

430 Grant Street Akron, Ohio 44311 330.867.1093 tcarchitects.com

Date: September 25, 2023

**BULLETIN NO. 02** 

Project Name: Germantown Crossing

TC Project No.: 82A21

To: All Contractors

Please provide a proposal for changing the Contract Documents as noted herein. The proposal is due to the Associate within 10 days of issue. A limited extension of time may be granted in writing, for submitting a proposal at a specific future date and time at the sole discretion of the Associate. The estimated effect of the bulletin on current contract completion date is zero (0) days. If the impact to your work is different than zero (0) days, indicate the number of days in your proposal.

Contractor's proposal shall include:

- 1. Bulletin number
- 2. Change in contract amount
- Change in contract time

Contractor's proposal to include itemized pricing including, but not limited to materials, labor, overhead and profit breakdowns as required in the Change Order Pricing Guidelines in the Contract Documents. Lump sum labor or material prices will not be accepted. If Subcontractor's or supplier's prices are included in the prime Contractor's proposal, provide a copy of their quotation.

If no response to a bulletin is received by the Associate by the proposal due date indicated above, the non-response will be determined that the Contract is not affected by the change, and any rights for increased compensation or time extension shall be deemed to have been waived.

For the Contractor's convenience, this Bulletin includes a signature space. If no change is affected by this Bulletin, signed and indicating such and returning this document to the Associate will serve as official notification. If a change is affected, the Associate must receive the contractor's detailed proposal within 10 days.

Please note that this is not a Change Order or authorization to proceed with the proposed changes.

#### <u>Description of Proposed Change:</u>

State the change in contract sum to reflect the following changes:

A601 Added partition Type 4A. A603 Revised window to single hung windows.
<u>Civil</u>
C001 Building and majority of the site pavement has been removed by others and (2) two existing 2" water services are to be abandoned.
C200 Updated contact information for city.
C300 Revised sidewalk ramps from porch to public sidewalk and revised site layout near unnamed alley.
C301 Revised spot grade elevations.
C400 Revised grading and storm sewer system along Germantown Street for ramps and revised grading for new layout by unnamed alley.
<u>Electrical</u>
E001 Revised symbol legend to add 120V battery-backup smoke alarms, CO alarms, and sounder bases.
Revised all Type D1 fixtures to be Type S2 and removed "Fire-Rated Ceilings Note".
E102 Revised all Type D1 fixtures to be Type S2.
E103 Revised all Type D1 fixtures to be Type S2.
E301 Added location for area of rescue annunciator station and signage.
E302 Added locations for area of rescue call stations and signage.
E303 Added locations for area of rescue call stations and signage.  E401 Revised the addressable fire alarm smoke and CO detectors to be 120V,
battery-operated with new circuit to apartment panel.
Revised the addressable fire alarm smoke and CO detectors to be 120V, battery-operated with new circuit to apartment panel.
E403 Revised the addressable fire alarm smoke and CO detectors to be 120V,
battery-operated with new circuit to apartment panel.
E601 Removed Type D1 from the Lighting Fixture Schedule and Panel H1A.  Added circuit for area of rescue system.
E704 Added "Area of Rescue Wiring Diagram".
ES01 Revised pole layout for parking lot revisions.

Germantown Crossing TC Project No.: 82A21 Mechanical

H302 Added sheet with ventilation air schedules.

<u>Landscape</u>

L100 No perimeter fencing is intended at this time. Vegetation has been

added.

<u>Plumbing</u>

P302 Removed 1" drain line downstream of backflow preventer in water service

entrance detail. 4" inlet was also relocated to have equal distances

between backflow preventers.

<u>Structural</u>

S101 Coordination of stair tower post locations.
 S102 Coordination of stair tower post locations.
 S304 Coordination of stair tower post locations.

Attachments: A002, Revision 2, Bulletin 02, 09/19/2023

A003, Revision 2, Bulletin 02, 09/19/2023 A106A, Revision 2, Bulletin 02, 09/19/2023

A203, Revision 2, Bulletin 02, 09/19/2023 A301, Revision 2, Bulletin 02, 09/19/2023

A302, Revision 2, Bulletin 02, 09/19/2023

A303, Revision 2, Bulletin 02, 09/19/2023

A401, Revision 2, Bulletin 02, 09/19/2023

A402, Revision 2, Bulletin 02, 09/19/2023 A601, Revision 2, Bulletin 02, 09/19/2023

A603, Revision 2, Bulletin 02, 09/19/2023

C001, Revision 2, Bulletin 02, 09/19/2023

C200, Revision 2, Bulletin 02, 09/19/2023

C300, Revision 2, Bulletin 02, 09/19/2023

C301, Revision 1, Bulletin 02, 09/19/2023

C400, Revision 2, Bulletin 02, 09/19/2023

E001, Revision 2, Bulletin 02, 09/19/2023

E101, Revision 2, Bulletin 02, 09/19/2023

E102, Revision 1, Bulletin 02, 09/19/2023

E103, Revision 1, Bulletin 02, 09/19/2023

E301, Revision 2, Bulletin 02, 09/19/2023 E302, Revision 1, Bulletin 02, 09/19/2023

E303, Revision 1, Bulletin 02, 09/19/2023

E401, Revision 2, Bulletin 02, 09/19/2023

E402, Revision 2, Bulletin 02, 09/19/2023

E403, Revision 2, Bulletin 02, 09/19/2023

E601, Revision 2, Bulletin 02, 09/19/2023

E704, Revision 1, Bulletin 02, 09/19/2023

ES01, Revision 2, Bulletin 02, 09/19/2023

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H302, Revision 1, Bulletin 02, 09/19/2023 L100, Revision 2, Bulletin 02, 09/19/2023 P302, Revision 2, Bulletin 02, 09/19/2023 S101, Revision 2, Bulletin 02, 09/19/2023 S102, Revision 2, Bulletin 02, 09/19/2023 S304, Revision 2, Bulletin 02, 09/19/2023 00 0110, Table of Contents, Bulletin 02, 09/19/2023 03 5413, Impact Sound Control Matting, Bulletin 02, 09/19/2023 07 2500, Weather Barriers, Bulletin 02, 09/19/2023 07 5423, Thermoplastic Polyolefin Membrane Roofing, Bulletin 02, 09/19/2023 08 5313, Vinyl Windows, Bulletin 02, 09/19/2023

ADD \$	DEDUCT \$	NO CHANGE	
The impact to th	e Contract Schedule: A	DD days DED	OUCT days
response. The nur	e to respond to this Bullet mbers presented are firm of the work in its entirety.	•	_
Contractor		Date	
Bulletin Prepared k	oy:		

TC ARCHITECTS

Germantown Crossing TC Project No.: 82A21

# DWELLING UNIT DISTRIBUTION

	1 BEDROOM	2 BEDROOM	3 BEDROOM	
MOBILITY UNIT (ACCESSIBILITY UNIT PER ICC A117.1)	3	2	3	
SEEING & HEARING IMPAIRED UNIT (S & H) (TYPE B PER ICC A117.1)		1		
TYPICAL UNIT (TYPE B PER ICC A117.1)	10	23	8	
TOTAL				50 UNITS TOTAL
			_	

MOBILITY UNITS = 5% TOTAL EACH TYPE OF UNIT REQUIRED

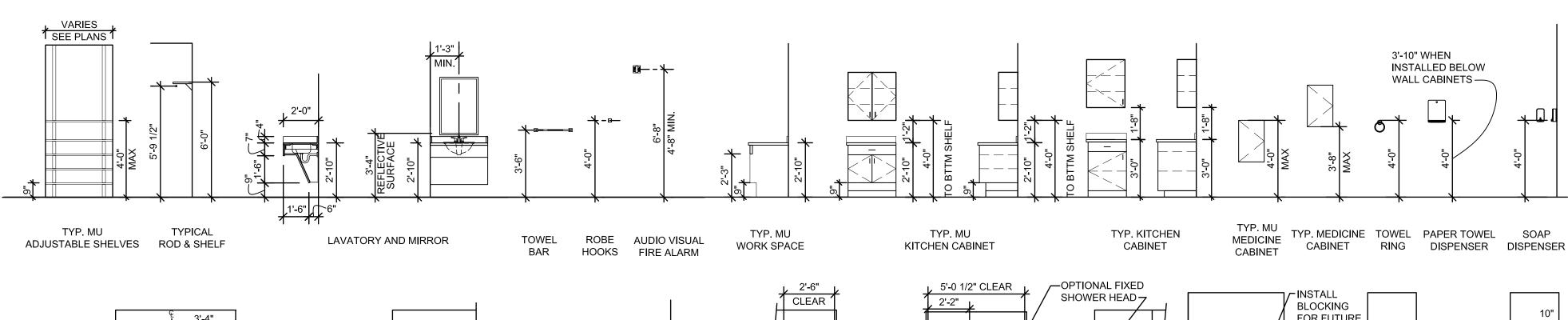
(13) ONE BEDROOM X 5% = .65 1 UNIT REQUIRED 3 UNITS PROVIDED (26) TWO BEDROOM X 5% = 1.3 2 UNITS REQUIRED 2 UNITS PROVIDED

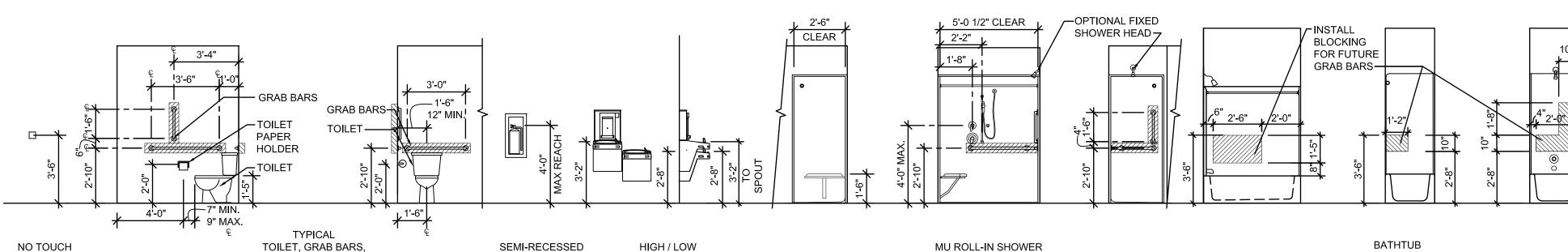
SIGHT & HEARING IMPAIRED UNITS = 2% OF TOTAL UNITS REQUIRED

50 TOTAL UNITS X 2% = 1

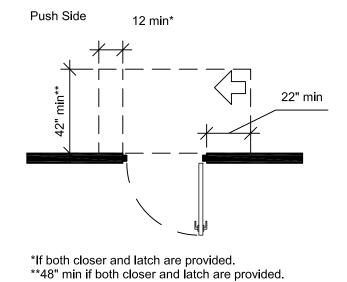


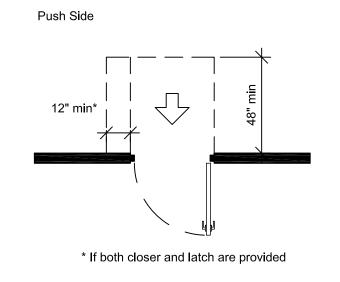
1 UNIT REQUIRED 1 UNIT PROVIDED

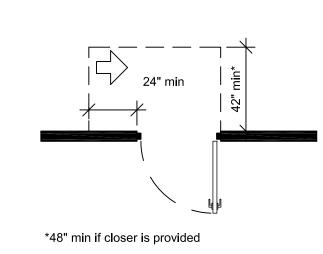


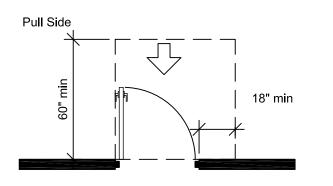


**DESIGN STANDARDS** 









F.E. CABINET

AND BLOCKING

DRINKING

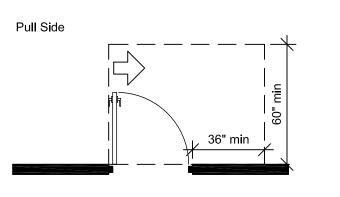
FOUNTAIN

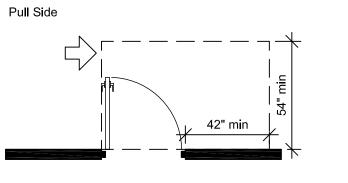
WITH BOTTLE

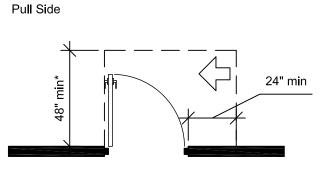
FILLER

AUTOMATIC

DOOR SENSOR







\*54" min if closer is provided

Push Side

MANEUVERING CLEARANCES FOR ALL DOORS

(PER 2009 IBC CH 11 & ICC/ANSI 117.1-2003)

# PROJECT CODE DATA

BUILDING OFFICIAL JU	DRISDICTION: CITY OF DAYTON - BUILDING SERVICES DEPARTMENT
APPLICABLE CODE:	2017 OHIO BUILDING CODE 2017 OHIO PLUMBING CODE 2017 OHIO MECHANICAL CODE 2017 NATIONAL ELECTRIC CODE ICC A117.1-2009 2017 INTERNATIONAL ELECTRIC CODE UFAS HUD SECTION 504 MOBILITY UNITS

**PROJECT DESCRIPTION:** 

ONE THREE STORY BUILDING CONTAINING (50) UNITS. THE BUILDING IS TO BE WOOD STUD ON CONCRETE SLAB-ON-GRADE.

1520 GERMANTOWN CROSSING

DAYTON, OHIO 45417 CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION:

R-2: RESIDENTIAL GROUP A-3: ASSEMBLY GROUP: COMMUNITY ROOM (ACCESSORY USE TO R-2)

B: BUSINESS

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY:

SECTION 420: GROUP R2 - SEPARATION WALLS BETWEEN UNITS SECTION 420.2: WALLS SEPARATING DWELLING UNITS: 1-HOUR (UL U-311) SECTION 420.3: HORIZONTAL SEPARATION: 1 HOUR (UL L-550)

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS:

CONSTRUCTION TYPE: 5B (FULLY SPRINKLERED)

ALLOWABLE	ACTUAL
60'-0" HEIGHT (TABLE 504.3)	40'-0" (PITCHED ROOF)
3 STORIES (TABLE 504.4)	3 STORIES

#### ALLOWABLE AREA PER FLOOR (TABLE 506.2)

1ST FLOOR : R-2	ALLOWED	ACTUAL
46T EL 00D A 2	21,000 SF	16,419 SF
1ST FLOOR A-3:		
	18,000 SF	1,032 SF
1ST FLOOR B:	,	
	27,000 SF	1,222 SF
		/ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
TOTAL 1ST FLOOR:	66,000 SF	<b>1</b> 8,673 SF <b>{</b>
2ND FLOOR R-2:		
	18,000 SF	17,842 SF
TOTAL 2ND FLOOR:	,	17,842 SF
3RD FLOOR R-2:		
	18,000 SF	17,740 SF
TOTAL 3RD FLOOR:	, , , , , , , , , , , , , , , , , , , ,	17,740 SF

BUILDING TOTAL: 102,000 SF

TABLE 508.4: REQUIRED SEPARATION OF OCCUPANCIES 1 HOUR SEPARATION (SPRINKLERED) 1 HOUR SEPARATION (SPRINKLERED)

CHAPTER 6: TYPE OF CONSTRUCTION: FIRE RESISTANCE RATINGS - TABLE 601

CONSTRUCTION TYPE: 5B NON-BEARING WALLS AND PARTITIONS: PRIMARY STRUCTURAL FRAME: **EXTERIOR** INTERIOR **BEARING WALLS:** FLOOR CONSTRUCTION: EXTERIOR

ROOF CONSTRUCTION:

INTERIOR CHAPTER 7: FIRE RESISTANCE RATED CONSTRUCTION:

2 HOUR RATED ELEVATOR SHAFTS - UL U905

2 HOUR RATED EGRESS STAIR SHAFTS (IN ACCORDANCE W/ 1023.2) - UL U301 2 HOUR RATED TRASH SHAFTS - UL U428

1 HOUR RATED MACHINE ROOMS - UL U311

CORRIDOR WALL - 1 HOUR SEPARATION - UL U311

MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE (705.8) FIRE SEPARATION DISTANCE 30'-0" OR GREATER

DEGREE OF OPENING PROTECTION UNPROTECTED (SPRINKLERED) ALLOWABLE AREA

**CHAPTER 8: INTERIOR FINISHES:** TABLE 803.11 (SPRINKLERED)

OCCUPANCY	VERTICAL EXITS & EXIT PASSAGEWAYS	EXIT ACCESS CORRIDORS	ROOMS AND ENCLOSED SPACES
R-2	С	С	С
В	A	В	С
A-3	T A	I A	С

**CHAPTER 9: FIRE PROTECTION SYSTEMS** 

SEC. 903.3.1.1: NFPA-13 SPRINKLER SYSTEM THROUGHOUT

SEC. 906.1: FIRE EXTINGUISHERS AS REQUIRED BY OHIO FIRE CODE. PROVIDE MINIMUM OF (53) TYPE 2-A FIRE EXTINGUISHERS; THREE (3) AT EACH FLOOR AS DIRECTED BY FIRE MARSHALL PLUS (1) IN EVERY UNIT KITCHEN.

SEC. 907.2.9 FIRE ALARM SYSTEM AND INTERCONNECTED SMOKE ALARMS REQUIRED THROUGHOUT 

<u>TBL.</u> 1004.1.1. CHAPTER 10: MEANS OF EGRESS: (R-2) OCCUPANCY - FIRST FLOOR 16,419 SF / 200 = 82.1 OCCUPANTS (R-2) OCCUPANCY - SECOND FLOOR 17,842 SF / 200 = 89.2 OCCUPANTS (R-2) OCCUPANCY - THIRD FLOOR 17,740 SF / 200 = 88.7 OCCUPANTS

(B) OCCUPANCY - FIRST FLOOR 1,222 SF / 100 = 12.2 OCCUPANTS (A-3) OCCUPANCY - FIRST FLOOR 845 SF (COMM. RM) SF / 15 = 56.3 OCCUPANTS 140 SF (KITCHEN) / 200 = .7 OCCUPANTS 42 SF(STORAGE) / 300 = .14 OCCUPANTS

TOTAL BUILDING OCCUPANCY 330 POSSIBLE OCCUPANTS EGRESS WIDTH PER OCCUPANT: (1005.1)

STAIRWAYS = .2" PER OCCUPANT (PER 1005.3.1, EXCEPTION 1) .2" X 178 (2ND + 3RD FLOORS (PER STAIR)) = 35.8" REQUIRED (48" PROVIDED) OTHER EGRESS: .2" PER OCCUPANT FIRST FLOOR 151.44 X .2" 30" REQUIRED (60" PROVIDED) (60" PROVIDED)

SECOND FLOOR 89.2 X .2" 17.84" REQUIRED (60" PROVIDED) 17.74" REQUIRED THIRD FLOOR 88.7 X .2" DOOR SWING (1010.1.2.1) EGRESS SHOULD BE SIDE SWINGING SERVING 50 OR MORE OCCUPANTS -

SWINGING IN THE DIRECTION OF TRAVEL. EXIT TRAVEL DISTANCE (TABLE 1017.2) COMMON PATH OF TRAVEL: 250'-0" WITH SPRINKLER SYSTEM

DEAD END CORRIDORS (1020.4): 50'-0" WITH SPRINKLER SYSTEM.

EMERGENCY ESCAPE AND RESCUE: (1030.2)

NET CLEAR OPENING = 5.7 SF HEIGHT - 24"

WIDTH = 20" SILL = 44" MAX ABOVE FINISH FLOOR CHAPTER 11: ACCESSIBILITY REQUIREMENTS:

THIS FACILITY IS DESIGNED IN ACCORDANCE WITH ICC A117.1, THE AMERICANS WITH DISABILITIES ACT AND UFAS. THERE ARE A TOTAL OF (42) TYPE B UNITS AND (8) ACCESSIBLY UNITS PER ICC A117.1 CHAPTER 10.

License #9082 Expiration Date 12/31/2023 REVISIONS 1 BULLETIN 01 07/17/2023

BULLETIN 02 09/19/2023

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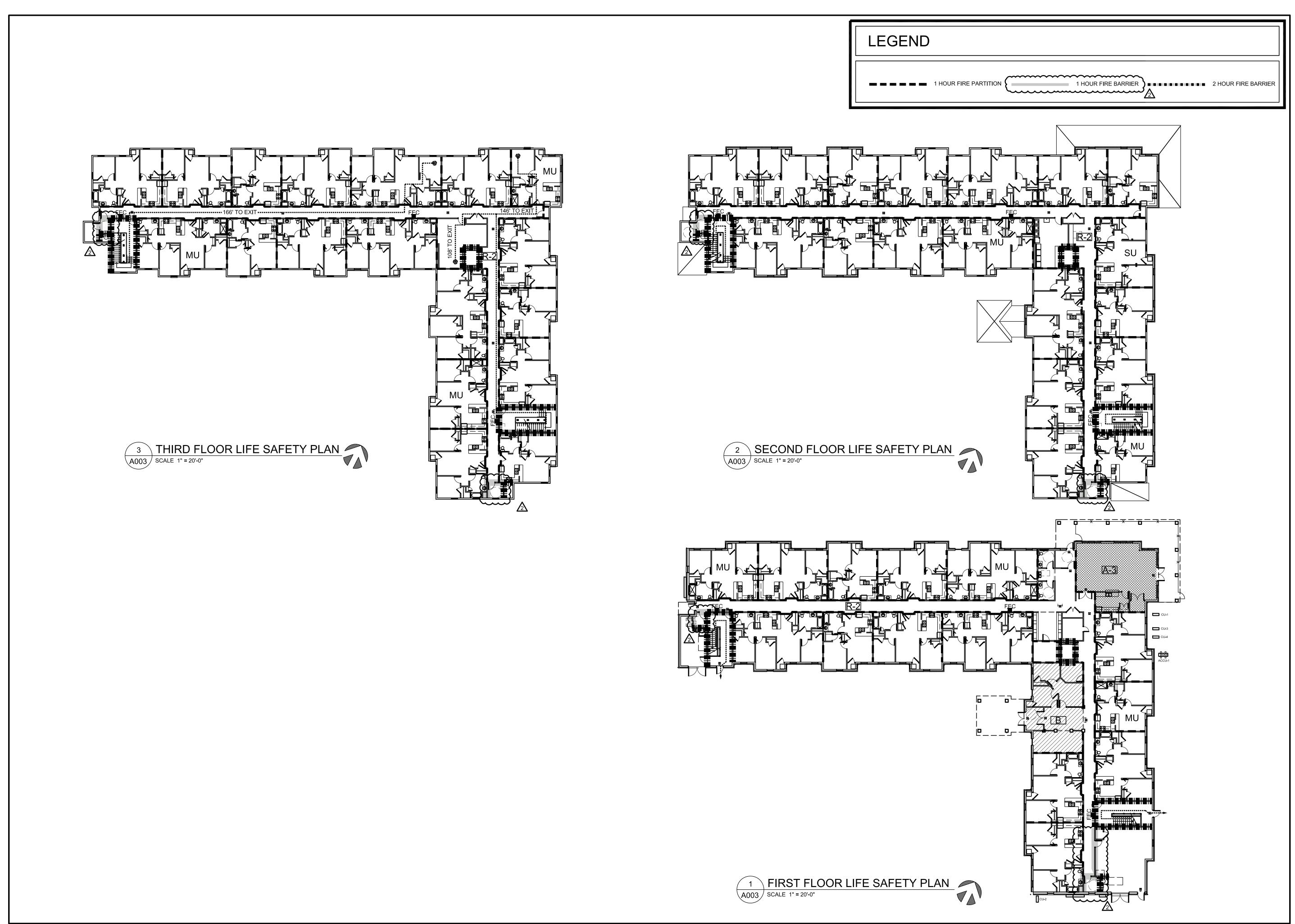
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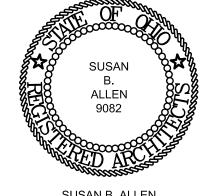
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03/31/2023

DATE 82A21

PROJECT NUMBER





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2 BULLETIN 02 09/19/2023

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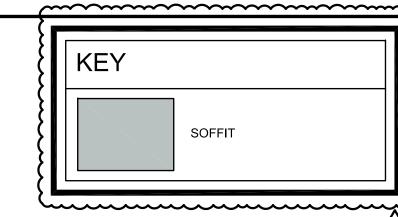
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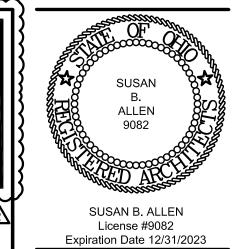
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82A21

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PROJECT NUMBER





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3RD **ARCHITECTS** 

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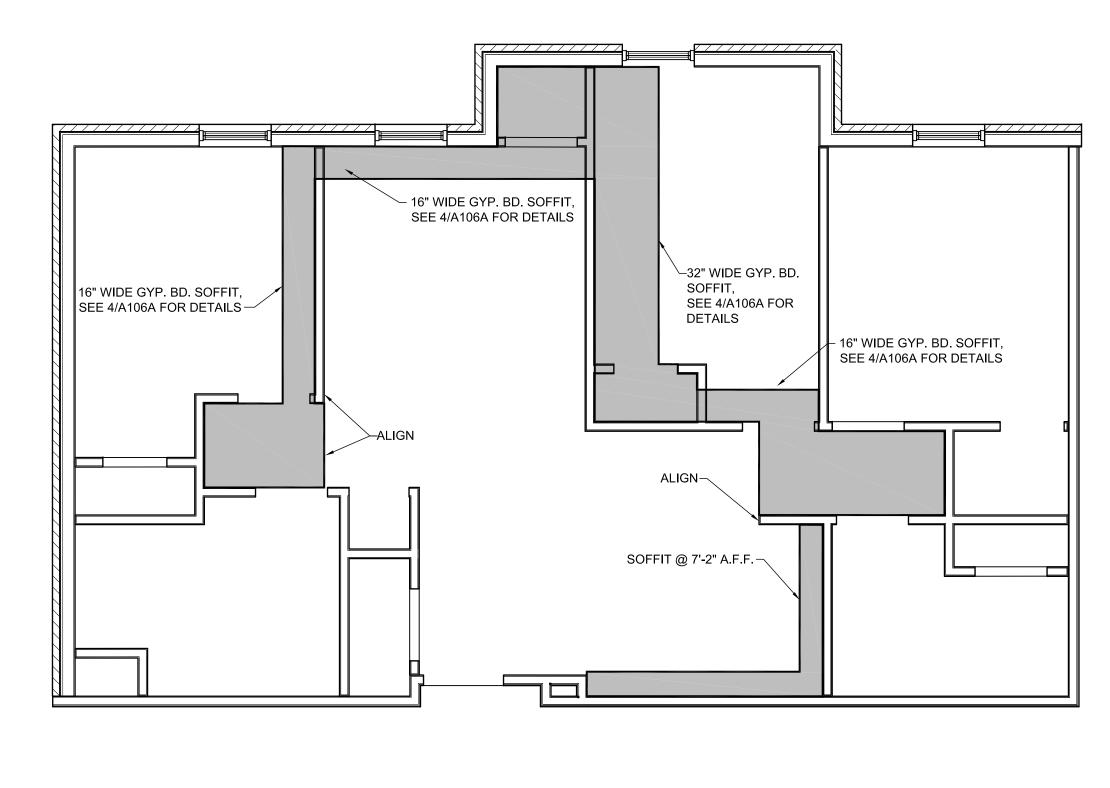
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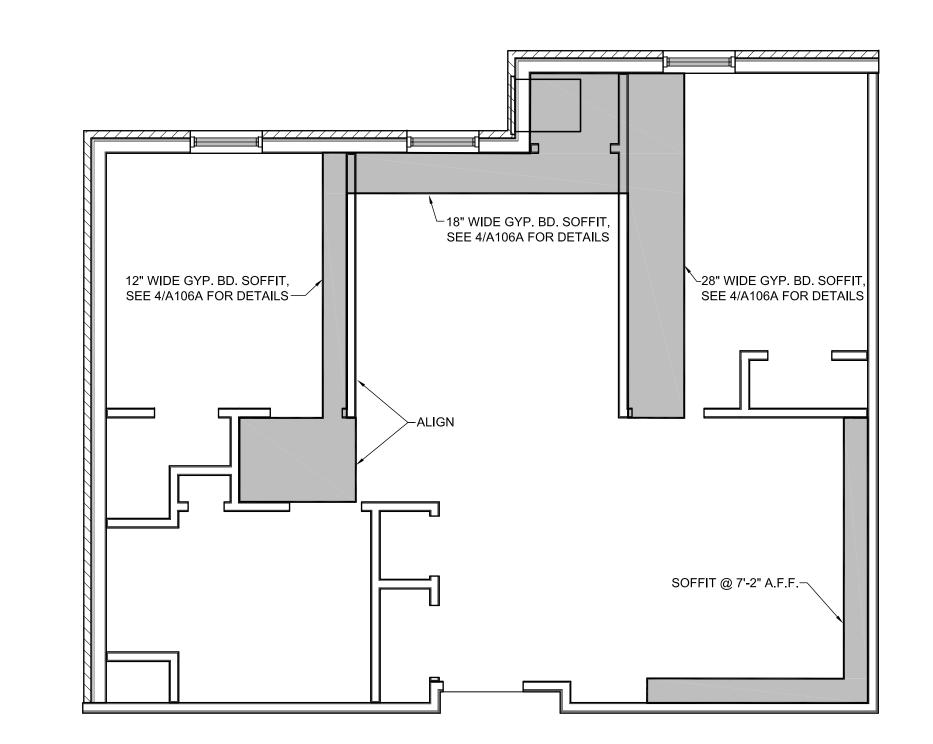
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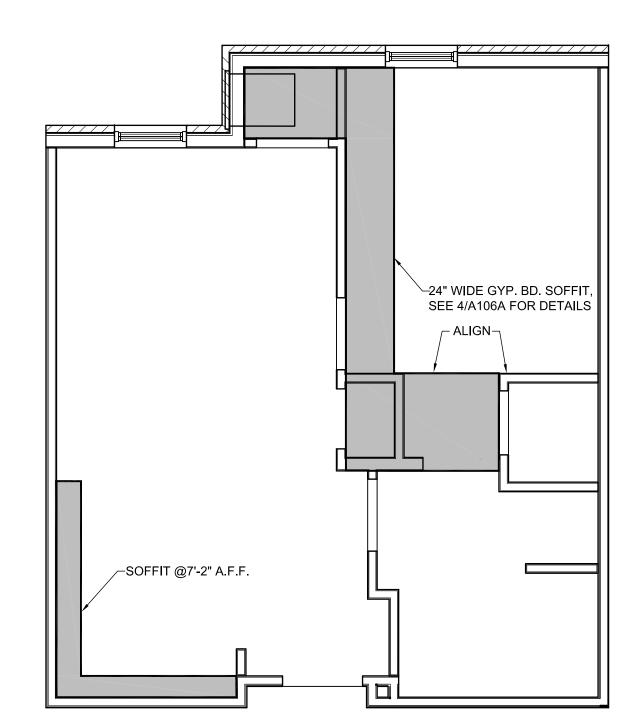


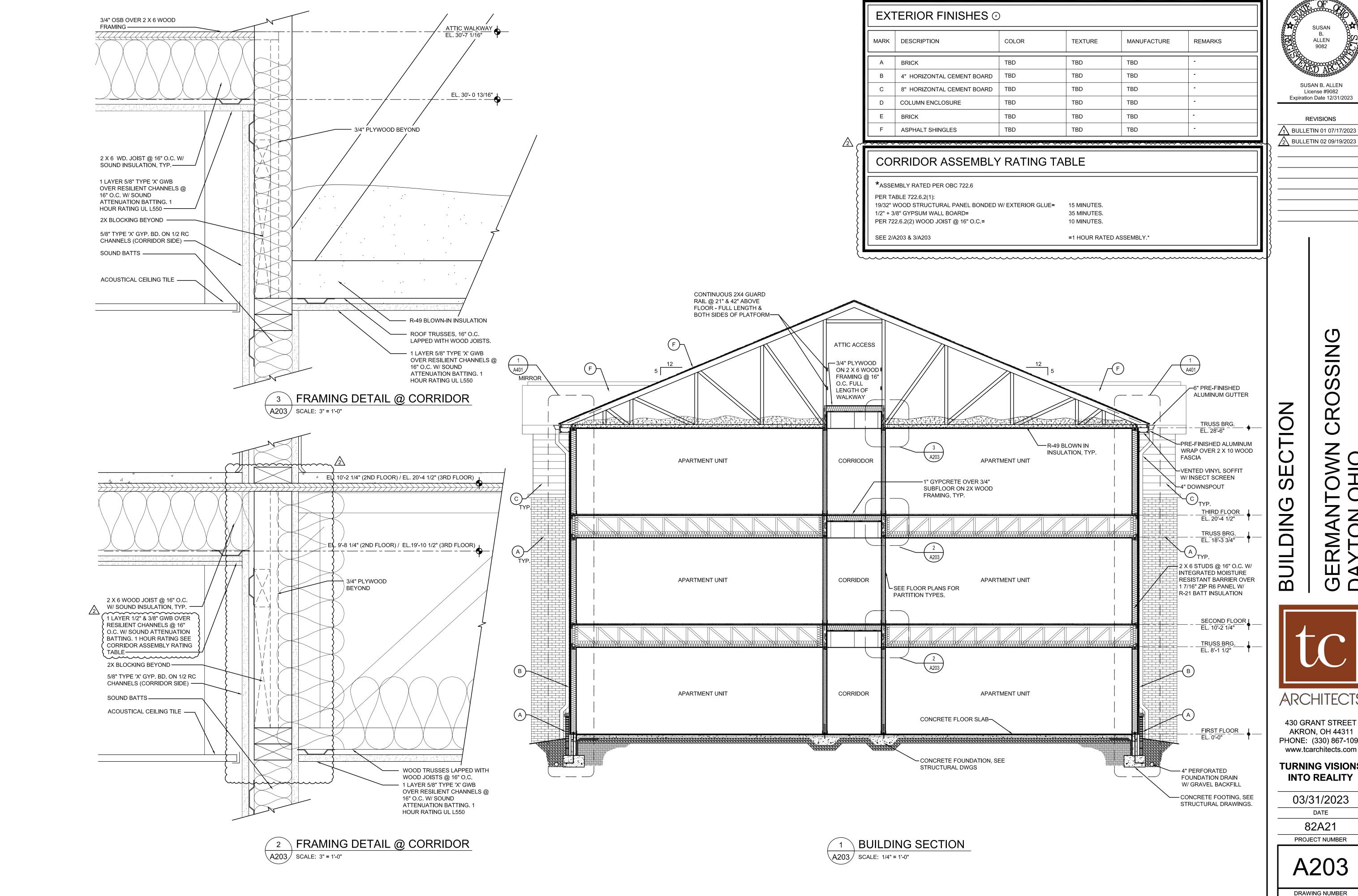
THREE BEDROOM RCP A106A SCALE: 1/4" = 1'-0"



