8787 RENNER BLVD. SUITE 100
LENEXA, KS 66219

913 + 498 - 1550
finklewilliams.com

December 5, 2024

Paragon Star North Village - Multifamily
Permit No: PL2024082
December 4, 2024 Final Development Plan Review Response

Drawings have been updated to conform with the comments from the plan review per the responses below.

Planning Review **Reviewed By: Hector Soto Jr.**

1. *SCALE. The scale bar on Sheet C008 is labeled as 1"=40', but the sheet is actually drawn at 20' scale. Correct.*

Response: Scale has been updated.

2. FIRE ACCESS ROAD. Will the fire access road be secured at both ends with a gate or similar device so that it can only be accessed by the Fire Department when needed, or will it be open at both ends at all times and thus be useable by the general public as a connection between the two parking lot areas? If the latter, then the fire access road shall be considered an extension of the parking lot and shall have a CG-1 boundary along both sides of the lane for the entire length of the connection between the two parking lot areas. If considered an extension of the parking lot, the 26' pavement width for the fire access road/drive aisle shall not include the width of the CG-1 boundary.

Response: The road will be secured with bollards and Knox Box per the A-101 floor plan sheet.

3. DRIVEWAY WIDTH. The two parking lot driveway connections to NW Paragon Pkwy are dimensioned as having widths of 27' BC/BC (east driveway) and 27.35' BC/BC (west driveway), resulting in the actual asphalt paving width (excluding curb and gutter) being less than 24' in width. City ordinance requires a minimum pavement width of 24' (28' BC/BC). Revise.

Response: Driveway width revised.

4. ADA PARKING SPACES. Every parking space required by this section shall be identified by a sign, mounted on a pole or other structure a minimum 60 inches (5 feet) above the ground measured from the bottom of the sign, at the head of the parking space.

Response: ADA parking signage is identified on Architectural Sheets A1.70G- A1.75G as well as detail 3/A1.76G attached.

5. LIGHT FIXTURES. No information for any building-mounted lights fixtures is provided on Sheets E100 or E300. Show the location of building-mounted fixtures on the building elevations to the extent possible and include the proposed building-mounted fixtures on the photometric plans. Building-mounted fixtures shall comply with the lighting standards under UDO Sections 8.220, 8.260, 8.270 and 8.280.

Response: No exterior wall mounted lighting is anticipated at this time.

6. PARKING GARAGE PARKING SPACES. 1) Dimension the proposed parking garage spaces. Spaces shall be a minimum 9' wide x 19' deep. 2) Dimension the drive aisle widths in the parking garage. Two-way drive aisles shall be a minimum 24' wide.

Response: This was discussed with staff early in design and based upon industry standards for Parking Garage Construction, the reduced depth of stalls was accepted. See attached email correspondence. Dimensions are shown in the attached garage set.

7. MECHANICAL EQUIPMENT SCREENING. Dash in the location of all proposed roof-top units on the building elevations to confirm compliance with the requirement that RTUs shall be fully screened from view on all sides by using parapet walls of a height at least equal to the height of the RTUs. Please take into account the added height from any curbs on which the RTUs will sit. If any ground-mounted equipment will be used, it shall be fully screened from view on all sides using evergreen shrubs or a masonry wall at least equal in height to the units being screened.

Response: There is a 5’ parapet along Paragon Parkway. Sightlines from the public way to the roof top from anywhere surrounding the building obscure any rooftop equipment planned.

8. BUILDING ELEVATIONS. All of the text on the building elevations is unintelligible. All of the copy on the elevations are random symbols and numbers.

Response: The A-102 sheet has been replaced.

9. DATA TABLE. Include the impervious coverage information (in sq. ft. and as a percentage) in the table.

Response: Data table has been updated.

10. TRASH ENCLOSURES. A detailed drawing of enclosure and screening methods to be used in connection with trash storage containers on the property shall be provided. Each trash enclosure shall be constructed of masonry walls or steel architecturally designed walls with either a solid steel opaque gate painted to be compatible with the color of the masonry or steel walls and building it is to serve or a steel framed semi-opaque gate with a screen mesh material approved by the Director that provides an appropriate visual barrier.

Response: See attached A6.07 for trash enclosure details used for Phase 1. The trash enclosure will be within the building footprint when Phase 2 is built out.

Engineer Review **Reviewed By: Sue Pyles, P.E.**

1. General:

- *Wall sections are shown for 2 of the walls, but not all. Do all walls utilize one of those sections? Please add a separate retaining wall layout and detail plan for clarity of locating all walls.*
- *Please review the plan set and relocate elevations, etc. as necessary for clarity.*
- *Please include an Engineer's Estimate of Probable Construction Costs.*

Response: Wall sections are for areas specified on plan view. Retaining wall plan added. Retaining wall design to be provided as deferred submittal. Plan updated for clarity. Estimate provided.

2. Sheet C006:

- *Include TW/BW elevations for the east wall in the middle, not just the ends.*
- *Highlight Enlargement #1 in Plan view in the same way as on the Utility Plan. That's very helpful.*
- *Include slopes and dimensions for the ramps in Enlargement #1.*

Response: TW/BW added. Enlargement area added. Slopes and dimensions added for enlargement #1.

3. Sheets C008-C009: Are Grass Pavers being proposed? If not, please remove from Legend.

Response: No grass pavers proposed. Removed from legend.

4. Sheet C012:

- *Please relocate the water meters shown in Enlargement #1 & #4 to outside of paved areas.*
- *Please revise to specify soft type "K" copper service line extending a minimum of 10' on each side of water meters.*

- *Please indicate irrigation and domestic meters for clarity.*

Response: Water meter location shown in pavement due to lack of adequate green space. Copper lines specified 10' each side of meter. Meters indicated as domestic.

5. Sheet C017:

- *Please revise the Class C Pipe Bedding Detail to show 12" of backfill over the pipe.*
- *The curb and gutter detail or pavement detail must show that the aggregate base and compaction of native subgrade extends a minimum of one (1) foot beyond the back of curb.*
- *The City now requires KCMMB asphalt. Please include in the asphalt pavement sections for clarity.*

Response: Building detail revised. Curb detail revised. Asphalt pavement detail revised.

Fire Review By: Jim Eden

2. Paved access and all hydrants shall be installed and operable prior to bringing combustible materials on site or going vertical with combustible construction.

Response: Acknowledged

3. IFC 507.1 - An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

Confirm available fire flow per Table B105.1(2). only a 50% reduction is allowed for having a sprinkler system.

Response: The available flow is 169 psi static and 2200 GPM at 84 psi residual which equals 2979 GPM at 20 psi. Table B105.1(2) requires 4,000 GPM @ 20 psi for 4 hours with a reduction of 50% to 2,000GPM meeting the required flow per Table B105.1(2)

4. IFC 903.3.7 - Fire department connections. The location of fire department connections shall be approved by the fire code official. Connections shall be a 4 inch Storz type fitting and located within 100 feet of a fire hydrant, or as approved by the code official.

The FDC(s) not shown for the north riser and parking garage standpipe.

Response: Proposed FDC locations are indicated on sheet A-101 and civil utility plan C013.

5. IFC 503.2.1 - Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm)

What is the height of the lane under the parking garage?

Response: 13'-10" Min Clear

6. The access barrier to the fire lane shall be a drop down bollard or a swing gate with a Knox padlock.

Response: Acknowledged. Drop down bollards and Knox Box are indicated on the A-101 floor plan sheet.

Building Codes Review By: Joe Frogge

1. In this case, water piping must be copper for at least 10' on both sides of meters.

Response: Copper pipe noted 10' each side of meter

2. Provide water meter pit detail. Water meter vault detail on C016 is for backflow preventer.

Response: Water meter pit detail added to civil utility details.

3. Provide complete retaining wall design. Must be sealed/signed by engineer.

Response: Deferred submittal

4. Light pole base is incomplete. Refers to structural design. Provide complete detail.

Response: See sheet C018

Sincerely,

Dave Williams

John Gaar

From: Mike Weisenborn <Mike.Weisenborn@cityofls.net>
Sent: Wednesday, September 22, 2021 1:46 PM
To: John Gaar
Cc: Ellen Foster; Kelsie Carnes; Scott Grause
Subject: RE: Paragon Star

Good afternoon everyone. I have heard back from staff on everything know. Fire and Codes are in agreement with the first two items. Item 3 will take additional conversations and I can look at scheduling a Zoom meeting for that. On item 4, the DTLS apartments ran into the same issue with their parking garage. The reduced parking stalls were approved as part of the PDP due to the industry standards for these facilities. Staff is fine with allowing the reduction on this project based on these reasons.

Let me know if you would like me to schedule a meeting.

From: John Gaar <jgaar@finklewilliams.com>
Sent: Monday, September 20, 2021 8:48 AM
To: Mike Weisenborn <Mike.Weisenborn@cityofls.net>
Cc: Ellen Foster <efoster@finklewilliams.com>; Kelsie Carnes <kcarnes@finklewilliams.com>; Scott Grause <sgrause@brinkmannconstructors.com>
Subject: RE: Paragon Star

***** This email is from an external source, use caution before clicking on links or opening attachments. *****

Mike,

The file is a SketchUp file. You can download a viewer for free at https://www.sketchup.com/products/sketchup-viewer . Otherwise we will just share with you on screen when we get back together.

Thanks,

John

From: Mike Weisenborn <Mike.Weisenborn@cityofls.net>
Sent: Monday, September 20, 2021 8:24 AM
To: John Gaar <jgaar@finklewilliams.com>
Cc: Ellen Foster <efoster@finklewilliams.com>; Kelsie Carnes <kcarnes@finklewilliams.com>; Scott Grause <sgrause@brinkmannconstructors.com>
Subject: RE: Paragon Star

Good morning. I am not able to open the Code Model. Can you let me know the format or send it in another? Thanks

Mike Weisenborn | Project Manager, Development Center
220 SE Green Street | Lee's Summit, MO 64063
816.969.1240 |cityofLS.net | Mike.Weisenborn@cityofls.net

From: John Gaar <jgaar@finklewilliams.com>
Sent: Friday, September 17, 2021 11:23 AM
To: Mike Weisenborn <Mike.Weisenborn@cityofls.net>
Cc: Ellen Foster <efoster@finklewilliams.com>; Kelsie Carnes <kcarnes@finklewilliams.com>; Scott Grause <sgrause@brinkmannconstructors.com>
Subject: Paragon Star

***** This email is from an external source, use caution before clicking on links or opening attachments. *****

Mike,

Attached is a record of our meeting last week along with more plan information hopefully communicating our approach to building life safety (specifically building separation requirements). Please review and let me know when next week you are available to meet. In the event you have access to a free SketchUp service, I've included the model for you to look around.

Thanks,

John

JOHN L. GAAR, AIA
FINKLE + WILLIAMS Architecture

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Lenexa, KS 66219
913.498.1550

About Us Our Work

WE'VE MOVED! Please note our new address above.

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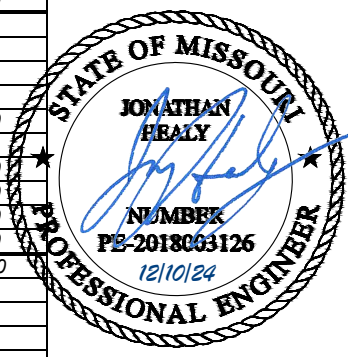
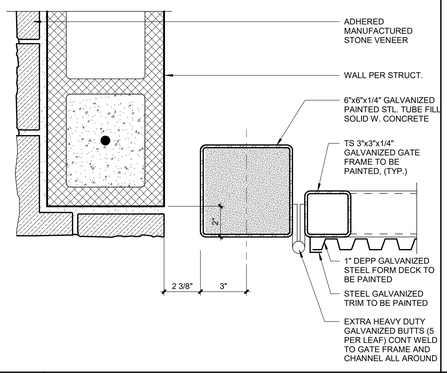
Paragon Star North Village Site Work Engineer's Estimate

