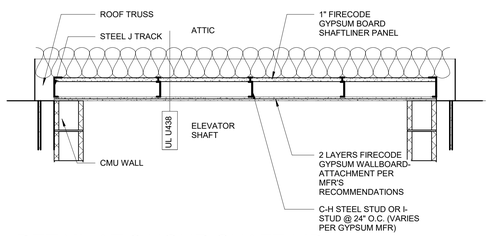
3 ELEVATOR SILL DETAIL 3
1 1/2" = 1'-0"



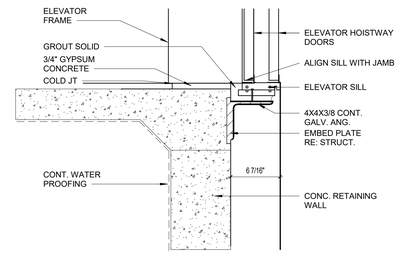
2 ELEVATOR SILL DETAIL 2
1 1/2" = 1'-0"



7 ELEVATOR HEAD DETAIL
1 1/2" = 1'-0"



6 DETAIL AT 2 HOUR SHAFT LID
3/4" = 1'-0"



1 ELEVATOR SILL DETAIL 1
1 1/2" = 1'-0"

MENU

CASD VERSION

PLOT SCALE

1/18/2021
7:57:42 PM
DATE / TIME

COMM. NO.

DRAWING NO.

STATE OF MISSOURI
TIMOTHY A. NUMBERS
NUMBER A-6802
REGISTERED ARCHITECT
2-18-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 ▪ Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	:	DAS
PROJECT ARCHITECT	:	GMJ
PROJECT ENGINEER	:	
DRAWN BY	:	Author
CHECKED BY	:	Checker
APPROVED BY	:	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

ELEVATOR DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING A8.4

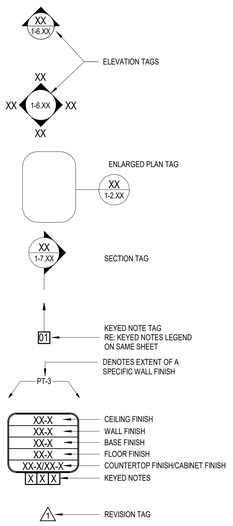
SHEET ____ OF ____

TYPICAL COMMON AREA AND BACK OF HOUSE FINISHES, U.N.O.

TYP. PUBLIC RESTROOM	TYP. RESIDENT CLOSET	TYP. STORAGE/MEP/ MECH/ELEC/TELE/SPRINKLER	TYP. HSKP/TRASH/RECYCLE	TYP. STAIRS
PT-2	-	-	-	PT-2
VWC-1/WT-1.2	PT-1	PT-1	PT-1	PT-1, X
TS-7	RB-1	RB-1	VF-2	RB-2,3
FT-1	SC-1/VF-3	SC-1/VF-3	VF-2	CPT-4
ST-1/WD-1	-	-	-	-
1 4	2	2		3 6

TYP. ELEV CAB
MANF. STD.
MANF. STD.
MANF. STD.
FT-2
-
5

SYMBOLS LEGEND



ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EA	EACH
ELEV	ELEVATION
EQ	EQUAL
FIXT	FIXTURE
FLR	FLOOR
FO	FACE OF
GYP	GYPSUM WALL BOARD
HDWD	HARDWOOD
INT	INTERIOR
MAX	MAXIMUM
MIN	MINIMUM
MTL	METAL
NIC	NOT IN CONTRACT
OC	ON CENTER
OH	OPPOSITE HAND
PLYD	PLYWOOD
RCP	REFLECTED CEILING PLAN
SCHED	SCHEDULED
SIM	SIMILAR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD

NOTE:
1. ALL ABBREVIATIONS LISTED ABOVE MAY NOT BE USED ON THIS PROJECT
2. ABBREVIATIONS FOR FINISHES CAN BE FOUND ON THE FINISH SCHEDULE.

KEYED NOTES - FINISH PLANS

NO.	NOTE	REV. #	Plan Type	Revised
1	TILE ON WALLS TO BE A MINIMUM OF 48" HIGH.		FINISH PLAN	No
2	GARAGE LEVEL AND SECOND FLOOR TO BE SEALED CONCRETE. 3RD, 4TH, 5TH TO BE VINYL FLOORING.		FINISH PLAN	No
3	REFER TO FINISH PLANS FOR EXACT LOCATIONS OF ACCENT PAINT.		FINISH PLAN	No
4	EPOXY GROUT TO BE USED ON ALL PUBLIC RESTROOM FLOOR TILE.		FINISH PLAN	No
5	ELEVATORS TO HAVE RECESSED FLOOR PANS OR MANUFACTURER RECOMMENDED FLOOR PANS TO RECEIVE FLOOR TILE IN ALL CABS.		FINISH PLAN	No
6	INSTALL WITH VINYL STRINGER AND STAIR NOSING TO MATCH MEADOWS PHASE 1		FINISH PLAN	No

GENERAL NOTES

G1. GENERAL CONTRACTOR TO COORDINATE ALL BLOCKING; LAYOUT DIMENSIONS AND PENETRATIONS REQUIRED.

G2. ALL CONSTRUCTION MATERIALS, FIXTURES, FINISHES, TEC. ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

G3. CONTRACTOR TO PROVIDE PRODUCT CERTIFICATES & SHOP DRAWINGS OF ALL MILLWORK/CASEWORK AND SAMPLES OF ALL FINISHES AND ARCHITECTURAL SPECIALITY ITEMS FOR APPROVAL.

G4. PROVIDE WOOD BLOCKING BEHIND ALL WALL MOUNTED ITEMS.

G5. THESE DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES. IN THE EVENT OF AN INCORRECT OR AN OMISSION OF NECESSARY DIMENSIONS CONTRACTOR SHALL NOTIFY INTERIOR DESIGNER OR OWNER'S REPRESENTATIVE.

G6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS PRIOR TO CONSTRUCTION AND NOTIFY INTERIOR DESIGNER OF ANY DISCREPANCIES THAT COULD EFFECT THE DESIGN AND FINISH OUT OF THE PROJECT.

G7. DO NOT SUSPEND ANY ITEMS FROM METAL ROOF DECKS, HORIZONTAL BRIDGING, X-BRACING, PIPES OR CONDUITS, OR ANY OTHER WORK BY OTHER TRADES.

G8. EACH CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF ALL APPLICABLE LAWS AND ORDERS OF PUBLIC OFFICIALS WITH JURISDICTION FOR SAFETY OF PERSONS AND PROPERTY.

G9. VERIFY WITH MANUFACTURER OR SUPPLIER THE SIZE, LOCATION, AND CHARACTERISTICS OF ALL WORK AND EQUIPMENT THAT IS TO BE FURNISHED BY OWNER OR OTHER CONTRACTORS PRIOR TO ANY CONSTRUCTION PERTAINING TO THE SAME IS BEGUN.

G10. WHERE MULTIPLE FINISHES ARE LISTED IN THE SAME ROOM, OR ON THE SAME WALL, REFER TO INTERIOR FINISH PLANS AND/OR INTERIOR ELEVATIONS FOR APPLICATION.

G11. INSTALL **WP-1** AT ALL EXPOSED UNDERCOUNTER SPACES IN FOOD SERVICE AREAS.

G12. ELEC. SWITCH/OUTLET & COVER PLATE COLOR TO BE **WHITE**, U.N.O.

G13. REFER TO INTERIORS COVER SHEET FOR ALL BACK OF HOUSE FINISHES AND TYPICAL FINISHES.

G14. ALL KEYED NOTES ON BACK OF HOUSE AND TYPICAL FINISH TAGS REFERENCE THE KEYED NOTES ON THE FINISH FLOOR PLANS.

G15. ALL KEYED NOTES MAY NOT BE USED ON EVERY SHEET.

G16. INTERIOR DESIGNER TO BE NOTIFIED OF ALL CEILING HEIGHT CHANGES OR CONFLICTS THAT DO NOT COMPLY WITH THESE DRAWINGS.

G17. REFER TO ARCH. / M.E.P. DRAWINGS FOR ALL PLUMBING EQUIPMENT, U.N.O.

G18. REFER TO FOOD SERVICE DRAWINGS FOR ALL FOOD SERVICE EQUIPMENT, U.N.O.

G19. GREY FILL IN SCHEDULES INDICATES A REVISION.

PAINT

P1. CONTRACTOR SHALL PROVIDE 6'-0"X6'-0" MOCK UPS OF EACH PAINT COLOR AND CONTACT INTERIOR DESIGNER TO SCHEDULE SITE VISIT TO CONFIRM EACH PRIOR TO APPLICATION.

P2. ALL KITCHEN PREP WALL AND CEILING AREAS SHALL BE PAINTED WITH EPOXY PAINT.

P3. MECHANICAL GRILLES AND WALL DIFFUSERS, ELECTRICAL PANELS, ACCESS PANELS, ETC. WHICH ARE EXPOSED IN FINISHED SPACES SHALL BE PAINTED, IN PROPER PAINT FORMULATION, TO MATCH THE SURFACE ON WHICH THEY OCCUR.

P4. TYPICAL OVERALL PAINT FINISHES (U.N.O.):

WALLS: EGG SHELL / SATIN

TRIM: SEMI-GLOSS

CEILING: FLAT

CMU: SEMI-GLOSS

DOORS & FRAME: SEMI-GLOSS

P5. ALL FOOD SERVICE AREAS, JANITOR CLOSETS, SOILED UTILITY, HOUSE KEEPING, AND TOILET WALLS AND CEILING PAINT SHALL BE WASHABLE SEMI-GLOSS FINISH.

P6. CONTRACTOR TO ENSURE THAT PAINT FORMULATION IS APPROPRIATE TO SUBSTRATE WHICH IT IS APPLIED.

P7. STUDS EXPOSED THROUGH AIR RETURN DUCT GRILLES ARE TO BE PAINTED BLACK.

TILE

T1. PROVIDE CEMENTITIOUS BOARD BEHIND ALL TILE IN WET AREAS.

T2. ANY VERTICAL WALL TILE TERMINATION SHALL BE FINISHED WITH SCHLUTER "SCHIENE" TRIM PROFILE AT EXPOSED EDGE; SCHLUTER FINISH TO BE STAINLESS STEEL.

T3. ALL PORCELAIN WALL TILE WAINSCOTS SHALL BE MINIMUM 48" HIGH, INCLUDING BULLNOSE FINISH TRIM, EXTENDING ABOVE ELEC. SWITCH PLATES, U.N.O. IN INTERIOR ELEVATIONS.

WOOD

W1. ALL HARDWOOD TO BE **MAPLE** OR APPROVED EQUAL. IF **MAPLE** IS UNAVAILABLE, SAMPLE OF ALTERNATE WITH STAIN APPLIED TO BE PROVIDED TO DESIGNER FOR APPROVAL.

W2. ALL WOOD DIMENSIONS SHOWN ARE NOMINAL.

W3. ALL STAIN GRADE CUSTOM MILLWORK TO BE **WD-1**, U.N.O.

TRIM

TR1. PROVIDE INSIDE AND OUTSIDE CORNER TRIM PIECES AT ALL RESILIENT VINYL OR RUBBER AND COVE TILE BASE SPECIFICATIONS.

TR2. ALL HOLLOW METAL DOORS AND FRAMES SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR IN PROPER PAINT FORMULATION U.N.O.

TR3. ALL WOOD DOORS AND FRAMES SHALL BE PAINTED **PT-2**, U.N.O.

TR4. ALL CROWN MOULDING AND CEILING TRIM SHALL BE PAINTED **PT-2** U.N.O. AND SHALL BE APPLIED AT WALL/CEILING TRANSITION ON GYPSUM BOARD CEILINGS ONLY. LAY-IN SCHEDULED TO RECEIVE ACT SHALL NOT RECEIVE CROWN MOULDING.

TR5. ALL VINYL OR RUBBER BASE SHALL BE ADHERED AT TOP, BOTTOM AND ANY SEAMS.

TR6. ALL STANDING & RUNNING MILLWORK TRIM SHALL BE PAINTED **PT-2** U.N.O.

TR7. ALL FIRE EXIT DOORS & TRIM TO BE PAINTED **PT-2** U.N.O.

FLOORING

F1. REFERENCE INTERIOR FINISH SCHEDULE FOR TYPICAL FLOOR FINISH TRANSITION SPECIFICATIONS.

F2. JOHNSONITE SUBFLOOR LEVELER SYSTEM (**LS-40**) TO BE USED AT ALL FLOOR FINISH TRANSITIONS, U.N.O.

F3. ALL FLOORING MATERIAL TRANSITIONS SHALL OCCUR AT CENTER OF OPENING DEPTH. ALL TRANSITIONS AT DOORS SHALL OCCUR AT CENTERLINE OF DOOR THICKNESS U.N.O.

F4. ALL VINYL AND PORCELAIN FLOOR TILE PATTERNS SHALL BE CENTERED ON ROOM U.N.O. NOTED ON ENLARGED FINISH PLANS.

CASEWORK

C1. ALL EXPOSED INTERIOR SURFACES OF ALL CABINETRY TO BE FINISHED TO MATCH EXTERIOR, U.N.O.

C2. ALL SEMI-EXPOSED SURFACES TO BE **CLEAR FINISH**.

C3. ALL CABINETS WITH ADJUSTABLE SHELVES TO HAVE 6MM ∅ HOLES AT 64MM ON CENTER VERTICALLY FOR SHELF SUPPORTS.

C4. ALL DRAWER GLIDES TO HAVE A MINIMUM 100 LB CAPACITY AND FULL EXTENSION, U.N.O.

C5. ALL CABINETRY HINGES TO BE CONCEALED SELF CLOSING HINGES, U.N.O.

C6. DECORATIVE HARDWARE PULLS AT ALL FRONT OF HOUSE COMMON AREAS:
EQHDW-1 (REFER TO INTERIOR LIST OF FINISHES FOR EXACT SPECIFICATION)

DECORATIVE HARDWARE PULLS AT ALL BACK OF HOUSE MILLWORK:
EQHDW-2 (REFER TO INTERIOR LIST OF FINISHES FOR EXACT SPECIFICATION)

DECORATIVE HARDWARE PULLS AT ALL RESIDENT UNITS:
UEQHDW-1 (REFER TO INTERIOR LIST OF FINISHES FOR EXACT SPECIFICATION)

C7. STAINED WOOD VENEER TO BE RIFT MAPLE, U.N.O.

UNITS

U1. REFERENCE FINISH SCHEDULE FOR FINISH SPECIFICATION AND LOCATION IN ALL RESIDENT UNITS.

U2. RESIDENT UNIT ENTRY DOOR/TRIM FINISH:

COMMON AREA/CORRIDOR SIDE: DOOR & TRIM PAINTED **PT-2**

INSIDE IL RESIDENT UNIT: DOOR & TRIM TO BE PAINTED **UPT-2**

U3. ALL RESIDENT UNIT ENTRY RECESSES PAINTED **ACCENT COLOR**, U.N.O. SEE FINISH PLANS & INT. ELEVATIONS FOR FURTHER DETAIL.

INTERIORS SHEET INDEX

CURRENT REVISION	SHEET #	SHEET TITLE
	I-0.00	COVER SHEET
	I-0.01	FINISH, TRIM,EQUIPMENT & TRANSITION SCHEDULES
	I-1.01	LEVEL 0 - FINISH PLAN
	I-1.11	LEVEL 2 - FINISH PLAN
	I-1.21	LEVEL 3 - FINISH PLAN
	I-1.31	LEVEL 4 - FINISH PLAN
	I-1.41	LEVEL 5 - FINISH PLAN
	I-2.00	UNIT SCHEDULES
	I-2.01	ENLARGED UNIT PLANS
	I-2.02	ENLARGED UNIT PLANS
	I-4.11	LEVEL 2 - WALL PROTECTION PLAN
	I-4.21	LEVEL 3 - WALL PROTECTION PLAN
	I-4.31	LEVEL 4 - WALL PROTECTION PLAN
	I-4.41	LEVEL 5 - WALL PROTECTION PLAN
	I-5.01	LEVEL 0 - FURNITURE & COORDINATION PLAN
	I-5.11	LEVEL 2 - FURNITURE & COORDINATION PLAN
	I-5.21	LEVEL 3 - FURNITURE & COORDINATION PLAN
	I-5.31	LEVEL 4 - FURNITURE & COORDINATION PLAN
	I-5.41	LEVEL 5 - FURNITURE & COORDINATION PLAN
	I-7.00	INTERIOR ELEVATIONS
	I-7.01	INTERIOR ELEVATIONS
	I-8.00	DETAILS
	I-8.01	DETAILS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

STUDIO SIX5
811 Barton Springs Rd. Ste. 800
Austin, TX 78704
V 512-476-6501
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BID SET

STATE OF MISSOURI
B. DEAN MAKDALEHA
NUMBER A-2006001
REGISTERED ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
COVER SHEET

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING I-0.00 SHEET ____ OF ____

TRIM SCHEDULE

LEGEND:

TCN TCR THR	Crown Molding Chair Rail Hand Rail (Wood)	TLR TML TR	Lean Rail (Wood) Millwork Leg General Trim	TRD TRW TWB	Door Trim (Header, Casing, etc.) Window Trim (Casing, Sill, etc.) Wood Base			

KEY	DESCRIPTION	MANUFACTURER	STYLE	COLOR	CONTACT	REMARKS	REVISIONS	LOCATION
TCR-1	Chair Rail	-	RE: 2/I-8.00	Painted to match PT-2	--	--	-	Resident Corridors
TLR-1	Lean Rail	-	RE: 1/I-8.00	Painted to match PT-2	--	--	-	Resident Corridors
TR-1	1"x8" Hardwood Trim	-	Paint Grade Hardwood	Painted to Match PT-2	--	--	-	Elevator Lobby
TR-2	1"x1" Hardwood Trim	-	Paint Grade Hardwood	Painted to Match PT-2	--	--	-	Elevator Lobby, and Cased Opening
TR-3	Package Shelf	-	RE: 4/I-8.00	Painted to match PT-2.	--	Paint grade hardwood. Submit samples for designer approval in submittal process.	-	Resident Corridors
TR-4	1"x6" Hardwood Trim	-	Paint Grade Hardwood	Painted to Match PT-2	--	Paint grade hardwood. Submit samples for designer approval in submittal process.	-	Unit Entry Door Casing
TR-5	1"x2" Hardwood Trim		Paint Grade Hardwood	Painted to Match PT-2	--	Paint grade hardwood. Submit samples for designer approval in submittal process.	-	Unit Entry Door Casing
TR-6	1"x3" Hardwood Trim		Paint Grade Hardwood	Painted to Match PT-2		Paint grade hardwood. Submit samples for designer approval in submittal process.		
TWB-1	7" Wood Base - Painted	Frank Paxton Lumber	Paint Grade Hardwood PAX03104 3/4" x 7 1/4"	Painted to Match PT-2		Paint grade hardwood. Submit samples for designer approval in submittal process.	-	Typ. Public Space, Resident Corridors

EQUIPMENT SCHEDULE

LEGEND:

EQ EQA EQB	General Equipment (Grommet, Keyboard Tray, etc.) Appliances Bracket	EQHDW EQP EQR	Cabinet Hardware Plumbing Equipment Railing (Stair, Bar, etc.)					

KEY	DESCRIPTION	MANUFACTURER	STYLE	COLOR	CONTACT	REMARKS	Image	LOCATION
EQHDW-1	Decorative Hardware Pulls 3" Hardware Pull	Liberty Hardware	P14751C-VBR-C	Venetian Bronze	--	--		Typ. Public Areas
EQHDW-2	Decorative Hardware Pulls 4" Wire Pull	Liberty Hardware	P604DC-SN-C	Satin Nickel	--	--		B.O.H.

TRANSITION SCHEDULE

LEGEND:

RV TS	Reveal Transition								

KEY	MATERIAL 1	MATERIAL 2	MANUFACTURER	STYLE	COLOR/FINISH	PROFILE	CONTACT	REMARKS	REVISIONS
TS-1	Subfloor leveler System	--	Johnsonite	LS-40	Black		Evelyn Smith (512) 638-0147		
TS-2	Carpet	Tile	Schluter	SCHIENE	Satin Anodized Aluminum		Josie Janssen (512) 230-7953	USE IN CONJUNCTION WITH TS-1	
TS-3	Vinyl Floor	Tile	Schluter	RENO-U	Satin Anodized Aluminum		Josie Janssen (512) 230-7953		
TS-4	Vinyl Floor	Carpet	Johnsonite	Slim-Line Transition SLT-XX-A	TBD		Evelyn Smith (512) 638-0147	USE IN CONJUNCTION WITH TS-1	
TS-5	Carpet	Sealed Concrete	Schluter	SCHIENE	Satin Anodized Aluminum		Josie Janssen (512) 230-7953		
TS-6	Vinyl Floor	Sealed Concrete	Johnsonite	Slim-Line Transition SLT-XX-J	TBD		Josie Janssen (512) 230-7953	USE IN CONJUNCTION WITH TS-1	
TS-7	Floor Tile	Wall Tile	Schluter	DILEX	Satin Anodized Aluminum		Josie Janssen (512) 230-7953		
TS-8	Floor Tile	Sealed Concrete	Schluter	RENO-U	Satin Anodized Aluminum		Josie Janssen (512) 230-7953		

FINISH SCHEDULE

LEGEND:

ACT AF BR CG CPT DP EF FT	Acoustical Ceiling Tile Architectural Film (Glass, etc.) Bumper Rail Corner Guard Carpet (Broadloom, Modular, etc.) Decorative Panel Epoxy Floor Floor Tile	FWP GL HR LR MR MT PL PT	Fabric Wrapped Panel Glass Hand Rail Lean Rail Mirror Metal Plastic Laminate Paint	RB SC SSM ST TB VF	Rubber Base Sealed Concrete (Stained, Sealed, etc.) Solid Surface Material Stone (Granite, Quartz, etc.) Tile Base Vinyl Floor (Tile, Plank, Sheet, etc.)		VWC WD WF WP WT	Vinyl Wallcovering Wood Finish (Custom, Prefab., etc.) Wood Floor Wall Protection (FRP, HIC, etc.) Wall Tile

KEY	DESCRIPTION	MANUFACTURER	STYLE	COLOR	CONTACT	REMARKS	REVISIONS	LOCATION
ACT-1	Acoustical Ceiling Tile	Armstrong	Style: Ultima 1902 Beveled Size: 24"x24" Grid: 9/16" Tegular Color Grid: White	Color: White Grid Color: White	Kristi Shatz (512) 745-0926	--	-	Typ. Public Space and Resident Corridors
ACT-2	Acoustical Ceiling Tile	Armstrong	Style: Fine Fissured Square Lay-In 1729 Size: 24x24 Grid: 15/16"	Color: White	Kristi Shatz (512) 745-0926	--	-	B.O.H.
CPT-1	Custom Broadloom Carpet- 100% Lextron Environ Green Solution Dyed Nylon	Tarkett	Style: 1942, Pattern: 3185-489	A: 5057, B: 5003, C: 7509, D: 3504	Tracy Kaiser (917) 242- 5606	--	-	Corridors
CPT-2	Custom Broadloom Carpet- 100% Lextron Environ Green Solution Dyed Nylon	Tarkett	Style: 1842, Pattern: 3187-289	A: 5057, B: 5003, C: 3005, D: 3504	Tracy Kaiser (917) 242- 5606	--	-	Resident Corridor Inset
CPT-3	Custom Broadloom Carpet- 100% Lextron Environ Green Solution Dyed Nylon	Tarkett	Style: 1632, Pattern: 014001	A: 5057, B: 3504, C: 7509	Tracy Kaiser (917) 242- 5606	--	-	Resident Corridor Border
CPT-4	Custom Broadloom Carpet- 100% Lextron Environ Green Solution Dyed Nylon	Tarkett	Style: 1132, Pattern: 7910	A: 5057, B: 3504, C: 7509	Tracy Kaiser (917) 242- 5606	Install with Vinyl Stringer and Stair Nosing to match Meadows Phase 1	-	Stairs
CPT-6	Walk-off Mat- Custom	Mats INC.	Custom Super Nop logo mat	Midnight Blue Sterling	Joel Hill (214) 649-6921	--	-	Entry Vestibule
CPT-7	Walk-off Mat- Custom	Mats INC.	Connexus Super Nop 52	Midnight Blue	Joel Hill (214) 649-6921	--	-	Entry Vestibule
FT-1	12"x24" Porcelain Floor Tile 5/16" thickness	Concept Surfaces	Keanu	Classic Tan- Semi-Polished Finish	Louis Perez (512) 769-3753	Grout: Mapei #35 Navajo Brown Use Epoxy Grout	-	Public Restrooms
FT-2	20" x 39" Porcelain Floor Tile 5.6mm thickness	Daltile	Slimlite Porcelain Panels	Distressed Bronze- TP49	Janice Kelly (512) 799-0274	Installation: Brick Lay 1/8" Grout Joint Grout: Mapei #10 Black	-	Elevator Cabs
PT-1	Paint	Sherwin Williams	SW7528	Windsor Greige	Joy LaChelle Babur (281) 904-5292	--	-	Typical Wall Paint
PT-2	Paint	Sherwin Williams	SW7551	Greek Villa	Joy LaChelle Babur (281) 904-5292	--	-	Typical Trim/Ceiling Paint
PT-3	Paint	Sherwin Williams	SW 7599	Brick Paver	Joy LaChelle Babur (281) 904-5292			Accent Wall Paint Level 0
PT-4	Paint	Sherwin Williams	SW6404	Grandiose	Joy LaChelle Babur (281) 904-5292	--	-	Accent Wall, 2nd Floor Corridor
PT-5	Paint	Sherwin Williams	SW6370	Saucy Gold	Joy LaChelle Babur (281) 904-5292	--	-	Accent Wall Paint, 3rd Floor Corridor
PT-6	Paint	Sherwin Williams	SW6230	Rainstorm	Joy LaChelle Babur (281) 904-5292	--	-	Accent Wall Paint, 4th Floor Corridor
PT-7	Paint	Sherwin Williams	SW7595	Sommelier	Joy LaChelle Babur (281) 904-5292	--	-	Accent Wall Paint, 5th Floor Corridor
RB-1	Rubber Base	Johnsonite	DC-XXX-4	08 Icicle W	Evelyn Smith (512) 638-0147	--	-	B.O.H.
RB-2	Stair Stringer	Johnsonite	VS-XX-10	Navy Blue 18	Evelyn Smith (512) 638-0147	--	-	Stairs
RB-3	Stair Nosing	Flexco	#171	077 Driftwood	Shanna Overholser (512) 635-6631			Stairs
SC-1	Sealed Concrete	-	Refer to Architecutral Specifications		--	--	-	B.O.H.
ST-1	3cm Quartz	Cambria	Waterstone Collection	Bradshaw	Jennifer Nutt (512) 962-7419	--	-	Activity
VF-1	12"x 12" Vinyl Tile	Tarkett	Criss Cross	Raffia VA 5124-QU	Evelyn Smith (512) 638-0147	--	-	Activity
VF-2	Heterogeneous Sheet Vinyl	Mannington	Paradigm Collection Intersect	Basis (PAR100)	Michael Arrington (210) 772-8830	Flash cove w/ chemical welded seams.	-	B.O.H (Wet Areas)
VF-3	12"x24" Vinyl Tile	Mohawk	Matuto C0008	926 Agreeable Grey	Mike Pierce (512) 718-8953	--	-	B.O.H.
VWC-1	Vinyl Wallcovering, 52"W, Type II	Design Tex	Akoya	6554-104 Bronze	Ann Maupin (830) 822-4772	--	-	Public Restroom
WD-1	Custom Stain Finish	Custom	Stained to match designer control sample.	--	--	--	-	Activity, Public Restroom
WD-2	Painted Plywood	Custom	Painted to match PT-2	--	--	--	-	Lobby/Corridor Entry
WT-1	12"x24" Porcelain Wall Tile	Concept Surfaces	Keanu	Classic Tan- Semi-Polished Finish	Louis Perez (512) 769-3753	Grout: Mapei #35 Navajo Brown	-	Public Restrooms
WT-2	Wall Tile Bullnose	Concept Surfaces	Keanu	Classic Tan- Semi-Polished Finish	Louis Perez (512) 769-3753	Grout: Mapei #35 Navajo Brown	-	Public Restrooms

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

STUDIO SIX 5
811 Barton Springs Rd. Ste. 800
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www.StudioSIX5.com

BID SET
STATE OF MISSOURI
B. DEAN MAGDALENA
ARCHITECT
1-15-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
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540.344.6664 ▪ Fax 540.343.6925
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PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

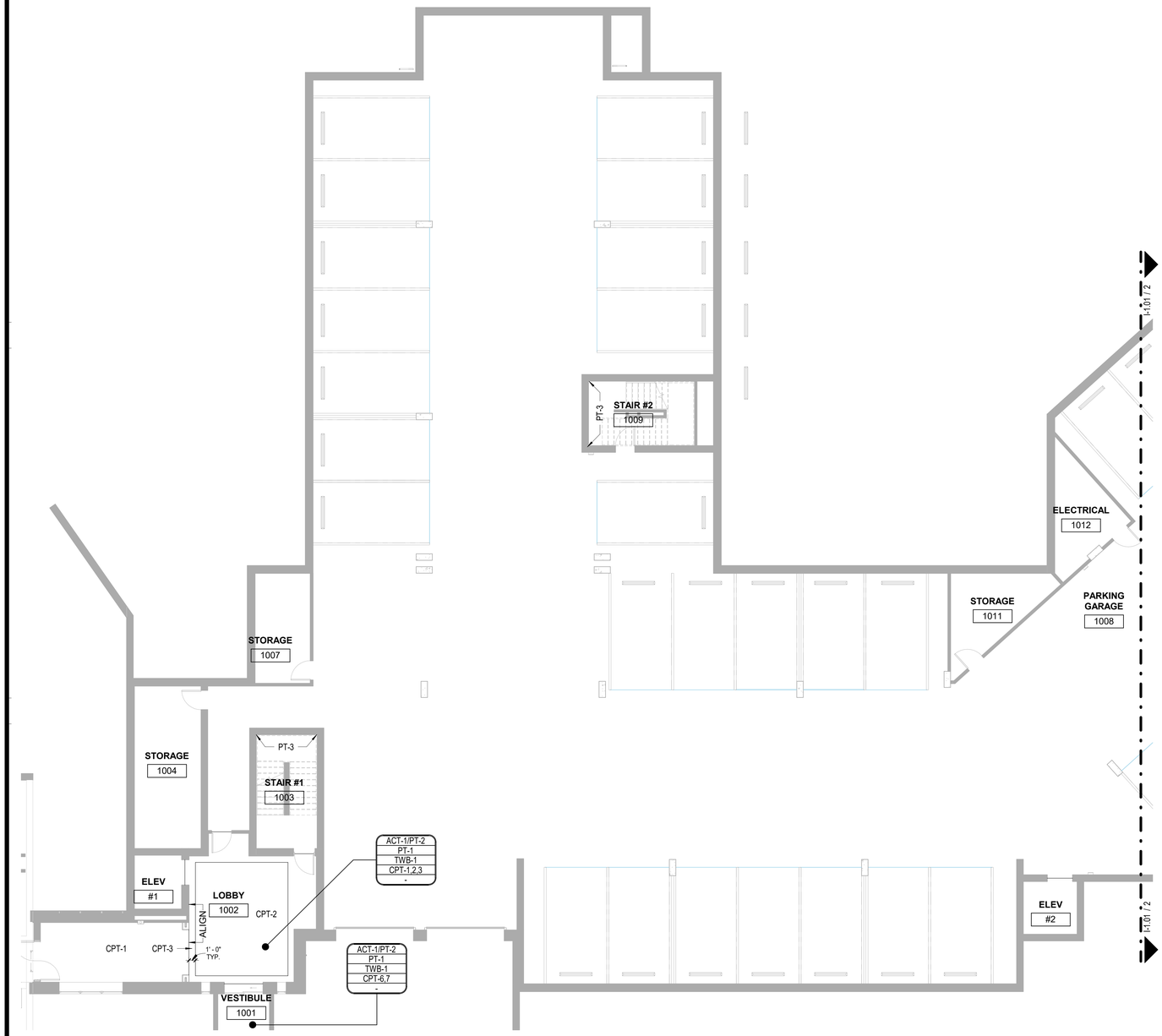
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
FINISH, TRIM,EQUIPMENT & TRANSITION SCHEDULES

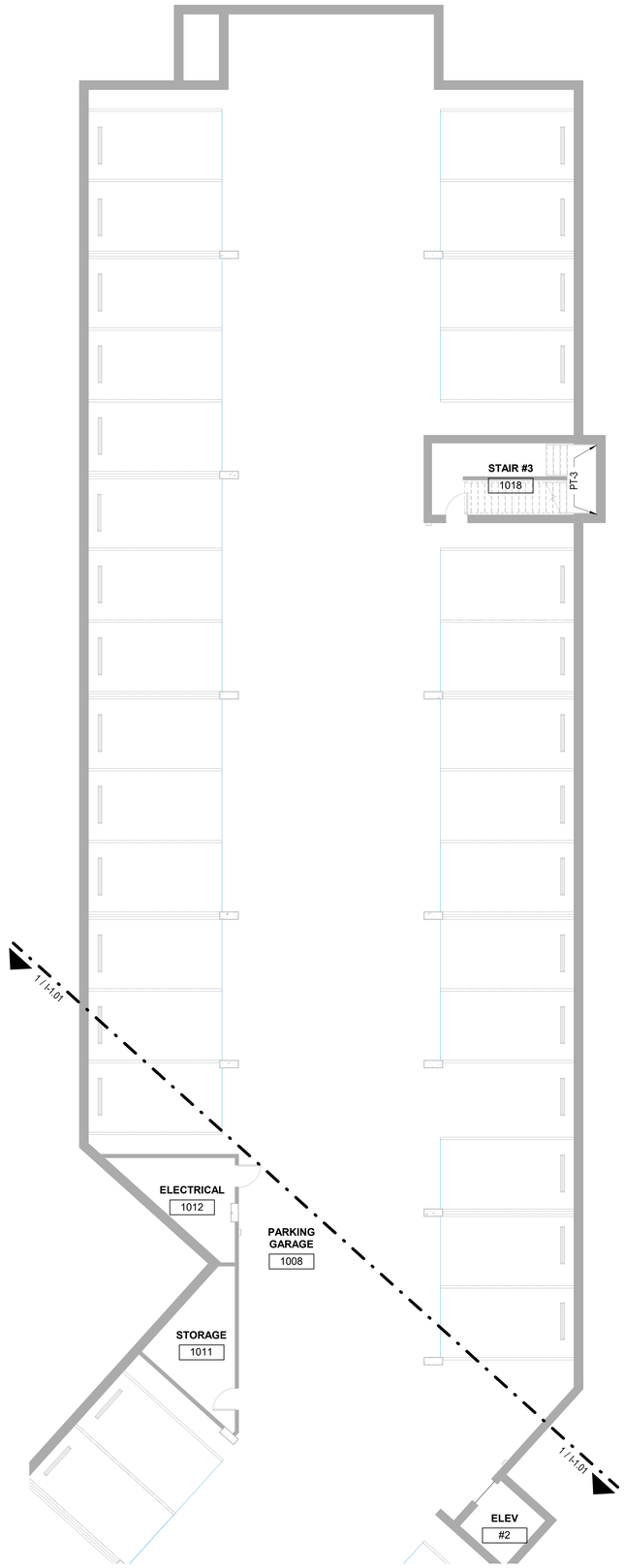
COMM. NO. 19132.00	DATE FEBRUARY 24,2021
DRAWING I-0.01	SHEET ____ OF ____

KEYED NOTES - FINISH PLANS

NO.	NOTE	REV. #	Plan Type	Revised
1	TILE ON WALLS TO BE A MINIMUM OF 48" HIGH.		FINISH PLAN	No
2	GARAGE LEVEL AND SECOND FLOOR TO BE SEALED CONCRETE. 3RD, 4TH, 5TH TO BE VINYL FLOORING.		FINISH PLAN	No
3	REFER TO FINISH PLANS FOR EXACT LOCATIONS OF ACCENT PAINT.		FINISH PLAN	No
4	EPOXY GROUT TO BE USED ON ALL PUBLIC RESTROOM FLOOR TILE.		FINISH PLAN	No
5	ELEVATORS TO HAVE RECESSED FLOOR PANS OR MANUFACTURER RECOMMENDED FLOOR PANS TO RECEIVE FLOOR TILE IN ALL CABS.		FINISH PLAN	No
6	INSTALL WITH VINYL STRINGER AND STAIR NOSING TO MATCH MEADOWS PHASE 1		FINISH PLAN	No



1 LEVEL 0 - FINISH PLAN - WING A
1/8" = 1'-0"



2 LEVEL 0 - FINISH PLAN - WING B
1/8" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

STUDIO SIX 5
811 Barton Springs Rd. Ste. 800
Austin, TX 78704
V 512-476-6501
www.StudioSIX5.com

BID SET
STATE OF MISSOURI
B. BEAN MADDALENA
NUMBER A-6020011
ARCHITECT
1-18-2021

PROJECT TITLE
John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

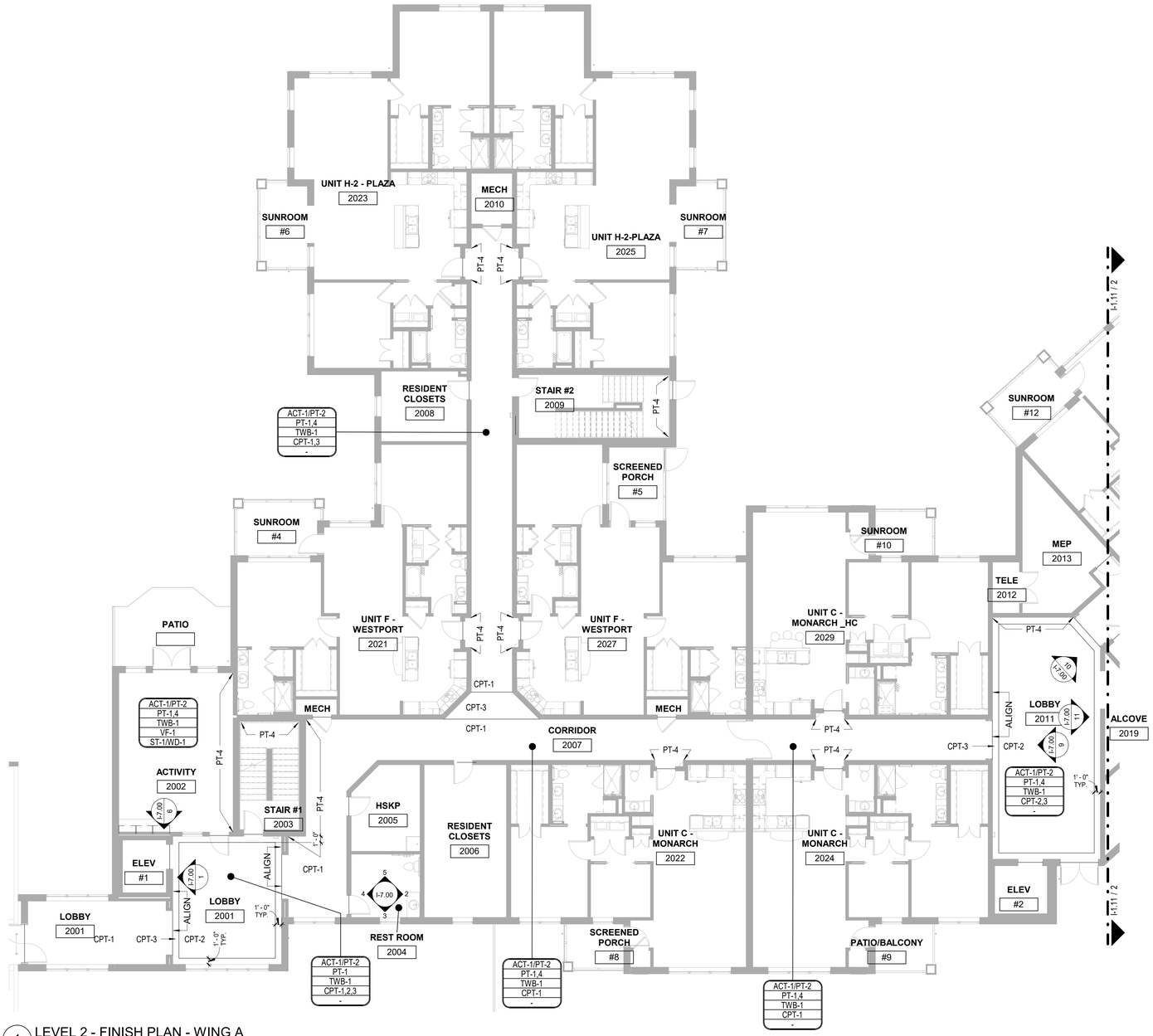
DRAWING TITLE
LEVEL 0 - FINISH PLAN

COMM. NO. 19132.00	DATE FEBRUARY 24,2021
DRAWING I-1.01	SHEET ____ OF ____

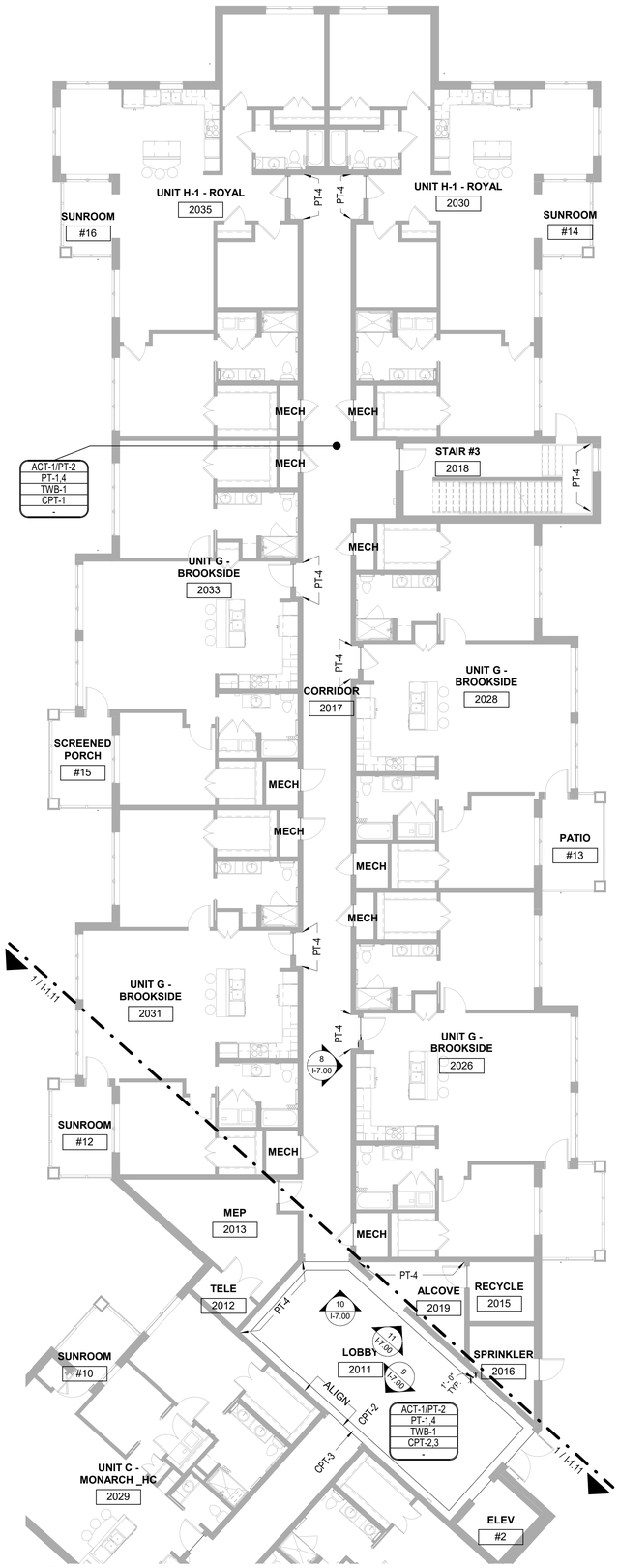
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

KEYED NOTES - FINISH PLANS

NO.	NOTE	REV. #	Plan Type	Revised
1	TILE ON WALLS TO BE A MINIMUM OF 48" HIGH.		FINISH PLAN	No
2	GARAGE LEVEL AND SECOND FLOOR TO BE SEALED CONCRETE. 3RD, 4TH, 5TH TO BE VINYL FLOORING.		FINISH PLAN	No
3	REFER TO FINISH PLANS FOR EXACT LOCATIONS OF ACCENT PAINT.		FINISH PLAN	No
4	EPOXY GROUT TO BE USED ON ALL PUBLIC RESTROOM FLOOR TILE.		FINISH PLAN	No
5	ELEVATORS TO HAVE RECESSED FLOOR PANS OR MANUFACTURER RECOMMENDED FLOOR PANS TO RECEIVE FLOOR TILE IN ALL CABS.		FINISH PLAN	No
6	INSTALL WITH VINYL STRINGER AND STAIR NOSING TO MATCH MEADOWS PHASE 1		FINISH PLAN	No



1 LEVEL 2 - FINISH PLAN - WING A
1/8" = 1'-0"



2 LEVEL 2 - FINISH PLAN - WING B
1/8" = 1'-0"

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BID SET

STATE OF MISSOURI
B. DEAN MAYFIELD
NUMBER A-2007031
ARCHITECT
1-18-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
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PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

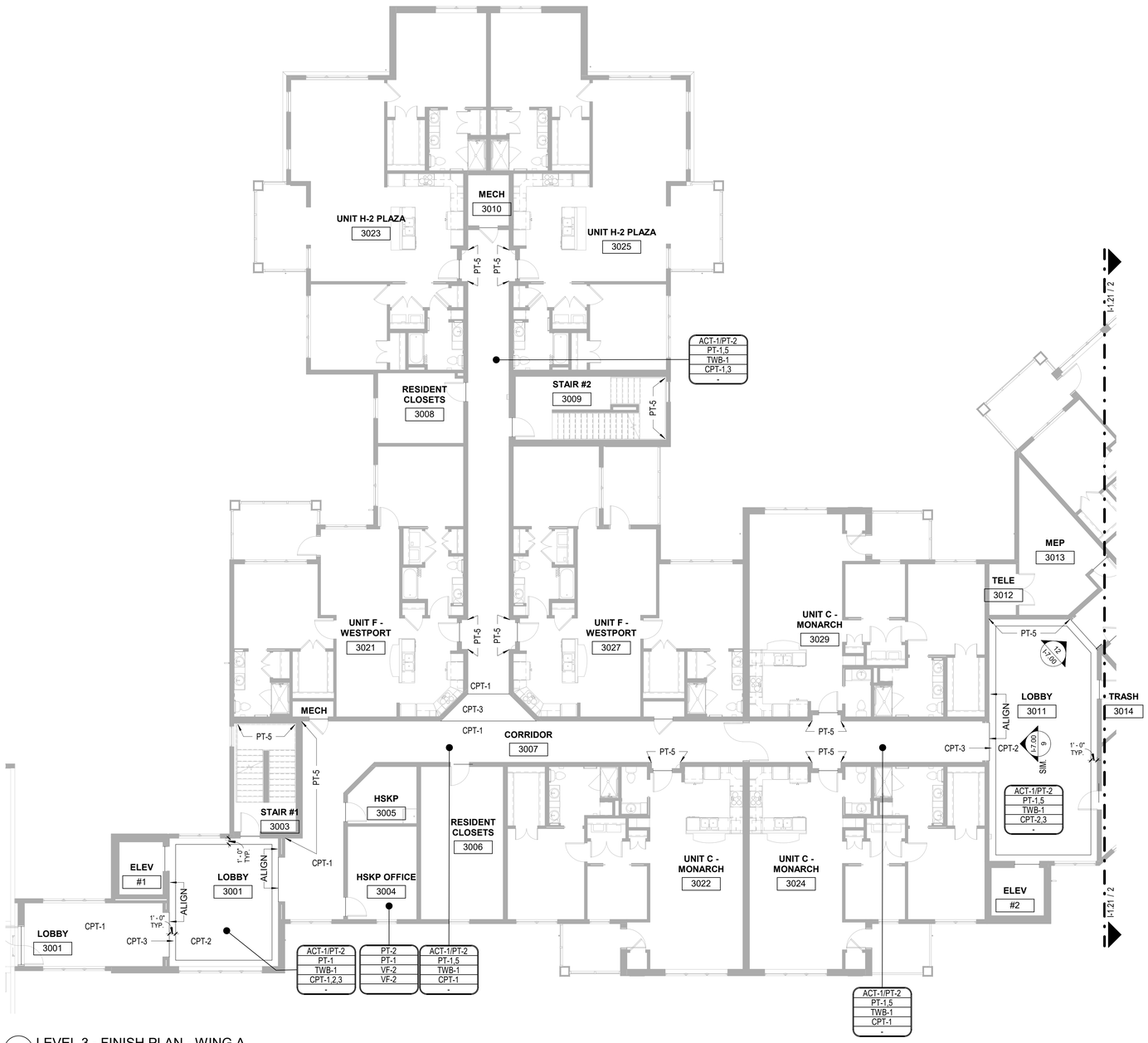
DRAWING TITLE
LEVEL 2 - FINISH PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