A106A SCALE: 1/4" = 1'-0"

4 SOFFIT SECTION





SUSAN B. ALLEN License #9082

REVISIONS

1 BULLETIN 01 07/17/2023 2 BULLETIN 02 09/19/2023

**ARCHITECTS** 

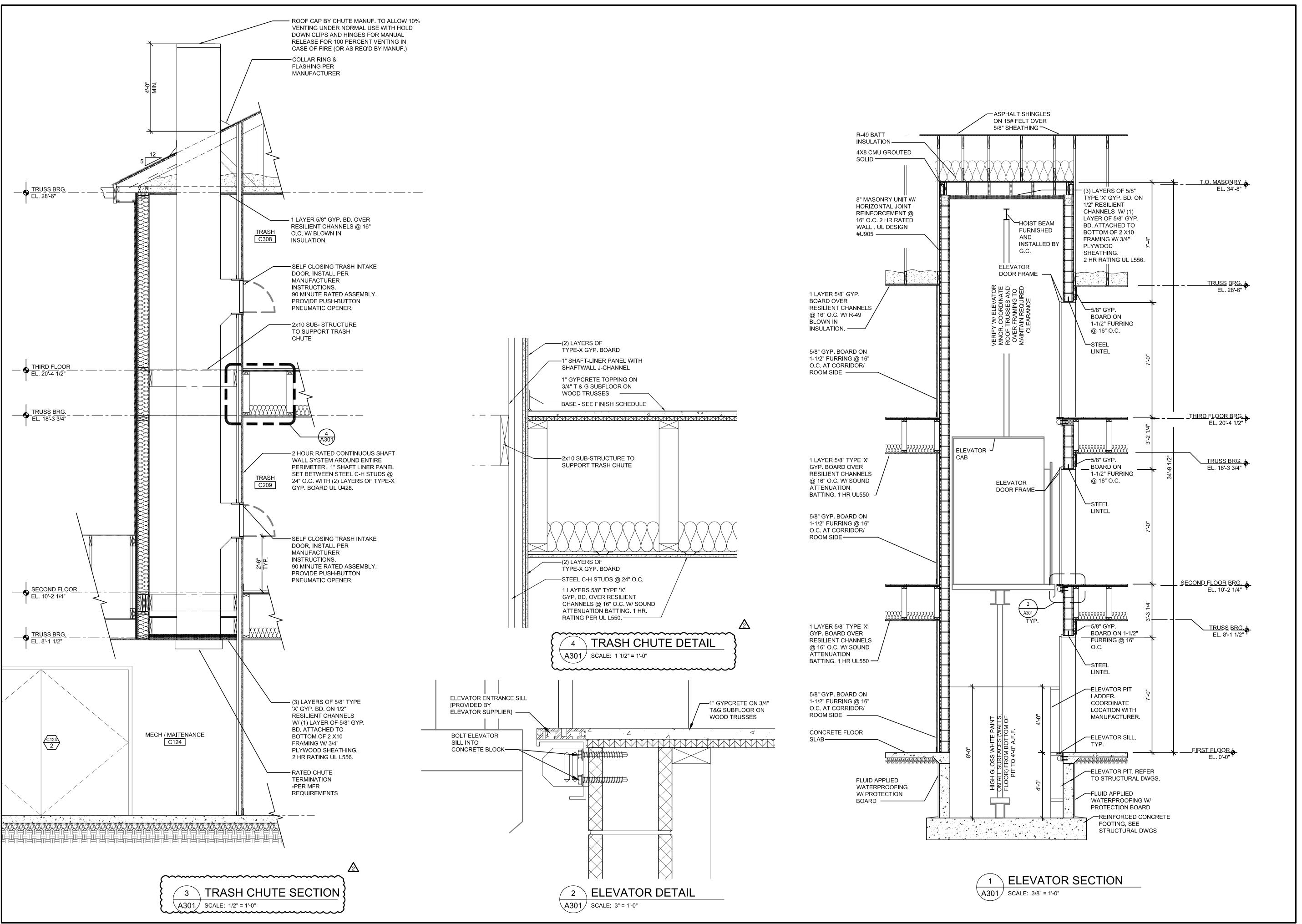
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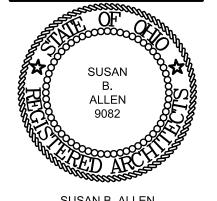
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> 03/31/2023 DATE

82A21

A203





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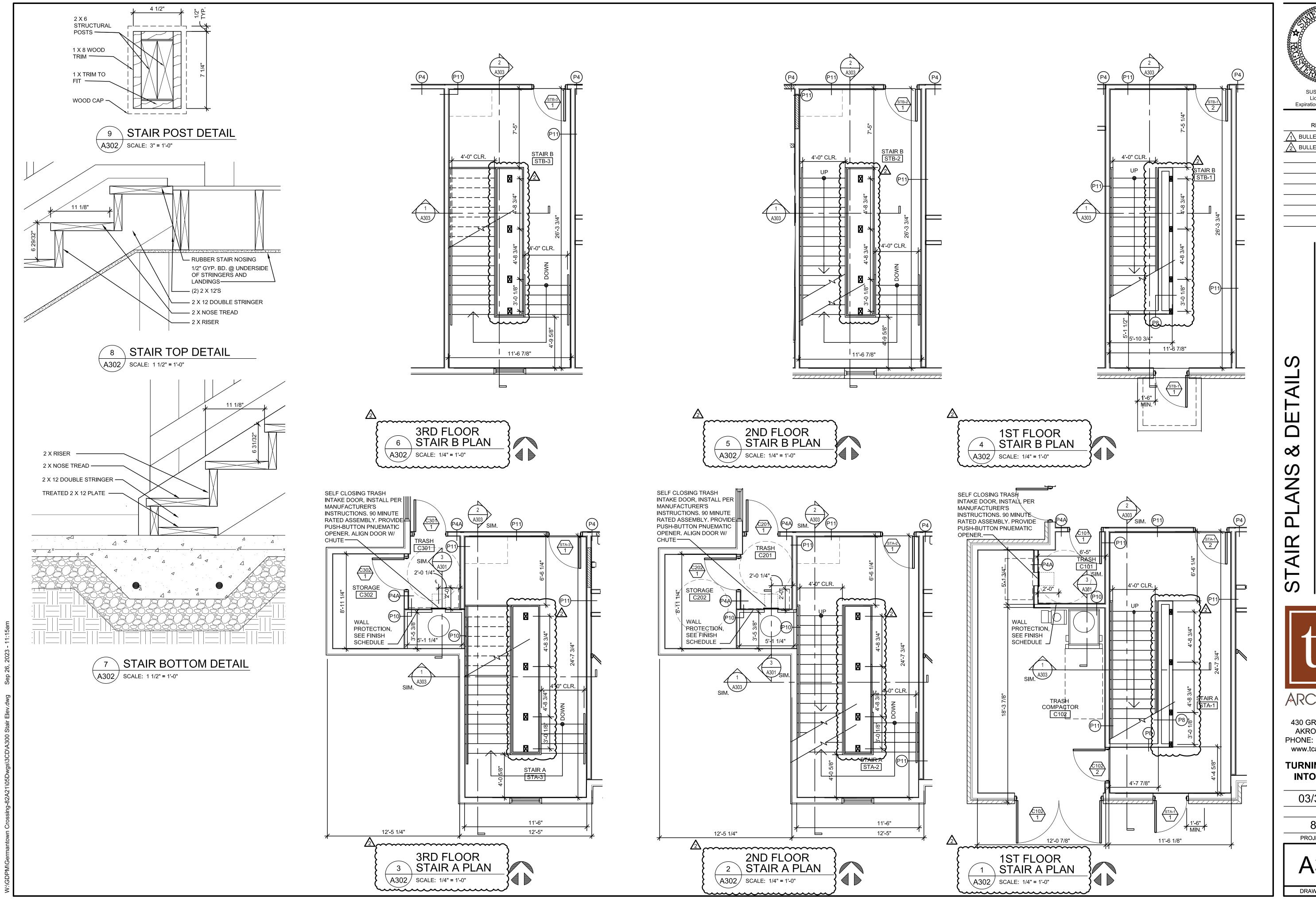
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> 03/31/2023 DATE

82A21 PROJECT NUMBER

A301



REVISIONS

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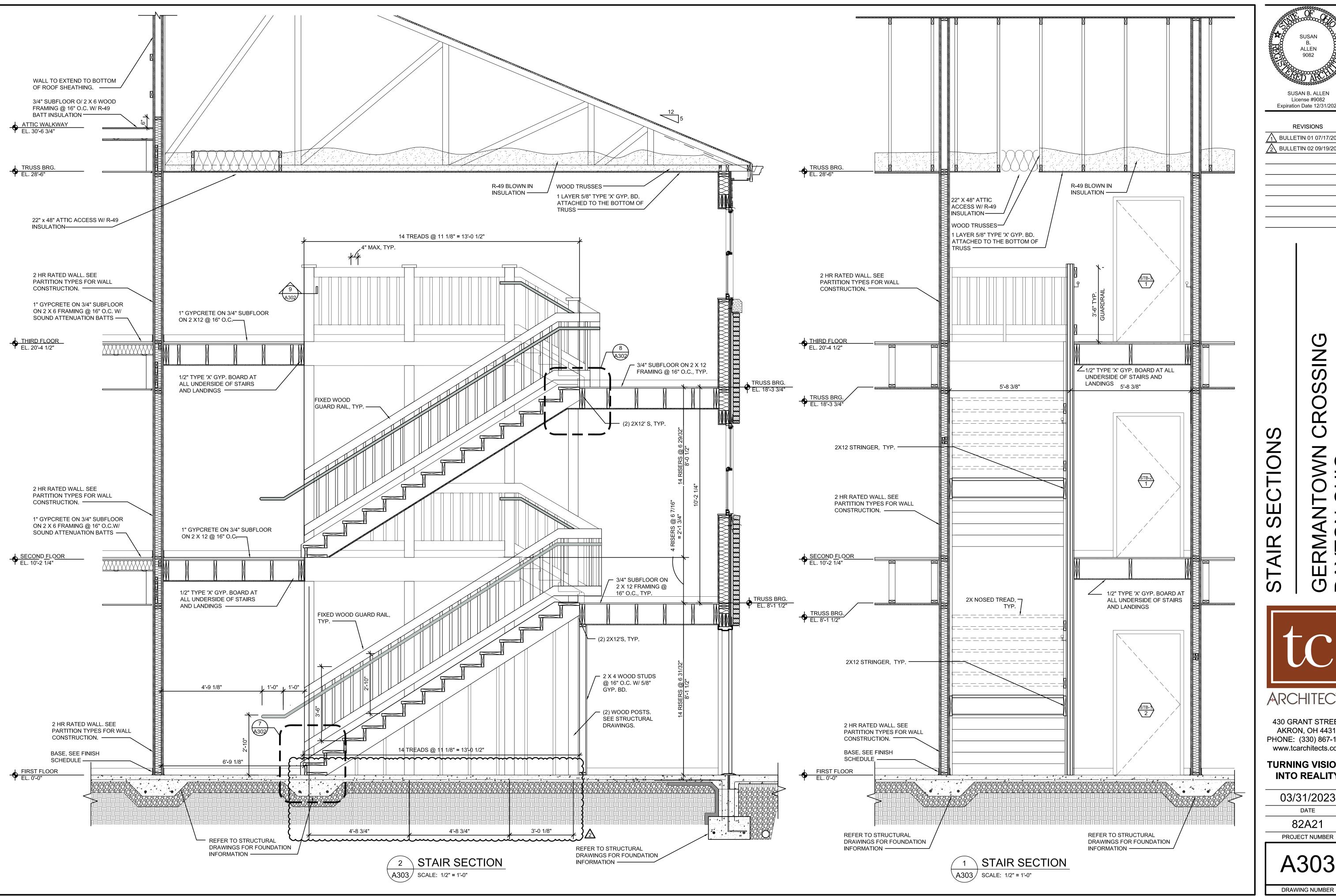
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> 03/31/2023 DATE

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A302 DRAWING NUMBER



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1 BULLETIN 01 07/17/2023

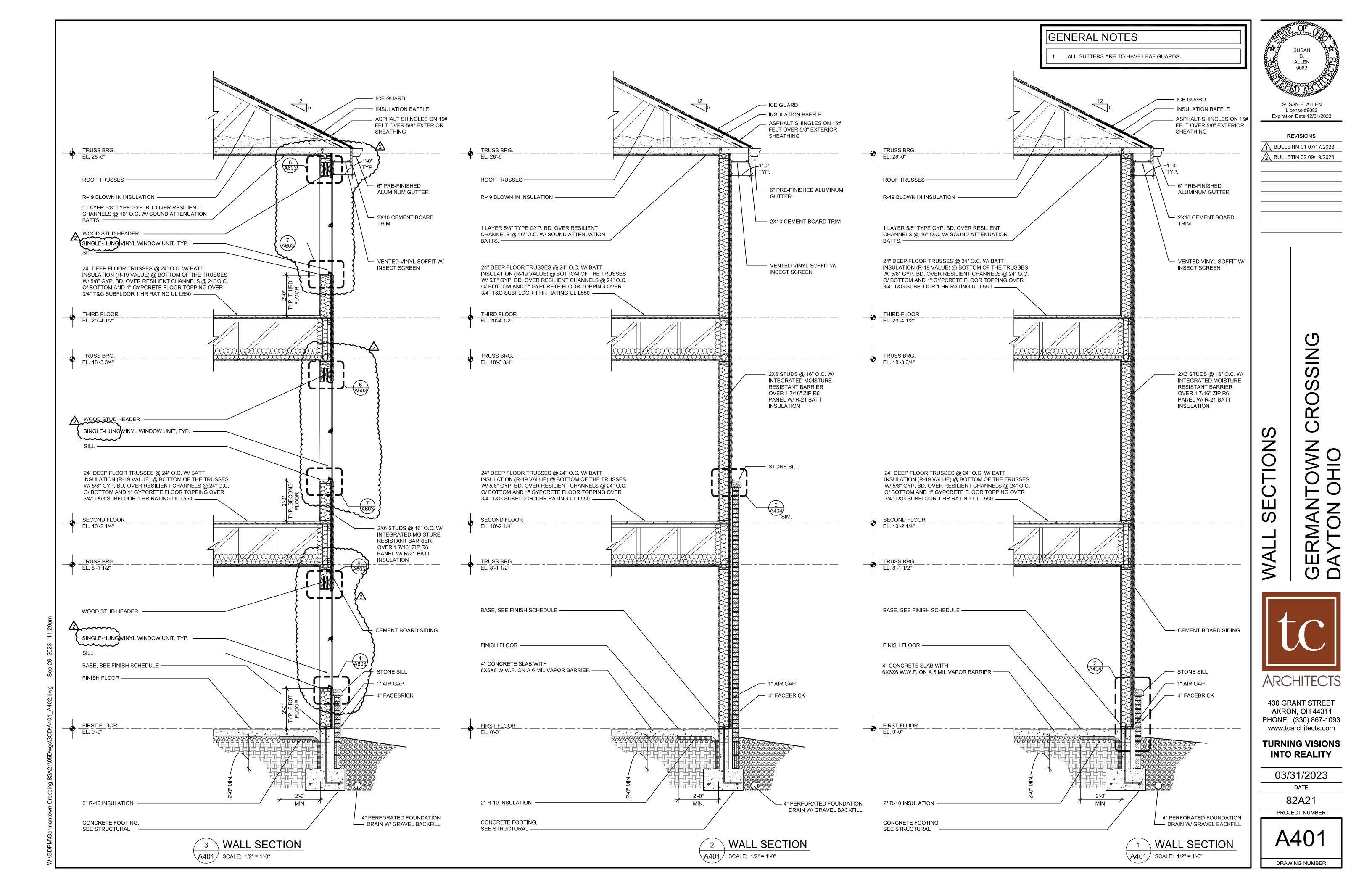
BULLETIN 02 09/19/2023

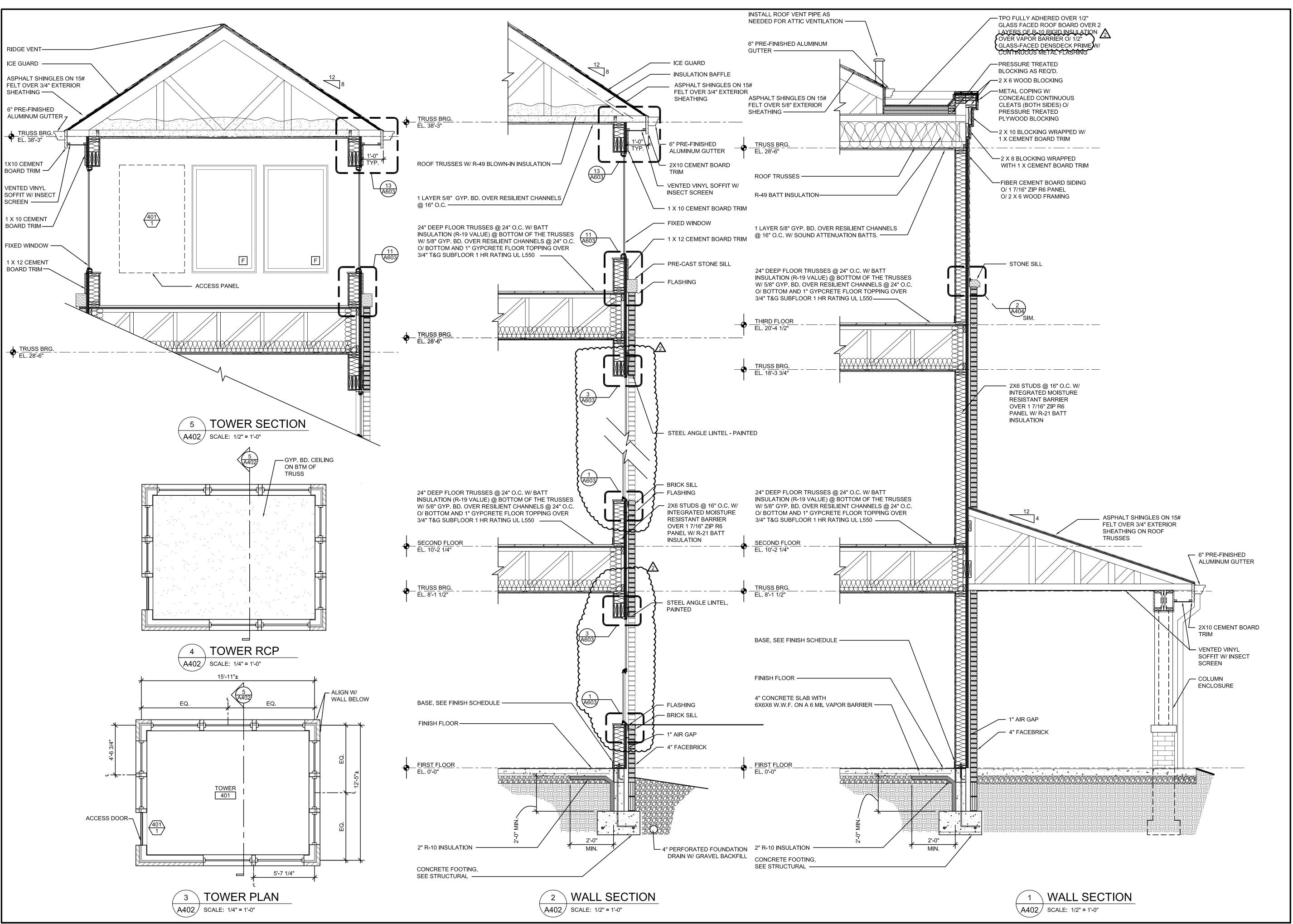
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WALL **ARCHITECTS** 

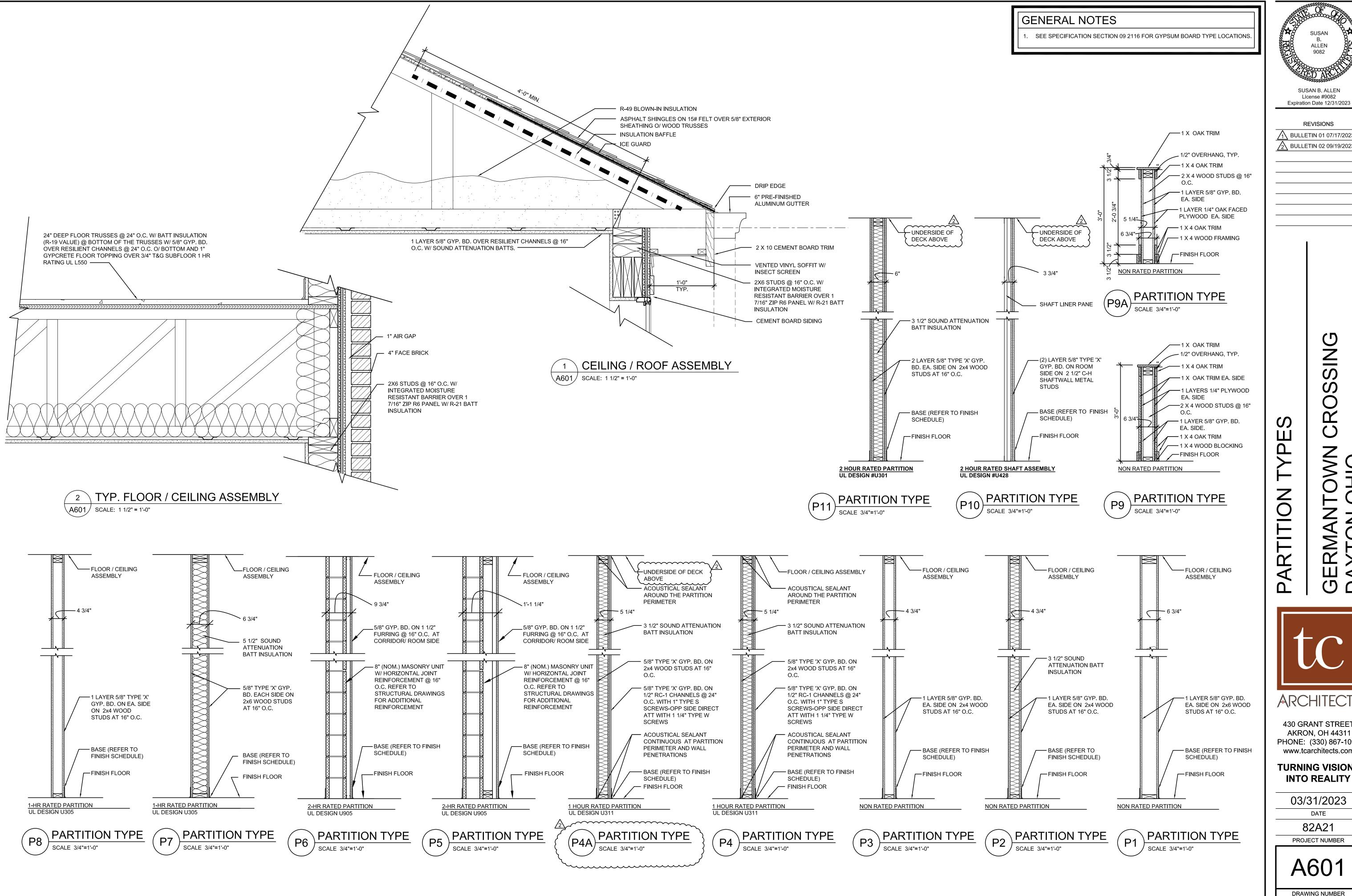
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A402



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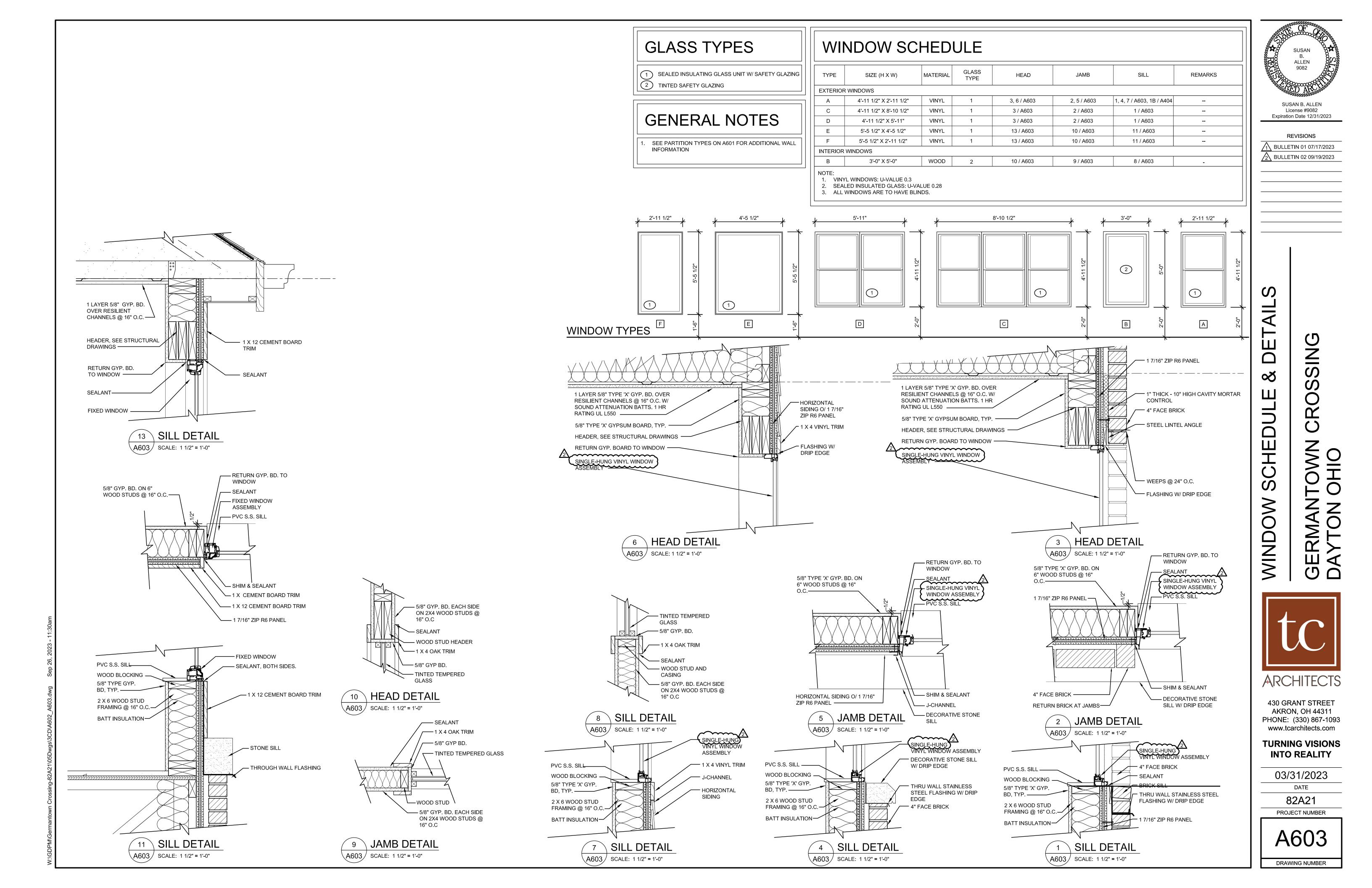
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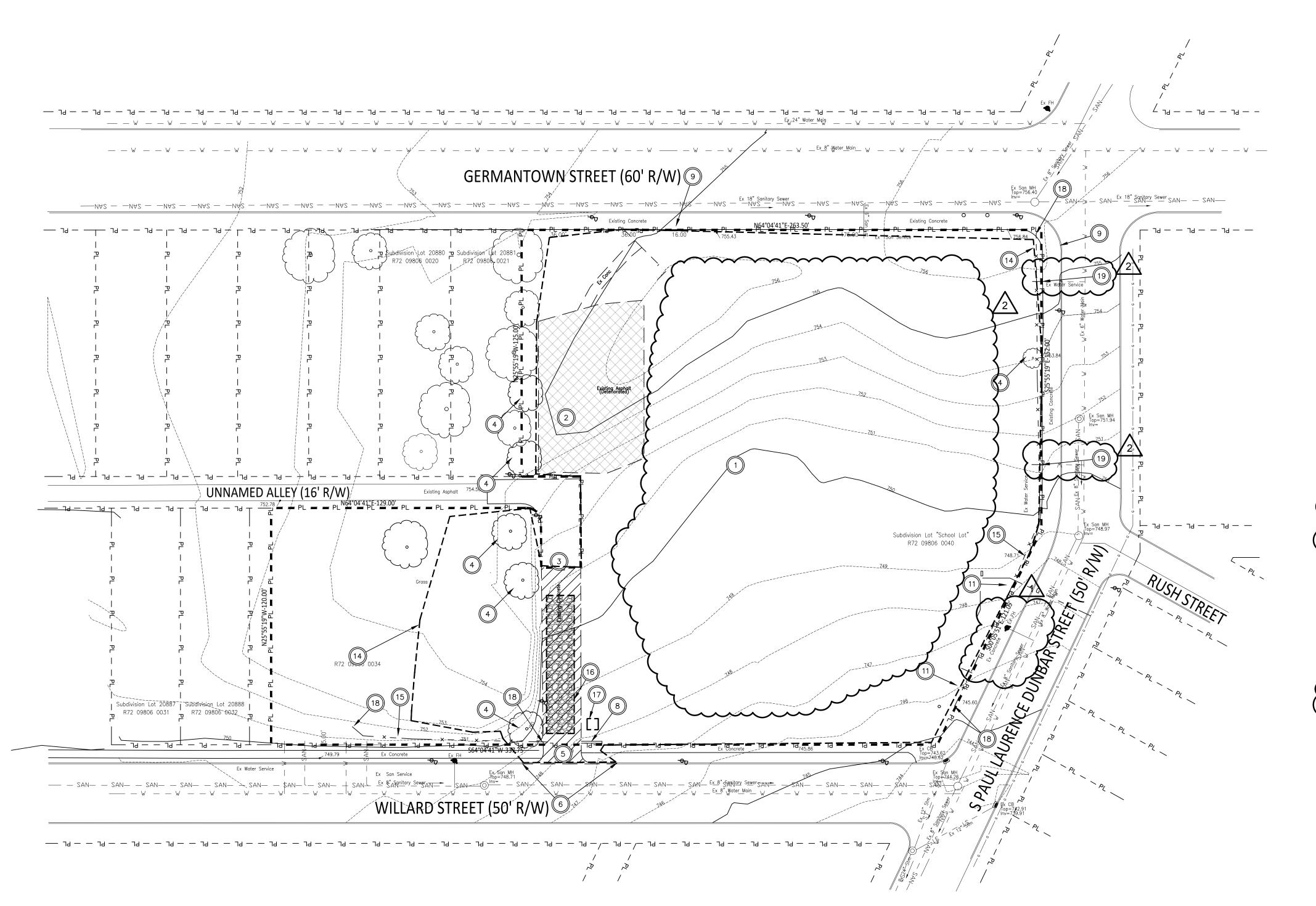
**TURNING VISIONS** INTO REALITY

03/31/2023

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A60





#### CONSTRUCTION NOTES

1. CONTRACTORS SHALL SCHEDULE THEIR OPERATIONS AND CARRY OUT THE WORK IN A MANNER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH NORMAL TRAFFIC FLOW.

2. THE EXISTING UNDERGROUND INFORMATION AND TOPOGRAPHIC INFORMATION IS BASED ON THE PROJECT'S SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UTILITIES. IF DURING CONSTRUCTION OPERATIONS, A CONTRACTOR ENCOUNTERS UTILITIES IN LOCATION OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE OWNER AND TAKE THE NECESSARY STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.

3. ALL CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE, OR ADJACENT PROPERTY.

4. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF EXISTING ELEVATIONS AT CRITICAL POINTS SUCH AS APPROACHES OF DRAINAGE STRUCTURES, CURBING, ETC. VERIFICATION SHALL BE PERFORMED DURING LAYOUT STAGES AND SIGNIFICANT DISCREPANCIES REPORTED TO THE ENGINEER IMMEDIATELY.

5. CONTRACTOR SHALL CONDUCT HIS OPERATIONS SUCH THAT THE FLOW OF ALL EXISTING SEWERS AND LATERALS WILL BE MAINTAINED AT ALL TIMES.

6. ALL DISTURBED AREAS NOT PERMANENTLY IMPROVED SHALL BE SEEDED AND MULCHED.

7. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN OHIO EPA NOI PERMIT FOR THIS PROJECT.

## **CODED NOTES**

EXISTING BUILDING INCLUDING FOOTINGS AND FOUNDATIONS HAS BEEN COMPLETELY REMOVED BY OTHERS. THAT WORK INCLUDES BACKFILLING THE BASEMENT AREA UP TO EXISTING GRADE. THIS BACKFILL IS NOT BEING COMPACTED. CONTRACTOR SHALL REMOVE THIS BACKFILL AND REINSTALL AT 8" LIFTS AND COMPACT EACH LIFT TO 98% DRY DENSITY. PROOF ROLL AREA WHEN COMPLETED.

- 2. EXISTING ASPHALT PAVEMENT TO BE REMOVED.
- 3. CONTRACTOR SHALL REMOVE EXISTING CONCRETE SHOWN IN HATCHED AREA.
- 4. EXISTING TREE/BUSHES TO BE REMOVED INCLUDING STUMPS.
- 5. REMOVE CONCRETE BACK TO ROADWAY.
- REMOVE CURBING BACK TO NEAREST CONSTRUCTION JOINT AS NECESSARY FOR NEW CONSTRUC

8. REMOVE SECTION OF CONCRETE WALL AND SIDEWALK AS NECESSARY FOR NEW DRIVE ENTRANCE.

9. EXISTING SIDEWALK NITHIN PUBLIC RIGHT-OF-WAY TO REMAIN.

CONCRETE APRON AND ASSOCIATED CURBING TO BE REMOVED.

12. NOT USED.

10. NOT USED.

13. NOT USED.

14. LIMITS OF CLEARING AND GRADING = 1.8 ACRES. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TREES INCLUDING STUMPS WITHIN THESE LIMITS.

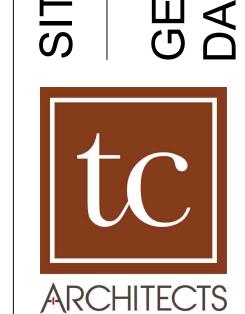
- 15. INSTALL SILT FENCING PER DETAIL ON SHEET C501. REMOVE AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- 16. INSTALL 70' LONG CONSTRUCTION ENTRANCE PER DETAIL ON SHEET C501.
- 17. INSTALL CONCRETE WASH-OUT PIT PER DETAIL ON SHEET C501.