12/10/2024

Item No.	Description	Unit	Approx. Unit Quantity	Unit Price	Unit Total
1	Heavy Duty Concrete Pavement Section (8")	SY	484	$70.00	$33,880.00
2	Light Duty Asphalt Pavement Section (6")	SY	2,543	$28.00	$71,204.00
3	Heavy Duty Asphalt Pavement Section (8")	SY	5,270	$32.00	$168,640.00
4	Flyash modified subgrade	SY	8,297	$7.50	$62,227.50
5	Brick Pavers/Crosswalk Pavers	SF	7,450	$24.00	$178,800.00
6	Concrete Curb and Gutter (Type "CG-1")	LF	2,806	$18.00	$50,508.00
7	Concrete Sidewalk	SF	33,044	$6.00	$198,264.00
8	ADA Ramp	EA	3	$2,400.00	$7,200.00
9	No Parking Pavement Striping (4" white) (Trash Dumpster)	LF	242	$5.00	$1,210.00
10	Traffic Signs	EA	3	$1,500.00	$4,500.00
11	Storm Sewer (18") (HDPE)	LF	178	$75.00	$13,346.25
12	Storm Sewer (4") (SDR 26 PVC)	LF	55	$65.00	$3,575.00
13	Storm Sewer (6") (SDR 26 PVC)	LF	316	$80.00	$25,240.00
14	Storm Sewer (8") (SDR 26 PVC)	LF	795	$100.00	$79,500.00
15	Storm Sewer (10") (SDR 26 PVC)	LF	150	$110.00	$16,445.00
16	Storm Sewer (12") (SDR 26 PVC)	LF	176	$125.00	$22,000.00
17	Storm Sewer (4") Wye	EA	1	$250.00	$250.00
18	Storm Sewer (6") Wye	EA	3	$250.00	$750.00
19	Storm Sewer (8") Tee	EA	7	$350.00	$2,450.00
20	Storm Sewer (10") Tee	EA	3	$450.00	$1,350.00
21	Storm Sewer (12") Tee	EA	2	$600.00	$1,200.00
22	Storm Sewer (12"x12"x8") Tee	EA	1	$750.00	$750.00
23	Connect to 6' Dia. MH (Storm)	EA	2	$7,000.00	$14,000.00
24	4' Grate inlet	EA	2	$5,000.00	$10,000.00
25	4" HDPE PerforatedUnderdrain	LF	1,531	$25.00	$38,275.00
26	Sanitary Sewer (4") (SDR 26 PVC)	LF	6	$65.00	$390.00
27	Sanitary Sewer (6") (SDR 26 PVC)	LF	484	$80.00	$38,720.00
28	Sanitary Sewer (6") 45° Bend	EA	5	$250.00	$1,250.00
29	Sanitary Sewer (6") 22-1/2° Bend	EA	2	$250.00	$500.00
30	Sanitary Sewer (6") Wye	EA	2	$250.00	$500.00
31	Sanitary Sewer (6") Cut in Tee	EA	2	$1,500.00	$3,000.00
32	Sanitary Sewer (6") Clean out	EA	8	$500.00	$4,000.00
33	Sanitary Sewer (6") Concrete Encasement	LF	50	$200.00	$10,000.00
34	Erosion Control Wash-Out Station	EA	1	$2,500.00	$2,500.00
35	Silt Fence	LF	2,800	$5.00	$14,000.00
36	Curb Inlet Protection	EA	6	$300.00	$1,800.00
37	Area Inlet Protection	EA	4	$300.00	$1,200.00
38	Construction entrance and staging area	LS	1	$2,500.00	$2,500.00
39	2" Dia. C901 HDPE	LF	663	$15.00	$9,945.00
40	2" Type "K" Copper Pipe	LF	120	$20.00	$2,400.00
41	6" Class 305 C900 PVC	LF	257	$80.00	$20,560.00
42	8" Class 305 C900 PVC	LF	1,427	$100.00	$142,700.00
43	Water (2") Water Meter	EA	8	$3,500.00	$28,000.00
44	Water (8"x6"x8") Tee	EA	7	$1,000.00	$7,000.00
45	Water (8"x8"x8") Tee	EA	9	$1,500.00	$13,500.00
46	Water (8"x2" Reducer)	EA	9	$800.00	$7,200.00
47	Water (8") 45° Bend w/Thrust Block	EA	6	$1,500.00	$9,000.00
48	Water (8") 22-1/2° Bend w/Thrust Block	EA	6	$1,500.00	$9,000.00
49	Water (2" Gate Valve)	EA	5	$1,000.00	$5,000.00
50	Water (8" Gate Valve)	EA	5	$3,500.00	$17,500.00
51	Water Fire Hydrant Assembly	EA	7	$4,000.00	$28,000.00
52	Water Connect to 12" Water Main	EA	2	$7,500.00	$15,000.00
53	Telecom (12"x12") Utility Quartzite Box	EA	1	$1,500.00	$1,500.00
54	Telecom Utility Pull Box	EA	4	$1,500.00	$6,000.00
55	Telecom (2") Dia. PVC Conduit	LF	530	$15.00	$7,950.00
56	Telecom (1") Dia. HDPE Conduit	LF	74	$10.00	$740.00
57	Telecom (3 - 5") Dia. HDPE	LF	817	$20.00	$16,340.00
58	Telecom (2 - 5") Dia. HDPE	LF	82	$20.00	$1,640.00
59	Electrical (4") Dia. Schedule 40 PVC Conduit	LF	1,384	$20.00	$27,680.00
60	Electrical (8 - 3") Dia. Schedule 40 PVC Conduit	LF	422	$125.00	$52,750.00
61	Electrical Evergy 9'x9' Concrete Pad	EA	5	$10,000.00	$50,000.00
62	Electrical 200Amp Sectionalizer Pad	EA	2	$8,000.00	$16,000.00
63	Retaining Wall	SF	3,927	$60.00	$235,620.00
	Total Cost				**$1,816,949.75**





11 JAMB DETAIL
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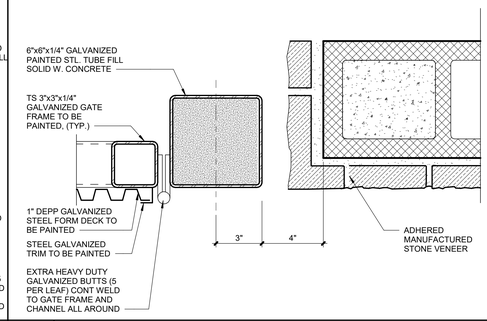

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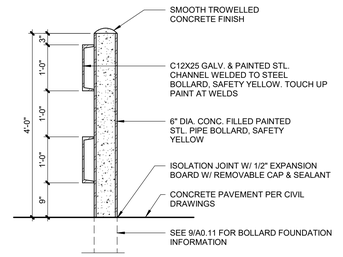

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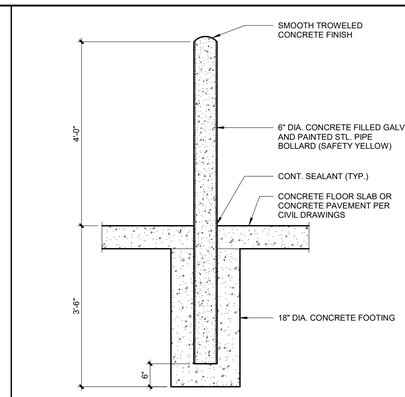

3 BOLLARD DETAIL
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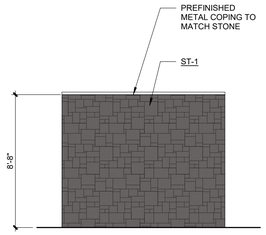
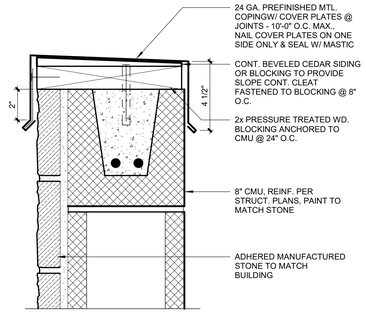


10 TRASH ELEVATION
A6.07 SCALE : 1/4" = 1'-0"



6 COPING DETAIL
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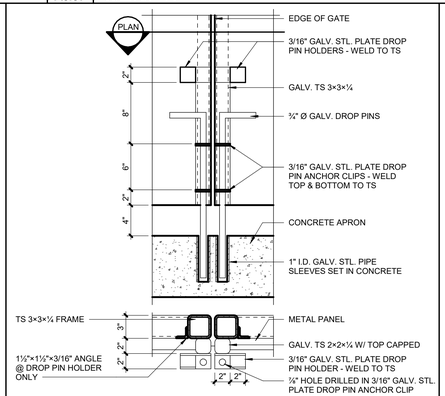
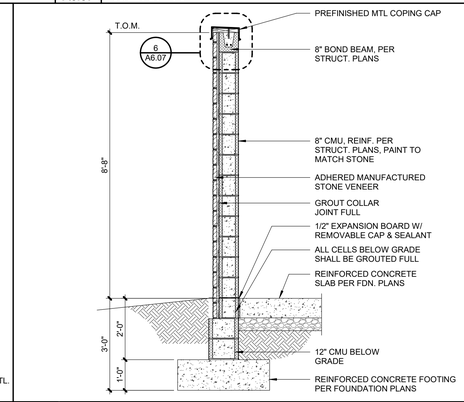
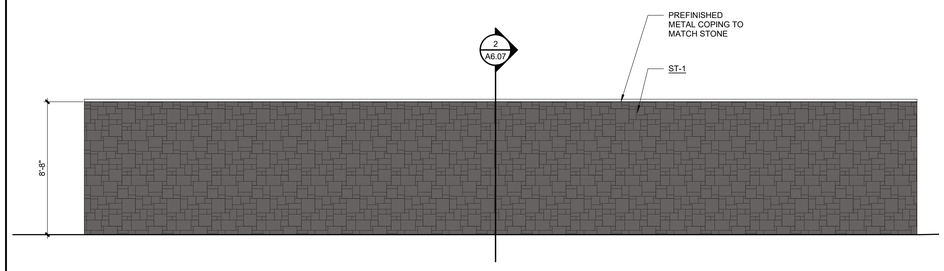


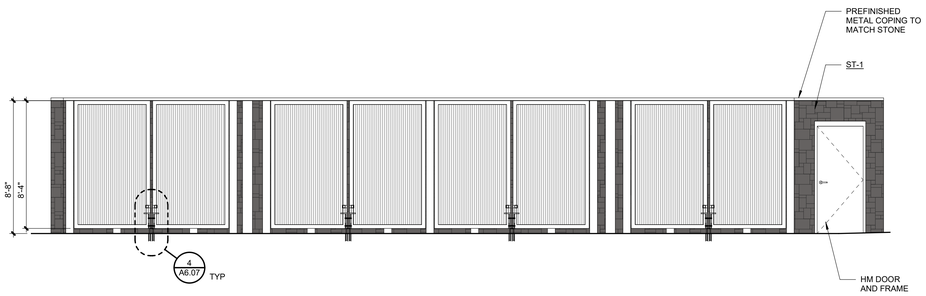
4 DROP PIN DETAILS
A6.07 SCALE : 1 1/2" = 1'-0"



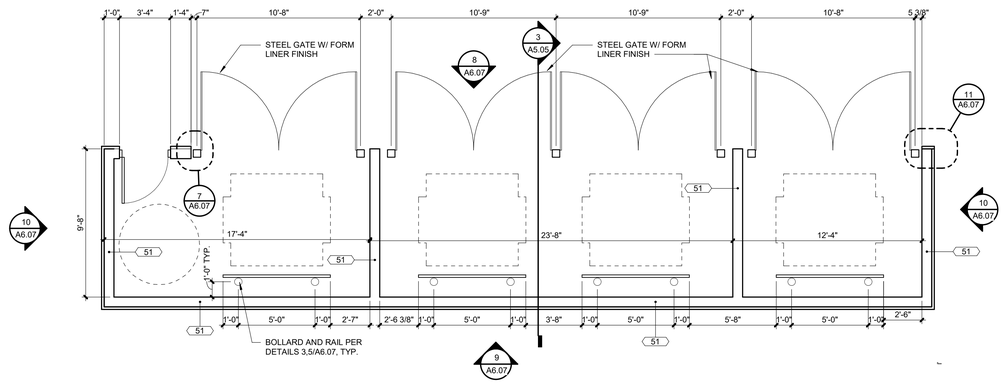
2 WALL SECTION
A6.07 SCALE : 1/2" = 1'-0"



9 TRASH ELEVATION
A6.07 SCALE : 1/4" = 1'-0"



8 TRASH ELEVATION
A6.07 SCALE : 1/4" = 1'-0"



1 TRASH PLAN
A6.07 SCALE : 1/4" = 1'-0"

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.07,19050.08
Date:	06.28.22
Issued For:	FOR CONSTRUCTION

REVISIONS

No.	Date	Description

REGISTRATION

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

FINKLE + WILLIAMS
ARCHITECTURE
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 .498.1550
www.finklewilliams.com

SHEET TITLE

TRASH ENCLOSURE DETAILS- PHASE 1

SHEET NUMBER

A6.07

RENDERING FOR CONCEPTUAL REFERENCE ONLY. IMAGE MAY NOT REFLECT LATEST DESIGN. REFERENCE ELEVATIONS AND SCHEDULES FOR FINISHES.