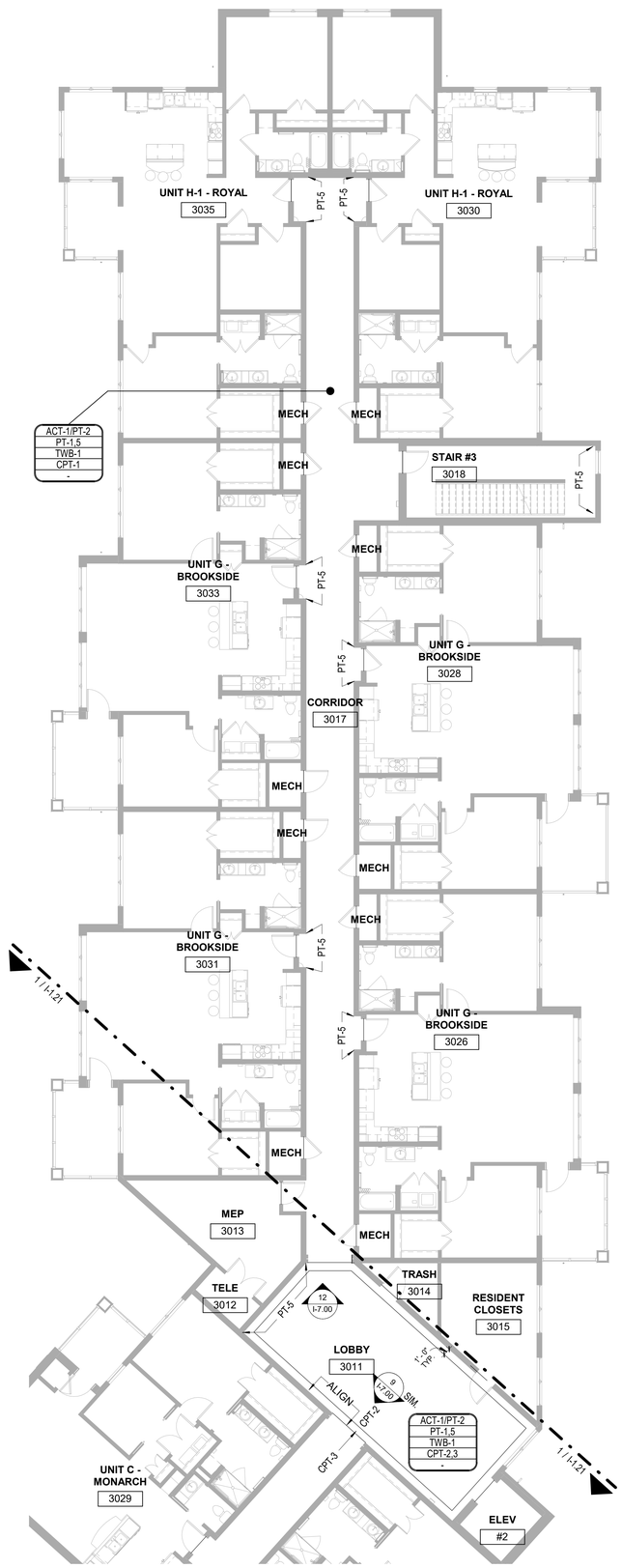
DRAWING I-1.11 SHEET ____ OF ____

KEYED NOTES - FINISH PLANS

NO.	NOTE	REV. #	Plan Type	Revised
1	TILE ON WALLS TO BE A MINIMUM OF 48" HIGH.		FINISH PLAN	No
2	GARAGE LEVEL AND SECOND FLOOR TO BE SEALED CONCRETE. 3RD, 4TH, 5TH TO BE VINYL FLOORING.		FINISH PLAN	No
3	REFER TO FINISH PLANS FOR EXACT LOCATIONS OF ACCENT PAINT.		FINISH PLAN	No
4	EPOXY GROUT TO BE USED ON ALL PUBLIC RESTROOM FLOOR TILE.		FINISH PLAN	No
5	ELEVATORS TO HAVE RECESSED FLOOR PANS OR MANUFACTURER RECOMMENDED FLOOR PANS TO RECEIVE FLOOR TILE IN ALL CABS.		FINISH PLAN	No
6	INSTALL WITH VINYL STRINGER AND STAIR NOSING TO MATCH MEADOWS PHASE 1		FINISH PLAN	No



1 LEVEL 3 - FINISH PLAN - WING A
1/8" = 1'-0"



2 LEVEL 3 - FINISH PLAN - WING B
1/8" = 1'-0"

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LEE'S SUMMIT, MISSOURI
05/10/2021

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BID SET

STATE OF MISSOURI
B. DEAN MAPOLEMA
NUMBER A-2006031
ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
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PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 3 - FINISH PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-1.21	____ OF ____

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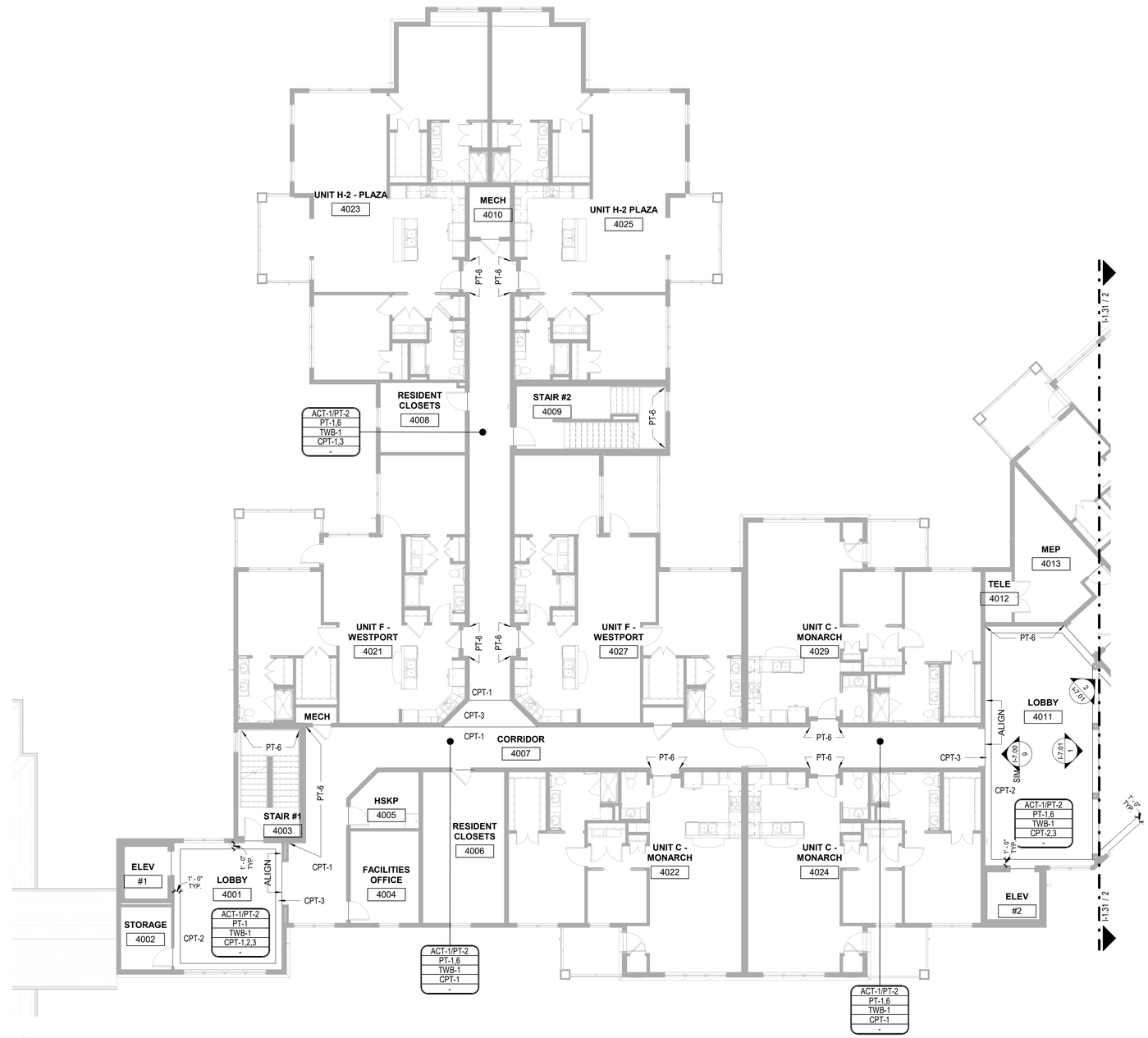
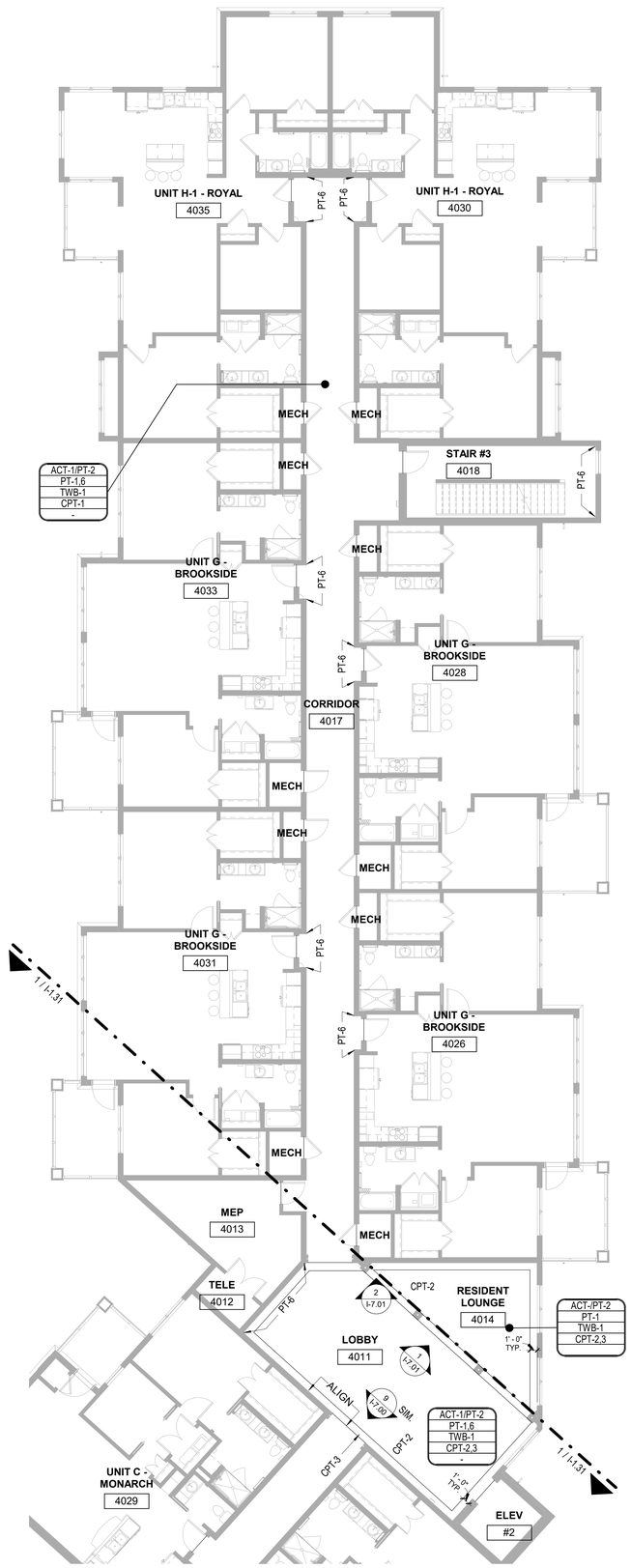
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

KEYED NOTES - FINISH PLANS

NO.	NOTE	REV. #	Plan Type	Revised
1	TILE ON WALLS TO BE A MINIMUM OF 48" HIGH.		FINISH PLAN	No
2	GARAGE LEVEL AND SECOND FLOOR TO BE SEALED CONCRETE. 3RD, 4TH, 5TH TO BE VINYL FLOORING.		FINISH PLAN	No
3	REFER TO FINISH PLANS FOR EXACT LOCATIONS OF ACCENT PAINT.		FINISH PLAN	No
4	EPOXY GROUT TO BE USED ON ALL PUBLIC RESTROOM FLOOR TILE.		FINISH PLAN	No
5	ELEVATORS TO HAVE RECESSED FLOOR PANS OR MANUFACTURER RECOMMENDED FLOOR PANS TO RECEIVE FLOOR TILE IN ALL CABS.		FINISH PLAN	No
6	INSTALL WITH VINYL STRINGER AND STAIR NOSING TO MATCH MEADOWS PHASE 1		FINISH PLAN	No



1 LEVEL 4 - FINISH PLAN - WING A
1/8" = 1'-0"



2 LEVEL 4 - FINISH PLAN - WING B
1/8" = 1'-0"

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BID SET

B. DEAN MAPALAMA — ARCHITECT — STATE OF MISSOURI

1.18.2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
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PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 4 - FINISH PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-1.31	____ OF ____

RELEASE FOR CONSTRUCTION
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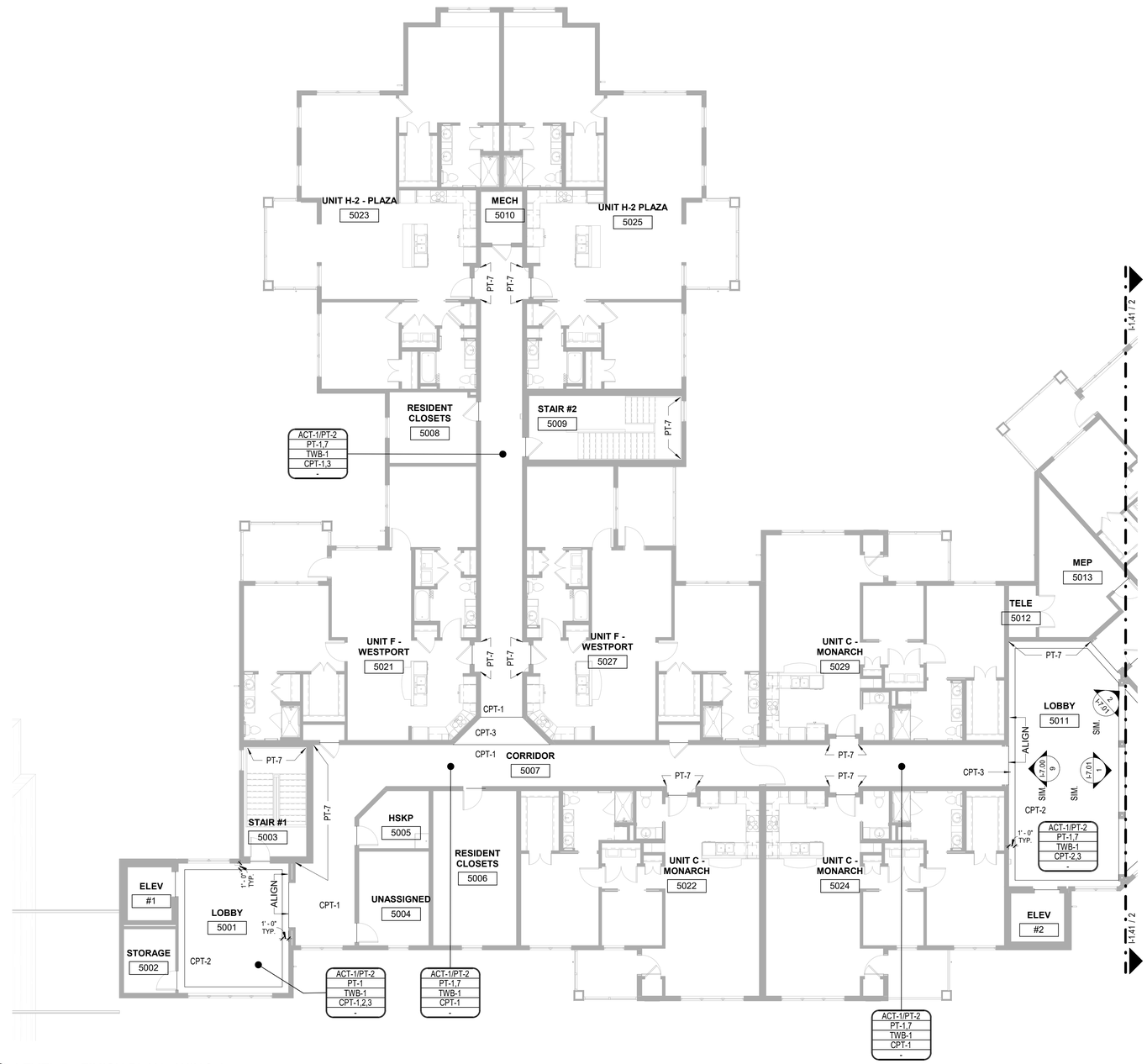
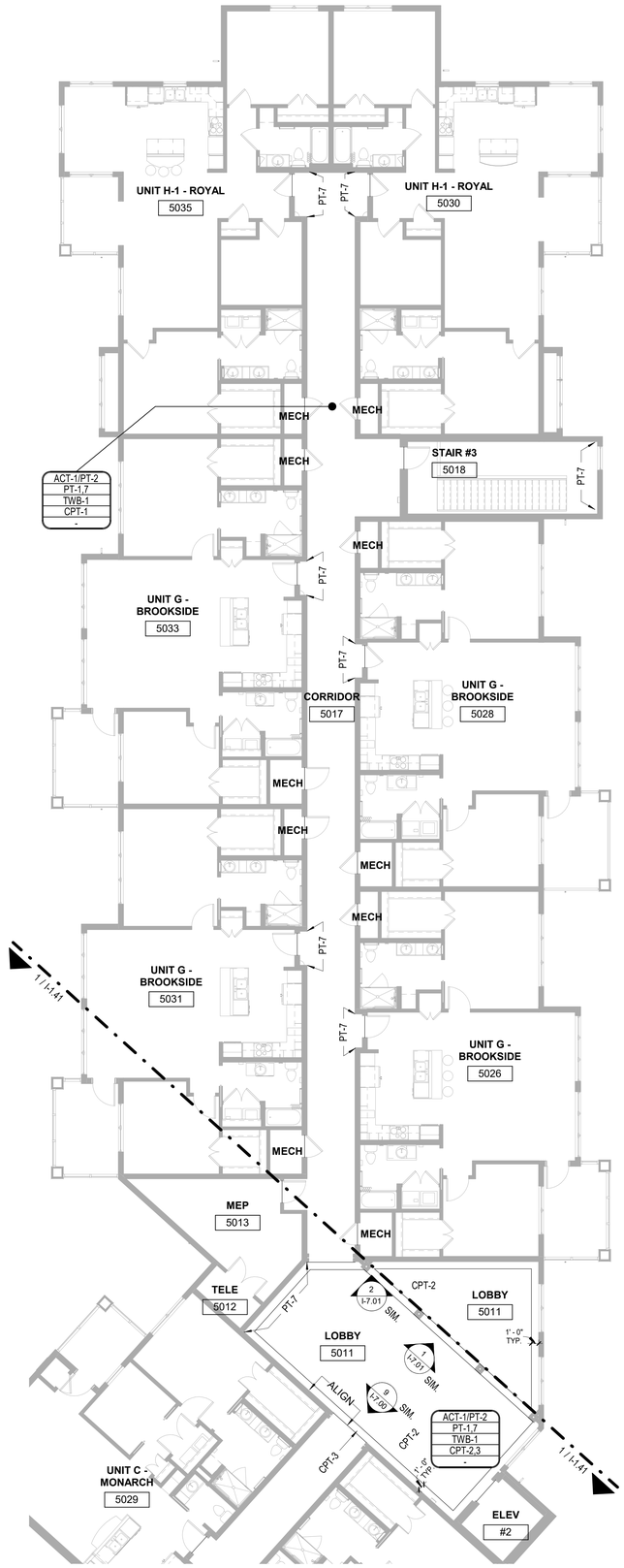
LEE'S SUMMIT, MISSOURI
05/10/2021

KEYED NOTES - FINISH PLANS

NO.	NOTE	REV. #	Plan Type	Revised
1	TILE ON WALLS TO BE A MINIMUM OF 48" HIGH.		FINISH PLAN	No
2	GARAGE LEVEL AND SECOND FLOOR TO BE SEALED CONCRETE. 3RD, 4TH, 5TH TO BE VINYL FLOORING.		FINISH PLAN	No
3	REFER TO FINISH PLANS FOR EXACT LOCATIONS OF ACCENT PAINT.		FINISH PLAN	No
4	EPOXY GROUT TO BE USED ON ALL PUBLIC RESTROOM FLOOR TILE.		FINISH PLAN	No
5	ELEVATORS TO HAVE RECESSED FLOOR PANS OR MANUFACTURER RECOMMENDED FLOOR PANS TO RECEIVE FLOOR TILE IN ALL CABS.		FINISH PLAN	No
6	INSTALL WITH VINYL STRINGER AND STAIR NOSING TO MATCH MEADOWS PHASE 1		FINISH PLAN	No



1 LEVEL 5 - FINISH PLAN - WING A
1/8" = 1'-0"



2 LEVEL 5 - FINISH PLAN - WING B
1/8" = 1'-0"

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BID SET

STATE OF MISSOURI
B. DEAN MAPOLEMA
NUMBER A-2006031
ARCHITECT
1.18.2021

PROJECT TITLE

John Knox Village

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PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 5 - FINISH PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-1.41	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

UNIT FINISH SCHEDULE

LEGEND:

UACT UAF UBR UCG UCPT UDP UEF UFT	Acoustical Ceiling Tile Architectural Film (Glass, etc.) Bumper Rail Corner Guard Carpet (Broadloom, Modular, etc.) Decorative Panel Epoxy Floor Floor Tile	UFWP UGL UHR ULR UMR UMT UPL UPT	Fabric Wrapped Panel Glass Hand Rail Lean Rail Mirror Metal Plastic Laminate Paint	URB USC USSM UST UTB UVF	Rubber Base Sealed Concrete (Stained, Sealed, etc.) Solid Surface Material Stone (Granite, Quartz, etc.) Tile Base Vinyl Floor (Tile, Plank, Sheet, etc.)		UVWC UWD UWF UWP UWT	Vinyl Wallcovering Wood Finish (Custom, Prefab., etc.) Wood Floor Wall Protection (FRP, HIC, etc.) Wall Tile

KEY	DESCRIPTION	MANUFACTURER	STYLE	COLOR	CONTACT	REMARKS	REVISIONS	LOCATION
UCPT-1	Broadloom Carpet	Mohawk	Stylish Story I	Stone Lion	Mike Pierce (512) 718-9953	To be installed with Future Foam - 7/16 6# pad	Addendum 1 3/10/21	Resident Unit
UFT-1	12"x24" Porcelain Tile	Daltile	Articulo	AR07 Feature Beige	Janice Kelly (512) 799-0274	Installation: Third-Offset Grout: Custom Building Product:TBD	-	Resident Unit Bathroom- Beige Palette
UFT-2	12"x24" Porcelain Tile	Daltile	Articulo	AR09 Column Grey	Janice Kelly (512) 799-0274	Installation: Third-Offset Grout: Custom Building Product:TBD	-	Resident Unit Bathroom- Grey Palette
UPT-1	Paint	Sherwin Williams	SW7036	Accessible Beige	Joy LaChelle Babur (281) 904-5292	--	-	Resident Unit Wall Paint
UPT-2	Paint	Sherwin Williams	SW7551	Greek Villa	Joy LaChelle Babur (281) 904-5292	--	-	Resident Unit Trim and Ceiling Paint
UST-1	2cm Quartz	Silestone	Blanco Maple	--	Christian Michell Baeza (737) 230-4904	Eased Edge	-	Resident Unit- Beige and Grey Palette
UST-2	2cm Quartz	Silestone	Blanco Orion	--	Christian Michell Baeza (737) 230-4904	Eased Edge	-	Resident Unit- Beige and Grey Palette
UST-3	2cm Quartz	Silestone	Blanco City	--	Christian Michell Baeza (737) 230-4904	Eased Edge	-	Resident Unit- Beige Palette
UST-4	2cm Quartz	Silestone	Kimbler Mist	--	Christian Michell Baeza (737) 230-4904	Eased Edge	-	Resident Unit- Beige Palette
UST-5	2cm Quartz	Silestone	Alpina White	--	Christian Michell Baeza (737) 230-4904	Eased Edge	-	Resident Unit- Grey Palette
UST-6	2cm Quartz	Silestone	Pietra	--	Christian Michell Baeza (737) 230-4904	Eased Edge	-	Resident Unit- Grey Palette
UVF-1	6"x48" Vinyl Plank	Aladdin Commercial	In Bound AV010	Natural 258	Customer Service 800-233-4490	Installation: Third Offset	-	Resident Unit- Beige Palette
UVF-2	6"x48" Vinyl Plank	Mohawk	Grainiac C0013	921 Shore Thing	Mike Pierce (512) 718-9953	Installation: Third Offset	-	Resident Unit- Grey Palette
UWD-1	Pre-Fabricated Cabinets	Advanta Cabinets	Newbury	Alpine White	Kendra Cichanski (561) 354-8725	--	-	Resident Unit- Grey Palette
UWD-2	Pre-Fabricated Cabinets	Advanta Cabinets	Newbury	Storm	Kendra Cichanski (561) 354-8725	--	-	Resident Unit- Grey Palette
UWD-3	Pre-Fabricated Cabinets	Advanta Cabinets	Newbury	Nutmeg	Kendra Cichanski (561) 354-8725	--	-	Resident Unit- Beige Palette
UWD-4	Pre-Fabricated Cabinets	Advanta Cabinets	Newbury	Espresso	Kendra Cichanski (561) 354-8725	--	-	Resident Unit- Beige Palette
UWT-1	3"x9" Glazed Ceramic	Daltile	Natural Hues	QH 63 Pearl White	Janice Kelly (512) 799-0274	Installation: Brick Grout: Custom Building Product:TBD	-	Resident Unit Kitchen Backsplash- Beige and Grey Palette
UWT-2	3"x9" Glazed Ceramic	Daltile	Natural Hues	QH16 Mushroom	Janice Kelly (512) 799-0274	Installation: Brick Grout: Custom Building Product:TBD	-	Resident Unit Kitchen Backsplash- Beige and Grey Palette
UWT-3	3"x9" Glazed Ceramic	Daltile	Natural Hues	QH02 Almond	Janice Kelly (512) 799-0274	Installation: Brick Grout: Custom Building Product:TBD	-	Resident Unit Kitchen Backsplash- Beige Palette
UWT-4	3"x9" Glazed Ceramic	Daltile	Natural Hues	QH15 Mist	Janice Kelly (512) 799-0274	Installation: Brick Grout: Custom Building Product:TBD	-	Resident Unit Kitchen Backsplash- Grey Palette
UWT-5	12"x24" Wall Tile	Daltile	Articulo	AR07 Feature Beige	Janice Kelly (512) 799-0274	Installation: Third-Offset Vertical Grout: Custom Building Products: #TBD	-	Resident Unit Bathroom- Beige Palette
UWT-6	3"x24" Bullnose Tile	Daltile	Articulo P43F9	AR07 Feature Beige		Grout: Custom Building Products: #TBD	-	Resident Unit Bathroom- Beige Palette
UWT-7	12"x24" Wall Tile	Daltile	Articulo	AR09 Column Grey	Janice Kelly (512) 799-0274	Installation: Third-Offset Vertical Grout: Custom Building Products: #TBD	-	Resident Unit Bathroom- Grey Palette
UWT-8	3"x24" Bullnose Tile	Daltile	Articulo P43F9	AR09 Column Grey	Janice Kelly (512) 799-0274	Grout: Custom Building Products: #TBD	-	Resident Unit Bathroom- Grey Palette

UNIT TRIM SCHEDULE

LEGEND:

UTCN UTCR UTHR	Crown Molding Chair Rail Hand Rail (Wood)	UTLR UTML UTR	Lean Rail (Wood) Millwork Leg General Trim	UTRD UTRW UTWB	Door Trim (Header, Casing, etc.) Window Trim (Casing, Sill, etc.) Wood Base			

KEY	DESCRIPTION	MANUFACTURER	STYLE	COLOR	CONTACT	REMARKS	REVISIONS	LOCATION
UTCN-1	6" Crown Moulding	-	RE: 9/I-8.00	Painted to Match UPT-2	--	--	-	Resident Unit Upgrade Option
UTWB-1	4" Wall Base- Painted	-	RE: 11/I-8.00	Painted to Match UPT-2	--	--	-	Resident Unit

UNIT EQUIPMENT SCHEDULE

LEGEND:

UEQ UEQB UEQF	General Equipment (Grommet, Keyboard Tray, etc.) Bracket Fireplace	UEQHDW UEQK UEQP UEQR	Cabinet Hardware Kitchen Equipment (Appliances) Plumbing Equipment Railing (Stair, Bar, etc.)				

KEY	DESCRIPTION	MANUFACTURER	STYLE	COLOR	CONTACT	REMARKS	IMAGE	LOCATION
UEQHDW-1	4" Cabinet Pull	Liberty Hardware	Lombard P29613K-SN-B	Satin Nickel	--	--		Resident Kitchen & Bathrooms

UNIT TRANSITION SCHEDULE

LEGEND:

URV UTS	Reveal Transition								

KEY	MATERIAL 1	MATERIAL 2	MANUFACTURER	STYLE	COLOR/FINISH	PROFILE	CONTACT	REMARKS	REVISIONS
UTS-1	Subfloor Leveler System	-	Johnsonite	LS-40	Black		Evelyn Smith (512) 638-0147		
UTS-2	Vinyl Floor	Tile	Schluter	RENO-U	Satin Anodized Aluminum		Josie Janssen (512) 230-7953		
UTS-3	Corridor Carpet	Unit Entry	Johnsonite	Slim-Line Transition TBD	TBD		Evelyn Smith (512) 638-0147		

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PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

UNIT SCHEDULES

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING I-2.00

SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
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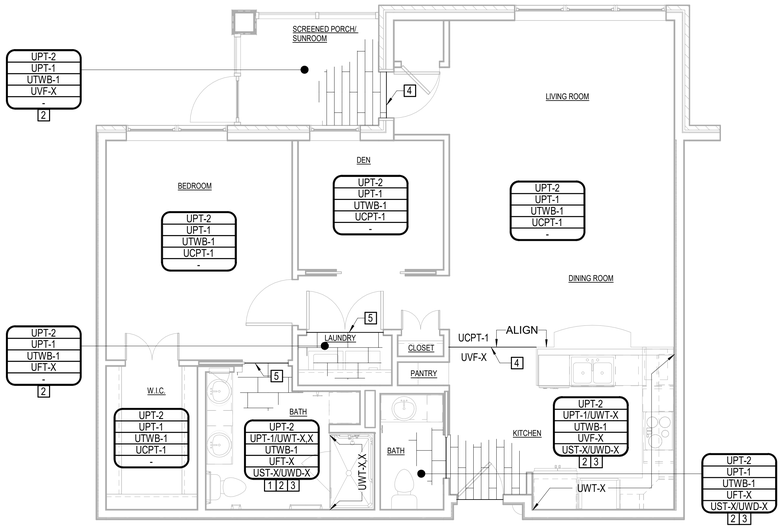
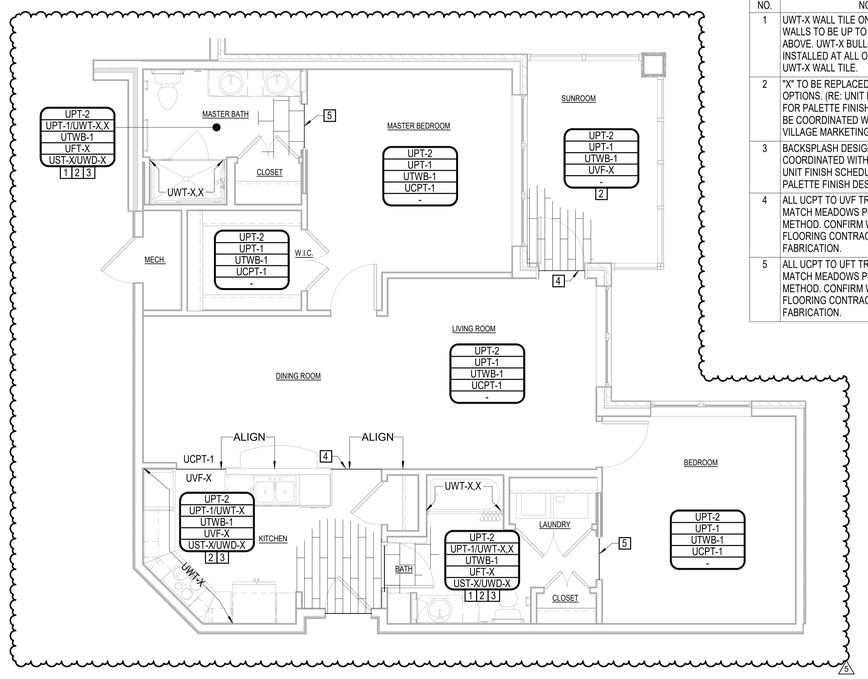
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

KEYED NOTES - ENLARGED UNIT PLANS

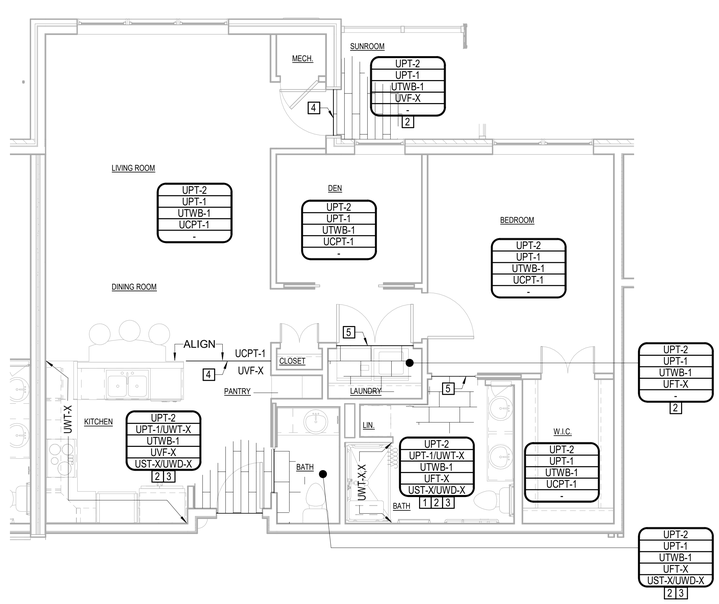
NO.	NOTE	REV. #	Plan Type	Revised
1	UWT-X WALL TILE ON UNIT SHOWER WALLS TO BE UP TO 7'-0" A.F.F. W/ UPT-1 ABOVE. UWT-X BULLNOSE TO BE INSTALLED AT ALL OUTSIDE EDGES OF UWT-X WALL TILE.		UNIT PLAN	
2	"X" TO BE REPLACED BY UNIT PALETTE OPTIONS. (RE: UNIT FINISH SCHEDULE FOR PALETTE FINISH DESIGNATIONS.) TO BE COORDINATED WITH JOHN KNOX VILLAGE MARKETING TEAM.		UNIT PLAN	
3	BACKSPLASH DESIGNATION TO BE COORDINATED WITH UST-X OPTION. (RE: UNIT FINISH SCHEDULE LOCATIONS FOR PALETTE FINISH DESIGNATIONS.)		UNIT PLAN	
4	ALL UCPT TO UVF TRANSITIONS TO MATCH MEADOWS PHASE 1 TUCK METHOD. CONFIRM WITH DESIGNER AND FLOORING CONTRACTOR PRIOR TO FABRICATION.		UNIT PLAN	
5	ALL UCPT TO UFT TRANSITIONS TO MATCH MEADOWS PHASE 1 TUCK METHOD. CONFIRM WITH DESIGNER AND FLOORING CONTRACTOR PRIOR TO FABRICATION.		UNIT PLAN	



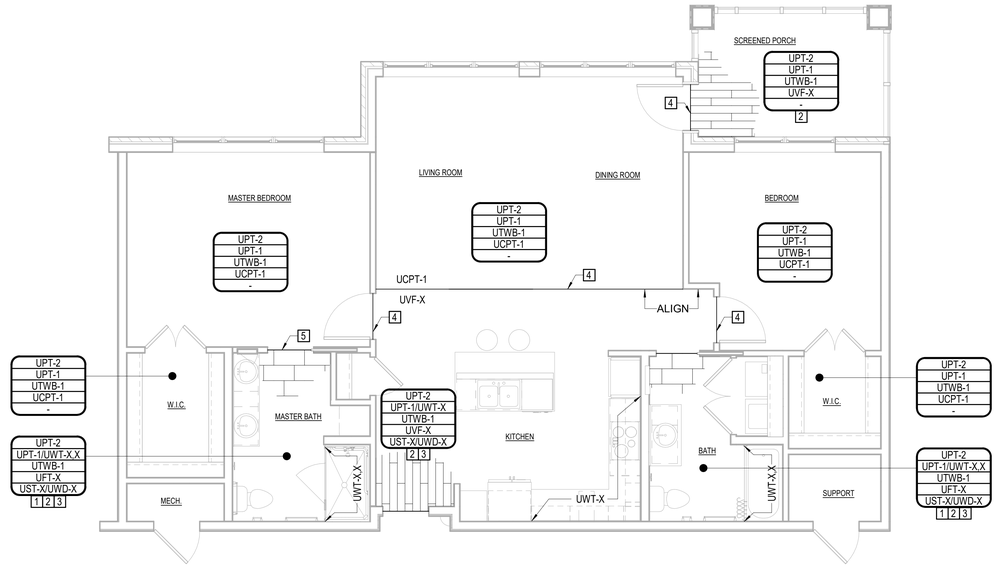
1 UNIT C - THE MONARCH
1/4" = 1'-0"



2 UNIT F - THE WESTPORT
1/4" = 1'-0"



3 UNIT C - THE MONARCH MC
1/4" = 1'-0"



4 UNIT G - THE BROOKSIDE
1/4" = 1'-0"

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BID SET

PROJECT TITLE

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PROJECT DESIGNER	:	DESIGNER
PROJECT ARCHITECT	:	PA
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DRAWN BY	:	Author
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NO.	REVISION DESCRIPTION	DATE
5	Addendum 1	03/10/21

DRAWING TITLE

ENLARGED UNIT PLANS

COMM. NO. 19132.00	DATE FEBRUARY 24,2021
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LEE'S SUMMIT, MISSOURI
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KEYED NOTES - ENLARGED UNIT PLANS

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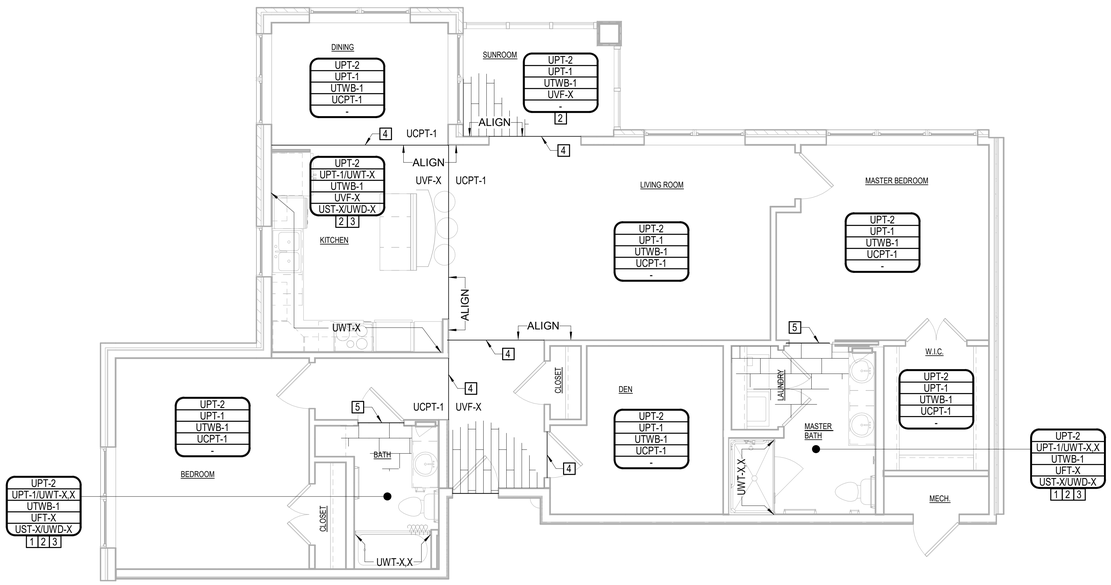
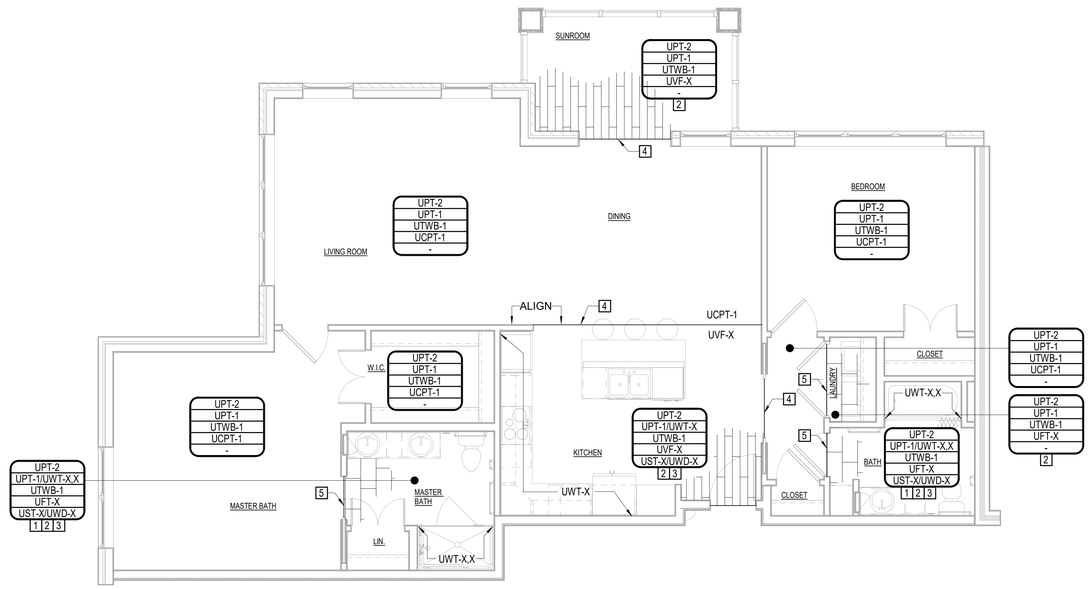
1	UWT-X WALL TILE ON UNIT SHOWER WALLS TO BE UP TO 7'-0" A.F.F. W/ UPT-1 ABOVE. UWT-X BULLNOSE TO BE INSTALLED AT ALL OUTSIDE EDGES OF UWT-X WALL TILE.		UNIT PLAN	
2	"X" TO BE REPLACED BY UNIT PALETTE OPTIONS. (RE: UNIT FINISH SCHEDULE FOR PALETTE FINISH DESIGNATIONS.) TO BE COORDINATED WITH JOHN KNOX VILLAGE MARKETING TEAM.		UNIT PLAN	
3	BACKSPLASH DESIGNATION TO BE COORDINATED WITH UST-X OPTION. (RE: UNIT FINISH SCHEDULE LOCATIONS FOR PALETTE FINISH DESIGNATIONS.)		UNIT PLAN	
4	ALL UCPT TO UVF TRANSITIONS TO MATCH MEADOWS PHASE 1 TUCK METHOD. CONFIRM WITH DESIGNER AND FLOORING CONTRACTOR PRIOR TO FABRICATION.		UNIT PLAN	
5	ALL UCPT TO UFT TRANSITIONS TO MATCH MEADOWS PHASE 1 TUCK METHOD. CONFIRM WITH DESIGNER AND FLOORING CONTRACTOR PRIOR TO FABRICATION.		UNIT PLAN	



1 UNIT H-1 - THE ROYAL
1/4" = 1'-0"



2 UNIT H-2 - THE PLAZA
1/4" = 1'-0"

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BID SET

STATE OF MISSOURI
B. DEAN MAYFIELD
NUMBER A-6000
ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

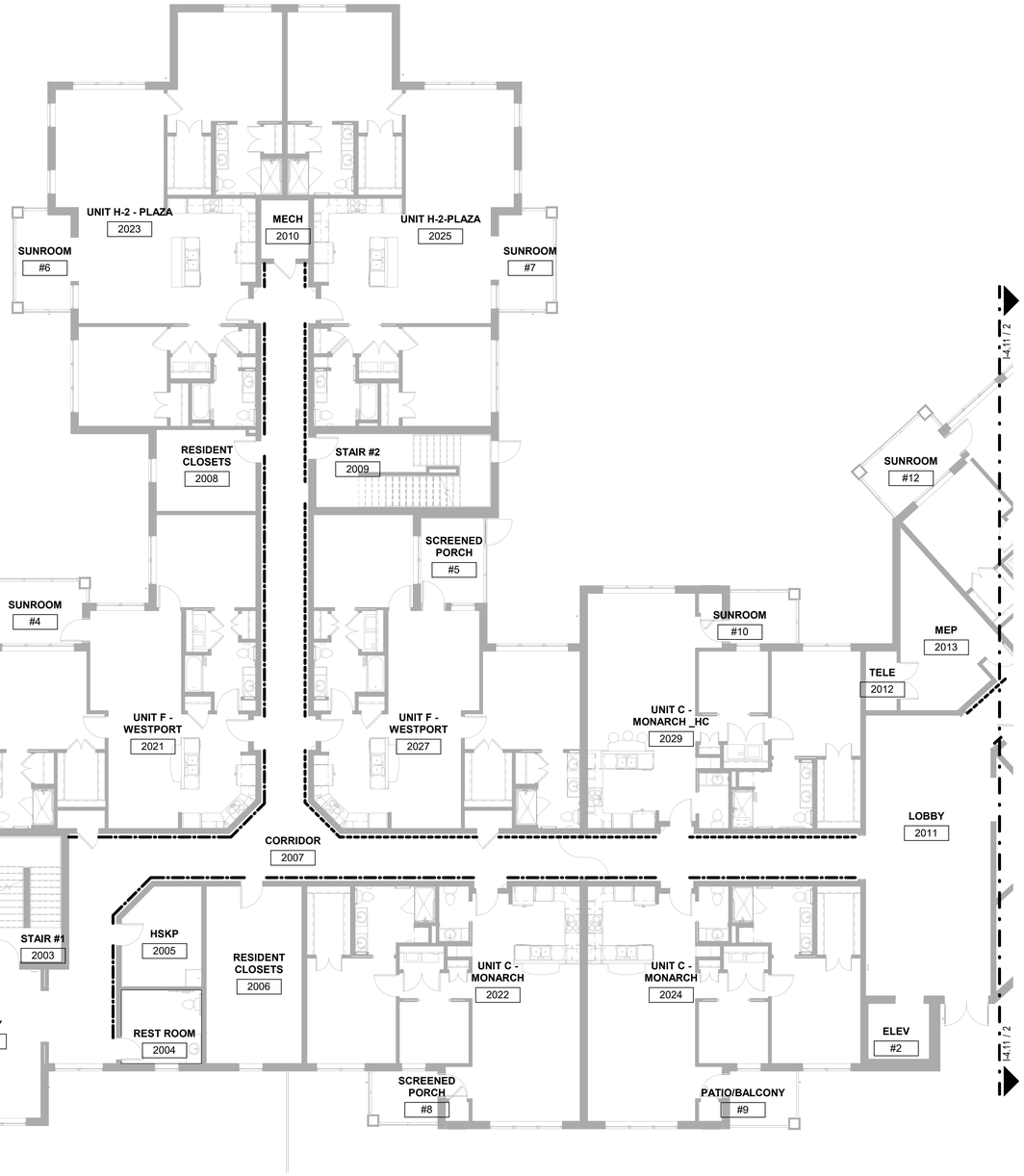
DRAWING TITLE
ENLARGED UNIT PLANS

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-2.02	____ OF ____

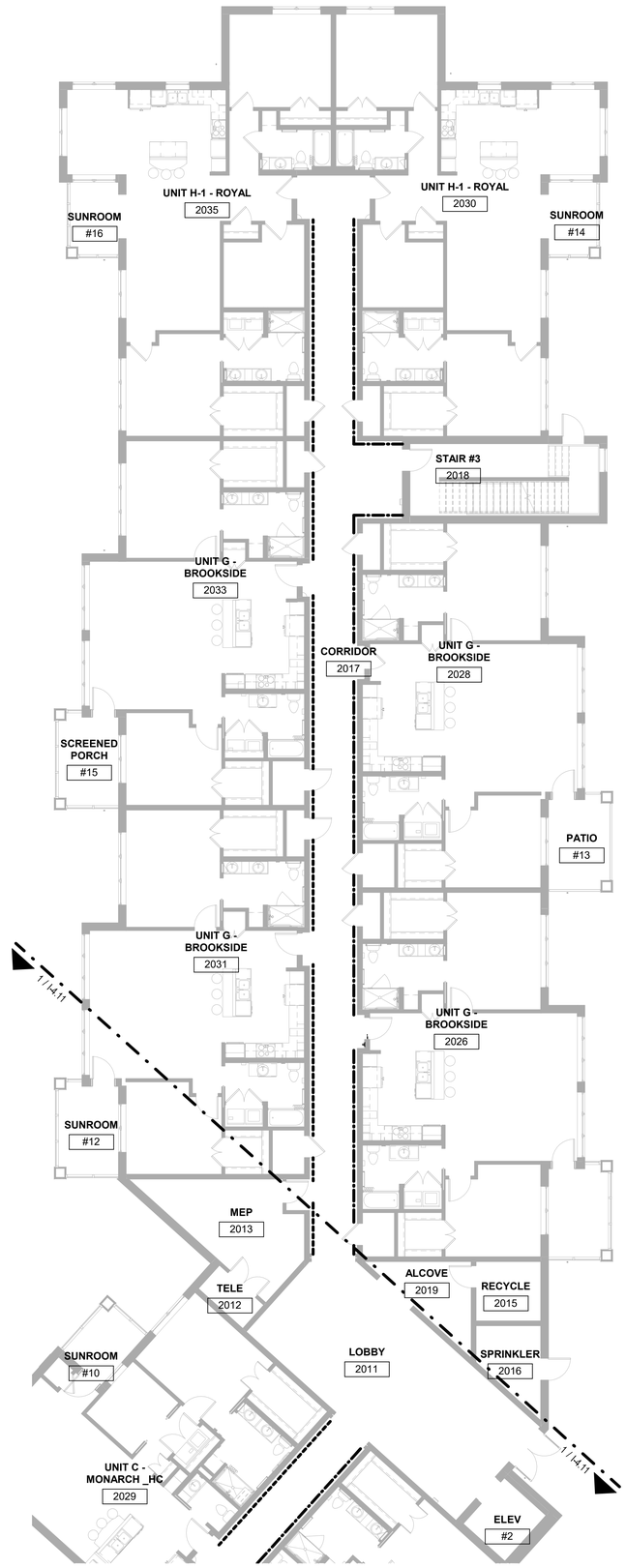
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

- CHAIR RAIL
- LEAN RAIL



1 LEVEL 2 - WALL PROTECTION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 2 - WALL PROTECTION PLAN - WING B
1/8" = 1'-0"

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BID SET
STATE OF MISSOURI
B. DEAN MAGDALENA
NUMBER A-6020511
ARCHITECT
1-10-2021

PROJECT TITLE
John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 2 - WALL PROTECTION PLAN