18. ENDS OF THE SILT FENCES SHOULD BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE

19. THE EXISTING 2" WATER SERVICE IS TO BE ABANDONED. REMOVE PIPING BACK TO PROPERTY LINE AND CAP. CONTACT CHRIS HOLMES AT chris.holmes@daytonohio.gov FOR CUT AND PLUG QUOTES.



<u>/2</u>							
}	LE	EGEND					
}		PAVEMENT TO BE REMOVED					
(		CONCRETE TO BE REMOVED BY OTHERS					
<b>\</b>	×	SILT FENCE					
(							



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REVISIONS

BULLETIN 01 07/17/2023

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2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE LAYOUT OF THE

3. ALL CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE,

4. EACH CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF EXISTING ELEVATIONS AT CRITICAL POINTS SUCH AS APPROACHES OF DRAINAGE STRUCTURES, CURBING, ETC. VERIFICATION SHALL BE PERFORMED DURING LAYOUT STAGES AND SIGNIFICANT DISCREPANCIES REPORTED TO THE ENGINEER IMMEDIATELY.

5. ALL CONSTRUCTION SHALL CONFORM TO THE DEPT. OF LABOR, BUREAU OF LABOR STANDARDS SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND THE CONTRACT WORK HOURS AND SAFETY ACT. (CHAPTER XVII TITLE C&R, PART 1926 AND ALL ADDITIONS AND REVISIONS).

CONTRACTOR TO OBTAIN PROPER PERMITS FROM THE CITY OF DAYTON CONTRACTOR TO CONTACT CHRIS HOLMES AT (937) 333-3739 FOR WATER CONNECTION ESTIMATE AND TO SET UP WORK ORDÈR FOR WATER UTILITY CONNECTIONS CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY FEES.

HE CONTRACTOR SHALL NEED TO CONTACT THE CITY OF DAYTON, DEPARTMENT OF WATER, CONSTRUCTION INSPECTION, 320 WEST MONUMENT AVENUE, DAYTON, OHIO 45402, AT (937)-333-3725 PRIOR TO BEGINNING WATER SERVICE WORK.

**CODED NOTES** 

INSTALL 4" TAPPING SLEEVE AND VALVE AND EXTEND COMBINATION 4" FIRE/WATER LINE TO PROPOSED WATER VAULT. INSTALL 10' X 15' CONCRETE VAULT AT 1' OFFSET FROM PROPERTY LINE. SEE DETAILS ON SHEET C600. SAW CUT ROAD TO FULL DEPTH PRIOR TO ITS REMOVAL AND REPLACE PER CITY OF DAYTON STANDARDS. EXTEND 4" STORM LINE AND TIE INTO STORM BASIN "O" AT INVERT = 746.5.

2. INSIDE VAULT, SPLIT 4" LINE INTO A 4" WATER LINE AND A 4" FIRE LINE AND EXTEND TO 5' FROM BUILDING. COORDINATE WORK WITH THE PLUMBING AND FIRE PROTECTION CONTRACTORS. INSTALL SYSTEM WITH ALL COMPONENTS NOTED IN THE DETAILS ON SHEET C600.

. NEW BUILDING FOOTPRINT.

0980 0020

sion\Lot 20880 👨 Subdivision 🕼

Existing Asphalt

WILLARD STREET (50' R/W)

R72 09808-002

4. EXISTING FIRE HYDRANT. PROTECT DURING CONSTRUCTION

5. EXISTING PUBLIC WATER MAIN.

INSTALL 6" SANITARY LATERAL FROM EXISTING SANITARY STUB AS SHOWN AND END WITH A CLEANOUT AT INVERT = 749.1. COORDINATE WORK WITH PLUMBING CONTRACTOR, CONTRACTOR TO VERIFY EXISTING DEPTH AND LINE SIZE PRIOR TO THE START OF CONSTRUCTION AND IS TO NOTIFY ARCHITECTS IF EXISTING INVERT IS ABOVE

7. CAUTION EXISTING UTILITY CROSSING.

8. REMOVE AND REPLACE PAVEMENT/SIDEWALK/CURBING AS NECESSARY FOR INSTALLATION OF NEW UTILITIES. WORK IS TO COMPLY WITH CITY OF DAYTON

9. INSTALL 1-1/2" GAS LINE WITH VALVE AS SHOWN. COORDINATE TIE-IN WORK WITH GAS COMPANY, EXTEND TO 1' FROM BUILDING AND CAP ABOVE GRADE. COORDINATE WORK WITH THE PLUMBING CONTRACTOR. BUILDING LOAD = 400 CFH. REMOVE AND REPLACE CURBING/SIDEWALK/ROADWAY AS NECESSARY FOR PIPING INSTALLATION.

GERMANTOWN STREET (60' R/W)

Existing Concrete

\_ st \_ 12" sft IRM\_ st - -

PROPOSED BUILDING 1520 GERMANT□WN R□AD

FF=753.1

1. ALL EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO FIELD LOCATE EXACT LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO SETTING GRADE AND ALIGNMENT. THE CITY OF DAYTON AND THE DEPARTMENT OF WATER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTH OR THE UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL COST FOR LOCATING, REMOVING AND REPLACING OR CONSTRUCTION SHALL BE REPAIRED TO THE UTILITY OWNER'S SATISFACTION. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE DETERMINED BY HAND DIGGING.

2. LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE DEPARTMENT OF WATER.

4. ALL WORK SHALL CONFORM TO THE CITY OF DAYTON, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION).

5. NO CONSTRUCTION SHALL COMMENCE UNTIL CITY OF DAYTON PERMITS HAVE BEEN ISSUED AS REQUIRED.

6. ALL PROJECT ORDERS (FIELD OR OFFICE), REQUESTS, CHANGES, ADDITIONS OR DELETIONS PERTAINING TO PUBLIC WATER MAIN, STORM SEWER, AND SANITARY SEWER FACILITIES SHALL BE ONLY BE DIRECTION OR REQUEST OF THE DEPARTMENT OF WATER.

7. THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES AFFECTED BY STREET CLOSURES A MINIMUM OF 48 HOURS IN ADVANCE OF THE ACTUAL STREET CLOSING.

8. ROADWAY RESTORATION WITHIN THE CITY OF DAYTON CORPORATION LIMITS SHALL BE DONE IN COMPLIANCE WITH THE DEPARTMENT OF PUBLIC WORKS "RULES AND REGULATIONS FOR MAKING OPENINGS IN A PUBLIC WAY" (LATEST EDITION).

9. FORTY-EIGHT HOURS PRIOR TO ANY CONSTRUCTION, EXCAVATION OR DIGGING, THE CONTRACTOR SHALL CALL AND NOTIFY THE OHIO UTILITIES PROTECTION SERVICES (OUPS) AT 1-800-362-2764. ALL OTHER AGENCIES, WHICH MIGHT HAVE UNDERGROUND ÚTILITIES IN THIS AREA AND ARE NOT MEMBERS OF OUPS, SHALL BE NOTIFIED DIRECTLY BY THE CONTRACTOR.

10. APPROVAL OF PLANS BY THE DEPARTMENT OF WATER DOES NOT RELIEVE THE DESIGNER, OWNER, OR PERSON IN CONTROL OF THE PROPERTY FROM LIABILITY FOR INJURY TO PERSONS OR PROPERTY.

-NAS - - SAN - SAN

– 14 – – 14 – – 14 – –

Existina Concrete

R72 09806 0040

1. APPROVAL OF THE PLANS SHALL BECOME VOID IF CONSTRUCTION HAS NOT COMMENCED WITHIN TWELVE (12) MONTHS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER. IN ADDITION, THE PLANS SHALL BECOME VOID IF CONSTRUCTION IS NOT COMPLETED WITHIN TWO (2) YEARS FROM THE DATE APPROVED BY THE DEPARTMENT OF WATER.

12. ALL FILLS (INCLUDING TRENCH BEDDING AND BACKFILL) INTENDED TO SUPPORT A WATER MAIN, SANITARY SEWER, STORM SEWER OR DRAINAGE CHANNEL SHALL BE COMPACTED TO NOT LESS THAN 90% MAXIMUM DENSITY (MODIFIED PROCTOR TEST ASTM D1557), UNLESS OTHERWISE NOTED. FIELD VERIFICATION AND FORMAL RESULT SUBMITTALS MAY BE REQUESTED (AS NECESSARY) BY THE DEPARTMENT OF WATER.

13. IN ADDITION TO THE NOTES ON THIS SHEET, CONTRACTOR'S ATTENTION SHALL BE DIRECTED TO THE NOTES ON THE ATTACHED SHEETS AS WELL.

14. COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED WATER LINE, SANITARY OR STORM SEWER LINES PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID LINES. ALL FILLS SHALL BE CONTROLLED, COMPACTED AND INSPECTED.

15. FORTY-EIGHT HOURS PRIOR TO ANY EARTH DISTURBING WORK, THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF WATER AT (937) 333-3739 (FIELD BUREAU).

16. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN, CONSTRUCTION, SEDIMENT CONTROL PRACTICES SHALL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE. ALL RUNOFF RESULTING FROM CONSTRUCTION OPERATIONS MUST BE FILTERED BY APPROVED METHODS PRIOR TO DISCHARGING TO THE STORM SEWER SYSTEM.

17. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE ONTRACTOR AND REPAIRED ONCE A WEEK AND AFTER EVERY 1/2" OF RAIN. RECORDS OF SUCH INSPECTION SHALL BE KEPT AT THE JOB SITE AND BE AVAILABLE FOR IMMEDIATE REVIEW UPON REQUEST.

18. IN ADDITION TO ANY TEMPORARY EROSION, SEDIMENT, AND DEBRIS CONTROL DETAILS AND NOTES SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT BASINS, EARTH DIKES, TEMPORARY OR PERMANENT SEEDING, MULCHING AND/OR MULCH NETTING OR ANY OTHER GENERALLY ACCEPTED METHODS TO PREVENT EROSÍON, MUD AND DEBRIS FROM BEING DEPOSITED ON OTHER PROPERTY, ON NEWLY CONSTRUCTED OR EXISTING ROADS, OR INTO EXISTING SEWERS OR NEW SEWERS WITHIN THE DEVELOPMENT.

19. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL. DISTURBED AREAS THAT LIE DORMANT FOR 21 DAYS OR MORE SHALL BE SEEDED OR PROTECTED WITHIN 7 CALENDAR DAYS OF THE DISTURBANCE. OTHER SEDIMENT CONTROLS THAT ARE INSTALLED SHALL BE MAINTAINED UNTIL VEGETATIVE GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

20. UNTIL IMPROVEMENTS IN THE DEVELOPMENT HAVE BEEN COMPLETED, THE CONTRACTOR SHALL TAKE SUCH MEASURES AS ARE NECESSARY TO PRÉVENT EROSION OF GRADED SURFACES ONTO ROADWAYS, INTO DRAINAGE COURSES, STORM SEWERS, OR ONTO ADJOINING LAND. FOR ANY EARTH DISTURBANCE OR ANY DEVELOPMENT APPROVED BY THE DEPARTMENT OF WATER, THE CONTRACTOR SHALL CLEAN ANY MUD OR DEBRIS DEPOSITED ON ROADWAYS, DRAINAGE COURSES, OR ADJOINING PROPERTY WHEN THE MUD AND DEBRIS ORIGINATES FROM THE EARTH MOVING OPERATIONS.

21. ALL MUD/DIRT TRACKED ONTO ROADS FROM THE SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY (WITHIN 24 HOURS) REMOVED.

22. FOR DEVELOPMENT SITES, EROSION CONTROL MEASURES SHALL BE ENFORCED ON INDIVIDUAL OR RESIDENTIAL LOTS. THIS SHALL INCLUDE A CONSTRUCTION ENTRANCE (REFER TO DETAIL - ER-8) AND SILT FENCE ACROSS THE FRONTAGE OF EACH PROPERTY AND A TEMPORARY DIVERSION DITCH ON EACH LOT.

23. THIS PROJECT IS SUBJECT TO INSPECTION BY THE DEPARTMENT OF WATER PERSONNEL FOR COMPLIANCE WITH THE CITY'S STORM WATER ORDINANCE DURING AND AFTER CONSTRUCTION. THIS INCLUDES BUT IS NOT LIMITED TO INSPECTION OF EROSION CONTROL FACILITIES, SURFACE DRAINAGE, AND DETENTION / RETENTION FACILITIES. ADDITIONAL MEASURES MAY BE REQUIRED IF VIOLATIONS OF THE ORDINANCE OCCUR AND WATER DEPARTMENT PERSONNEL DEEM IT NECESSARY. ALL MEASURES SHALL COMPLY WITH CITY OF DAYTON STANDARDS AND "RAINWATER MID LAND DEVELOPMENT, OHIO'S STANDARD FOR STORM WATER MANAGEMENT, LAND DEVELOPMENT, AND URBAN STREAM PROTECTION", (LATEST EDITION).

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Subdivision Lot 20887 | Subdivision Lot 20888

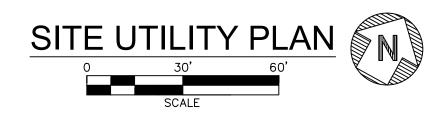
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UNNAMED ALLEY (16' R/W)/

R72 09806 0034

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PROJECT NUMBER

#### CONSTRUCTION NOTES

. CONTRACTORS SHALL SCHEDULE THEIR OPERATIONS AND CARRY OUT THE WORK IN A MATTER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH NORMAL FLOW OF THE TRAFFIC.

2. ALL PAVEMENT SHALL BE GOVERNED BY THE LATEST EDITION OF ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.

3. ALL POINTS OF CONNECTION OF PROPOSED IMPROVEMENTS TO EXISTING CONDITIONS SHALL BE UNCOVERED AND ELEVATIONS VERIFIED BY FIELD CHECK BEFORE ANY CONSTRUCTION BEGINS.

4. CONTRACTOR IS TO REGRADE TO MATCH EXISTING ELEVATIONS. RESEED AND MULCH IN ALL DISTURBED AREAS.

5. CAD FILES OF THE LAYOUT WILL BE PROVIDED BY THE ENGINEER TO THE CONTRACTOR FOR HIS USE IN LAYING OUT THE SITE.

#### **CODED NOTES**

STRIPE 9'X18' PARKING SPACES AS SHOWN.

2. INSTALL 6" VERTICAL CURBING.

3. INSTALL ASPHALT PAVING IN SHADED AREA PER DETAIL SHEET C601.

4. INSTALL BUILDING PARALLEL TO THE NORTH PROPERTY LINE (RIGHT-OF-WAY) AND OFFSET 20'-0' TO THAT LINE.

. INSTALL 8' WIDE HANDICAP SPACE WITH 8' UNLOADING SPACE. PAINT HANDICAP SYMBOL AND STRIPING AS SHOWN. PROVIDE WITH HANDICAP SIGN.

6. INSTALL 5' WIDE INTEGRAL CONCRETE CURBING/SIDEWALK PER DETAIL ON SHEET

INSTALL CONCRETE APRON WITHIN RIGHT-OF-WAY PER CITY OF DAYTON STANDARDS.

8. INSTALL FROST PROOF SLABS AT DOOR PER DETAILS ON THE ARCHITECTURAL

9. INSTALL 8' WIDE HANDICAP SPACES AND 5' WIDE UNLOADING SPACE. PAINT

HANDICAP SYMBOL AND INSTALL HANDICAP SIGN.

10. TOP OF ASPHALT TO MEET TOP OF SIDEWALK.

I1. PROPOSED SIGN.

12. INSTALL CONCRETE WHEEL STOP PER DETAIL ON SHEET C600. (TYPICAL).

13. LANDSCAPE ISLAND.

14. INSTALL HANDICAP RAMP PER DETAIL ON SHEET C601.

15. INSTALL 5' CURB TAPER.

16. INSTALL 5' CONCRETE SIDEWALK AND MATCH TOP OF EXISTING SIDEWALK.

17. INSTALL CONCRETE PAVEMENT IN HATCHED AREA PER CONCRETE PAD/APRON DETAIL ON SHEET C601.

18. NOT USED.

19. PROPOSED 5' WIDE CONCRETE SIDEWALK.

20. INSTALL CONCRETE SIDEWALK UNDER CANOPY AREA. TOP OF CONCRETE = 753.1 AT DOORS. SLOPE AWAY AT 1/4" PER FOOT.

21. PROPOSED BICYCLE RACK. SEE DETAIL ON SHEET C602.

22. PROPOSED 6' WIDE CONCRETE SIDEWALK.

23. FENCING AROUND PORCH. SEE ARCHITECTURAL PLANS FOR ADDITIONAL

 $^{\prime}$ 24. INSTALL 48' LONG (12' TO NORTH AND 36' TO EAST) X 5' WIDE CONCRETE RAMP WITH 5' X 5' LANDING AREA. PROVIDE WITH RAILING ON EACH SIDE. MATCH TOP OF CONCRETE SIDEWALK = 756.0 AND TOP OF PROPOSED CONCRETE PORCH = 752.9. LANDING AREA = 755.0.

25. INSTALL 24' LONG (20' TO THE EAST AND 4' TO THE SOUTH) X 5' WIDE CONCRETE RAMP WITH 5' X 5' LANDING AREA. PROVIDE WITH RAILING ON EACH SIDE. MATCH TOP OF CONCRETE SIDEWALK = 754.4 AND TOP OF PROPOSED CONCRETE PORCH = 752.9. LANDING AREA = 752.7 (LOW POINT).

26. PROPOSED 6' WIDE INTEGRATED CURB AND SIDEWALK.

27. LOW POINT IN SIDEWALK IS 4' FROM EDGE OF PORCH AT 752.7 

#### LEGEND

PROPOSED ASPHALT	
PROPOSED CONCRETE PAVEMENT	



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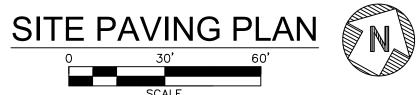
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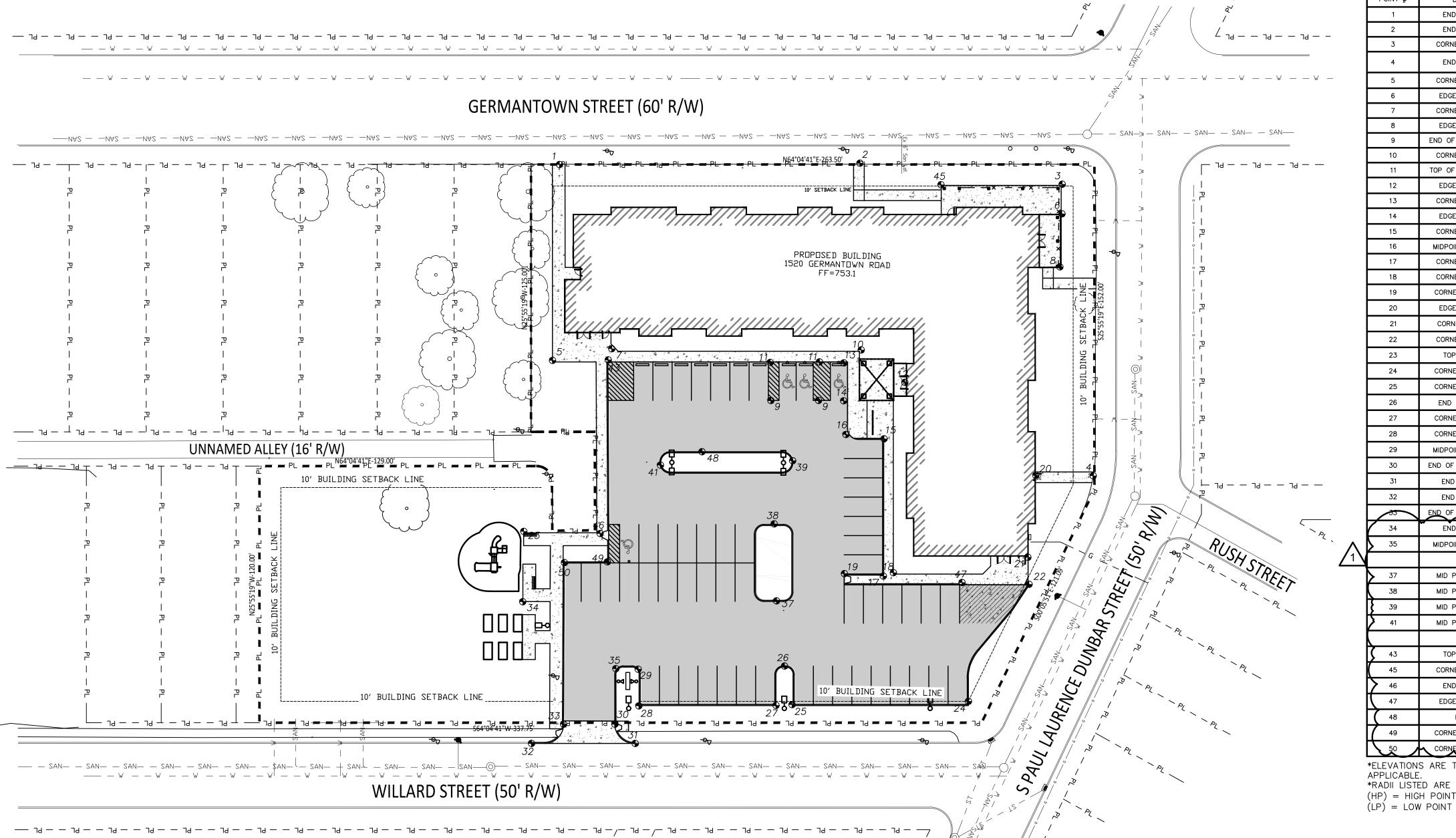
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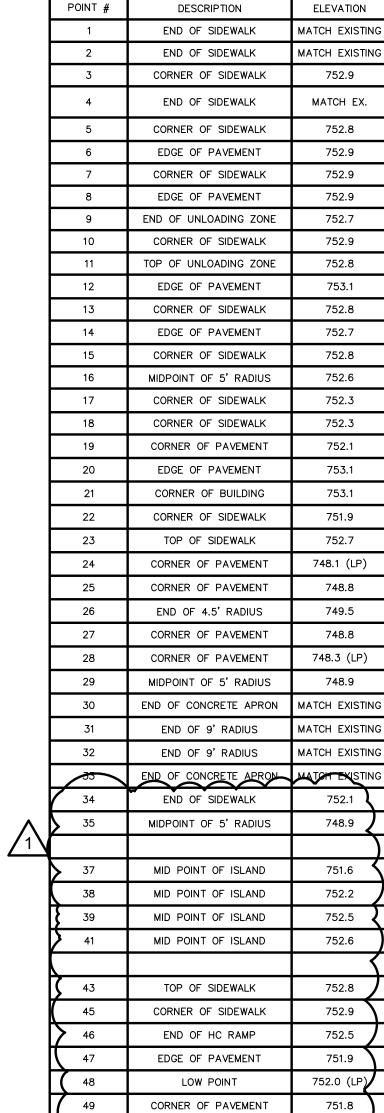












SITE LAYOUT STATIONING •

50 CORNER OF PAVEMENT 751.7
\*ELEVATIONS ARE TO TOP OF PAVEMENT WHERE APPLICABLE. \*RADII LISTED ARE TO THE OUTSIDE CURB LINE

(HP) = HIGH POINT



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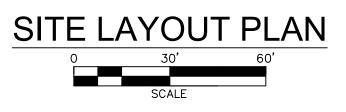
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#### **CONSTRUCTION NOTES**

. CONTRACTORS SHALL SCHEDULE THEIR OPERATIONS AND CARRY OUT THE WORK IN A MANNER TO CAUSE THE LEAST DISTURBANCE AND/OR INTERFERENCE WITH NORMAL

2. THE EXISTING UNDERGROUND INFORMATION AND TOPOGRAPHIC INFORMATION IS BASED ON THE PROJECT'S SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UTILITIES. IF DURING CONSTRUCTION OPERATIONS, A CONTRACTOR ENCOUNTERS UTILITIES IN LOCATION OTHER THAN THOSE SHOWN ON THE PLANS. HE SHALL IMMEDIATELY NOTIFY THE OWNER AND TAKE THE NECESSARY STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.

3. ALL CONTRACTORS SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE, OR ADJACENT PROPERTY.

4. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF EXISTING ELEVATIONS AT CRITICAL POINTS SUCH AS APPROACHES OF DRAINAGE STRUCTURES, CURBING, ETC. VERIFICATION SHALL BE PERFORMED DURING LAYOUT STAGES AND SIGNIFICANT DISCREPANCIES REPORTED TO THE ENGINEER IMMEDIATELY.

5. CONTRACTOR SHALL CONDUCT HIS OPERATIONS SUCH THAT THE FLOW OF ALL EXISTING SEWERS AND LATERALS WILL BE MAINTAINED AT ALL TIMES.

#### **CODED NOTES**

INSTALL 6" RAIN LEADER AS SHOWN (TYPICAL). EXTEND UP TO 1' ABOVE GRADE AND END WITH BOOT THAT MATCHES DOWNSPOUT SIZE. INSTALL WITH INVERT @ DOWNSPOUT OF 18" BELOW GRADE FINISHED GRADE. COORDINATE EXACT LOCATIONS OF DOWNSPOUTS WITH ARCHITECTURAL PLANS. (TYPICAL).

- 2. INSTALL TRENCH DRAIN "A" PER DETAIL ON SHEET C601
- 3. INSTALL 12" STORM SEWER.
- 4. INSTALL INLET BASIN. INSTALL INLET PROTECTION AROUND BASIN AND REMOVE AT THE END OF THE PROJECT.
- 5. MAKE WATERTIGHT CONNECTION INTO EXISTING BASIN AT INVERT = 740.62.
- 6. INSTALL 20' LONG BY 4" PERFORATED (NO FILTER SOCK) SUBSURFACE DRAINS WITHIN BASE COARSE. TYPICAL OF THREE AT EACH BASIN IN THE PARKING LOT.
- EXTEND 4" DRAIN LINE AND TIE INTO THE BUILDING'S FOUNDATION DRAIN.

#### **LEGEND**

PROPOSED CONTOUR

## SEWER SUMMARY

PROP. INLET BASIN "A" PROP. CASTING = 752.6PROP. 12" INV (N) = 748.8PROP 6" INV (S) = 650.8

PROP. INLET BASIN "B" PROP. CASTING = 752.6PROP 12" INIV (W & S) -7 PROP. INLET BASIN "C" PROP. CASTING = 752.4

PROP. 12" INV (SW & E) =748.2 PROP. 6" INV (S) = 750.0PROP. CASTING = 752.6 PROP. 12" INV (E & W) = 747.7

PROP. 4" INV (S) = 749.0PROP. INLET BASIN "E" PROP. CASTING = 752.6
PROP. 12" INV (E & S) =747.0

PROP. INLET BASIN "F" PROP. CASIING = 752.5 PROP. 12" INV (N & E) =746.5 PROP. INLET BASIN "G" PROP. CASTING = 752.6PROP. 12" INV (E, S & W) =746.0

=745.6PROP. INLET BASIN "K" PROP. CASTING = 752.6PROP. 12" INV (E) = 748.8PROP 6" INV (N&S) = 750.8PROP. INLET BASIN "L" PROP. CASTING = 748.3PROP. 12" INV (E, W & N) PROP. 8" INV (W) = 746.5PROP.YARD BASIN "M" PROP. CASTING = 752.1PROP. 12" INV (E) =748.1

PROP. INLET BASIN "H"

PROP. CASTING = 752.6

PROP. CASTING = 752.0

PROP. 12" INV (E, N & S)

PROP. 12" INV (W) = 748.8

PROP. 6" INV (E) = 749.0PROP. INLET BASIN "J"

PROP. CASTING = 748.1
PROP. 12" INV (W & N & SE) =741.0 PROP. INLET BASIN "O" PROP. CASTING = 752.0

PROP. 12" INV (SE) =746.0 PROP. 6" INV (N) = 750.8PROP. 8" INV (E) = 750.0 $PROP_{4}"INV(NE) = 749.0$ PROP. INLET BASIN "P" PROP. CASTING = 752.4

PROP. 12" INV (NE & W) = 748.0

AN EXISTING BUILDING AND PAVED PARKING LOT LOCATED ON THE SAME PARCEL AS THE PROPOSED PARKING LOT HAVE BEEN REMOVED. SEE OUTLINE ON SHEET C2.0. THIS PROJECT WILL RESULT IN A REDUCTION IN SITE STORMWATER RUNOFF AS THE ONSITE IMPERVIOUS AREA WILL BE REDUCED.

SITE HAS MORE THAN 20% NET REDUCTION IN VOLUMETRIC RUNOFF COEFFICIENT

 $R_V = 0.05 + 0.9(i)$ i (EXISTING) = 0.70

i(PROPOSED) = 0.53 = 25% REDUCTION ADIN 5 4 

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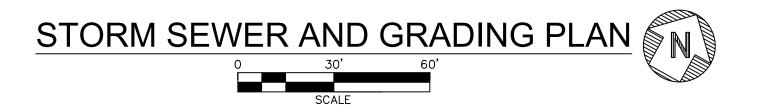
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#### ELECTRICAL SYMBOL LEGEND

#### NOTES:

CEILING OR WALL MOUNTED EXIT SIGN. SHADED AREA INDICATES LOCATION OF FACE(S). ARROWS

EMERGENCY LIGHTING REMOTE HEAD UL LISTED FOR USE FOR WET LOCATIONS. REFER TO LIGHTING

CONCEALED BRANCH CIRCUIT HOMERUN. FOR NORMAL BRANCH CIRCUIT WIRING. CONTRACTOR MAY

COMBINE UP TO THREE HOMERUNS IN ONE RACEWAY ON A WYE SYSTEM AND TWO HOMERUNS IN ONE

RACEWAY ON A DELTA SYSTEM. #12 AWG MINIMUM SIZE CONDUCTORS UNLESS NOTED OTHERWISE. ALL

RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL

RACEWAY AND CONDUCTORS CONCEALED ABOVE CEILING OR IN WALL AT ELECTRICAL CONTRACTOR'S

OPTION. #12 AWG MINIMUM SIZE CONDUCTOR UNLESS OTHERWISE NOTED. ALL RACEWAYS TO CONTAIN

SEPARATÉ EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL

BRANCH CIRCUIT UNDER FLOOR SLAB, UNDERGROUND OR ABOVE ACCESSIBLE CEILING OF FLOOR BELOW.

ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT

HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN

CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO

BE SHARED BETWEEN CIRCUITS. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING

INDICATE CHEVRONS. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.

FIXTURE SCHEDULE FOR DETAILS.

OUTDOOR 120V PHOTOCELL. TORK #2021.

SPECIFICATIONS FOR RACEWAY TYPE.

CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.

EMERGENCY LIGHTING FIXTURE. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.