PARAGON STAR NORTH VILLAGE

ISSUED FOR
FOR CONSTRUCTION

CURRENT REVISION

PROJECT NUMBER
18017.19050.07.19050.08

RELEASE DATE
06.28.22

DRAWING INDEX

PROJECT TEAM

ARCHITECT
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LANDSCAPE
TBD

STRUCTURAL
BOB D. CAMPBELL & CO., INC.
4338 Belleview
Kansas City, Missouri 64111
PH. 816.531.4144 F. 816.531.8572

PRECAST CONTRACTOR
CORESLAB STRUCTURES, INC.
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Kansas City, Kansas 66111
PH. 913.287-5725

CONTRACTOR
BRINKMANN CONSTRUCTORS
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Overland Park, Kansas 66210
PH. 913.717.9007 F. 913.717.9407

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Overland Park, Kansas 66210
PH. 785.233.0647 F. 785.233.0647

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Overland Park, Kansas 66210
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FIRE PROTECTION
TBD

FINKLE + WILLIAMS
ARCHITECTURE

PROJECT ADDRESS
3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

ACCESSIBLE SIGNAGE REQUIREMENTS

PERMANENT ROOMS AND SPACES

SEE SCHEDULE BELOW FOR INTERIOR SIGNAGE LOCATIONS:

SIGNS WHICH DESIGNATE PERMANENT ROOMS AND SPACES SHALL COMPLY WITH ADAAG SECTIONS 4.30.1, 4.30.4, 4.30.5, 4.30.6

TYPE 'A' TYPE 'B' TYPE 'C'

COORDINATE ACCESSIBLE PARKING STALL SIGNAGE REQUIREMENTS, INCLUDING FINE REQUIREMENTS, WITH LOCAL JURISDICTION

INTERIOR SIGNAGE SCHEDULE GARAGE

DOOR NO.	ROOM NAME	SIGN TYPE
103.A	WATER SERVICE	TYPE 'B'
105.A	STAIR	TYPE 'A'
206.A	STAIR	TYPE 'C'
206.B	STAIR	TYPE 'C'
306.A	STAIR	TYPE 'C'
406.A	STAIR	TYPE 'C'
506.A	STAIR	TYPE 'C'

1. TACTILE & BRAILE CHARACTERS
   a. CHARACTERS SHALL BE RAISED MINIMUM 1/32"
   b. CHARATERS SHALL BE ACCOMPANIED BY GRADE 2 BRAILLE
2. TYPESTYLES
   a. CHARACTERS SHALL BE UPPER CASE & SANS SERIF OR SERIF TYPESTYLE
   b. CHARACTERS SHALL BE A MINIMUM OF 5/8" HIGH AND MAXIMUM 2" HIGH
3. PICTOGRAMS (SYMBOLS)
   a. PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTORGRAM AS INDICATED.
   b. THE BORDER DIMENSION OF THE PICTORGRAM SHALL BE 6" MIN. IN HEIGHT
4. MATERIAL AND FINISH
   a. CHARACTERS AND BACKGROUND SHALL BE EGGSHELL, MATTE OR OTHER NON-GLARE FINISH AS RECOMMENDED BY THE SIGN MANUFACTURER.
   b. BACKGROUND SHALL CONSIST OF 1/4" ACRYLIC, COLOR TO MATCH **SW 7068 "GRIZZLE GREY"**
   c. CHARACTERS AND SYMBOLS SHALL BE WHITE
5. MOUNTING LOCATION AND HEIGHT
   a. MOUNT AT 60" ABOVE FINISH FLOOR TO THE CENTER OF SIGN
   b. MOUNT ON WALL ADJACENT TO THE LATCH SIDE OF THE DOOR
   c. IF NO WALL SPACE EXISTS ON THE LATCH SIDE OF THE DOOR, INCLUDING DOUBLE LEAF DOORS, MOUNT ON THE NEAREST ADJACENT WALL
6. FIRE SPRINKLER ROOM
   a. INCLUDE 4" HIGH VINYL WHITE LETTERS W/ MIN. 0.5" STROKE READING "SPRINKLER ROOM" APPLIED TO EXTERIOR SIDE OF DOOR, AS REQUIERD BY LOCAL FIRE DEPT.

DIRECTIONAL INFORMATION

OTHER SIGNS WHICH PROVIDE DIRECTION TO OR INFORMATION ABOUT FUNCTIONAL SPACES OF THE BUILDING SHALL COMPLY WITH ADAAG SECTIONS: 4.30.1, 4.30.2, 3.30.3, 4.30.5

TWO-WAY COMMUNICATION DEVICE SIGNAGE

DIRECTIONS FOR THE USE OF THE TWO-WAY COMMUNICATION SYSTEM, INSTRUCTIONS FOR SUMMONING ASSISTANCE CIA THE TWO-WAY COMMUNICATION SYSTEM AND WRITTEN IDENTIFICATION OF THE LOCATION SHALL BE POSTED ADJACENT TO EACH TWO-WAY COMMUNICATION SYSTEM. EACH SIGN SHALL COMPLY WITH ICC A117.1 FOR VISUAL CHARACTERS. MOUNTING LOCATION OF SIGNAGE AND DEVICE SHALL BE PER DRAWING BELOW.

DRAWING SYMBOLS LEGEND

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO BE DEMOLISHED

NEW CONSTRUCTION

XX — WALL TYPE DESIGNATION - REFERENCE FLOOR PLAN(S) FOR LOCATIONS.

X / X — ROOM NAME AND NUMBER - REFERENCE FLOOR PLAN(S) FOR LOCATIONS. REFERENCE FINISH SCHEDULE FOR FINISHES.

XX — DOOR AND FRAME DESIGNATION - REFERENCE FLOOR PLAN(S) FOR LOCATIONS. REFERENCE DOOR AND FRAME SCHEDULE FOR REQUIREMENTS.

ELEVATION SYMBOL

X1 / X2 — REFERENCE ELEVATION; REFERENCE SHEET

SECTION SYMBOL

X1 / X2 — REFERENCE SECTION; REFERENCE SHEET

ENLARGED DETAIL / ENLARGED PLAN SYMBOL

X1 / X2 — REFERENCE DETAIL; REFERENCE SHEET

INTERIOR ELEVATION SYMBOL

X1/X2 — REFERENCE ELEVATION; REFERENCE SHEET

FINISH DESIGNATION SYMBOL

XX-1 / XX-1 — WALL FINISH DESIGNATION; BASE FINISH DESIGNATION; LIMITS OF WALL AND BASE FINISHES

REFERENCE FLOOR PLAN(S) FOR LOCATIONS. REFERENCE FINISH SCHEDULE FOR DESCRIPTIONS.

XX-# — FLOOR FINISH DESIGNATION - REFERENCE FLOOR PLAN(S) FOR LOCATIONS. REFERENCE FINISH SCHEDULE FOR DESCRIPTIONS.

X — REVISION NOTE

XX — CONSTRUCTION NOTE

— DEMOLITION NOTE

CJ — GYPSUM BOARD CONTROL JOINT - REFERENCE FLOOR PLAN(S) FOR LOCATIONS. REFERENCE DETAIL **1,2/A7.01** FOR CONSTRUCTION REQUIREMENTS.

CMJ — CONCRETE MASONRY CONTROL JOINT - REFERENCE FLOOR PLAN(S) FOR LOCATIONS. REFERENCE DETAIL **2/A1.10E** FOR CONSTRUCTION REQUIREMENTS.

FE — WALL MOUNTED FIRE EXTINGUISHER BY LARSEN'S MANUFACTURING COMPANY, WWW.LARSENMFG.COM, MODEL MP10 W/BZ MOUNTING BRACKET, REFERENCE FLOOR PLAN(S) FOR LOCATIONS. MOUNT SO CENTERLINE OF EXTINGUISHER IS 46" A.F.F.

FEC — SEMI-RECESSED FIRE EXTINGUISHER BY LARSEN'S MANUFACTURING COMPANY, WWW.LARSENMFG.COM OR APPROVED EQUAL: ARCHITECTURAL SERIES, MODEL # AL-2409-6R, ALUMINUM, SEMI-RECESSED (2 ½" PROTRUSION FROM WALL WITH ROLLED EDGES), SOLID DOOR WITH RECESSED HANDLE, ENGRAVED VERTICAL LETTERS WITH NO BACKFILL "FIRE EXTINGUISHER" ON DOOR. CABINET TO BE PROVIDED WITH MP10 FIRE EXTINGUISHER AND MANUFACTURER'S STANDARD MOUNTING BRACKET. MOUNT SO CENTERLINE OF CABINET HANDLE IS 46" A.F.F.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE MINIMUM STANDARDS OF THE APPLICABLE CODE INDICATED IN THE BUILDING SUMMARY COLUMN AND ALL LOCAL CODES PRESENTLY IN EFFECT UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.
2. ALL NEW CONSTRUCTION SHALL COMPLY W/THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND CHAPTER 11 OF THE INTERNATIONAL BUILDING CODE (INCLUDES ICC A117.1 PER IBC)
3. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, AND ALL UTILITY CHARGES, AND ARRANGE FOR ALL REQUIRED INSPECTIONS.
4. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING BUILDING & SITE UTILITIES BETWEEN CIVIL & MEP DRAWINGS. THE CONTRACTOR SHALL ALSO CONTACT ALL APPLICABLE UTILITY COMPANIES & PROVIDE CONDUIT & OTHER FACILITIES AS REQUIRED.
5. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS & CONDITIONS ON THE JOB SITE PRIOR TO THE BIDDING OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.

   IN CASES OF DISCREPANCY CONCERNING DIMENSIONS, QUANTITIES AND LOCATION, THE CONTRACTOR SHALL, IN WRITING, CALL TO THE ATTENTION OF THE ARCHITECT ANY DISCREPANCIES BETWEEN SPECIFICATIONS, PLANS, DETAILS OR SCHEDULES. THE ARCHITECT WILL THEN INFORM THE CONTRACTOR, IN WRITING, WHICH DOCUMENT TAKES PRECEDENCE. THERE SHALL BE NO ADJUSTMENT TO THE COST OR TIME OF THE WORK RESULTING FROM CLARIFICATION OF SUCH DISCREPANCIES.
6. DIMENSIONS ON DRAWINGS ARE SHOWN TO FINISHED FACE OF WALLS AND PARTITIONS OF EXISTING OR NEW CONSTRUCTION UNLESS OTHERWISE NOTED. CEILING HEIGHT DIMENSIONS AND ALL OTHER VERTICAL DIMENSIONS ARE TO THE FINISHED FLOOR SURFACE UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO FOLLOW ALL PRODUCT MANUFACTURER INSTALLATION REQUIREMENTS FOR ALL BUILDING PRODUCTS. IN THE EVENT OF A CONFLICT BETWEEN INFORMATION SHOWN ON THE CONTRACT DOCUMENTS AND PRODUCT MANUFACTURER INSTALLATION REQUIREMENTS, PRODUCT MANUFACTURER INSTALLATION REQUIREMENTS SHALL GOVERN. CONTRACTOR SHALL NOTIFY ARCHITECT OF AN CONFLICTS BETWEEN PRODUCT MANUFACTURER INSTALLATION REQUIREMENTS AND THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS, PRODUCT DATA, OR SAMPLES FOR CASEWORK, FINISHES, DOORS, FRAMES, HARDWARE, MECHANICAL, ELECTRICAL, AND PLUMBING FIXTURES, AND OTHER ITEMS REQUIRING ARCHITECT'S REVIEW FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, AND FOR ALL ITEMS WHICH ALLOWED CONTRACTOR OPTIONS. PRIOR TO FORWARDING TO THE ARCHITECT FOR REVIEW. THESE SUBMITTALS MUST BE REVIEWED BY THE CONTRACTOR FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL AFFIX A STAMP TO SUBMITTAL INDICATING HIS REVIEW. SUBMITTALS FORWARDED WITHOUT A STAMP WILL BE RETURNED. ALL SUBMITTALS MUST BE REVIEWED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL GUARANTEE ALL WORK AGAINST FAULT OF ANY MATERIAL OR WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE YEAR AFTER COMPLETION OR ACCEPTANCE. FAULTY WORK SHALL BE REPLACED OR REPAIRED AS REQUIRED AT NO COST TO THE OWNER.
10. CONTRACTOR SHALL COORDINATE WITH OWNER ALL ITEMS TO BE SALVAGED PRIOR TO SUBMISSION OF BIDS AND START OF CONSTRUCTION. OWNER SHALL HAVE SALVAGE RIGHTS TO RETAIN ALL REMOVED ITEMS.
11. ALL CHANGES PROPOSED DURING CONSTRUCTION WHICH RESULT IN A CHANGE TO THE CONTRACT TIME AND/OR SUM SHALL BE SUBMITTED TO THE ARCHITECT IN WRITING AND APPROVED BY THE ARCHITECT AND OWNER BEFORE SUCH WORK SHALL COMMENCE.
12. CONTRACTOR SHALL COORDINATE CLEAR OPENINGS FOR ALL APPLIANCES PRIOR TO CONSTRUCTION OF CASEWORK.
13. CONTRACTOR SHALL FURNISH AND INSTALL CONCEALED FIRE-RETARDANT TREATED WOOD BLOCKING BEHIND ALL CABINETS, TOILET ACCESSORIES, PLUMBING FIXTURES, AND OTHER WALL MOUNTED ITEMS AS REQUIRED FOR ADEQUATE SUPPORT.
14. CONTRACTOR SHALL COORDINATE ALL LOCK AND LATCH SETS AND FINAL KEYING WITH OWNER. DOUBLE KEYED LOCKS ARE NOT PERMITTED ON ANY REQUIRED OR MARKED EXIT. MATCH EXISTING KEYING SYSTEM IF ONE IS EXISTING.
15. ALL DOOR HARDWARE ON EXIT DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR EFFORT.
16. CONTRACTOR SHALL PREPARE ALL NEW AND EXISTING SURFACES SCHEDULED TO RECEIVE NEW FINISHES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SUBSTRATE & FINISH BEING APPLIED.
17. CONTRACTOR SHALL COORDINATE FINAL QUANTITY AND LOCATIONS OF FIRE EXTINGUISHERS WITH THE FIRE DEPARTMENT AND/OR BUILDING DEPARTMENT. SEE SYMBOLS LEGEND FOR TYPE OF EXTINGUISHER.
18. ALL CONSTRUCTION MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NON-COMBUSTIBLE OR SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND MAXIMUM SMOKE DEVELOPED RATING OF 50.
19. ALL PIPING, LOW VOLTAGE WIRE AND CABLE, OPTICAL FIBER, PNEUMATIC TUBING, AND ALL DUCT AND DUCT COVERINGS, LININGS AND CONNECTORS INSTALLED WITHIN PLENUMS MUST BE RATED FOR PLENUM USE.
20. TENANT SHALL BE RESPONSIBLE FOR COORDINATION AND INSTALLATION OF VOICE AND DATA CABLING AND EQUIPMENT.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE AUTOMATIC SPRINKLER SYSTEM. THE DESIGN SHALL BE PER NFPA REQUIREMENTS.
22. ALL NEW GLASS AND GLAZING LOCATED IN HAZARDOUS LOCATIONS AS DEFINED IN IBC SECTION 2406.3 SHALL MEET THE REQUIREMENTS FOR SAFETY GLAZING AS DEFINED IN IBC SECTION 2406.
23. IF THE CONTRACTOR FAILS TO SUBMIT A MATERIAL FOR APPROVAL, THE MATERIAL MAY BE REQUIRED TO BE REMOVED BY THE CONTRACTOR EITHER BY DIRECTION OF THE OWNER OR ARCHITECT.
24. ALL HIGH-PILED STORAGE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE APPLICABLE EDITION OF THE INTERNATIONAL FIRE CODE.
25. THE CONTRACTOR IS TO PROVIDE AS BUILT DRAWINGS IN HARD COPY & AN ELECTRONIC AUTOCAD FILE TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
26. INSTALL ELASTOMERIC JOINT SEALER AROUND ALL PIPES, DUCTWORK, & STRUCTURE PASSING THRU INTERIOR NON-RATED CONCRETE AND MASONRY WALLS, GYPSUM BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS. FOR FIRE RATED INTERIOR CONCRETE AND MASONRY WALLS, GYPSUM BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS SEAL ALL PIPES, DUCTWORK, AND STRUCTURE. INSTALL FIRESTOP MATERIALS IN ALL GAPS PRIOR TO SEALANT APPLICATION. INSTALL SEALER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
27. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING CONSTRUCTION INDICATED TO REMAIN AND SHALL REPAIR AND/OR REPLACE ALL AREAS AND /OR MATERIAL DAMAGED DURING CONSTRUCTION AT A MINIMUM TO THE CONDITION WHICH EXISTED PRIOR TO CONSTRUCTION.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR PRICING RADIO COVERAGE AMPLIFIER FOR EMERGENCY RESPONDERS AS AN ALTERNATE. PRIOR TO CONSTRUCTION COMPLETION, AMPLIFIER SHALL BE PROVIDED ONLY IF REQUIRED BY AHJ .