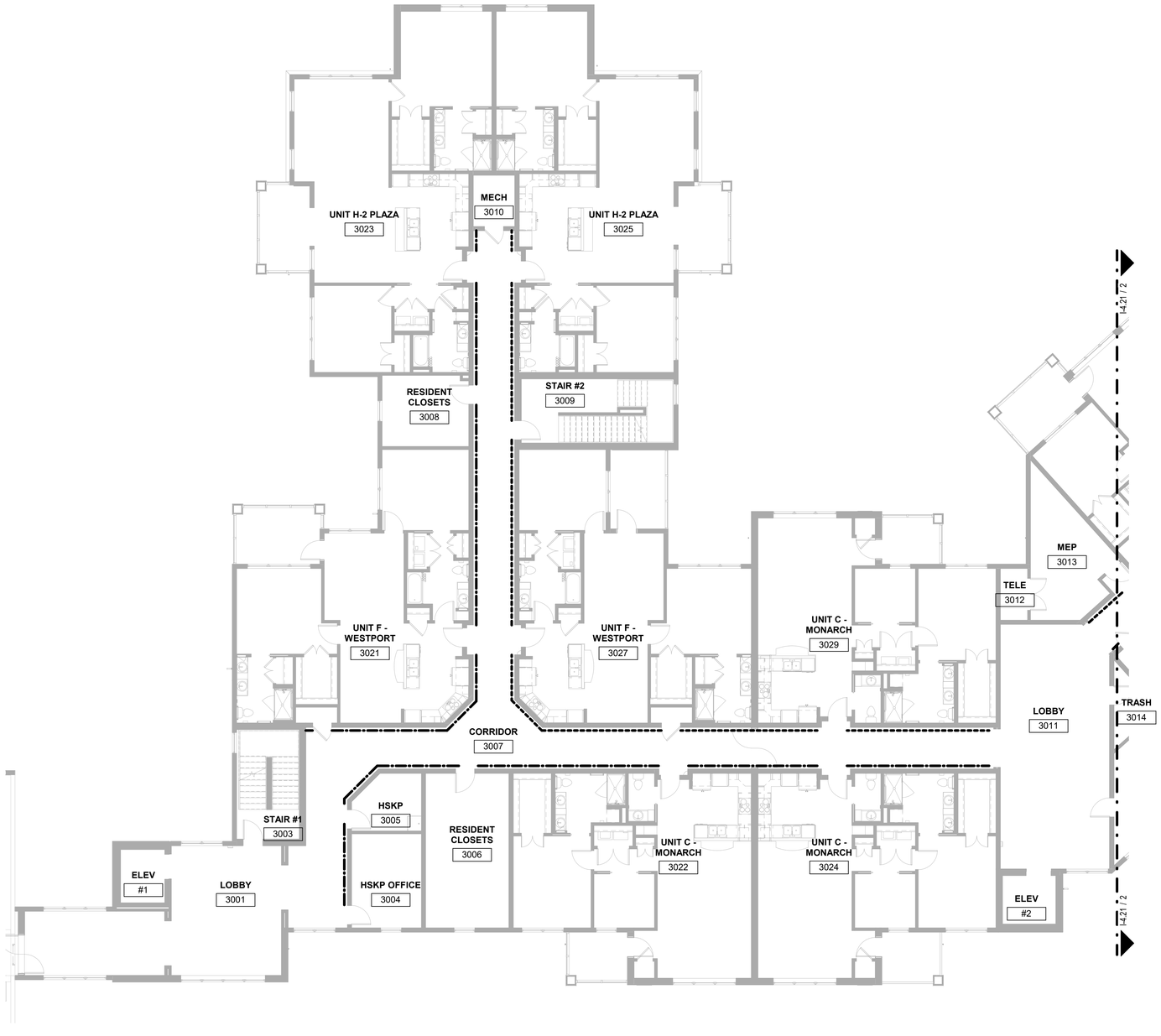
COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING I-4.11 SHEET ____ OF ____

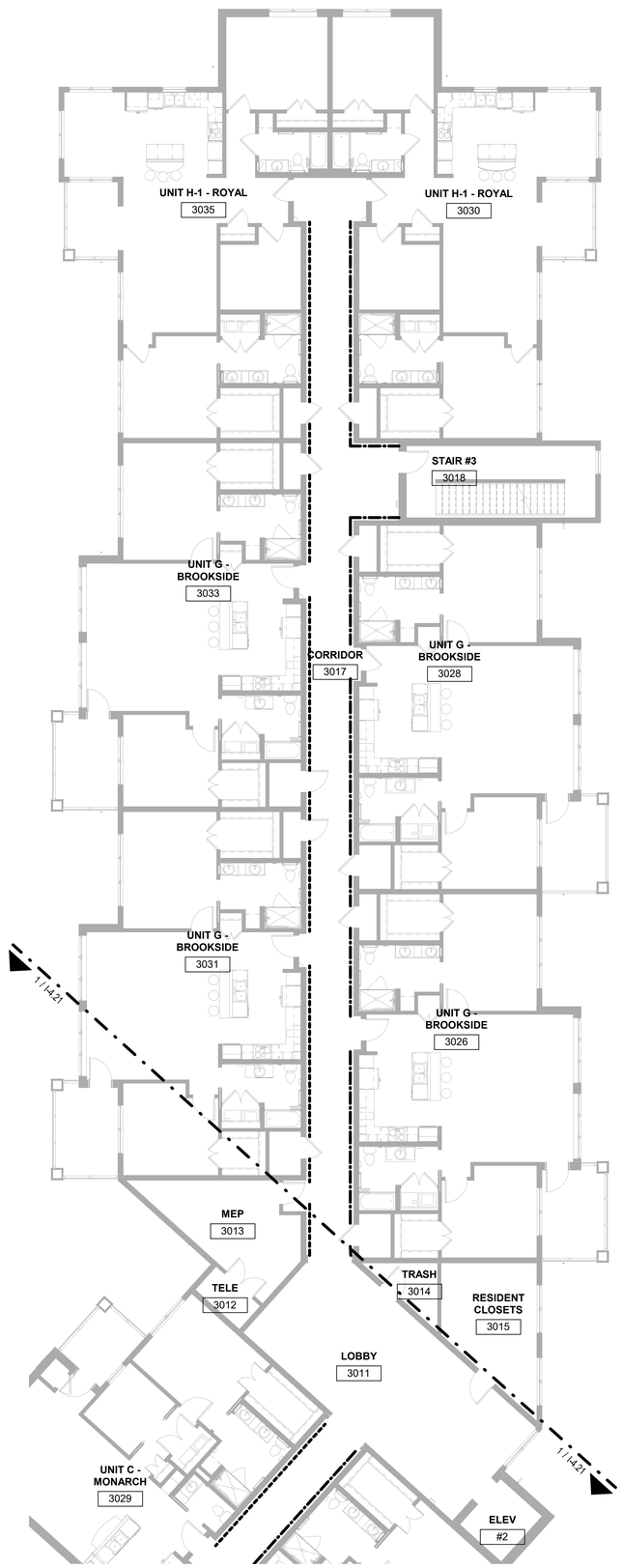
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

- CHAIR RAIL
- LEAN RAIL



1 LEVEL 3 - WALL PROTECTION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 3 - WALL PROTECTION PLAN - WING B
1/8" = 1'-0"

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BID SET

B. DEAN MAPALEMA — STATE OF MISSOURI — ARCHITECT
1-18-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 3 - WALL PROTECTION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING I-4.21 SHEET ____ OF ____

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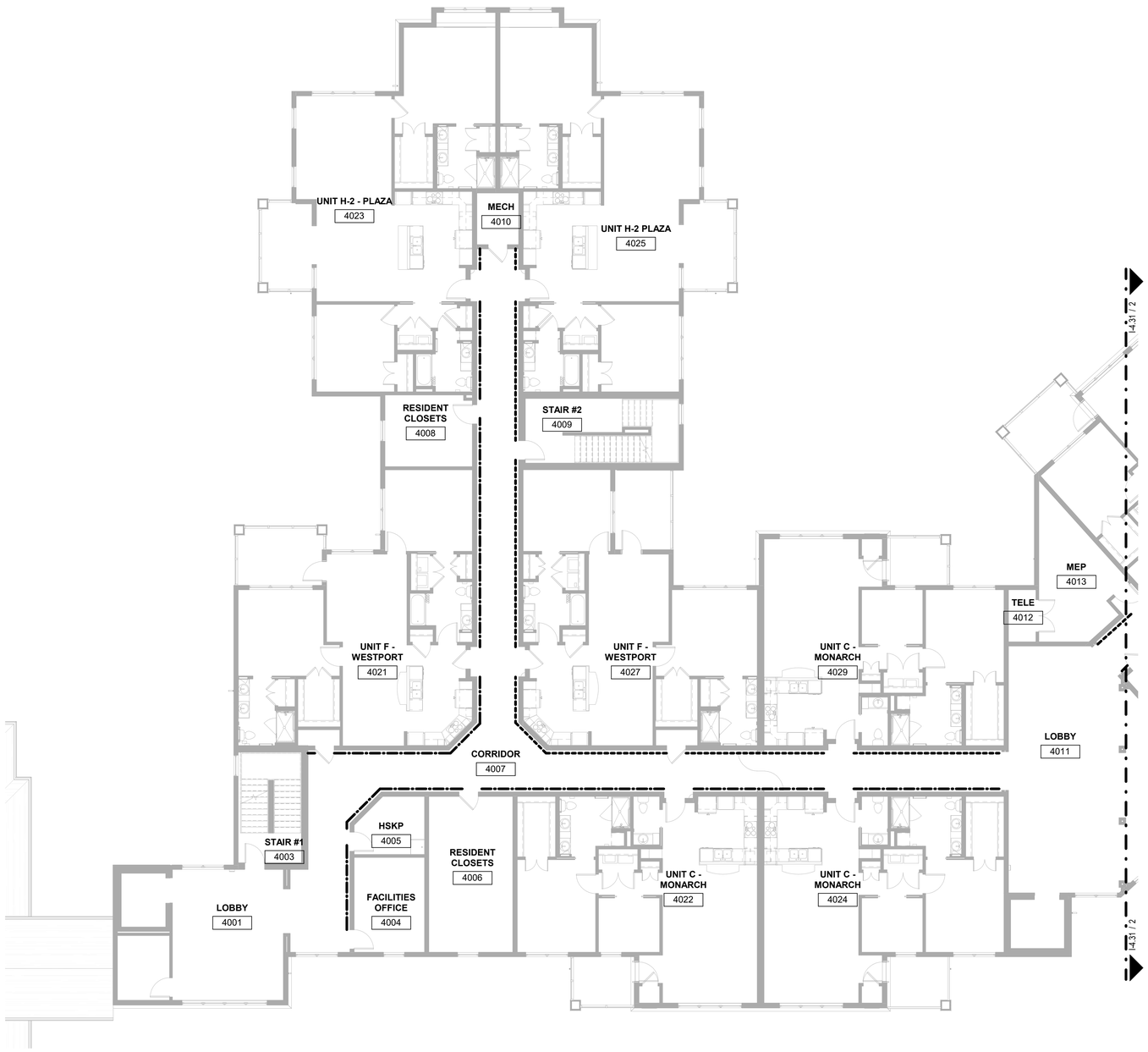
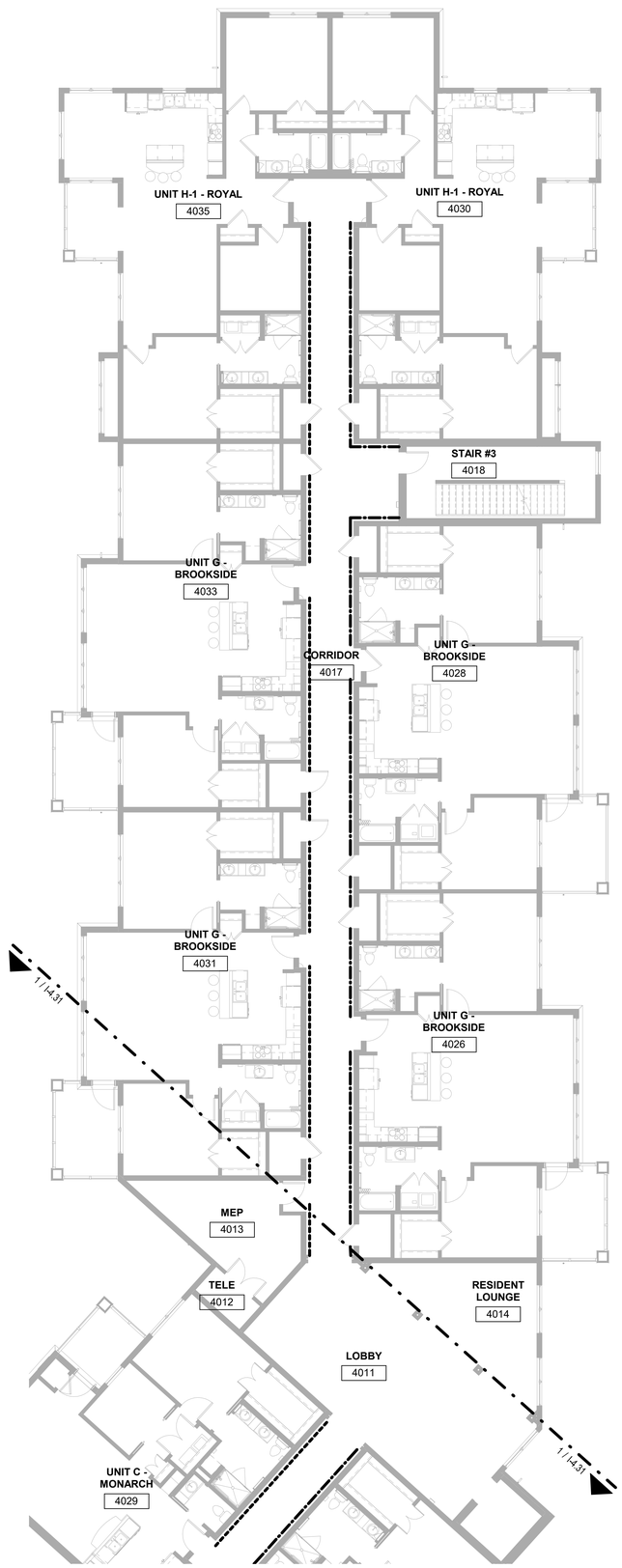
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

- CHAIR RAIL
- LEAN RAIL



1 LEVEL 4 - WALL PROTECTION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 4 - WALL PROTECTION PLAN - WING B
1/8" = 1'-0"

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BID SET
STATE OF MISSOURI
B. DEAN MAKDALEHA
NUMBER A-2020031
ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 4 - WALL PROTECTION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING
I-4.31

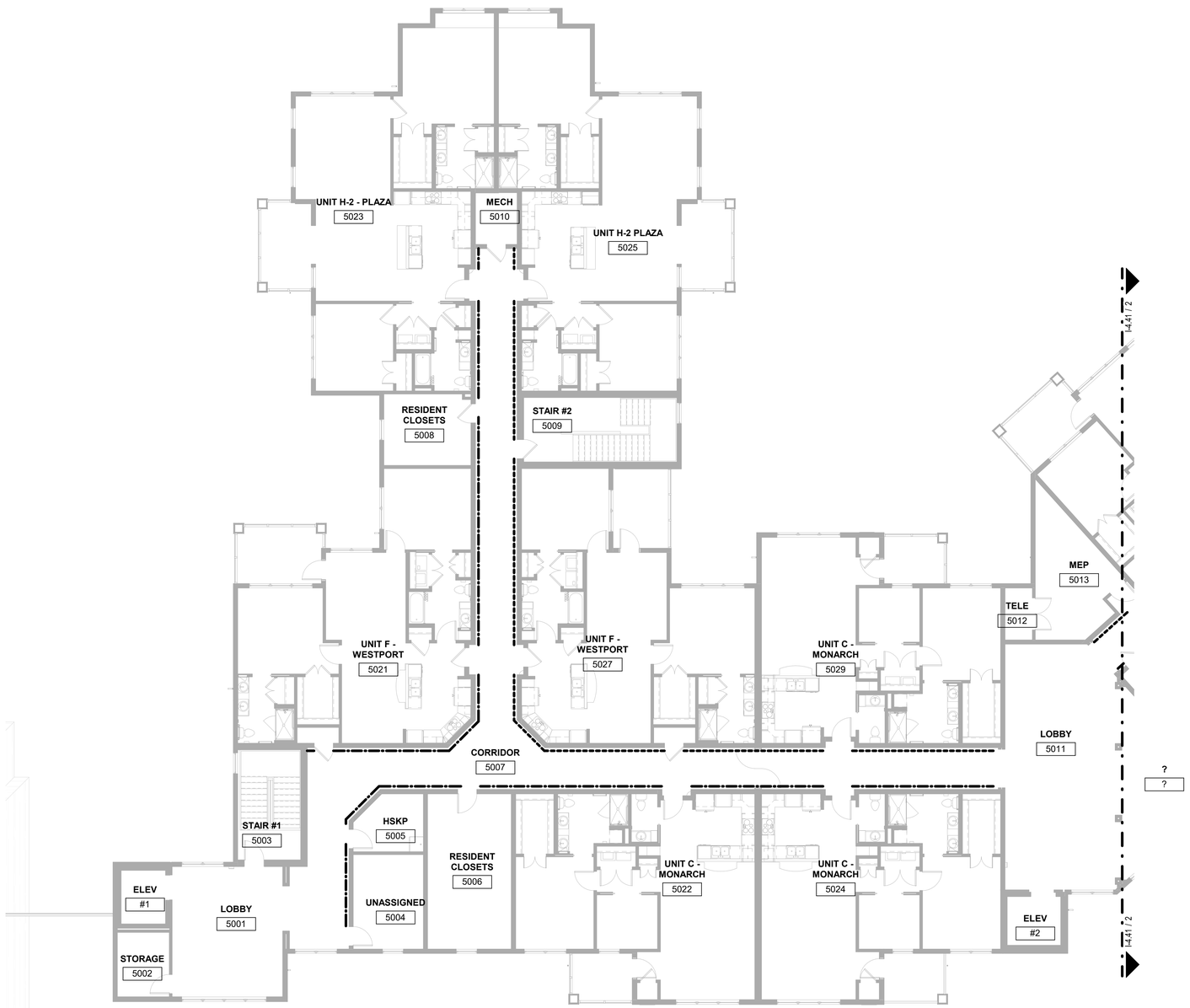
SHEET
____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

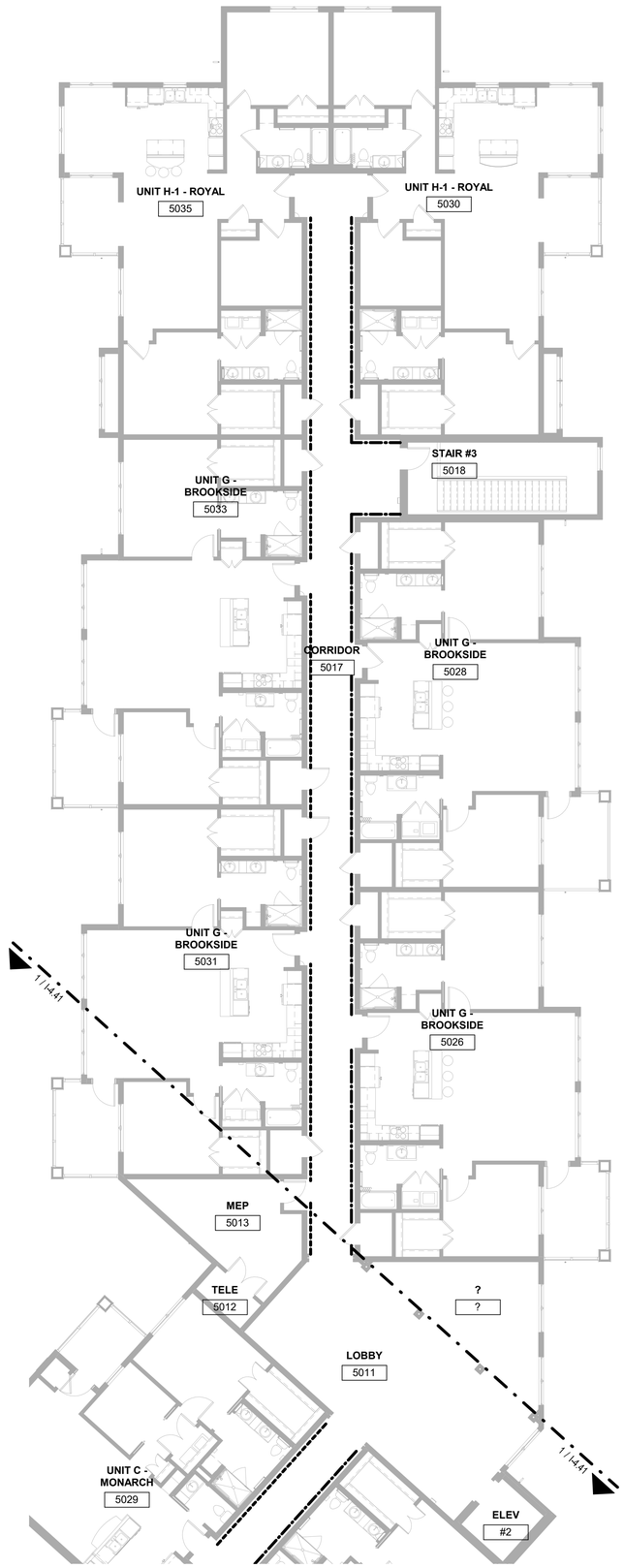
LEGEND

CHAIR RAIL

LEAN RAIL



1 LEVEL 5 - WALL PROTECTION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 5 - WALL PROTECTION PLAN - WING B
1/8" = 1'-0"

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BID SET
STATE OF MISSOURI
B. DEAN MAGDALENA
NUMBER A-6826017
ARCHITECT
1-18-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 5 - WALL PROTECTION PLAN

COMM. NO. 19132.00	DATE FEBRUARY 24,2021
DRAWING I-4.41	SHEET ____ OF ____

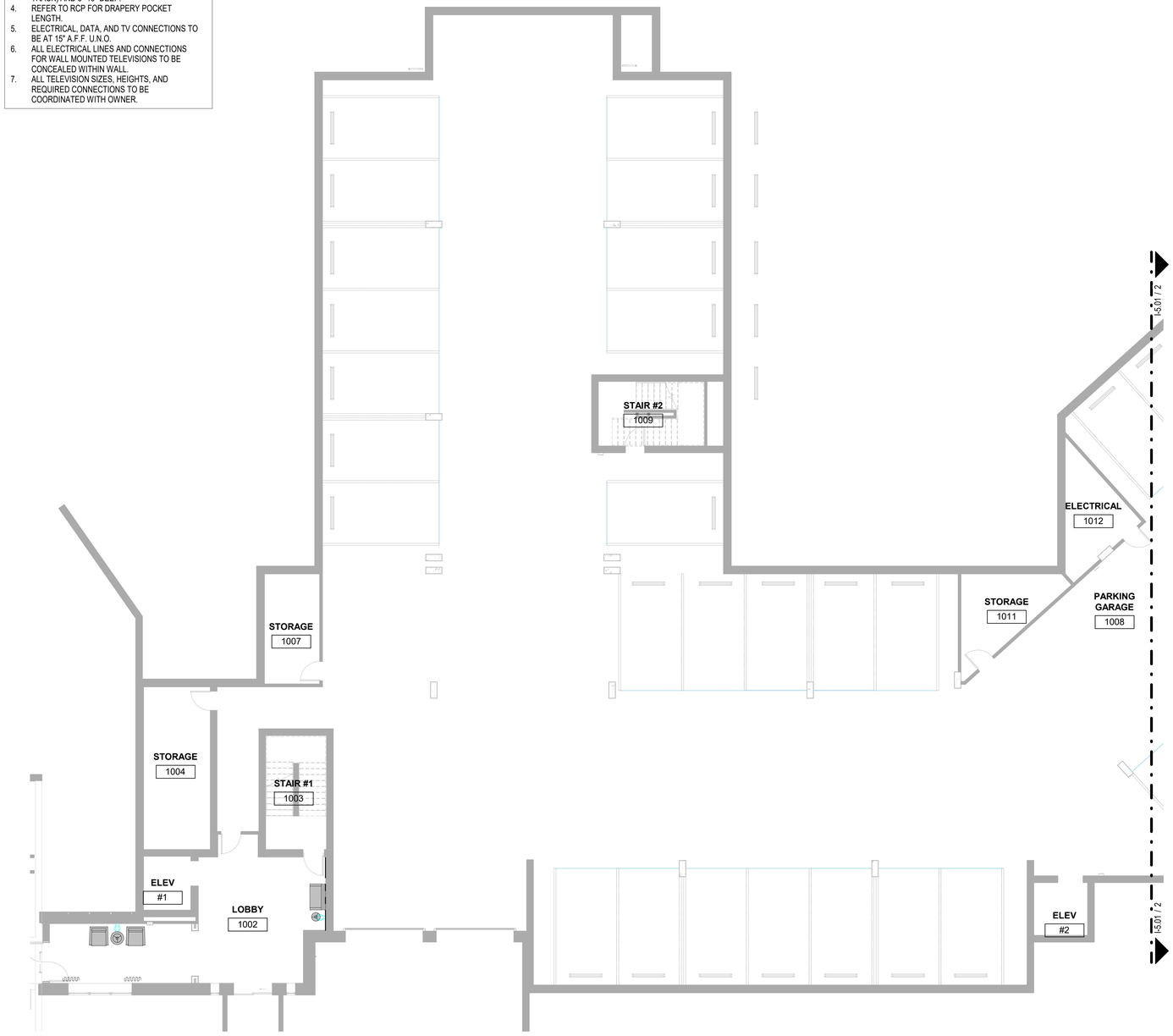
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

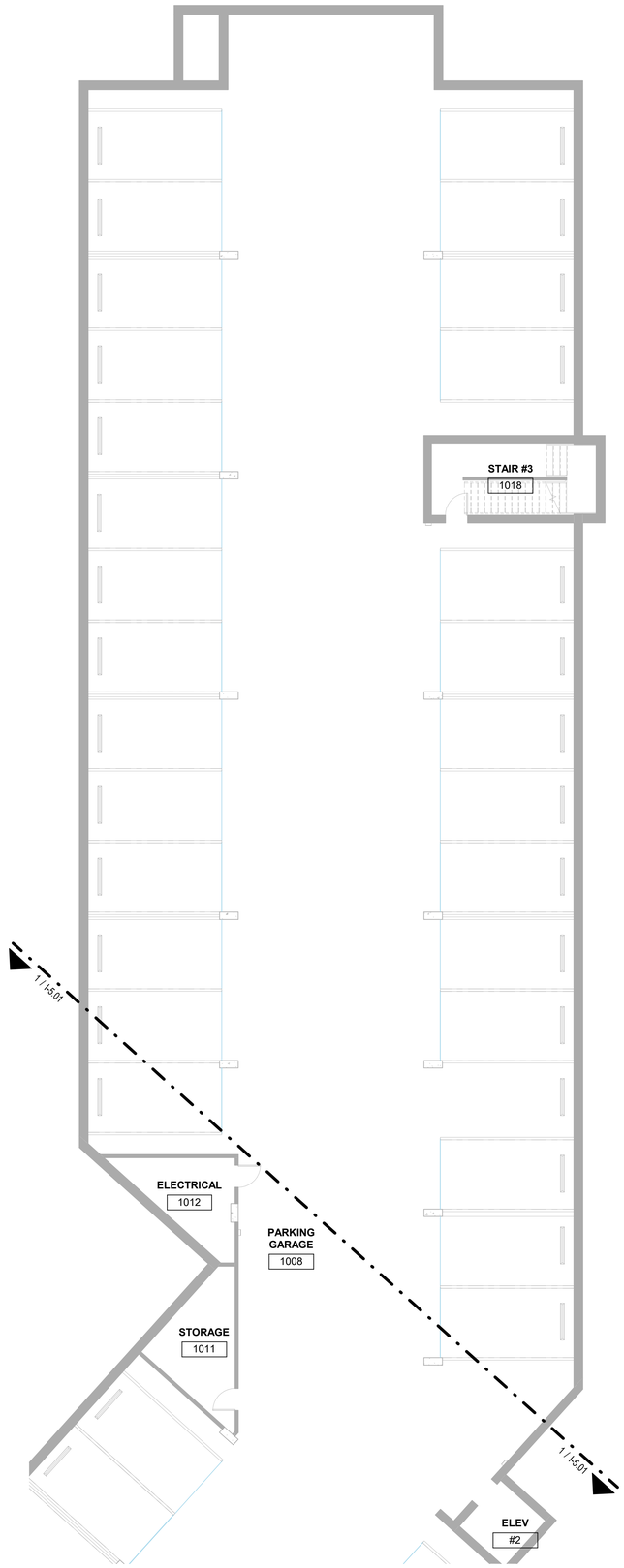
— – – —	CLEAN WALL
····	DRAPERY POCKET
	DUAL ELEC. RECEPTACLE
	QUAD. ELEC. RECEPTACLE
	FLOOR RECEPTACLE
	QUAD. FLOOR RECEPTACLE
	DATA CONNECTION
TV	TV LOCATION
J	J-BOX LOCATION
†	PLUMBING FIXTURE

GENERAL NOTES

1. THIS PLAN IS ISSUED WITH THE INTENT OF PROVIDING THE ARCHITECT AND THEIR CONSULTANTS WITH DESIGN INFORMATION AVAILABLE AT THIS PHASE. THIS PLAN DOES NOT COVER ALL DESIGN ISSUES. ADDITIONAL DESIGN INFORMATION WILL BE SUBMITTED THROUGHOUT THE COURSE OF THE DESIGN PROCESS.
2. CLEAN WALL IMPLIES NO DEVICES WITHIN AN AREA INSIDE OF 18" FROM EACH CORNER AND 15" FROM THE FLOOR U.N.O.
3. DRAPERY POCKETS SHALL BE 6" WIDE (PER TRACK) AND 8"-10" DEEP.
4. REFER TO RCP FOR DRAPERY POCKET LENGTH.
5. ELECTRICAL, DATA, AND TV CONNECTIONS TO BE AT 15" A.F.F. U.N.O.
6. ALL ELECTRICAL LINES AND CONNECTIONS FOR WALL MOUNTED TELEVISIONS TO BE CONCEALED WITHIN WALL.
7. ALL TELEVISION SIZES, HEIGHTS, AND REQUIRED CONNECTIONS TO BE COORDINATED WITH OWNER.



1 LEVEL 0 - FURNITURE & COORDINATION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 0 - FURNITURE & COORDINATION PLAN - WING B
1/8" = 1'-0"

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BID SET
STATE OF MISSOURI
B. DEAN MAGDALENA
NUMBER A-2006031
ARCHITECT
1-18-2021

PROJECT TITLE
John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 0 - FURNITURE & COORDINATION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING I-5.01 SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

- CLEAN WALL
- DRAPERY POCKET
- DUAL ELEC. RECEPTACLE
- QUAD. ELEC. RECEPTACLE
- FLOOR RECEPTACLE
- QUAD. FLOOR RECEPTACLE
- DATA CONNECTION
- TV LOCATION
- J-BOX LOCATION
- PLUMBING FIXTURE

GENERAL NOTES

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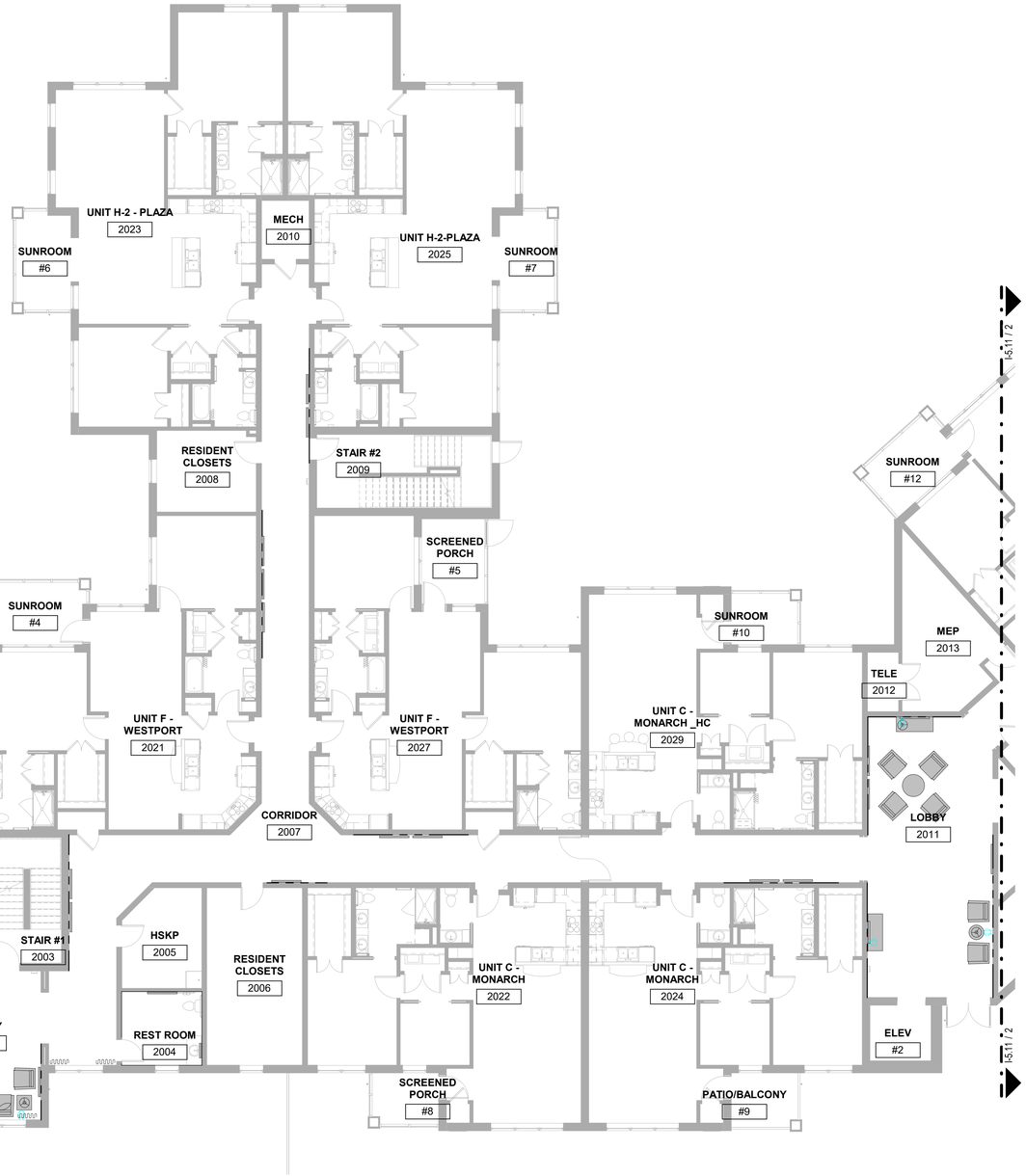
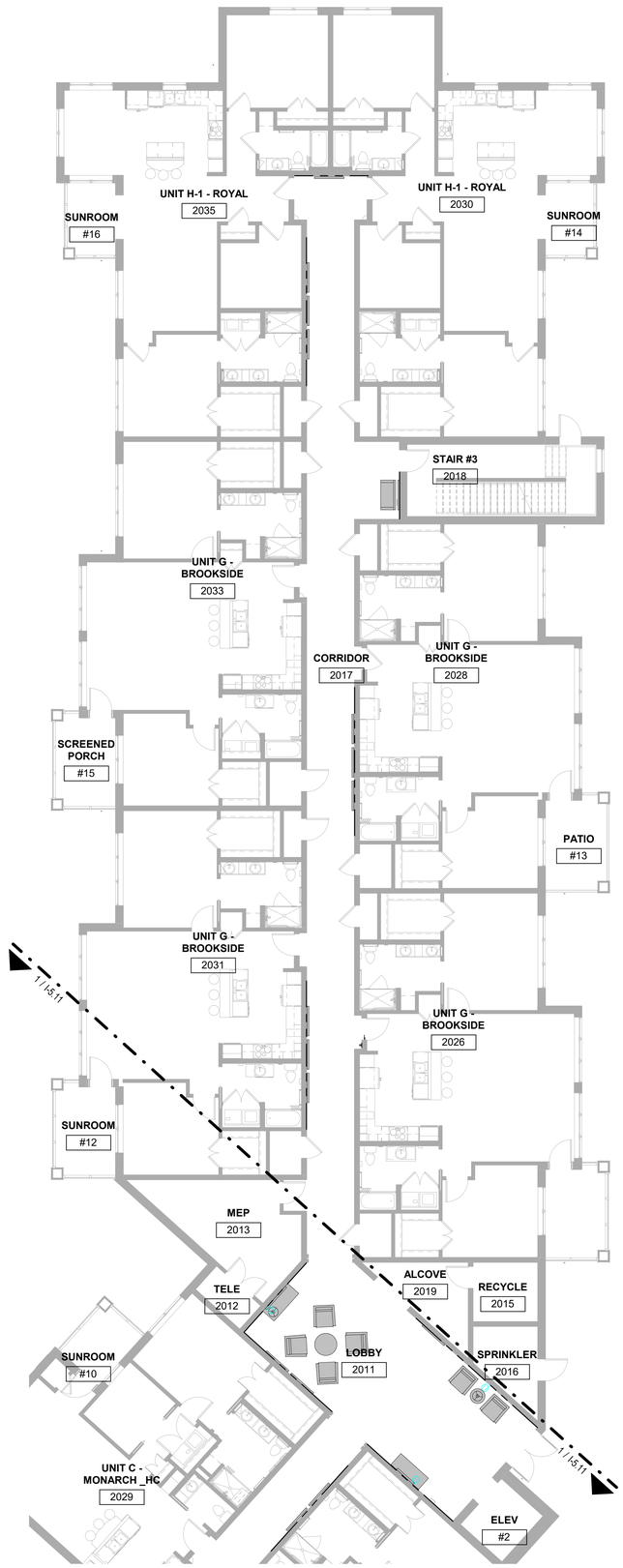


1 LEVEL 2 - FURNITURE & COORDINATION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 2 - FURNITURE & COORDINATION PLAN - WING B
1/8" = 1'-0"

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BID SET

STATE OF MISSOURI
B. DEAN MAGDALENA
NUMBER A-2006031
ARCHITECT
1-18-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

LEVEL 2 - FURNITURE & COORDINATION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-5.11	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

— — — —	CLEAN WALL
····	DRAPERY POCKET
	DUAL ELEC. RECEPTACLE
	QUAD. ELEC. RECEPTACLE
	FLOOR RECEPTACLE
	QUAD. FLOOR RECEPTACLE
	DATA CONNECTION
TV	TV LOCATION
J	J-BOX LOCATION
†	PLUMBING FIXTURE

GENERAL NOTES

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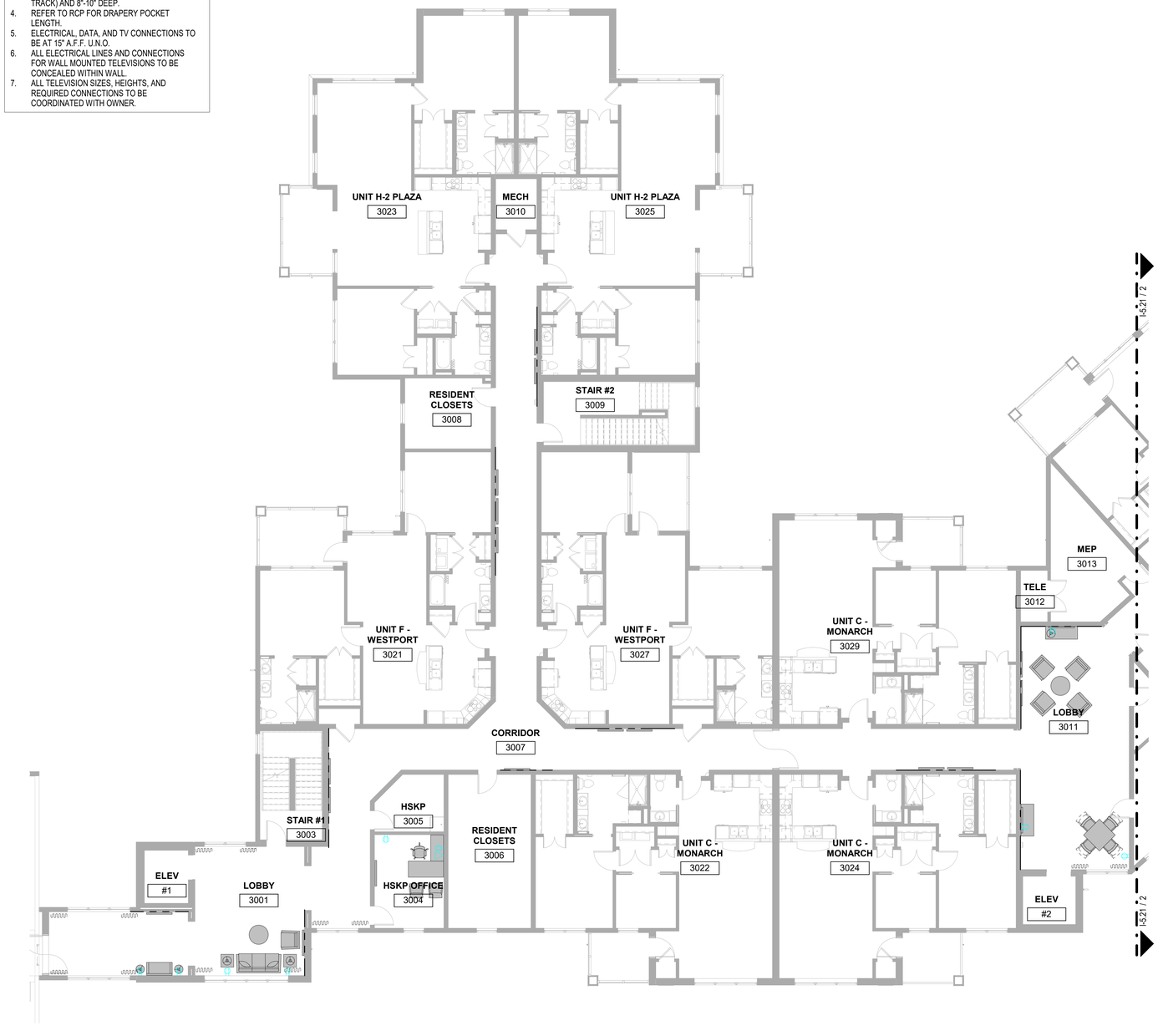
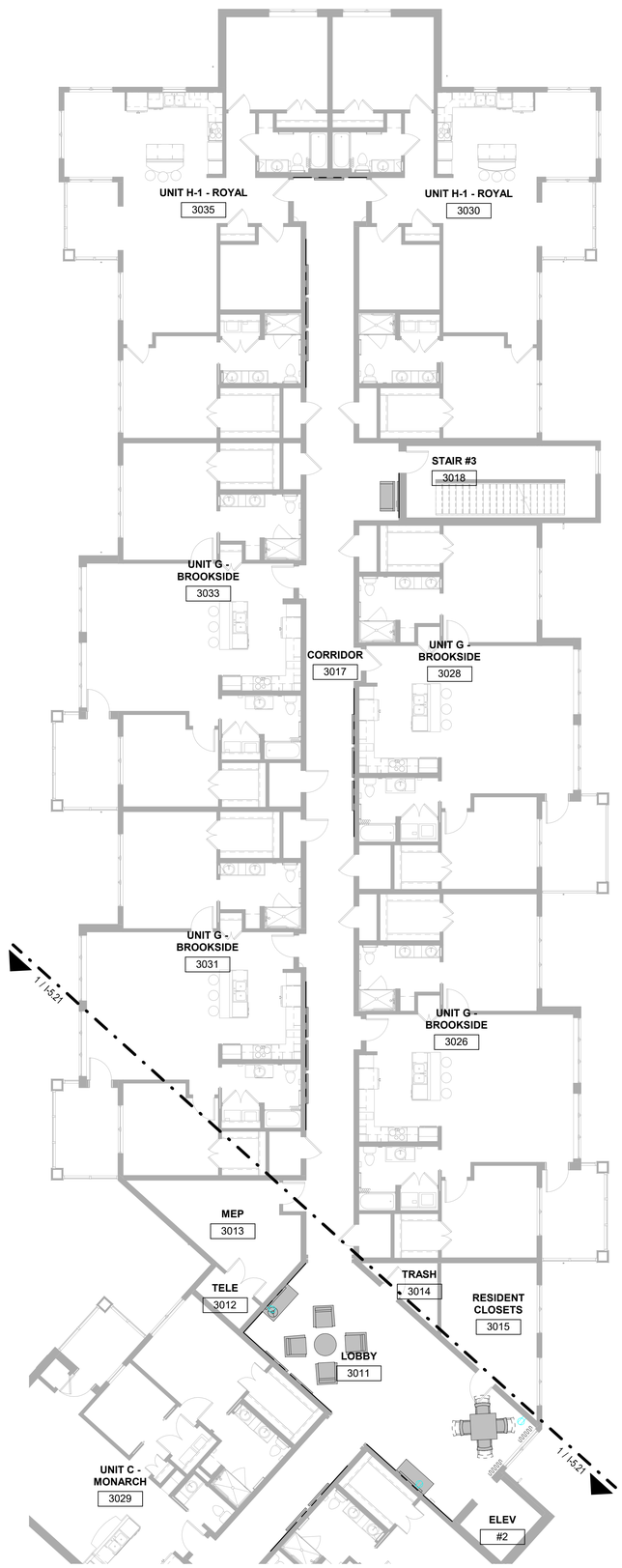


1 LEVEL 3 - FURNITURE & COORDINATION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 3 - FURNITURE & COORDINATION PLAN - WING B
1/8" = 1'-0"

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Austin, TX 78704
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BID SET

STATE OF MISSOURI
B. DEAN MAZZALENA
NUMBER A-2006031
ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 3 - FURNITURE & COORDINATION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

DRAWING I-5.21 SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

— – – —	CLEAN WALL
//////////////////////	DRAPERY POCKET
	DUAL ELEC. RECEPTACLE
	QUAD. ELEC. RECEPTACLE
	FLOOR RECEPTACLE
	QUAD. FLOOR RECEPTACLE
	DATA CONNECTION
TV	TV LOCATION
J	J-BOX LOCATION
†	PLUMBING FIXTURE

GENERAL NOTES

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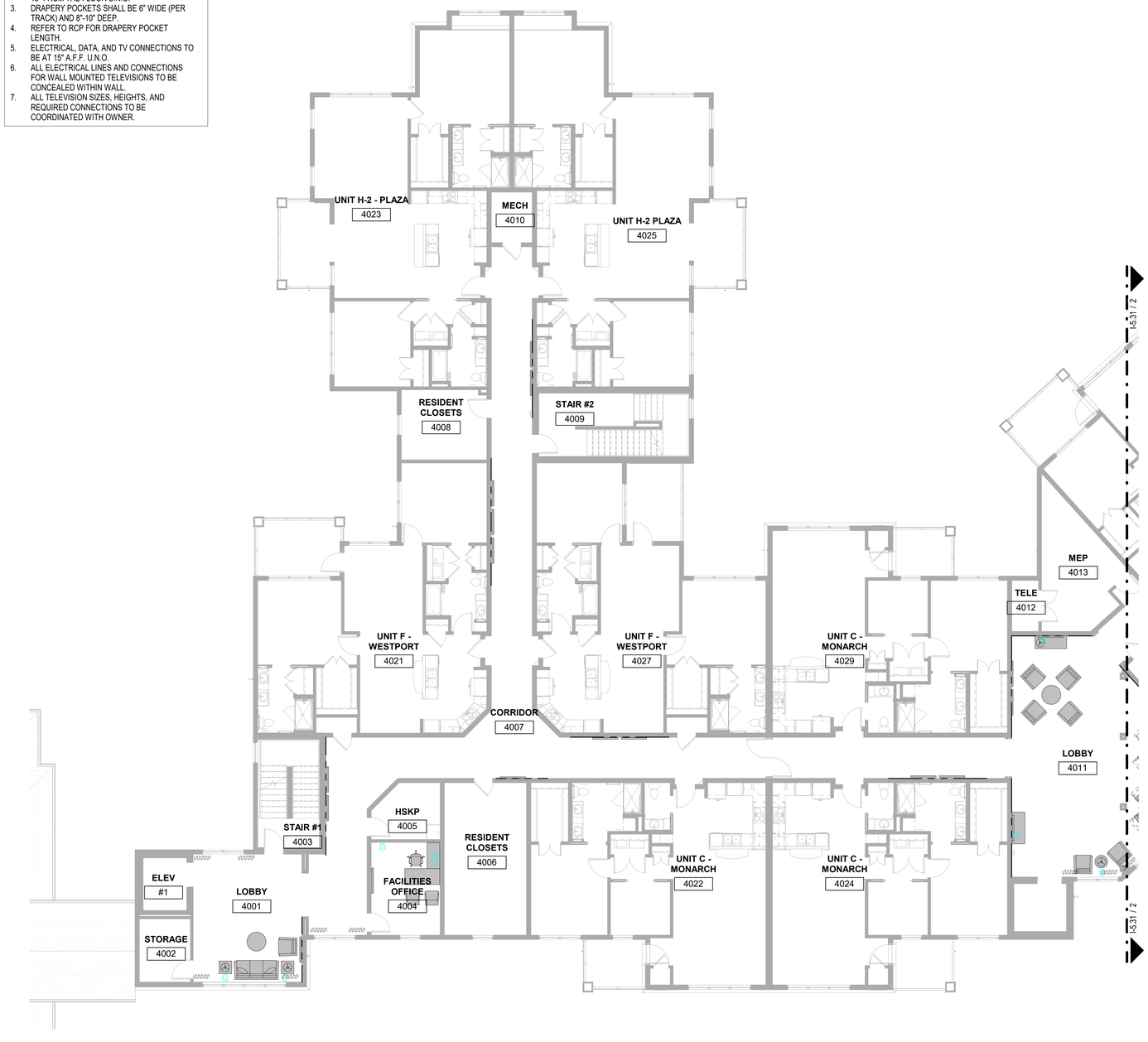
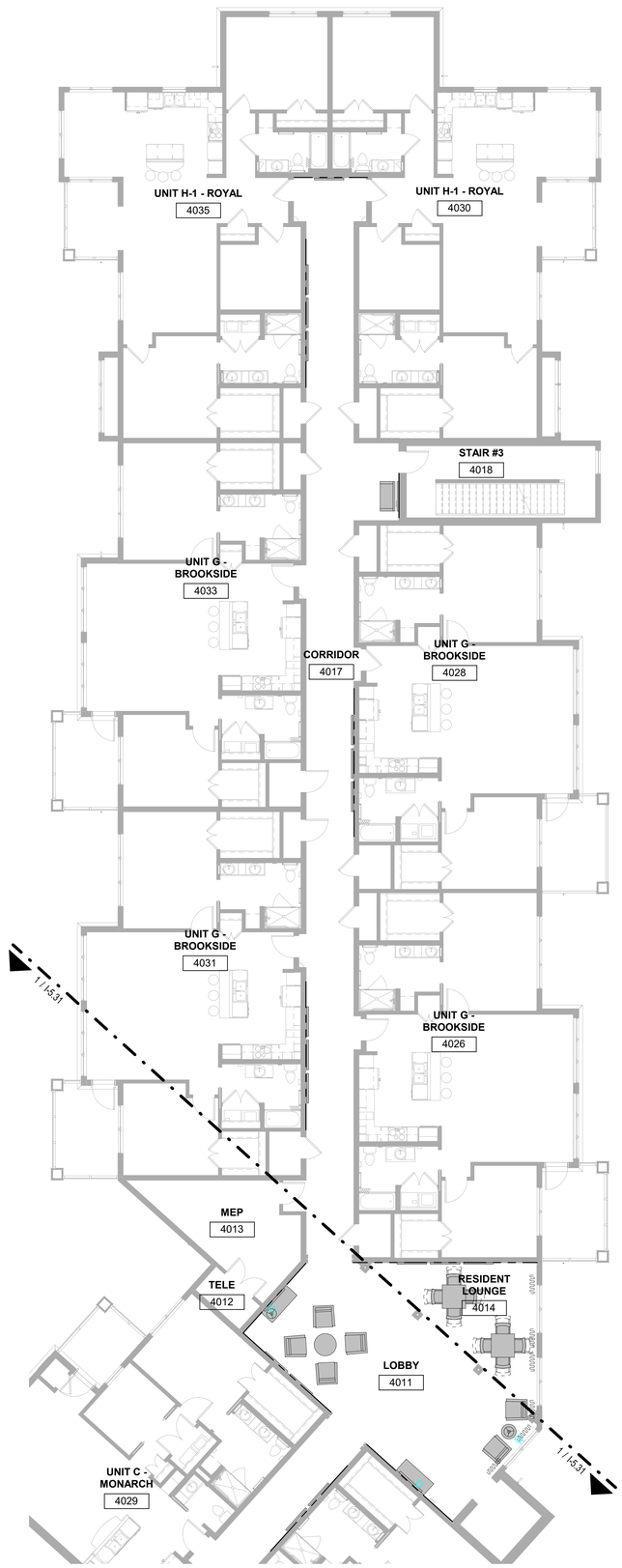