	E ALL DEVICE COLORS WITH THE ARCHITECT SHALL BE MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.		ES TO BE MOUNTED AT 18" AFF TO CENTERLINE UNLESS OTHERWISE NOTED. FIRE ALARM SPECIFICATIONS FOR DETAILS AND ADDITIONAL INFORMATION.
SYMBOL	<u>DESCRIPTION</u>	SYMBOL	<u>DESCRIPTION</u>
Φ	HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX TAMPER-RESISTANT RECEPTACLE. HUBBELL #HBL5362TR (SPECIFICATION GRADE).		MANUAL FIRE ALARM SENDING STATION. MOUNT AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
⊕ GFI	HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX TAMPER—RESISTANT GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFTR20 (SPECIFICATION GRADE).		FIRE ALARM SYSTEM AUTOMATIC DETECTOR. SUBSCRIPT INDICATES TYPE.  CO — CARBON MONOXIDE DETECTOR.
⊕ WP/GFI	HEAVY DUTY 20 AMP, 125 VOLT, TAMPER AND WEATHER RESISTANT DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFTWRST20 (SPECIFICATION GRADE) WITH WEATHERPROOF "IN-USE" COVERPLATE. MOUNT VERTICALLY AT 24" AFG TO CENTERLINE UNLESS OTHERWISE NOTED.		ELEV - ELEVATOR RECALL SMOKE DETECTOR  FT - FIXED TEMPERATURE (190°F) HEAT DETECTOR, CEILING MOUNTED.
Φ	TWO HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX TAMPER—RESISTANT RECEPTACLES. HUBBELL #HBL5362TR (SPECIFICATION GRADE). MOUNT IN COMMON BOX WITH COMMON PLATE.	(	BATT / SMOKE ALARM, 120V WITH BATTERY BACKUP, PHOTOELECTRIC TYPE, CEILING MOUNTED.  SMOKE ALARM, 120V WITH BATTERY BACKUP, PHOTOELECTRIC TYPE, CEILING MOUNTED,
$\otimes$	SPECIAL PURPOSE OUTLET. REFER TO DRAWINGS FOR DESCRIPTION. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH—IN.	<b>\</b>	BATT/520 SMOKE ALARM, 120V WITH BATTERY BACKUP, PHOTOELECTRIC TYPE, CEILING MOUNTED, WITH LOW-FREQUENCY 520HZ SOUNDER BASE  BATT/CO/ _ COMBINATION SMOKE CARBON MONOXIDE ALARM, 120V WITH BATTERY BACKUP,
	BOX AROUND DEVICE INDICATES SURFACE MOUNTED IN 4" SQUARE BOX WITH EXPOSED WORK COVER UNLESS OTHERWISE NOTED.	\	520 PHOTOELECTRIC TYPE, CEILING MOUNTED, WITH LOW-FREQUENCY 520HZ SOUNDER BASE
<b>(</b> )	STANDARD STEEL JUNCTION BOX WITH COVER. LOCATE AND CONNECT AS DIRECTED.  POINT OF CONNECTION TO ELECTRIFIED EQUIPMENT. VERIFY EXACT LOCATION WITH RESPECTIVE	<b>∑</b>	OTHERWISE NOTED. SUBSCRIPT INDICATES TYPE.  NO COMPINATION HOPE (CITORE
	EQUIPMENT SUPPLIER PRIOR TO ROUGH—IN.  AD — AUTOMATIC DOOR (120V).	N	SUBSCRIPT - COMBINATION HORN / STROBE.  V - VISUAL-ONLY
▩	HD - HAND DRYER (1500W,120V).	™ <sub>C</sub>	FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE (CONTROL TYPE).
	TCP - TEMPERATURE CONTROL PANEL (120V).	<b>M</b> <sub>1</sub>	FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE (INDIVIDUAL TYPE).
M	MOTOR FURNISHED AND INSTALLED BY OTHERS, WIRED BY ELECTRICAL CONTRACTOR. CONNECT AS DIRECTED BY MOTOR SUPPLIER.	™ <sub>M</sub>	FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE (MONITOR TYPE).
	FUSIBLE DISCONNECT SWITCH, HEAVY DUTY TYPE, (UNLESS NOTED OTHERWISE ON DRAWINGS) COMPLETE WITH FUSETRONS SIZED TO PROTECT MOTOR, EQUIPMENT OR CONDUCTORS (WHICHEVER IS APPLICABLE).	FACP	FIRE ALARM SYSTEM CONTROL PANEL.
	SIZE, POLES, AND TYPE AS INDICATED. HORSEPOWER RATED, QUICK-MAKE, QUICK-BREAK.	FAAP TS	FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL.  SPRINKLER SYSTEM TAMPER SWITCH. FURNISHED AND INSTALLED BY FIRE PROTECTION CONTRACTOR,
\$	MANUAL MOTOR STARTER WITH NEON PILOT LIGHT. ALLEN-BRADLEY #600TQX216. MOUNT AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.	<u> </u>	CONNECTED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR. VERIFY LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH—IN.
M PAN. " "	UTILITY METER. REFER TO DETAILS.  208/120V,3ø,4W OR 208/120V,1ø,3W PANELBOARD. REFER TO PANELBOARD SCHEDULE AND/OR	FS 🕣	SPRINKLER SYSTEM FLOW SWITCH. FURNISHED AND INSTALLED BY FIRE PROTECTION CONTRACTOR, CONNECTED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR. VERIFY LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH—IN.
DIST. PAN.	DISTRIBUTION PANEL. REFER TO PANELBOARD SCHEDULE AND/OR SPECIFICATIONS FOR DETAILS.	•	FLUSH-MOUNTED 1-GANG COMMUNICATIONS OUTLET BOX. USE 5"SQ X 2-7/8" DEEP BACK BOX (BY RANDL OR EQUAL). REFER TO TYPICAL FLUSH COMMUNICATIONS OUTLET ROUGH—IN DETAIL.
<b>±</b>	PUSH BUTTON. REFER TO DRAWINGS FOR DETAILS.	•	TV - TELEVISION OUTLET. LOCATE ADJACENT TO POWER RECEPTACLE.
\$	HEAVY DUTY 20 AMP, SINGLE POLE SWITCH. HUBBELL #HBL1221.	•	DOORBELL. REFER TO DETAIL.
\$3	HEAVY DUTY 20 AMP, THREE-WAY SWITCH. HUBBELL #HBL1223.	₿	DOORBELL CHIME AND STROBE. REFER TO DETAIL.
\$ wp	"WP" SUBSCRIPT INDICATES TO PROVIDE WEATHERPROOF COVER WITH HINGE ON TOP.	CR	CARD READER (BY ACCESS CONTROL VENDOR). PROVIDE FLUSH-MOUNTED 1-GANG COMMUNICATIONS OUTLET BOX AT 46" AFF WITH 1"C STUBBED INTO ACCESSIBLE CEILING. USE 5"SQ X 2-7/8" DEEP
\$ <sub>oc</sub>	SINGLE-LEVEL SWITCH TYPE OCCUPANCY SENSOR. WATTSTOPPER #PW-301 (PASSIVE INFRARED).		BACK BOX (BY RANDL OR EQUAL). COORDINATE REQUIREMENTS WITH ACCESS CONTROL VENDOR.
\$ <sub>ocd</sub>	SINGLE-LEVEL 0-10V DIMMING SWITCH TYPE OCCUPANCY SENSOR. WATTSTOPPER #DW-311 (DUAL-TECHNOLOGY).		
\$ <sub>TIMER</sub>	ELECTRONIC COUNTDOWN TIMER WITH "HOLD" FUNCTION AND PRESET TIMES (5/10/15/30 MIN). INTERMATIC #E1200.		
\$	BOX AROUND DEVICE INDICATES SURFACE MOUNTED IN 4" SQUARE BOX WITH EXPOSED WORK COVER.		
PP ①	LOW-VOLTAGE SINGLE-RELAY POWERPACK. WATTSTOPPER #BZ-150.		
0C1 ⊗	LOW-VOLTAGE CEILING MOUNT OCCUPANCY SENSOR. WATTSTOPPER #DT-300 (DUAL-TECHNOLOGY).		
A	LIGHTING CONTROL REFERENCE TAG. REFER TO DETAILS FOR INFORMATION.		
0 0	LED LIGHTING FIXTURES . REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.		

SYMBOL	<u>DESCRIPTION</u>
#"	NUMBER INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BFG	BELOW FINISHED GRADE
"C"	SUBSCRIPT "C" INDICATES DEVICE TO BE MOUNTED 8" ABOVE COUNTERTOP TO CENTERLINE.
CLG	CEILING
DP	DISTRIBUTION PANEL
EC	ELECTRICAL CONTRACTOR
EMT	GALVANIZED ELECTRIC METALLIC TUBING (THINWALL), UL LISTED
EWC	ELECTRIC WATER COOLER. PROVIDE WITH GFI-TYPE RECEPTACLE. LOCATE PER MANUFACTURER'S SHOP DRAWINGS.
FB0	FURNISHED BY OTHER TRADES, BUT INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED, RIGID, HEAVY WALL CONDUIT, UL LISTED
МС	MECHANICAL CONTRACTOR (HVAC)
NL	NIGHT LIGHT
PAN	PANELBOARD
PC	PLUMBING CONTRACTOR
PVC	CARLON PLASTIC CONDUIT, HEAVY WALL TYPE, POLYVINYL CHLORIDE, UL LISTED, SCHEDULE 40 UNLES NOTED OTHERWISE.
REF	REFRIGERATOR
SPD	SURGE PROTECTION DEVICE
TR	TAMPER RESISTANT
TV	TELEVISION. COORDINATE HEIGHT WITH ARCHITECT.

INDIVIDUAL DRAWINGS.

INSTRUCTIONAL NOTES.

. FIELD VERIFY EXISTING CONDITIONS.

### ACCESSIBILITY REQUIREMENTS FOR **ACCESSIBLE UNITS**

THE FOLLOWING OUTLINES THE MINIMUM ADA REQUIREMENTS FOR DEVICE MOUNTING HEIGHTS IN MOBILITY UNITS.

FORWARD REACH WITH NO OBSTRUCTION:

- A. LIGHT SWITCHES MAXIMUM HEIGHT: 48" TO CENTERLINE.
- B. POWER RECEPTACLE MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE. C. DATA OUTLET MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE.
- SIDE REACH OVER AN OBSTRUCTION (WHERE DEVICES ARE LOCATED ABOVE COUNTERTOPS WITH NO KNEE SPACE): A. MAXIMUM HEIGHT OF ALL DEVICES: 46" TO CENTERLINE.

COORDINATE ELECTRICAL WORK WITH ALL CONTRACTORS ON SITE (GENERAL TRADES, PLUMBING, FIRE PROTECTION, HVAC, ETC) PRIOR TO COMMENCEMENT OF DEMOLITION/CONSTRUCTION WORK.

**ELECTRICAL GENERAL NOTES** 

DRAWINGS IN ADDITION TO ANY ADDITIONAL DRAWING NOTES ON THE

2. SEE CODED NOTES ON INDIVIDUAL DRAWING SHEETS FOR SPECIFIC

THE GENERAL NOTES LISTED HERE APPLY TO ALL ELECTRICAL

THE ELECTRICAL DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT, LIGHTING, AND DEVICES UNLESS DIMENSIONS ARE GIVEN FOR CLEARANCES, ETC LIGHTING, DEVICES AND ELECTRICAL EQUIPMENT ARE TO BE INSTALLED ALONG THE GENERAL PLANS SHOWN ON THE DRAWINGS, JT KEEPING IN MIND ACTUAL BUILDING CONDITIONS WHICH MUST BE CONFIRMED WITH-IN THE ACTUAL WORK AREA. CONTRACTORS, IN THEIR BIDS, ARE REQUIRED TO INCLUDE ALL LABOR AND MATERIALS AND OTHER RELATED WORK NECESSARY TO PROVIDE MINOR OFFSETS IN ELECTRICAL INSTALLATION TO AVOID CONFLICT WITH OTHER WORK ON THIS PROJECT, OR AS REQUIRED IN ORDER TO OBTAIN MAXIMUM HEAD ROOM OR EQUIPMENT ACCESS IN SPACES.

6. PHASING - SEE DIVISION 1 PROJECT SPECIFICATION PHASING DOCUMENTS FOR SPECIFIC PHASING INSTRUCTIONS. COORDINATE SHUT-DOWN OF ANY UTILITY IN ADVANCE WITH THE OWNER.

MAINTAIN REQUIRED RIGGING ACCESS CLEARANCES. COORDINATE CLEARANCE REQUIREMENTS WITH OTHER TRADES.

8. E.C. IS TO COORDINATE ALL MASONRY PENETRATION LOCATIONS AND SIZES WITH G.C.

9. AN ATTEMPT HAS BEEN MADE TO SHOW ALL ELECTRICAL ITEMS TO REMAIN OR BE REMOVED. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND REMOVE AND/OR RELOCATE ANY ITEM WHICH INTERFERES WITH NEW CONSTRUCTION.

10. POWER AND TELECOM RISER PULL BOXES MAY NOT BE SHOWN. PROVIDE PULL BOXES AT LOCATIONS REQUIRED. IN NO CASE SHALL A FEEDER CONDUIT HAVE BENDS OF MORE THEN 270° WITHOUT THE INSTALLATION OF A PULL BOX.

11. PROVIDE FIRESEALING OF ALL OPENINGS THROUGH FIRE RATED WALLS AND ASSEMBLIES. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

12. EC TO COORDINATE ELECTRICAL AND TELECOMMUNICATIONS DEVICE LOCATIONS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. IF ELEVATIONS ARE NOT PROVIDED ON DOCUMENTS, EC SHALL COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT. DEVICE REQUIRED TO BE RELOCATED DUE TO LACK OF COORDINATION WILL BE DONE AT THE CONTRACTOR'S EXPENSE.

13. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES OF ACCESSIBLE UNITS AND SIGHT/HEARING UNIT.

REVISIONS BULLETIN 01 - 07/17/2023 2 BULLETIN 02 - 09/19/2023



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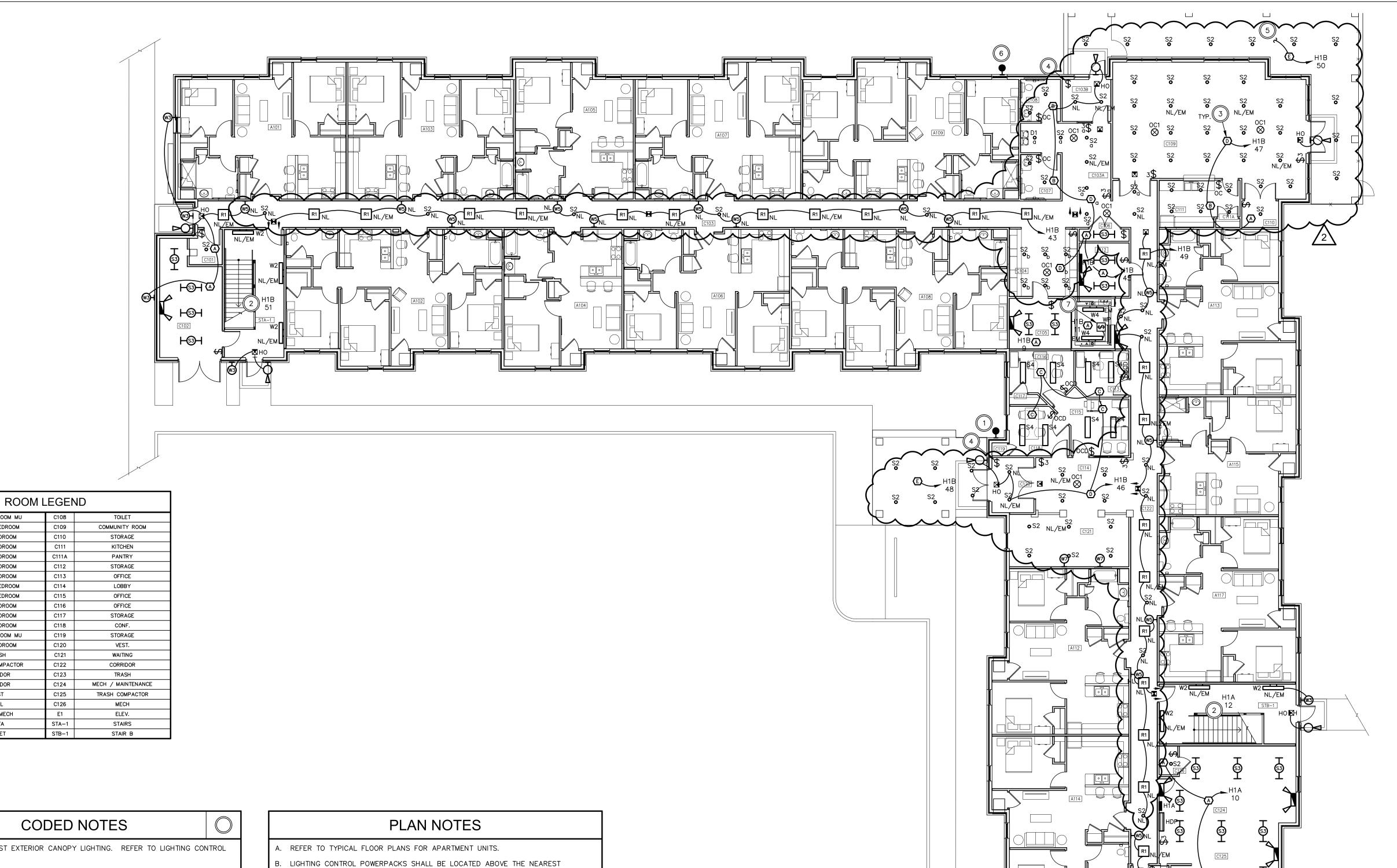
**TURNING VISIONS** INTO REALITY

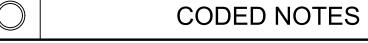
03/31/2023

DATE

82A21 PROJECT NUMBER







TWO BEDROOM

ONE BEDROOM

TWO BEDROOM

THREE BEDROOM

THREE BEDROOM

TWO BEDROOM

TWO BEDROOM ONE BEDROOM MU

TRASH COMPACTOR

CORRIDOR

VEST

ELEV. MECH

TOILET

C103B

C104

C106

1. PHOTOCELL FOR WEST EXTERIOR CANOPY LIGHTING. REFER TO LIGHTING CONTROL TAG "E".

STB-1

- 2 LIGHTING CIRCUIT FOR ALL FIXTURES IN STAIRWELL.
- 3. LIGHTING CONTROL TAG (TYP). CONNECT ALL LIGHTING IN AREA INDICATED TO CIRCUIT SHOWN.
- 4. OVERRIDE SWITCH FOR EXTERIOR LIGHTING. LABEL TO INDICATE FUNCTION. REFER TO LIGHTING CONTROL TAG "E".
- 5. UP TO SIGNAGE LIGHTING.
- 6. PHOTOCELL FOR NORTH EXTERIOR CANOPY LIGHTING, SIGNAGE LIGHTING, AND TOWER LIGHTING. REFER TO LIGHTING CONTROL TAG "E".
- 7. INSTALL ELEVATOR PIT LIGHT SWITCH BY LADDER COORDINATE WITH ELEVATOR MANUFACTURER.

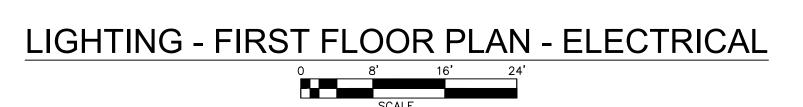
#### LIGHTING CONTROL NOTES

D. ALL EMERGENCY AND EXIT LIGHTING SHALL BE CONNECTED TO THE UNSWITCHED LIGHTING CIRCUIT SERVING THE SAME SPACE.

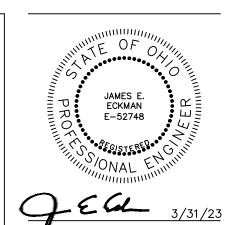
ACCESSIBLE CEILING.

C. REFER TO LIGHTING CONTROL TAG DETAILS.

- A. CORRIDOR LIGHTING CONTROLS: a. 2X2 FIXTURES IN THE CORRIDORS ARE EQUIPPED WITH INTEGRAL OCCUPANCY SENSORS AND WILL TURN ON/OFF WITH OCCUPANCY. CONNECT TO UNSWITCHED
- LIGHTING CIRCUIT. b. DOWNLIGHTS AND WALL SCONCES ARE ALWAYS—ON "NIGHT—LIGHTS". CONNECT TO UNSWITCHED LIGHTING CIRCUIT.
- B. STAIRWELL LIGHTING CONTROLS:
- a. STAIRWELL FIXTURE ARE EQUIPPED WITH INTEGRAL OCCUPANCY SENSORS AND WILL DIM TO 50% WHEN NO OCCUPANCY IS DETECTED. CONNECT TO UNSWITCHED LIGHTING CIRCUIT.
- C. EXTERIOR LIGHTING CONTROLS: a. EXTERIOR WALLPACKS ARE EQUIPPED WITH INTEGRAL PHOTOCELLS AND WILL TURN ON/OFF DEPENDENT ON THE AMOUNT OF DAYLIGHT DETECTED. CONNECT TO UNSWITCHED LIGHTING CIRCUIT.
- b. CANOPY DOWNLIGHTS ARE CONNECTED TO AN LOCAL 120V PHOTOCELL AND WILL TURN ON/OFF DEPENDENT ON THE AMOUNT OF DAYLIGHT DETECTED. CONNECT TO UNSWITCHED LIGHTING CIRCUIT.







1 BULLETIN 01 - 07/17/2023 2 BULLETIN 02 - 09/19/2023

# **LIGHTIN**

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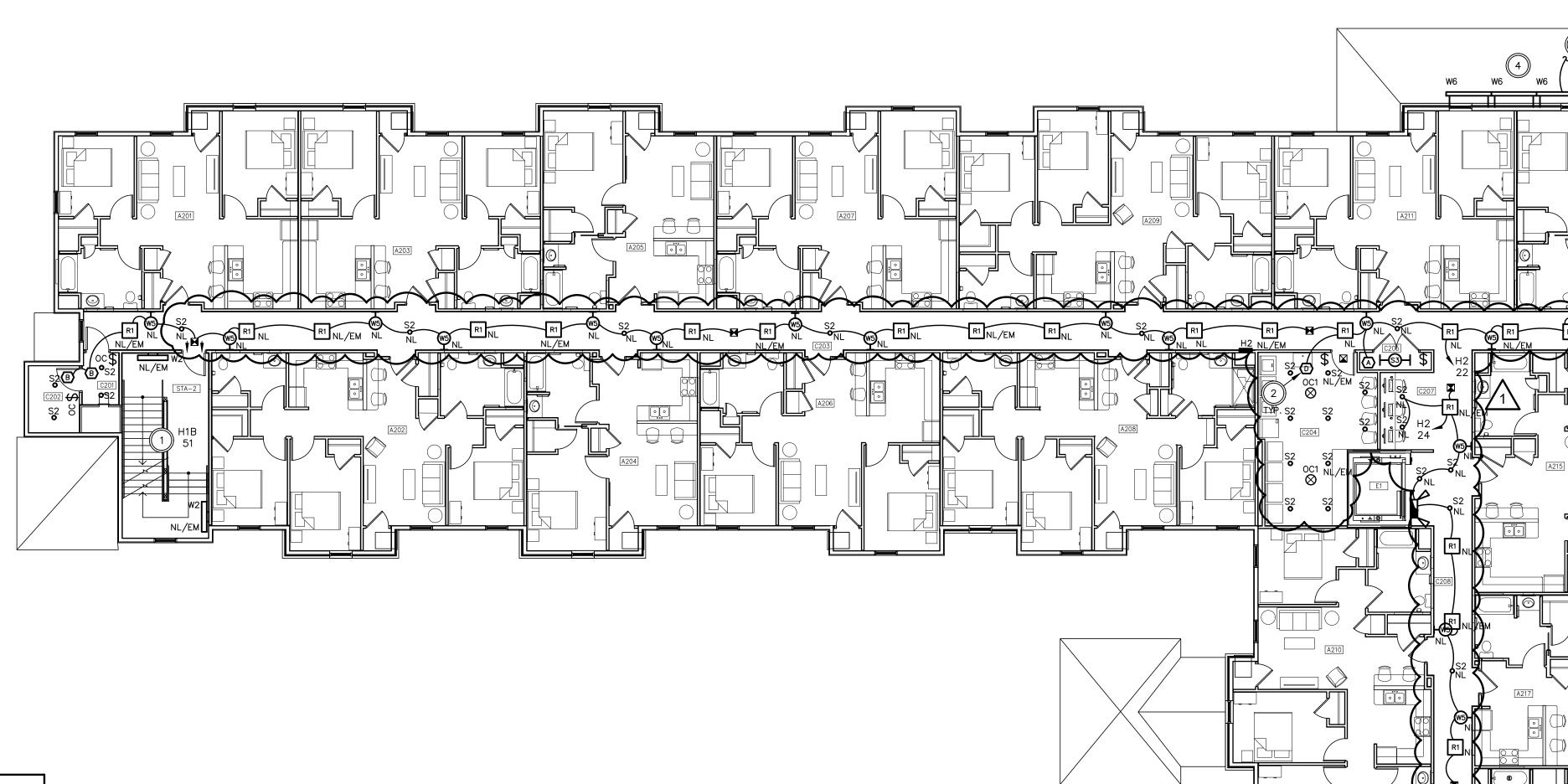
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**TURNING VISIONS** INTO REALITY

03/31/2023

DATE 82A21

PROJECT NUMBER E101



ROOM LEGEND					
A201	TWO BEDROOM	A217	ONE BEDROOM		
A202	THREE BEDROOM	A219	TWO BEDROOM		
A203	TWO BEDROOM	A221	ONE BEDROOM MU		
A204	ONE BEDROOM	C201	TRASH		
A205	ONE BEDROOM	C202	STORAGE		
A206	TWO BEDROOM	C203	CORRIDOR		
A207	TWO BEDROOM	C204	LAUNDRY		
A208	THREE BEDROOM MU	C205	DATA		
A209	THREE BEDROOM	C206	STORAGE		
A210	THREE BEDROOM	C207	COMPUTERS		
A211	TWO BEDROOM	C208	CORRIDOR		
A212	TWO BEDROOM	C209	TRASH		
A213	ONE BEDROOM	E1	ELEV.		
A214	TWO BEDROOM	STA-2	STAIR A		
A215	TWO BEDROOM S&H	STB-2	STAIR B		

## CODED NOTES

1. LIGHTING CIRCUIT FOR ALL FIXTURES IN STAIRWELL.

2. LIGHTING CONTROL TAG (TYP). CONNECT ALL LIGHTING IN AREA INDICATED TO CIRCUIT SHOWN.

3. DOWN TO CANOPY LIGHTING.

4. FIXTURE MOUNTED ABOVE BUILDING LETTERING. COORDINATE EXACT HEIGHT AND LOCATION WITH ARCHITECT. 5. UP TO TOWER LIGHTING

A. REFER TO TYPICAL FLOOR PLANS FOR APARTMENT UNITS.

## LIGHTING CONTROL NOTES

A. CORRIDOR LIGHTING CONTROLS:

a. 2X2 FIXTURES IN THE CORRIDORS ARE EQUIPPED WITH INTEGRAL OCCUPANCY
SENSORS AND WILL TURN ON/OFF WITH OCCUPANCY. CONNECT TO UNSWITCHED LIGHTING CIRCUIT.

b. DOWNLIGHTS AND WALL SCONCES ARE ALWAYS-ON "NIGHT-LIGHTS". CONNECT TO UNSWITCHED LIGHTING CIRCUIT.

B. STAIRWELL LIGHTING CONTROLS: a. STAIRWELL FIXTURE ARE EQUIPPED WITH INTEGRAL OCCUPANCY SENSORS AND WILL DIM TO 50% WHEN NO OCCUPANCY IS DETECTED. CONNECT TO UNSWITCHED

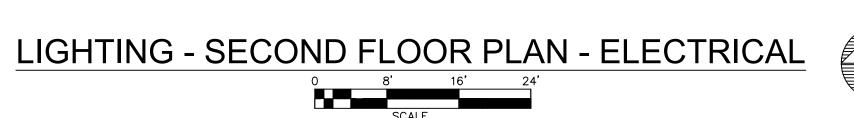
### PLAN NOTES

B. LIGHTING CONTROL POWERPACKS SHALL BE LOCATED ABOVE THE NEAREST ACCESSIBLE CEILING.

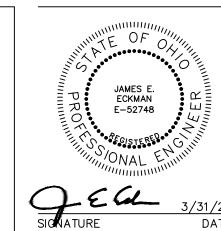
C. REFER TO LIGHTING CONTROL TAG DETAILS.

LIGHTING CIRCUIT.

D. ALL EMERGENCY AND EXIT LIGHTING SHALL BE CONNECTED TO THE UNSWITCHED LIGHTING CIRCUIT SERVING THE SAME SPACE.







**LIGHTIN ARCHITECTS** 

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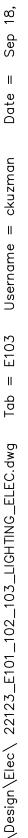
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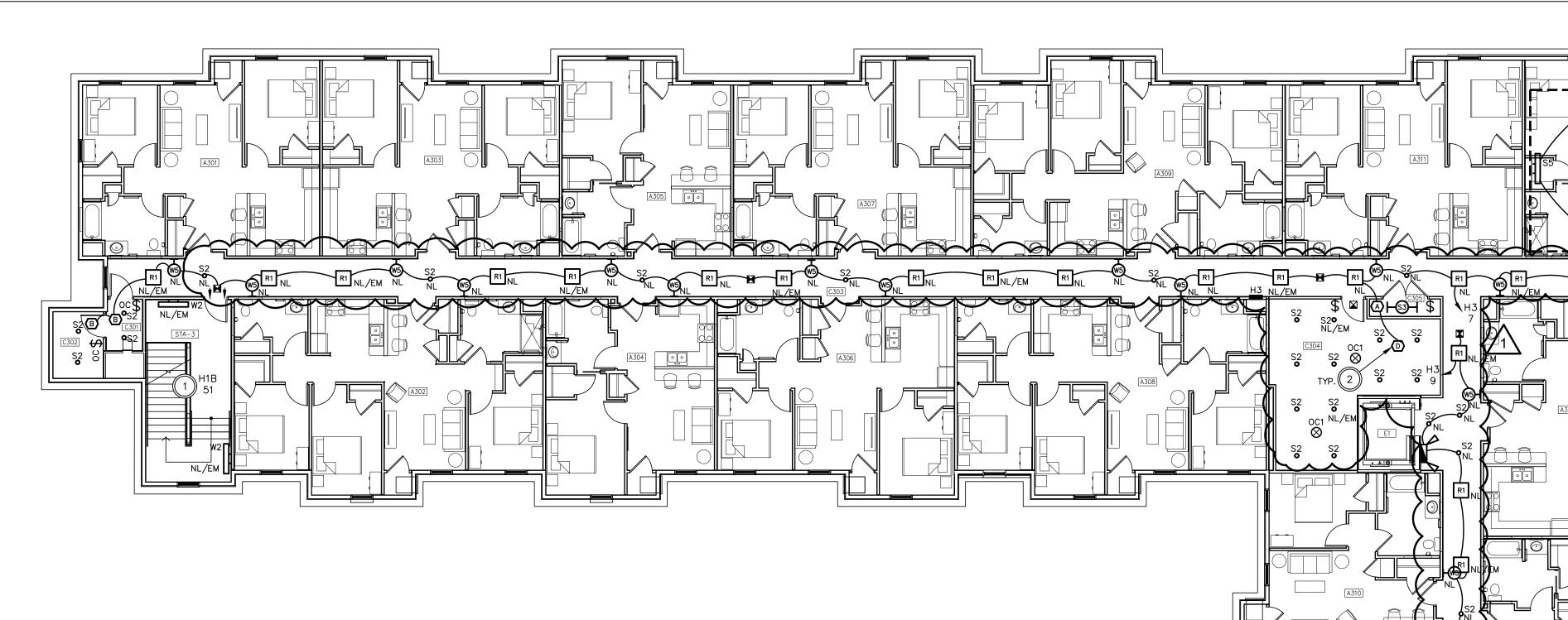
03/31/2023

82A21

PROJECT NUMBER E102







	ROOM	LEGEN	ND
A301	TWO BEDROOM	A317	ONE BEDROOM
A302	THREE BEDROOM MU	A319	TWO BEDROOM
A303	TWO BEDROOM	A321	ONE BEDROOM
A304	ONE BEDROOM	C301	TRASH
A305	ONE BEDROOM	C302	STORAGE
A306	TWO BEDROOM	C303	CORRIDOR
A307	TWO BEDROOM	C304	FITNESS
A308	THREE BEDROOM	C305	DATA
A309	THREE BEDROOM	C306	STORAGE
A310	THREE BEDROOM	C307	CORRIDOR
A311	TWO BEDROOM	C308	TRASH
A312	TWO BEDROOM MU	E1	ELEV.
A313	ONE BEDROOM MU	STA-3	STAIR A
A314	TWO BEDROOM	STB-3	STAIR B
A315	TWO BEDROOM		

## CODED NOTES

1. LIGHTING CIRCUIT FOR ALL FIXTURES IN STAIRWELL.

2. LIGHTING CONTROL TAG (TYP). CONNECT ALL LIGHTING IN AREA INDICATED TO CIRCUIT SHOWN.

3. APPROXIMATE OUTLINE OF TOWER ABOVE. PROVIDE FLOODLIGHTS IN TOWER AS SHOWN. FLOODLIGHTS SHALL BE MOUNTED TO THE SHORT WALL BELOW THE TOWER WINDOWS AND POINTED UP TO ILLUMINATE TOWER INTERIOR. COORDINATE EXACT LOCATIONS AND MOUNTED WITH ARCHITECT.

4. DOWN TO SIGNAGE LIGHTING.

### PLAN NOTES

- A. REFER TO TYPICAL FLOOR PLANS FOR APARTMENT UNITS.
- B. LIGHTING CONTROL POWERPACKS SHALL BE LOCATED ABOVE THE NEAREST ACCESSIBLE CEILING.
- C. REFER TO LIGHTING CONTROL TAG DETAILS.
- D. ALL EMERGENCY AND EXIT LIGHTING SHALL BE CONNECTED TO THE UNSWITCHED LIGHTING CIRCUIT SERVING THE SAME SPACE.

## LIGHTING CONTROL NOTES

A. CORRIDOR LIGHTING CONTROLS: a. 2X2 FIXTURES IN THE CORRIDORS ARE EQUIPPED WITH INTEGRAL OCCUPANCY SENSORS AND WILL TURN ON/OFF WITH OCCUPANCY. CONNECT TO UNSWITCHED LIGHTING CIRCUIT.

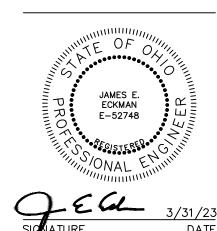
b. DOWNLIGHTS AND WALL SCONCES ARE ALWAYS—ON "NIGHT—LIGHTS". CONNECT TO UNSWITCHED LIGHTING CIRCUIT.

B. STAIRWELL LIGHTING CONTROLS:

a. STAIRWELL FIXTURE ARE EQUIPPED WITH INTEGRAL OCCUPANCY SENSORS AND WILL DIM TO 50% WHEN NO OCCUPANCY IS DETECTED. CONNECT TO UNSWITCHED LIGHTING CIRCUIT.







LIGHTIN

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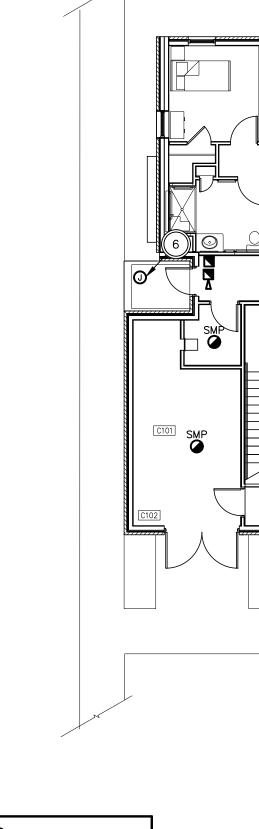
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03/31/2023

DATE

82A21 PROJECT NUMBER

E103



	ROOM	LEGEN	ND
A101	TWO BEDROOM MU	C108	TOILET
A102	THREE BEDROOM	C109	COMMUNITY ROOM
A103	TWO BEDROOM	C110	STORAGE
A104	ONE BEDROOM	C111	KITCHEN
A105	ONE BEDROOM	C111A	PANTRY
A106	TWO BEDROOM	C112	STORAGE
A107	TWO BEDROOM	C113	OFFICE
A108	THREE BEDROOM	C114	LOBBY
A109	THREE BEDROOM	C115	OFFICE
A112	TWO BEDROOM	C116	OFFICE
A113	TWO BEDROOM	C117	STORAGE
A114	TWO BEDROOM	C118	CONF.
A115	ONE BEDROOM MU	C119	STORAGE
A117	TWO BEDROOM	C120	VEST.
C101	TRASH	C121	WAITING
C102	TRASH COMPACTOR	C122	CORRIDOR
C103	CORRIDOR	C123	TRASH
C103A	CORRIDOR	C124	MECH / MAINTENANCE
C103B	VEST	C125	TRASH COMPACTOR
C104	MAIL	C126	MECH
C105	ELEV. MECH	E1	ELEV.
C106	DATA	STA-1	STAIRS
C107	TOILET	STB-1	STAIR B

## CODED NOTES

1. TAMPER SWITCH AT POST—INDICATOR VALVE. COORDINATE EXACT LOCATION WITH FPC. FIRE ALARM ADDRESSABLE MODULE SHALL BE LOCATED INSIDE THE BUILDING.

2. LOCATE HEAT DETECTOR WITHIN 2 FEET OF SPRINKLER HEAD IN ROOM. 3. EXTEND 1"C FROM ELEVATOR CONTROLLER TO ACCESSIBLE CEILING SPACE FOR DATA/PHONE CONNECTION.

4. EXTEND 1"C FROM FACP TO ACCESSIBLE CEILING SPACE FOR DATA/PHONE

5. INTERCOM SYSTEM WILL BE LOCATED IN THIS ROOM. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH INTERCOM SYSTEM VENDOR.

6. CEILING-MOUNTED RECESSED JUNCTION BOX FOR CAMERA. EXTEND 1"C TO ACCESSIBLE CEILING SPACE. COORDINATE EXACT LOCATION WITH OWNER'S SECURITY VENDOR.

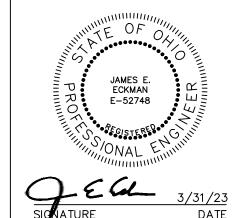
7. DATA OUTLET FOR HEAD-END SECURITY SYSTEM RACK. COORDINATE LOCATION WITH OWNER'S SECURITY VENDOR. PROVIDE (2)-4"C CONDUIT SLEEVES OUT OF THIS ROOM INTO ACCESSIBLE CEILING SPACE.