PROFESSIONAL SERVICES DISCLAIMER

THIS DISCLAMER SERVES NOTICE OF ACCEPTANCE OF RESPONSIBILITY AND DISCLAIMER OF RESPONSIBILITY AS TO THE CONTRACT DOCUMENTS PREPARED FOR PROJECT NUMBER:

18017,19050.07,19050.08, PARAGON STAR NORTH VILLAGE BY FINKLE + WILLIAMS, INC.

THE UNDERSIGNED ARCHITECT, AND FINKLE + WILLIAMS, INC., ARE RESPONSIBLE FOR PREPARATION OF ONLY THE NOTED CONSTRUCTION DRAWINGS BELOW:

NO.	TITLE	DATE
A0.01G	LEGENDS & GEN. NOTES	10.18.24
A0.03	CODE	10.18.24
A1.70G	GARAGE FIRST FLOOR PLAN AT GRADE	10.18.24
A1.71G	GARAGE FIRST FLOOR PLAN	10.18.24
A1.72G	GARAGE SECOND FLOOR PLAN	10.18.24
A1.73G	GARAGE THIRD FLOOR PLAN	10.18.24
A1.74G	GARAGE FOURTH FLOOR PLAN	10.18.24
A1.75G	GARAGE FIFTH FLOOR PLAN	10.18.24
A1.76G	GARAGE SECTIONS	10.18.24
A1.77G	GARAGE STAIRS	10.18.24
A1.78G	GARAGE STAIRS AND SECTIONS	10.18.24
A1.79G	GARAGE DETAILS	10.18.24
A8.01G	DOOR SCHEDULE AND DETAILS	10.18.24

THE UNDERSIGNED ARCHITECT AND FINKLE + WILLIAMS DISCLAIM RESPONSIBILITY FOR ALL OTHER CONSTRUCTION DOCUMENTS, AND ANY OTHER SPECIFICATIONS, REPORTS, ESTIMATES, SHOP DRAWINGS, ETC. RELATING TO OR INTENDED TO BE USED FOR ANY PART OF THE ARCHITECTURAL OR ENGINEERING PROJECT, INCLUDING ANY GEOTECHNICAL ENGINEERING SERVICES, OR ENVIRONMENTAL REPORTS.

THIS NOTICE IS EXECUTED BY THE UNDERSIGNED AND AUTHENTICATED BY THE ARCHITECTURAL SEAL OF THE PERSON PREPARING THS NOTICE.

ARCHITECT: DAVID A. WILLIAMS

BUILDING SUMMARY

GENERAL BUILDING INFORMATION

PROJECT NAME: PARAGON STAR NORTH VILLAGE
ADDRESS: 3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081
PROPOSED USE: MIXED USE MULTI-FAMILY RESIDENTIAL AND RETAIL

APPLICABLE CODES

INTERNATIONAL BUILDING CODE (IBC)	2018 EDITION
INTERNATIONAL MECHANICAL CODE (IMC)	2018 EDITION
INTERNATIONAL PLUMBING CODE (IPC)	2018 EDITION
NATIONAL ELECTRIC CODE (NEC)	2017 EDITION
INTERNATIONAL FIRE CODE (IFC)	2018 EDITION
INTERNATIONAL FUEL GAS CODE (IFGC)	2018 EDITION
ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES	

GENERAL BUILDING LIMITATIONS

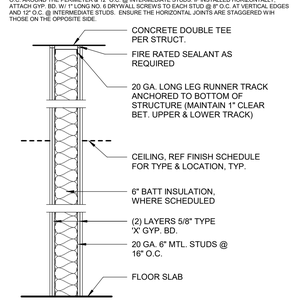
This development is made up of the following multiple adjacent separate and distinct buildings both vertically and horizontally.

Retail Building (SEPARATE PERMIT)
Parking Garage
Apartment Building A (SEPARATE PERMIT)
Apartment Building B (SEPARATE PERMIT)
Apartment Building C (SEPARATE PERMIT)
Apartment Building D (SEPARATE PERMIT)
Apartment Building E (SEPARATE PERMIT)
Apartment Building F (SEPARATE PERMIT)

Parking Garage 5 Story *33,692 GSF/Flr* *168,460 GSF*

Occupancy: Low-hazard Storage Group S-2
Construction Type: IIA.(Fully Sprinklered NFPA 13)
Allowable Height: 6 Stories – 85' Above Grade Plane
Allowable Area: 117,000 SF/Flr
Max. Travel Distance: 100'

2 HOUR RATED PARTITION:
8" INSTALLED VERTICALLY ATTACH GYP. BD. W/ 1" LONG NO. 6 DRYWALL SCREWS TO EACH STUD @ 8" O.C. AROUND THE PERIMETER & 12" O.C. @ INTERMEDIATE STUDS. 8" INSTALLED HORIZONTALLY ATTACH GYP. BD. W/ 1" LONG NO. 6 DRYWALL SCREWS TO EACH STUD @ 8" O.C. AT VERTICAL EDGES AND 12" O.C. @ INTERMEDIATE STUDS. ENSURE THE HORIZONTAL JOINTS ARE STAGGERED W/# THOSE ON THE OPPOSITE SIDE.



12-R

Type	Batt Insulation	Mold & Water Resist GWB	Fire Rating	Comments
12c-R	Yes	Yes		Seal w/ acoustical sealant, top and bottom

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.17,19050.08
Date: 10.18.24
Issued For: GARAGE PERMIT

REVISIONS

No.	Date	Description

REGISTRATION

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

FINKLE + WILLIAMS
ARCHITECTURE

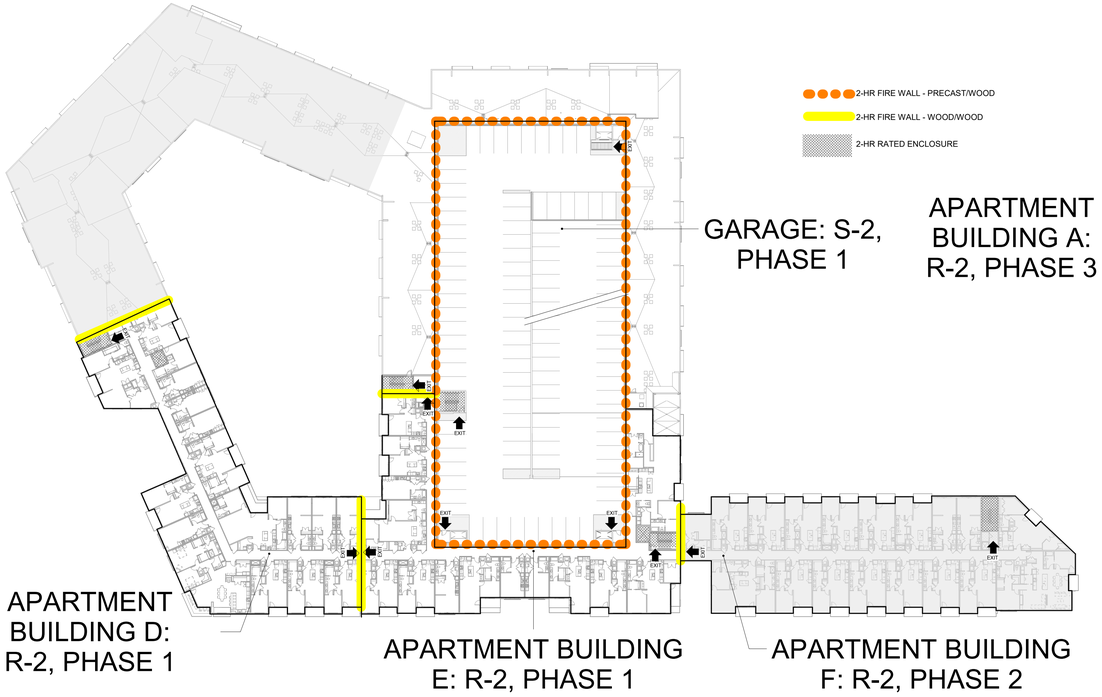
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 498.1550
www.finklewilliams.com