1 LEVEL 4 - FURNITURE & COORDINATION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 4 - FURNITURE & COORDINATION PLAN - WING B
1/8" = 1'-0"

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BID SET

STATE OF MISSOURI
B. DEAN MAYFIELD
NUMBER A-2006031
ARCHITECT
1-18-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
LEVEL 4 - FURNITURE & COORDINATION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-5.31	____ OF ____

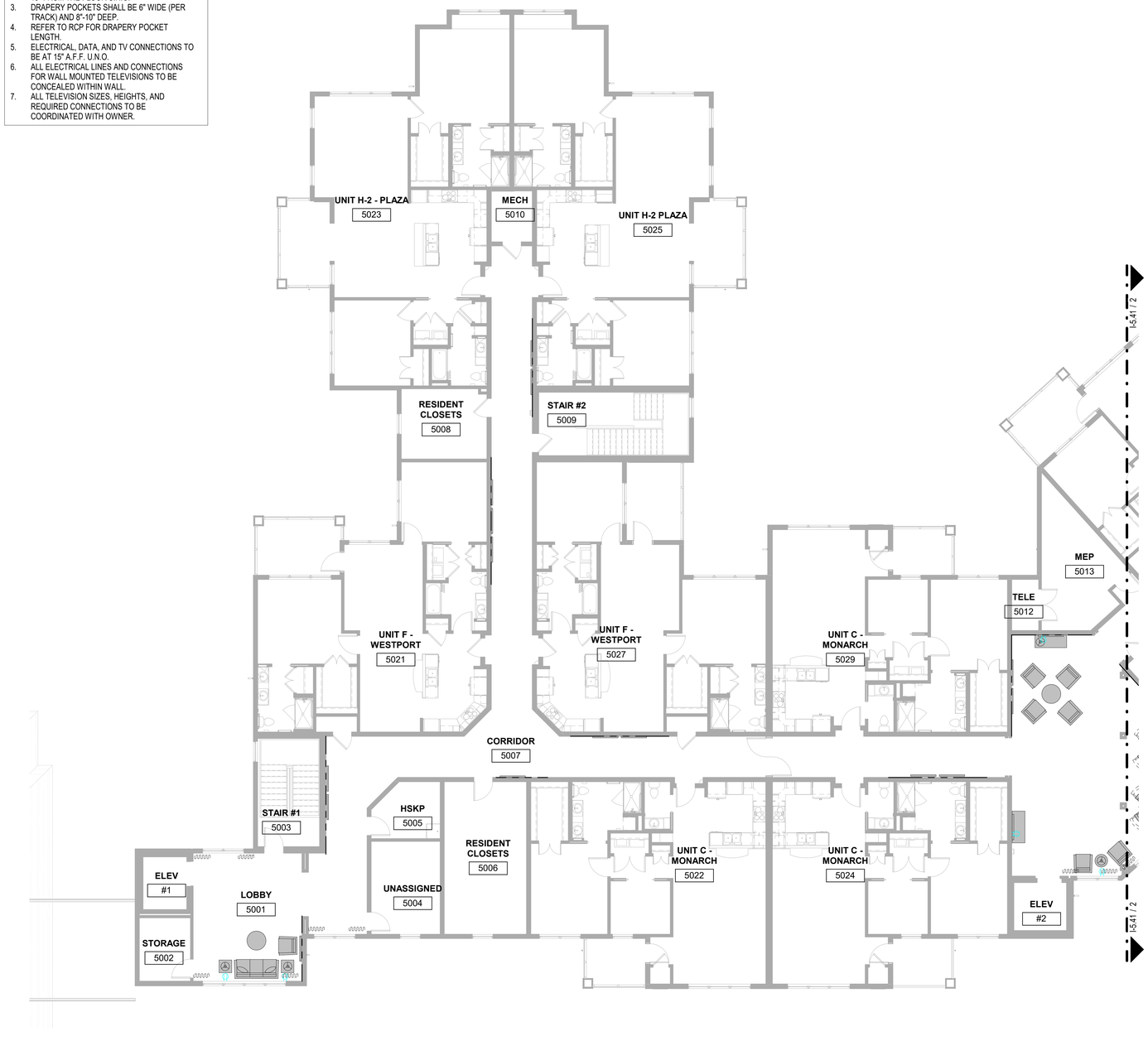
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

LEGEND

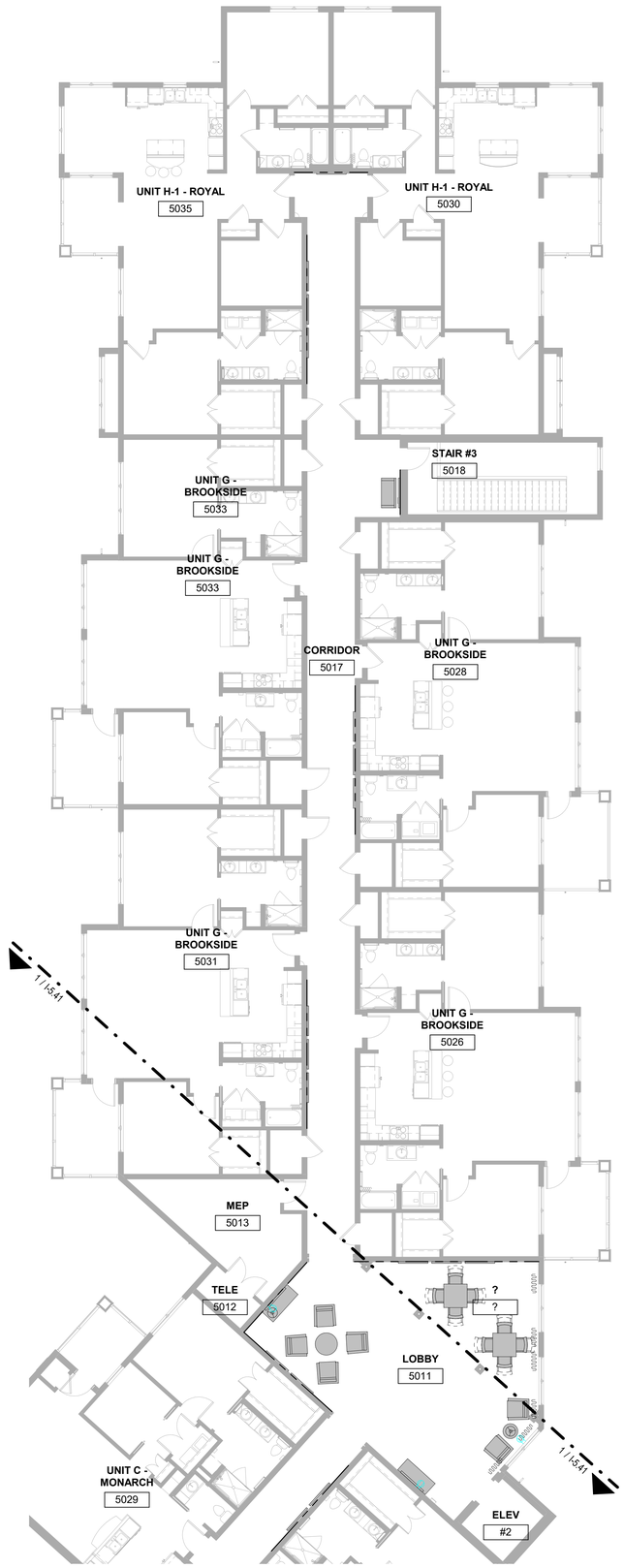
— – – —	CLEAN WALL
⋯⋯⋯⋯⋯⋯	DRAPERY POCKET
	DUAL ELEC. RECEPTACLE
	QUAD. ELEC. RECEPTACLE
	FLOOR RECEPTACLE
	QUAD. FLOOR RECEPTACLE
	DATA CONNECTION
TV	TV LOCATION
J	J-BOX LOCATION
†	PLUMBING FIXTURE

GENERAL NOTES

1. THIS PLAN IS ISSUED WITH THE INTENT OF PROVIDING THE ARCHITECT AND THEIR CONSULTANTS WITH DESIGN INFORMATION AVAILABLE AT THIS PHASE. THIS PLAN DOES NOT COVER ALL DESIGN ISSUES. ADDITIONAL DESIGN INFORMATION WILL BE SUBMITTED THROUGHOUT THE COURSE OF THE DESIGN PROCESS.
2. CLEAN WALL IMPLIES NO DEVICES WITHIN AN AREA INSIDE OF 18" FROM EACH CORNER AND 15" FROM THE FLOOR U.N.O.
3. DRAPERY POCKETS SHALL BE 6" WIDE (PER TRACK) AND 8"-10" DEEP.
4. REFER TO RCP FOR DRAPERY POCKET LENGTH.
5. ELECTRICAL, DATA, AND TV CONNECTIONS TO BE AT 15" A.F.F. U.N.O.
6. ALL ELECTRICAL LINES AND CONNECTIONS FOR WALL MOUNTED TELEVISIONS TO BE CONCEALED WITHIN WALL.
7. ALL TELEVISION SIZES, HEIGHTS, AND REQUIRED CONNECTIONS TO BE COORDINATED WITH OWNER.



1 LEVEL 5 - FURNITURE & COORDINATION PLAN - WING A
1/8" = 1'-0"



2 LEVEL 5 - FURNITURE & COORDINATION PLAN - WING B
1/8" = 1'-0"

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811 Barton Springs Rd. Ste. 800
Austin, TX 78704
V 512-476-6501
www.StudioSIX5.com

BID SET

STATE OF MISSOURI
B. DEAN MAYFIELD
NUMBER 2006031
ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

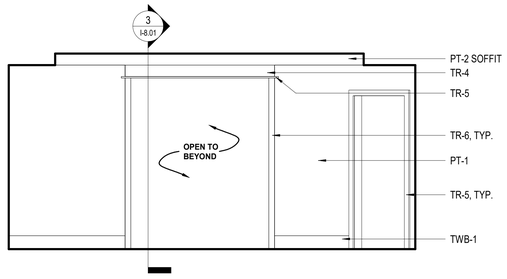
DRAWING TITLE
LEVEL 5 - FURNITURE & COORDINATION PLAN

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

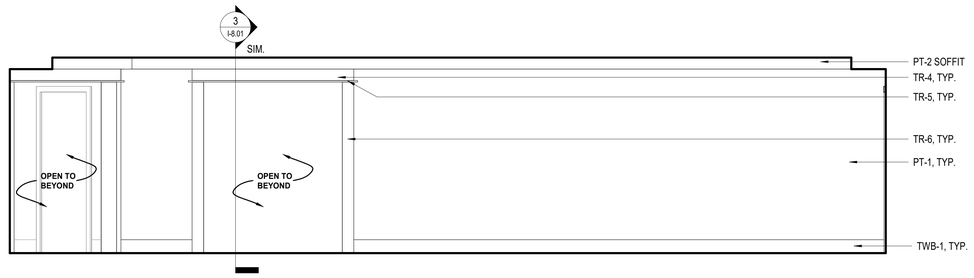
DRAWING I-5.41 SHEET ____ OF ____

2/24/2021 8:40:56 AM
\\studiodc01\Users\inliadmin\My Documents\JKV Meadows Phase II _JKV509_R20_chan@studiosix5.com.rvt

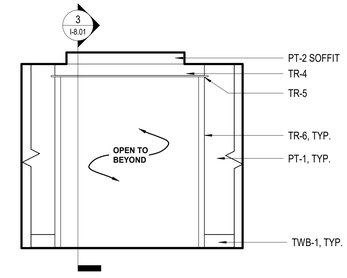
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



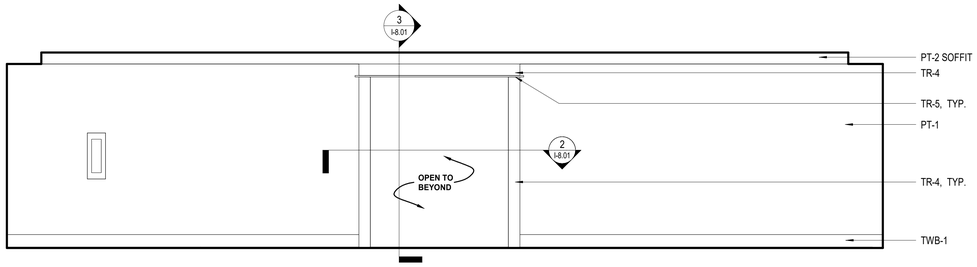
12 LOBBY 3011, WING B ENTRY
3/8" = 1'-0"



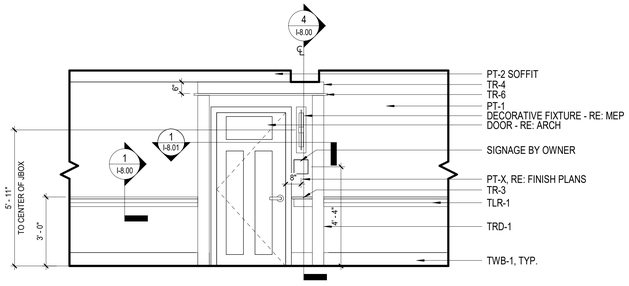
11 LOBBY 2011, ALCOVE ENTRY
3/8" = 1'-0"



10 LOBBY 2011, WING B ENTRY
3/8" = 1'-0"

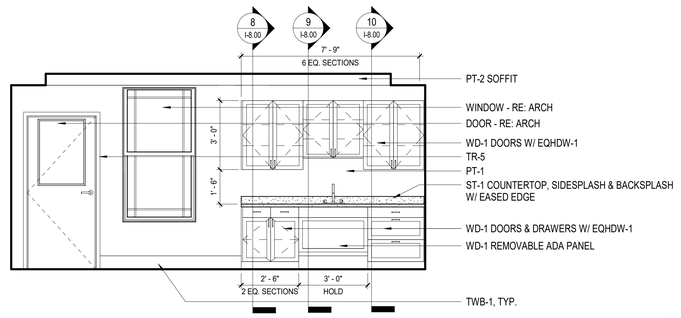


9 LOBBY 2011, WING A ENTRY
3/8" = 1'-0"

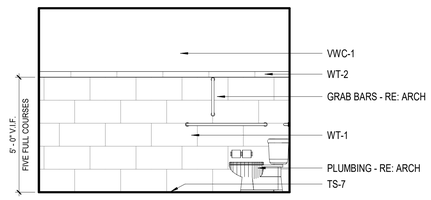


8 TYP. UNIT ENTRY
3/8" = 1'-0"

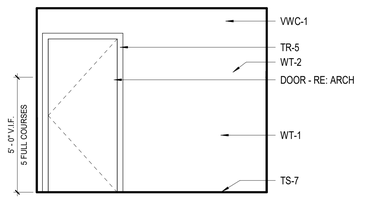
7 TYP. UNIT ENTRY 3D VIEW



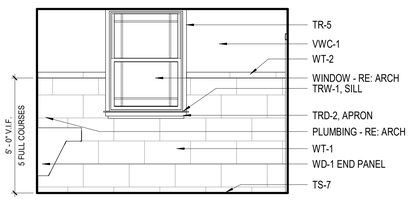
6 ACTIVITY 2002, CASEWORK
3/8" = 1'-0"



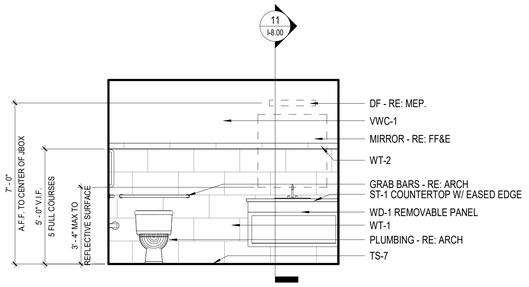
5 TYP. RESTROOM, WEST
3/8" = 1'-0"



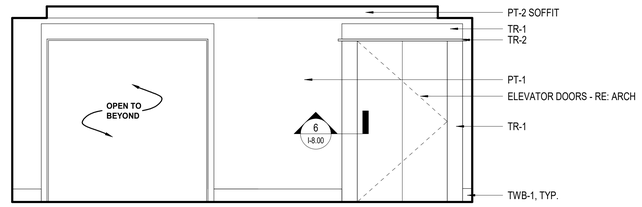
4 TYP. RESTROOM, SOUTH
3/8" = 1'-0"



3 TYP. RESTROOM, EAST
3/8" = 1'-0"



2 TYP. RESTROOM, SINK
3/8" = 1'-0"



1 TYP. ELEVATOR LOBBY
3/8" = 1'-0"

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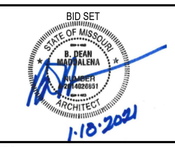
BID SET



PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

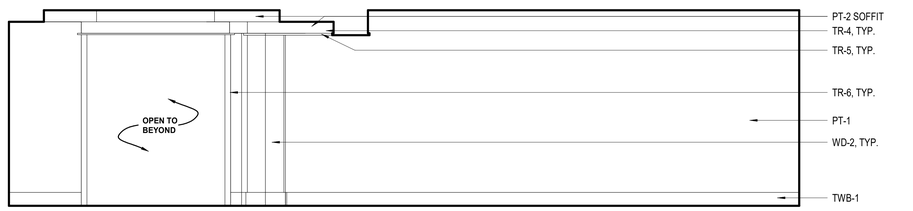
DRAWING TITLE
INTERIOR ELEVATIONS

COMM. NO.	DATE
19132.00	FEBRUARY 24,2021

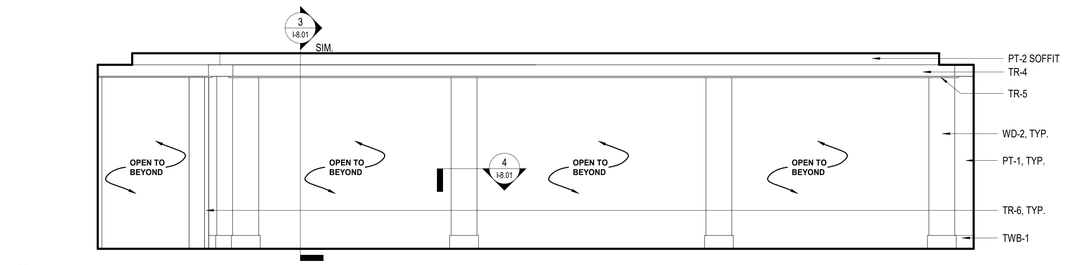
DRAWING I-7.00 SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

GENERAL NOTES



2 RESIDENT LOUNGE 4014, WING B ENTRY
3/8" = 1'-0"



1 LOBBY 4011/ RESIDENT LOUNGE 4014
3/8" = 1'-0"

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V 512-476-6501
www.StudioSIX5.com

STATE OF MISSOURI
B. DEAN MAPOLEMA
NUMBER A-2006031
REGISTERED ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
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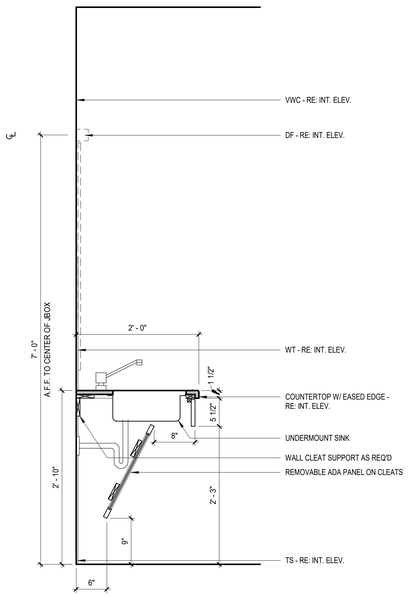
PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

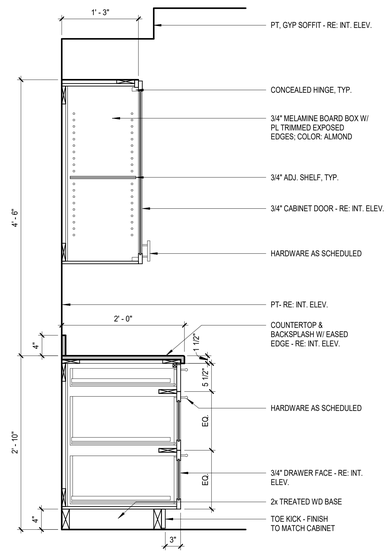
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
INTERIOR ELEVATIONS

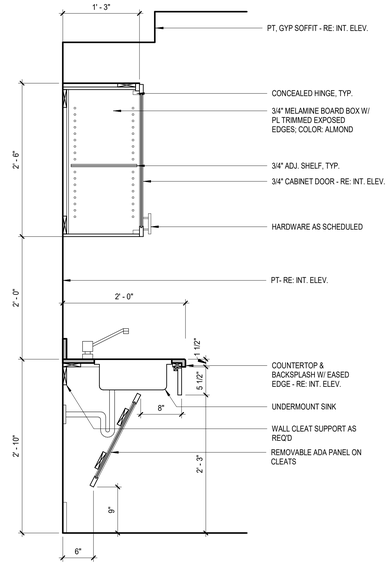
COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-7.01	____ OF ____



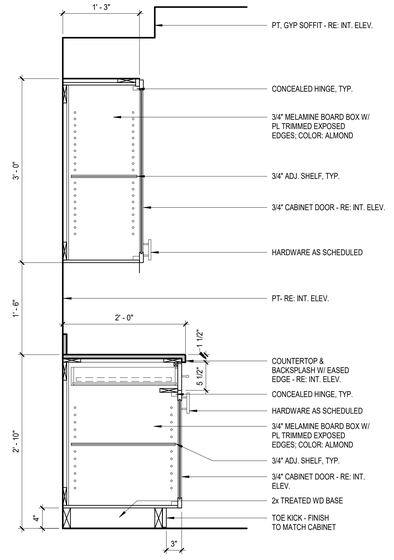
11 RESTROOM - SINK
1" = 1'-0"



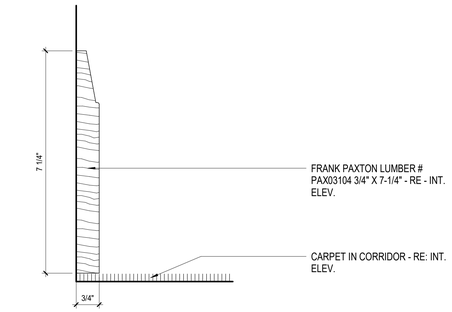
10 ACTIVITY - CASEWORK, DRAWERS
1" = 1'-0"



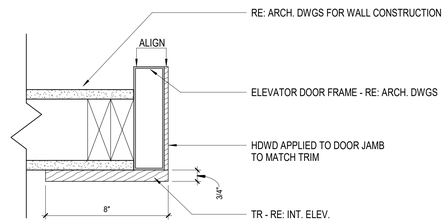
9 ACTIVITY - CASEWORK, SINK
1" = 1'-0"



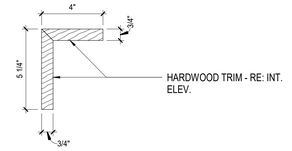
8 ACTIVITY - CASEWORK
1" = 1'-0"



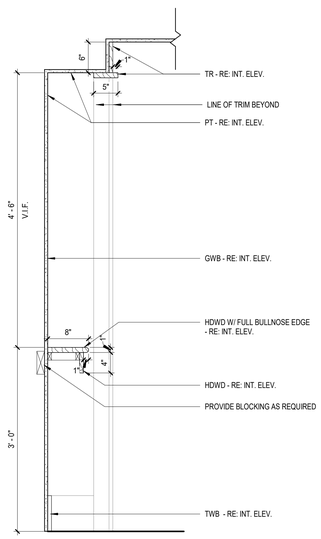
7 TYP. UNIT WALL BASE (TWB-1)
6" = 1'-0"



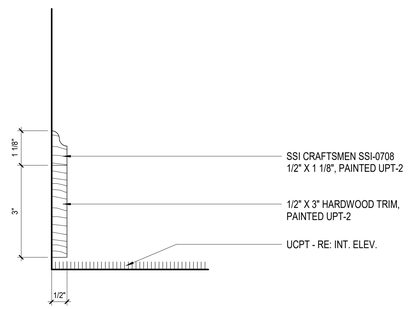
6 TYP. ELEVATOR JAMB
3" = 1'-0"



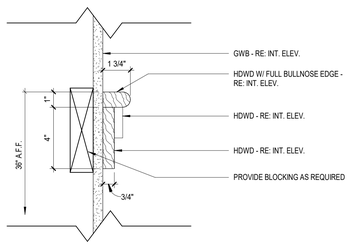
5 TYPICAL CROWN PROFILE (UTCN-1)
3" = 1'-0"



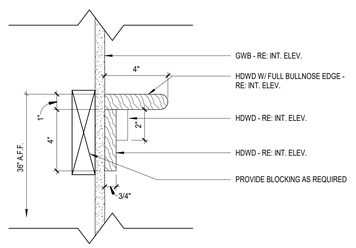
4 TYP. PACKAGE SHELF/ UNIT ENTRY
1" = 1'-0"



3 TYP. UNIT WALL BASE (UTWB-1)
6" = 1'-0"



2 TYP. CHAIR RAIL
3" = 1'-0"



1 TYP. LEAN RAIL
3" = 1'-0"

GENERAL NOTES

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

STUDIO SIX 5
811 Barton Springs Rd. Ste. 800
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V 512-476-6501
www.StudioSIX5.com

STATE OF MISSOURI
B. DEAN MAPOLEMA
NUMBER A-2006031
ARCHITECT
1-10-2021

PROJECT TITLE
John Knox Village

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540.344.6664 ▪ Fax 540.343.6925
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PROJECT DESIGNER	DESIGNER
PROJECT ARCHITECT	PA
PROJECT ENGINEER	Designer
DRAWN BY	Author
CHECKED BY	Checker
APPROVED BY	

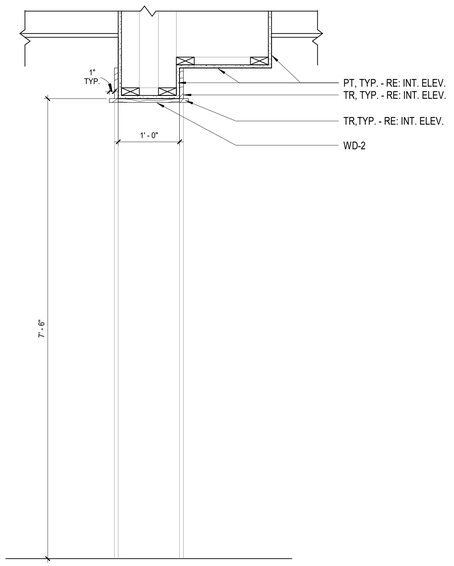
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
DETAILS

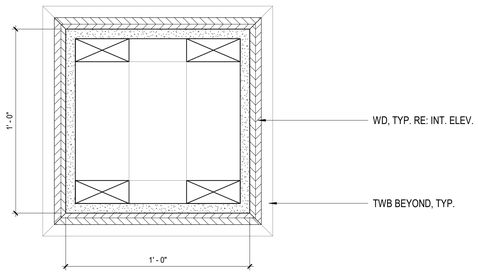
COMM. NO.	DATE
19132.00	FEBRUARY 24,2021
DRAWING	SHEET
I-8.00	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

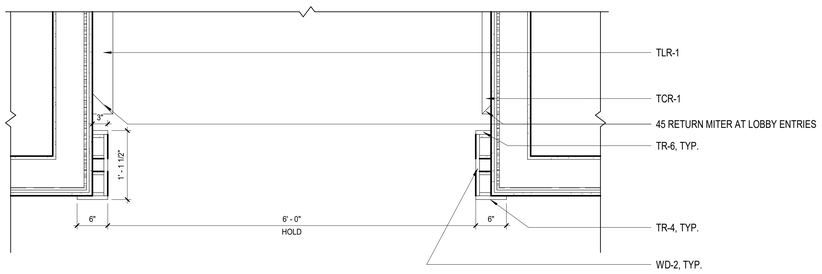
GENERAL NOTES



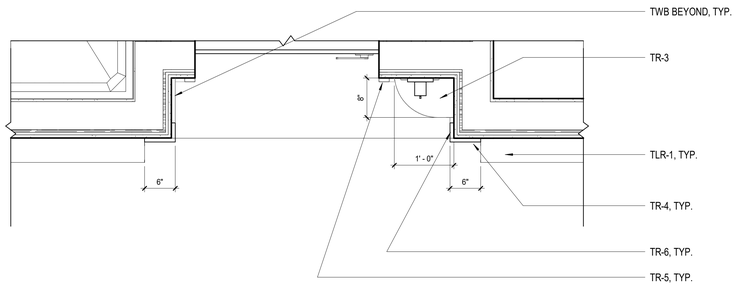
3 TYP. LOBBY CASED ENTRY
1" = 1'-0"



4 TYP. LOBBY COLUMN
3" = 1'-0"



2 TYP. TLR/TCR PLAN AT CORRIDOR ENTRY
1" = 1'-0"



1 TYP. UNIT ENTRY PLAN
1" = 1'-0"

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Austin, TX 78704
V 512-476-6501
www.StudioSIX5.com

STATE OF MISSOURI
B. DEAN MAPOLEMA
NUMBER A-2006031
REGISTERED ARCHITECT
1-10-2021

PROJECT TITLE

John Knox Village

SFCS Architecture Engineering Planning Interiors
SFCS Inc. ▪ 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 ▪ Fax 540.343.6925
www.sfcs.com

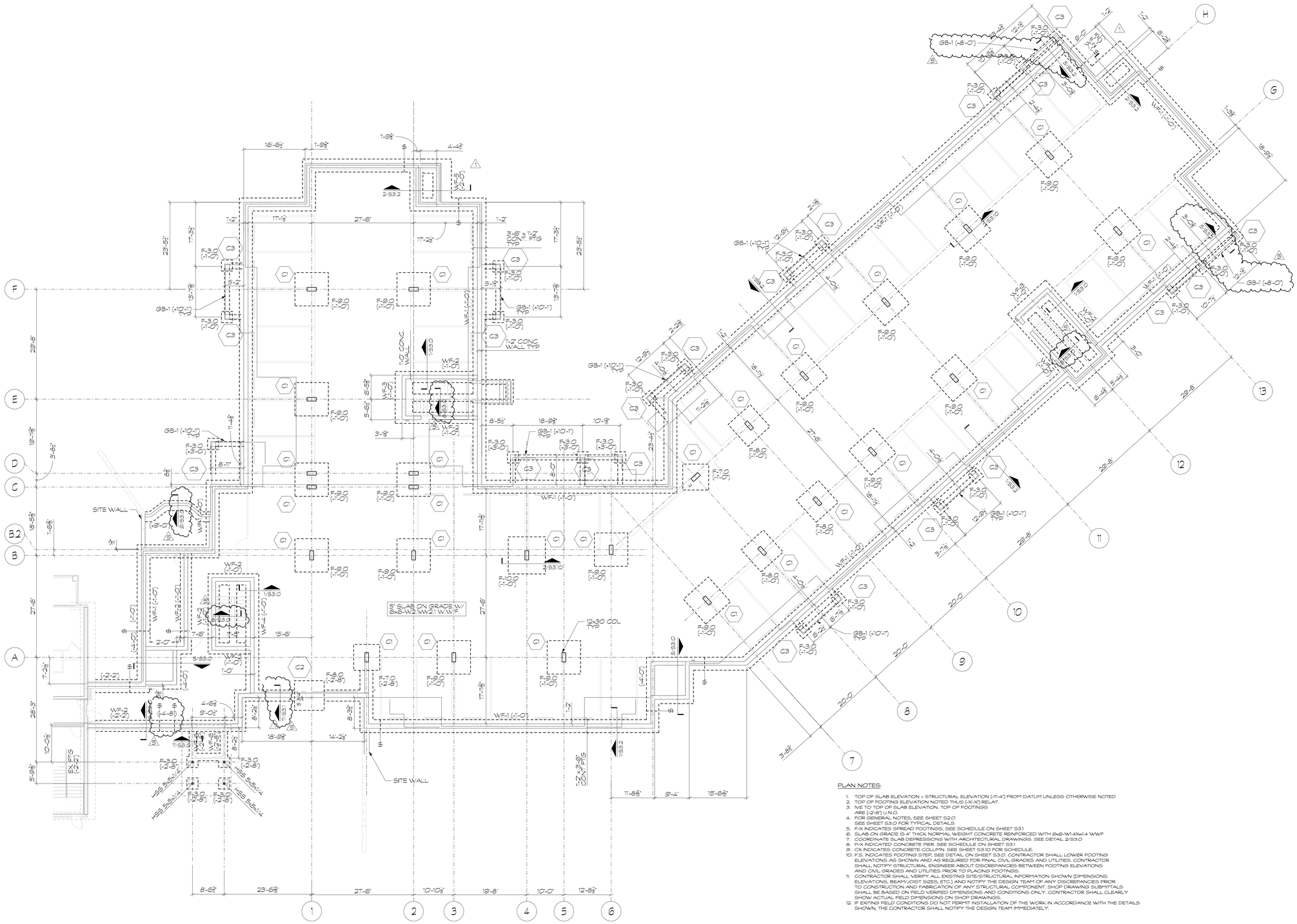
PROJECT DESIGNER	: DESIGNER
PROJECT ARCHITECT	: PA
PROJECT ENGINEER	: Designer
DRAWN BY	: Author
CHECKED BY	: Checker
APPROVED BY	:

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
DETAILS

COMM. NO. 19132.00	DATE FEBRUARY 24,2021
DRAWING I-8.01	SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

1 S1.1 GARAGE FOUNDATION AND SLAB ON GRADE PLAN
3/32"=1'-0"

3/1/2021 8:01:10 AM P:\4985 John Knox Meadows Phase II\Sheets\S1.1.dgn user:default project workspace:FEG

Fitzpatrick ENGINEERING GROUP PLLC
STRUCTURAL ENGINEERS
19520 W. Catawba Ave. Suite 311
Cornelius, NC 28031
P 704-907-0114
NC LICENSE NO. F-0344
TBQ JOINT 2049.000
STATE OF MISSOURI DOUGLAS G. FITZPATRICK NUMBER PE-2014016124 PROFESSIONAL ENGINEER
03/10/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc• 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

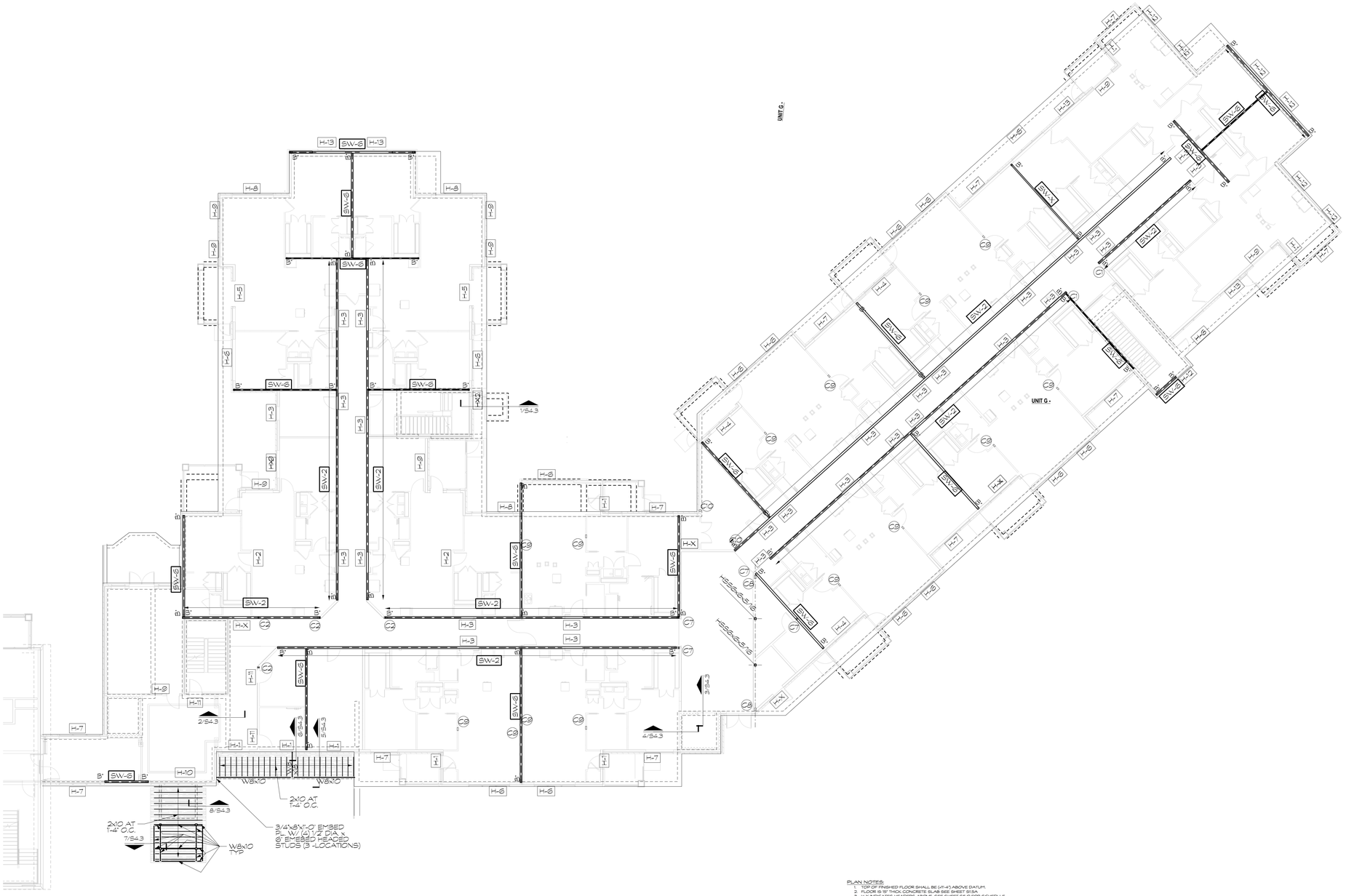
NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
5	Addendum 1	03/10/21

DRAWING TITLE

GARAGE FOUNDATION AND SLAB ON GRADE PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S1.1	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



PLAN NOTES:
1. TOP OF FINISHED FLOOR SHALL BE (XT-4") ABOVE DATUM.
2. FLOOR IS 15" THICK CONCRETE SLAB SEE SHEET S1.5A
3. H-X INDICATES HEADERS ABOVE. SEE SHEET S5.0 FOR SCHEDULE
4. C-X INDICATES COLUMN LOCATIONS. SEE SHEET S5.0 FOR SCHEDULE
5. SW-X INDICATES SHEAR WALL LOCATIONS. SEE SHEET S5.0 FOR SCHEDULE AND DETAILS. B' INDICATES SHEAR WALL BOUNDARY AND HOLD DOWN HARDWARE IF APPLICABLE. SEE SHEAR WALL SCHEDULE FOR INFORMATION.
6. EXTERIOR WALLS SHALL BE 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE-FIR OR BETTER
INTERIOR BEARING WALLS SHALL BE AS FOLLOWS (ALIGN STUDS WITH FLOOR TRUSS BEARING ABOVE):
A - INTERIOR UNIT BEARING AND CORRIDOR WALLS - (2) 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER AND NO.2 SOUTHERN PINE SILL AND TOP PLATES
B- INTERIOR BEARING WALLS WHERE INDICATED - 2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER.
C-INTERIOR BEARING WALLS WHERE INDICATED - (2)2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER

MENU

CADD VERSION:
PLOT SCALE:
PLOT DATE:
SAVE DATE:
COMM. NO.:
DRAWING NO.:

S1.2 — FIRST FLOOR FRAMING PLAN - WOOD
3/32"=1'-0"

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Fitzpatrick ENGINEERING GROUP PLLC
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FEG JOB# 2048G1.000

STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
NUMBER PE-2014016124
PROFESSIONAL ENGINEER
02/24/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Inc. Architecture Engineering Planning Interiors
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Charlotte, North Carolina 28203
704.372.7327• Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	REV 3 - BID SET	02/24/21

DRAWING TITLE

SECOND FLOOR FRAMING PLAN - WOOD

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S1.2	SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
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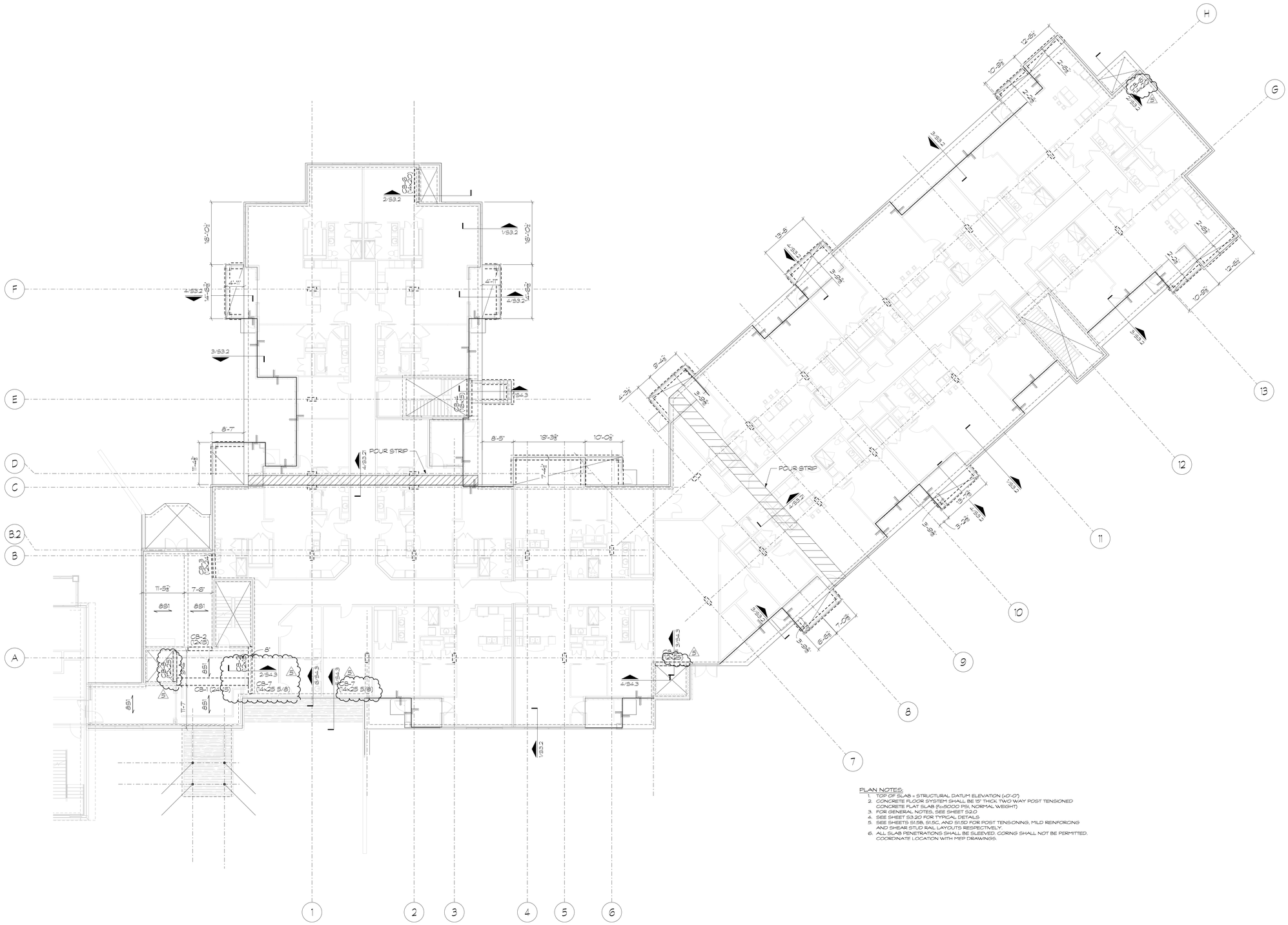
LEE'S SUMMIT, MISSOURI
05/10/2021



PLAN NOTES:
1. TOP OF SLAB = STRUCTURAL DATUM ELEVATION (+0'-0")
2. CONCRETE FLOOR SYSTEM SHALL BE 15" THICK TWO WAY POST TENSIONED CONCRETE FLAT SLAB (f'c=5000 PSI, NORMAL WEIGHT)
3. FOR GENERAL NOTES, SEE SHEET S2.0
4. SEE SHEET S3.2.0 FOR TYPICAL DETAILS
5. SEE SHEETS S1.5B, S1.5C, AND S1.5D FOR POST TENSIONING, MILD REINFORCING AND SHEAR STUD RAIL LAYOUTS RESPECTIVELY.
6. ALL SLAB PENETRATIONS SHALL BE SLEEVED. CORING SHALL NOT BE PERMITTED. COORDINATE LOCATION WITH MEP DRAWINGS.

B ADDED DIMENSIONS

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM. NO.
DRAWING NO.

1 / S1.2A — SECOND FLOOR FRAMING PLAN - CONCRETE
3/32"=1'-0"

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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	REV 3 - BID SET	02/24/21
B	Addendum 1	03/10/21

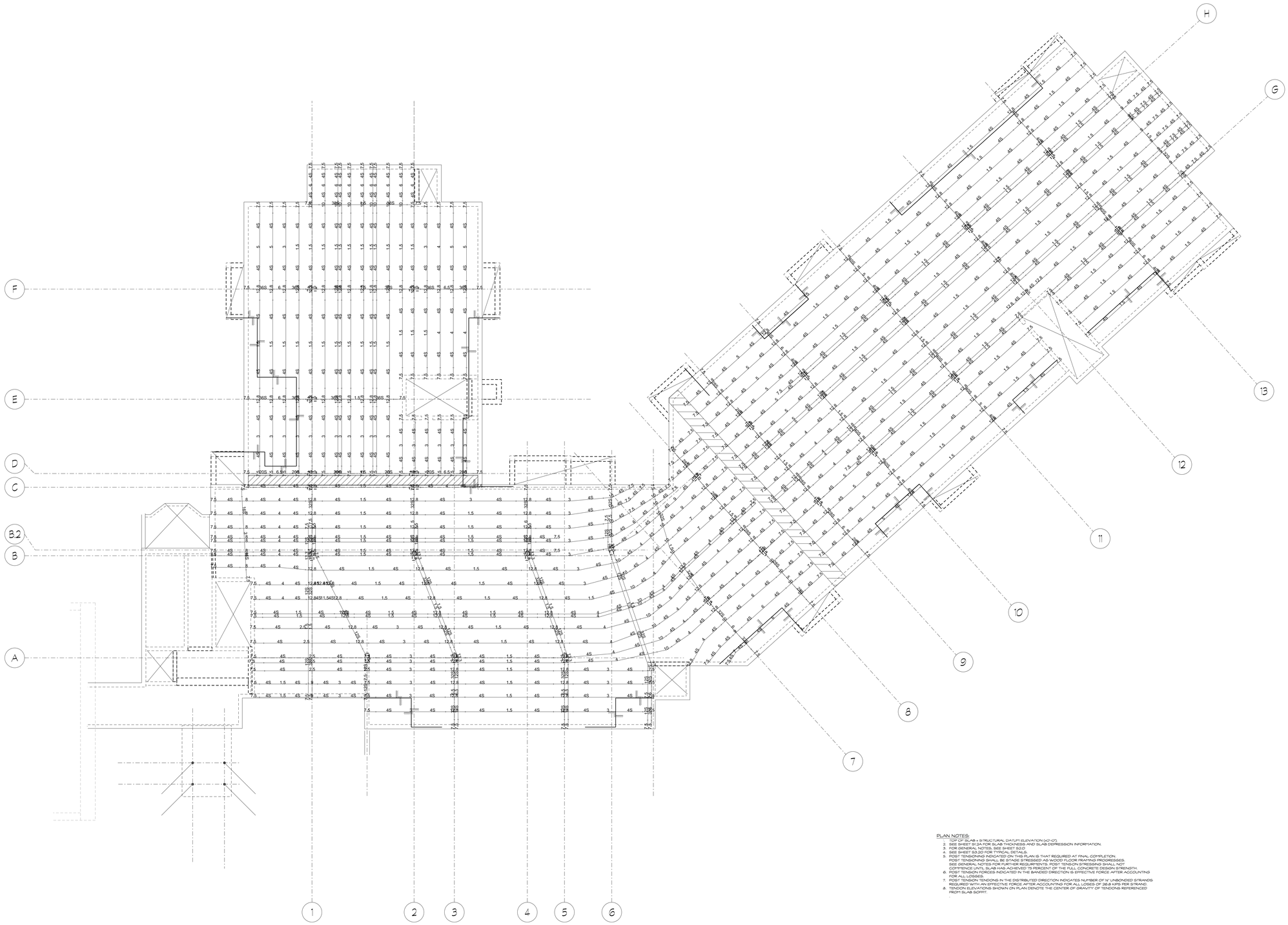
DRAWING TITLE

SECOND FLOOR FRAMING PLAN - CONCRETE

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING S1.2A

SHEET _____ OF _____



PLAN NOTES:

1. TOP OF SLAB = STRUCTURAL DATUM ELEVATION (42'-0").
2. SEE SHEET S1.2A FOR SLAB THICKNESS AND SLAB DEPRESSION INFORMATION.
3. FOR GENERAL NOTES, SEE SHEET S2.0
4. SEE SHEET S3.2D FOR TYPICAL DETAILS
5. POST TENSIONING INDICATED ON THIS PLAN IS THAT REQUIRED AT FINAL COMPLETION. POST TENSIONING SHALL BE STAGE STRESSED AS WOOD FLOOR FRAMING PROGRESSES. POST TENSIONING SHALL BE SUSPENDED WHEN CONCRETE TEMPERATURE IS BELOW 50°F. POST TENSION STRESSING SHALL NOT COMMENCE UNTIL SLAB HAS ACHIEVED 75 PERCENT OF THE FULL CONCRETE DESIGN STRENGTH.
6. POST TENSION FORCES INDICATED IN THE BANDED DIRECTION IS EFFECTIVE FORCE AFTER ACCOUNTING FOR ALL LOSSES.
7. POST TENSION TENDONS IN THE DISTRIBUTED DIRECTION INDICATES NUMBER OF ½" UNBONDED STRANDS REQUIRED WITH AN EFFECTIVE FORCE AFTER ACCOUNTING FOR ALL LOSES OF 28.8 KIPS PER STRAND.
8. TENDON ELEVATIONS SHOWN ON PLAN DENOTE THE CENTER OF GRAVITY OF TENDONS REFERENCED FROM SLAB SOFFIT.