8. DATA OUTLET FOR SECURITY CAMERA MONITOR. COORDINATE MOUNTING HEIGHT

9. AREA OF RESCUE CONTROL ANNUNCIATOR AND SIGNAGE. COORDINATE EXACT LOCATION WITH ARCHITECT AND AHJ PRIOR TO INSTALLATION. COORDINATE EXACT SIGNAGE REQUIREMENTS WITH AHJ. 

A. REFER TO TYPICAL FLOOR PLANS FOR APARTMENT UNITS.





**ARCHITECTS** 

∅<sub>M</sub>Q<sub>FS</sub>∅<sub>M</sub>Q<sub>FS</sub> ∅<sub>M</sub>Q<sub>TS</sub>
 ⋄<sub>M</sub>Q<sub>TS</sub>, ∞<sub>M</sub>Q<sub>TS</sub>
 ⋄<sub>M</sub>Q<sub>TS</sub>, ∞<sub>M</sub>Q<sub>TS</sub>
 ⋄<sub>M</sub>Q<sub>FS</sub>

SYSTEMS - FIRST FLOOR PLAN - ELECTRICAL

O 8' 16' 24'

SCALE

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**TURNING VISIONS INTO REALITY** 

03/31/2023

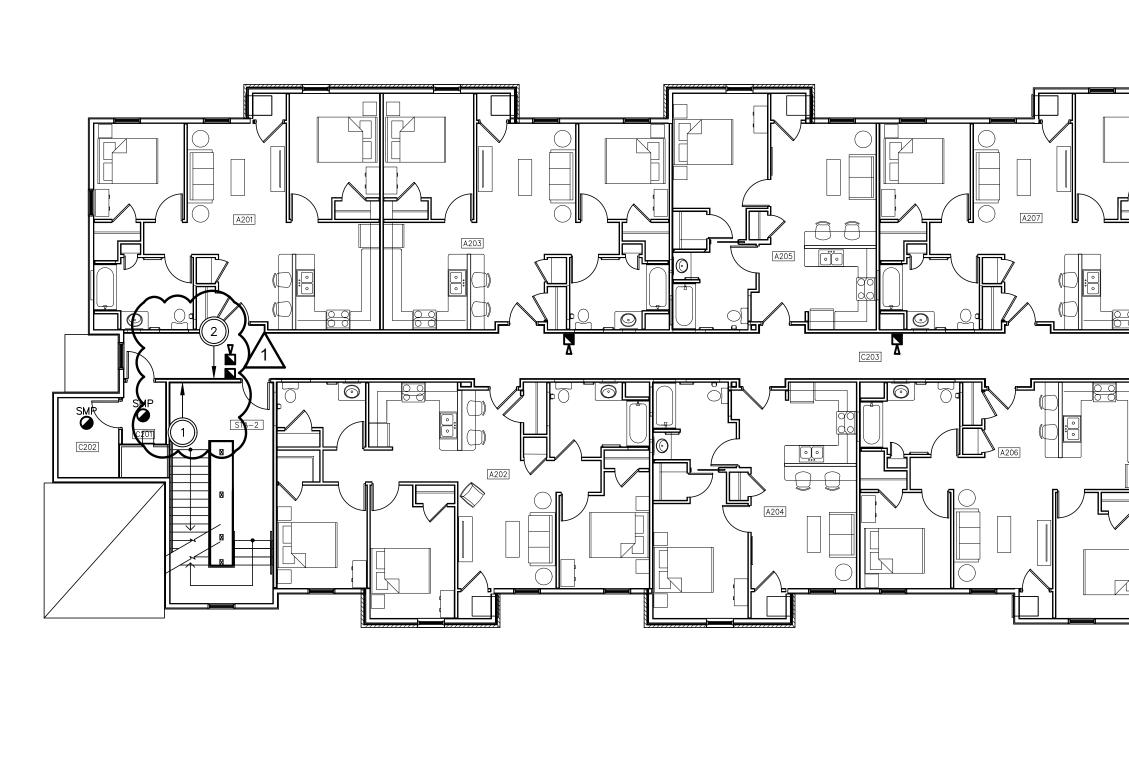
DATE

82A21 PROJECT NUMBER

E301

DRAWING NUMBER

PLAN NOTES



	ROOM L	EGEN	ND
A201	TWO BEDROOM	A217	ONE BEDROOM
A202	THREE BEDROOM	A219	TWO BEDROOM
A203	TWO BEDROOM	A221	ONE BEDROOM MU
A204	ONE BEDROOM	C201	TRASH
A205	ONE BEDROOM	C202	STORAGE
A206	TWO BEDROOM	C203	CORRIDOR
A207	TWO BEDROOM	C204	LAUNDRY
A208	THREE BEDROOM MU	C205	DATA
A209	THREE BEDROOM	C206	STORAGE
A210	THREE BEDROOM	C207	COMPUTERS
A211	TWO BEDROOM	C208	CORRIDOR
A212	TWO BEDROOM	C209	TRASH
A213	ONE BEDROOM	E1	ELEV.
A214	TWO BEDROOM	STA-2	STAIR A
A215	TWO BEDROOM S&H	STB-2	STAIR B

CODED NOTES Q

1. AREA OF RESCUE CALL STATION AND SIGNAGE. MOUNT CALL STATION AT 48" AFF TO CENTERLINE. REFER TO AREA OF RESCUE WIRING DIAGRAM. COORDINATE EXACT SIGNAGE REQUIREMENTS WITH AHJ.

2. AREA OF RESCUE ASSISTANCE SIGNAGE.

PLAN NOTES

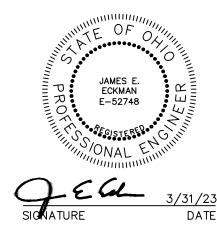
A. REFER TO TYPICAL FLOOR PLANS FOR APARTMENT UNITS.

SYSTEMS - SECOND FLOOR PLAN - ELECTRICAL

O 8' 16' 24'

SCALE





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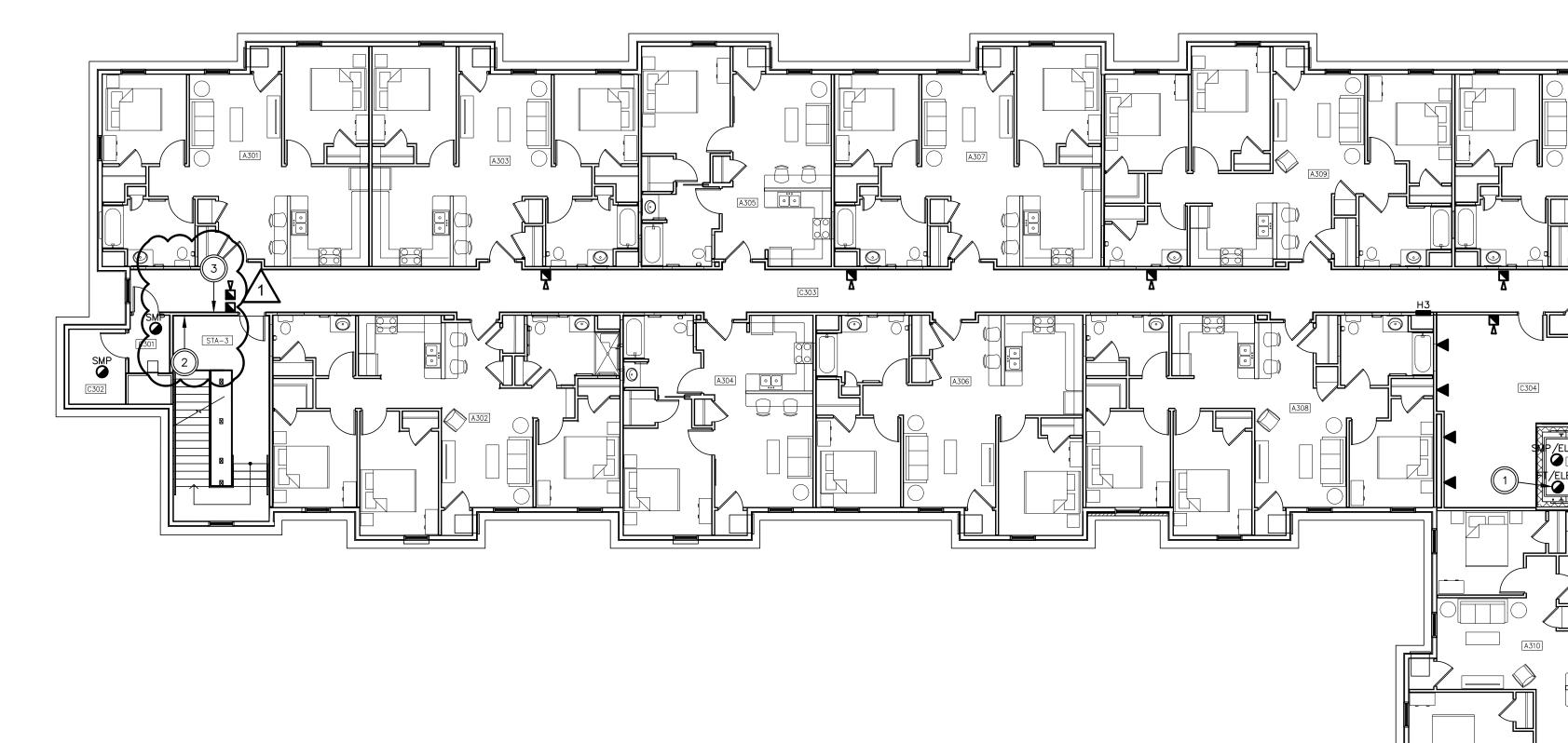
**TURNING VISIONS INTO REALITY** 

03/31/2023

82A21

E302

PROJECT NUMBER



	ROOM L	_EGE	ND
A301	TWO BEDROOM	A317	ONE BEDROOM
A302	THREE BEDROOM MU	A319	TWO BEDROOM
A303	TWO BEDROOM	A321	ONE BEDROOM
A304	ONE BEDROOM	C301	TRASH
A305	ONE BEDROOM	C302	STORAGE
A306	TWO BEDROOM	C303	CORRIDOR
A307	TWO BEDROOM	C304	FITNESS
A308	THREE BEDROOM	C305	DATA
A309	THREE BEDROOM	C306	STORAGE
A310	THREE BEDROOM	C307	CORRIDOR
A311	TWO BEDROOM	C308	TRASH
A312	TWO BEDROOM MU	E1	ELEV.
A313	ONE BEDROOM MU	STA-3	STAIR A
A314	TWO BEDROOM	STB-3	STAIR B
A315	TWO BEDROOM		

CODED NOTES 1. LOCATE HEAT DETECTOR WITHIN 2 FEET OF SPRINKLER HEAD IN SHAFT.

2. AREA OF RESCUE CALL STATION AND SIGNAGE. MOUNT CALL STATION AT 48"
AFF TO CENTERLINE. REFER TO AREA OF RESCUE WIRING DIAGRAM. COORDINATE EXACT SIGNAGE REQUIREMENTS WITH AHJ. 3. AREA OF RESCUE ASSISTANCE SIGNAGE.

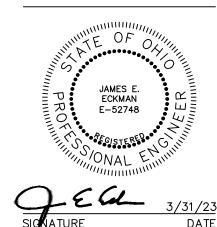
PLAN NOTES A. REFER TO TYPICAL FLOOR PLANS FOR APARTMENT UNITS.

SYSTEMS - THIRD FLOOR PLAN - ELECTRICAL

O 8' 16' 24'

SCALE





1 BULLETIN 02 - 09/19/2023

ARCHITECTS

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03/31/2023

82A21

E303

PROJECT NUMBER

Т	YPICAL ONE-E	BED	RC	OM	Р	ANE	ELE	3OA	RD SCHEDULI	
PANEL	.: ONE-BED		LOC	ATION:	<u>A:</u>	s note	D ON	PLAN	MOUNTING: FLUSH	
SERVI	CE: <u>208/120 VOLTS</u> ,			_1	PHA	νSE,		_3_	WIRE, <u>60</u> HZ	
MAINS	150 AMPS,		L	.UGS,				150A	CCT. BKR.	
FED F	ROM <u>UTILITY METER</u>	— F	ULL C	APACIT	Υ, Ν	IEUTRA	L, SEF	PARAT	E GROUNDING BUS	
LOAD	DESCRIPTION	CCT. BKR.					CCT.	CCT. BKR.	DESCRIPTION	LOAD
		DIXIX.	1				2	20/1	SMOKE ALARMS	M-250
H-6743	HVAC UNIT VRP-1	45/2	3				4	20/1		M-250
								<u> </u>	SPARE	
R-8000	RANGE	50/2	5			<u> </u>	6	20/1	RECEPT REFRIGERATOR	R-1000
			7		$\square$		8	20/1	RECEPT KITCHEN COUNTER	R-360
R-1080	RECEPT LIVING ROOM	20/1	9			$\langle \   \ $	10	20/1	RECEPT. – KITCHEN PENINSULA	R-540
R-900	RECEPT BEDROOM	20/1	11		$\square$	\ \	12	20/1	RANGE HOOD	H-100
R-360	RECEPT BATHROOM	20/1	13			\   	14	20/1	KITCHEN EXHAUST	H-24
L-182	LIGHTING	20/1	15		$\blacksquare$	(	16	20/1	SPARE	_
-	SPARE	20/1	17			(	18	20/1	SPARE	_
REMARI	KS:								LOAD LEGEND:	
1. RES	SIDENTIAL-STYLE LOADCENT	ER PA	NEL.				R -	RECEP	TACLES	
2. ALI TYPE.	L 15/1 AND 20/1 CIRCUIT E	3REAK	ERS S	HALL E	BE A	FCI	P -	LIGHTIN PLUMB HVAC		

PLAN NOTES

A. LIGHT FIXTURES IN CLOSETS SHALL BE LOCATED AT LEAST 12" FROM STORAGE SHELVES.

CODED NOTES



REVISIONS

1 BULLETIN 01 - 07/17/2023

BULLETIN 02 - 09/19/2023

1. EXHAUST FAN HAS LOW/HIGH SPEED SETTING. FAN WILL RUN CONTINUOUSLY AT LOW SPEED. FAN WILL SWITCH TO HIGH SPEED WHEN THE WALL SWITCH IS TURNED ON. CONNECT TO UNSWITCHED LIGHTING CIRCUIT IN ROOM.

2. NEMA 14-50R RECEPTACLE FOR RANGE. CONNECT TO CIRCUIT INDICATED WITH (3)-#8, (1)-#10GND IN 3/4"C.

3. RANGE HOOD. PROVIDE ON/OFF SWITCH IN ACCESSIBLE LOCATION ABOVE COUNTERTOP AS SHOWN.

4. RECEPTACLE MOUNTED ON SIDE OF CABINET, 8" BELOW COUNTERTOP TO CENTERLINE.

5, NOT USED.

6. RANGE HOOD WITH INTEGRAL SWITCH.

# ACCESSIBILITY REQUIREMENTS FOR MOBILITY UNITS

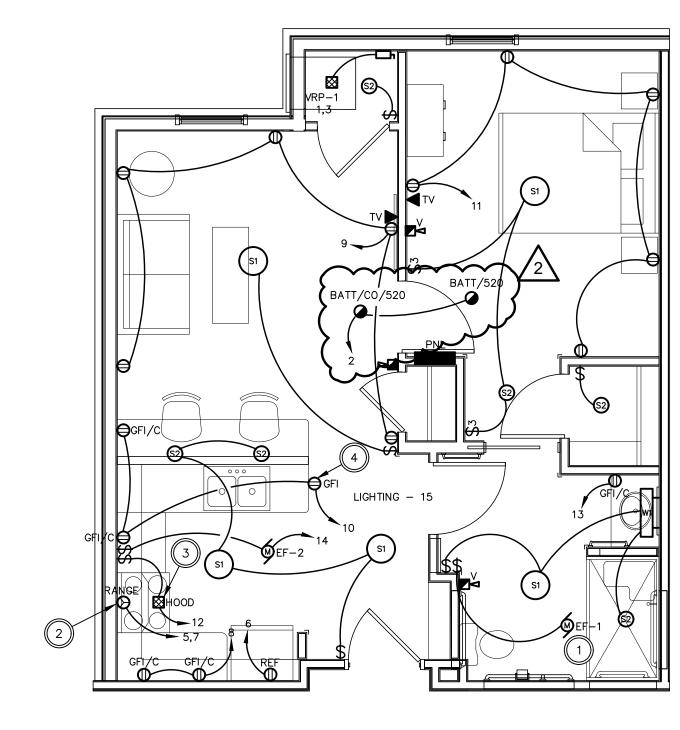
THE FOLLOWING OUTLINES THE MINIMUM ADA REQUIREMENTS FOR DEVICE MOUNTING HEIGHTS IN MOBILITY UNITS.

FORWARD REACH WITH NO OBSTRUCTION:

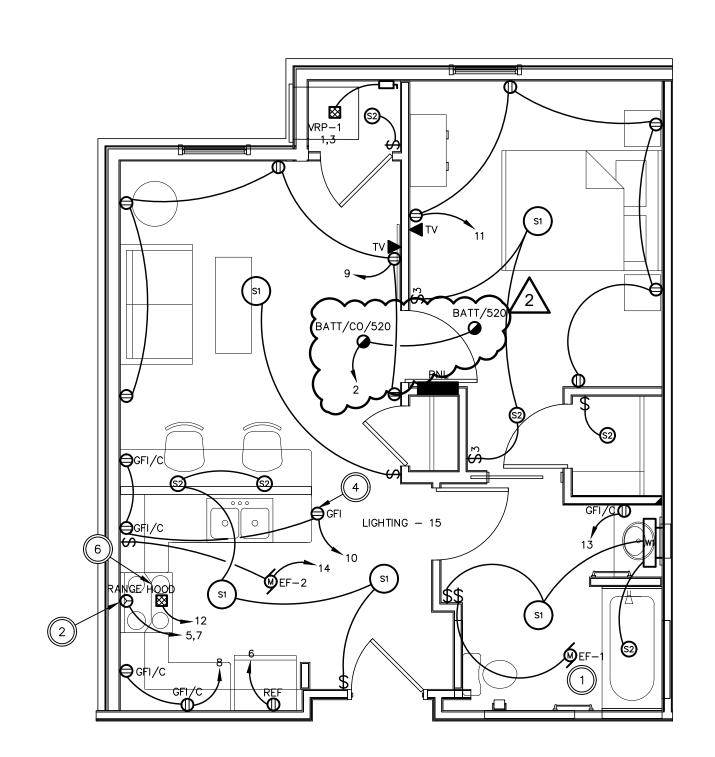
A. LIGHT SWITCHES MAXIMUM HEIGHT: 48" TO CENTERLINE.
B. POWER RECEPTACLE MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE.
C. DATA OUTLET MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE.

2. SIDE REACH OVER AN OBSTRUCTION (WHERE DEVICES ARE LOCATED ABOVE COUNTERTOPS WITH NO KNEE SPACE):

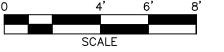
A. MAXIMUM HEIGHT OF ALL DEVICES: 46" TO CENTERLINE.



NEW WORK - TYP. ONE BEDROOM MU - ELECTRICAL



NEW WORK - TYP. ONE BEDROOM - ELECTRICAL







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03/31/2023

82A21

PROJECT NUMBER

E401

3 4 20/1 SPARS 5 6 20/1 RECEPT REFRIGERATOR R-1000	PANEL									MOUNTING: <u>FLUSH</u>	
FED FROM UTILITY METER  FULL CAPACITY, NEUTRAL, SEPARATE GROUNDING BUS  CCT. CCT. NO. BKR. NO. NO. BKR. NO. BKR	SERVI	CE: <u>208/120 VOLT</u>	S,			PHA	ASE,		_3_	WIRE, <u>60</u> HZ	
DESCRIPTION   CCT.   CCT.   CCT.   DESCRIPTION   DESCRIP	MAINS	5 <u>150</u> AMPS,		L	.UGS,			_	150 <i>A</i>	CCT. BKR.	
DESCRIPTION   BKR.   NO.   NO.   BKR.   NO	FED F	ROM <u>UTILITY METER</u>	F	ULL C	APACIT	Υ, ۱	NEUTRA	L, SEI	PARAT	E GROUNDING BUS	
H-7862 HVAC UNIT VRP-2 50/2 3 4 20/1 SPARE 1-000  R-8000 RANGE 50/2 7 8 20/1 RECEPT REFRIGERATOR R-1000  R-1080 RECEPT LIVING ROOM 20/1 9 10 20/1 RECEPT KITCHEN COUNTER R-360  R-720 RECEPT BEDROOM 20/1 11 12 20/1 RANGE HOOD H-100  R-180 RECEPT BATHROOM 20/1 13 14 20/1 RECEPT KITCHEN COUNTER R-180  R-900 RECEPT BATHROOM 20/1 15 16 20/1 LIGHTING L-204  M-50 DOORBELL (S&H UNIT ONLY) 20/1 17 18 20/1 KITCHEN EXHAUST H-24  - SPARE 20/1 21 22 20/1 SPARE -  SPARE 20/1 23 24 20/1 SPARE -  PEMARKS	LOAD	DESCRIPTION								DESCRIPTION	LOAD
R-8000 RANGE 50/2 7 8 20/1 RECEPT KITCHEN COUNTER R-360 R-1080 RECEPT LIVING ROOM 20/1 9 10 20/1 RECEPT KITCHEN PENINSULA R-540 R-720 RECEPT BEDROOM 20/1 11 12 20/1 RANGE HOOD H-100 R-180 RECEPT BATHROOM 20/1 13 14 20/1 RECEPT KITCHEN COUNTER R-180 R-900 RECEPT BEDROOM 20/1 15 16 20/1 LIGHTING L-204 M-50 DOORBELL (S&H UNIT ONLY) 20/1 17 18 20/1 KITCHEN EXHAUST H-24 - SPARE 20/1 19 20 20/1 SPARE SPARE 20/1 23 22 20/1 SPARE	H-7862	HVAC UNIT VRP-2	50/2	·			$\sim$	_	<del>-                                    </del>		M-250
R-1080   RECEPT LIVING ROOM   20/1   9	D 8000	DANCE	50 (0	5				6	20/1	RECEPT REFRIGERATOR	R-1000
R-720 RECEPT BEDROOM 20/1 11 12 20/1 RANGE HOOD H-100 R-180 RECEPT BATHROOM 20/1 13 14 20/1 RECEPT KITCHEN COUNTER R-180 R-900 RECEPT BEDROOM 20/1 15 16 20/1 LIGHTING L-204 M-50 DOORBELL (S&H UNIT ONLY) 20/1 17 18 20/1 KITCHEN EXHAUST H-24 - SPARE 20/1 19 20 20/1 SPARE SPARE 20/1 21 22 20/1 SPARE SPARE 20/1 23 24 20/1 SPARE -	K-6000	KANGE	50/2	7				8	20/1	RECEPT KITCHEN COUNTER	R-360
R-180 RECEPT BATHROOM 20/1 13 14 20/1 RECEPT KITCHEN COUNTER R-180 R-900 RECEPT BEDROOM 20/1 15 16 20/1 LIGHTING L-204 M-50 DOORBELL (S&H UNIT ONLY) 20/1 17 18 20/1 KITCHEN EXHAUST H-24 - SPARE 20/1 19 20 20/1 SPARE SPARE 20/1 21 22 20/1 SPARE SPARE 20/1 23 24 20/1 SPARE -	R-1080	RECEPT LIVING ROOM	20/1	9				10	20/1	RECEPT KITCHEN PENINSULA	R-540
R-900 RECEPT BEDROOM 20/1 15 16 20/1 LIGHTING L-204  M-50 DOORBELL (S&H UNIT ONLY) 20/1 17 18 20/1 KITCHEN EXHAUST H-24  - SPARE 20/1 19 20 20/1 SPARE -  SPARE 20/1 21 22 20/1 SPARE -  SPARE 20/1 23 24 20/1 SPARE -	R-720	RECEPT. — BEDROOM	20/1	11				12	20/1	RANGE HOOD	H-100
M-50 DOORBELL (S&H UNIT ONLY)  20/1 17  18 20/1 KITCHEN EXHAUST  H-24  - SPARE  20/1 19  20 20/1 SPARE  - SPARE  - SPARE  20/1 21  22 20/1 SPARE  - SPARE  - SPARE  - SPARE  - SPARE  20/1 23  24 20/1 SPARE  - SPARE	R-180	RECEPT. — BATHROOM	20/1	13	\		\ -	14	20/1	RECEPT KITCHEN COUNTER	R-180
- SPARE 20/1 19 20 20/1 SPARE - SPARE 20/1 21 22 20/1 SPARE - SPARE 20/1 23 24 20/1 SPARE - DEMARKS	R-900	RECEPT BEDROOM	20/1	15				16	20/1	LIGHTING	L-204
- SPARE 20/1 21 22 20/1 SPARE - SPARE - DEMARKS:	M-50	DOORBELL (S&H UNIT ONLY)	20/1	17				18	20/1	KITCHEN EXHAUST	H-24
- SPARE 20/1 23 - 24 20/1 SPARE -	-	SPARE	20/1	19				20	20/1	SPARE	-
DEMARKS.	-	SPARE	20/1	21				22	20/1	SPARE	-
REMARKS: LOAD LEGEND:	-	SPARE	20/1	23				24	20/1	SPARE	-
	REMAR	KS:				•				LOAD LEGEND:	

#### PLAN NOTES

A. LIGHT FIXTURES IN CLOSETS SHALL BE LOCATED AT LEAST 12" FROM STORAGE RACKING.

#### **CODED NOTES**



1. EXHAUST FAN HAS LOW/HIGH SPEED SETTING. FAN WILL RUN CONTINUOUSLY AT LOW SPEED. FAN WILL SWITCH TO HIGH SPEED WHEN THE WALL SWITCH IS TURNED ON. CONNECT TO UNSWITCHED LIGHTING CIRCUIT IN ROOM.

2. NEMA 14-50R RECEPTACLE FOR RANGE. CONNECT TO CIRCUIT INDICATED WITH (3)-#8, (1)-#10GND IN 3/4"C.

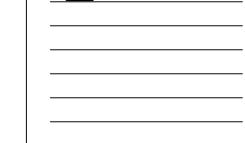
3. RANGE HOOD. PROVIDE ON/OFF SWITCH IN ACCESSIBLE LOCATION ABOVE COUNTERTOP AS SHOWN.

4. RECEPTACLE MOUNTED ON SIDE OF CABINET, 8" BELOW COUNTERTOP TO CENTERLINE.

5. NOT USED.

6. RANGE HOOD WITH INTEGRAL SWITCH.

7. DOORBELL AND ASSOCIATED STROBE DEVICE (TYP.). REFER TO DETAIL.



REVISIONS BULLETIN 01 - 07/17/2023

2 BULLETIN 02 - 09/19/2023

# ACCESSIBILITY REQUIREMENTS FOR

THE FOLLOWING OUTLINES THE MINIMUM ADA REQUIREMENTS FOR DEVICE

- FORWARD REACH WITH NO OBSTRUCTION:
- C. DATA OUTLET MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE.

SIDE REACH OVER AN OBSTRUCTION (WHERE DEVICES ARE LOCATED

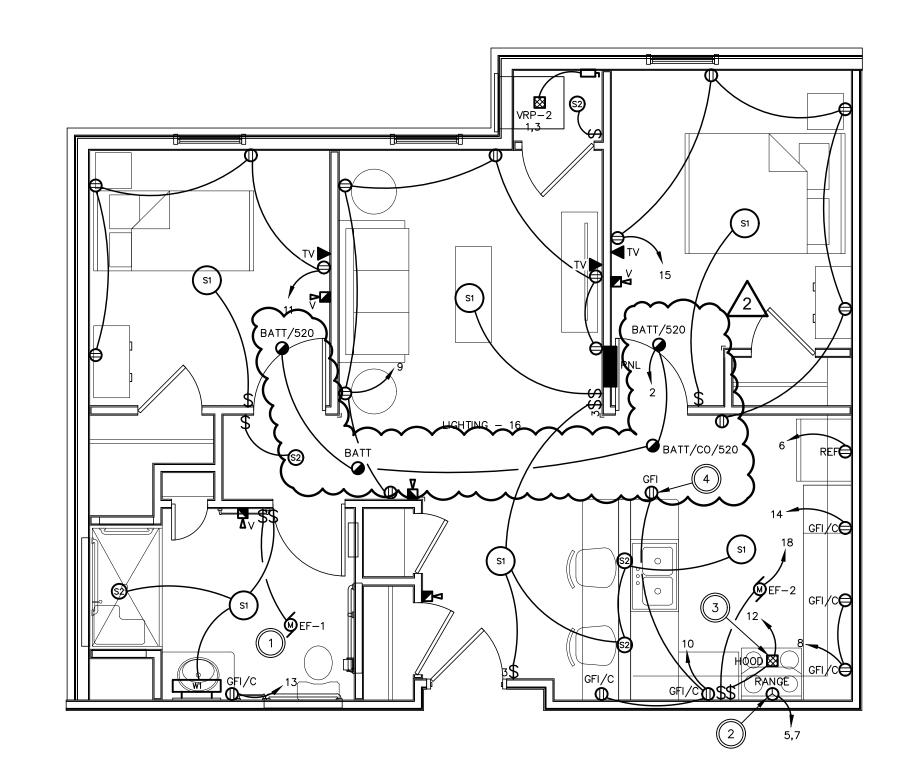
# **MOBILITY UNITS**

MOUNTING HEIGHTS IN MOBILITY UNITS.

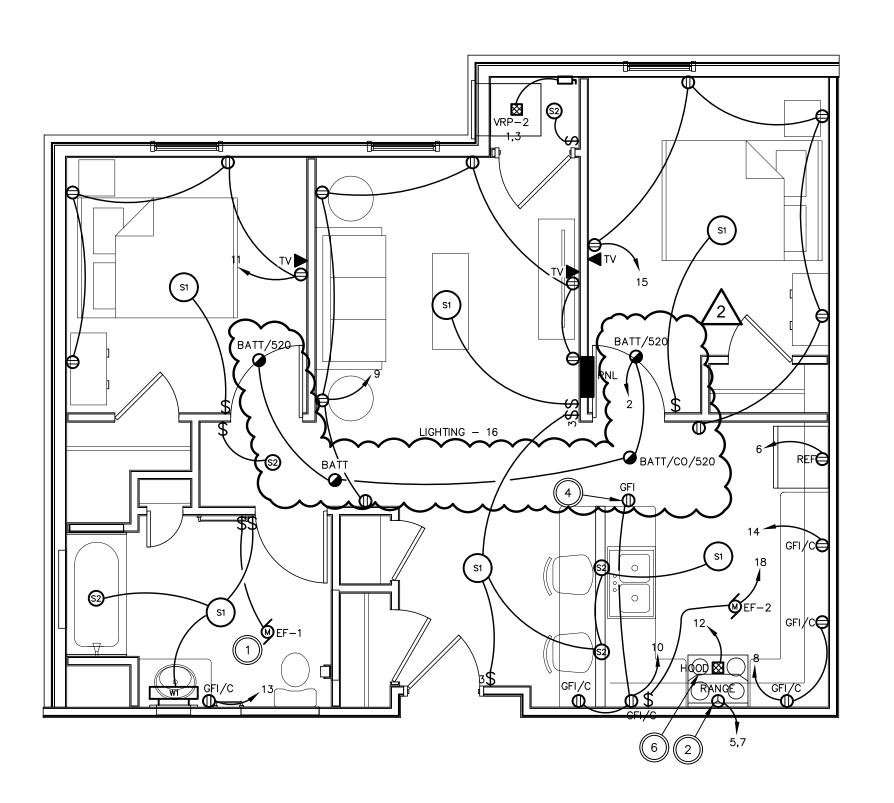
- A. LIGHT SWITCHES MAXIMUM HEIGHT: 48" TO CENTERLINE.
- B. POWER RECEPTACLE MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE.

ABOVE COUNTERTOPS WITH NO KNEE SPACE): A. MAXIMUM HEIGHT OF ALL DEVICES: 46" TO CENTERLINE.

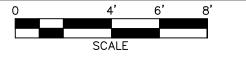
# NEW WORK - TYP. TWO BEDROOM S&H - ELECTRICAL



NEW WORK - TYP. TWO BEDROOM MU - ELECTRICAL



NEW WORK - TYP. TWO BEDROOM - ELECTRICAL





**ARCHITECTS** 

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03/31/2023

82A21 PROJECT NUMBER

E402

Sep 18, 2025	
Sep 18	
Date =	
Username = ckuzman	
lab = E405	
3 BR_ELEC.dwg	
22123_E403_NEW_IYP 、	
22 \ 22123 \ Design \ Elec \	
:\2022\	

PANEI	_: <u>THREE-BED</u>		LOC	ATION:	<u>A</u>	s note	ED ON	<u>PLAN</u>	MOUNTING: <u>FLUSH</u>	
SERVI	CE: <u>208/120 VOLTS</u>	S,		_1	PHA	SE,		_3_	WIRE, <u>60</u> HZ	
MAINS	<u>200</u> AMPS,		L	UGS,			_	200	CCT. BKR.	
FED F	ROM <u>UTILITY METER</u>	— F	ULL C	APACIT`	Y, N	IEUTRA	L, SEF	PARAT	E GROUNDING BUS	
LOAD	DESCRIPTION	CCT. BKR.	CCT.				CCT.	CCT. BKR.	DESCRIPTION	LOAD
H-8186	HVAC UNIT VRF-3 CIRCUIT #1	50/2	1			<u> </u>	2		HVAC UNIT VRF-3 CIRCUIT #2	н-3993
D 8000	DANOE	F0 /0	5			, 1 (	6	20/1	SMOKE ALARMS	M-250
R-8000	RANGE	50/2	7			<u>{</u>	8	20/1	SPARE SPARE	
R-1080	RECEPT LIVING ROOM	20/1	9			$\left\langle \begin{array}{c} 1 \\ 1 \end{array} \right $	10	20/1	RECEPT REFRIGERATOR	R-1000
R-360	RECEPT BATHROOMS	20/1	11		$\dashv$	<u> </u>	12	20/1	RECEPT KITCHEN COUNTER	R-360
R-720	RECEPT. — BEDROOM	20/1	13		)	$\langle \   \ $	14	20/1	RECEPT KITCHEN PENINSULA	R-540
R-720	RECEPT. — BEDROOM	20/1	15		$\equiv$	<u>{</u>	16	20/1	RANGE HOOD	H-100
R-900	RECEPT. — BEDROOM	20/1	17		_	\ 	18	20/1	LIGHTING	L-290
R-360	RECEPT HALLWAY	20/1	19	_~_	$\dashv$		20	20/1	KITCHEN EXHAUST	H-24
-	SPARE	20/1	21			(	22	20/1	SPARE	-
-	SPARE	20/1	23	$\overline{}$		(	24	20/1	SPARE	-
-	SPARE	20/1	25		_	(	26	20/1	SPARE	-
-	SPARE	20/1	27		$\dashv$		28	20/1	SPARE	-
-	SPARE	20/1	29			_	30	20/1	SPARE	_
REMAR	<u>KS:</u>	1							LOAD LEGEND:	.1

#### PLAN NOTES

A. LIGHT FIXTURES IN CLOSETS SHALL BE LOCATED AT LEAST 12" FROM STORAGE RACKING.

#### **CODED NOTES**



E-52748

REVISIONS 1 BULLETIN 01 - 07/17/2023

2 BULLETIN 02 - 09/19/2023

1. EXHAUST FAN HAS LOW/HIGH SPEED SETTING. FAN WILL RUN CONTINUOUSLY AT LOW SPEED. FAN WILL SWITCH TO HIGH SPEED WHEN THE WALL SWITCH IS TURNED ON. CONNECT TO UNSWITCHED LIGHTING CIRCUIT IN ROOM.