SHEET TITLE

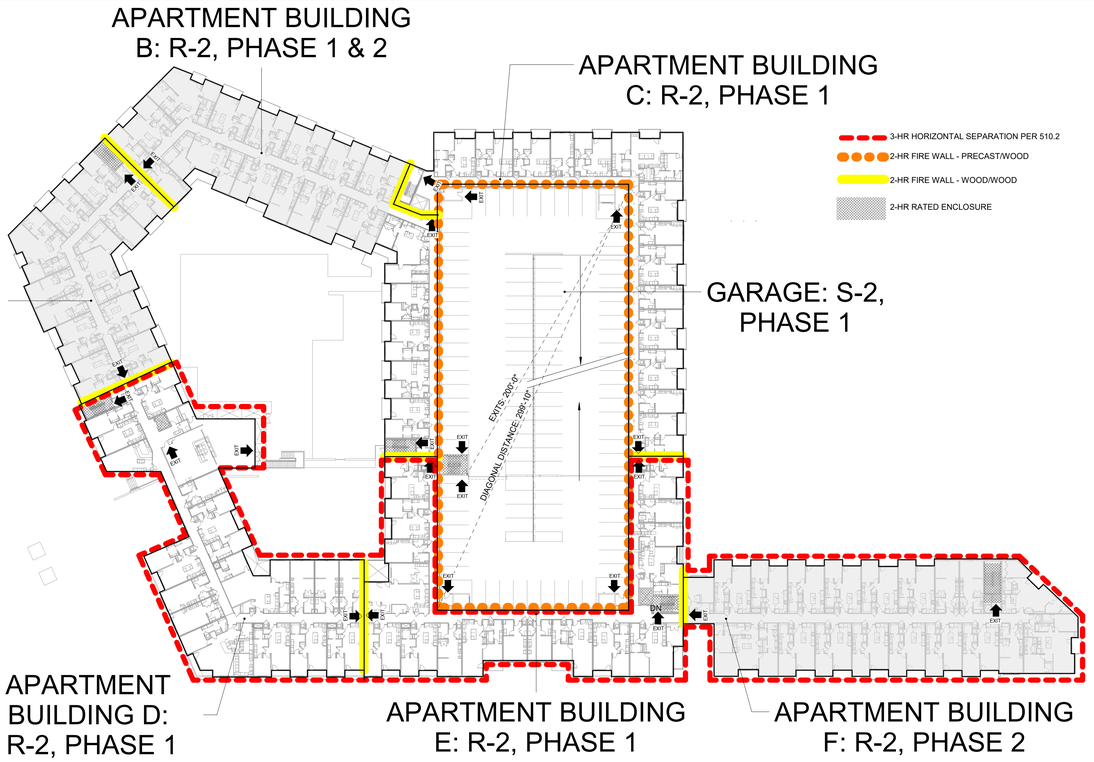
LEGENDS & GEN. NOTES

SHEET NUMBER

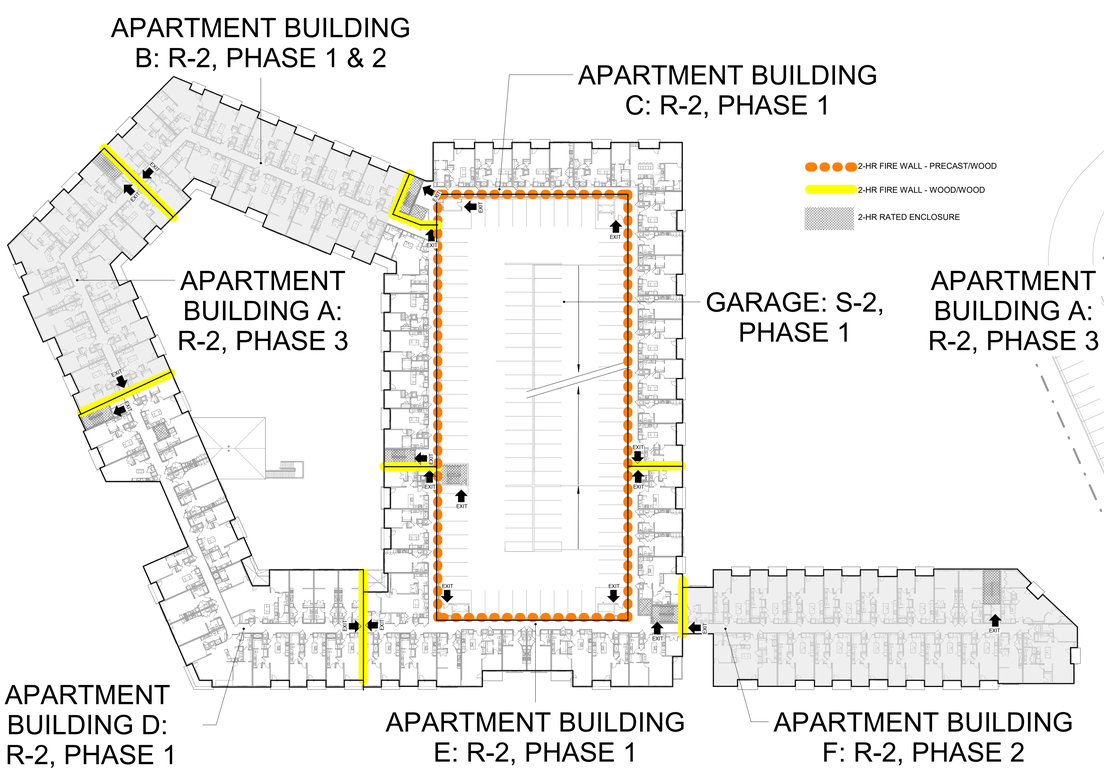
A0.01G



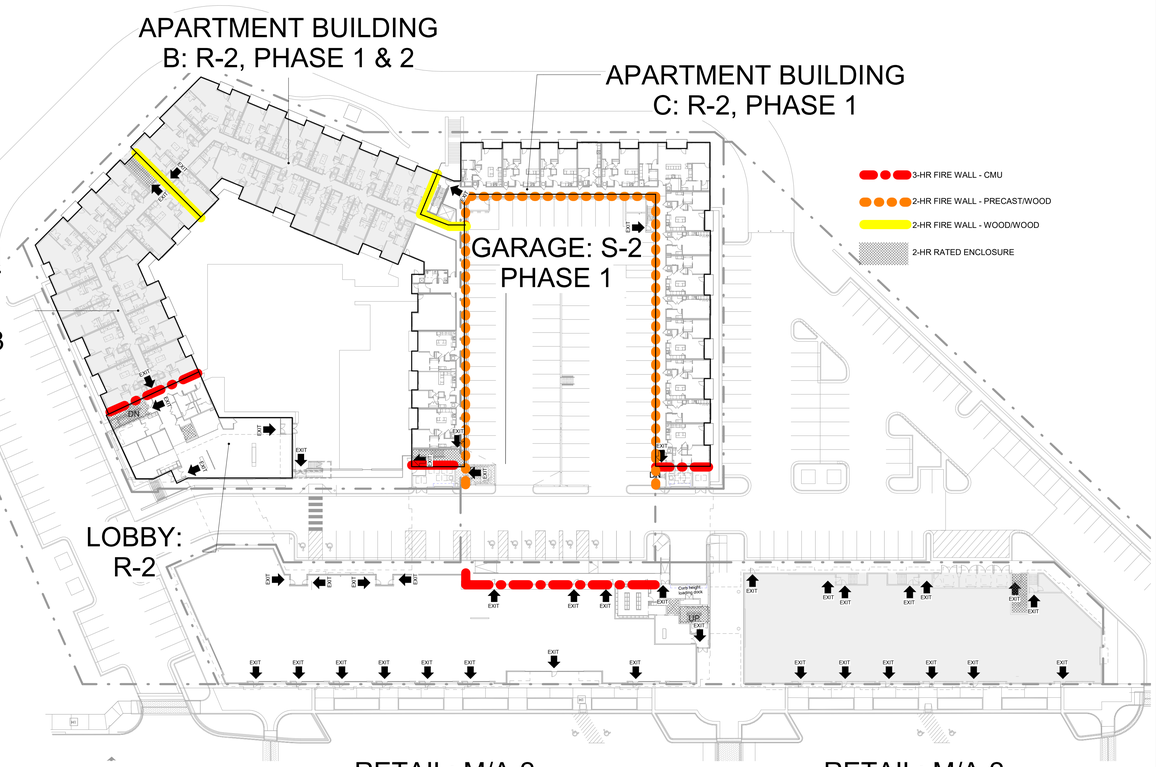
3 | CODEPLAN - 5TH FLOOR
1" = 40'-0"



2 | CODEPLAN - 2ND FLOOR
1" = 40'-0"



4 | CODEPLAN -3RD&4TH FLOOR
1" = 40'-0"



1 | CODEPLAN - 1ST FLOOR
1" = 40'-0"

BIM 360://Paragon Star - Multifamily R21/Paragon Star_Multifamily_R21 (REVIT SERVER)_eNeilfoster.rvt

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

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REGISTRATION

STATE OF MISSOURI
DAVID ALAN WILLIAMS
NUMBER A-5540
REGISTERED ARCHITECT

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

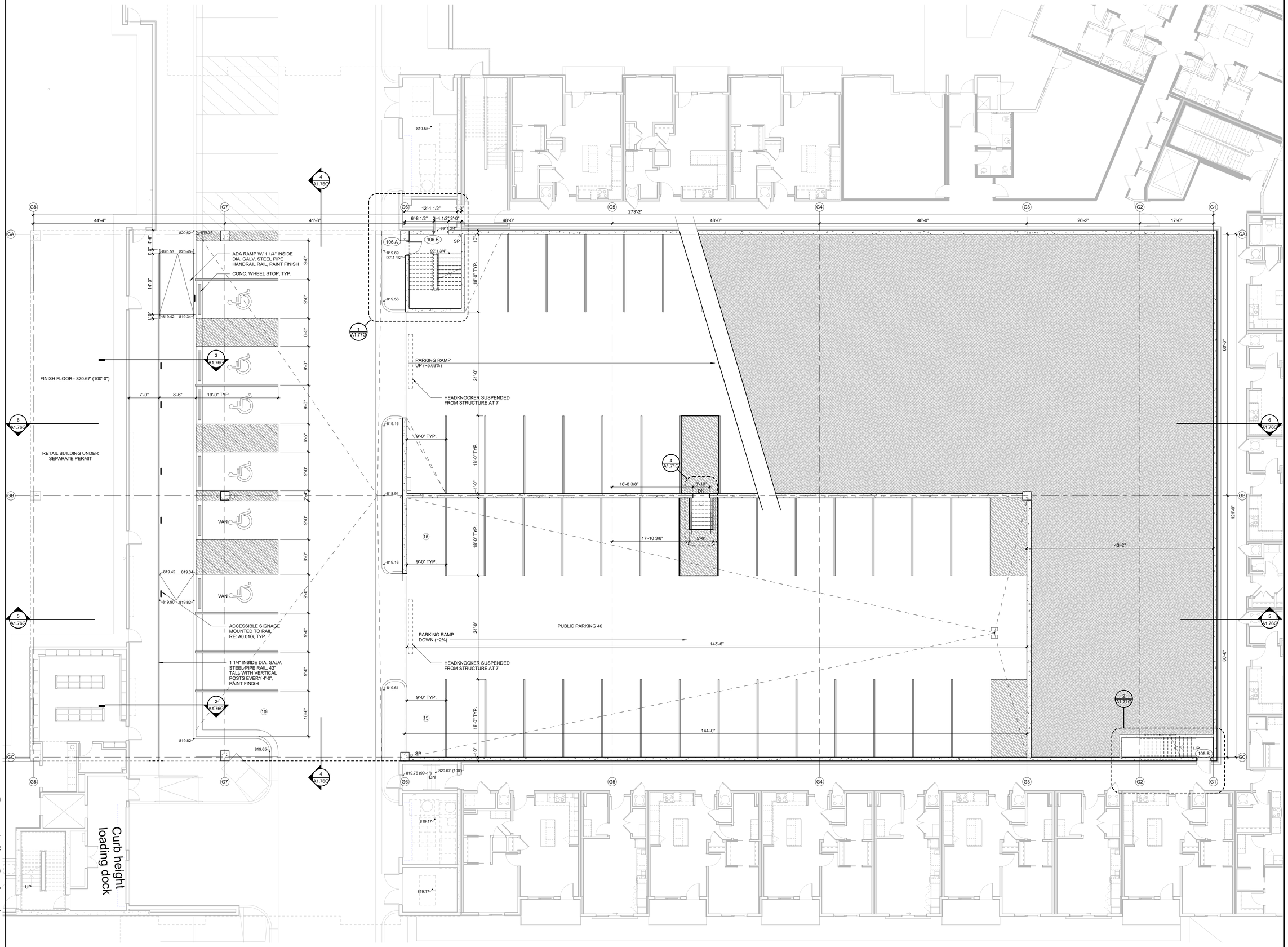
FINKLE + WILLIAMS
ARCHITECTURE
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 .498.1550
www.finklewilliams.com

SHEET TITLE

CODE

SHEET NUMBER

A0.03



BIM 360://Paragon Star - Multifamily R21/Paragon Star_Multifamily_R21 (REVIT SERVER)_allenfoster.rvt

1 GARAGE FIRST FLOOR PLAN AT GRADE
A1.70G SCALE : 1/8" = 1'-0"

NOTE: ALL CMU CORNERS ARE TO BE CONSTRUCTED OF BULLNOSE BLOCK.