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM. NO.
DRAWING NO.

1 / S1.2B — SECOND FLOOR SLAB POST TENSIONING PLAN
3/32"=1'-0"

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07-5-21

PROJECT TITLE

John Knox Village
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

SECOND FLOOR SLAB POST TENSIONING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING S1.2B — SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
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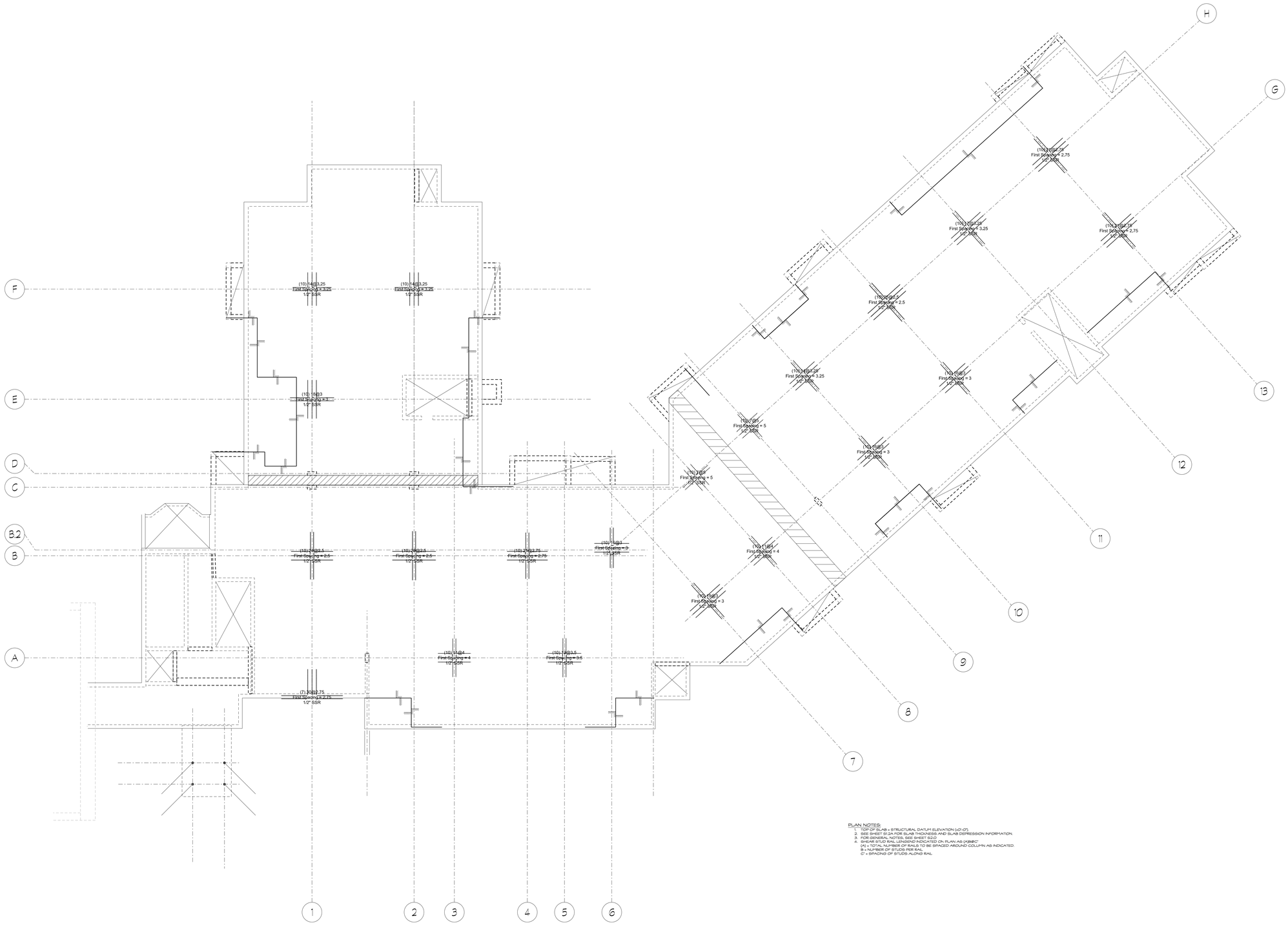
05/10/2021



PLAN NOTES:
1. TOP OF SLAB = STRUCTURAL DATUM ELEVATION (+0'-0").
2. SEE SHEET S1.2A FOR SLAB THICKNESS AND SLAB DEPRESSION INFORMATION.
3. FOR GENERAL NOTES, SEE SHEET S2.0
4. SHEAR STUD RAIL LENGEND INDICATED ON PLAN AS (A)B@C:
   (A) = TOTAL NUMBER OF RAILS TO BE SPACED AROUND COLUMN AS INDICATED.
   B = NUMBER OF STUDS PER RAIL
   C = SPACING OF STUDS ALONG RAIL

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

1 / S1.2C — SECOND FLOOR SLAB SHEAR STUD RAIL PLAN
3/32"=1'-0"

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STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
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SECOND FLOOR SLAB
SHEAR STUD RAIL PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S1.2C	_____ OF _____

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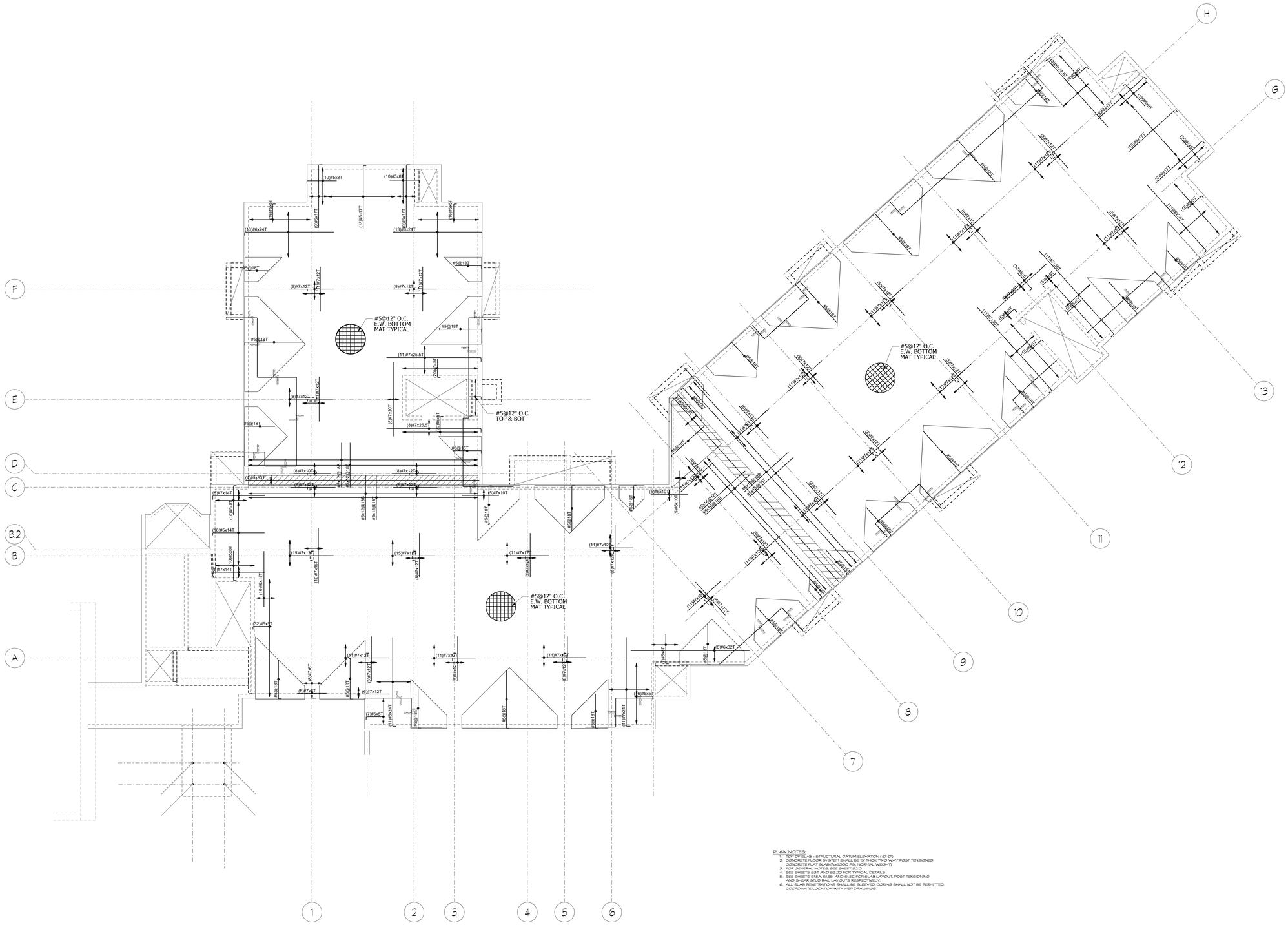

1 / S1.2D — SECOND FLOOR SLAB SHEAR STUD RAIL PLAN
3/32"=1'-0"

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

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REG. JOINT 2048S.000

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02/24/21

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PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

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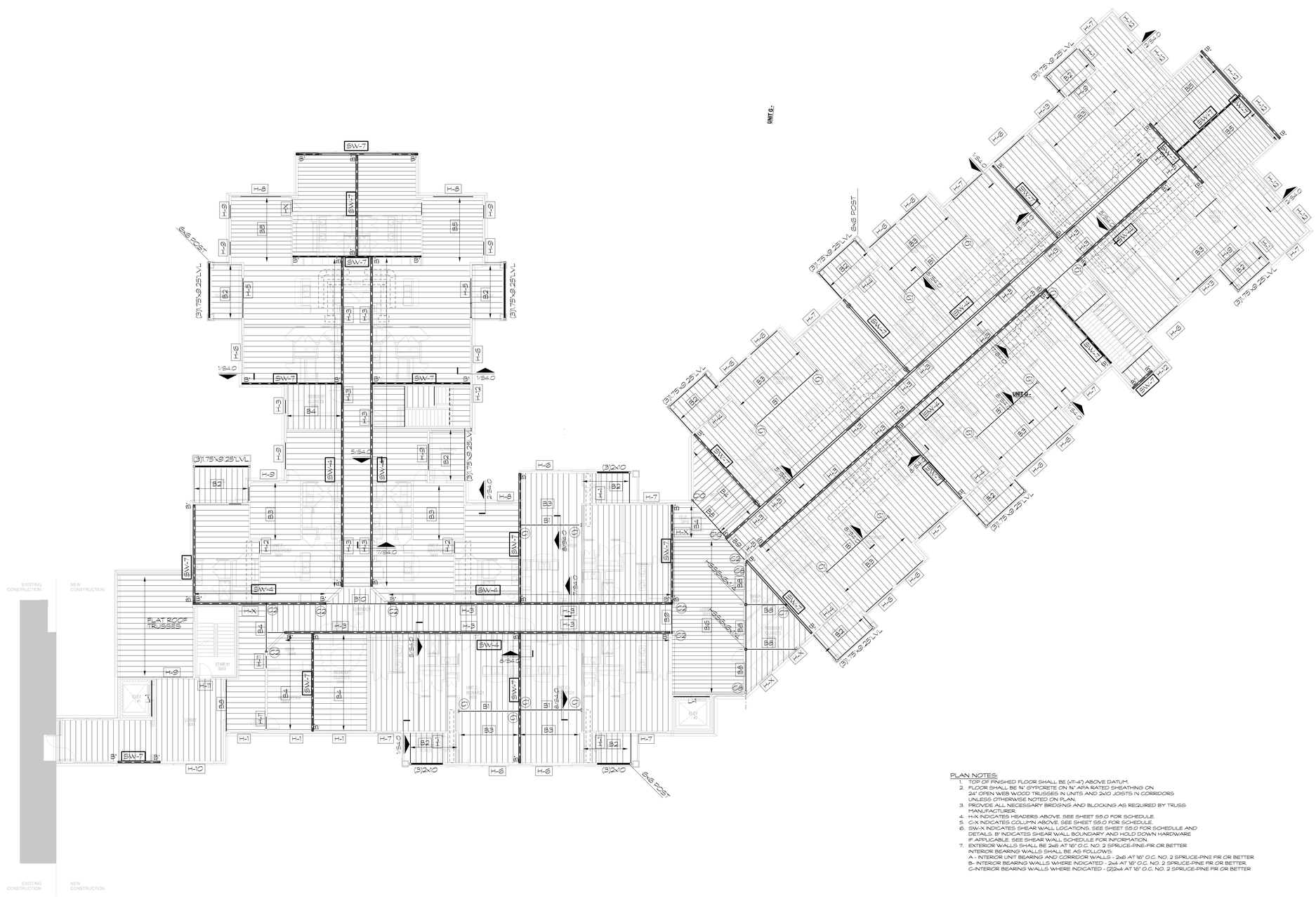
DRAWING TITLE

SECOND FLOOR SLAB REINFORCING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S1.2D	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



PLAN NOTES:

1. TOP OF FINISHED FLOOR SHALL BE (IT-4") ABOVE DATUM.
2. FLOOR SHALL BE ¾" GYPCRETE ON ¾" APA RATED SHEATHING ON 24" OPEN WEB WOOD TRUSSES IN UNITS AND 2x10 JOISTS IN CORRIDORS UNLESS OTHERWISE NOTED ON PLAN.
3. PROVIDE ALL NECESSARY BRIDGING AND BLOCKING AS REQUIRED BY TRUSS MANUFACTURER.
4. H-X INDICATES HEADERS ABOVE, SEE SHEET S5.0 FOR SCHEDULE.
5. C-X INDICATES COLUMN ABOVE, SEE SHEET S5.0 FOR SCHEDULE.
6. SW-X INDICATES SHEAR WALL LOCATIONS, SEE SHEET S5.0 FOR SCHEDULE AND DETAILS. B' INDICATES SHEAR WALL BOUNDARY AND HOLD DOWN HARDWARE IF APPLICABLE. SEE SHEAR WALL SCHEDULE FOR INFORMATION.
7. EXTERIOR WALLS SHALL BE 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE-FIR OR BETTER INTERIOR BEARING WALLS SHALL BE AS FOLLOWS:
   A - INTERIOR UNIT BEARING AND CORRIDOR WALLS - 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER
   B- INTERIOR BEARING WALLS WHERE INDICATED - 2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER.
   C-INTERIOR BEARING WALLS WHERE INDICATED - (2)2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER

WOOD FRAMING LEGEND

B1	(2) 1 3/4" x 18" LVL
B2	2x10 AT 16" O.C.
B3	2x12 AT 16" O.C.
B4	(2) 1.75" x 9.25" LVL AT 16" O.C.
B5	2x12 AT 12" O.C.
B6	1.75" x 11.25" LVL AT 12" O.C.
B7	1.75" x 11.25" LVL AT 16" O.C.
B8	(3) 1.75" x 11.25" LVL
B9	(3) 1.75" x 14" LVL
B10	(3) 1.75" x 9.25" LVL

MENU

CADD VERSION	
PLOT SCALE	
PLOT DATE	
SAVE DATE	
COMM NO.	
DRAWING NO.	

1 / S1.3 SECOND FLOOR FRAMING PLAN
3/32"=1'-0"

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REG JOHN 2006R5.030

STATE OF MISSOURI — DOUGLAS G. FITZPATRICK — NUMBER PE-2014016124 — PROFESSIONAL ENGINEER — 07/15/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

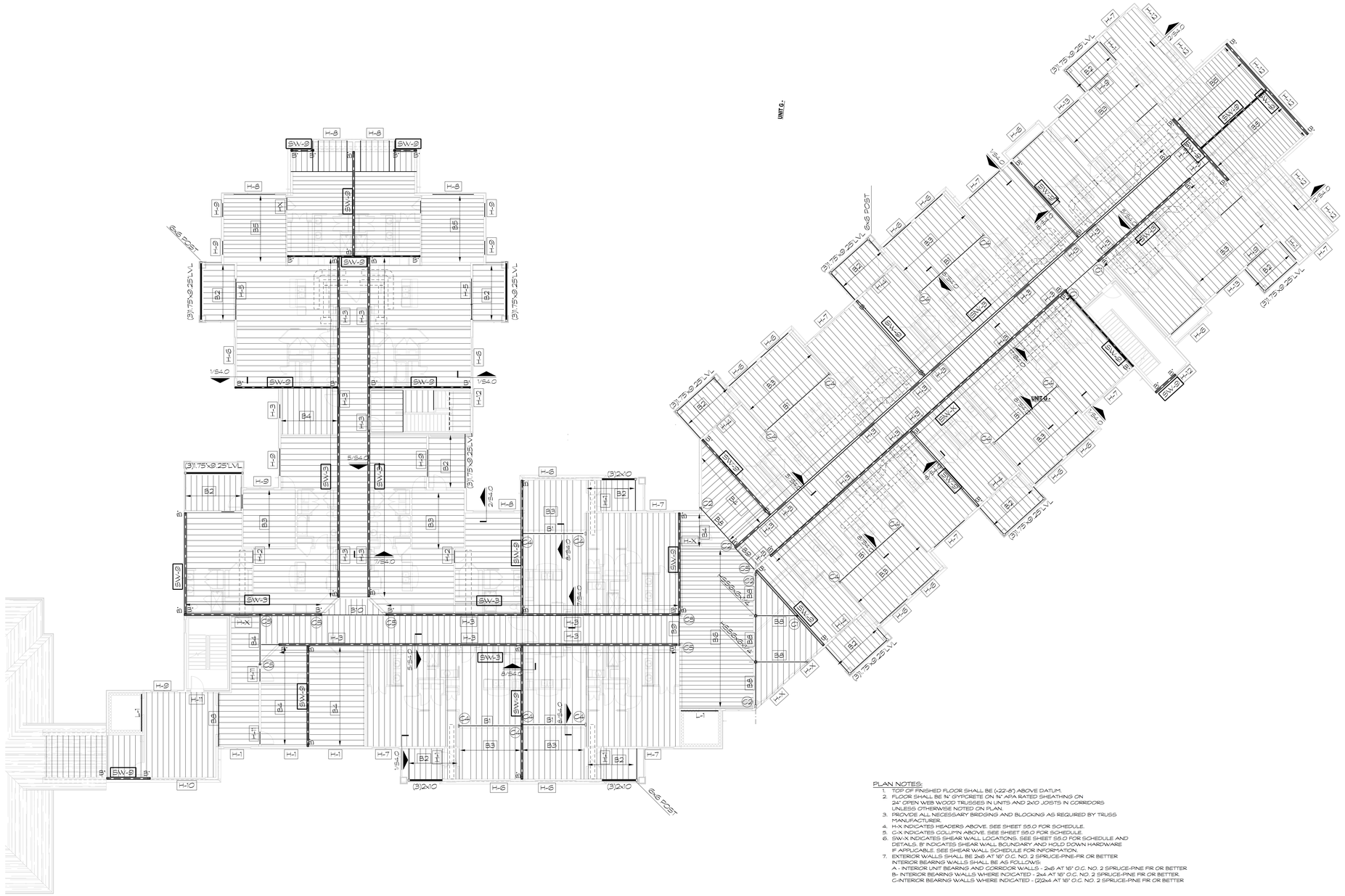
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

THIRD FLOOR FRAMING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S1.3	SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



PLAN NOTES:

1. TOP OF FINISHED FLOOR SHALL BE (+22'-8") ABOVE DATUM.
2. FLOOR SHALL BE 5" CPTCRETE ON 1" ADA RATED SHEATHING ON 24" OPEN WEB WOOD TRUSSES IN UNITS AND 2X10 JOISTS IN CORRIDORS UNLESS OTHERWISE NOTED ON PLAN.
3. PROVIDE ALL NECESSARY BRIDGING AND BLOCKING AS REQUIRED BY TRUSS MANUFACTURER.
4. H-X INDICATES HEADERS ABOVE. SEE SHEET S5.0 FOR SCHEDULE.
5. C-X INDICATES COLUMN ABOVE. SEE SHEET S5.0 FOR SCHEDULE.
6. SW-X INDICATES SHEAR WALL LOCATIONS. SEE SHEET S5.0 FOR SCHEDULE AND DETAILS. 'B' INDICATES SHEAR WALL BOUNDARY AND HOLD DOWN HARDWARE IF APPLICABLE. SEE SHEAR WALL SCHEDULE FOR INFORMATION.
7. EXTERIOR WALLS SHALL BE 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE-FIR OR BETTER INTERIOR BEARING WALLS SHALL BE AS FOLLOWS:
   A - INTERIOR UNIT BEARING AND CORRIDOR WALLS - 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER
   B- INTERIOR BEARING WALLS WHERE INDICATED - 2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER.
   C-INTERIOR BEARING WALLS WHERE INDICATED - (2)2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER

WOOD FRAMING LEGEND

B1	(2) 1 3/4" x 18" LVL
B2	2X10 AT 16" O.C.
B3	2X12 AT 16" O.C.
B4	1.75" x 9.25" LVL AT 16" O.C.
B5	2X8 AT 12" O.C.
B6	1.75" x 11.25" LVL AT 12" O.C.
B7	1.75" x 11.25" LVL AT 16" O.C.
B8	(3) 1.75" x 11.25" LVL
B9	(4) 1.75" x 11.25" LVL
B10	(3) 1.75" x 9.25" LVL

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

1 / S1.4 THIRD FLOOR FRAMING PLAN
3/32"=1'-0"

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PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
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CHECKED BY	CES
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DRAWING TITLE

FOURTH FLOOR FRAMING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S1.4	_____ OF _____

RELEASE FOR CONSTRUCTION
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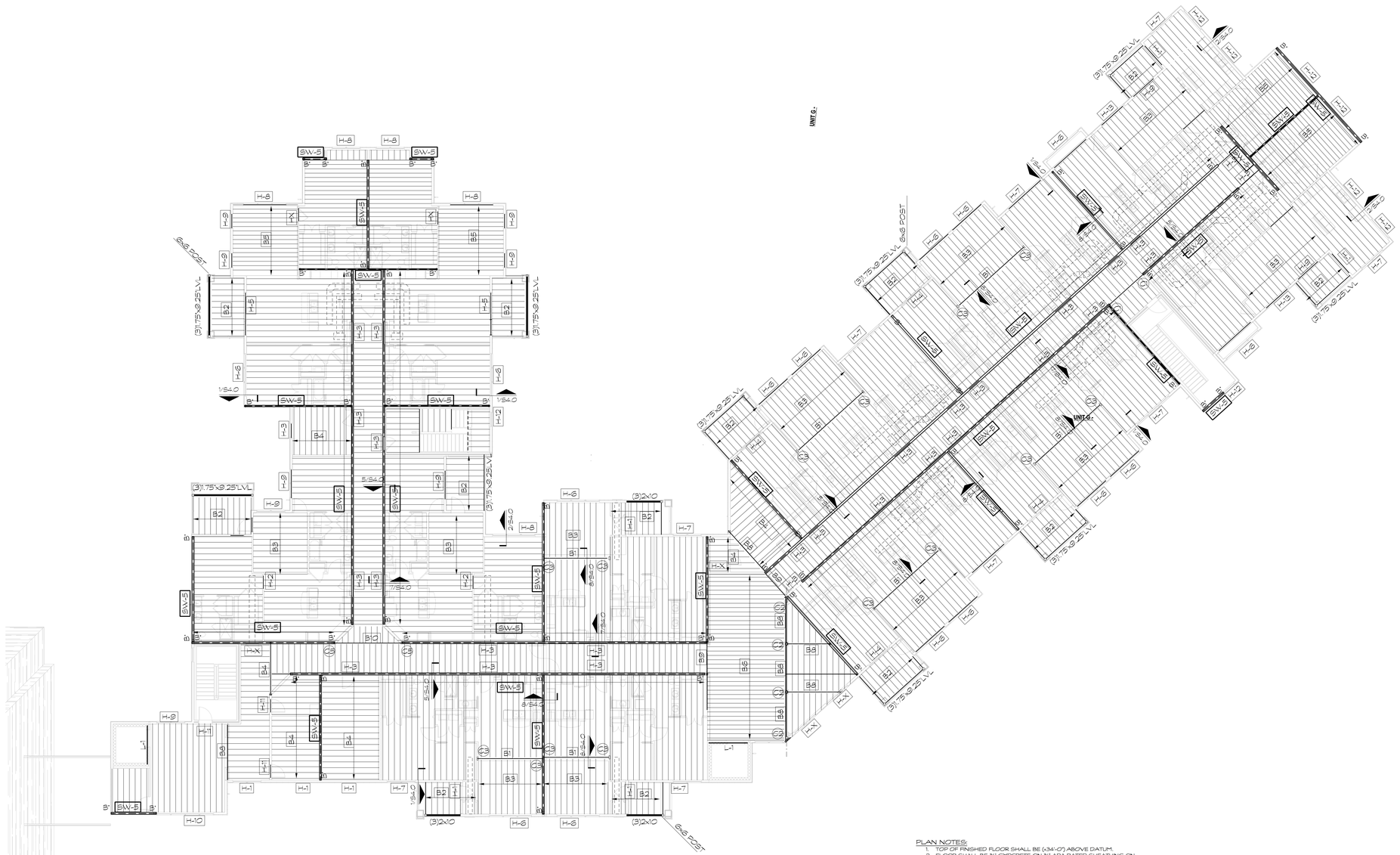
05/10/2021



PLAN NOTES:

1. TOP OF FINISHED FLOOR SHALL BE (+34'-0") ABOVE DATUM.
2. FLOOR SHALL BE 4" SYPCRETE ON ¾" APA RATED SHEATHING ON 24" OPEN WEB WOOD TRUSSES IN UNITS AND 2x10 JOISTS IN CORRIDORS UNLESS OTHERWISE NOTED ON PLAN.
3. PROVIDE ALL NECESSARY BREDGING AND BLOCKING AS REQUIRED BY TRUSS MANUFACTURER.
4. H-X INDICATES HEADERS ABOVE. SEE SHEET S5.0 FOR SCHEDULE.
5. C-X INDICATES COLUMN ABOVE. SEE SHEET S5.0 FOR SCHEDULE.
6. SW-X INDICATES SHEAR WALL LOCATIONS. SEE SHEET S5.0 FOR SCHEDULE AND DETAILS. 'B' INDICATES SHEAR WALL BOUNDARY AND HOLD DOWN HARDWARE IF APPLICABLE. SEE SHEAR WALL SCHEDULE FOR INFORMATION.
7. EXTERIOR WALLS SHALL BE 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE-FIR OR BETTER INTERIOR BEARING WALLS SHALL BE AS FOLLOWS:
   A - INTERIOR UNIT BEARING AND CORRIDOR WALLS - 2x6 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER
   B- INTERIOR BEARING WALLS WHERE INDICATED - 2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER.
   C-INTERIOR BEARING WALLS WHERE INDICATED - (2)2x4 AT 16" O.C. NO. 2 SPRUCE-PINE FIR OR BETTER

WOOD FRAMING LEGEND

B1	(2) 1 3/4" x 18" LVL
B2	(2) 1.75" x 11.88" LVL
B3	2x10 AT 16" O.C.
B4	2x12 AT 16" O.C.
B5	(2) 1.75" x 9.25" LVL AT 16" O.C.
B8	2x12 AT 12" O.C.
B9	(2) 1.75" x 11.88" LVL AT 12" O.C.
B10	(2) 1.75" x 11.88" LVL AT 16" O.C.
B11	(3) 1.75" x 11.88" LVL
B12	(3) 1.75" x 9.25" LVL

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

1 S1.5 FOURTH FLOOR FRAMING PLAN
3/32"=1'-0"

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PROJECT TITLE

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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

FIFTH FLOOR FRAMING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S1.5	OF

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
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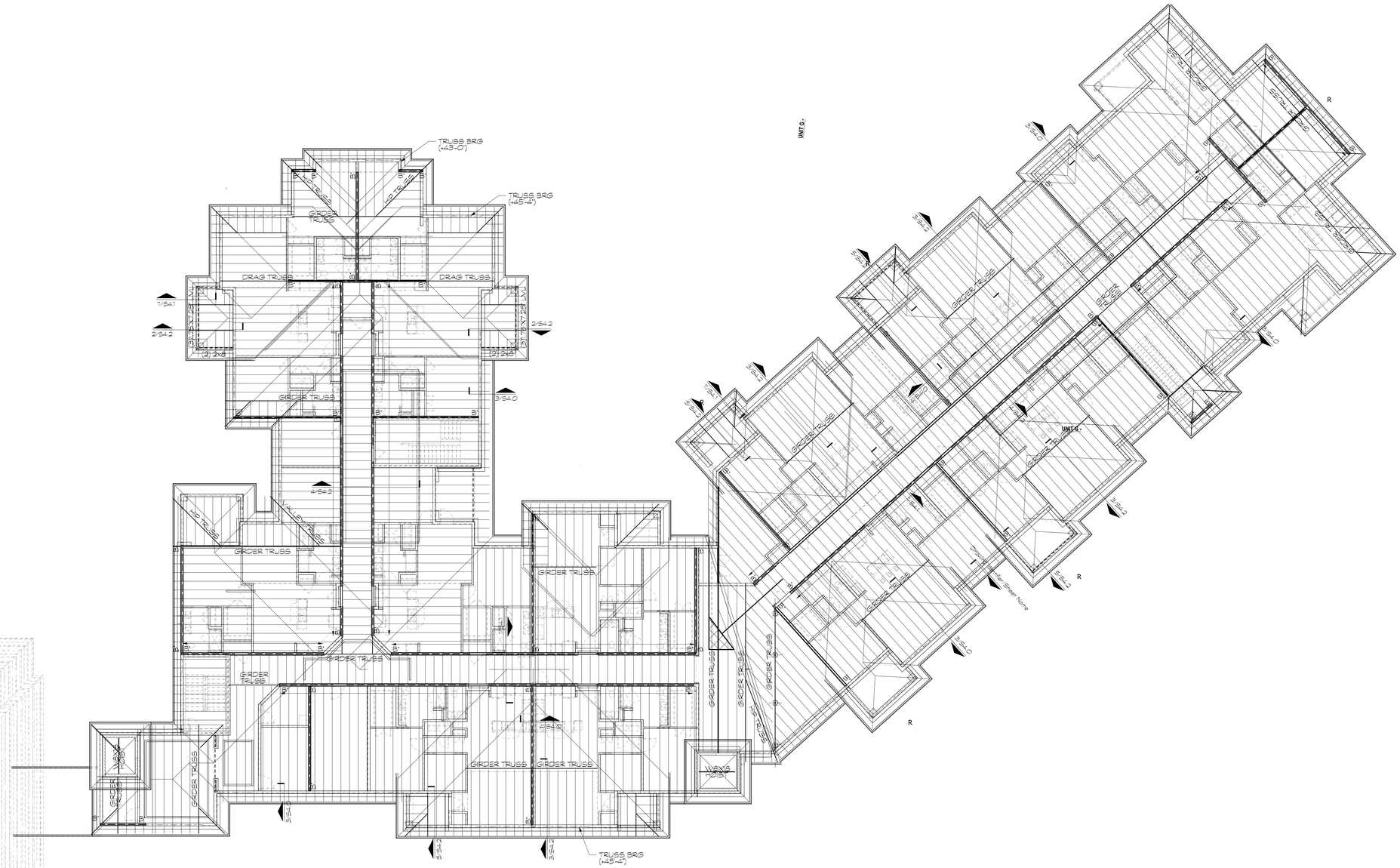

PLAN NOTES:

1. ROOF TRUSS BEARING SHALL BE ELEVATION (+43'-0") ABOVE DATUM ELEVATION UNLESS OTHERWISE NOTED ON PLAN
2. FOR GENERAL NOTES SEE SHEET S2.0
   TYPICAL DETAILS SEE SHEET S4.0
3. ROOF SYSTEM SHALL BE PRE-ENGINEERED WOOD TRUSSES AT 2'-0" O.C.
   SEE GENERAL NOTES FOR TYPICAL LOAD REQUIREMENTS AND PLAN FOR ADDITONAL LOADINGS.
4. ROOF SHEATHING SHALL BE 5/8" RATED WOOD SHEATHING WITH H-CLIPS AT PANEL EDGES
5. PROVIDE ALL NECESSARY BRIDGING AND BLOCKING AS REQUIRED BY PRE-ENGINEERED WOOD TRUSS SUPPLIER.
6. SEE DETAIL 7/S4.0 FOR DRAG TRUSS DETAIL

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
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1 / S1.6 ROOF FRAMING PLAN
3/32"=1'-0"

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STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

ROOF FRAMING PLAN

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S1.6	SHEET ____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

GENERAL NOTES

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE AND SAFETY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED TEMPORARY BRACING AND SHORING DURING CONSTRUCTION TO MAINTAIN THE STABILITY OF THE STRUCTURE. CONSTRUCTION LOADS SHALL NOT EXCEED THE CAPACITY OF THE INSTALLED STRUCTURE AT ANY TIME.
2. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONTRACT DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE MOST CURRENT SET OF DRAWINGS. DISCREPANCIES, INCLUDING DIMENSIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR DESIGN ENGINEER PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.
4. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER PRIOR TO ORDERING, FABRICATION OR CONSTRUCTION. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED BY THE OWNER RESULTING FROM CONTRACTORS FAILURE TO COMPLY WITH REQUIREMENT.
5. DETAILS / SECTIONS SHOWN ON DRAWINGS ARE TYPICAL AND MAY APPLY TO LOCATIONS OTHER THAN WHERE SPECIFICALLY MARKED ON THE PLANS. IF SECTIONS OR DETAILS DO NOT REPRESENT ALL REQUIRED CONDITIONS, THE ENGINEER SHALL BE CONTACTED FOR CLARIFICATION BY THE GENERAL CONTRACTOR.
6. IF EXISTING CONDITIONS MAKE IT NECESSARY TO REVISE STRUCTURAL DETAILS, NOTIFY DESIGN ENGINEER BEFORE PROCEEDING WITH ANY CHANGES.
7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONTRACT DRAWINGS AND LATEST ADDENDA AND SUBMITTING THESE DOCUMENTS TO SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBER AND ERECTION IN THE FIELD.
8. THE GENERAL CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITY LINES FROM ALL DAMAGE.
9. IF ANY CONFLICTS OCCUR BETWEEN THE NOTES, SPECIFICATIONS, AND DETAILS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.
10. EQUIPMENT PADS ARE TO BE PROVIDED BY THE MECHANICAL OR ELECTRICAL CONTRACTORS REQUIRING THE PADS. PADS NOT SHOWN BY MECHANICAL OR ELECTRICAL ENGINEER SHALL BE 4" CONCRETE SLAB ON GRADE WITH THICKENED EDGES.
11. DRAWINGS ISSUED FOR PERMIT/CONSTRUCTION ARE FOR PERMITTING ONLY. DRAWINGS MAY REQUIRED REVISIONS IN ORDER TO OBTAIN A CONSTRUCTION PERMIT AND/OR COORDINATION WITH OTHER TRADES. DRAWINGS ARE TO BE ISSUED AND APPROVED FOR CONSTRUCTION PRIOR TO ANY BUILDING CONSTRUCTION, MATERIAL MILL ORDERS, AND MATERIAL FABRICATION.
12. ALL WORK SHALL BE DONE IN ACCORDANCE WITH OSHA AND OWNER'S REGULATIONS.
13. ALL INSPECTIONS SHALL BE ACCORDING TO THE REFERENCED CODE OR INSPECTION PLAN PROVIDED.
14. FITZPATRICK ENGINEERING GROUP WELCOMES QUESTIONS OR CONCERNS REGARDING FRAMING OR DETAILS SHOWN IN THESE DOCUMENTS. PLEASE CALL CHAD SHEPHERD AT 704-987-9114 FOR ASSISTANCE. IF THE PROJECT ENGINEER IS NOT AVAILABLE, PLEASE PROVIDE FEG JOB NUMBER 204985.000 TO ANOTHER ENGINEER TO HELP ANSWER YOUR QUESTIONS.

DESIGN CRITERIA

1. BUILDING DESIGNED IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE.
   a. CONCRETE DESIGN - ACI 318-14
   b. STEEL DESIGN AISC 360-16 EDITION
   c. MASONRY TMS 402-16/602-16
   d. WOOD DESIGN - NDS - 2018
2. FLOOR LOADS:
   a. LIVE -
      i. UNITS AND CORRIDORS SERVING THEM - 40 PSF
      ii. STORAGE, MECHANICAL, AND PUBLIC AREAS - 100 PSF
   b. SUPERIMPOSED DEAD - 20 PSF
3. ROOF LOADS
   a. LIVE - 20 PSF (REDUCIBLE),
4. ROOF SNOW LOAD
   a. GROUND SNOW LOAD Pg = 20 PSF
   b. FLAT-ROOF SNOW LOAD Pf = 12.6 PSF
   c. SNOW EXPOSURE FACTOR Ce = 0.9
   d. THERMAL FACTOR Ct = 1.0
   e. SNOW LOAD IMPORTANCE FACTOR Is = 1.0
5. WIND LOADS DESIGNED IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE AND ASCE 7-16.
   a. BASIC WIND SPEED: = 115 MPH
   b. WIND EXPOSURE: B
   c. WIND BASE SHEAR: VX = 275 kips VY = 200 kips
   d. INTERNAL PRESSURE COEFFICIENT: GCPI = 0.18±
   e. COMPONENTS AND CLADDING SHALL BE DESIGNED PER ASCE-7 OR THE WIND PRESSURE TABULATED BELOW. THE WIND LOAD SHALL BE PERMITTED TO BE TAKEN AS 0.42 TIMES TABULATED VALUES FOR THE PURPOSE OF DETERMINING DEFLECTION LIMITS HEREIN. WHERE MEMBERS SUPPORT GLASS, THE WIND LOAD SHALL BE NO LESS THAN 0.6 TIMES THE COMPONENT AND CLADDING LOADS FOR THE PURPOSE OF DETERMINING DEFLECTION.

   WIND PRESSURES LISTED BELOW ARE GROSS ULTIMATE VALUES. AN ALLOWANCE OF 10 PSF DEAD LOAD (ROOFING, NOT INCLUDING SELF WEIGHT OF THE MEMBER) MAY BE DEDUCTED.

ZONE PER: TABLE 30.7-2	EFFECTIVE WIND AREA (SQUARE FT.)	POSITIVE PRESSURE PSF	NEGATIVE PRESSURE PSF
1	50	+16.0	-25.1
2	50	+20.0	-33.7
3	50	+20.0	-40.6
4	10	+24.4	-32.6
4	20	+23,4	-26.5
4	50	+21.9	-24.0
4	100	+20.9	-22.9
5	10	+24.4	-32.6
5	20	+23.4	-30.4
5	50	+21.9	-27.6
5	100	+20.9	-25.4

CHECK EFFECTIVE WIND AREA ON ZONES 1,2,3 BASED ON SPACING AND LENGTH OF ROOF MEMBERS

6. EARTHQUAKE DESIGN DATA
   a. RISK CATEGORY: II
   b. MAPPED SPECTRAL RESPONSE ACCELERATIONS: S_S = 0.099, S_1 = 0.068
   c. SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 0.06, S_{D1} = 0.036
   d. SITE CLASS: B
   e. SEISMIC IMPORTANCE FACTOR: I_E = 1.0
   f. SEISMIC DESIGN CATEGORY: A
   g. RESPONSE MODIFICATION FACTOR: R = 6.5
   h. BASIC SEISMIC-FORCE-RESISTING SYSTEM:
      i. LIGHT FRAMED WALLS WITH WOOD STRUCTURAL PANELS
   i. SEISMIC RESPONSE COEFFICIENT: C_S = 0.01
   j. DESIGN BASE SHEAR: V_{EQXY} = 43 kips
   k. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

FOUNDATION NOTES

1. ALL FOUNDATION AND SLAB ON GRADE EXCAVATIONS ARE TO FOLLOW RECOMMENDATIONS STATED IN THE REPORT OF GEOTECHNICAL EXPLORATION TO BE PROVIDED BY OWNER.
2. ALL EXISTING TOPSOIL, VEGETATION, DISTURBED SOILS AND SURFACE SOILS CONTAINING ORGANIC MATTER OR OTHER DELETERIOUS MATERIALS SHOULD BE STRIPPED FROM WITHIN THE PROPOSED BUILDING AND PAVED AREAS. AREAS THAT ARE TO PROVIDE SUPPORT FOR THE FOUNDATIONS, FLOOR SLAB, STRUCTURAL FILL AND ANY PAVEMENTS SHALL BE CAREFULLY INSPECTED FOR SOFT SURFICIAL SOILS AND PROOF ROLLED WITH A 25 TO 35 TON, FOUR WHEELED, RUBBER TIRED ROLLER OR SIMILAR APPROVED EQUIPMENT. THE PROOFROLLER SHOULD MAKE AT LEAST FOUR PASSES OVER EACH LOCATION WITH AT LEAST TWO PASSES PERPENDICULAR TO THE FIRST TWO. ANY AREAS WHICH WAVE, RUT, OR DEFLECT DEEPER THAN 1/2" AND CONTINUE TO DO SO AFTER SEVERAL PASSES OF THE PROOFROLLER SHOULD BE UNDERCUT TO FIRMER SOILS. THE UNDERCUT AREAS SHOULD BE BACK FILLED IN THIN LIFTS WITH SUITABLE COMPACTED FILL MATERIALS. THE PROOFROLLING AND UNDERCUTTING OPERATIONS SHOULD BE CAREFULLY MONITORED BY AN EXPERIENCED ENGINEERING TECHNICIAN WORKING UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER.
3. FOUNDATIONS AND SLABS ARE TO BE PLACED ON FIRM UNDISTURBED NATURAL SOIL OR PROPERLY COMPACTED FILL MATERIAL. FILL MATERIAL SHALL BE COMPACTED IN THIN LIFTS TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698).
4. IN ORDER TO VERIFY THAT THE SOILS ENCOUNTERED IN FOOTING EXCAVATIONS ARE SIMILAR TO THOSE ENCOUNTERED IN THE SOIL TEST BORINGS, FOOTING EXCAVATIONS ARE TO BE EXAMINED AND CHECKED WITH A DYNAMIC HAND PENETROMETER BY AN EXPERIENCED ENGINEERING TECHNICIAN WORKING UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER.
5. FOOTINGS SHOULD BE POURED AS SOON AS POSSIBLE AFTER EXCAVATION. THE FOUNDATION BEARING AREA SHOULD BE LEVEL AND BE FREE OF LOOSE SOIL, PONDED WATER, AND DEBRIS. FOUNDATION CONCRETE SHOULD NOT BE PLACED ON SOILS THAT HAVE BEEN DISTURBED BY SEEPAGE. IF BEARING SOILS ARE SOFTENED BY SURFACE WATER INTRUSION OR EXPOSURE, THE SOFTENED SOILS MUST BE REMOVED FROM THE FOUNDATION EXCAVATION BOTTOM IMMEDIATELY PRIOR TO PLACEMENT OF CONCRETE.
6. MINIMUM FOUNDATION NET SOIL BEARING PRESSURE: 5000 PSF AS NOTED IN GEOTECHNICAL STUDY PREPARED BY: KRUGER TECHNOLOGIES, INC, DATED DECEMBER 23, 2020.
7. CENTER ALL FOOTINGS UNDER WALLS, COLUMNS OR GRID LINES UNLESS NOTED OTHERWISE.
8. RETAINING, OR BASEMENT WALLS, TO BE PROPERLY SHORED BEFORE BACK FILLING. HEAVY EQUIPMENT SHALL NOT BE ALLOWED WITHIN 10 FEET OF THESE WALLS. USE MECHANICAL HAND TAMPERS FOR COMPACTING BACK FILL AGAINST WALLS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF ALL EXCAVATION SLOPES. WHERE NECESSARY SHEETING AND SHORING OF EXCAVATION SHALL BE PROVIDED WITH ALL REQUIRED TIE BACKS AND BRACING.
10. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SUBSURFACE CONDITIONS BEFORE COMMENCING EXCAVATION WHICH SHALL NOT BE LIMITED TO DEWATERING.
11. METHODS EMPLOYED IN ALL SHEETING AND SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT LOCATION TO AVOID SETTLEMENT ORDISPLACEMENT OF EXISTING STRUCTURE WHERE APPLICABLE.

CONCRETE NOTES

1. CONCRETE:
   a. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 'SPECIFICATIONS FOR STRUCTURAL CONCRETE', (ACI 301) AND 'BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE', (ACI 318).
   b. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE 'SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS, (ACI 117)
   c. ALL CONCRETE SHALL BE READY-MIXED MEETING THE REQUIREMENTS OF ASTM C-94, "SPECIFICATION FOR READY-MIXED CONCRETE". MAXIMUM SLUMP = 5"±.
   d. CONCRETE IS TO BE NORMAL WEIGHT AND MADE WITH TYPE 1 PORTLAND CEMENT CONFORMING TO ASTM C150 SPECIFICATION, "STANDARD SPECIFICATION FOR PORTLAND CEMENT".
   e. CLASS F FLYASH IS PERMITTED TO BE USED IN CONCRETE MIXES EXCEPT EXPOSED INTERIOR FLOOR SLABS. FLYASH IS TO BE LIMITED TO A MAXIMUM OF 20% OF TOTAL CEMENTITIOUS MATERIAL WEIGHT.
   f. CONCRETE AGGREGATE GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33 SPECIFICATION. "SPECIFICATION FOR CONCRETE AGGREGATE". FINE AGGREGATE SHALL CONSIST OF NATURAL SAND OR A COMBINATION THEREOF, WITH A FINENESS MODULUS BETWEEN 2.3 AND 3.1. COURSE AGGREGATE GRADATION SHALL HAVE A MINIMUM SIZE #57 STONE MIX PER ASTM C33. FINE AGGREGATE CONTENT IS TO BE BETWEEN 35% AND 45% BY WEIGHT OR VOLUME OF THE TOTAL AGGREGATE CONTENT. FOR 6" SLABS OR GREATER, LARGER COURSE AGGREGATE MIXS UP TO #467 ARE ACCEPTABLE FOR FLOOR SLAB CONCRETE TO MINIMIZE SHRINKAGE CRACKING.
   g. A MID RANGE WATER REDUCING ADMIXTURE IN CONFORMANCE WITH ASTM C494 TYPE 'A' IS TO BE USED TO REDUCE WATER REQUIREMENTS. DOSAGE AMOUNT IS NOT TO EXCEED 6 OZ. PER 100 POUNDS OF CEMENTITIOUS MATERIAL.
   h. CONCRETE MIX DESIGNS ARE TO BE PREPARED BY CONCRETE SUPPLIER AND SUBMITTED TO ENGINEER FOR APPROVAL A MINIMUM OF 14 DAYS PRIOR TO CONCRETE WORK COMMENCING. CONCRETE MIX DESIGNS ARE TO BE PROPORTIONED IN ACCORDANCE WITH ACI 301.
   i. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH (f'c) AT 28 DAYS AND DENSITIES AS FOLLOWS:
      COLUMN AND WALL FOOTINGS: f'c = 4000 PSI - 145 PCF
      INTERIOR SLAB ON GRADE: f'c = 4000 PSI - 145 PCF
      EXTERIOR SLAB ON GRADE: f'c = 4500 PSI - 145 PCF (AIR ENTRAINED)
      ELEVATED SLABS: f'c = 5000 PSI - 145 PCF
      ALL OTHER CONCRETE: f'c = 4000 PSI - 145 PCF
   j. MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO SHALL BE AS FOLLOWS:

COMPRESSIVE STRENGTH AT 28 DAYS - PSI	WATER/CEMENT RATIO, BY WEIGHT
3000	0.55
4000	0.50
4500	0.45
5000	0.40

   k. NO WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE CONCRETE SUPPLIER TO ENSURE A PUMPABLE AND WORKABLE MIX WITHOUT THE ADDITION OF WATER AT THE JOB SITE.
   l. MEMBERS NOT TO BE LOADED UNTIL CONCRETE HAS REACHED ITS REQUIRED COMPRESSIVE STRENGTH.
   m. CONCRETE PLACEMENT IS TO CONFORM WITH ACI 305R HOT WEATHER CONCRETING AND ACI 306R COLD WEATHER CONCRETING. MINIMUM TEMPERATURE OF CONCRETE AT TIME OF PLACEMENT AND MAINTAINED DURING CURING IS 55 DEGREES FAHRENHEIT.
   n. GROUT AT COLUMN BASES AND AT EXTERIOR WALL BASE SHALL CONFORM TO ASTM C-1107, FACTORY - PACKAGED, NON-METALLIC AGGREGATE GROUT, NON-CORROSIVE AND NON-STAINING, MIXED WITH WATER TO CONSISTENCY SUITABLE FOR APPLICATION AND A 30 MINUTE WORKING TIME. MINIMUM COMPRESSIVE STRENGTH IS 8000 PSI AT 28-DAYS.
   o. FORMWORK SHALL BE DESIGNED AND CONSTRUCTED/INSTALLED IN ACCORDANCE WITH ACI 347, "GUIDE TO FORMWORK FOR CONCRETE"
   p. ALL EXTERIOR CONCRETE IS TO HAVE 6 % AIR ENTRAINMENT IN ACCORDANCE WITH ASTM C260.
   q. CONCRETE SHALL BE TESTED IN ACCORDANCE WITH ASTM C172. QUALIFIED FIELD TESTING TECHNICIANS SHALL PERFORM TESTS ON FRESH CONCRETE AT THE JOB SITE, PREPARE SPECIMENS REQUIRED FOR CURING UNDER FIELD CONDITIONS, PREPARE SPECIMENS REQUIRED FOR TESTING IN THE LABORATORY, AND RECORD THE TEMPERATURE OF THE FRESH CONCRETE WHEN PREPARING SPECIMENS FOR STRENGTH TESTS. QUALIFIED LABORATORY TECHNICIANS SHALL PERFORM ALL REQUIRED LABORATORY TESTS. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS OR WALLS.
   r. ALL CONCRETE DEFECTS, INCLUDING JOINT DAMAGE, HONEYCOMBS, TIE HOLES, SPALLS, AND OTHER DEFECTS SHALL BE PROPERLY REPAIRED IMMEDIATELY IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SECTION 5 OF ACI 301.
2. REINFORCEMENT:
   a. REINFORCING STEEL SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
   b. REINFORCING STEEL TO BE WELDED SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A706 GRADE 60.
   c. DEFORMED BAR ANCHOR STUDS SHALL BE PRODUCED FROM DEFORMED WIRE COMPLYING WITH ASTM A496.
   d. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A185 AND SHALL BE LAPPED ONE FULL SQUARE AT END SPLICES AND BE WIRED TOGETHER. PLACE FABRIC 2" CLEAR FROM TOP AND BOLSTERS AT 3'-0" O.C.
   e. REINFORCING STEEL DESIGN, DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO C.R.S.I. "MANUAL OF STANDARD PRACTICE", ACI 318 "BUILDING CODE REQUIREMENTS, AND ACI 301, SECTION 3 "REINFORCEMENT AND REINFORCEMENT SUPPORT", FOR STRUCTURAL CONCRETE", ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCING".
   f. UNLESS OTHERWISE NOTED ON THE DRAWINGS, LAP SPLICES SHALL BE A CLASS <VALUE> SPLICE.
   g. SPLICED BARS SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH, NOR 6".
   h. REINFORCEMENT PROTECTION SHALL BE:
      CONCRETE POURED AGAINST EARTH 3"
      CONCRETE POURED IN FORMS EXPOSED TO WEATHER OR EARTH 2"
      COLUMNS AND BEAMS (TIE BARS) 1 1/2"
      SLABS AND WALLS NOT EXPOSED TO WEATHER 3/4"
   i. REINFORCING BARS MAY NOT BE WELDED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.
3. SLABS ON GRADE:
   a. CONCRETE FLOOR SLAB ON GRADE CONSTRUCTION SHALL CONFORM TO ACI 302.1R04 "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION". FLOOR IS TO BE A SINGLE COURSE, MONOLITHIC SLAB ON GRADE.
   b. FLOOR SLABS ARE TO BE PLACED OVER A MINIMUM OF 4" CRUSHED STONE BASE OR AS RECOMMENDED BY THE SOILS ENGINEER. JUST PRIOR TO PLACING CONCRETE, SUBGRADE OF SUBBASE SHALL BE PROOF-ROLLED PER GENERAL FOUNDATION NOTES. THE BASE SHOULD BE FREE OF FROST BEFORE CONCRETE PLACING BEGINS AND ABLE TO SUPPORT CONSTRUCTION TRAFFIC SUCH AS LOADED TRUCK MIXERS. THE BASE SHOULD NORMALLY BE DRY AT THE TIME OF CONCRETING. HOWEVER, IF PROTECTION FROM THE SUN AND WIND CANNOT BE PROVIDED OR IF THE CONCRETE IS PLACED IN HOT, DRY CONDITIONS, THE BASE SHOULD BE LIGHTLY DAMPENED WITH WATER IN ADVANCE OF CONCRETING. THERE SHOULD BE NO FREE WATER STANDING ON THE BASE, NOR SHOULD THERE BE ANY MUDDY OR SOFT SPOTS, WHEN THE CONCRETE IS PLACED.
   c. CRUSHED STONE BASE IS TO BE TYPE 1, GRADATION C, IN CONFORMANCE WITH ASTM D 1241-68 STANDARD SPECIFICATION FOR MATERIALS FOR SOIL-AGGREGATE SUBBASE, BASE AND SURFACE COURSES.
   d. IN ORDER TO MINIMIZE PLASTIC SHRINKAGE CRACKS IN THE FLOOR SLAB, CONCRETE IS NOT TO BE PLACED WHEN THE EVAPORATION RATE OF WATER IS GREATER THAN 0.2 POUNDS PER SQUARE FOOT SURFACE AREA PER HOUR UNLESS MEASURES ARE TAKEN TO COMPENSATE FOR THE HIGH RATE OF EVAPORATION AS DESCRIBED IN ACI 305.1-06. EVAPORATION RATES GREATER THAN 0.2 LB/SF/HR TYPICALLY OCCUR WHEN THE AIR TEMPERATURE IS GREATER THAN 90° F, RELATIVE HUMIDITY IS 80% OR LESS, AND WIND VELOCITY IS 10 MPH OR GREATER.
   e. THE FOLLOWING INFORMATION IS TO BE RECORDED BY THE GENERAL CONTRACTOR DURING PLACEMENT OF THE SLAB CONCRETE AND SENT TO THE ENGINEER OF RECORD:
      - AIR TEMPERATURE
      - CONCRETE TEMPERATURE IN ACCORDANCE WITH ASTM C1064
      - GENERAL WEATHER CONDITIONS
      - WIND SPEED
      - RELATIVE HUMIDITY
      - EVAPORATIVE RATE OF WATER
      - CONCRETE SLUMP
   f. INTERIOR CONCRETE IS TO HAVE A HARD STEEL TROWELLED FINISH (SMOOTH) AND SHALL BE FINISHED WITH A FLOOR FLATNESS (Ff) AND A FLOOR LEVELNESS (FL) IN ACCORDANCE WITH ASTM E 1155, "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM" AS SHOWN BELOW. EXTERIOR CONCRETE IS TO HAVE A STEEL TROWELLED FINISHED FOLLOWED BY A LIGHT BROOM NONSKID FINISH. MEASURE FLOOR AND SLAB FLATNESS AND LEVELNESS WITHIN 48 HOURS OF FINISHING.