2. NEMA 14-50R RECEPTACLE FOR RANGE. CONNECT TO CIRCUIT INDICATED WITH (3)-#8, (1)-#10GND IN 3/4"C.

3. RANGE HOOD. PROVIDE ON/OFF SWITCH IN ACCESSIBLE LOCATION ABOVE COUNTERTOP AS SHOWN.

4. RECEPTACLE MOUNTED ON SIDE OF CABINET, 8" BELOW COUNTERTOP TO

5, NOT USED.

CENTERLINE.

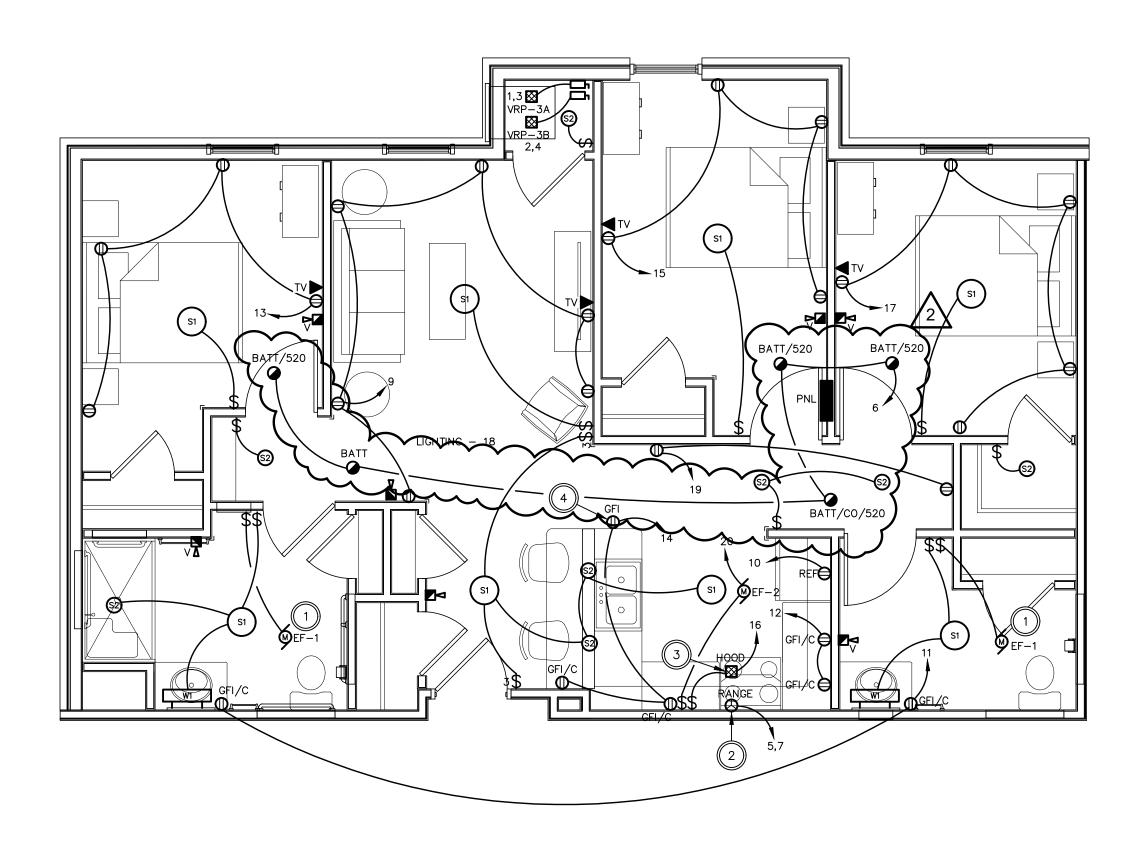
6. RANGE HOOD WITH INTEGRAL SWITCH.

## ACCESSIBILITY REQUIREMENTS FOR **MOBILITY UNITS**

THE FOLLOWING OUTLINES THE MINIMUM ADA REQUIREMENTS FOR DEVICE MOUNTING HEIGHTS IN MOBILITY UNITS.

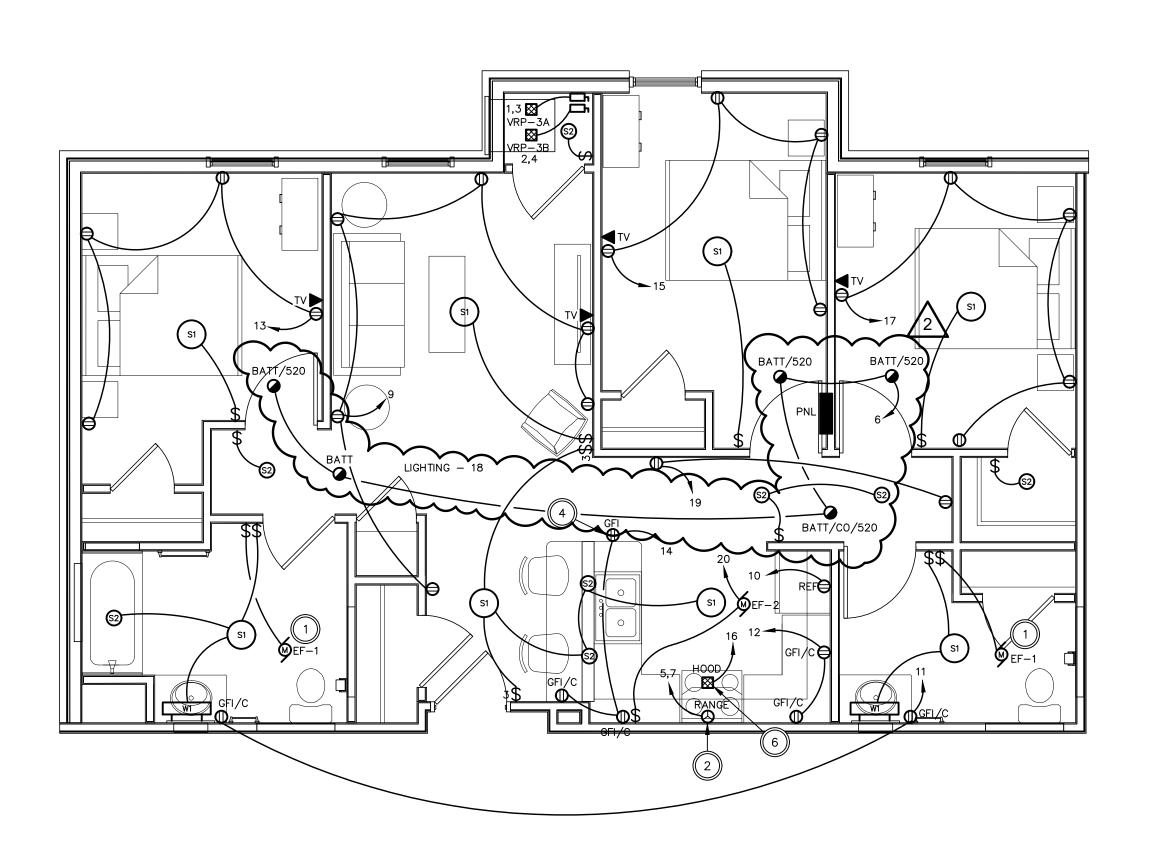
FORWARD REACH WITH NO OBSTRUCTION:

- A. LIGHT SWITCHES MAXIMUM HEIGHT: 48" TO CENTERLINE. B. POWER RECEPTACLE MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE. C. DATA OUTLET MINIMUM HEIGHT: 15" TO BOTTOM OF DEVICE.
- SIDE REACH OVER AN OBSTRUCTION (WHERE DEVICES ARE LOCATED ABOVE COUNTERTOPS WITH NO KNEE SPACE):
- A. MAXIMUM HEIGHT OF ALL DEVICES: 46" TO CENTERLINE.



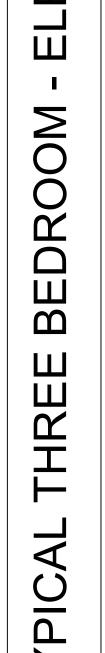
NEW WORK - TYP. THREE BEDROOM MU - ELECTRICAL





NEW WORK - TYP. THREE BEDROOM - ELECTRICAL







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82A21

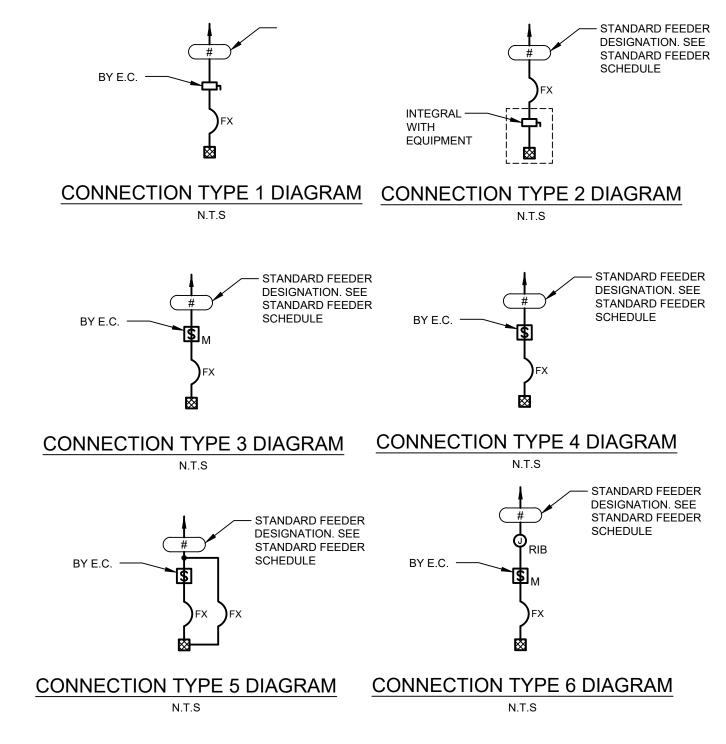
PROJECT NUMBER E403

"EM" SUBSCRIPT INDICATES THAT FIXTURE CONTAINS AN INTEGRAL BATTERY PACK FOR EMERGENCY ILLUMINATION.

LIGHTING FIXTURE SCHEDULE

SHUBOL PATALOG NO. MOUNTING VEAMPUS)

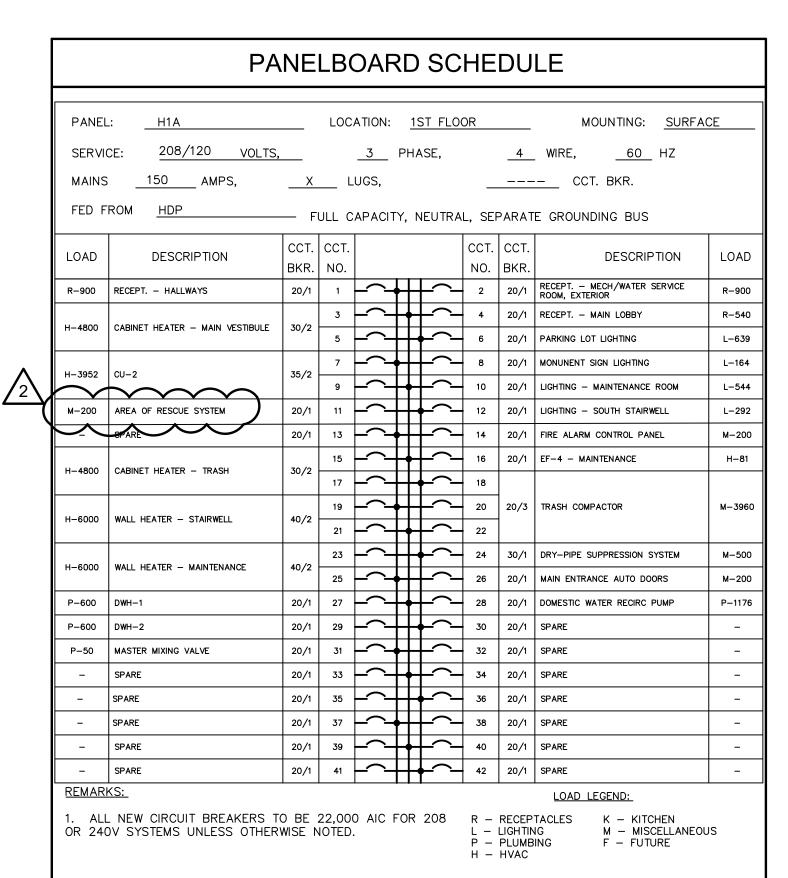
						MEC	HANICAL	. EQUIPN	MENT SCHEDULE				
MECHANICAL EQUIPMENT DESIGNATION	DESCRIPTION	LOCATION	APPARENT POWER	HP	VOLTAGE	PHASE	WIRE/CONDUIT (NOTE 1)	DISCONNECT DESIGNATION	DISCONNECT DESCRIPTION (NOTE 2)	DISCONNECT LOCATION	STARTER DESCRIPTION (NOTE 3)	CONNECTION TYPE (NOTE 4)	REMARKS
ACCU/ECU-1	SPLIT-SYSTEM AIR-CONDITIONING UNIT	EXTERIOR / ELEV. MACH. ROOM	3200	_	208	1	25A	DS-ACCU-1	30A/240V/2P/25AF/NEMA 3R	ADJACENT TO ACCU-1	INTEGRAL	7	19 MCA, 26A MOP.
CU-1	CONDENSING UNIT	EXTERIOR	3952	_	208	1	35A	DS-CU-1	60A/240V/2P/35AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	1	29.1 MCA, 35A MOP
CU-2	CONDENSING UNIT	EXTERIOR	3952	_	208	1	35A	DS-CU-2	60A/240V/2P/35AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	1	29.1 MCA, 35A MOP
CU-3	CONDENSING UNIT	EXTERIOR	3952	_	208	1	35A	DS-CU-3	60A/240V/2P/35AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	1	29.1 MCA, 35A MOP
CU-4	CONDENSING UNIT	EXTERIOR	3952	_	208	1	35A	DS-CU-4	60A/240V/2P/35AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	1	29.1 MCA, 35A MOP
DWH-1	GAS WATER HEATER	MECH ROOM	600	_	120	1	20A	DS-DWH-1	TOGGLE SWITCH DISCONNECT	ADJACENT TO UNIT	INTEGRAL	4	
DWH-2	GAS WATER HEATER	MECH ROOM	600	_	120	1	20A	DS-DWH-2	TOGGLE SWITCH DISCONNECT	ADJACENT TO UNIT	INTEGRAL	4	
ECH-1	ELECTRIC CABINET HEATER	VARIOUS	4800	_	208	1	30A	_	INTEGRAL	_	INTEGRAL	2	
EWH-1	ELECTRIC WALL HEATER	VARIOUS	6000	_	208	1	40A	_	INTEGRAL	_	INTEGRAL	2	
EF-1	INLINE EXHAUST FAN	VARIOUS	20	_	120	1	20A	_	TOGGLE SWITCH	ON WALL NEAR UNIT	-	5	REFER TO FLOOR PLANS FOR CONTROL
EF-2	INLINE EXHAUST FAN	VARIOUS	24	_	120	1	20A	-	TOGGLE SWITCH IN APARTMENTS. TIMER SWITCH IN PUBLIC RESTROOMS	ON WALL NEAR UNIT	_	4	REFER TO FLOOR PLANS FOR CONTROL
EF-3	INLINE EXHAUST FAN	VARIOUS	64	_	120	1	20A	DS-EF-3	MANUAL MOTOR STARTER	ON WALL NEAR UNIT	_	3	FAN SHALL RUN CONTINUOUSLY
EF-4	INLINE EXHAUST FAN	VARIOUS	81	_	120	1	20A	DS-EF-4	MANUAL MOTOR STARTER	ON WALL NEAR UNIT	_	3	FAN SHALL RUN CONTINUOUSLY
EF-5	INLINE EXHAUST FAN	VARIOUS	12	_	120	1	20A	DS-EF-5	MANUAL MOTOR STARTER	ON WALL NEAR UNIT	_	3	FAN SHALL RUN CONTINUOUSLY
HP-1	HEAT PUMP	1ST FLOOR	20000	_	208	1	125A	_	INTEGRAL	_	INTEGRAL	2	
HP-2	HEAT PUMP	1ST FLOOR	20000	_	208	1	125A	_	INTEGRAL	_	INTEGRAL	2	
HP-3	HEAT PUMP	2ND FLOOR	10000	_	208	1	70A	_	INTEGRAL	_	INTEGRAL	2	
HP-4	HEAT PUMP	3RD FLOOR	10000	-	208	1	70A	_	INTEGRAL	_	INTEGRAL	2	
RDHWP	DOMESTIC WATER RECIRCULATION PUMP	1ST FLOOR	1176	1/2	120	1	20A	-	MANUAL MOTOR STARTER	ADJACENT TO UNIT	SEE REMARKS	6	PROVIDE WITH RELAY-IN-A-BOX
VRP-1	VERTICAL HEAT PUMP	1-BED UNITS	6743	-	208	2	45A	DS-VRP-1	60A/240V/2P/45AF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	1	41.8 MCA, 45A MOP
VRP-2	VERTICAL HEAT PUMP	2-BED UNITS	7862	-	208	2	50A	DS-VRP-2	60A/240V/2P/45AF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	1	49.2 MCA, 50A MOP
VRP-3A	VERTICAL HEAT PUMP - CIRCUIT #1	3-BED UNITS	8186	_	208	2	50A	DS-VRP-3A	60A/240V/2P/50AF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	1	49.2 MCA, 50A MOP
VRP-3B	VERTICAL HEAT PUMP - CIRCUIT #2	3-BED UNITS	3993	_	208	2	25A	DS-VRP-3B	30A/240V/2P/24AF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	1	24 MCA, 25A MOP



\_\_ 2P TOGGLE SWITCH

**CONNECTION TYPE 7 DIAGRAM** 

- 1"C FOR CONTROL







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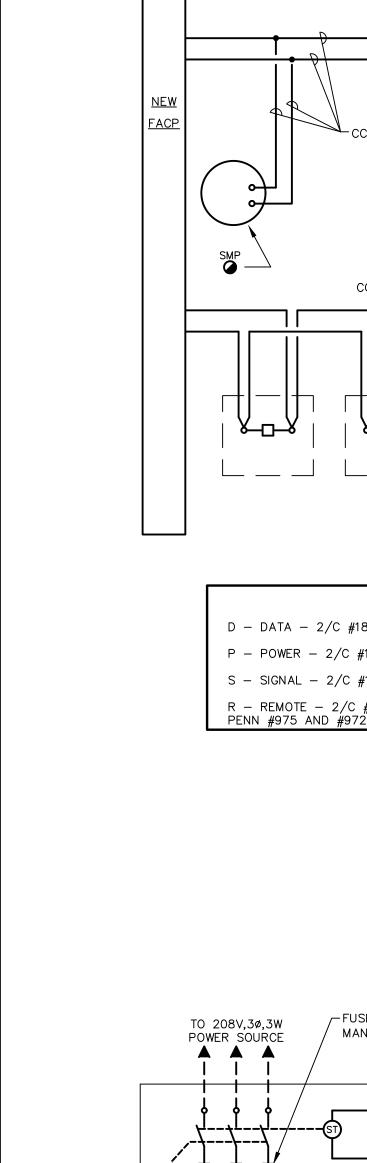
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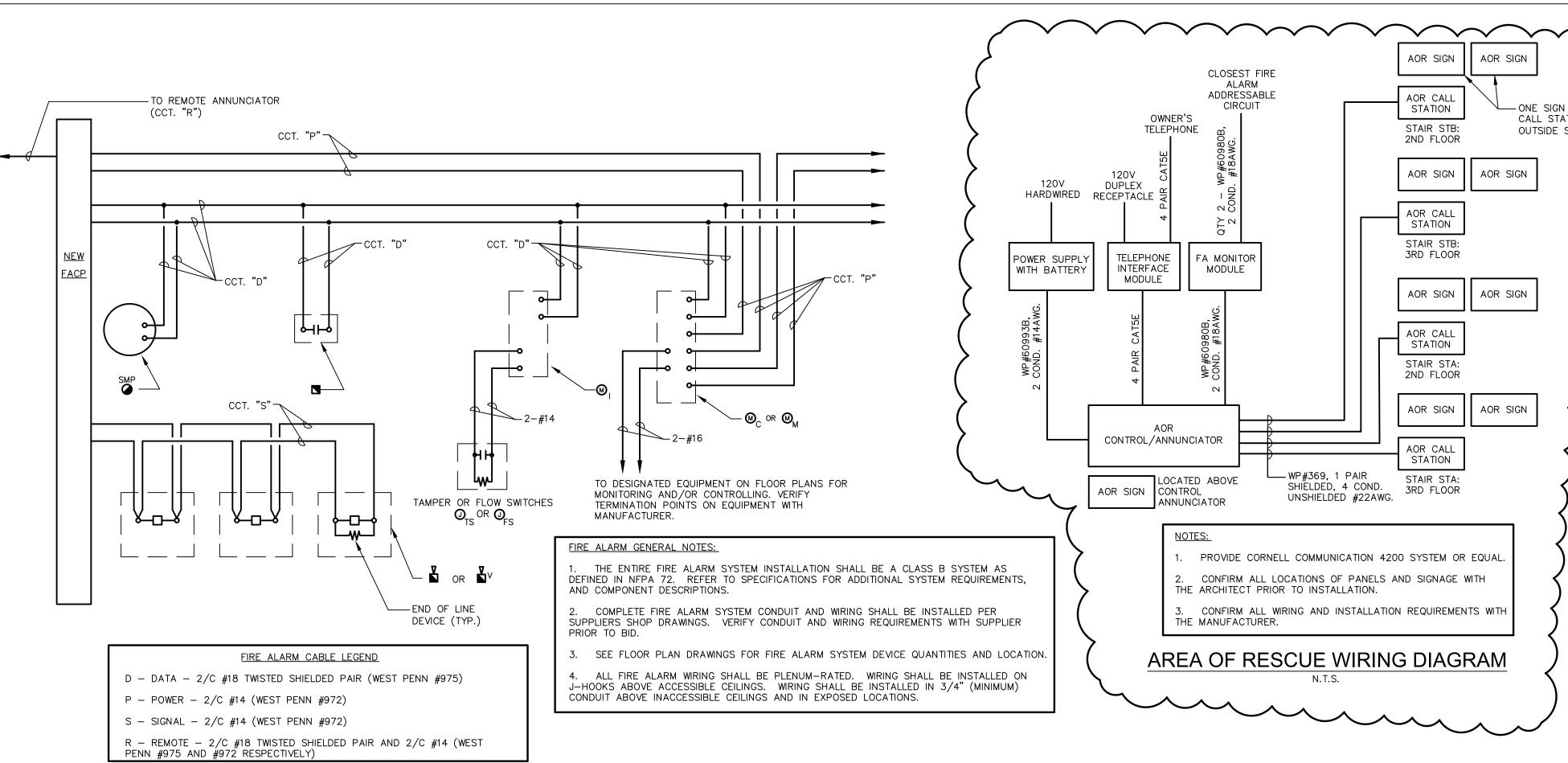
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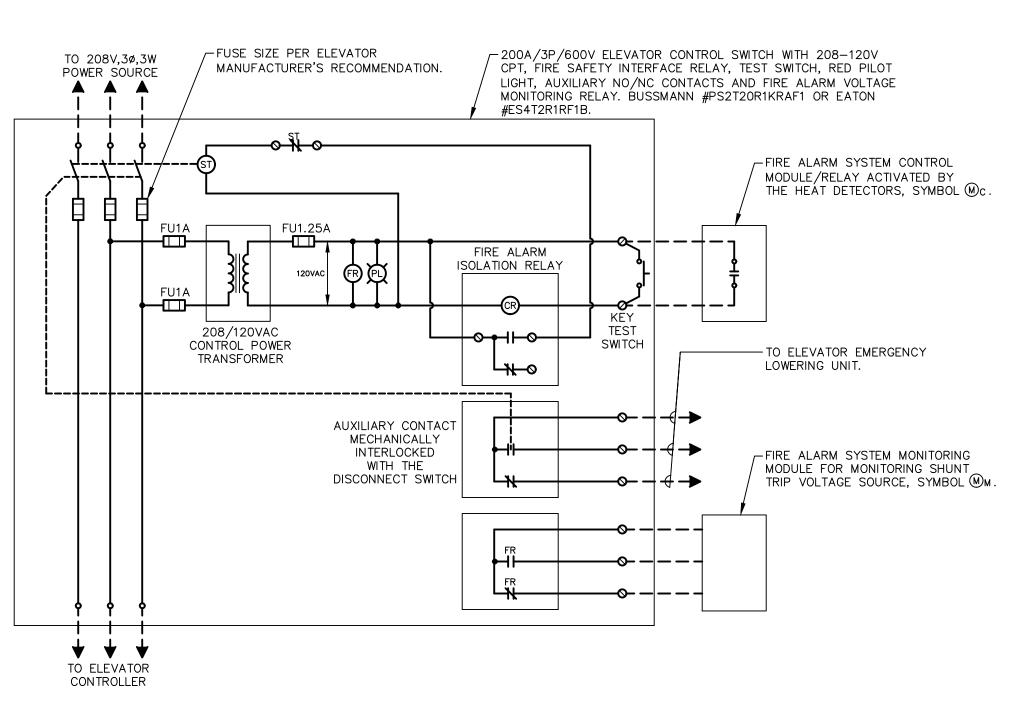
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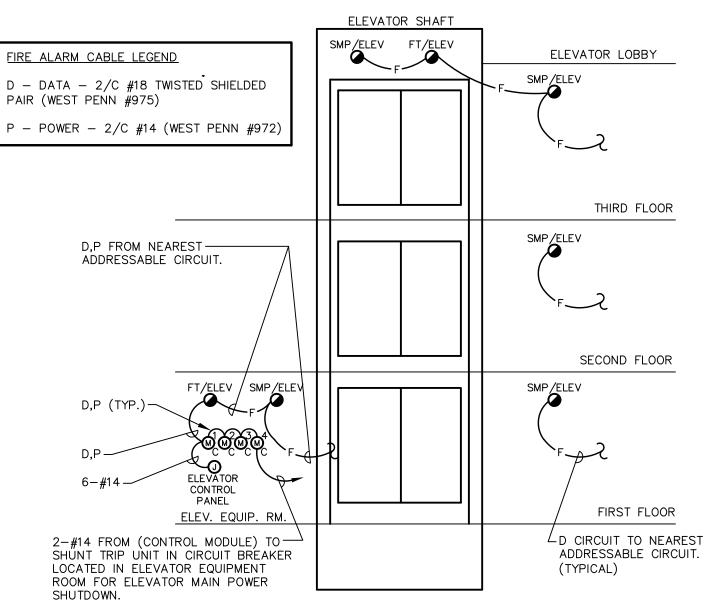




# FIRE ALARM WIRING DIAGRAM



ELEVATOR DISCONNECT/SHUNT TRIP WIRING DIAGRAM



#### ADDRESSABLE FIRE ALARM SYSTEM, EQUIP. RM AND SHAFT SPRINKLERED **ELEVATOR RECALL FIRE ALARM RISER**

N.T.S.

#### NOTES:

ELEVATOR RECALL PHASE 1: (PROTECTS PUBLIC)

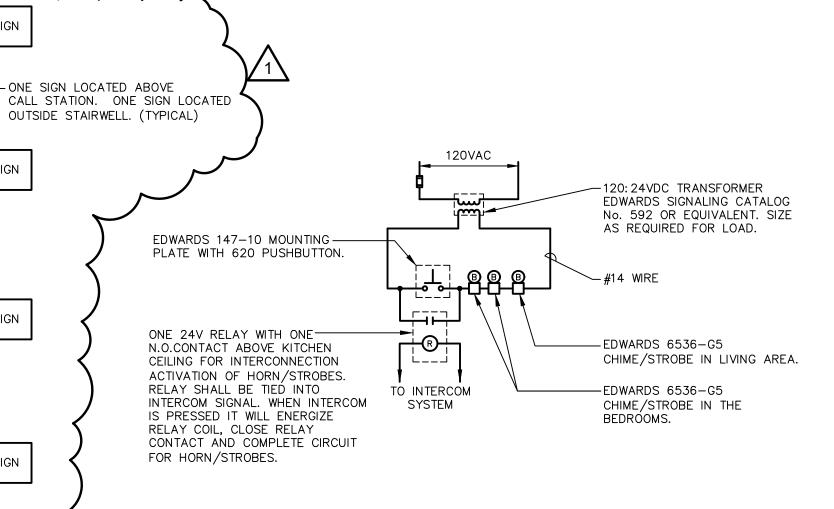
CONTROL MODULE 1: RECALL ELEVATOR TO ALTERNATE FLOOR (IF SMOKE DETECTOR IN LOBBY OF DESIGNATED FLOOR IS IN ALARM). CONTROL MODULE 2: RECALL ELEVATOR TO DESIGNATED FLOOR (IF SMOKE DETECTOR IN LOBBY OF ALTERNATE FLOOR IS IN ALARM).

. <u>ELEVATOR SHUTDOWN: (PROTECTS FIREFIGHTERS)</u>

CONTROL MODULE 3: RECALL ELEVATOR TO NEAREST SAFE FLOOR. ACTIVATED BY SMOKE DETECTORS IN ELEVATOR EQUIPMENT ROOM AND/OR HOISTWAY. CONTROL MODULE 4: SHUTS DOWN POWER TO ELEVATOR. ACTIVATED BY HEAT DETECTORS IN ELEVATOR EQUIPMENT ROOM AND/OR HOISTWAY.

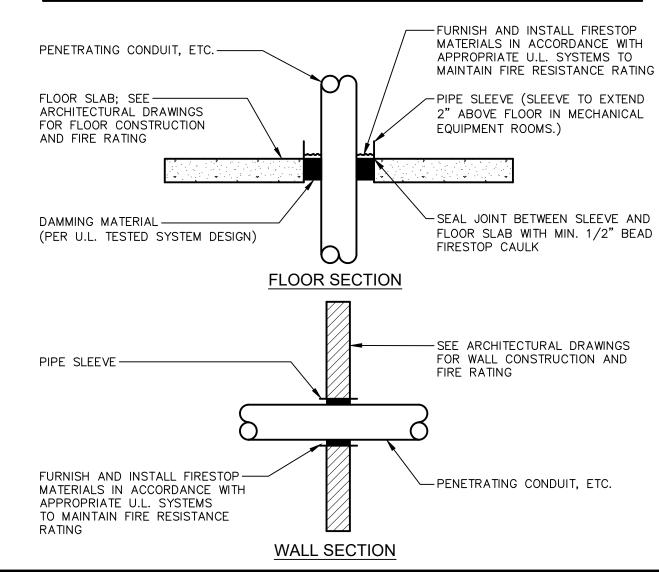
. VERIFY ALL CONTROL MODULE PROGRAMMING INCLUDING ALTERNATE AND DESIGNATED FLOOR WITH AHJ.

4. MOUNT HEAT DETECTOR AND SMOKE DETECTOR HEADS WITHIN 24" OF SPRINKLER HEAD(S). . ALL CONDUIT IN ELEVATOR SHAFT AND PIT SHALL BE GRC AND ALL DEVICES SHALL BE



# TWO-BEDROOM S&H UNIT DOORBELL DETAIL

UL FIRE STOP SYSTEMS FOR 1 AND 2 HOUR RATED WALL AND FLOOR ASSEMBLIES												
SERVICE	GYPSUM WALL PENETRATION	CONCRETE/MASONRY WALL PENETRATION	CONCRETE FLOOR PENETRATION									
GRC CONDUIT (NOMINAL ≤ 6" DIA.)	WL1049	WS1055	CAJ1079									
EMT CONDUIT (NOMINAL ≤ 4" DIA.)	WL1049	WS1055	CAJ1079									
PVC CONDUIT/ INNER DUCT $(\leq 2" \text{ DIA.})$	WL2093	WJ2018	CAJ2031									
CABLES (MAX. 3" DIA. CABLE BUNDLE)	WL3076	WJ3022	CAJ3133									
CABLE TRAYS	WL4005	WJ4009	CAJ4029									
BUS DUCT	WL6001	CAJ6008	CAJ6008									



#### NOTES:

1. WHERE CONDUIT, CABLES AND OTHER COMPONENTS PASS THROUGH FIRE OR SMOKE RATED WALLS OR FLOORS, PROVIDE NON-ASBESTOS SEAL ASSEMBLIES CLASSIFIED BY U.L. TO PROVIDE FIRE BARRIERS EQUAL TO OR GREATER THAN THE TIME RATING OF THE CONSTRUCTION BEING PENETRATED, WITH APPROPRIATE MATERIALS AND SYSTEMS THAT COMPLY WITH APPLICABLE CODES AND THAT HAVE BEEN TESTED IN ACCORDANCE WITH U.L. 1479 OR ASTM E814.

2. GROUT, MORTAR OR GYPSUM BASED PRODUCTS SHALL NOT BE INSTALLED IN LIEU OF FIRESTOPPING MATERIALS AND U.L. SYSTEMS.

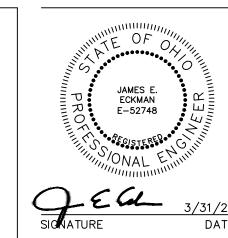
3. FOR SLEEVED PENETRATIONS, FIRESTOP ANNULAR SPACE, IF ANY, BETWEEN SLEEVE AND ADJACENT CONSTRUCTION TO MEET U.L. SYSTEM REQUIREMENTS. SEE NOTE 2 ABOVE. 4. THIS CONTRACTOR SHALL FIRESTOP ALL MISCELLANEOUS OPENINGS IN FIRE-RATED CONSTRUCTION

RESULTING FROM HIS WORK. 5. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS TO ENGINEER, INCLUDING U.L. RATED SYSTEM

NUMBER AND DETAIL FOR EACH TYPE OF PENETRATION AND CONFIGURATION. 6. SLEEVES USED FOR CABLE RISERS THROUGH FLOORS OR WALLS SHALL BE INSTALLED PER THE ABOVE FLOOR OR WALL SECTIONS. IN ADDITION, FIRESTOP MATERIAL SHALL BE PROVIDED INSIDE SLEEVE AFTER CABLES ARE COMPLETELY INSTALLED.