paragon star

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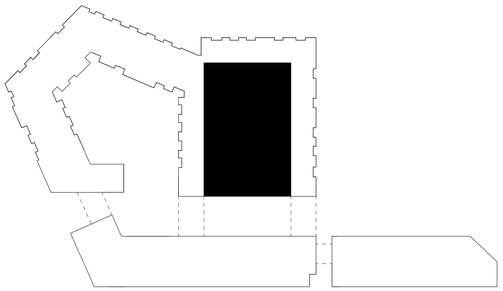
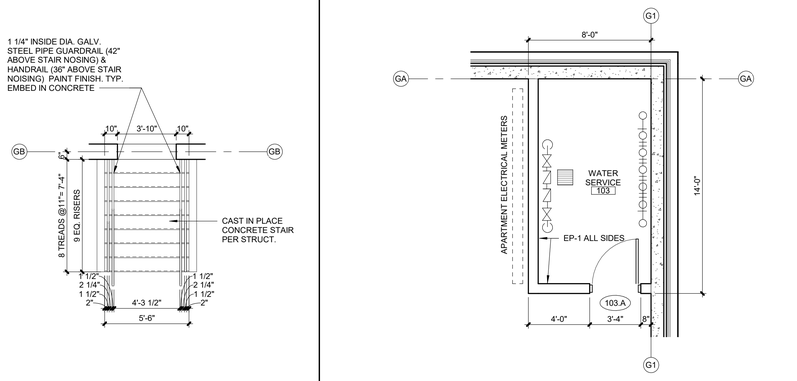
SHEET TITLE

GARAGE FIRST FLOOR PLAN AT GRADE

SHEET NUMBER

A1.70G



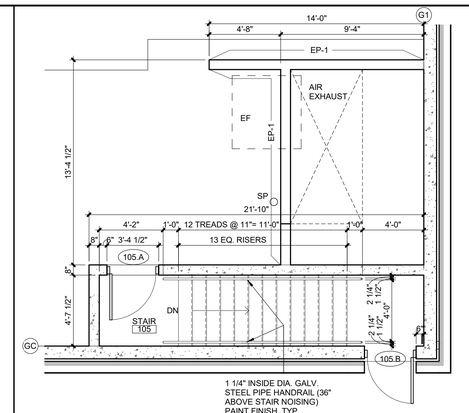


4 GARAGE STAIR AT GRADE

A1.71G SCALE : 1/4" = 1'-0"

3 WATER SERVICE

A1.71G SCALE : 1/4" = 1'-0"



2 GARAGE 1 - NE

A1.71G SCALE : 1/4" = 1'-0"

1 GARAGE FIRST FLOOR PLAN

A1.71G SCALE : 1/8" = 1'-0"

NOTE: ALL CMU CORNERS ARE TO BE CONSTRUCTED OF BULLNOSE BLOCK.

BIM 360://Paragon Star - Multifamily R21/Paragon Star - Multifamily_R21 (REVIT SERVER)_ellenfoster.rvt

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LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

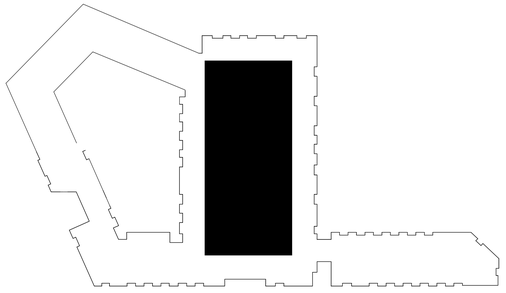
FINKLE + WILLIAMS
ARCHITECTURE
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 .498.1550
www.finklewilliams.com

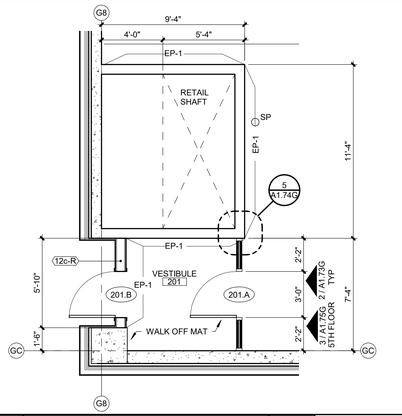
SHEET TITLE

GARAGE FIRST FLOOR PLAN

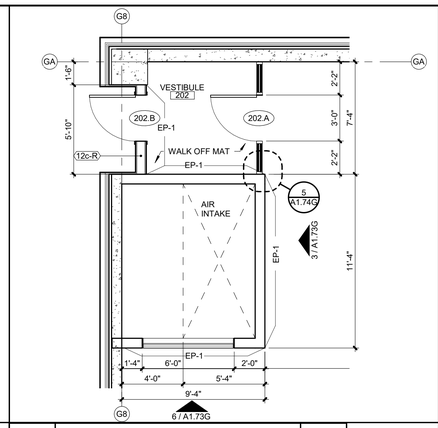
SHEET NUMBER

A1.71G





4 GARAGE ENTRY SE
A1.72G SCALE : 1/4" = 1'-0"



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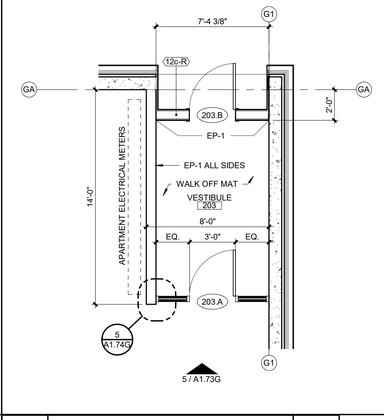

2 GARAGE ENTRY NW
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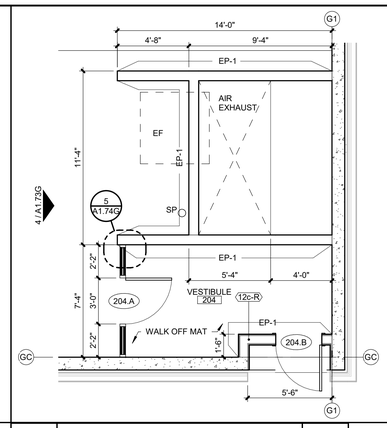

1 GARAGE ENTRY NE
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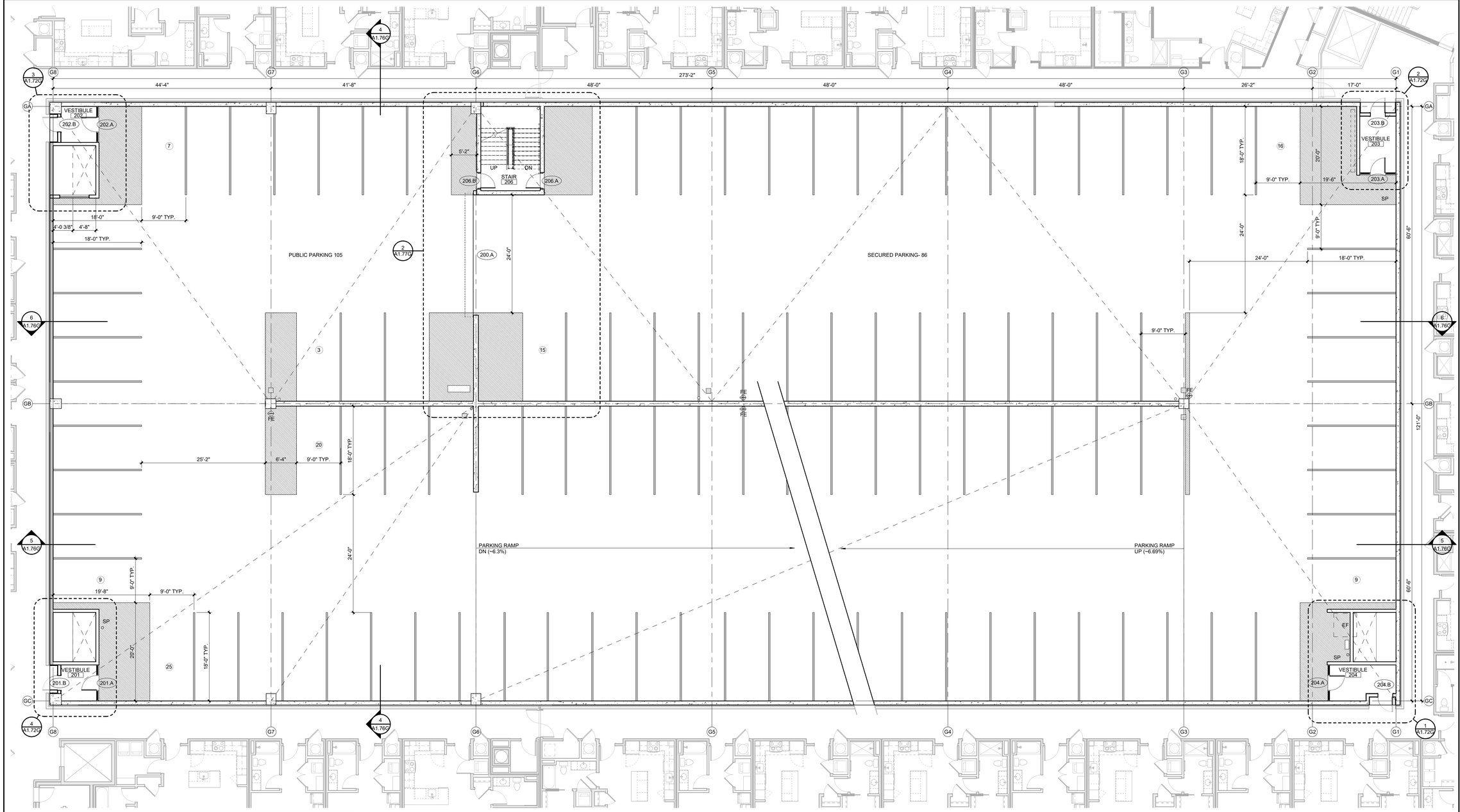

6 GARAGE SECOND FLOR PLAN
A1.72G SCALE : 1/8" = 1'-0"

BIM 360://Paragon Star - Multifamily R21/Paragon Star_Multifamily_R21 (REVIT SERVER)_ellenfoster.rvt

paragon star

PARAGON STAR NORTH VILLAGE

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Project No.:	18017,19050.17,19050.08
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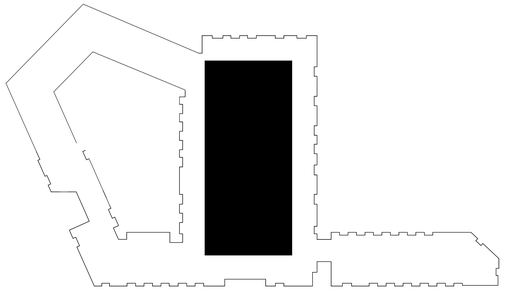
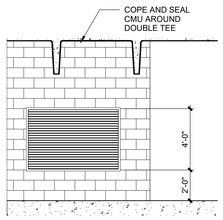
SHEET TITLE

GARAGE SECOND FLOOR PLAN

SHEET NUMBER

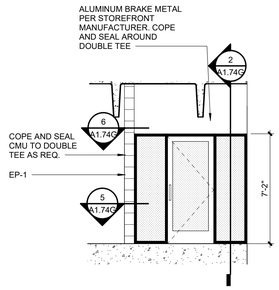
A1.72G





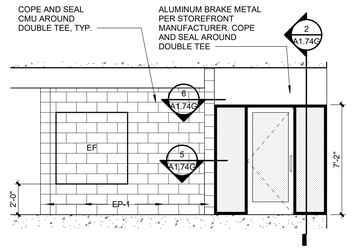
6 GARAGE SHAFT ELEV.

A1.73G SCALE : 1/4" = 1'-0"



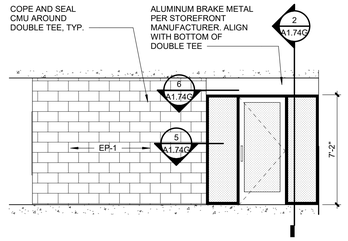
5 GARAGE ENTRY ELEV.

A1.73G SCALE : 1/4" = 1'-0"



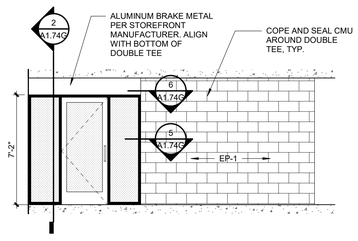
4 GARAGE ENTRY ELEV.