FLOOR TYPE	SPECIFIED OVERAL		MINIMUM LOCAL	
	F (F)	F(L)	F(F)	F(L)
GARAGE	35	25	24	17

   g. FLOOR SLAB IS TO HAVE APPROPRIATELY SPACED CONSTRUCTION AND CONTROL JOINTS. INTERIOR SLAB JOINTS ARE TO BE SAW CUT 1/8" WIDE 1/4 SLAB THICKNESS. MAXIMUM JOINT SPACING, UNLESS NOTED OTHERWISE ON PLAN. JOINT CUTS TO BE COMPLETED WITHIN 24 HOURS OF CONCRETE PLACEMENT.
      1. 4" SLAB = 15'-0" MAX. SPACING, 5" SLAB = 18'-0" MAX. SPACING, 6" SLAB = 21'-0" MAX. SPACING
   h. ISOLATION JOINTS SHALL BE AS SHOWN ON DRAWING AND FILLED WITH POLYURETHANE JOINT FILLER FOR HOUSEKEEPING PURPOSES.
   i. FLOOR SLAB AREAS ARE TO RECEIVE (2) COATS OF 25% SOLIDS ACRYLIC CURE AND SEAL. CONFORMING TO ASTM C309. APPLICATION IS TO CONFORM TO MANUFACTURER'S SPECIFICATIONS.FIRST COAT IS FOR CURING, SECOND COAT IS FOR SEALING AND DUST PROOFING AFTER BUILDING CONSTRUCTION COMPLETION.
   j. FLOOR SLAB MAY RECEIVE DENSIFIER APPLICATION (NOX-CRETE DURONOX OR ASHFORD FORMULA) IN PLACE OF ACRYLIC FLOOR SEALER. DENSIFIERS DO NOT CONFORM WITH ASTM-C309 AND MAY REQUIRE A CURING COMPOUND PRIOR TO APPLICATION OF DENSIFIER. IF CURING COMPOUND IS APPLIED, FLOOR SLAB IS TO BE CLEANED WITH NOX-CRETE BIO-CLEAN. CURING COMPOUND REQUIREMENT IS TO BE BASED ON CLIMATE CONDITIONS DURING TIME OF CONCRETE PLACEMENT. CONTRACTOR TO CONTACT MANUFACTURER FOR RECOMMENDATIONS.
   k. ALL FLOOR SEALERS, FINISHES, ETC., SHALL BE COORDINATED WITH ARCHITECTURAL FINISHES AND REQUIREMENTS OF PREPARED SLAB FOR CHEMICAL COMPATIBILITY.
4. ELEVATED FLOOR SLABS:
   a. INTERIOR CONCRETE IS TO HAVE A HARD STEEL TROWELLED FINISH (SMOOTH) AND SHALL BE FINISHED WITH A FLOOR FLATNESS IN ACCORDANCE WITH ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F NUMBER SYSTEM" AS SHOWN BELOW. MEASURE FLOOR FLATNESS WITHIN 48 HOURS OF FINISHING.

FLOOR TYPE	SPECIFIED OVERALL F(F)	MINIMUM LOCAL F(F)
GENERAL	35	24

   b. ELEVATED SLABS ARE TO BE REINFORCED WITH WELDED WIRE MESH, AND/OR REINFORCING BARS, AND ARE NOT TO HAVE SAWED CONTROL JOINTS.
   c. COLD JOINTS SHALL BE APPROVED BY ENGINEER OF RECORD PRIOR TO POURING.
   d. NO CONDUITS OR BLOCKOUTS ALLOWED IN THE SLAB WITHOUT APPROVAL FROM ENGINEER OF RECORD.
5. EMBEDMENTS:
   a. ADHESIVE ANCHORS SHALL BE EPOXY-TIE SET EPOXY ADHESIVE SYSTEM WITH A307 (SAE 1018) THREADED RODS BY SIMPSON STRONG-TIE ANCHOR SYSTEMS OR APPROVED EQUAL. MINIMUM EMBEDMENT SHALL BE AS SPECIFIED BY THE MANUFACTURER UNLESS NOTED OTHERWISE ON THE ENGINEERING DRAWINGS.
   b. EXPANSION ANCHORS SHALL BE STRONG-BOLT WEDGE ANCHOR BY SIMPSON STRONG-TIE ANCHOR SYSTEMS OR APPROVED EQUAL. MINIMUM EMBEDMENT SHALL BE AS SPECIFIED BY THE MANUFACTURER UNLESS NOTED OTHERWISE ON THE ENGINEERING DRAWINGS.
   c. NO POST INSTALLED ANCHORS ARE PERMITTED IN POST TENSIONED SLAB.
8. POST-TENSIONED CONCRETE SLAB:
   a. DO NOT STRIP FORMWORK FROM FLOOR SLAB AND BEAMS UNTIL ALL POST TENSIONING HAS BEEN STRESSED. STRESSING SHALL OCCUR ONLY AFTER FIELD CURED CYLINDERS (STORED SUCH AS TO HAVE SAME TEMPERATURE AND HUMIDITY AS SLAB IN QUESTION) HAVE BROKE AT A MINIMUM OF 3000 PSI.
   b. POST TENSIONING FORCES SHOWN ARE FINAL FORCES AFTER ALL LOSSES. POST TENSIONING SUPPLIER SHALL SUBMIT CALCULATIONS OF LOSSES TO ENGINEER FOR APPROVAL. GENERAL FRICTION AND WOBBLE ASSUMED IN THE DESIGN ARE .07 AND .001 RESPECTIVELY.
9. POST-TENSIONED CONCRETE:
   a. ALL POST-TENSIONED CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318. POST TENSIONING SUPPLIER SHALL BE RESPONSIBLE FOR DESIGN OF ALL POST TENSIONED CONCRETE ELEMENTS IN THE STRUCTURE. POST TENSIONING SUPPLIER SHALL DESIGN AND SUPPLY ITEMS NOT INDICATED ON THE CONTRACT DOCUMENTS INCLUDING TENDON SUPPORT REINFORCING, ANCHOR ZONE REINFORCING, AND SUPPLEMENTAL MILD REINFORCING STEEL AT CURVES.
   b. SEE CONCRETE NOTES FOR MILD REINFORCEMENT AND CONCRETE REQUIREMENTS.
   c. SLEEVES SHALL BE CAST IN PLACE FOR SLAB PENETRATIONS. THE CONTRACTOR SHALL COORDINATE LOCATION OF SLEEVES WITH APPLICABLE TRADES. CORE DRILLING SHALL NOT BE PERMITTED.
   d. PRESTRESSING STRANDS SHALL BE GRADE 270, SEVEN WIRE, LOW RELAXATION, 1/2" DIAMETER STRANDS CONFORMING TO ASTM A416.
   e. UNBONDED TENDONS SHALL BE ENCAPSULATED IN PLASTIC TENDON SHEATHING AND COATED WITH FRICTION REDUCING, MOISTURE -DISPLACING, AND CORROSION INHIBITING COMPOUND.
   f. ANCHORAGE DEVICES AND COUPLER ASSEMBLIES SHALL BE CAPABLE OF DEVELOPING 95 PERCENT OF ACTUAL BREAKING STRENGTH OF THE STRAND. ANCHORAGE DEVICE ASSEMBLY WEDGES SHALL BE SEATED AT A LOAD NOT LESS THAN 80 PERCENT OR MORE THAN 85 PERCENT OF BREAKING STRENGTH OF STRAND.
   g. DO NOT STRIP FORMWORK FROM FLOOR SLAB AND BEAMS UNTIL ALL POST TENSIONING HAS BEEN STRESSED. STRESSING SHALL OCCUR ONLY AFTER FIELD CURED CYLINDERS (STORED SUCH AS TO HAVE SAME TEMPERATURE AND HUMIDITY AS SLAB IN QUESTION) HAVE ACHIEVED A MINIMUM CONCRETE STRENGTH OF 3750 PSI.
   h. PLANS INDICATE THE LOCATION OF THE CENTER OF GRAVITY OF THE STRANDS ABOVE THE SLAB SOFFIT. THE TENDON PROFILE SHALL CONFORM TO THE INDICATED CONTROL POINTS AND SHALL BE IN AN APPROXIMATE REVERSE PARABOLIC PROFILE. LOW POINTS ARE AT MID SPAN UNLESS OTHERWISE INDICATED. HORIZONTAL CURVES NOT INDICATED ON PLANS AND SHALL BE PROVIDED WHERE TENDON DIRECTIONS BEND OR SKEW ON PLAN.
   i. POST TENSIONING FORCES SHOWN ARE EFFECTIVE FINAL FORCES AFTER ALL LOSSES (26.8 KIPS PER 1/2" UNBONDED STRAND). POST TENSIONING SUPPLIER SHALL SUBMIT CALCULATIONS OF LOSSES TO ENGINEER FOR APPROVAL.
   j. THE CONTRACTOR SHALL SUBMIT POST TENSIONED SHOP DRAWINGS PREPARED BY REGISTERED PROFESSIONAL ENGINEER. THE SHOP DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
      i. INSTALLATION DRAWINGS INCLUDING PLANS, ELEVATION, SECTIONS, AND DETAILS.
      ii. NUMBERS, ARRANGEMENT, AND DESIGNATION OF POST-TENSIONING TENDONS.
      iii. TENDON PROFILES AND METHOD OF TENDON SUPPORT INCLUDING CHAIR HEIGHTS AND LOCATIONS. SHOW TENDON PROFILES AT SUFFICIENT SCALE TO CLEARLY INDICATE ALL SUPPORT POINTS, WITH THEIR ASSOCIATED HEIGHTS.
      iv. TENDON ANCHORAGE DETAILS INCLUDING BUNDLED TENDON FLARING.
      v. TENDON CLEARANCES AROUND SLAB OPENINGS AND PENETRATIONS.
      vi. CONSTRUCTION JOINT LOCATIONS, POUR SEQUENCE, LOCATION OF ANCHORAGES AND BLOCKOUTS REQUIRED FOR STRESSING.
      vii. STRESSING PROCEDURES AND JACKING FORCE TO RESULT IN FINAL EFFECTIVE FORCES USED IN DETERMINING NUMBER OF TENDONS REQUIRED.
      viii. CALCULATED ELONGATIONS FOR EACH TENDON.
      ix. DETAILS FOR HORIZONTAL CURVATURE AROUND OPENINGS AND AT ANCHORAGES.
      x. DETAILS FOR CORNERS AND OTHER LOCATIONS WHERE TENDON LAYOUTS MAY CONFLICT WITH ONE ANOTHER OR NONPRESTRESSED REINFORCING STEEL.
      xi. LOCATIONS OF NONPRESTRESSED REINFORCEMENT REQUIRED FOR INSTALLING POST-TENSIONING TENDONS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
         1. SUPPORT BARS.
         2. BACK UP BARS AND HAIRPINS AT ANCHORAGES.
         3. HAIRPINS AT LOCATIONS OF HORIZONTAL CURVATURE.
         4. SUPPLEMENTAL REINFORCING AT BLOCKOUTS.
   k. TENDON PROFILE VERTICAL DEVIATION SHALL NOT EXCEED 1/4" FOR MEMBER DEPTHS LESS THAN OR EQUAL TO 8", 3/8" FOR MEMBER DEPTHS GREATER THAN 8" AND LESS THAN OR EQUAL TO 24", AND 1/2" MEMBER DEPTHS GREATER THAN 24".
   l. MAINTAIN MINIMUM RADIUS OF CURVATURE OF 480 STRAND DIAMETERS FOR LATERAL DEVIATIONS TO AVOID OPENINGS, DUCTS, AND EMBEDDED ITEMS. MAINTAIN A MINIMUM OF 2" OF SEPARATION BETWEEN TENDONS AT LOCATIONS OF CURVATURE.
   m. DO NOT TWIST OR ENTWINE TENDONS WITHIN A BUNDLE.
   n. TENDON STRESSING SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED POST-TENSIONING SUPERINTENDENT.
   o. MARK AND MEASURE TENDON ELONGATIONS ACCORDING TO PTI's "FIELD PROCEDURES MANUAL FOR UNBONDED SINGLE STRAND TENDONS". ELONGATION AND/OR STRESSING FORCES SHALL NOT VARY MORE THAN 7 PERCENT FROM CALCULATED VALUES INDICATED IN SHOP DRAWINGS. IF VARIATIONS EXCEED 7 PERCENT THE CONTRACTOR SHALL PROVIDE FRICTION CALCULATIONS OR OTHER JUSTIFICATION TO THE SATISFACTION OF THE ENGINEER.
   p. STRESSING RECORDS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL INCLUDE THE FOLLOWING:
      i. NAME OF PROJECT.
      ii. DATE OF APPROVED INSTALLATION DRAWINGS USED FOR INSTALLATION AND STRESSING.
      iii. IDENTIFICATION OF CONCRETE PLACEMENT AREA.
      iv. DATE OF STRESSING OPERATION.
      v. WEATHER CONDITIONS INCLUDING TEMPERATURE AND RAINFALL.
      vi. NAME AND SIGNATURE OF INSPECTOR.
      vii. NAME OF INDIVIDUAL IN CHARGE OF STRESSING OPERATION.
      viii. SERIAL OR IDENTIFICATION NUMBERS OF JACK AND GAGE.
      ix. DATE OF JACK AND GAGE CALIBRATION CERTIFICATES.
      x. GAGE PRESSURE TO ACHIEVE REQUIRED STRESSING FORCE PER SUPPLIED CALIBRATION CHART.
      xi. TENDON IDENTIFICATION MARK.
      xii. CALCULATED TENDON ELONGATION.
      xiii. ACTUAL TENDON ELONGATION.
      xiv. ACTUAL GAGE PRESSURE.
   q. DO NOT CUT TENDON ENDS UNTIL ENTIRE SYSTEM HAS BEEN STRESSED AND STRESSING RECORDS HAVE BEEN REVIEWED. CUT STRAND TAILS WITHIN 1/2" AND 3/4" FROM WEDGES.
   r. GROUT STRESSING POCKETS WITHIN ONE DAY OF CUTTING TENDONS. CLEAN INSIDE SURFACE OF POCKETS TO REMOVE LAITANCE AND GROUT WITH NON-SHRINK, NON-METALLIC GROUT.
   s. SUBMIT REPAIR PROCEDURE FOR BROKEN TENDONS TO THE ARCHITECT FOR REVIEW AND APPROVAL.

MASONRY

1. THE REINFORCED CONCRETE MASONRY FOR THIS PROJECT HAS BEEN DESIGNED AND DETAILED IN ACCORDANCE WITH THE WORKING STRESS DESIGN METHOD OF THE INTERNATIONAL BUILDING CODE CURRENT EDITION AS NOTED IN CODE REFERENCED.
2. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, fm, OF 2000 PSI. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90, GRADE N, TYPE 1, AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2000 PSI. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. GROUT SHALL CONFORM TO ASTM C476 OR HAVE fc OF 3000 PSI. BLOCK SHALL BE INSTALLED ON FULL BED OF MORTAR AND IN RUNNING BOND.
3. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD - DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. HORIZONTALLY IN ALL MASONRY WALLS.
5. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. JOINT REINFORCING SHALL BE STOPPED EITHER SIDE OF VERTICAL CONTROL JOINTS.
6. ALL REINFORCED CELLS AND ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID.
7. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.
8. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.
9. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM GROUT COVER OF 1/2 OF AN INCH TO THE INSIDE FACE OF MASONRY UNIT AND A MINIMUM TOTAL MASONRY COVER NOT LESS THAN TWO INCHES.
10. PARALLEL ADJACENT VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEAR DISTANCE NOT LESS THAN 1 1/2 BAR DIAMETERS NOR 1 1/2 INCHES.
11. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
12. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
13. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION.
14. SPLICED REINFORCING BARS SHALL BE LAPPED TO LENGTHS IN ACCORDANCE WITH ACI-530-08.
15. GROUT LIFT HEIGHTS OF HOLLOW CMU CELLS SHALL NOT EXCEED (5) FEET UNLESS APPROVED BY THE ENGINEER.
16. PROVIDE (1) #4 BAR WITH CELL GROUTED AT ENDS, INTERSECTIONS AND OPENINGS OF CMU WALLS.
17. LOOSE LINTELS SHALL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS OF LOADING. USE CAST CRETE PRECAST LINTEL, OR EQUAL, UNLESS OTHERWISE NOTED ON PLANS.
18. PROVIDE ADDITIONAL (2) #4 BARS ABOVE AND BELOW WALL OPENINGS AND EXTEND 2'-0" MINIMUM BEYOND OPENING. HOOK BARS WHERE 2'-0" EXTENSION CANNOT BE ACHIEVED AT WALL CORNERS AND ENDS.
19. PROVIDE TOP OF WALL BRACING FOR ALL NON-LOAD BEARING CMU PARTITIONS. UNLESS OTHERWISE INDICATED PROVIDE PTA SERIES ANCHORS BY HOHMANN & BARNARD OR APPROVED EQUAL.
20. QUALITY ASSURANCE FOR MASONRY SHALL CONFORM TO LEVEL 2 ACCORDING TO ACI-530 CURRENT EDITION.
21. HORIZONTAL BOND BEAMS SHALL BE LOCATED AT 10'-0" O.C. VERTICALLY (MINIMUM), AND AT TOP OF ALL PARAPETS.

STEEL

1. GENERAL SPECIFICATIONS (FABRICATION AND ERECTION):
   a. STRUCTURAL STEEL SHALL BE DESIGNED, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE A.I.S.C. 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS', A.I.S.C. 'CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES'.
   b. MATERIALS SHALL CONFORM TO THE FOLLOWING UNLESS NOTED OTHERWISE:
      i. W AND WT SHAPES — ASTM A992 GRADE 50
      ii. CHANNELS, ANGLES, PLATES — ASTM A36
      iii. PIPES — ASTM A53, GRADE B
      iv. STEEL TUBES HSS ROUND — ASTM A500, GRADE C, 46 KSI
      v. STEEL TUBES HSS RECTANGULAR/SQUARE — ASTM A500, GRADE C, 50 KSI
      vi. ANCHOR RODS — ASTM F1554, GRADE 36
      vii. SHEAR STUD CONNECTORS — ASTM A108, Fu=65 KSI
      viii. BOLTS — ASTM A325 OR A490, 3/4" DIAMETER (MIN.)
      ix. ALL EXTERIOR STEEL SHALL BE HOT DIP GALVANIZED.
      x. ALL WELDING ELECTRODES SHALL BE E70XX.
   c. GENERAL CONTRACTOR TO PROVIDE TEMPORARY BRACING AND PRECAUTIONS NECESSARY TO WITHSTAND ALL CONSTRUCTION AND/OR WIND LOADS UNTIL ALL FIELD CONNECTIONS ARE COMPLETED AND SHEAR WALLS OR DECKS ARE IN PLACE.
   d. SPLICING OF THE STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO THE LOCATION AND TYPE OF THE SPLICE TO BE MADE.
   e. STEEL FABRICATOR IS TO BE CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) FOR 'CONVENTIONAL STEEL BUILDING STRUCTURES'. ERECTOR IS TO BE CERTIFIED BY AISC AS A 'CERTIFIED STEEL ERECTOR.'
   f. WHERE NEW STEEL FRAMES INTO EXISTING STEEL, SIZE AND ELEVATION OF EXISTING STEEL SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF NEW STEEL.
   g. CONNECTIONS NOT DETAILED IN THE CONSTRUCTION DOCUMENTS SHALL BE DESIGNED BY FABRICATOR OR DETAILER. ALL CONNECTIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL REGISTERED ENGINEER.
   h. STEEL STAIR SHALL BE DESIGNED BY A PROFESSIONAL REGISTERED ENGINEER UNLESS OTHERWISE NOTED. SHOP DRAWINGS INCLUDING PLANS, SECTIONS AND ATTACHMENTS TO STRUCTURE SHALL BE PROVIDED FOR REVIEW. MINIMUM LIVE LOAD 100 PSF OR 300 POUND CONCENTRATED LOAD ON A 4 SQUARE INCH AREA WHICHEVER PRODUCES A GREATER STRESS. LIMIT DEFLECTION TO L/360.
   i. ALL CAMBER TO BE ORIENTATED UPWARD. ALL STEEL USED IN PARALLEL WITH JOIST SHALL HAVE SAME CAMBER AS JOISTS.
   j. ALL ALUMINUM AND STEEL MEMBERS TO BE TREATED OR PROPERLY SEPARATED TO PREVENT GALVANIC AND CORROSIVE EFFECTS.
   k. ►—— INDICATES MOMENT CONNECTION. PROVIDE CONTINUITY PLATES TO THE COLUMN FLANGES TO MATCH BEAM DEPTH. CONTINUITY PLATES TO MATCH BEAM FLANGE THICKNESS OR ½" MINIMUM WHICHEVER IS GREATER.
   l. STEEL SHOP DRAWINGS SHALL SHOW AND NOTE ALL MATERIALS REQUIRED WITH RELATIVE LOCATIONS AND SUFFICIENT DETAILS FOR PROPER FABRICATION AND ERECTION IN ACCORDANCE WITH ALL CONTRACT DRAWINGS AND DOCUMENTS.
   m. ROOF AND FLOOR OPENINGS NOT SHOWN ON PLANS SHALL BE FRAMED WITH L3 1/2" x 3 1/2" x 1/4" ANGLES.
2. BOLTED CONNECTIONS:
   a. ALL BOLTED CONNECTIONS SHALL BE DETAILED FOR REACTIONS IN KIPS (k) INDICATED ON PLAN. FOR LOADS NOT INDICATED ON PLAN OR SPECIFIED IN SHEET NOTES, PROVIDE A SHEAR CONNECTION WITH A MINIMUM 14 KIPS FOR LRFD AND 14 KIPS FOR ASD OR 60% OF MAXIMUM TOTAL UNIFORM LOAD SHOWN IN THE AISC MANUAL WHICHEVER IS GREATER. PROVIDE A MINIMUM NUMBER ROWS OF BOLTS AS INDICATED BELOW FOR THE CORRESPONDING BEAM SIZES.
      i. W8 AND W10 — 2 BOLTS
      ii. W12 AND W14 — 3 BOLTS
      iii. W16 AND W18 — 4 BOLTS
      iv. W21 AND W24 — 6 BOLTS
      v. W27 AND W30 — 7 BOLTS
   b. BOLTS TO BE INSTALLED IN PROPERLY ALIGNED HOLES, TIGHTENED TO THE SNUG TIGHT CONDITION U.N.O. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH.
   c. HOLE TYPES AND WASHER REQUIREMENTS
      i. STANDARD HOLES - STANDARD HOLES SHALL BE PROVIDED IN MEMBER-TO-MEMBER CONNECTIONS, UNLESS OVERSIZED, SHORT-SLOTTED, OR LONG-SLOTTED CONNECTIONS ARE CALLED FOR ON DESIGN DRAWINGS.
      ii. OVERSIZED HOLES - OVERSIZED HOLES ARE PERMITTED IN ANY OR ALL PLIES OF SLIP-CRITICAL CONNECTIONS, BUT SHALL NOT BE PERMITTED IN BEARING-TYPE CONNECTIONS. HARDENED WASHERS SHALL BE INSTALLED OVER ALL OVERSIZED HOLES.
      iii. SHORT-SLOTTED HOLES - SHORT-SLOTTED HOLES ARE PERMITTED IN ANY OR ALL PLIES OF SLIP-CRITICAL OR BEARING-TYPE CONNECTIONS. THE SLOTS ARE PERMITTED WITHOUT REGARD TO DIRECTION OF LOADING IN SLIP-CRITICAL CONNECTIONS, BUT THE LENGTH SHALL BE NORMAL TO THE DIRECTION OF THE LOAD IN BEARING TYPE CONNECTIONS. WASHERS SHALL BE INSTALLED OVER SHORT-SLOTTED HOLES IN AN OUTER PLY. WHERE A325 OR A490 BOLTS ARE USED, WASHERS SHALL BE HARDENED CONFORMING TO ASTM F436.
      iv. LONG-SLOTTED HOLES - LONG-SLOTTED HOLES ARE PERMITTED IN ONLY ONE OF THE CONNECTED PARTS OF EITHER A SLIP-CRITICAL OR BEARING-TYPE CONNECTION AT AN INDIVIDUAL FRAYING SURFACE. LONG-SLOTTED HOLES ARE PERMITTED WITHOUT REGARD TO DIRECTION OF LOADING IN SLIP-CRITICAL CONNECTIONS, BUT THE LENGTH SHALL BE NORMAL TO THE DIRECTION OF THE LOAD IN BEARING TYPE CONNECTIONS. WHERE LONG-SLOTTEDHOLES ARE USED IN AN OUTER PLY, PLATE WASHERS OR A CONTINUOUS BAR WITH STANDARD HOLES, HAVING A SIZE SUFFICIENT TO COMPLETELY COVER THE SLOT AFTER INSTALLATION, SHALL BE PROVIDED. IN HIGH-STRENGTH BOLTED CONNECTIONS, SUCH PLATEWASHERS OR CONTINUOUS BARS SHALL BE NOT LESS THAN 5/16" THICK AND SHALL BE OF STRUCTURAL GRADE MATERIAL, BUT NEED NOT BE HARDENED.
      v. FOR A490 BOLTS GREATER THAN 1" IN DIAMETER A 5/16" MINIMUM THICKNESS HARDENED WASHER CONFORMING TO ASTM F436 SHALL BE USED UNDER BOTH THE HEAD AND THE NUT IN AN OVERSIZED HOLE OR IN AN OUTER PLY OF SLOTTED HOLES. MULTIPLE HARDENED WASHERS WITH A COMBINED THICKNESS EQUAL TO OR GREATER THAN 5/16" DO NOT SATISFY THIS REQUIREMENT.
      vi. WHERE THE OUTER FACE OF THE BOLTED PARTS HAS A SLOPE GREATER THAN 1:20 WITH RESPECT TO A PLANE NORMAL TO THE BOLT AXIS, A HARDENED BEVELED WASHER SHALL BE USED TO COMPENSATE FOR THE LACK OF PARALLELISM.
3. WELDED CONNECTIONS:
   a. WELDED CONNECTIONS TO CONFORM TO A.W.S. D1.1 'STRUCTURAL WELDING CODE- STEEL'.
   b. WELDING IS TO BE PERFORMED BY A WELDER QUALIFIED TO PERFORM THE SPECIFIED WELDS. QUALIFICATION OF THE WELDER SHALL BE DETERMINED BY TESTS AS PRESCRIBED IN SECTION 4, PART C, OF THE AMERICAN WELDING SOCIETY - STRUCTURAL WELDING CODE - STEEL, A.W.S. D1.1.
   c. WELD INSPECTION:
      i. WELDS ARE TO BE INSPECTED BY A QUALIFIED INSPECTOR. A QUALIFIED INSPECTOR SHALL MAINTAIN CURRENT CERTIFICATION AS AN AMERICAN WELDING SOCIETY (A.W.S.) CERTIFIED WELDING INSPECTOR (CWI) IN ACCORDANCE WITH THE PROVISIONS OF A.W.S. QC1, 'STANDARD AND GUIDE FOR QUALIFICATION AND CERTIFICATION OF WELDING INSPECTORS'.
      ii. VISUAL INSPECTION
         1. FOR ACCEPTABLE QUALIFICATION, WELDS SHALL MEET THE FOLLOWING:
            a. THE WELD SHALL BE FREE OF CRACKS.
            b. ALL CRATERS SHALL BE FILLED TO THE FULL CROSS SECTION OF THE WELD.
            c. THE FACE OF THE WELD SHALL BE FLUSH WITH THE SURFACE OF THE BASE METAL, AND THE WELD SHALL MERGE SMOOTHLY WITH THE BASE METAL. UNDERCUT SHALL NOT EXCEED 1/32 IN. (1 mm). WELD REINFORCEMENT SHALL NOT EXCEED 1/8 IN. (3 mm).
            d. THE ROOT OF THE WELD SHALL BE INSPECTED, AND THERE SHALL BE NO EVIDENCE OF CRACKS, INCOMPLETE FUSION, OR INADEQUATE JOINT PENETRATION. A CONCAVE ROOT SURFACE IS PERMITTED WITHIN THE LIMITS SHOWN BELOW, PROVIDED THE TOTAL WELD THICKNESS IS EQUAL TO OR GREATER THAN THAT OF THE BASE METAL.
            e. THE MAXIMUM ROOT SURFACE CONCAVITY SHALL BE 1/16 IN. (1.6 mm) AND THE MAXIMUM MELT-THROUGH SHALL BE 1/8 IN. (3 mm). FOR TUBULAR T-, Y-, AND K-CONNECTIONS, MELT THROUGH AT THE ROOT IS CONSIDERED DESIRABLE AND SHALL NOT BE CAUSE FOR REJECTION.
         2. AMOUNT OF WELDS TO BE INSPECTED IS AS FOLLOWS:
            a. FILLET WELDS
               - 10% OF ALL SHOP WELDS.
               - 100% OF ALL FIELD WELDS.
            b. FULL AND PARTIAL PENETRATION WELDS
               - 100% OF ALL SHOP AND FIELD WELDS.
            c. MINIMUM WELDS TO BE BY AISC AND/OR AWS, BUT NOT LESS THAN 3/16" E70XX CONTINUOUS FILLET UNLESS OTHERWISE NOTED.
            d. WHERE FIELD WELDING IS REQUIRED, WELD AREAS SHALL BE STRIPPED OF PAINT AND RUST. ALL EXPOSED STEEL SHALL BE PAINTED AFTER WELDING.
4. PAINTING:
   a. ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL IS TO HAVE ONE SHOP COAT OF GREY PRIMER PAINT. STEEL IN CONTACT WITH CONCRETE, AT TOP OF FLANGE OF COMPOSITE BEAMS, AND BEAMS TO RECEIVE FIRE PROOFING CEMENTITIOUS SPRAY SHALL NOT BE PAINTED.
   b. HOT DIP GALVANIZE ALL STRUCTURAL STEEL ELEMENTS AND CONNECTIONS WHICH SHALL BE EXPOSED TO EXTERIOR CONDITIONS - WHETHER SPECIFIED ON THE DWGS OR NOT - AFTER FABRICATION. ITEMS SHALL INCLUDE BUT NOT BE LIMITED TO
      i. SHELF ANGLES OR PLATES AND LINTEL ANGLES OR PLATES
      ii. ALL CLADDING (BUILDING SKIN) SUPPORT STEEL EXTENDING BEYOND THE WATERPROOFING MEMBRANE
      iii. ALL PARAPET WALL SUPPORTING MEMBERS.

1 / S2.0 — GENERAL NOTES
NO SCALE

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STATE OF MISSOURI — DOUGLAS G. FITZPATRICK — NUMBER PE-2014016124 — PROFESSIONAL ENGINEER
01/18/21

PROJECT TITLE
John Knox Village
Meadows Building - Phase II

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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE
GENERAL NOTES

COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING S2.0
SHEET ____ OF ____

MENU
CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/10/2021

WOOD

1. ALL STRUCTURAL WOOD MEMBERS ARE DESIGNED AS 'DRY-USE'. MOISTURE CONTENT MUST BE 19% OR LESS. STORE WOOD FRAMING ABOVE GROUND AND UNDER TARPS WITH PROPER AIR CIRCULATION.
2. ALL LUMBER SHALL BE SOUTHERN PINE SPECIES #2 GRADE OR APPROVED EQUAL. ALLOWABLE DESIGN STRESSES SHALL FOLLOW NATIONAL DESIGN SPECIFICATION (NDS) AND INTERNATIONAL BUILDING CODE (IBC).
3. HEADERS AT NON BEARING CONDITIONS SHALL BE AS FOLLOWS:

OPENING SIZE:	HEADER:
UP TO 4'-0"	(2) 2" x 6"
4'-0" TO 6'-0"	(2) 2" x 8"
6'-0" TO 9'-0"	(2) 2" x 10"

4. PROVIDE SP GCA PRESSURE TREATED LUMBER IN ACCORDANCE WITH AWPA STANDARDS TO A MINIMUM 0.40 PCF RETENTION WHERE LUMBER IS IN CONTACT WITH CONCRETE / MASONRY OR OUTSIDE OF BUILDING.
5. PLYWOOD SHEATHING:
   a. FLOOR: USE 3/4" T&G APA 24-OC STURD-I-FLOOR, EXP.1, PLYWOOD SUB-FLOOR SHEATHING.
   b. WALL: USE 15/32" APA 32/16 RATED, EXP. 1 PLYWOOD SHEATHING.
   c. ROOF: USE 19/32" 40/20 RATED, EXP. 1, PLYWOOD SHEATHING.
   d. SEE FRAMING PLANS FOR NAILING AND/OR BLOCKING REQUIREMENTS. USE 8'-0" LONG x 4'-0" WIDE SHEETS WITH LENGTH ACROSS FRAMING.STAGGER PANEL END JOINTS 4'-0" TYPICAL, ALLOW 1/8" SPACE ALONG PANEL EDGES AND END JOINTS.
   e. FLOOR SHEATHING TO BE NAILED AND GLUED FOR PARTIAL COMPOSITE ACTION. SELECT ADHESIVE WITH APA AFG-01 SPECIFICATION AND FOLLOW APA RECOMMENDATIONS.
   f. SEE FRAMING PLANS FOR DIAPHRAGM NAILING TYPE, SIZE, SPACING AND LOCATIONS. WOOD CONNECTIONS - ALL NAILS USED FOR STRUCTURAL FRAMING MEMBERS SHALL BE COMMON WIRE, U.N.O. ALL NAILS, TRUSS HANGERS, TRUSS ANCHORS AND STRAPS SHALL BE GALVANIZED FOR CORROSIVE RESISTANCE. ALL METAL STRAPS MUST BE INSTALLED WITH EQUAL LENGTHS ABOUT THE JOINT LINE. USE SIMPSON STRONG-TIE CONNECTOR PRODUCTS OR APPROVED EQUAL. TOE NAILING WILL NOT BE PERMITTED. WHERE NOT NOTED, USE IBC CONNECTIONS.
6. THE FOLLOWING NAILING IS TYPICAL UNLESS NOTED OR DETAILED OTHERWISE. ALL NAILS SHALL BE COMMON WIRE NAILS. REFER TO BUILDING CODE NAILING SCHEDULE FOR NAILING CONDITIONS NOT COVERED BELOW.
   a. FRAMING MEMBERS AT BEARING POINTS:
      i. JOISTS OR RAFTERS AT ALL:
         1. BEARING TOE NAILS EACH SIDE - (2) 10d
         2. OR END NAILS TO BAND JOIST - (3) 16d
         3. STUD TO BEARING - TOE NAILS EACH SIDE - (2) 10d
         4. OR END NAILS - (2) 16d
         5. BAND JOIST TO SILL TOE NAILS - 10d AT 16" O.C.
   b. SOLE AND TOP PLATES:
      i. SOLE PLATE TO JOIST OR BUILDING - 16d AT 16" O.C.
      ii. DOUBLE TOP PLATE:
         1. LOWER PLATE TO TOP OF STUD - (2) 16d
         2. UPPER PLATE TO LOWER PLATE - 16d AT 16" O.C.
         3. SPLICE (4'-0") MINIMUM EACH SIDE OF BUTT IN TOP PLATE - (4) 16d
         4. UPPER PLATE TO LOWER PLATE AT INTERSECTIONS - (2) 16d
   c. MULTIPLE MEMBERS:
      i. MULTIPLE STUDS (STAGGER) - 16d AT 24" O.C.
      ii. MULTIPLE JOISTS / HEADERS (EACH EDGE) - 16d AT 16" O.C.
   d. BLOCKING:
      i. BLOCKING BETWEEN STUDS:
         1. TOE NAILS EACH END - (2) 10d
         2. OR END NAILS - (2) 16d
      ii. BLOCKING BETWEEN JOISTS OR RAFTERS - TOE NAILS EACH SIDE EACH END - (2) 10d OR END NAILS - (2) 16d
   e. SHEATHING:
      i. GYPSUM WALL BOARD - ALL SUPPORTS - 6d COOLER AT 7" O.C. PER ASTM C514
         1. (ALTERNATE: No. 6 x 1" DIAMETER SCREWS AT 12")
      ii. PLYWOOD FLOOR AND ROOF - SEE SCHEDULE
      iii. PLYWOOD WALLS - SEE SCHEDULE

WOOD TRUSSES

1. WOOD ROOF TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL SPECIALTY ENGINEER REGISTERED IN LOCAL JURISDICTION. SEALED CALCULATIONS AND LAYOUT DRAWINGS ARE TO BE SUBMITTED FOR APPROVAL. TRUSS FABRICATOR TO PROVIDE ALL TRUSS-TO-TRUSS HANGERS AS REQUIRED TO RESIST GRAVITY AND UPLIFT REACTIONS.
2. WOOD TRUSSES SHALL BE BRACED AND ERECTED IN ACCORDANCE WITH THE 'TRUSS PLATE INSTITUTE' HANDLING, INSTALLING AND BRACING OF WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS, HIB. BRACING IN THE PLANE OF THE WEB MEMBERS.
   a. THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
3. THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8'-0" ON CENTER WITH A CEILING ATTACHED TO THE BOTTOM OF TRUSSES. IF NO CEILING IS ATTACHED TO BOTTOM OF TRUSSES, BRACING SHALL BE MINIMUM 2 x 4 AT 36" ON CENTER NAILED TO THE TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45 DEGREES TO THE LATERAL BRACES SHALL BE LOCATED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.
4. TOP CHORD BRACING:
   a. IF PLYWOOD DECKING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPHRAGM ACTION, BRACING IS NOT REQUIRED.
5. DO NOT CUT, DRILL OR NOTCH ROOF OR FLOOR TRUSSES WITHOUT WRITTEN APPROVAL FROM TRUSS ENGINEER. COORDINATE MECHANICAL, ELECTRICAL, PLUMBING, ETC. SIZES AND LOCATIONS WITH TRUSS LAYOUT PRIOR TO ERECTION.
6. TRUSSES SHALL BE MANUFACTURED AND DESIGNED IN ACCORDANCE WITH NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, AF & PA, AND NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1-2007, AND THE LOCAL CODE JURISDICTIONS.
7. DO NOT OVERLOAD FLOOR OR ROOF TRUSSES WITH BUILDING MATERIALS.
8. CONNECTOR PLATES SHALL BE MANUFACTURED BY A WTCA MEMBER PLATE SUPPLIER AND SHALL MEET OR EXCEED ASTM A653/A653M REQUIREMENTS FOR STRUCTURAL STEEL.
9. TRUSS TO BE DESIGNED FOR THE FOLLOWING LOADS:
   ROOF TRUSSES:
   -TRUSS TOP CHORD DEAD LOAD = 15 PSF
   -TRUSS TOP CHORD AT MECHANICAL WELL = 50 PSF
   -TRUSS BOTTOM CHORD DEAD LOAD = 10 PSF
   -TRUSS TOP CHORD LIVE LOAD = SEE ROOF LIVE AND SNOW LOAD CRITERIA
   -TRUSS BOTTOM CHORD LIVE LOAD = 10 PSF
   -TRUSS BOTTOM CHORD LIVE LOAD ATTIC = 30 PSF
   FLOOR TRUSSES:
   -TRUSS TOP CHORD DEAD LOAD = 22 PSF
   -TRUSS TOP CHORD LIVE LOAD = SEE FLOOR LIVE LOAD DESIGN CRITERIA
   -TRUSS BOTTOM CHORD DEAD LOAD = 10 PSF
   -SEE PLANS FOR ADDITIONAL LOAD REQUIREMENTS.
10. PREFABRICATED TRUSS MANUFACTURER SHALL PARTICIPATE IN A RECOGNIZED QUALITY ASSURANCE PROGRAM, COMPLY WITH THE QUALITY CONTROL PROCEDURES IN TPI 1 (TRUSS PLATE INSTITUTE) AND INVOLVE 3RD PARTY INSPECTION BY AN INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE ARCHITECT, ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION. IF ALL THREE CRITERIA ARE NOT SATISFIED, SPECIAL INSPECTIONS OF THE FABRICATORS SHOP WILL BE REQUIRED AT THE CONTRACTORS OR FABRICATORS EXPENSE.

POST INSTALLED ANCHORS

1. ADHESIVE ANCHORAGES HAVE BEEN SPECIFIED IN ACCORDANCE WITH HILTI DESIGN DATA. THE CONTRACTOR MAY SUBSTITUTE ANY OF THE BELOW LISTED MANUFACTURERS PROVIDED SIGNED AND SEALED CALCULATIONS ARE SUBMITTED FOR ENGINEER REVIEW. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTE PRODUCT MEETS OR EXCEEDS THE STRENGTH OF THE BASIS OF DESIGN ANCHORAGE.
2. ANCHORAGE TO CONCRETE
   a. ADHESIVE EPOXY ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH AC355.4 AND ICC-ES AC308 AND MEET LOAD SPECIFIED SUCH AS: THE FOLLOWING OR EQUAL:
      i. HILTI HIT-RE 500-V3 EPOXY ADHESIVE ANCHORING SYSTEM (ICC ESR-2322)
      ii. HILTI HIT-HY 200 ADHESIVE (ICC ESR-3187)
      iii. POWERS PE-1000+ (ICC ES ESR 2583)
      iv. SIMPSON STRONG TIE 'SET-XP' (ICC-ES ESR-2508)
      v. OR EQUAL ADHERING TO ICC ES AC 308

   NOTE: FOR HILTI PRODUCTS, STEEL ELEMENTS SHALL BE HILTI HAS-E CONTINUOUSLY THREADED ROD, HILTI HIS-N INTERNALLY THREADED INSERTS OR CONTINUOUSLY DEFORMED STEEL REBAR. FOR POWERS PRODUCTS, STEEL ELEMENTS SHALL BE ASTM A307-GRADE C, ASTM A 193 GRADE B7 TYPE 304 OR 316 STAINLESS STEEL (F 593, CONDITION CW) OR CONTINUOUSLY DEFORMED STEEL REBAR. FOR EQUAL PRODUCTS USE ACCORDING TO MANUFACTURERS SPECIFICATIONS THAT MEET OR EXCEED LOADING REQUIREMENTS.

   b. MECHANICAL EXPANSION ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193 AND MEET LOAD SPECIFIED SUCH AS:
      i. HILTI KWK BOLT - TZ ANCHORS (ICC ES ESR-1917)
      ii. HILTI HSL-3 HEAVY DUTY SLEEVE ANCHORS (ICC ES ESR 1545)
      iii. POWERS POWER-STUD SD-1 (ICC ES ESR 2818)
      iv. POWERS POWER-BOLTS+
      v. SIMPSON STRONG-TIE TITEN-HD(ICC-ES ESR 2713)
      vi. SIMPSON STRONG TIE 'STRONG BOLT 2' (ICC-ES ESR 3037)
      vii. OR EQUAL ADHERING TO ICC ES AC 193.
   c. MECHANICAL UNDERCUT ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC ES AC 193 AND MEET LOAD SPECIFIED SUCH AS:
      i. HILTI HDA UNDERCUT ANCHORS
      ii. POWERS ATOMIC+ UNDERCUT ANCHORS (ICC ES ESR 3067)
      iii. OR EQUAL ADHERING TO ICC ES AC 193
   d. CONCRETE SCREW ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC ES AC 193 AND MEET LOAD SPECIFIED SUCH AS:
      i. HILTI KWK HUS-EZ CONCRETE SCREW ANCHORS (ICC ES ESR 3027)
      ii. POWERS WEDGE BOLT+ (ICC ES ESR 2526)
      iii. OR EQUAL ADHERING TO ICC ES AC 193
3. ANCHORAGE TO SOLID GROUTED CONCRETE MASONRY
   a. ADHESIVE (EPOXY) ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC ES AC58 AND MEET LOAD SPECIFIED SUCH AS:
      i. HILTI HIT-HY 70 ADHESIVE ANCHORING SYSTEM (ICC ES ESR-3342) USING STEEL ELEMENTS HILTI HAS-E CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR.
      ii. SIMPSON STRONG TIE 'SET' (ICC ES ESR-1772)
      iii. OR EQUAL ADHERING TO ICC ES AC 58
   b. MECHANICAL ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ISS ES AC01 OR ISS ES AC106 AND MEET LOAD SPECIFIED SUCH AS
      i. HILTI KWK BOLT-3 EXPANSION ANCHORS, (ISS ES ESR-1385)
      ii. POWER STUD SD-1 (ICC ES ESR -2966)
      iii. SIMPSON STRONG TIE TITEN HD (ICC ES ESR-1056)
      iv. SIMPSON STRONG TIE 'WEDGE ALL' (ICC ES ESR 1396)
      v. OR EQUAL ADHERING TO ICC ES ESR AC 106.
4. ANCHORAGE TO HOLLOW/MULTI-WYTHE MASONRY AND/OR CONCRETE MASONRY
   a. ADHESIVE (EPOXY) ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC ES AC 58 AND MEET LOAD SPECIFIED SUCH AS:
      i. HILTI HIT-HY 70 ADHESIVE ANCHORING SYSTEM (ES ESR3342) USING STEEL ELEMENTS HILTI HAS-E CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR.
      ii. POWERS 7308+ ADHESIVE ANCHOR (ICC ES ESR-3149) BRICK MASONRY ONLY
      iii. SIMPSON STRONG TIE SET' (ICC ES ESR 1772) CONCRETE MASONRY ONLY OR EQUAL ADHERING TO ICC ES 58
   b. MECHANICAL ANCHORS SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC ES AC 106 AND MEET LOAD SPECIFIED SUCH AS:
      i. SIMPSON STRONG TIE 'TITEN HD' - CONCRETE MASONRY ONLY
      ii. OR EQUAL ADHERING TO ICC ES AC 106
5. INSTALLATION
   a. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL FASTENERS ACCORDING TO MANUFACTURERS SPECIFICATIONS AND AS REQUIRED BY CODE. A PRE-CONSTRUCTION MEETING AND OR TRAINING IS RECOMMENDED TO ENSURE PROPER INSTALLATIONS AT NO COST TO THE OWNER.
   b. IF EXISTING CONDITIONS PREVENT INSTALLATION AS SHOWN ON DRAWINGS OR AS RECOMMENDED, CONTRACTOR SHALL CONTACT ENGINEER OR ANCHOR REPRESENTATIVE PRIOR TO INSTALLATION OF ANCHORS FOR ALTERNATE RECOMMENDATION.
   c. CONTRACTOR SHALL BE SURE ALL SURFACES ARE CLEAN AND ARE PREPARED ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
   d. ALL ANCHORS INSTALLATIONS SHALL BE PLUMB, NEAT AND LEVEL UNLESS OTHERWISE NOTED.
   e. ARCHITECT/ENGINEER MAY REQUIRE PULLOUT OR SHEAR TESTS TO DETERMINE ADEQUACY OF ANCHORS AT NO COST TO THE OWNER.
   f. DESIGN BOND STRENGTH HAS BEEN BASED ON THE FOLLOWING CONDITIONS. ANY CHANGES SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION.
      i. CONCRETE TO BE CURED FOR AT LEAST 21 DAYS
      ii. TEMPERATURE CATEGORY B ACCORDING TO ACI 355.4
      iii. DRY HOLES
      iv. HOLES DRILLED WITH A CARBIDE BIT
      v. HOLE PREPARED ACCORDING TO MANUFACTURER'S INSTALLATION.
   g. INSTALLERS FOR VERTICAL AND HORIZONTAL APPLICATION FOR TENSION LOADS SHALL BE CERTIFIED. CERTIFICATIONS SHALL BE SUBMITTED WITH PRODUCT SUBMITTAL.
6. INSPECTION
   a. ALL ANCHOR INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE CONTINUOUSLY INSPECTED.