### FIRESTOPPING DETAIL FOR PENETRATIONS THROUGH FIRE-RATED CONSTRUCTIONS

N.T.S.



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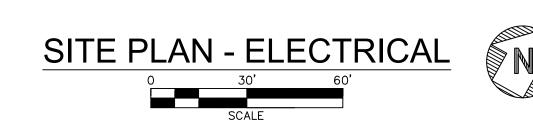
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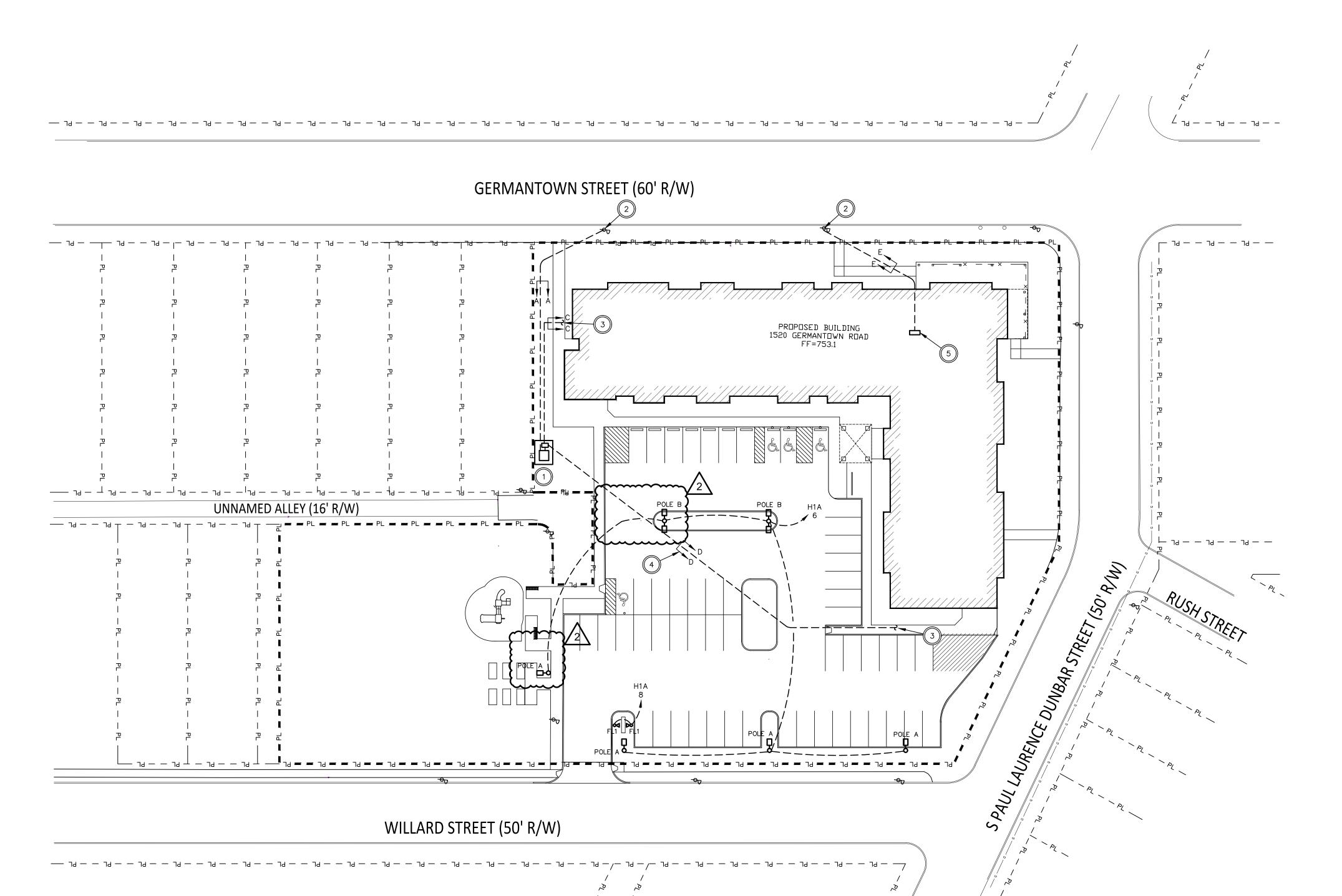
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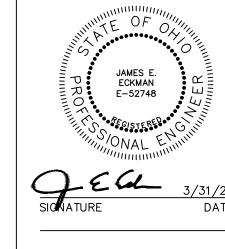
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1 BULLETIN 01 - 07/17/2023 2 BULLETIN 02 - 09/19/2023



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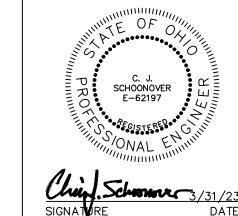
PROJECT NUMBER

epared l	by SCHEES	ER BUCKLEY MAYFIELD, LL	_C																
	SBM Job No	: 22123 — Germantown	HP-1																
	Date	: 06-March-2023																	
С	ompleted By	: JG																	
			Az	Pz	Table 6.1	P/100SQFT	Pz	Rp	Ra	Pz*Rp	Az*Ra	Ez		Voz		Vpz	Vpzm		Zp
Zone No.	Room No.	Room Description	Floor area of zone square feet	Zone population override, largest # of people expected	Space type (select from pull-down list)	Occupant Density	Calculated Occupants	People OA air rate from Table 6.1 cfm/person	Area OA air rate from Table 6.1 cfm/sf	People OA cfm	Area OA cfm	Zone air distribution effectiveness, Table 6.2 or ASHRAE Standard 129	Required OA (Pz*Rp + Az*Ra)	Proposed OA flow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	Area Only Minimum Outside Air (DCV)	Primary airflow to the zone from air handler. In VAV systems, use the design value. cfm	Minimum Value of the primary airflow to zone from air handler. In CAV systems, Vpzm = Vpz. cfm	Final Heating CFM	Primary OA fraction, Voz/Vpzm
3		Corridor	1177	0	Corridors	0	0.0	0	0.06	0	71	0.8	71	88	88	250	225	225	0.39
4		Mail Room	173	0	Occupiable Storage Rooms for Dry Materials (office)	2	0.3	5	0.06	2	10	0.8	12	15	13	75	50	50	0.30
7		Bathroom 2	61	0	N/A	0	0.0	0	0.00	0	0	0.8	0	0	0	50	25	25	0.00
8		Kitchen	141	1	Kitchen (cooking, food/beverage service)	20	0.0	8	0.12	8	17	0.8	24	31	21	100	75	75	0.41
9		Community Room	847	25	Multi-Purpose Assembly (hotel, dorm)	120	0.0	5	0.06	125	51	0.8	176	220	64	750	600	600	0.37
31		Storage	35	0	Occupiable Storage Rooms for Dry Materials (office)	2	0.1	5	0.06	0	2	0.8	2	3	3	50	25	25	0.12
32		Data Closet	21	0	N/A	0	0.0	0	0.00	0	0	0.8	0	0	0	50	25	25	0.00
			2,455	26			0.4			135	150.84		285	357	189	1,325	1,025	1,025	0.41

																			T
repared	by SCHEESE	R BUCKLEY MAYFIELD, LLC																	
	SBM Job N	D: 22123 — Germantown	HP-2																
	Dat	e: 06-March-2023																	
	Completed B	y: JG																	
			Az	Pz	Table 6.1	P/100SQFT	Pz	Rp	Ra	Pz*Rp	Az*Ra	Ez		Voz		Vpz	Vpzm		Zp
Zone No.	Room No.	Room Description	Floor area of zone square feet	Zone population override, largest # of people expected	Space type (select from pull-down list)	Occupant Density	Calculated Occupants	People OA air rate from Table 6.1 cfm/person	Area OA air rate from Table 6.1 cfm/sf	People OA cfm	Area OA cfm	Zone air distribution effectiveness, Table 6.2 or ASHRAE Standard 129	Required OA (Pz*Rp + Az*Ra)	Proposed OA flow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	Area Only Minimum Outside Air (DCV)	Primary airflow to the zone from air handler. In VAV systems, use the design value. cfm	Minimum Value of the primary airflow to zone from air handler. In CAV systems, Vpzm = Vpz. cfm	Final Heating CFM	Primary OA fraction, Voz/Vpzm
10		Corridor	644	0	Corridors	0	0.0	0	0.06	0	39	0.8	39	48	48	200	125	125	0.39
11		Office 1	106	2	Office Space	5	0.0	5	0.06	10	6	0.8	16	20	8	175	100	100	0.20
12		Office 2	88	2	Office Space	5	0.0	5	0.06	10	5	0.8	15	19	7	75	50	50	0.38
13		Conference Room	101	4	Conference/Meeting	50	0.0	5	0.06	20	6	0.8	26	33	8	200	100	100	0.33
14		Office 3	136	3	Office Space	5	0.0	5	0.06	15	8	0.8	23	29	10	125	75	75	0.39
15		Waiting/ Lobby	435	4	Main Entry Lobbies	10	0.0	5	0.06	20	26	0.8	46	58	33	225	150	150	0.38
17		Mech/ Maitenance	717	0	N/A	0	0.0	0	0.00	0	0	0.8	0	0	0	200	100	125	0.00
			2,227	15			0.0			75	90.6		166	207	113	1,200	700	725	0.39

					Air Spr	eadshee	t - Per AN	NSI/ASHR <i>A</i>	AE Stand	ard 62.1	-2016 an	d 170, includ	ling VAMC	Guidelines					
Prepared b	y SCHEESE	R BUCKLEY MAYFIELD, LI	LC																
SBM Job No: 22123 — Germantown HP-3																			
	Date:	06-March-2023																	
С	ompleted By:	JG																	
			Az	Pz	Table 6.1	P/100SQFT	Pz	Rp	Ra	Pz*Rp	Az*Ra	Ez		Voz		Vpz	Vpzm		Zp
Zone No.	Room No.	Room Description	Floor area of zone square feet	Zone population override, largest of people expected	Space type # (select from pull—down list)	Occupant Density	Calculated Occupants	People OA air rate from Table 6.1 cfm/person	Area OA air rate from Table 6.1 cfm/sf	People OA cfm	Area OA cfm	Zone air distribution effectiveness, Table 6.2 or ASHRAE Standard 129	Required OA (Pz*Rp + Az*Ra)	Proposed OA flow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	Area Only Minimum Outsi Air (DCV)	Primary airflow to the zone from air handler. In VAV systems, use the design value. cfm	Minimum Value of the primary airflow to zone from air handler. In CAV systems, Vpzm = Vpz. cfm	Final Heating CFM	Primary OA of fraction, Voz/Vpzm
19		Corridor	1149	0	Corridors	0	0.0	0	0.06	0	69	0.8	69	86	86	250	225	225	0.38
20		Laundry Room	313	4	Laundry Rooms, central (hotel, dorm)	10	0.0	5	0.12	20	38	0.8	58	72	47	250	200	200	0.36
21		Data	21	0	N/A	0	0.0	0	0.00	0	0	0.8	0	0	0	50	25	25	0.00
22		Computers	72	3	Office Space	5	0.0	5	0.06	15	4	0.8	19	24	5	125	75	75	0.32
23		Corridor	675	0	Corridors	0	0.0	0	0.06	0	41	0.8	41	51	51	200	150	150	0.34
33		Storage	58	0	Occupiable Storage Rooms for Dry Materials (office)	2	0.1	5	0.06	1	3	0.8	4	5	4	50	25	25	0.20
			2,288	7			0.1			36	154.8		190	238	194	925	700	700	0.38

pared by SCHEE	SER BUCKLEY MAYFIELD, L	LC																T
SBM Job No: 22123 — Germantown HP-4																		
Da	te: 06-March-2023																	
Completed I	By: JG																	
		Az	Pz	Table 6.1	P/100SQFT	Pz	Rp	Ra	Pz*Rp	Az*Ra	Ez		Voz		Vpz	Vpzm		Zp
Zone Room No. No.	Room Description	Floor area of zone square feet	Zone population override, largest # of people expected	Space type (select from pull—down list)	Occupant Density	Calculated Occupants	People OA air rate from Table 6.1 cfm/person	Area OA air rate from Table 6.1 cfm/sf	People OA cfm	Area OA cfm	Zone air distribution effectiveness, Table 6.2 or ASHRAE Standard 129	Required OA (Pz*Rp + Az*Ra)	OA flow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	Area Only Minimum Outside Air (DCV)	Primary airflow to the zone from air handler. In VAV systems, use the design value. cfm	Minimum Value of the primary airflow to zone from air handler. In CAV systems, Vpzm = Vpz. cfm	Final Heating CFM	Primary OA fraction Voz/Vpz
26	Corridor	1121	0	Corridors	0	0.0	0	0.06	0	67	0.8	67	84	84	300	225	225	0.37
27	Fitness Room	386	4	Health Club/Weight Room	10	0.0	20	0.06	80	23	0.8	103	129	29	350	325	325	0.40
28	Data	21	0	N/A	0	0.0	0	0.00	0	0	0.8	0	0	0	50	25	25	0.00
29	Corridor	676	0	Corridors	0	0.0	0	0.06	0	41	0.8	41	51	51	200	150	150	0.34
34	Storage	58	0	Occupiable Storage Rooms for Dry Materials (office)	2	0.1	5	0.06	1	3	0.8	4	5	4	75	50	50	0.10
		2,262	4			0.1			81	134.46		215	269	168	975	775	775	0.40



BULLETIN 02 - 09/19/2023

SCHEDULES



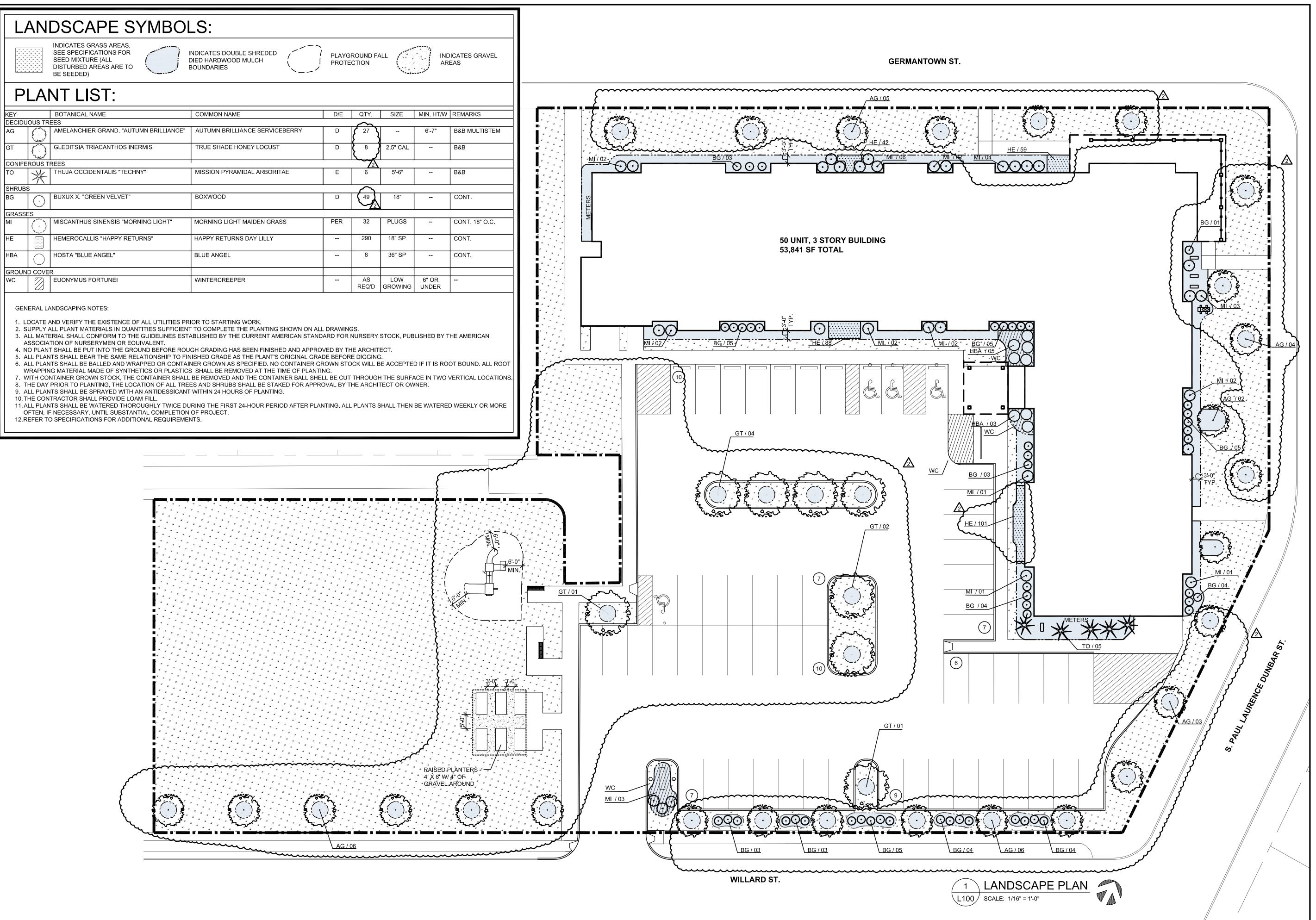
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03/31/2023

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PROJECT NUMBER H302





License #9082 Expiration Date 12/31/2023

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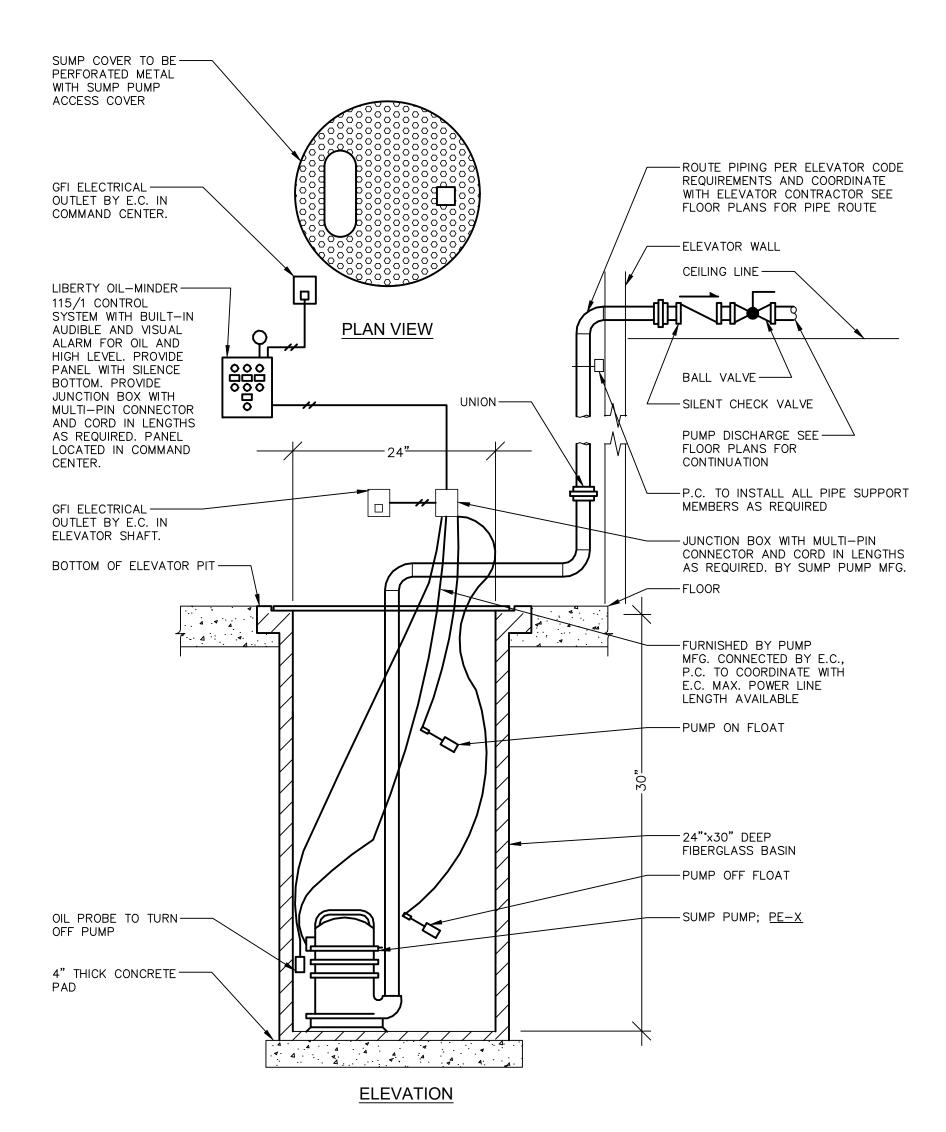
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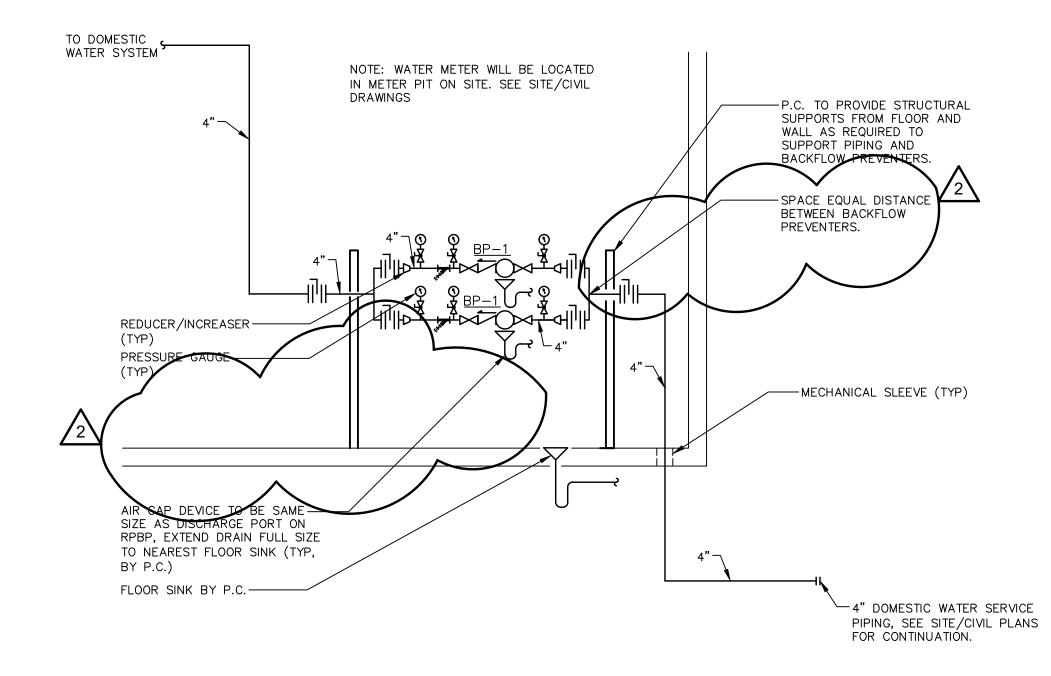
PROJECT NUMBER

## WASHING MACHINE CONNECTION

N.T.S.



# **ELEVATOR SUMP PUMP**



## DOMESTIC WATER SERVICE DETAIL

MUST BE OF EQUAL LENGTHS.

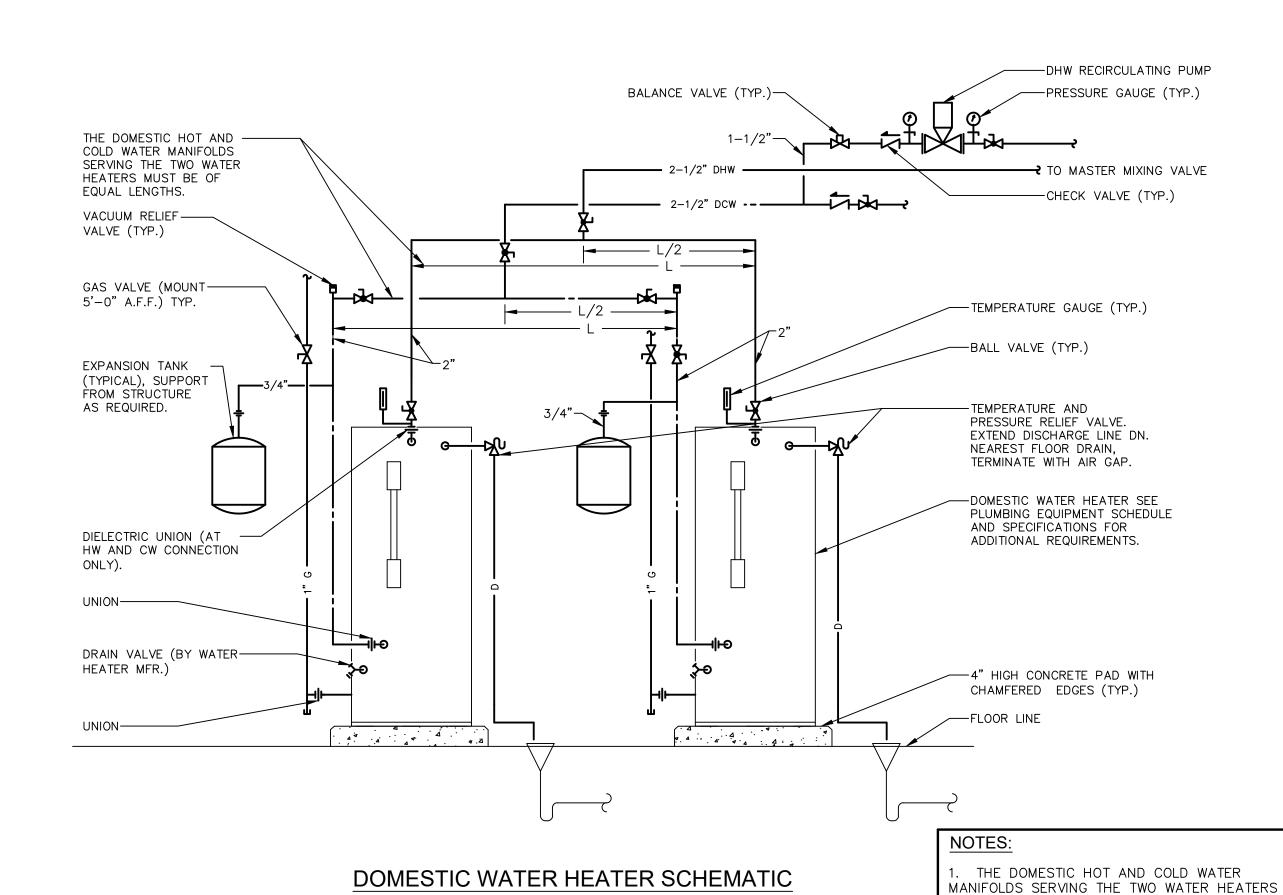
MECHANICAL CONTRACTOR.

2. SET DOMESTIC WATER HEATER TO 140 °F.

3. SEE FLOOR PLANS FOR LOCATION AND

SHALL BE FURNISHED AND INSTALLED BY THE

ORIENTATION OF PIPING AND EQUIPMENT. 4. FLUE AND SEALED COMBUSTION PIPING



N.T.S.



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2 BULLETIN 02 - 09/19/2023

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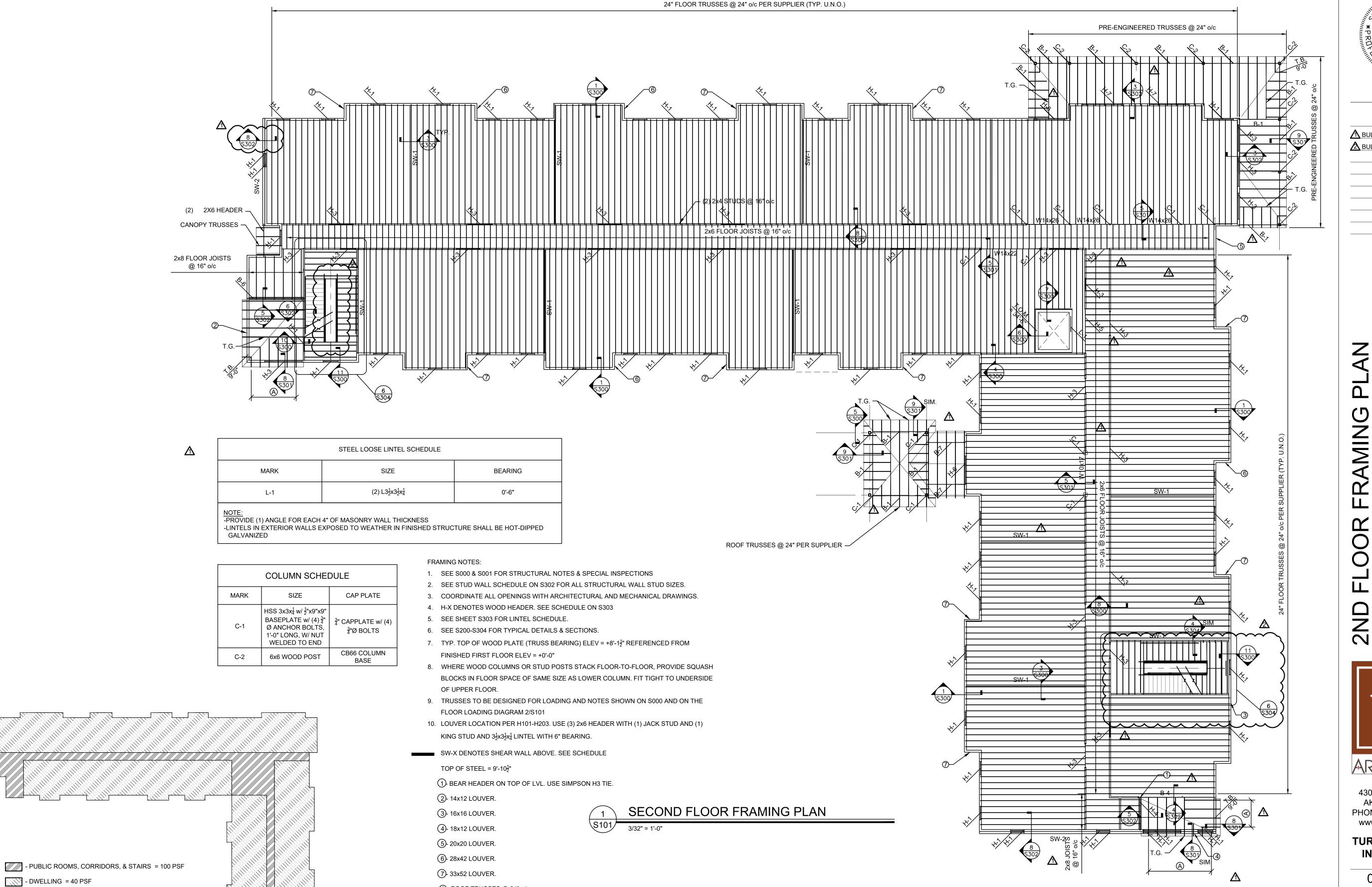
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P302



(A)- ROOF TRUSSES @ 24" o/c

Λ

LOADING DIAGRAM

1/32" = 1'-0"

⚠ BULLETIN 1 07/17/2023

**BULLETIN 2** 09/19/2023

PLAN

**ARCHITECTS** 

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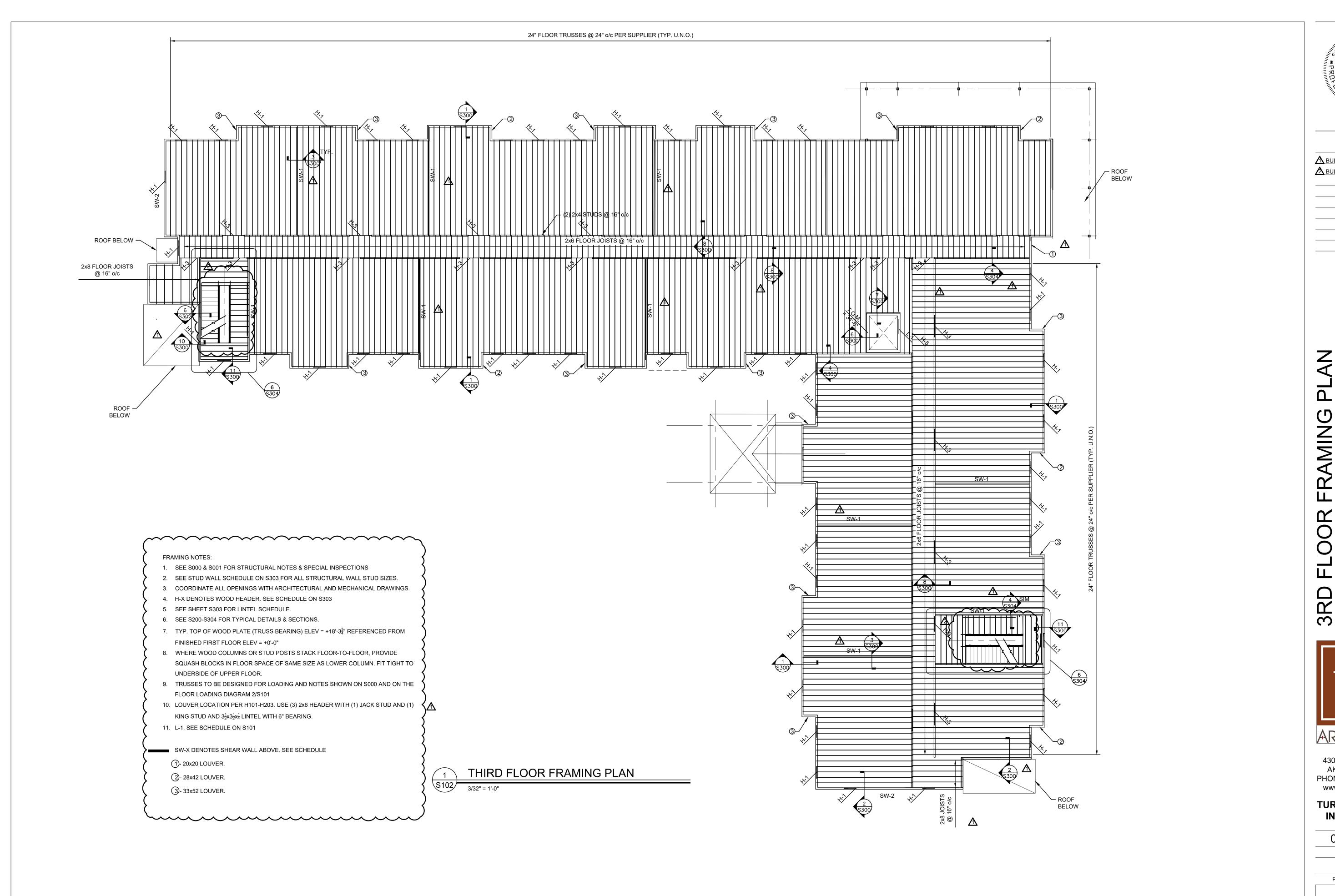
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> 03/31/2023 DATE