A1.73G SCALE : 1/4" = 1'-0"



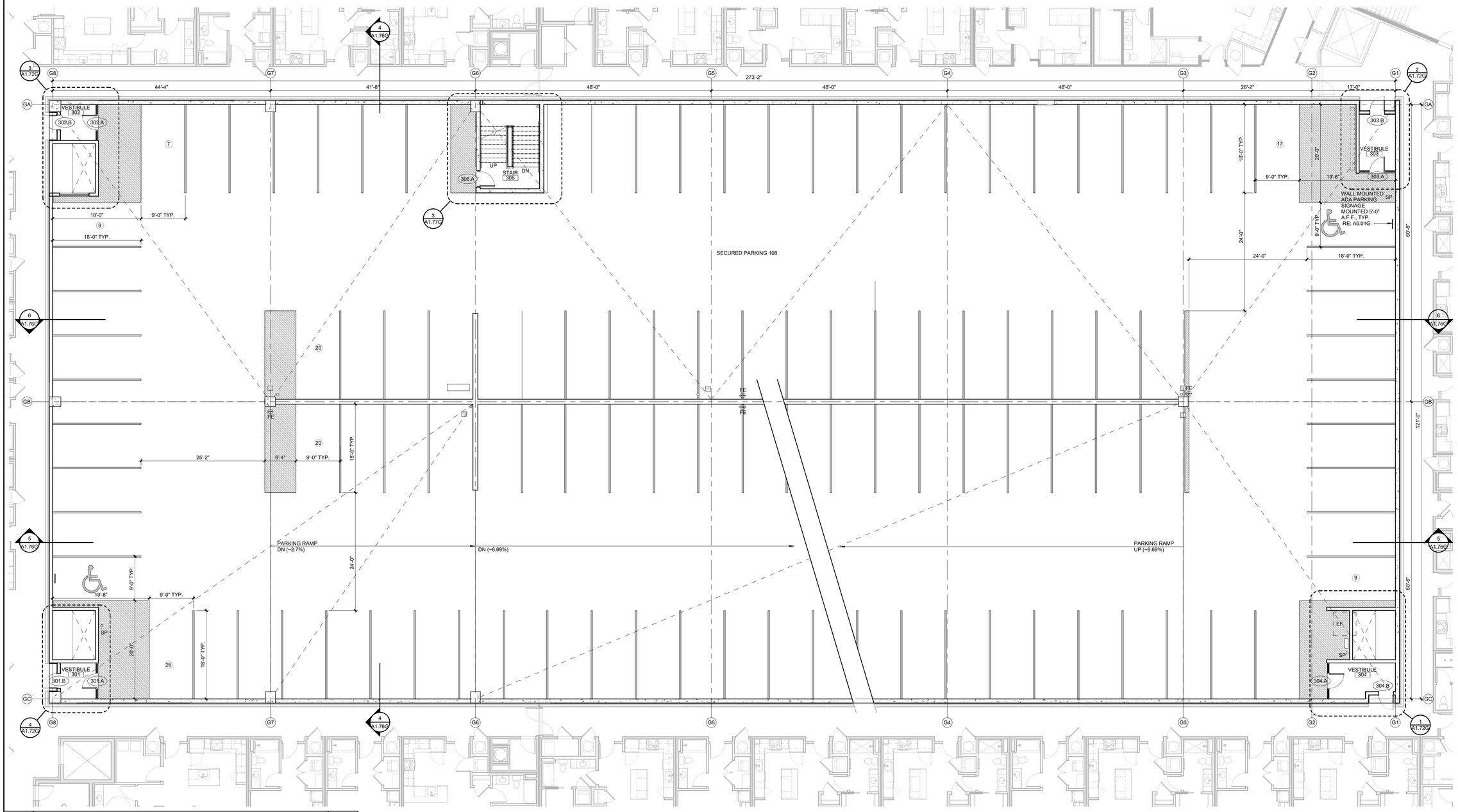
3 GARAGE ENTRY ELEV.

A1.73G SCALE : 1/4" = 1'-0"



2 GARAGE ENTRY ELEV.

A1.73G SCALE : 1/4" = 1'-0"



1 GARAGE THIRD FLOOR PLAN

A1.73G SCALE : 1/8" = 1'-0"

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paragon star

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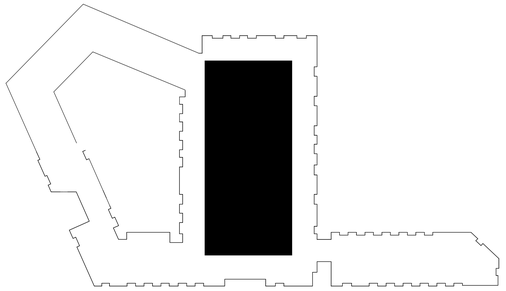
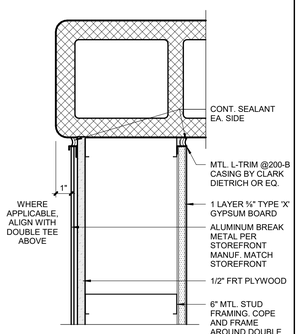
SHEET TITLE

GARAGE THIRD FLOOR PLAN

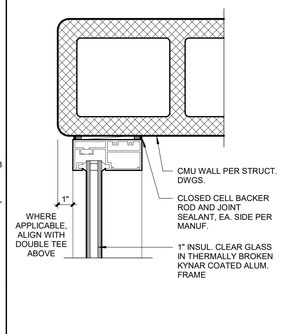
SHEET NUMBER

A1.73G

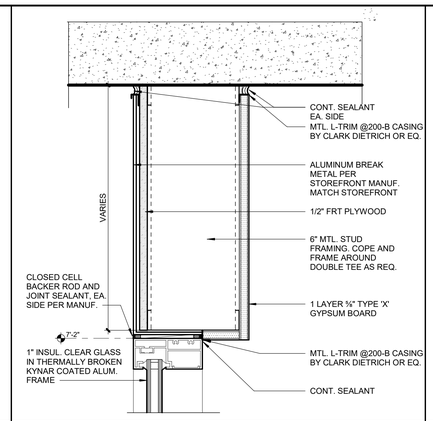




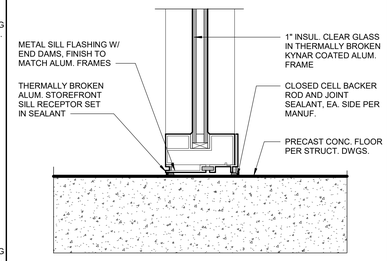
6 WALL JAMB
A1.74G SCALE : 3" = 1'-0"



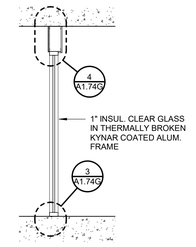
5 STOREFRONT JAMB
A1.74G SCALE : 3" = 1'-0"



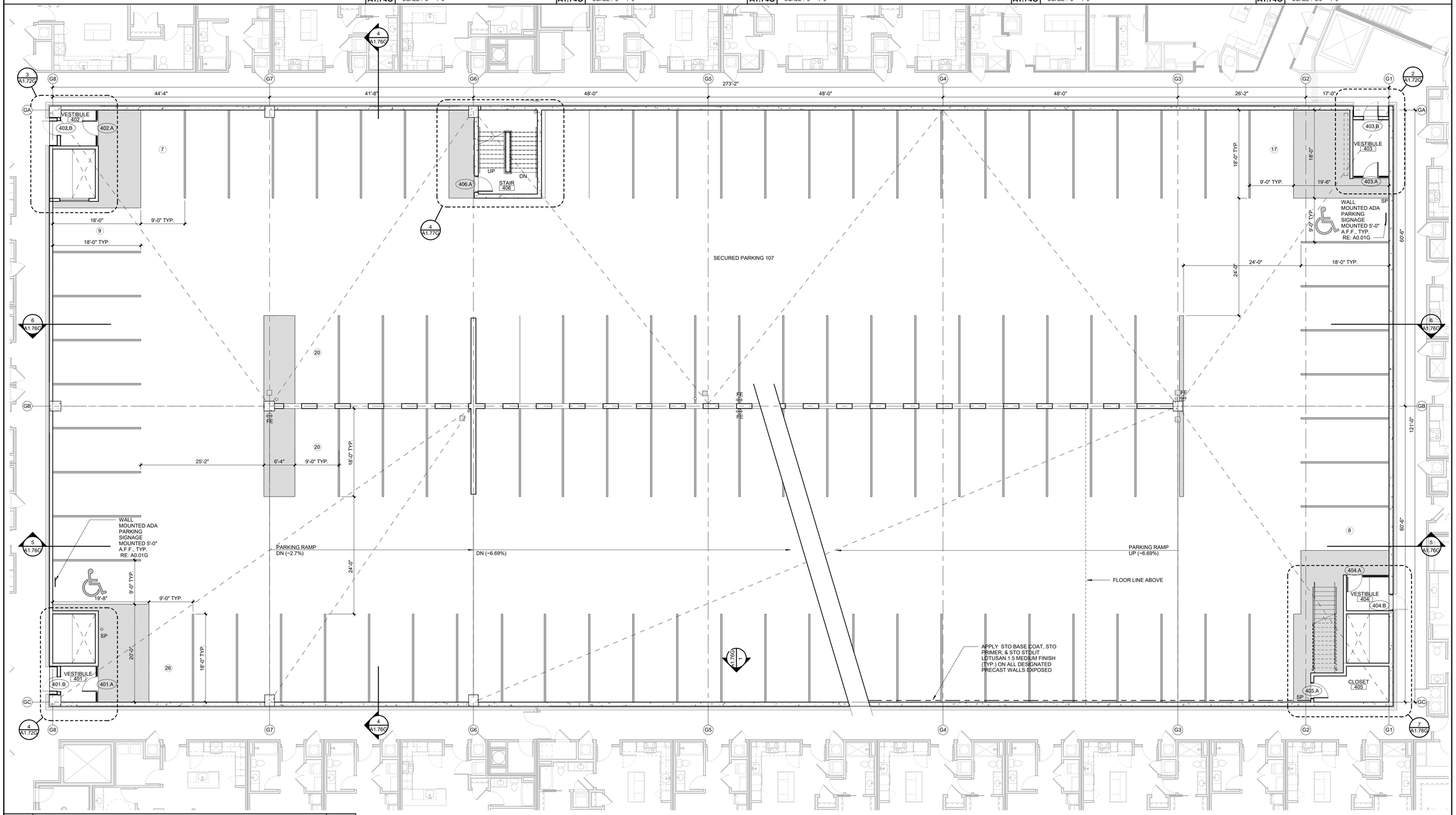
4 STOREFRONT DETAIL
A1.74G SCALE : 3" = 1'-0"



3 STOREFRONT SILL DETAIL
A1.74G SCALE : 3" = 1'-0"



2 TYP. VESTIBULE
A1.74G SCALE : 3/8" = 1'-0"



1 GARAGE FOURTH FLOOR PLAN
A1.74G SCALE : 1/8" = 1'-0"

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paragon star

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
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ELECTRICAL	LATIMER SOMMERS
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CONTRACTOR	BRINKMANN CONSTRUCTORS

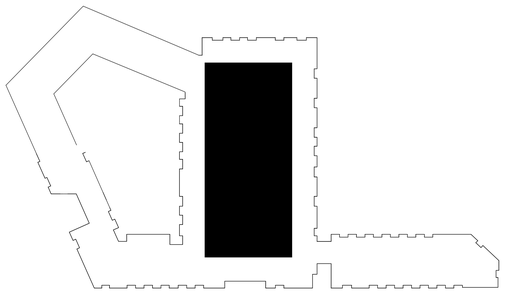
FINKLE + WILLIAMS
ARCHITECTURE
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 .498.1550
www.finklewilliams.com