SHOP DRAWINGS

1. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
2. THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW OF THE FOLLOWING APPLICABLE ITEMS:
   a. ALL STRUCTURAL STEEL INCLUDING MISCELLANEOUS EMBEDMENTS. STEEL FABRICATION SHOP DRAWINGS ARE TO BE SUBMITTED TO STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION. THE STRUCTURAL ENGINEER IS TO REVIEW DRAWINGS FOR COMPLIANCE WITH DESIGN DOCUMENTS. ENGINEER IS TO REVIEW TYPE OF MATERIAL, MEMBER SIZES, AND CONNECTIONS AND RETURN DRAWINGS TO THE STEEL FABRICATOR NOTING ANY DISCREPANCIES. THE STEEL FABRICATOR IS RESPONSIBLE FOR ALL FABRICATION DIMENSIONS.
   b. STRUCTURAL STEEL FRAMING CONNECTIONS(*).
   c. REINFORCING STEEL.
   d. CONCRETE MIX DESIGNS.
   e. CONSTRUCTION JOINT LOCATIONS ON STRUCTURAL FLOORS.
   f. WOOD TRUSSES WITH CALCULATIONS. (*)
   g. PRECAST CMU LINTELS, PANELS, JOISTS, SLABS, ETC.
   h. ANCHOR BOLT SUBMITTAL.
   i. MECHANICAL EQUIPMENT REQUIRING STRUCTURAL SUPPORT.
   j. ELEVATOR SHOP DRAWINGS.
   k. CONCRETE CURING MATERIALS.
   l. MECHANICAL ANCHOR SUBSTITUTIONS.
   m. ARCHITECTURAL AND STRUCTURAL PRECAST ELEMENTS. (*)
   n. POST TENSION FLOORS.
   o. MASONRY BLOCK.
   p. FALL PROTECTION ANCHORAGE SYSTEM (*)

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM. NO.
DRAWING NO.

1 / S2.1 GENERAL NOTES
NO SCALE

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NC: C-2378 | SC: 7-0364
FED. JOB# 30HF63.000

STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
NUMBER PE-2014016124
PROFESSIONAL ENGINEER
07/15/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc• 1927 South Tryon Street
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704.372.7327• Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

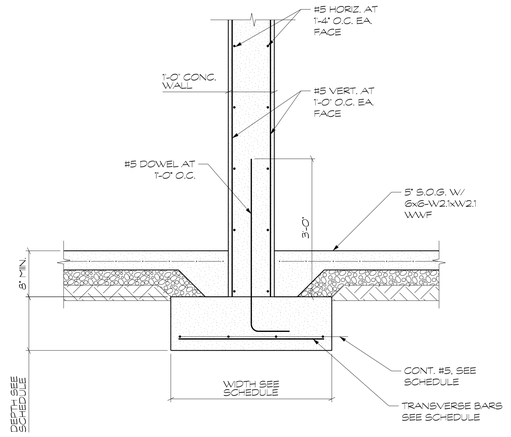
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

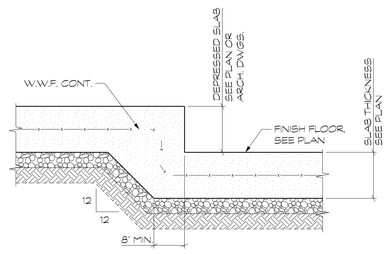
GENERAL NOTES

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S2.1	SHEET _____ OF _____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



1 S3.0 — TYPICAL INTERIOR GARAGE WALL
NO SCALE



2 S3.0 — TYPICAL DEPRESSED SLAB ON GRADE
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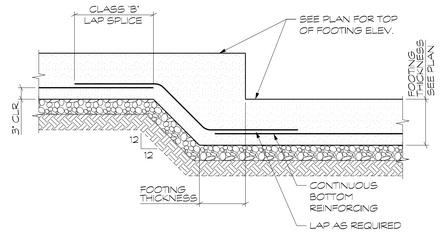

3 S3.0 — TYPICAL FOOTING STEP
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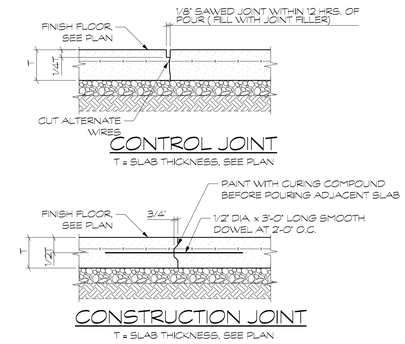

4 S3.0 — TYPICAL S.O.G. C/J DETAILS
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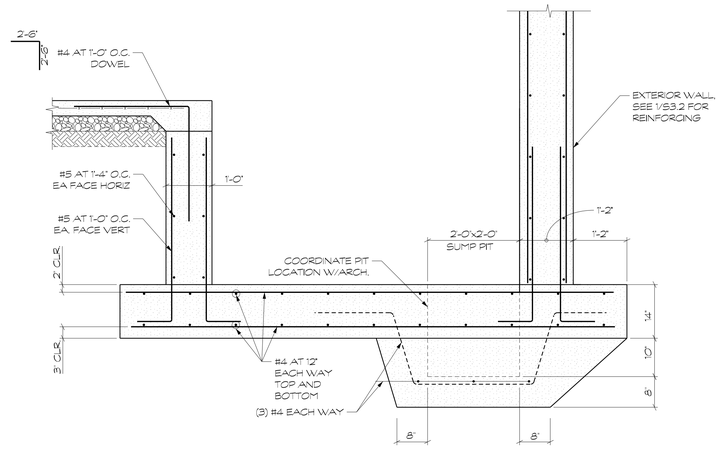
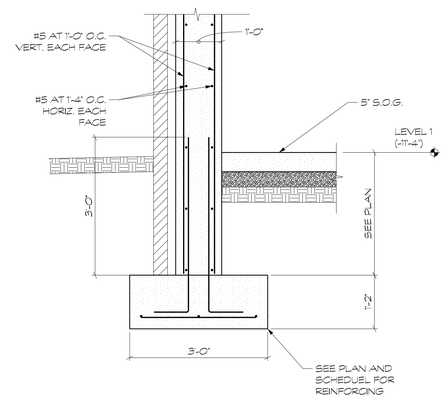
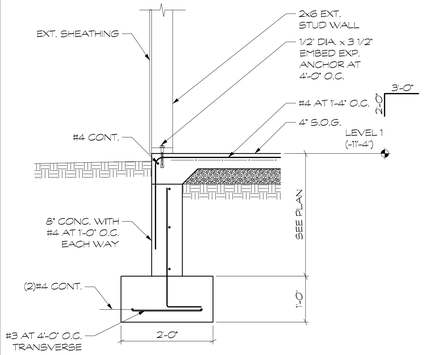


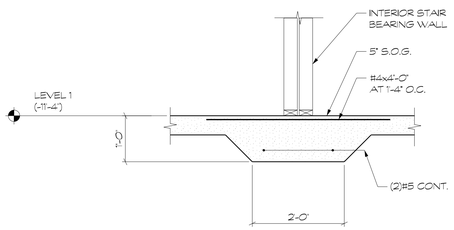
5 S3.0 — TYPICAL ELEVATOR PIT WITH SUMP
NO SCALE



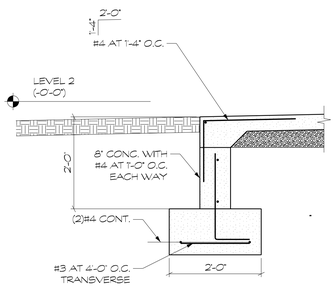
6 S3.0 — EXTERIOR FOOTING SECTION
3/4"=1'-0"



7 S3.0 — FOOTING SECTION AT VESTIBULE
3/4"=1'-0"



8 S3.0 — INTERIOR STAIR WALL BEARING
3/4"=1'-0"



9 S3.0 — ACTIVITY PORCH FOUNDATION
3/4"=1'-0"

MENU

CADD VERSION
PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

Fitzpatrick ENGINEERING GROUP PLLC
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NC LICENSE NO. P-0344
REG. JOHN JOHNSTON
STATE OF MISSOURI DOUGLAS G. FITZPATRICK NUMBER PE-2014016124 PROFESSIONAL ENGINEER
03/10/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. 1927 South Tryon Street
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21
2	Addendum 1	03/10/21

DRAWING TITLE

TYPICAL FOUNDATION SECTIONS AND DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S3.0	____ OF ____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

COLUMN FOOTING SCHEDULE
BEARING CAPACITY 5000 PSF

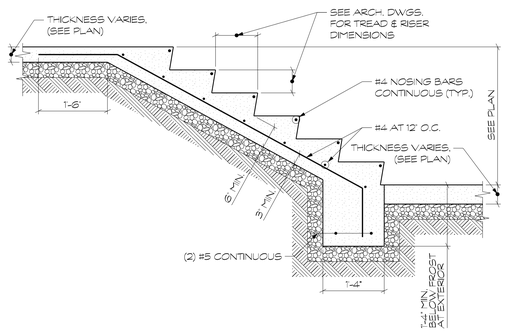
MARK	SIZE	DEPTH	REINFORCING		SERVICE LOAD CAPACITY	REMARKS
			BOTTOM BARS	TOP BARS		
F-3.0	3'-0" SQ.	14"	(6) #5 E.W.	-	42.0K	-
F-4.0	4'-0" SQ.	14"	(6) #5 E.W.	-	75.5K	-
F-5.0	5'-0" SQ.	16"	(7) #5 E.W.	-	118.5K	-
F-6.0	6'-0" SQ.	18"	(7) #6 E.W.	-	171.0K	-
F-7.0	7'-0" SQ.	22"	(9) #6 E.W.	-	232.0K	-
F-8.0	8'-0" SQ.	24"	(9) #7 E.W.	-	304.0K	-
(X) SF-9.0	9'-0" SQ.	28"	(12) #7 E.W.	-	385.0K	-
						-
(X) SF-10.0	10'-0" SQ.	30"	(11) #8 E.W.	-	475.0K	-

GRADE BEAM SCHEDULE

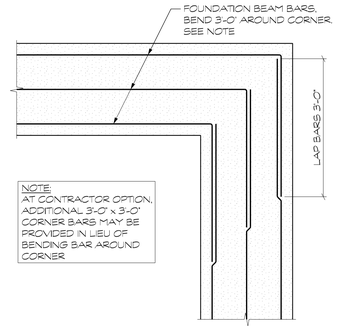
MARK	SIZE (WIDTH x DEPTH)	REINFORCING	STIRRUPS	REMARKS
GB-1	16" x 24"	(2) #5 TOP (3) #5 BOTTOM	#3 AT 48" O.C.	-

COLUMN BASE PLATE SCHEDULE

MARK	PLATE SIZE (INCHES)			GAGE "N"	GAGE "B"	EDGE "N"	EDGE "B"	ROW SPACING	ANCHOR BOLTS	ANCHOR BOLT GRADE	EDBED DEPTH	SQUARE WASHER	ANCHOR BOLT DETAIL
	"N"	"B"	"T"										
BP-1	12"	12"	1"	-	-	1 1/2"	1 1/2"	-	3/4"	F554-36	8"	-	AB-8



1 S3.1 TYPICAL FOOTING SCHEDULE
NO SCALE



2 S3.1 TYPICAL GRADE BEAM SCHEDULE
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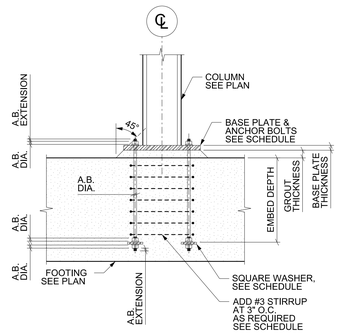
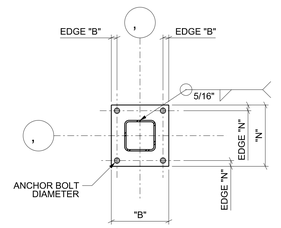
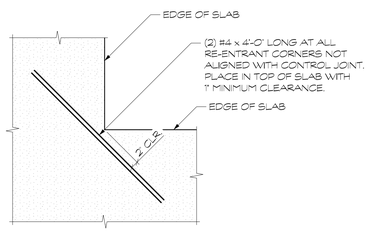


TYPICAL ANCHOR BOLT



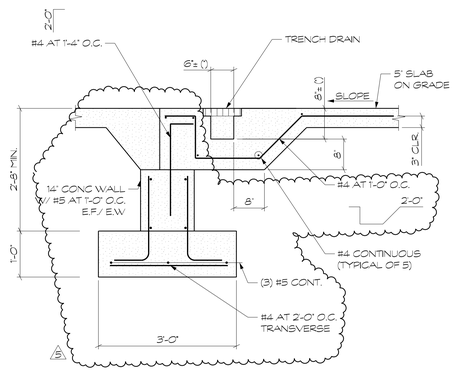
AB-8

3 S3.1 TYPICAL BASE PLATE SCHEDULE
NO SCALE



NOTE:
1. DETAIL APPLIES AT BOTH ELEVATED SLABS AND SLABS ON GRADE.
2. ADDED BARS ARE NOT REQUIRED AT SLAB OR GRADE, WHERE CORNER IS ALIGNED WITH CONTROL JOINT.

4 S3.1 TYPICAL STAIR ON GRADE
NO SCALE



NOTE:
1. (') INDICATES COORDINATE DIMENSIONS WITH SELECTED TRENCH DRAIN.

5 S3.1 FOUNDATION BEAM REINF. AT CORNERS
NO SCALE

7 S3.1 SECTION AT TRENCH DRAIN
NO SCALE

CONTINUOUS WALL FOOTING SCHEDULE

MARK	SIZE THICKNESS x WIDTH	CONTINUOUS REIN.		TRANSVERSE REIN.		NOTES
		BOTTOM	TOP	BOTTOM	TOP	
WF-1	1'-2" x 3'-6"	(4) #5	-	#4 AT 24"	-	
WF-2	1'-2" x 3'-0"	(3) #5	-	#4 AT 24"	-	
WF-3	1'-4" x 4'-8"	(5) #5	-	#5 AT 12"	-	
WF-4	1'-2" x 3'-6"	(4) #5	-	#5 AT 16"	-	
WF-5	1'-2" x 5'-0"	SEE NOTE	SEE NOTE	SEE NOTE	SEE NOTE	SEE 2/S3.2 FOR REIN.
B WF-6	1'-2" x 2'-0"	(2) #5	-	#4 AT 24"	-	

8 S3.1 CONTINUOUS WALL FOOTING SCHEDULE
NO SCALE

6 S3.1 TYPICAL SLAB BARS AT CORNERS
NO SCALE

MENU

CADD VERSION:
PLOT SCALE:
PLOT DATE:
SAVE DATE:
COMM. NO.:
DRAWING NO.:

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STRUCTURAL ENGINEERS
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MO CORP 2014001099
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DOUGLAS G. FITZPATRICK
NUMBER
PE-2014016124
PROFESSIONAL ENGINEER
03/10/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
B	Addendum 1	03/10/21

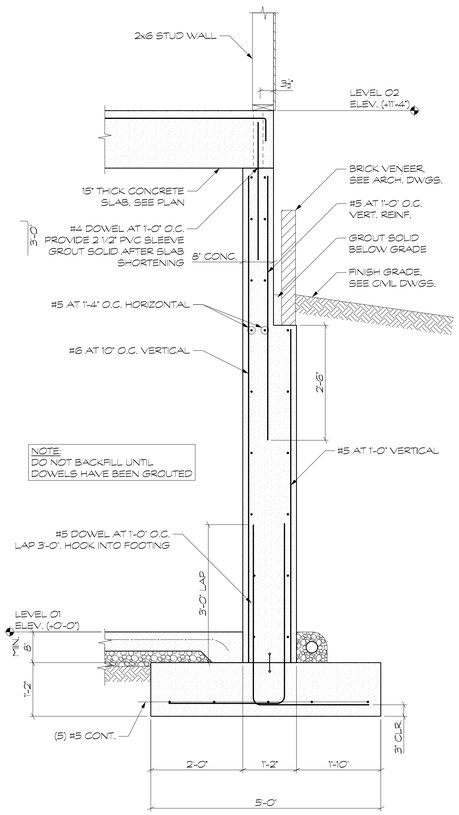
DRAWING TITLE

FOUNDATION SCHEDULES AND DETAILS

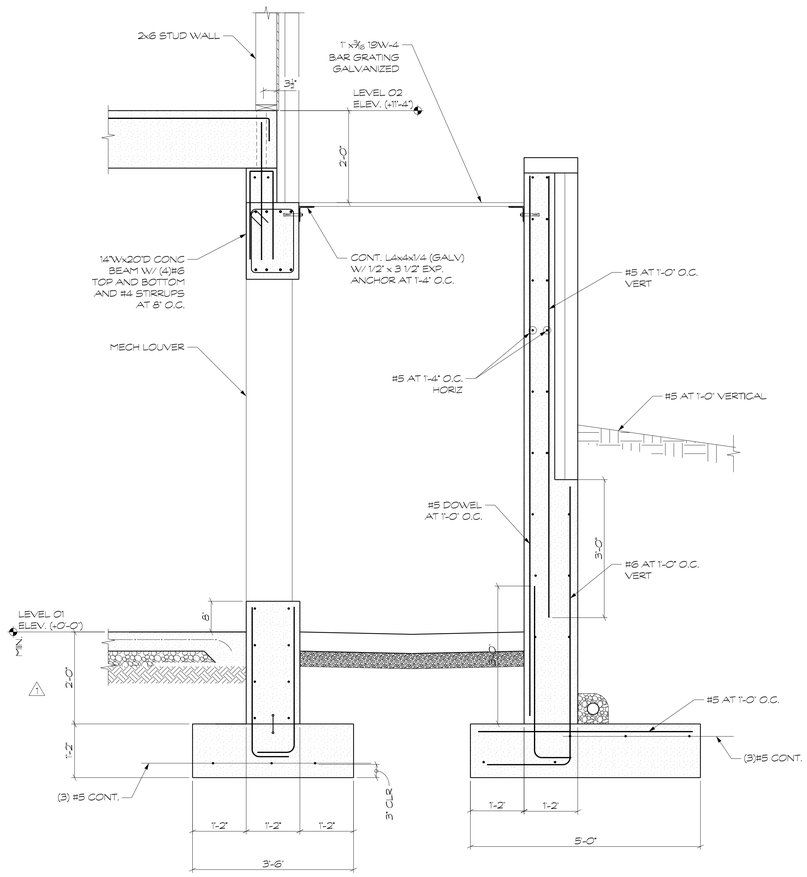
COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING S3.1 SHEET _____ OF _____

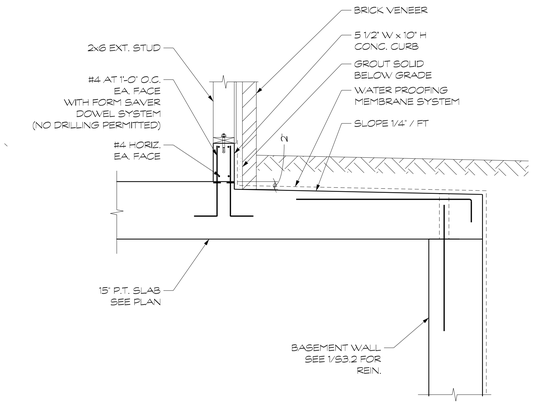
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



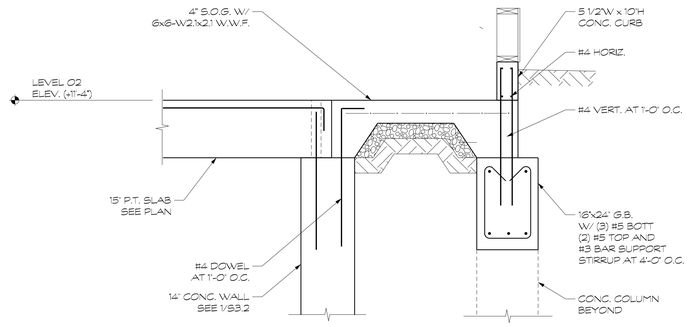
1 S3.2 FOUNDATION SECTION
3/4"=1'-0"



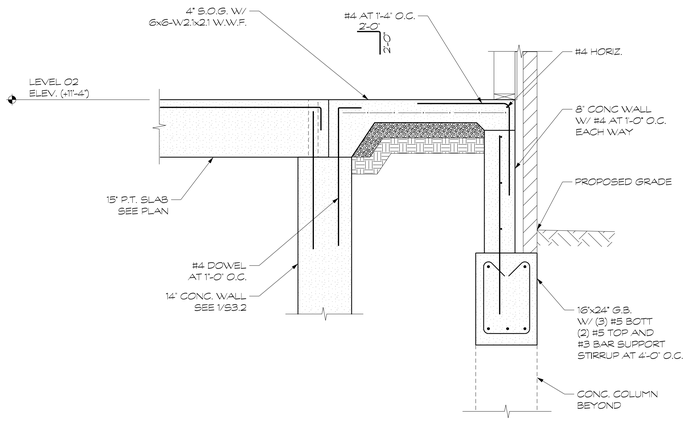
2 S3.2 AREAWAY SECTION
3/4"=1'-0"



3 S3.2 EXT. SECTION AT RAISED GRADE
3/4"=1'-0"



4 S3.2 SUNROOM FNDN SECTION
3/4"=1'-0"



5 S3.2 UNIT H-1 DROPPED GRADE BEAM
3/4"=1'-0"

MENU

CADD VERSION:
PLOT SCALE:
PLOT DATE:
SAVE DATE:
COMM. NO.:
DRAWING NO.:

Fitzpatrick ENGINEERING GROUP PLLC
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P 704-987-9114
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NO. E-2014005620
STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
NUMBER
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1	Revision 1	02/08/21
2	Addendum 1	03/10/21

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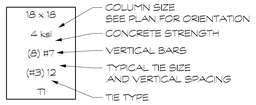
CONCRETE COLUMN SCHEDULE

COLUMN MARK	C1	C2	C3				
GRIDS / LEVEL							
LEVEL 2 (+11'-4")							
LEVEL 1 (+0'-0")	12 x 30 4 ksi (12) #7 (#3) 12 T1	12 x 24 4 ksi (10)#6 (#3) 12 T2	16 x 16 4 ksi (4) #7 (#3) 12 T3				
DOWELS	(12)#7	(8)#7	(12)#7				
REMARKS							

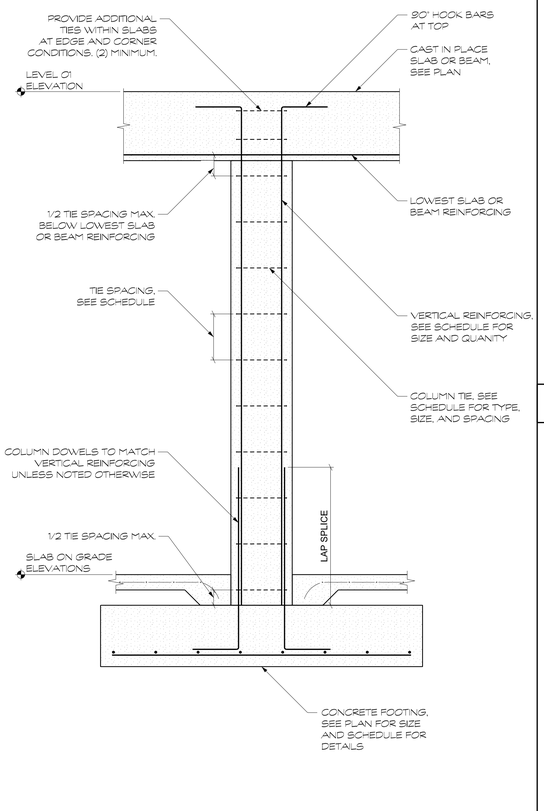
COLUMN SCHEDULE LEGEND



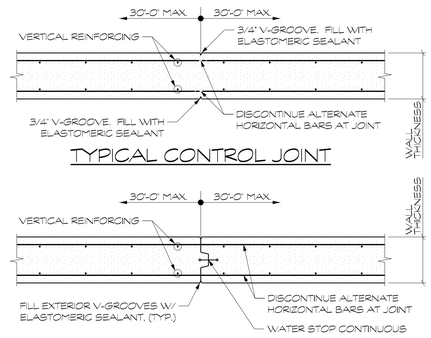
COLUMN SCHEDULE NOTES

1. WORK COLUMN SCHEDULE WITH FLOOR PLANS FOR COLUMN LENGTHS.
2. SEE FOUNDATION PLAN FOR TOP OF FOOTING ELEVATIONS.
3. FOR TIE TYPES SEE DETAILS THIS DRAWING.

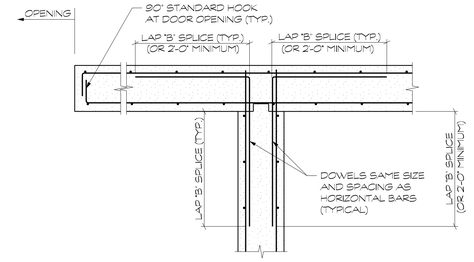
1 S3.10 — CONCRETE COLUMN SCHEDULE — NO SCALE



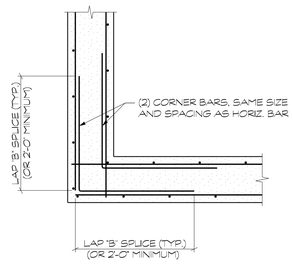
2 S3.10 — TYPICAL CONCRETE COLUMN DETAIL — NO SCALE



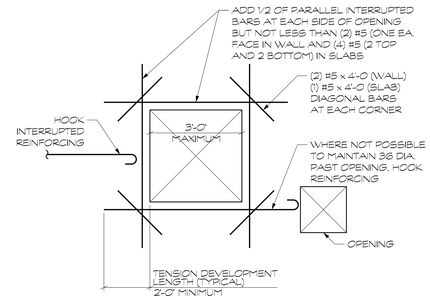
3 S3.10 — TYPICAL CONCRETE WALL C/J DETAILS — NO SCALE



4 S3.10 — TYPICAL CONCRETE INTERSECTION — NO SCALE



5 S3.10 — TYPICAL CONCRETE CORNER — NO SCALE



6 S3.10 — TYPICAL CONCRETE OPENING — NO SCALE

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PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

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STATE OF MISSOURI — DOUGLAS C. FITZPATRICK — NUMBER — PE-2014016124 — PROFESSIONAL ENGINEER
01/18/21

PROJECT TITLE

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PROJECT ENGINEER	
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CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

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CONCRETE COLUMN SCHEDULES AND DETAILS

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05/10/2021

CONCRETE BEAM SCHEDULE

MARK	WIDTH	DEPTH	TOP REINFORCING			BOTTOM REINFORCING		SHEAR REINFORCING			REMARKS
			CONTINUOUS	LEFT ADD	RIGHT ADD	BOTTOM BARS	BOTTOM ADD	SIZE	TYPE	SPACING	
CB1	24"	15"	(5)#6	-	-	(7)#7 HEE	-	#4	B1	BAL@6"	
CB2	12"	15"	(3)#5	-	-	(3)#5	-	#3	B1	BAL@6"	
CB3	12"	24"	(3)#5	-	-	(3)#6	-	#4	B1	BAL@10"	
CB4	16"	15"	(3)#6	-	-	(3)#6	-	#3	B1	BAL@6"	
CB5	12"	25"	(4)#6 (3')	-	-	(4)#6 (3')	-	#4	A1	BAL@6"	#5@16" O.C. HORIZONTAL E.F.
CB6	14"	20"	(4)#6	-	-	(4)#6	-	#4	B1	BAL@8"	
CB7	14"	25 5/8"	(4)#6	-	-	(4)#6	-	#4	B1	BAL@11"	#5@16" O.C. HORIZONTAL E.F.
CB8	12"	25"	(3)#6 HEE	-	-	(3)#6 HEE	-	#4	B1	BAL@11"	#5@16" O.C. HORIZONTAL E.F.

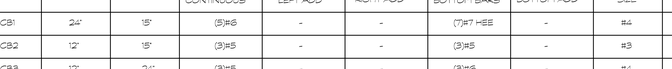
NOTES:

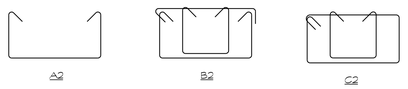
1. HEE = HOOK EACH END / HLE = HOOK LEFT END / HRE = HOOK RIGHT END

2. (2') INDICATES REINFORCING SHALL BE PLACED IN TWO LAYERS

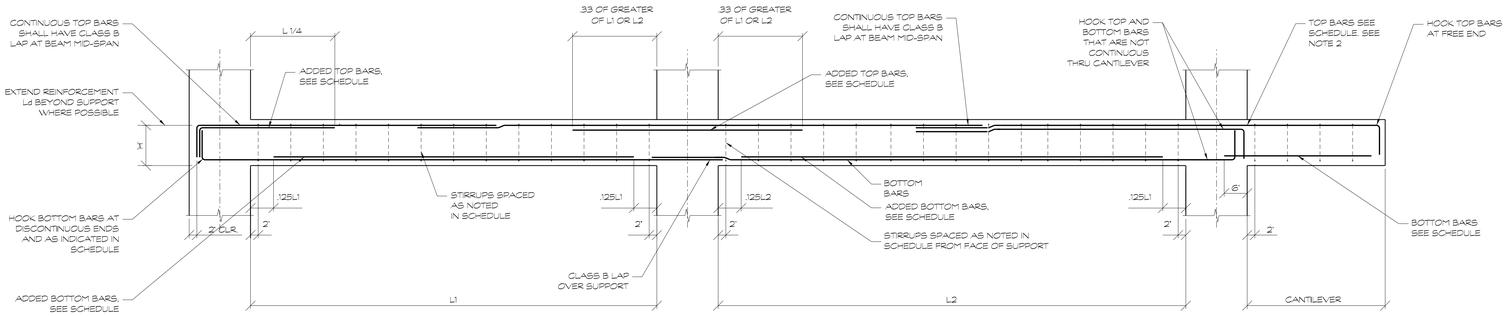
3. (3') INDICATES EXTEND RIGHT END BARS 48 BAR DIAMETERS INTO ADJACENT WALL

1 S3.11 — CONCRETE BEAM SCHEDULE
3/4"=1'-0"





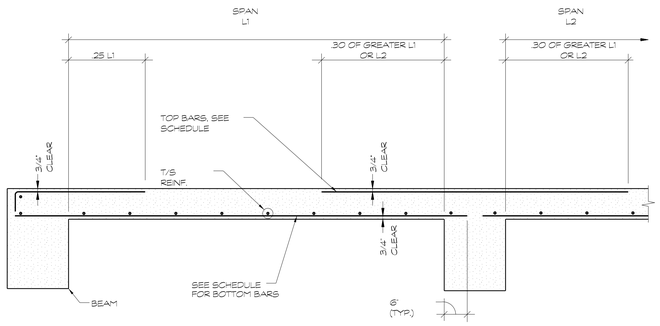
2 S3.11 — BEAM STIRRUP TYPES
3/4"=1'-0"



NOTES:

1. LENGTHS SHOWN ARE MINIMUM UNLESS OTHERWISE NOTED IN SCHEDULE.
2. WHERE CANTILEVER BEAM TOP REINFORCING AT SUPPORT DOES NOT CONTINUE FROM ADJACENT SPAN, EXTEND BARS 1.3 x DEVELOPMENT LENGTH 'ld' BEYOND CENTERLINE OF SUPPORT.

3 S3.11 — TYPICAL CONCRETE BEAM DETAIL
3/4"=1'-0"



CONCRETE ONE WAY SLAB SCHEDULE

MARK	DEPTH	END SPAN			INTERIOR SPAN			TEMP.	REMARKS
		EXT. TOP	BOTT.	INT. TOP	TOP LEFT	BOTT.	TOP RIGHT		
BS1	8"	#4 AT 12"	#4 AT 12"	#4 AT 12"	-	-	-	#4 AT 12"	

4 S3.11 — ONE-WAY CONCRETE SLAB SCHEDULE
3/4"=1'-0"

MENU

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PLOT SCALE
PLOT DATE
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Fitzpatrick ENGINEERING GROUP PLLC
STRUCTURAL ENGINEERS
19520 W. Catawba Ave. Suite 311
Cornelius, NC 28031
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DOUGLAS G. FITZPATRICK NUMBER PE-2014016124 STATE OF MISSOURI PROFESSIONAL ENGINEER
03/10/21

PROJECT TITLE

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Meadows Building - Phase II

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PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

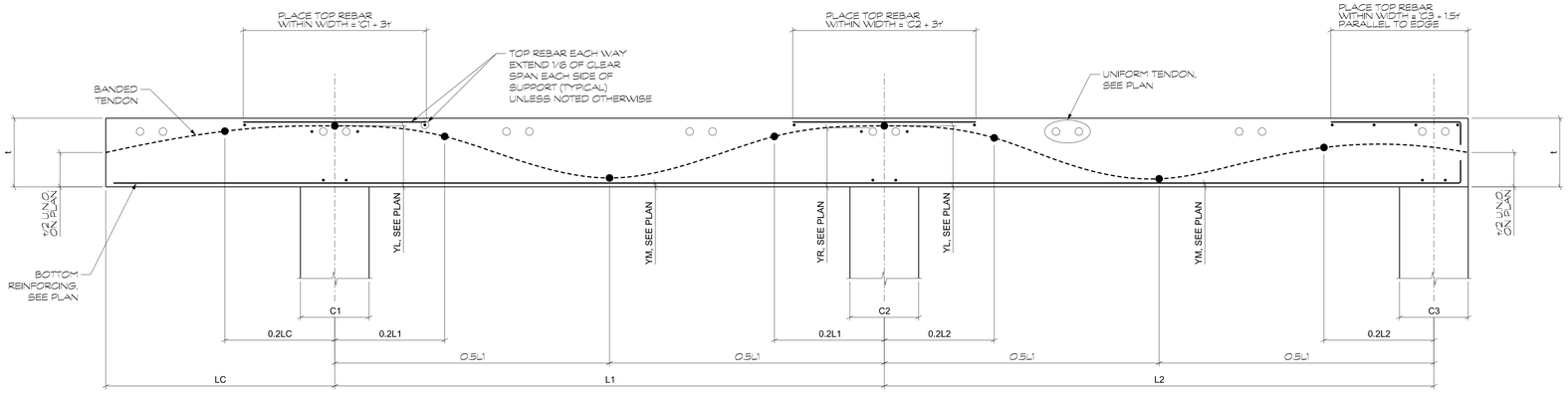
NO.	REVISION DESCRIPTION	DATE
1	REV 3 - BID SET	02/24/21
5	Addendum 1	03/10/21

DRAWING TITLE

CONCRETE BEAM AND SLAB SCHEDULES

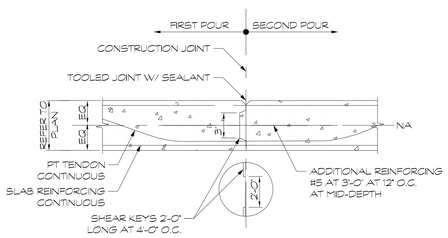
COMM. NO. 19132.00
DATE JANUARY 18, 2021
DRAWING S3.11
SHEET _____ OF _____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



NOTES:
1. SEE PLAN FOR CGS OF TENDON REFERENCED FROM SLAB SOFFIT.

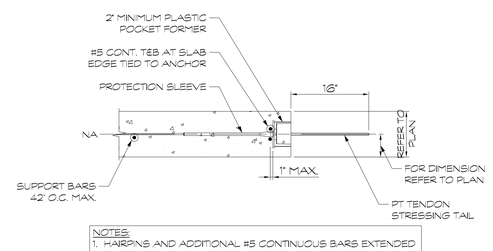
1 S3.20 TYPICAL TWO WAY POST TENSIONED SLAB
NO SCALE



PLAN VIEW

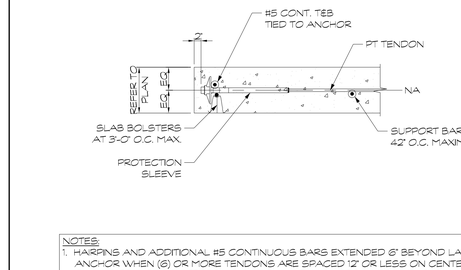
NOTES:
1. JOINTS SHALL BE LOCATED CLOSE TO QUARTER SPAN.

3 S3.20 C/J - NO INTERMEDIATE STRESSING
NO SCALE



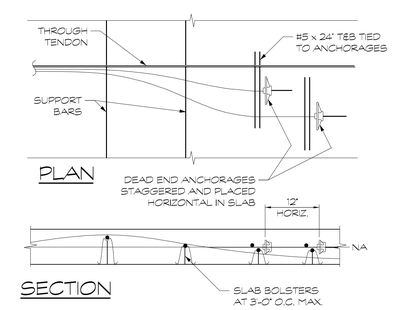
NOTES:
1. HAIRPINS AND ADDITIONAL #5 CONTINUOUS BARS EXTENDED 6' BEYOND LAST ANCHOR WHEN (6) OR MORE TENDONS ARE SPACED 12' OR LESS ON CENTER.

4 S3.20 STRESSING END ANCHOR SHOWING ADDED #5 BARS AT DISTRIBUTED TENDONS
NO SCALE



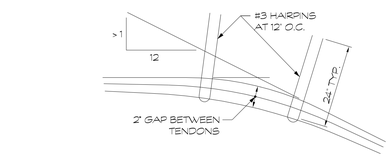
NOTES:
1. HARPINS AND ADDITIONAL #5 CONTINUOUS BARS EXTENDED 6' BEYOND LAST ANCHOR WHEN (6) OR MORE TENDONS ARE SPACED 12' OR LESS ON CENTER. SIMILAR TO 4/S3.20 STRESSING END SIMILAR WITH GROMMET AND 18' TAIL EXTENSION.

5 S3.20 DEAD END AT DISTRIBUTED TENDONS
NO SCALE



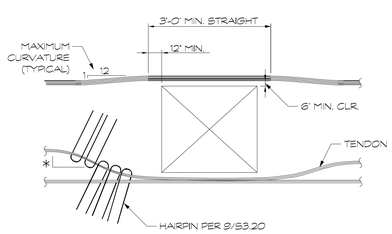
SECTION

6 S3.20 PLACEMENT OF ADDED TENDON
NO SCALE

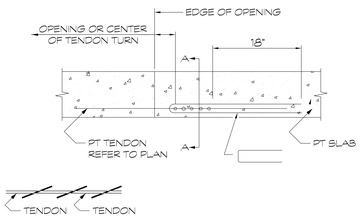


NOTES:
1. PLACE HAIRPIN PER 9/S3.20.

7 S3.20 TENDON PLACEMENT FOR TURNS > 1:12
NO SCALE



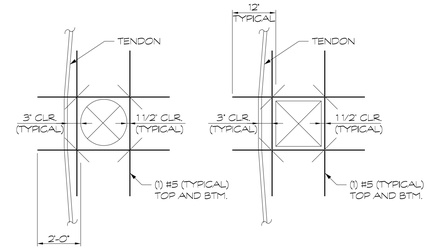
8 S3.20 TENDON PLACEMENT @ OPNG. 24" OR LARGER
NO SCALE



SECTION A

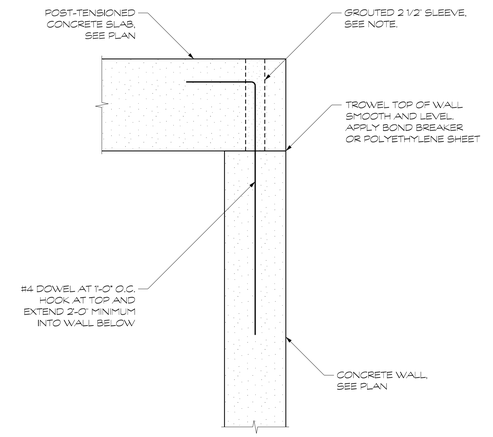
NOTES:
1. #3 HAIRPIN PLACED IN PLANE OF SLAB RADIALLY TO HOLD TENDONS.
2. PLACE OVER CURVED LENGTH OF TENDON AT (12"/NUMBER OF STRANDS) ON CENTER BUT NOT MORE THAN 12" APART.

9 S3.20 TYPICAL HAIRPIN AT TENDON TURNS
NO SCALE



NOTES:
1. SINGLE OPENINGS OF LESS THAN 12' DO NOT REQUIRE TRIM BARS. FOR TRIM BAR REQUIREMENTS, REFER TO 2/S3.21.

10 S3.20 TRIM BARS AT SLAB OPENINGS
NO SCALE



NOTE:
DO NOT GROUT SLEVES UNTIL SLAB SHORTENING HAS OCCURED, UNLESS OTHERWISE INDICATED. DO NOT GROUT SLEEVE UNTIL 28 DAYS AFTER STRESSING.

2 S3.20 TYPICAL TEMPORARY WALL RELEASE DETAIL
NO SCALE

MENU

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SAVE DATE
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FED. JOB# 204R60.000

STATE OF MISSOURI
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TYPICAL POST TENSIONED DETAILS

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DRAWING S3.20

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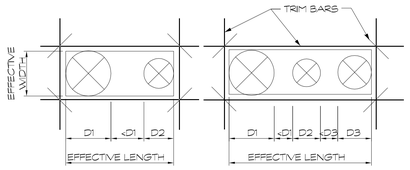
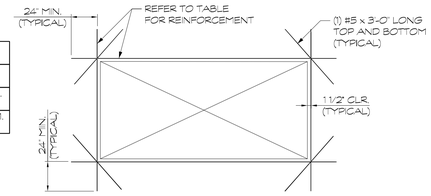


NOTES:
1. INSERTS WHICH ARE CLOSER TO ONE ANOTHER THAN THE DIAMETER OF THE LARGER OF THE TWO ARE CONSIDERED TO FORM A COMBINED OPENING WITH EFFECTIVE DIMENSIONS SHOWN.
2. FOR TRIM BAR REQUIREMENTS, REFER TO 1/S3.20.

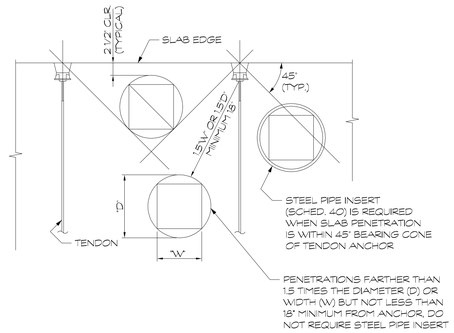
1 S3.21 — TRIM BARS FOR MULTIPLE OPENINGS
NO SCALE

MAXIMUM DIMENSION	REINFORCING
12" TO 18"	(1) #5 EACH SIDE
18" TO 2'-6"	(1) #5 TOP AND BTM, EACH SIDE
2'-6" AND LARGER	(2) #5 TOP AND BTM, EACH SIDE



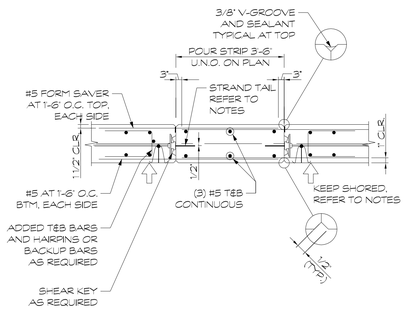
NOTES:
1. ALL OPENINGS LARGER THAN 12" SHALL BE TRIMMED AS SHOWN.
2. THESE BARS ARE IN ADDITION TO REBAR SHOWN ON PLANS.
3. FOR MULTIPLE OPENINGS, REFER TO 1/S3.21.

2 S3.21 — TRIM BARS FOR INTERIOR OPENINGS IN SLAB
NO SCALE



NOTES:
1. PENETRATION WITH DIMENSIONS GREATER THAN 12" REQUIRE TRIM REINFORCING PER 2/S3.21.

3 S3.21 — OPENINGS AT P.T. ANCHORAGE
NO SCALE



NOTES:
1. RETAIN SHORING UNTIL CLOSURE CONCRETE REACHES SLAB'S DESIGN STRENGTH OR 14 DAYS.
2. CLOSURE STRIP TO BE POURED WITH NON-SHRINK CONCRETE NOT LESS THAN 28 DAYS AFTER STRESSING.
3. ROUGHEN AND CLEAN JOINTS, AND WET, PRIOR TO PLACING CONCRETE.

4 S3.21 — CLOSURE STRIP AT SLABS
NO SCALE

MENU

CADD VERSION	
PLOT SCALE	
PLOT DATE	
SAVE DATE	
COMM NO.	
DRAWING NO.	

Fitzpatrick ENGINEERING GROUP PLLC
STRUCTURAL ENGINEERS
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P 704-987-9114
NC FIRM NO. P-0366
NC FIRM 2340003390

STATE OF MISSOURI — DOUGLAS G. FITZPATRICK — NUMBER PE-2014016124 — PROFESSIONAL ENGINEER
01/18/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc. 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327 Fax 704.372.7369
www.sfcs.com

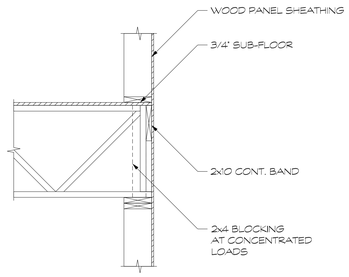
PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

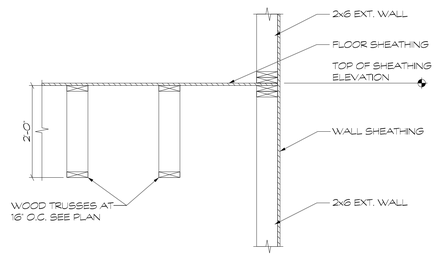
DRAWING TITLE
TYPICAL POST TENSIONED DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S3.21	SHEET _____ OF _____

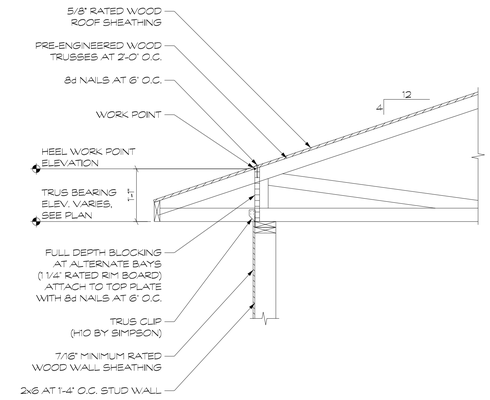
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



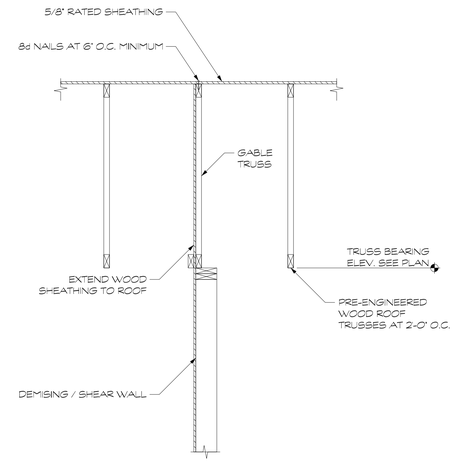
1 S4.0 — TYPICAL FLOOR EXT. WALL BEARING WALL
NO SCALE



2 S4.0 — TYPICAL FLOOR EXT. NON BEARING WALL
NO SCALE



3 S4.0 — TYPICAL ROOF EXTERIOR BEARING WALL
NO SCALE



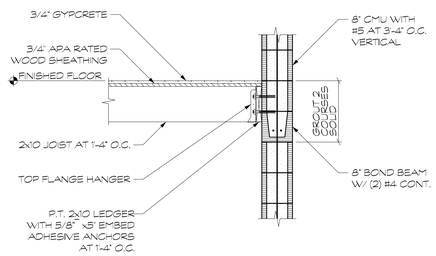
4 S4.0 — TYPICAL SHEAR WALL AT DEMISING WALL
NO SCALE

5 S4.0 — TYP. FLOOR TRUSS BEARING AT CORRIDOR
NO SCALE

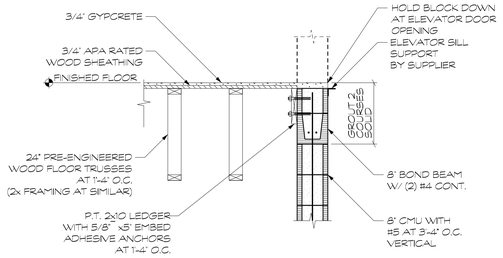
6 S4.0 — TYP. INTERIOR SHEAR WALL @ DEMISING WALL
NO SCALE

7 S4.0 — TYPICAL CORRIDOR WALL OPENING
NO SCALE

8 S4.0 — SECTION AT RAISED CEILING
NO SCALE



9 S4.0 — FLOOR BEARING DETAIL AT ELEVATOR SHAFT
NO SCALE



10 S4.0 — FLR. NON-LOAD BEARING AT ELEVATOR DOOR
NO SCALE

MENU

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PLOT SCALE:
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Fitzpatrick ENGINEERING GROUP PLLC
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MO ACEC JOINT/S 000
DOUGLAS G. FITZPATRICK
NUMBER PE-2014016124
STATE OF MISSOURI
PROFESSIONAL ENGINEER
07/19/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

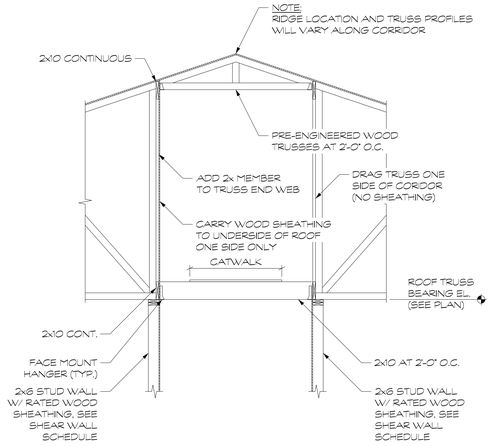
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

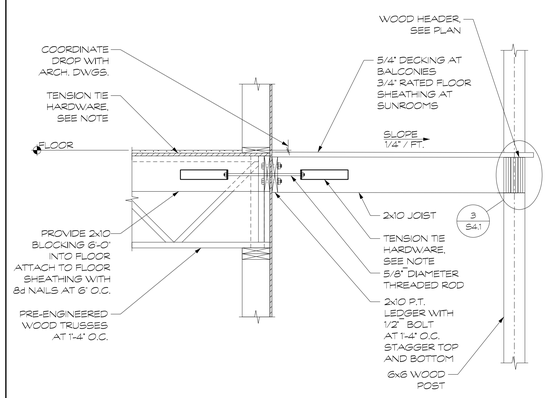
TYPICAL FRAMING SECTIONS AND DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S4.0	SHEET _____ OF _____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

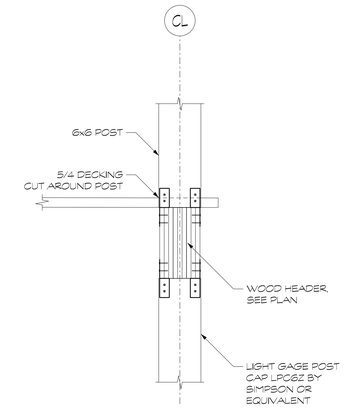


1 S4.1 **TYPICAL ROOF SECTION AT CORRIDOR**
NO SCALE

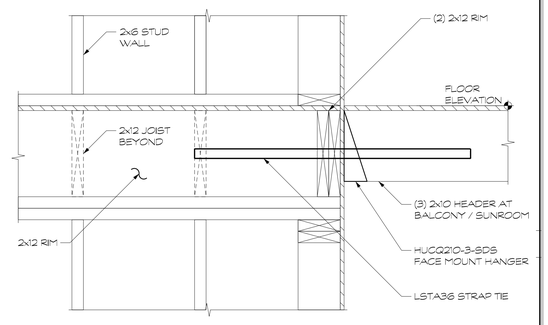


NOTE:
TENSION TIE HARDWARE SHALL BE HTT4 BY SIMPSON OR EQUIVALENT. LOCATE TENSION TIE ON JOIST OVER EXTERIOR BALCONY POSTS.