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PROJECT NUMBER **S101** 

DRAWING NUMBER





⚠ BULLETIN 1 07/17/2023 **A** BULLETIN 2 09/19/2023



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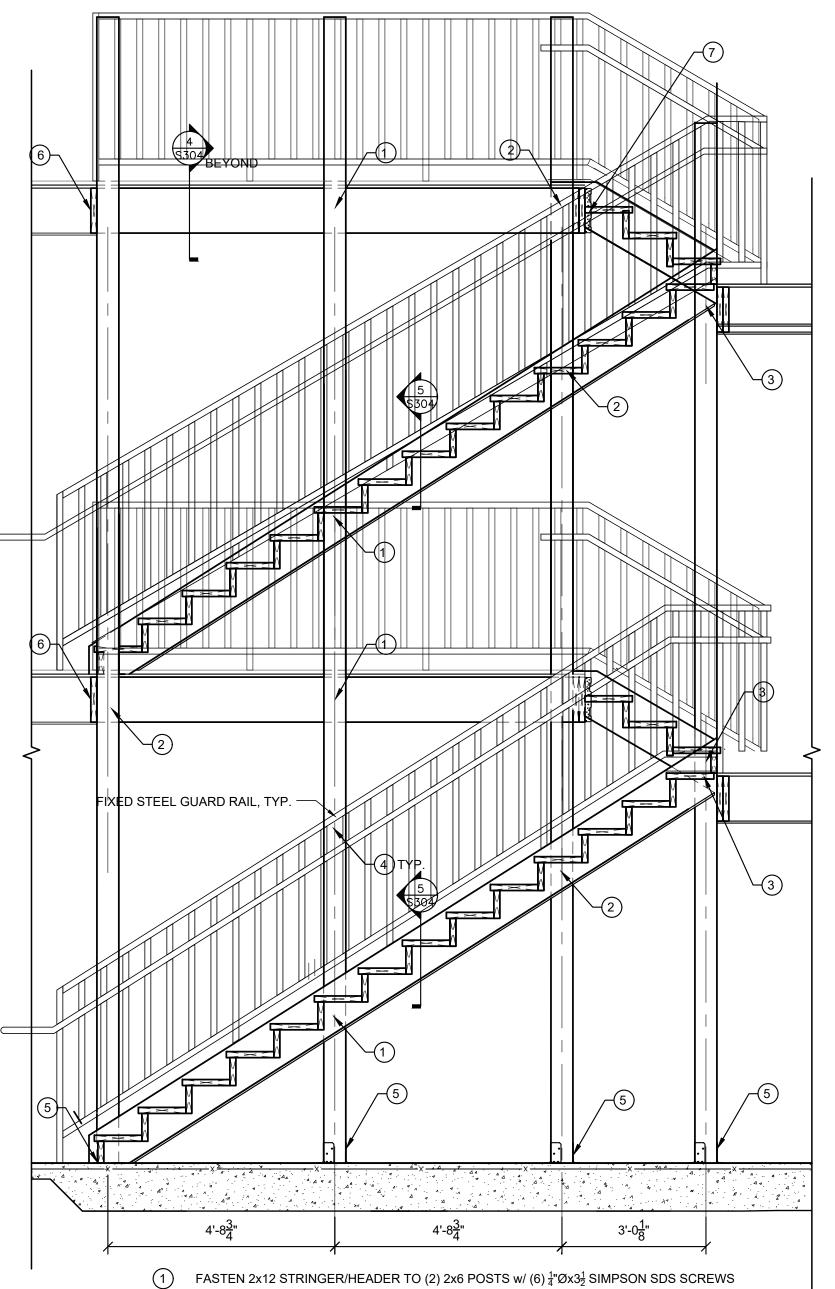
03/31/2023

DATE

82A21 PROJECT NUMBER

S102

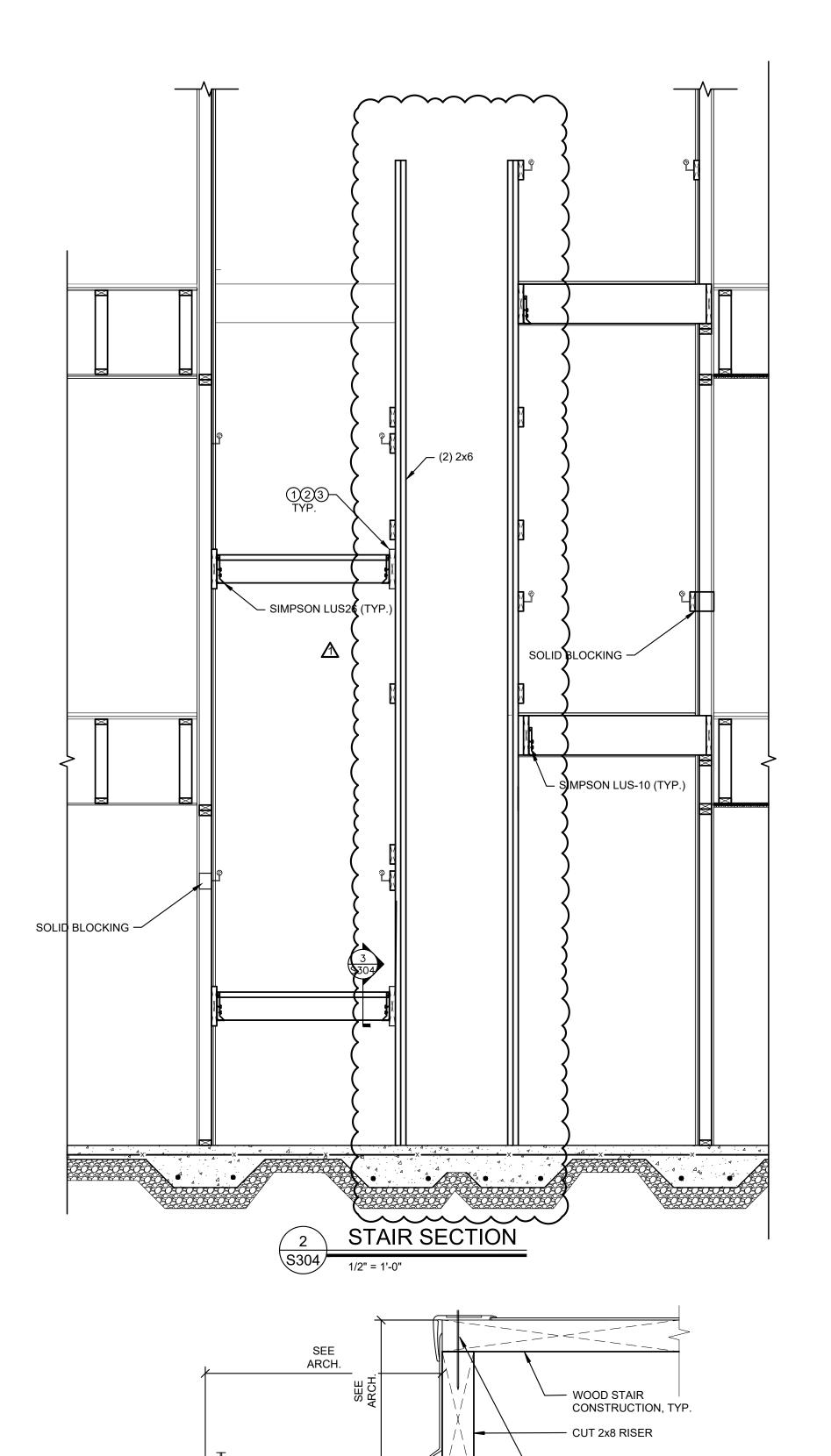
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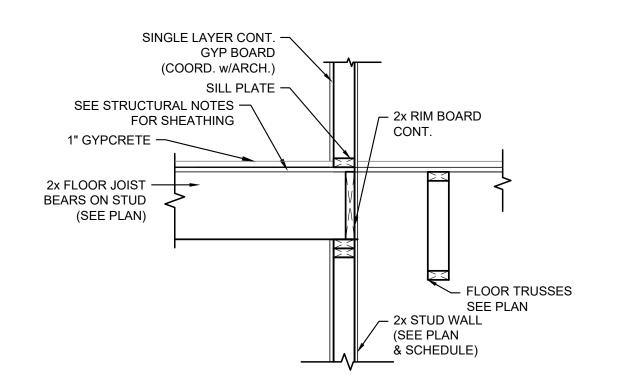


- 2) FASTEN 2x12 STRINGER/HEADER TO (2) 2x6 POSTS w/ (5) ½"Øx3½ SIMPSON SDS SCREWS
- 3 FASTEN 2x12 STRINGER/HEADER TO (2) 2x6 POSTS w/ (2)  $\frac{1}{4}$ "Øx3 $\frac{1}{2}$  SIMPSON SDS SCREWS
- 4 FASTEN PLATE TO POST w/ (3) 12d NAILS
- (2) SIMPSON RPBZ POST BASE w/  $\frac{3}{8}$  "Ø SIMPSON TITEN HD ANCHOR
- 6 FASTEN JOIST TO POST w/ (3) 12d NAILS
- (7) SIMPSON LSC HANGER

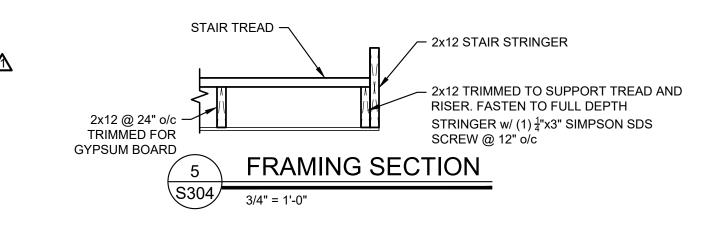
-DELEGATED STAIR ENGINEERS IS RESPONSIBLE FOR THE CONNECTION OF THE RAIL TO WOOD POSTS.

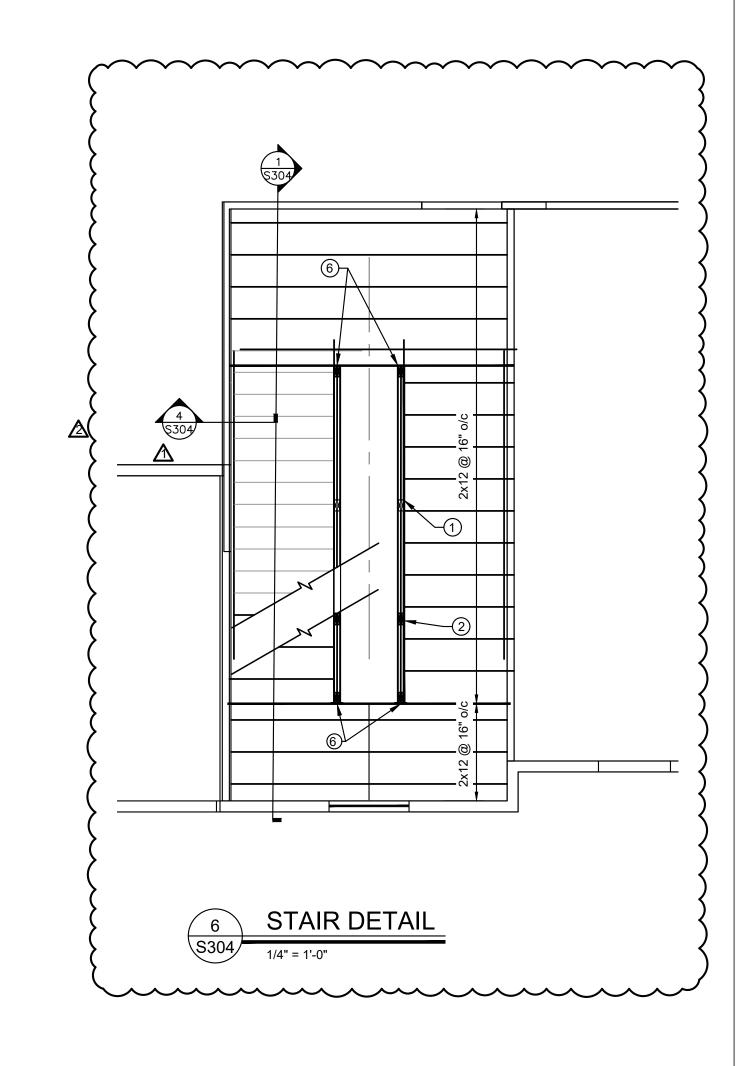


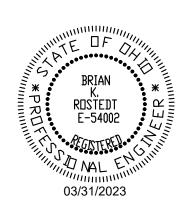












REVISIONS

<u>↑ BULLETIN 1 07/17/2023</u>

**A** BULLETIN 2 09/19/2023

ARCHITECTS

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**TURNING VISIONS INTO REALITY** 

03/31/2023

82A21

PROJECT NUMBER

S304

DRAWING NUMBER

STAIR TREAD AND NOSING

1.75x11<del>7</del>"

LVL TRĚAD

- 1/4x3 SIMPSON SDS

SCREW @12" o/c (TYP.)

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Greater Dayton Premier Management Germantown Crossing TC Project No.: 82-A-21

# SECTION 03 5413 IMPACT SOUND CONTROL MATTING

#### **PART I GENERAL**

#### 1.1 SUMMARY

- A. Section includes gypsum-cement-based, self-leveling underlayment for application over Quiet Qurl sound mat. System Includes:
  - 1. Self-leveling gypsum cement at a minimum of 2000 psi.
  - 2. Keene Building Products' Quiet Qurl 52/013 MC sound mat
  - 3. Reinforcement mesh
  - 4. Floor primer
  - 5. Perimeter Isolation Tape

# 1.2 SUBMITTALS

- A. Provide Manufacturer's Data for products specified.
- B. Product certificates.
- **1.3 DELIVERY, STORAGE AND HANDLING:** Materials shall be delivered in their original, unopened packages, and protected from exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.
- **1.4 SITE CONDITIONS:** Environmental Requirements: Before, during and after installation of self-leveling gypsum cement and Keene Building Products' Quiet Qurl sound mat, building shall be enclosed and maintained at a temperature above 50 degrees F (10 degrees C).

#### **PART 2 PRODUCTS**

#### 2.1 MATERIALS

- A. Gypsum Cement: Gypsum Concrete, which meets the criteria of 2000 PSI as per required by Keene Building Products. All others must receive prior approval.
- B. Entangled net sound mat laminated to a point bonded moisture resistant fabric.
  - 1. Quiet Qurl 52/013 MC as manufactured by Keene Building Products, Mayfield Heights, OH
  - 2. Acceptable alternative which meets the above criteria
- C. Reinforcement Mesh: Keene Building Products' Quiet Qurl RWT or 3.4 lbs./sq. yd. galvanized metal lath.
- D. Sand Aggregate: Sand should meet specifications of the manufacturer of the self-leveling gypsum concrete.
- E. Mix water: Potable, free from impurities
- F. Subfloor Primer: Required by selected manufacturer of self-leveling gypsum concrete
- G. Sealer: Required by selected manufacturer of self-leveling gypsum concrete

### **PART 3 EXECUTION**

# 3.1 SURFACE CONDITION

A. Per manufacturer's specifications.

### 3.2 APPLICATION OF QUIET QURL 52/013 MC

A. Quiet Qurl 52/013 MC Installation: Install Quiet Qurl following the manufacturer's recommended installation instructions as provided by Keene Building Products.

#### 3.3 APPLICATION OF CEMENTITIOUS FLOORING

- A. General: Mix and apply underlayment components according to manufacturer's written instructions.
- B. Thickness of Cementitious Flooring should meet standards provided by Keene Building Products dependent upon type of Quiet Qurl sound mat chosen:
  - 1. Quiet Qurl 52/013 MC: a minimum of 1" inch of cementitious flooring
- C. Apply underlayment to produce uniform, level surface.
- D. Cure underlayment. Per manufacturer's specifications.

# **END OF SECTION 03 5413**

# **SECTION 07 2500 WEATHER BARRIERS**

#### **PART 1 - GENERAL**

# 1.1 SECTION INCLUDES

- A. Water-resistive sheet materials.
- B. Sheet weather barriers
- C. Self-adhesive flexible flashing

#### 1.2 RELATED REQUIREMENTS

A. Section 07 0500 - Common Work Results for Thermal and Moisture Protection

### 1.3 REFERENCE STANDARDS

- A. AATCC Test Method 127 Water Resistance: Hvdrostatic Pressure Test: current edition.
- B. ASTM D1970/D1970M Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; current edition.
- C. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials: current edition.

#### 1.4 SUBMITTALS

- A. Product Data: Provide data on material characteristics.
- B. Manufacturer's Installation Instructions: Indicate preparation.

#### 1.5 FIELD CONDITIONS

A. Maintain temperature and humidity recommended by the materials manufacturers before, during and after installation.

#### **PART 2 - PRODUCTS**

2.1 WATER-RESISTIVE SHEET MATERIALS: Asphalt Felt: ASTM D226 Type I felt (No.15).

# 2.2 SHEET WEATHER BARRIER MATERIALS (WATER VAPOR PERMEABLE AND WATER-RESISTIVE)

- A. Weather Barrier Sheet:
  - 1. Water Penetration Resistance: Withstand a water head of 21 inches (55 cm), minimum, for minimum of 5 hours, when tested in accordance with AATCC 127.
  - Surface Burning Characteristics: Flame spread index of 25 or less, smoke developed index of 50 or less, when tested in accordance with ASTM E84.
  - Basis of Design: ZIPsystem SHEATHING & TAPE by Huber Engineered Woods Zip System R-Sheathing

# 2.3 SELF-ADHESIVE FLEXIBLE SHEET FLASHING

- Flexible Flashing: Self-adhesive sheet flashing complying with ASTM D1970, except slip resistance requirement is waived if not installed on a roof.
  - Composition: Modified bituminous sheet laminated to polyethylene sheet.
  - 2. Thickness: 25 mil (0.64 mm), nominal.
  - 3. Products:

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a. Grace VYCOR Plus Self-Adhered Flashing.

#### 2.4 ACCESSORIES

- A. Thinners and Cleaners: As recommended by material manufacturer.
- B. Adhesives and Sealants: As recommended by the primary material manufacturer.

#### **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

A. Verify that surfaces and conditions are ready to accept the work of this section.

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#### 3.2 PREPARATION

- A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.
- B. Clean and prime substrate surfaces to receive adhesives in accordance with manufacturer's instructions.

#### 3.3 INSTALLATION

- A. Install materials in accordance with manufacturer's instructions.
- Sheet Weather Barriers: Install continuous air tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces. Fasten sheets as follows:
- C. Attach to framed construction with fasteners extending through sheathing into framing. Space fasteners at 12 to 18 inches (305 to 460 mm) on center along each framing member supporting
- D. For applications specified to be air tight, seal seams, laps, penetrations, tears, and cuts with self-adhesive tape; use only large-headed, gasketed fasteners recommended by the manufacturer.
- E. Where stud framing rests on concrete or masonry, extend lower edge of sheet at least 4 inches (100 mm) below bottom of framing and seal to foundation with sealant.
- Install over jamb flashings.
- G. Self-Adhesive Sheet Flashing:
  - Prepare substrate in manner recommended by sheet manufacturer; fill and tape joints in substrate and between dissimilar materials.
  - Lap sheets shingle-fashion to shed water and seal laps air tight. 2.
  - Once sheets are in place, press firmly into substrate with resilient hand roller; ensure that all laps are firmly adhered with no gaps or fishmouths.
  - 4. Use same material, or other material approved by sheet manufacturer for the purpose, to seal to adjacent construction and as flashing.
  - 5. At wide joints, provide extra flexible membrane allowing joint movement.
  - At window and door penetrations, install according to manufacturer's Severe Exposure installation method.

# H. Openings and Penetrations:

- Install flashing over sills, covering entire sill frame member, extending at least 5 inches (125 mm) onto weather barrier and at least 6 inches (150 mm) up jambs; mechanically fasten stretched edges.
- At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with at least 4 inches (100 mm) wide: do not seal sill flange.
- At openings to be filled with non-flanged frames, seal weather barrier to all sides of opening framing, using flashing at least 9 inches (230 mm) wide, covering entire depth of framing.
- At head of openings, install flashing under weather barrier extending at least 2 inches (50 mm) beyond face of jambs; seal weather barrier to flashing.
- At interior face of openings, seal gap between window/door frame and rough framing, 5. using joint sealant over backer rod.
- Service and Other Penetrations: Form flashing around penetrating item and seal to weather barrier surface.

#### 3.4 FIELD QUALITY CONTROL

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- A. Do not cover installed weather barriers until required inspections have been completed.
- Obtain approval of installation procedures by the weather barrier manufacturer based on a mock-up installed in place, prior to proceeding with remainder of installation.

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# 3.5 PROTECTION

A. Do not leave materials exposed to weather longer than recommended by manufacturer.

**END OF SECTION 07 2500** 

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# SECTION 07 5423 THERMOPLASTIC POLYOLEFIN MEMBRANE ROOFING

#### **PART 1 GENERAL**

#### 1.01 GENERAL CONDITIONS

- A. The General Conditions, Modifications to General Conditions, Supplementary or Special Conditions and any Instructions to Bidders shall apply to all Divisions of the work.
- B. The requirements of State, Local or appropriate codes applicable to the work, whichever is the most stringent is a requirement of all Divisions of the work.

#### 1.02 SECTION INCLUDES

- A. Adhered TPO membrane roofing system.
- B. Roof insulation.
- C. Flashing, pipe seals, and roofing accessories.

#### 1.03 RELATED SECTIONS

A. 07 6200 - Sheet Metal Flashing and Trim.

#### 1.04 **DEFINITIONS**

A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

# 1.05 PERFORMANCE REQUIREMENTS

- A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.
- C. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
- D. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D 3746, ASTM D 4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- E. Wind Uplift Resistance: Design roofing system to resist wind uplift pressures when tested according to FM Approvals 4474, UL 580, or UL 1897, for 115 mph ultimate design wind speed, or 90 mph nominal design wind speed.
- F. FM Approvals' RoofNav Listing: Roof membrane, base flashings, and component materials shall comply with requirements in FM Approvals 4450 or FM Approvals 4470 as part of a roofing system, and shall be listed in FM Approvals' RoofNav for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals Certification markings.
  - 1. Fire/Windstorm Classification: Class 1A-90
- G. ENERGY STAR Listing: Roofing system shall be listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for **low**-slope roof products.
- H. Energy Performance: Roofing system shall have an initial solar reflectance of not less than **0.65** and an emissivity of not less than **0.50** when tested according to CRRC-1..
- I. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, **Class A** for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- J. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

# 1.06 SUBMITTALS

A. Product Data: For each type of product indicated.

- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
  - 1. Base flashings and membrane terminations.
  - 2. Tapered insulation, including slopes.
- C. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
- D. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
  - 1. Submit evidence of meeting performance requirements.
- E. Qualification Data: For Installer and manufacturer.
- F. Maintenance Data: For roofing system to include in maintenance manuals.
- G. Warranties: Special warranties specified in this Section.
- H. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

## 1.07 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.
- B. Manufacturer Qualifications: A qualified manufacturer with not less than 10 years of manufacturing history and that has FMG approval for membrane roofing system identical to that used for this Project.
- C. Fire-Test-Response Characteristics: Provide membrane roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
- D. Preinstallation Conference: Conduct conference at Project site. Comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to roofing system including, but not limited to, the following:
  - 1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing Installer; roofing system manufacturer's representative; deck Installer; and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
  - 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
  - 5. Review structural loading limitations of roof deck during and after roofing.
  - 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
  - 7. Review governing regulations and requirements for insurance and certificates if applicable.
  - 8. Review temporary protection requirements for roofing system during and after installation.
  - 9. Review roof observation and repair procedures after roofing installation.

# 1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.

- Discard and legally dispose of liquid material that cannot be applied within its stated shelf life
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

#### 1.09 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

#### 1.10 WARRANTY

- A. Special full-system Warranty: Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
  - Special full-system warranty includes roofing membrane, base flashings, roofing accessories, roof insulation, fasteners, cover board, walkway products and other components of membrane roofing system.
  - 2. Warranty Period: 30 years from date of Substantial Completion.

#### **PART 2 PRODUCTS**

#### 2.01 ROOFING MEMBRANE

A. Thermoplastic Polyolefin (TPO) membrane, 80 mil thick reinforced, Energy Star Certified. Initial solar reflectance shall be greater than or equal to 0.65. Solar reflectance shall be greater than or equal to 0.50 three years after installation under normal conditions.

#### 2.02 ACCEPTABLE MANUFACTURERS

- A. Carlisle
- B. Firestone
- C. Johns Manville
- D. Approved alternates.

#### 2.02 AUXILIARY MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.
  - 1. Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: 0.080" TPO Membrane.
- C. Bonding Adhesive: Manufacturer's standard bonding adhesive.
- D. Seaming Material: Single-component butyl splicing adhesive and splice cleaner.
  - 1. Provide seaming tape 7-inch wide or as required by manufacturer to achieve warranty.
- E. Lap Sealant: Manufacturer's standard single-component sealant.
- F. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
- G. Metal Termination Bars: Manufacturer's standard predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- H. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer.
- I. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

#### 2.03 ROOF INSULATION

- A. General: Provide preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.
- B. Coverboard: Basis of design: 1/2" glass-faced DensDeck Prime.
- C. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 2 (25 psi).
  - 1. Facer Type: Faced with polymer-bonded glass fiber mat membrane facers on both major surfaces of the core foam.
  - Long-Term Thermal Resistance (LTTR): Not less than 5.6 per inch when tested according to ASTM C1303.
  - 3. Tapered: roof trusses provide one-directional slope at each wing of building at upper level, but crickets required for slope to drains. Tapered insulation required at first story roof and canopies, as no roof truss slope at those locations:
    - a. Slope: Not less than 1/4" per foot as required to prevent ponding water from forming on the roof surface at any point. No slope under 1/4" per foot will be permitted.
    - b. Minimum R-Value at Drainage Point: R-25 unless otherwise indicated on Drawings.

#### 2.04 INSULATION ACCESSORIES

- A. Provide adhesives and mechanical fasteners as recommended by insulation manufacturer for substrates encountered.
  - 1. Fasteners: Metal fasteners and the insulation shall be approved by the membrane manufacturer to assure that required conditions are met to provide a membrane manufacturer's roof warranty. The type of fastener shall be appropriate for the substrate to achieve maximum withdraw and anti-corrosion characteristics. The membrane manufacturer approved fasteners shall also meet the following requirements.
    - a. FM 4470 SPRI Corrosion Test Procedure and Guidelines for Roofing Fasteners. To pass, the fasteners shall not accumulate more than 15 percent red rust after the "required number cycles" in the Kesternich cabinet.
      - 1) The required number of cycles is as currently recommended by FM and SPRI, but in no case shall it be less than 15.
      - 2) Fasteners shall be buttress thread (threads 10 degree/45 degree angle) for static backout resistance.
  - 2. Cold Fluid Applied Adhesive: Manufacturer's standard cold fluid applied adhesive formulated to adhere roof insulation to substrate.
- B. Crickets (Tapered Insulation): Provide tapered insulation crickets sloped approximately 1/4" per foot. Locate and arrange as indicated on drawings or as required to divert water at rooftop equipment or vertical obstructions without ponding at any time.
  - 1. Material: Polyisocyanurate: Conform to requirements and manufacturers specified herein.

#### 2.05 WALKWAYS

- K. Flexible Walkways: Factory-formed, nonporous, heavy-duty, solid white rubber, slip-resisting, surface-textured walkway rolls, approximately 3/16 inch thick and 24" wide, and acceptable to membrane roofing system manufacturer.
  - 1. Provide 2' x 4' walkway at base of all roof ladders.
  - 2. Provide 2' x 2' walkway at all roof hatch locations.
  - 3. Provide 2' width around all mechanical units.

#### **PART 3 - EXECUTION**

## 3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
  - 1. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
  - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.

- 3. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
- 4. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
- Verify that concrete curing compounds that will impair adhesion of roofing components to roof deck have been removed.
- 6. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.02 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

#### 3.03 INSULATION INSTALLATION

- A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install one or more layers of insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2 inches or greater, install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.
- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
  - 1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- G. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:
  - 1. Set each layer of insulation in a cold fluid-applied adhesive.

#### 3.04 ADHERED ROOFING MEMBRANE INSTALLATION

- A. Install roofing membrane over area to receive roofing according to membrane roofing system manufacturer's written instructions. Unroll roofing membrane and allow to relax before installing.
- B. Start installation of roofing membrane in presence of membrane roofing system manufacturer's technical personnel.
- C. Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply bonding adhesive to substrate and underside of roofing membrane at rate required by manufacturer and allow to partially dry before installing roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.
- E. Install roofing membrane securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing membrane with side laps shingled with slope of roof deck where possible.
- G. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing cement, and firmly roll side and end laps of overlapping roofing membranes according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of roofing membrane terminations.

- 1. Apply a continuous bead of in-seam sealant before closing splice if required by membrane roofing system manufacturer.
- H. Repair tears, voids, and lapped seams in roofing that does not meet requirements.
- I. Spread sealant or mastic bed over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.
- J. Install roofing membrane and auxiliary materials to tie in to existing roofing, if so indicated.

#### 3.05 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

#### 3.06 WALKWAY INSTALLATION

A. Flexible Walkways: Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

#### 3.07 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Architect.
  - 1. Notify Architect or Owner 48 hours in advance of date and time of inspection.
- B. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

# 3.08 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

#### **END OF SECTION 07 5423**

# **SECTION 08 5313 VINYL WINDOWS**

#### **PART 1 - GENERAL**

# 1.1 SECTION INCLUDES

- A. Vinyl-framed, factory-glazed windows, operable single-hung type.
- B. Operating hardware.
- C. Insect screens.

# 1.2 RELATED REQUIREMENTS

- A. Section 08 0500 Common Work Results for Openings
- B. Section 07 2500 Weather Barriers
- C. Section 07 6200 Sheet Metal Flashing and Trim

#### 1.3 REFERENCE STANDARDS

- A. AAMA/NWWDA 101/I.S. 2-97 Voluntary Standard for Aluminum and Poly (Vinyl Chloride) (PVC) Prime Windows and Glass Doors.
- B. National Fenestration Rating Council:
  - 1. NFRC 100 Procedure for Determining Fenestration Product U-Factors
  - 2. NFRC 200 Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence
- C. ASTM International:
  - 1. ASTM D 3656 Standard Specification for Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Fiber Yarn.
  - ASTM D 3678 Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Interior Profile Extrusions.
  - 3. ASTM D 4028 Standard Specification for Solar Screening Woven from Vinyl-Coated Fiber Glass Yarn.
  - 4. ASTM E 774 Standard Specification for Sealed Insulating Glass.
- D. Insulated Glass Certification Council (IGCC): Classification of Insulating Glass Units.
- E. U.S. Department of Energy: ENERGY STAR® Program Requirements for Residential Windows, Doors, and Skylights

# 1.4 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

### 1.5 SUBMITTALS FOR REVIEW

- A. Shop drawings showing details of fabrication, hardware, weatherstripping, fasteners, screens, glazing, accessories, and related items.
- B. Window schedule identifying each opening and size corresponding with the elevations on the Drawings.
- C. Manufacturer's full range of available color samples.

## 1.6 SUBMITTALS FOR INFORMATION

A. Test Reports: For each window type specified, furnish test reports from accredited independent testing laboratory certifying that identical or larger window units meet requirements specified for air infiltration, water penetration and structural performance by AAMA/NWWDA 101/I.S. 2-97, for thermal performance by NFRC-97, and for seal integrity of insulating glass units by IGCC.

#### 1.7 CLOSEOUT SUBMITTALS

- A. Warranty documents, properly executed.
- B. Maintenance Instructions

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# 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond when exposed to sunlight or weather.
- B. Jig, brace, and box the window frame assemblies for transport to minimize flexing of members or joints.

#### 1.9 WARRANTY

- A. Correct defective Work within a **TEN** year period after Date of Substantial Completion.
- B. Provide **TEN** year manufacturer warranty for insulated glass units from seal failure, interpane dusting or misting, and replacement of same. Include coverage for degradation of color finish.

#### **PART 2 - PRODUCTS**

# 2.1 VINYL WINDOWS

- A. Basis of Design: Pella Encompass Single hung insulated windows, with LoE3 glass with Argon gas fill, Energy Star qualified for ASHRAE Climate Zone 5.
- B. Description: Factory fabricated frame and sash members of extruded hollow ultra-violetresistant polyvinyl chloride (PVC) with integral color; with factory-installed glazing, hardware, related flashings, and anchorage and attachment devices. The Architect will select the color.
  - 1. Framing Members: Fusion welded corners and joints, with internal reinforcement where required for structural rigidity; concealed fasteners.
  - 2. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, or migrating moisture occurring within system.
  - 3. Provide each unit with manufacturer's standard half-height charcoal fiberglass insect screening.
- C. Window Unit Thermal Performance:
  - 1. U-Value:0.30
  - 2. Solar Heat Gain Coefficient: 0.35
- Operable Sash Weatherstripping: Wool pile; permanently resilient, profiled to effect weather seal.
- E. Color: white.

## 2.2 HARDWARE

- A. Single hung Sash: Metal and nylon spiral friction slide cylinder, each sash, each jamb.
- B. Sash lock: Lever handle with cam lock.
- C. Pulls: To be selected by the Architect.
- D. Window limiters are to be provided on all windows.

#### **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

- A. Verify wall openings and adjoining weather barrier materials are ready to receive work of this Section. Refer to Section 07 2500.
- B. Verify that head flashings are properly installed. Refer to Section 07 9200.

#### 3.2 INSTALLATION

- A. Install window units in accordance with manufacturer's instructions.
- B. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.
- D. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- E. Coordinate attachment and seal of perimeter air and vapor barrier materials.
- F. Install operating hardware.

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G. Install perimeter sealant and backing materials in accordance with Section 07 9200.

#### 3.3 TOLERANCES

A. Maximum Variation from Level or Plumb: 0.06 inches every 3 ft (1.5 mm/m) non-cumulative or 0.5 inches per 100 ft (12 mm/30 m), whichever is less.

#### 3.4 ADJUSTING

A. Adjust hardware for smooth operation and secure weathertight closure.

# 3.5 CLEANING

- A. Remove protective material from pre-finished surfaces.
- B. Wash surfaces by method recommended and acceptable to sealant and window manufacturer; rinse and wipe surfaces clean.
- C. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.

**END OF SECTION 08 5313** 

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