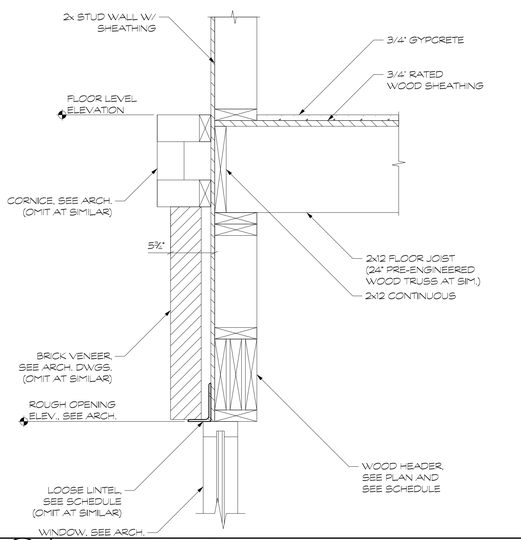
2 S4.1 **BALCONY SECTION**
3/4"=1'-0"



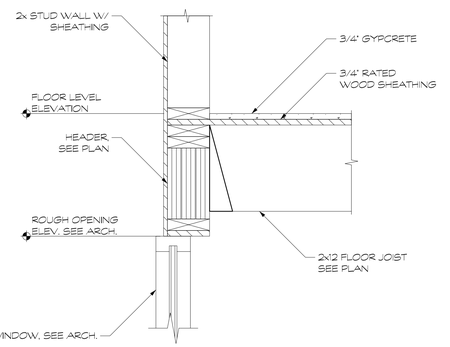
3 S4.1 **BALCONY POST DETAIL**
1 1/2"=1'-0"



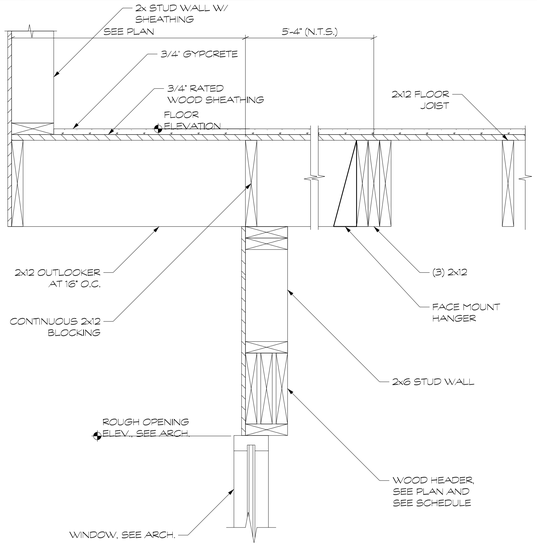
4 S4.1 **BALCONY / SUNROOM FLUSH HEADER CONN.**
1 1/2"=1'-0"



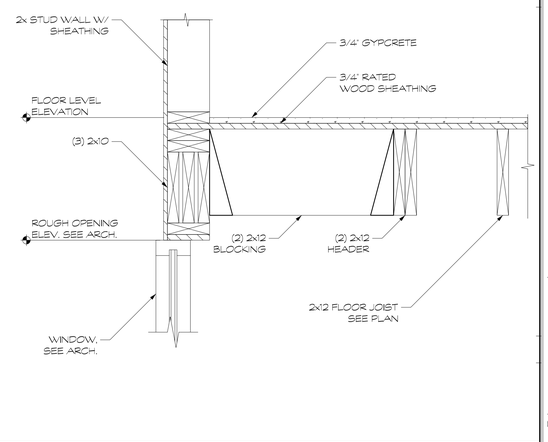
5 S4.1 **EXTERIOR SECTION**
1 1/2"=1'-0"



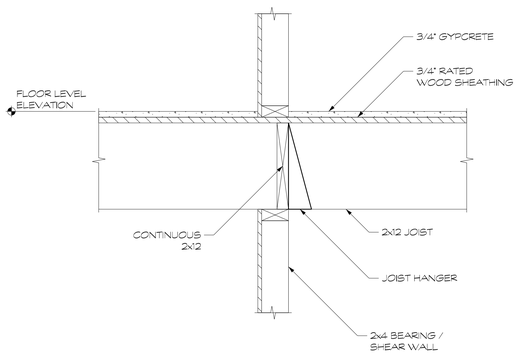
6 S4.1 **FLOOR SECTION AT RAISED CEILING**
1 1/2"=1'-0"



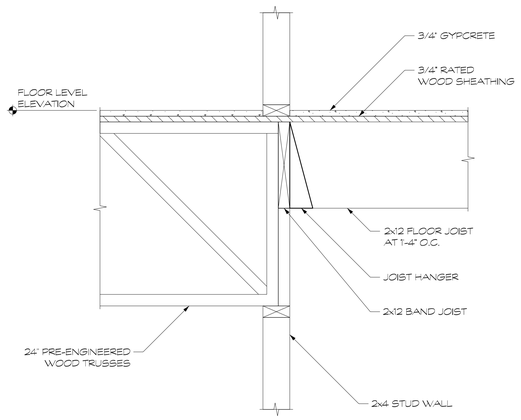
7 S4.1 **FLOOR SECTION AT BAY**
1 1/2"=1'-0"



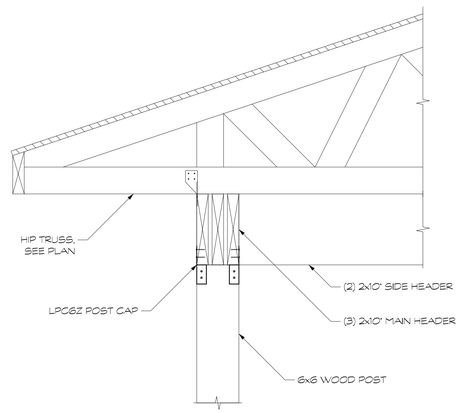
8 S4.1 **FLOOR SECTION AT BAY**
1 1/2"=1'-0"



9 S4.1 **SECTION**
1 1/2"=1'-0"

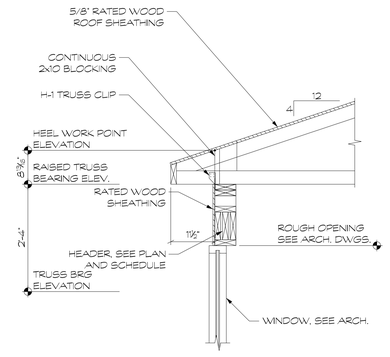


10 S4.1 **SECTION**
1 1/2"=1'-0"



* NOTE:
HEADER AT SUNROOM LOCATIONS ARE (3) 7 1/4" LVL'S.

11 S4.1 **ROOF @ BALCONY / SUNROOM CORNER POST**
1 1/2"=1'-0"



12 S4.1 **ROOF SECTION AT BAY RAISED CEILING**
3/4"=1'-0"

MENU

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Fitzpatrick ENGINEERING GROUP PLLC
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FED. JOB# 204165.000

STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
NUMBER
PE-2014016124
PROFESSIONAL ENGINEER
01/18/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc• 1927 South Tryon Street
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704.372.7327• Fax 704.372.7369
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

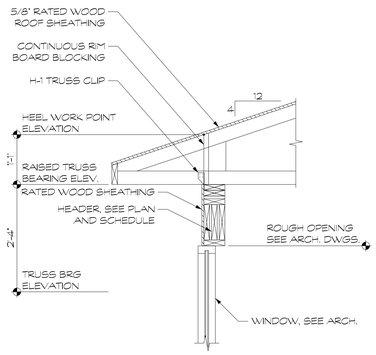
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

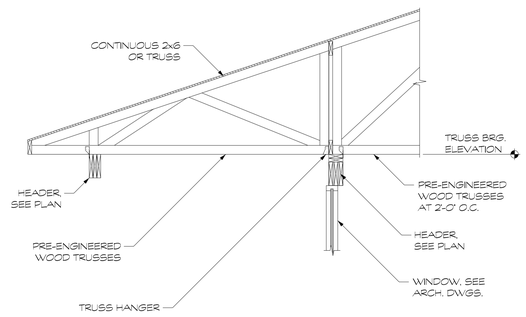
FRAMING SECTIONS AND DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S4.1	SHEET _____ OF _____

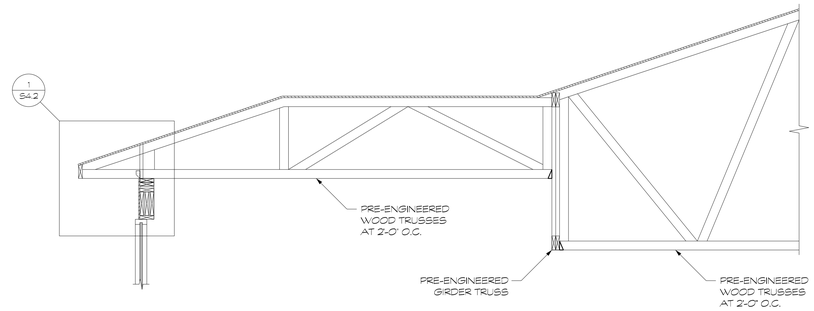
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



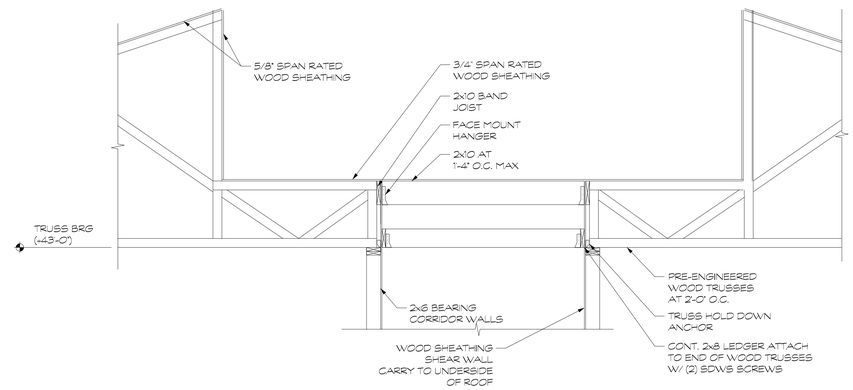
1 S4.2 **SECTION**
3/4"=1'-0"



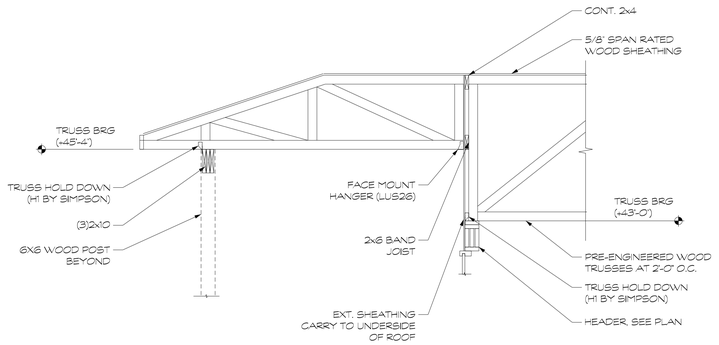
2 S4.2 **SECTION**
1/2"=1'-0"



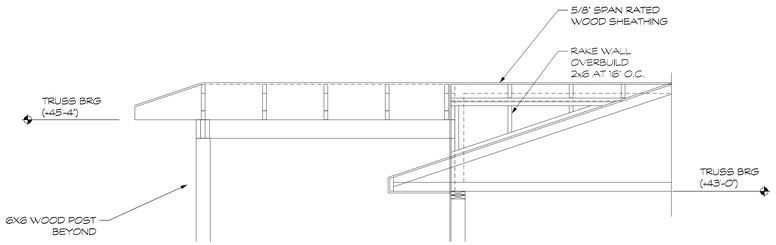
3 S4.2 **SECTION**
1/2"=1'-0"



4 S4.2 **SECTION AT MECH WELL**
1/2"=1'-0"



5 S4.2 **ROOF SECTION AT RAISED SUNROOM/PORCH**
1/2"=1'-0"



6 S4.2 **RAISED SUNROOM SIDE HEADER DETAIL**
1/2"=1'-0"

MENU

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PLOT SCALE
PLOT DATE
SAVE DATE
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DRAWING NO.

Fitzpatrick ENGINEERING GROUP PLLC
STRUCTURAL ENGINEERS
19520 W. Catawba Ave. Suite 311
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STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
NUMBER PE-2014016124
PROFESSIONAL ENGINEER
07-15-21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

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SFCS Inc• 1927 South Tryon Street
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704.372.7327• Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

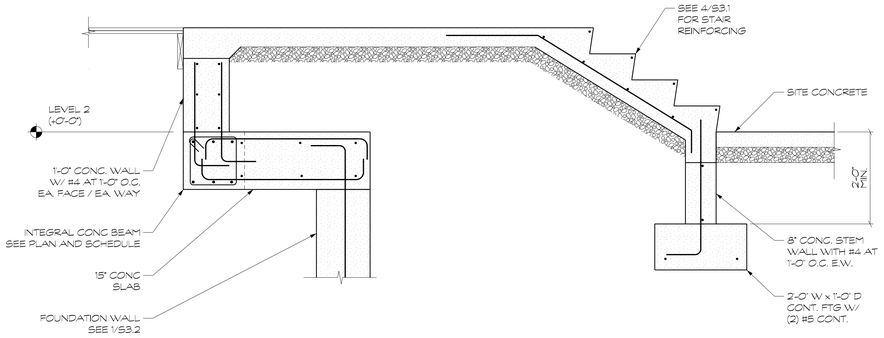
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

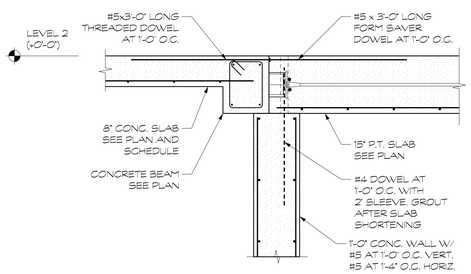
FRAMING SECTIONS AND DETAILS

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S4.2	SHEET _____ OF _____

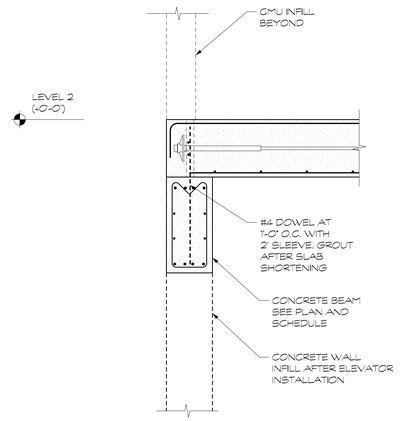
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021



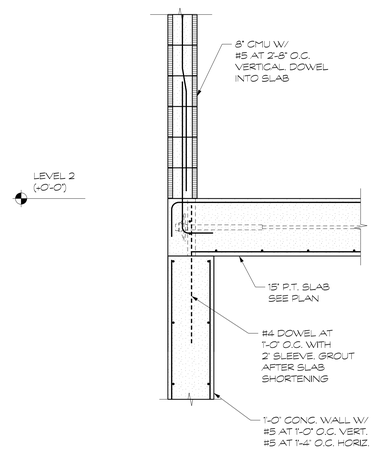
1 S4.3 SECTION
3/4"=1'-0"



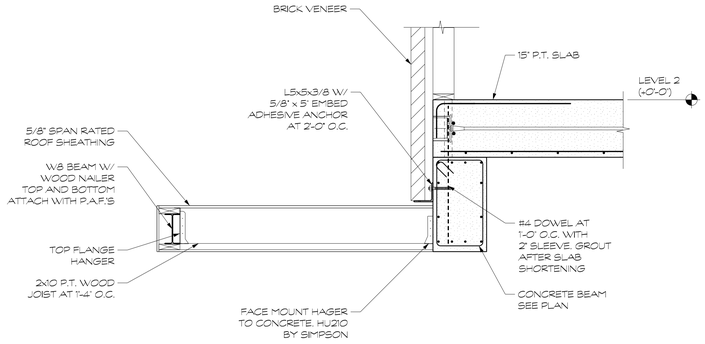
2 S4.3 SECTION
3/4"=1'-0"



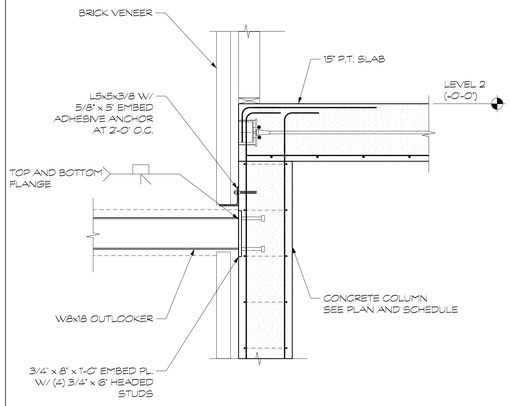
3 S4.3 SECTION
3/4"=1'-0"



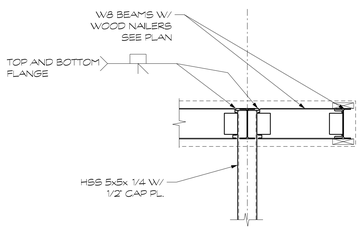
4 S4.3 SECTION
3/4"=1'-0"



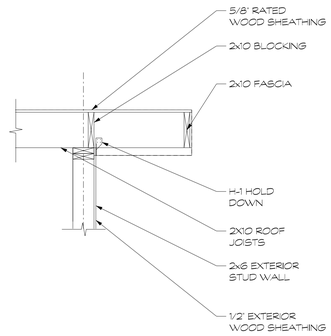
5 S4.3 SECTION
3/4"=1'-0"



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



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



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

MENU

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SAVE DATE
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Fitzpatrick ENGINEERING GROUP PLLC
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NC LICENSE NO. F-0344
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STATE OF MISSOURI
DOUGLAS G. FITZPATRICK
NUMBER
PE-2014016124
PROFESSIONAL ENGINEER
02/24/21

PROJECT TITLE

John Knox Village
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	REV 3 - BID SET	02/24/21

DRAWING TITLE

FRAMING SECTIONS AND DETAILS

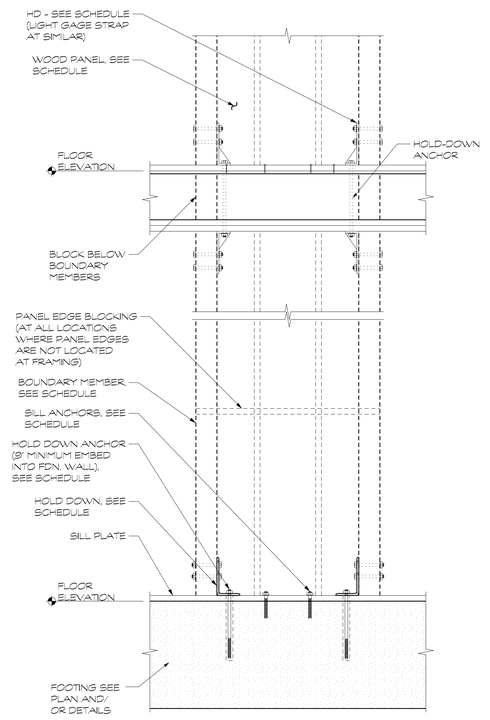
COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING	SHEET
S4.3	_____ OF _____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

MARK	SHEATHING	SILL/TOP ∱ ANCHORS	HOLD DOWNS	HOLD DOWN ANCHOR	BOUNDARY MEMBER	REMARKS
SW-2	15/32" MIN. SHEATHING 10d NAILS AT 4" O.C. AT PANEL EDGES, 12" O.C. IN FIELD	1/2" DIA. X 6" EMBED CAST-IN-PLACE 2'-8" O.C.	HDU-8	7/8" DIA. X 12" EMBED CAST-IN-PLACE	(3) 2x	
SW-3	3/8" MIN. SHEATHING UN-BLOCKED 8d NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. IN FIELD	.195" DIA. x 4" SCREW AT 8" O.C.	HDU-2	5/8" DIA.	(2) 2x	
SW-4	3/8" MIN. SHEATHING 8d NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. IN FIELD	.195" DIA. x 4" SCREW AT 8" O.C.	HDU-4	5/8" DIA.	(3) 2x	
SW-5	3/8" MIN. SHEATHING UN-BLOCKED 8d NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. IN FIELD	.195" DIA. x 4" SCREW AT 16" O.C.	HDU-2	5/8" DIA.	(2) 2x	
SW-6	15/32" MIN. SHEATHING 10d NAILS AT 4" O.C. AT PANEL EDGES, 12" O.C. IN FELD	1/2" DIA. X 6" EMBED CAST IN PLACE 2'-0" O.C.	HDU-14	1" DIA. X 12" EMBED CAST-IN-PLACE	(4) 2x	
SW-7	15/32" MIN. SHEATHING 10d NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. IN FELD	.195" DIA. x 4" SCREW AT 4" O.C.	HDU-11	1" DIA.	(4) 2x	
SW-9	15/32" MIN. SHEATHING 10d NAILS AT 6" O.C. AT PANEL EDGES, 12" O.C. IN FELD	.195" DIA. x 4" SCREW AT 8" O.C.	HDU-5	5/8" DIA.	(3) 2x	

NOTES:
1. ALL HOLD DOWNS, LIGHT GAGE STRAPS, ADHESIVE, AND HARDWARE SHALL BE BY SIMPSON STRONG-TIE OR EQUIVALENT.
2. TYPE II SHEAR WALL INDICATES WALL WITH OPENINGS. PANEL EDGES AROUND WALL WITH OPENING SHALL HAVE EDGE FASTENERS AS INDICATED IN SCHEDULE.
3. UNLESS INDICATED AS UNBLOCKED ALL PANEL EDGES NOT LOCATED OVER STUDS SHALL BE PROVIDED WITH SOLID BLOCKING PER DETAIL 2/S5.0.
4. SILL SCREWS SHALL BE SDWH 19400DB (.195" DIA. x 4") BY SIMPSONS STRONG-TIE OR EQUIVALENT.

1 S5.0 — SHEAR PANEL SCHEDULE
NO SCALE



2 S5.0 — SHEAR PANEL ELEVATION
NO SCALE

HEADER SCHEDULE

MARK	HEADER SIZE	JACK STUDS	KING STUDS
H-1	(3) 2x8	(1)	(2)
H-2	(2) 1.75"x7.25" LVL	(3)2x4	(1)2x4
H-3	(3) 2x10	(2)	(1)
H-4	(3) 1.75"x7.25" LVL	(3)	(2)
H-5	(3) 1.75"x9.25" LVL	(2)	(1)
H-6	(3) 1.75"x9.25" LVL	(3)	(3)
H-7	(3) 1.75"x7.25" LVL	(2)	(2)
H-8	(3) 2x10	(2)	(3)
H-9	(3) 2x10	(2)	(2)
H-10	(3) 1.75"x11.25" LVL	(2)	(1)
H-11	(3) 2x8	(2)	(1)
H-12	(3) 2x10	(1)	(2)
H-13	(3) 2x8	(2)	(2)

NOTES:
1. ALL JACK AND KING STUDS SHALL BE 2x6 U.N.O.

3 S5.0 — WOOD HEADER SCHEDULE
3/4"=1'-0"

COLUMN SCHEDULE

MARK	SIZE	SPECIES	REMARKS
C-1	3 1/2"x7 1/4"	2.0E-LVL	
C-2	(3) 2x6	SPF NO.2	
C-3	(3) 2x4	SPF NO.2	
C-4	3 1/2"x5 1/2"	2.0E-LVL	
C-5	(2) 2x6	SPF NO.2	
C-6	(3) 2x4	SPF NO.2	
C-7	(4) 2x6	SPF NO.2	
C-8	5 1/4"x9 1/4"	2.0E-LVL	
C-9	3 1/2"x9 1/4"	2.0E-LVL	
C-10	5 1/4"x5 1/4"	2.0E-LVL	

NOTES:
1. MULTI-PLY MEMBERS TO BE NAIL LAMINATED.
2. PRESSURE TREATED 6x6 WITH PB66 POST BASE BY SIMPSON OR EQUIVALENT AT FOUNDATION LEVEL.

4 S5.0 — WOOD COLUMN SCHEDULE
3/4"=1'-0"

MENU

CADD VERSION:
PLOT SCALE:
PLOT DATE:
SAVE DATE:
COMM. NO.:
DRAWING NO.:

Fitzpatrick ENGINEERING GROUP PLLC
STRUCTURAL ENGINEERS
19520 W. Catawba Ave. Suite 311
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NC ACEC/S No.: 2066
PEC ACEC 20450.000

DOUGLAS G. FITZPATRICK NUMBER PE-2014016124 STATE OF MISSOURI PROFESSIONAL ENGINEER
07/15/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc• 1927 South Tryon Street
Charlotte, North Carolina 28203
704.372.7327• Fax 704.372.7369
www.sfcs.com

PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

SHEAR WALL AND WOOD SCHEDULES

COMM. NO.	DATE
19132.00	JANUARY 18, 2021
DRAWING S5.0	SHEET _____ OF _____

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/10/2021

SCHEDULE OF SPECIAL INSPECTION SERVICES

- [x] STRUCTURAL STEEL
- [x] CAST-IN-PLACE CONCRETE
- [x] MASONRY
- [x] WOOD
- [x] SOILS AND FOUNDATIONS
- [ ] PILES
- [ ] PIERS
- [x] SPRAY FIRE-RESISTANT MATERIAL
- [ ] MASTIC, INTUMESCENT COATINGS
- [ ] EXTERIOR INSULATION AND FINISH SYSTEM
- [ ] SPECIAL CASES
- [ ]

SCHEDULE OF QUALIFICATIONS OF AGENCIES. INSPECTORS, AND TESTING TECHNICIANS

CASE FORM 101

SPECIAL INSPECTION AGENCIES SHALL MEET THE FOLLOWING REQUIREMENTS:
1. INDEPENDENT - OBJECTIVE AND COMPETENT; DISCLOSE POSSIBLE CONFLICTS OF INTEREST
2) EQUIPMENT - HAVE ADEQUATE EQUIPMENT, PERIODICALLY CALIBRATED TO PERFORM REQUIRED TESTS,
3) PERSONNEL - SHALL EMPLOY EXPERIENCED PERSONNEL EDUCATED TO CONDUCTING, SUPERVISING AND EVALUATING TESTS AND/OR INSPECTIONS

THE FOLLOWING KEY IS USED IN THE SCHEDULES OF SPECIAL INSPECTION TO IDENTIFY THE MINIMUM QUALIFICATIONS FOR THE INSPECTION AGENTS

SE	STRUCTURAL ENGINEER - A LICENSED SE OR PE SPECIALIZING IN THE DESIGN OF BUILDING STRUCTURES AND REGISTERED IN THE STATE OF THE PROJECT
GE	GEOTECHNICAL ENGINEER - A LICENSED PE SPECIALIZING IN SOIL MECHANICS AND FOUNDATIONS AND REGISTERED IN THE STATE OF THE PROJECT
EIT	ENGINEER-IN-TRAINING - A GRADUATE ENGINEER WHO HAS PASSED THE FUNDAMENTALS OF ENGINEERING EXAMINATION.
ACI	AMERICAN CONCRETE INSTITUTE - GRADE 1 CERTIFIED CONCRETE FIELD TESTING TECHNICIAN.
CWI	AMERICAN WELDING SOCIETY - CERTIFIED WELDING INSPECTOR
SCWI	AMERICAN WELDING SOCIETY - SENIOR CERTIFIED WELDING INSPECTOR
CAWI	AMERICAN WELDING SOCIETY - CERTIFIED ASSOCIATE WELDING INSPECTOR
ASNT	AMERICAN SOCIETY OF NON-DESTRUCTIVE TESTING - LEVEL II OR III
SMSI	STRUCTURAL MASONRY SPECIAL INSPECTOR - CERTIFIED BY ICBO
SWSI	STRUCTURAL STEEL AND WELDING SPECIAL INSPECTOR
SFSI	SPRAY-APPLIED FIREPROOFING SPECIAL INSPECTOR
PCSI	PRESTRESSED CONCRETE SPECIAL INSPECTOR
RCSI	REINFORCED CONCRETE SPECIAL INSPECTOR

SPECIAL INSPECTION GENERAL NOTES 2018 INTERNATIONAL BUILDING CODE

THE SPECIAL INSPECTING AGENCY FOR THIS SCOPE OF WORK SHALL:
A. SUBMIT CERTIFICATES OF QUALIFICATIONS FOR TESTING PERSONNEL
B. COORDINATE INSPECTIONS WITH CONTRACTOR AND SUBCONTRACTORS IN ACCORDANCE WITH THE SCHEDULE ABOVE.
C. FURNISH FOUR(4) COPIES OF ALL REPORTS TO THE SPECIAL INSPECTOR ADMINISTRATION ON A BIMONTHLY BASIS. THE REPORTS SHALL CONTAIN THE FOLLOWING INFORMATION AS A MINIMUM:
1. NAME OF INSPECTOR
2. DATE AND TIME OF INSPECTION
3. SPECIFIC AREAS OF WORK FOR THAT DAY
4. DETAILS OF ITEMS INSPECTED
5. DISCOVERED DEFICIENCIES SHALL BE CLEARLY IDENTIFIED
6. RESOLUTION TO CURRENT AND PRIOR DEFICIENCIES SHALL BE CLEARLY RECORDED.
D. PROVIDE AGENT'S FINAL REPORT INDICATING THAT ALL TESTING HAS BEEN COMPLETED WITH A COMPLETE LIST OF OUTSTANDING DISCOVERED DEFICIENCIES.
E. FINAL REPORT DOCUMENTING SPECIAL INSPECTIONS AND CORRECTION OF DISCREPANCIES SUBMITTED AT A MUTUAL AGREED POINT IN TIME
F. RISK CATEGORY ARE DEFINED AS FOLLOWS (PER IBC 1604.5):
1. RISK CATEGORY I - BUILDING AND OTHER STRUCTURES THAT REPRESENT A LOW HAZARD TO HUMAN LIFE IN THE EVENT OF A FAILURE.
2. RISK CATEGORY **II** - BUILDING AND OTHER STRUCTURES EXCEPT THOSE LISTED IN RISK CATEGORY I, III OR IV.
3. RISK CATEGORY **III** - BUILDING AND OTHER STRUCTURES THAT REPRESENT A SUBSTANTIAL HAZARD TO HUMAN LIFE IN THE EVENT OF A FAILURE.
4. RISK CATEGORY IV - BUILDING AND OTHER STRUCTURES DESIGNATED AS ESSENTIAL FACILITIES.

INSPECTION OF FABRICATORS (IBC REFERENCE 1704.2.5)

WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE REQUIRED BY THIS SECTION AND AS REQUIRED ELSEWHERE IN THIS CODE
1. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
2. SPECIAL INSPECTIONS REQUIRED BY THIS CODE ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTIONS. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS, OR SECTION 1704.2.5.2.

CONTRACTOR RESPONSIBILITY (IBC REFERENCE 1704.4)

THE CONTRACTOR :
A. OR SUB-CONTRACTOR RESPONSIBLE FOR WORK ON SEISMIC OR WIND RESISTING SYSTEM SHALL PROVIDE A WRITTEN NOTICE OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER CONTAINING THE FOLLOWING:
1. ACKNOWLEDGEMENT OF SPECIAL INSPECTION REQUIREMENTS
2. ACKNOWLEDGEMENT TO OBTAIN CONFORMANCE OF CONSTRUCTION DOCUMENTS,
3. DETAILING PROCEDURE OF SPECIAL INSPECTION DISTRIBUTION LIST INCLUDING FREQUENCY.
4. IDENTIFY PERSON WITHIN FIRM RESPONSIBLE FOR SPECIAL INSPECTION REPORT DISTRIBUTION INCLUDING CONTACT INFORMATION.

B. SHALL PROVIDE ADEQUATE NOTICE FOR SPECIAL INSPECTION AGENT TO COMPLETE THEIR INSPECTION PRIOR TO WORK BEING COVERED.
C. SHALL REQUIRE THAT SUBCONTRACTORS COMPLETE THEIR WORK SO THAT THE SPECIAL INSPECTOR CAN COMPLETELY CHECK A GIVEN AREA WITHOUT HAVING TO DOUBLE CHECK LATER.

SCHEDULE OF SPECIAL INSPECTIONS

SOILS (IBC REFERENCE 1705.6)

THE APPROVED SOILS REPORT, REQUIRED BY IBC SECTION 1803.2, SHALL BE USED TO DETERMINE COMPLIANCE VERIFY COMPLIANCE WITH INSPECTION CHART

SPECIAL INSPECTIONS FOR EXISTING SITE SOIL CONDITIONS > 12" IN DEPTH, FILL PLACEMENT AND LOAD-BEARING REQUIREMENTS SHALL:
1. VERIFY SITE HAS BEEN PROPERLY PREPARED PRIOR TO PLACEMENT OF PREPARED FILL
2. PREPARED FILL MEETS SPECIFICATIONS
3. TEST METHOD SPECIFIED TO MEASURE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT
4. VERIFY MAXIMUM LIFT THICKNESS
5. VERIFY FIELD TEST FOR IN-PLACE DRY DENSITY FILL
6. MINIMUM IN PLACE DRY DENSITY EXPRESSED AS PERCENTAGE OF MAXIMUM DRY DENSITY DETERMINED BY TEST
7. NUMBER OF FIELD TESTS AND FREQUENCY TO DETERMINE COMPLIANCE WITH ITEM #6.

VERIFICATION AND INSPECTION OF SOILS	FREQUENCY	AGENT
1. VERIFY MATERIAL BELOW FOOTING TO ACHIEVE BEARING CAPACITY	PERIODICALLY	GE
2. EXCAVATIONS EXTENDED TO PROPER DEPTH AND INTO PROPER MATERIAL	PERIODICALLY	GE
3. PERFORM CLASSIFICATIONS AND TESTING OF CONTROLLED FILL MATERIALS	PERIODICALLY	GE
4. VERIFY LIFT THICKNESS, MATERIAL AND DENSITIES AND COMPACTION	CONTINUOUS	GE
5. PRIOR TO PLACEMENT OF COMPACTED FILL OBSERVE SUB-GRADE IS PROPERLY PREPARED	PERIODICALLY	GE

SCHEDULE OF SPECIAL INSPECTIONS

STRUCTURAL STEEL (IBC REFERENCE 1705.2.1, AISC 360) AISC TABLE N 5.4-1, 5.4-2, 5.4-3

THE INSPECTION TASKS ARE AS FOLLOWS:
O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER, BOLTED CONNECTION, AND STEEL ELEMENT,

INSPECTIONS TASKS PRIOR TO WELDING	QC	QA
WELDING PROCEDURE SPECIFICATION (WPSs) AVAILABLE	P	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
WELDER IDENTIFICATION SYSTEM	O	O
FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY) - JOINT PREPARATION - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) - CLEANLINESS (CONDITION OF STEEL SURFACES) - BACKING TYPE AND (WELD QUALITY AND LOCATION) - BACKING TYPE AND FIT (OF APPLICABLE	O	O
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O
FIT-UP OF FILLET WELDS - DIMENSIONS (ALIGNMENT, GAPS AT ROOT) - CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)	O	O
CHECK WELDING EQUIPMENT	O	--
INSPECTION TASKS DURING WELDING	**QC**	**QA**
USE OF QUALIFIED WELDERS	O	O
CONTROL AND HANDLING OF WELDING CONSUMABLES - PACKAGING - EXPOSURE CONTROL	O	O
NO WELDING OVER CRACKED TACK WELDS	O	O
ENVIRONMENTAL CONDITION - WIND SPEED WITHIN LIMITS - PRECIPITATION AND TEMPERATURE	O	O
WPS FOLLOWED - SETTINGS ON WELDING EQUIPMENT - TRAVEL SPEED - SELECTED WELDED MATERIALS - SHIELDING GAS TYPE/FLOW RATE - PREHEAT APPLIED - INTERPASS TEMPERATURE MAINTAINED (MIN./MAX) - PROPER POSITION (F,V,H,OH)	O	O
WELDING TECHNIQUES - INTERPASS AND FINAL CLEANING - EACH PASS WITHIN PROFILE LIMITATIONS - EACH PASS MEETS QUALITY REQUIREMENTS	O	O
INSPECTION TASKS AFTER WELDING	**QC**	**QA**
WELDS CLEANED	O	O
SIZE, LENGTH AND LOCATION OF WELDS	P	P
WELDS MEET VISUAL ACCEPTABLE CRITERIA - CRACK PROHIBITION - WELD/BASE-METAL FUSION - CRATER CROSS SECTION - WELD PROFILES - WELD SIZE - UNDERCUT - POROSITY	P	P
ARC STRIKES	P	P
k-AREA	P	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
REPAIR ACTIVITIES	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT MEMBER	P	P

AISC TABLE N 5.6-1, 5.6-2, 5.6-3

INSPECTION PRIOR TO BOLTING	QC	QA
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	O
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
PROPER FASTENERS SELECTED FOR THE JOINT DETAILS (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
CONNECTING ELEMENTS INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION ASSEMBLER(S) OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED,	P	O
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O
INSPECTION DURING BOLTING	**QC**	**QA**
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS IF REQUIRED ARE POSITIONED AS REQUIRED	O	O
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRE-TENSIONING OPERATION	O	O
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O
FASTENERS ARE PRE-TENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O
INSPECTION AFTER BOLTING	**QC**	**QA**
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P

AISC TABLE N 6.1

INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT	QC	QA
PLACEMENT AND INSTALLATION OF STEEL DECK	P	P
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P	P

SCHEDULE OF SPECIAL INSPECTIONS

WOOD (IBC REFERENCE 1705.5)

SPECIAL INSPECTION OF THE FABRICATION PROCESS OF PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES SHALL BE IN ACCORDANCE WITH IBC SECTION 1704.2.5

HIGH LOAD DIAPHRAGMS DESIGNED IN ACCORDANCE WITH TABLE 2306.2 SHALL BE INSTALLED WITH SPECIAL INSPECTIONS AS INDICATED IN SECTION 1704.2. THE SPECIAL INSPECTOR SHALL INSPECT THE WOOD STRUCTURAL PANEL SHEATHING TO ASCERTAIN WHETHER IT IS OF THE GRADE AND THICKNESS SHOWN ON THE APPROVED BUILDING PLANS. ADDITIONALLY, THE SPECIAL INSPECTOR MUST VERIFY THE NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, THE NAIL OR STAPLE DIAMETER AND LENGTH, THE NUMBER OF FASTENER LINES AND THAT THE SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS AGREES WITH THE APPROVED BUILDING PLANS

METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60 FEET OR GREATER, WHERE A TRUSS CLEAR SPAN IS 60 FEET (18,288 MM) OR GREATER, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE.

SCHEDULE OF SPECIAL INSPECTIONS

CAST-IN-PLACE CONCRETE (IBC REFERENCE 1705.3)

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARDS	AGENT
1. INSPECTION OF REINFORCING STEEL, INCLUDING POST-TENSIONING TENDONS. VERIFY QUANTITY, SIZE AND PLACEMENT OF REINFORCEMENT	PERIODIC	IBC 1910.4 ACI 318: 3.5 ACI 318: 7.1-7.7	
2. INSPECT REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2B.	PERIODIC	AWS D1.4 ACI 318: 3.5.2	ASNT
3. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	CONTINUOUS	IBC 1908.5 IBC 1909.1 ACI 318 21.2.8 ACI 318 8.1.3	
4. INSPECTION OF ANCHORS INTO HARDENED CONCRETE	PERIODIC	ACI 318 3.8.6 ACI 318 8.1.3 ACI 318 21.2.8 IBC 1909.1	
5. VERIFY USE OF REQUIRED DESIGN MIX.	PERIODIC	IBC 1904.2 IBC 1910.2 IBC 1910.3 ACI 318: Ch. 4 ACI 318: Ch.5.2-5.4	ACI
6. SAMPLE FRESH CONCRETE, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE TEMPERATURE OF FRESH CONCRETE. PERFORM THE TIME DEPENDENT STRENGTH SPECIMENS FOR STRENGTH TESTS. SEE SPECIFICATIONS FOR FREQUENCY OF TESTING REQUIRED	CONTINUOUS	IBC 1910.10 ASTM C 172 ASTM C 31 ACI 318: 5.6 ACI 318: 5.8	ACI
7. MONITOR CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS	IBC 1910.6 IBC 1910.7 IBC 1910.8 ACI 318: 5.9 ACI 318: 5.10	ACI
8. MONITOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC	IBC 1910.9 ACI 318: 5.11–5.13	ACI
9. INSPECTION OF PRESTRESSED CONCRETE: A. APPLICATION OF PRESTRESSING FORCES; B. GROUTING OF BONDED PRESTRESSING TENDONS IN SEISMIC-FORCE-RESISTING SYSTEM.	CONTINUOUS CONTINUOUS	ACI 318: 18.20 ACI 318: 18.18,4	ACI
10. ERECTION OF PRECAST CONCRETE MEMBERS.	PERIODIC	ACI 318: Ch. 16	
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	PERIODIC	ACI 318: 6.2	ACI
12. INSPECT FORMWORK FOR SHAPE AND DIMENSIONS	PERIODIC	ACI 318: 6.1.1	

SCHEDULE OF SPECIAL INSPECTIONS

MASONRY (IBC REFERENCE 1705.4, ACI 530)

LEVEL A SPECIAL INSPECTION:
EMPIRICAL, VENEER, GLASS UNIT. RISK CATEGORY I, II, OR III
- NO TESTING
- VERIFY COMPLIANCE WITH SUBMITTAL

ENGINEERED MASONRY, RISK CATEGORY IV
ENGINEERED VENEER ON CLASS UNIT, RISK CATEGORY I, II OR III
ENGINEERED MASONRY, RISK CATEGORY I, II OR III
(NOT VENEER, NOT GLASS UNIT)

LEVEL B SPECIAL INSPECTION

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARDS: TMS 402 ACI 530 ASCE 5	REFERENCED STANDARDS: TMS 602 ACI 530.1 ASCE 6	AGENT
1. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND APPROVED SUBMITTALS TO BE VERIFIED.	PERIODIC		ART. 1.5	SMSI
2. AS MASONRY CONSTRUCTION BEGINS VERIFY THE FOLLOWING:				SMSI
a. PROPORTIONS OF SITE PREPARED MORTAR	PERIODIC		ART 2.1, 2.6A	
b. CONSTRUCTION OF MORTAR JOINTS	PERIODIC		ART 3.3B	
c. GRADE AND SIZE OF PRESTRESSING TENDONS	PERIODIC		ART 3.6B	
d. LOCATION OF REINFORCEMENT, CONNECTORS, PRE-STRESS TENDONS AND ANCHORS	PERIODIC		ART 3.4 3.6A	
e. PRESTRESSING TECHNIQUE	PERIODIC			
f. PROPERTIES OF THIN BED MORTAR.	PERIODIC		ART 2.1C	
3. PRIOR TO GROUTING VERIFY THE FOLLOWING:				SMSI
a. GROUT SPACE IS CLEAN	PERIODIC		ART 3.2D	
b. GRADE, TYPE AND SIZE OF REINFORCEMENT, ANCHOR BOLTS, TENDONS	PERIODIC		ART 2.4, 3.4	
c. PLACEMENT OF REINFORCEMENT	PERIODIC		ART 3.2E, 3.4, 3.6A	
d. PROPORTIONS OF SITE PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	PERIODIC		ART 2.6B, 2.4G.1.b	
e. CONSTRUCTION OF MORTAR JOINTS	PERIODIC		ART 3.3B	
4. DURING CONSTRUCTION THE INSPECTION PROGRAM TO VERIFY:				SMSI
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	PERIODIC	1.16.4.3	ART 3.3F	
b. TYPE, SIZE AND LOCATION OF ANCHORS ALONG WITH OTHER DETAILS TO CONNECT TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	PERIODIC	SEC 1.17.1,(e)		
c. WELDING OF REINFORCING BARS	CONTINUOUS	SEC 2.1.9.7.2		
d. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD AND HOT WEATHER (<40 OR >90 DEGREES F)	CONTINUOUS	3.3.3.4(b)	ART 1.8C 1.8D	
e. APPLICATION AND MEASUREMENTS OF PRESTRESSING FORCE.	CONTINUOUS		ART 3.6B	
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.			ART 3.3, 3.6C	
g. PLACEMENT OF ACC UNITS AND CONSTRUCTION OF THIN BED MORTAR JOINTS			ART 3.3, B.8	
5. PREPARATION OF ANY REQUIRED GROUT, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	PERIODIC		ART 1.4, B.2 a.3 1.4.B.2.b.3 1.4 B.2.c.3 1.4 B.3.1.4B.4	SMSI

REQUIRED TESTS:
1. VERIFICATION OF f'm AND f'mc PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE.
2. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF CONSOLIDATING GROUT.

SCHEDULE OF SPECIAL INSPECTIONS

SPRAYED FIRE-RESISTANT MATERIALS (IBC REFERENCE 1705.14)

THE SPECIAL INSPECTOR SHALL VERIFY:
1. STRUCTURAL MEMBER SURFACE CONDITIONS:
SURFACES SHALL BE PREPARED IN ACCORDANCE WITH THE APPROVED FIRE-RESISTANCE DESIGN AND THE APPROVED MANUFACTURERS WRITTEN INSTRUCTIONS. THE PREPARED SURFACES SHALL BE INSPECTED PRIOR TO APPLICATION OF SPRAYED FIRE-RESISTANT MATERIAL
2. APPLICATION:
AS SPECIFIED IN THE MANUFACTURER'S APPROVED WRITTEN INSTRUCTIONS,
a. THE SUBSTRATE SHALL HAVE A MINIMUM AMBIENT TEMPERATURE BEFORE AND AFTER APPLICATION
b. THE AREA OF APPLICATION SHALL BE VENTILATED DURING AND AFTER APPLICATION
3. THICKNESS:
a. AVERAGE THICKNESS SHALL NOT BE LESS THAN THE THICKNESS REQUIRED BY THE APPROVED FIRE-RESISTANT DESIGN.
b. INDIVIDUAL THICKNESSES WHICH EXCEED THE SPECIFIED THICKNESS BY MORE THAN 1/4" SHALL BE RECORDED AS THE SPECIFIED THICKNESS PLUS 1/4"
c. FOR DESIGN THICKNESS OF 1": THE MINIMUM ALLOWABLE THICKNESS SHALL BE THE DESIGN THICKNESS MINUS 25%
d. FOR DESIGN THICKNESS 1": THE MINIMUM ALLOWABLE THICKNESS SHALL BE THE DESIGN THICKNESS MINUS 25%
e. THICKNESS SHALL BE DETERMINED IN ACCORDANCE WITH ASTM E 605
f. FLOORS, ROOF AND WALL ASSEMBLIES - USE AVERAGE OF NOT LESS THAN FOUR MEASUREMENTS FOR EACH 1000SF OF SPRAYED AREA OR PART THEREOF
g. STRUCTURAL FRAMING MEMBERS - TEST NOT LESS THAN 25% OF MEMBERS ON EACH FLOOR
4. DENSITY:
DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH ASTM E 605 AND SHALL NOT BE LESS THAN THE DENSITY SPECIFIED ON THE APPROVED FIRE-RESISTANT DESIGN
5. BOND STRENGTH:
BOND STRENGTH SHALL BE TESTED IN ACCORDANCE WITH ASTM E 736 BY TESTING IN-PLACE SAMPLES AND SHALL NOT BE LESS THAN 150PSF
a. FLOOR, ROOF AND WALL ASSEMBLIES - TAKE NOT LESS THAN ONE SAMPLE FOR EVERY 10,000 SF OR PART THEREOF IN EACH STORY
b. STRUCTURAL FRAMING MEMBERS INCLUDING BEAMS, GIRDERS, JOISTS, TRUSSES AND COLUMNS - TAKE NOT LESS THE ONE SAMPLE FOR EVERY 10,000 SF OF EACH TYPE OF MEMBER OR PART THEREOF IN EACH STORY

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PLOT SCALE
PLOT DATE
SAVE DATE
COMM NO.
DRAWING NO.

1 / S9.0 GENERAL NOTES
NO SCALE

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STATE OF MISSOURI NUMBER PE-2014016124 DOUGLAS G. FITZPATRICK PROFESSIONAL ENGINEER
02/08/21

PROJECT TITLE

John Knox Village
Meadows Building - Phase II

SFCS Architecture Engineering Planning Interiors
SFCS Inc• 1927 South Tryon Street
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PROJECT DESIGNER	TJM
PROJECT ARCHITECT	DAS
PROJECT ENGINEER	
DRAWN BY	SRG
CHECKED BY	CES
APPROVED BY	

NO.	REVISION DESCRIPTION	DATE
1	Revision 1	02/08/21

DRAWING TITLE

SPECIAL INSPECTION NOTES

COMM. NO.	DATE
19132.00	JANUARY 18, 2021

DRAWING S9.0 SHEET _____ OF _____