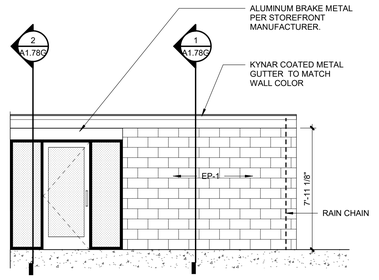
SHEET TITLE

GARAGE FOURTH FLOOR PLAN

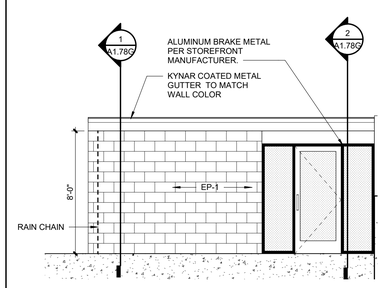
SHEET NUMBER

A1.74G

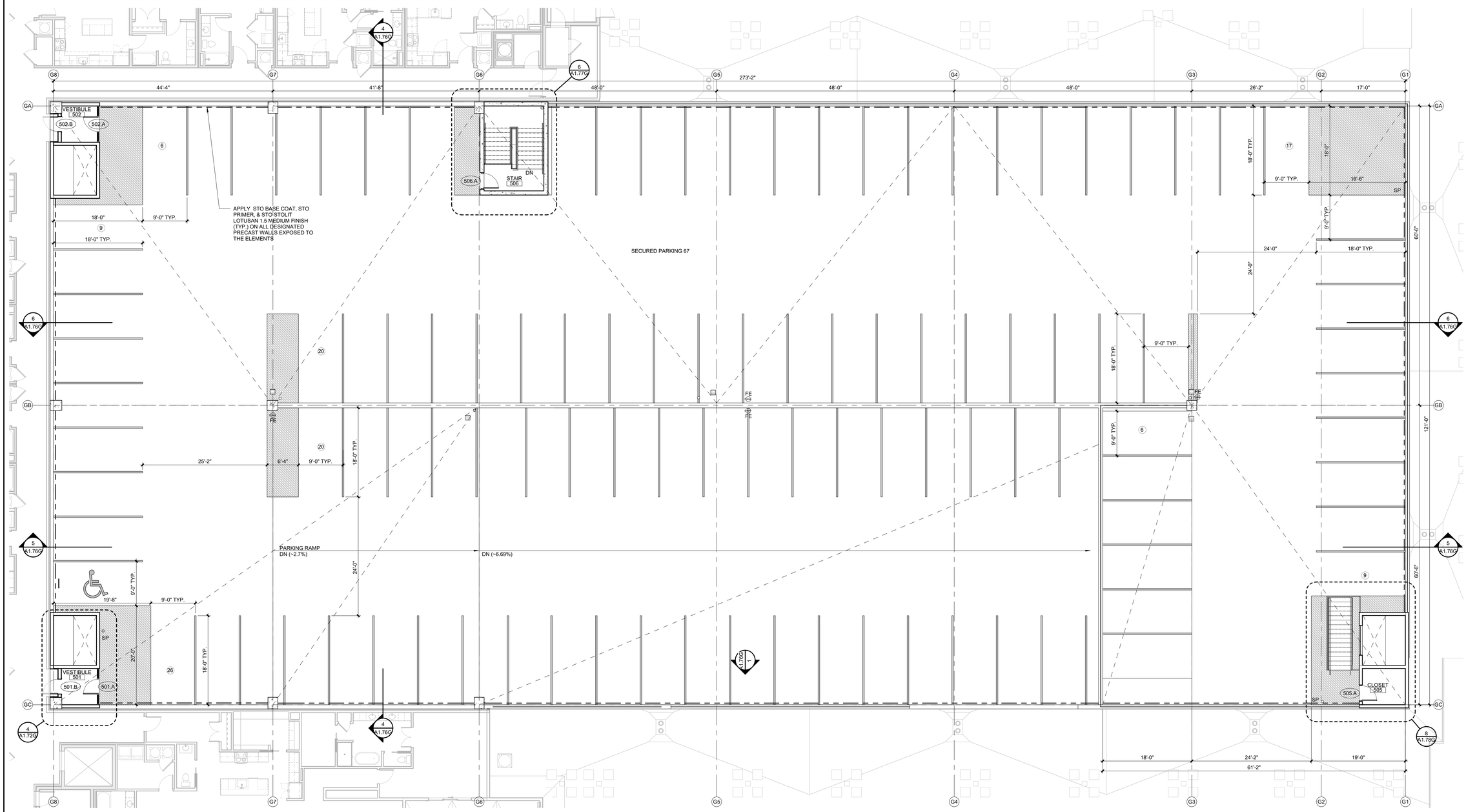




3 GARAGE ENTRY
A1.75G SCALE : 1/4" = 1'-0"



2 GARAGE ENTRY
A1.75G SCALE : 1/4" = 1'-0"



1 GARAGE FIFTH FLOOR PLAN
A1.75G SCALE : 1/8" = 1'-0"

BIM 360://Paragon Star - Multifamily R21/Paragon Star_Multifamily_R21 (REVIT SERVER)_ellen@oster.rvt

paragon star

PARAGON STAR NORTH VILLAGE

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

FINKLE + WILLIAMS
ARCHITECTURE

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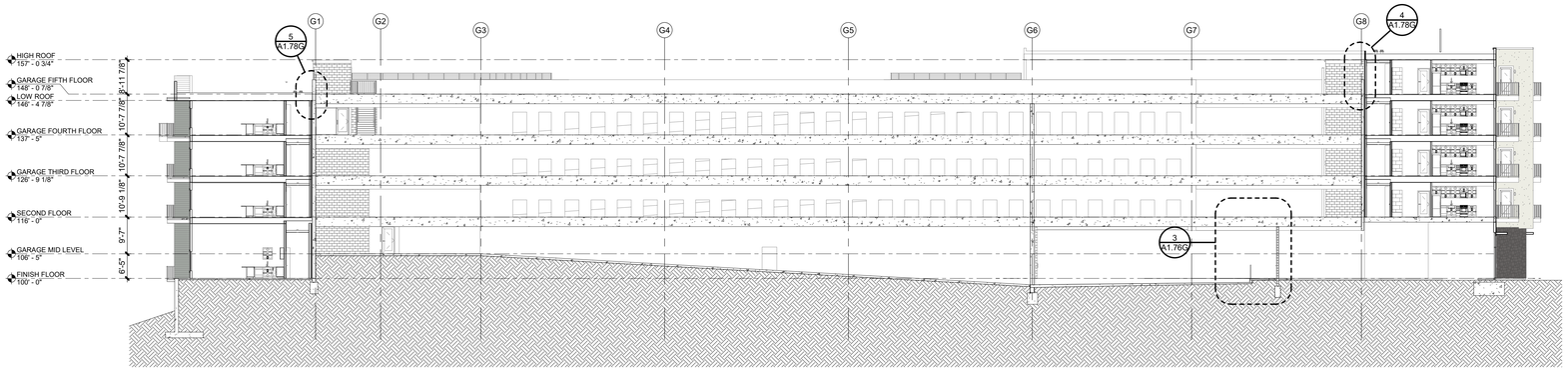
SHEET TITLE

GARAGE FIFTH FLOOR PLAN

SHEET NUMBER

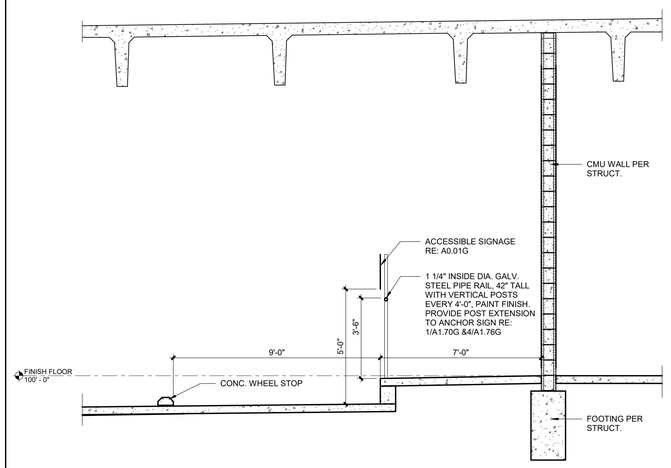
A1.75G



NOTE: REF. STRUCTURAL PLANS FOR SPOT ELEVATIONS AND CROSS SLOPES

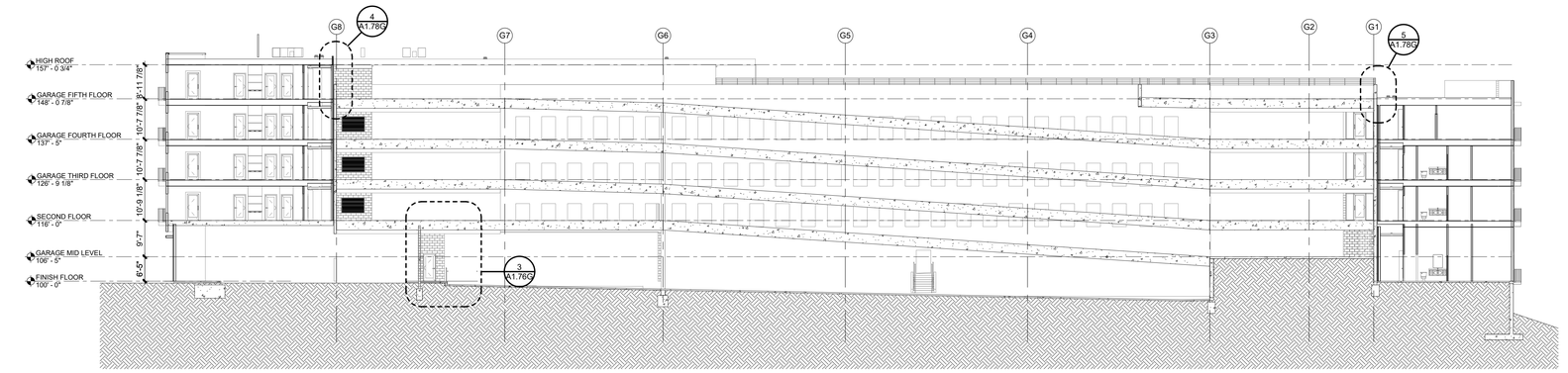
6 SECTION THRU GARAGE - WEST1

A1.76G SCALE : 1/16" = 1'-0"



3 SECTION @ADA PARKING

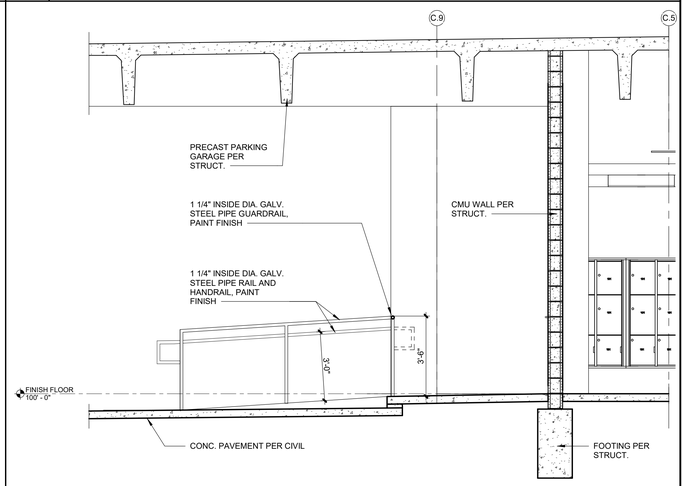
A1.76G SCALE : 3/8" = 1'-0"



NOTE: REF. STRUCTURAL PLANS FOR SPOT ELEVATIONS AND CROSS SLOPES

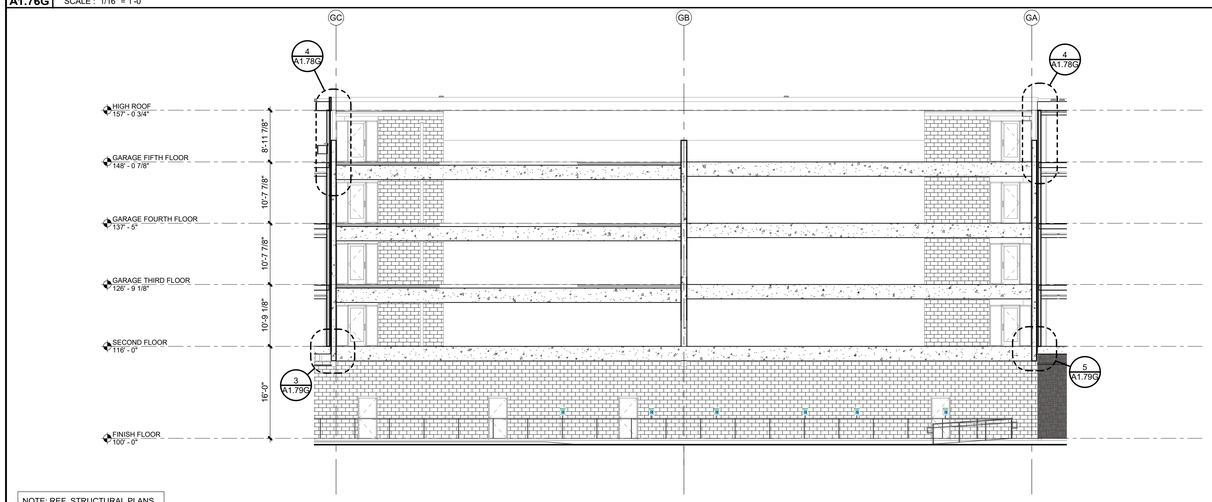
5 SECTION THRU GARAGE - EAST

A1.76G SCALE : 1/16" = 1'-0"



2 SECTION @ADA PARKING1

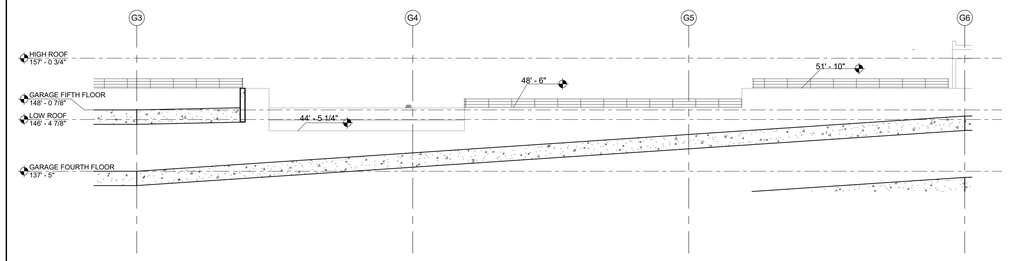
A1.76G SCALE : 3/8" = 1'-0"



NOTE: REF. STRUCTURAL PLANS FOR SPOT ELEVATIONS AND CROSS SLOPES

4 SECTION THRU GARAGE- SOUTH

A1.76G SCALE : 3/32" = 1'-0"



1 ELEVATION @ WALL STEP

A1.76G SCALE : 3/32" = 1'-0"

paragon star

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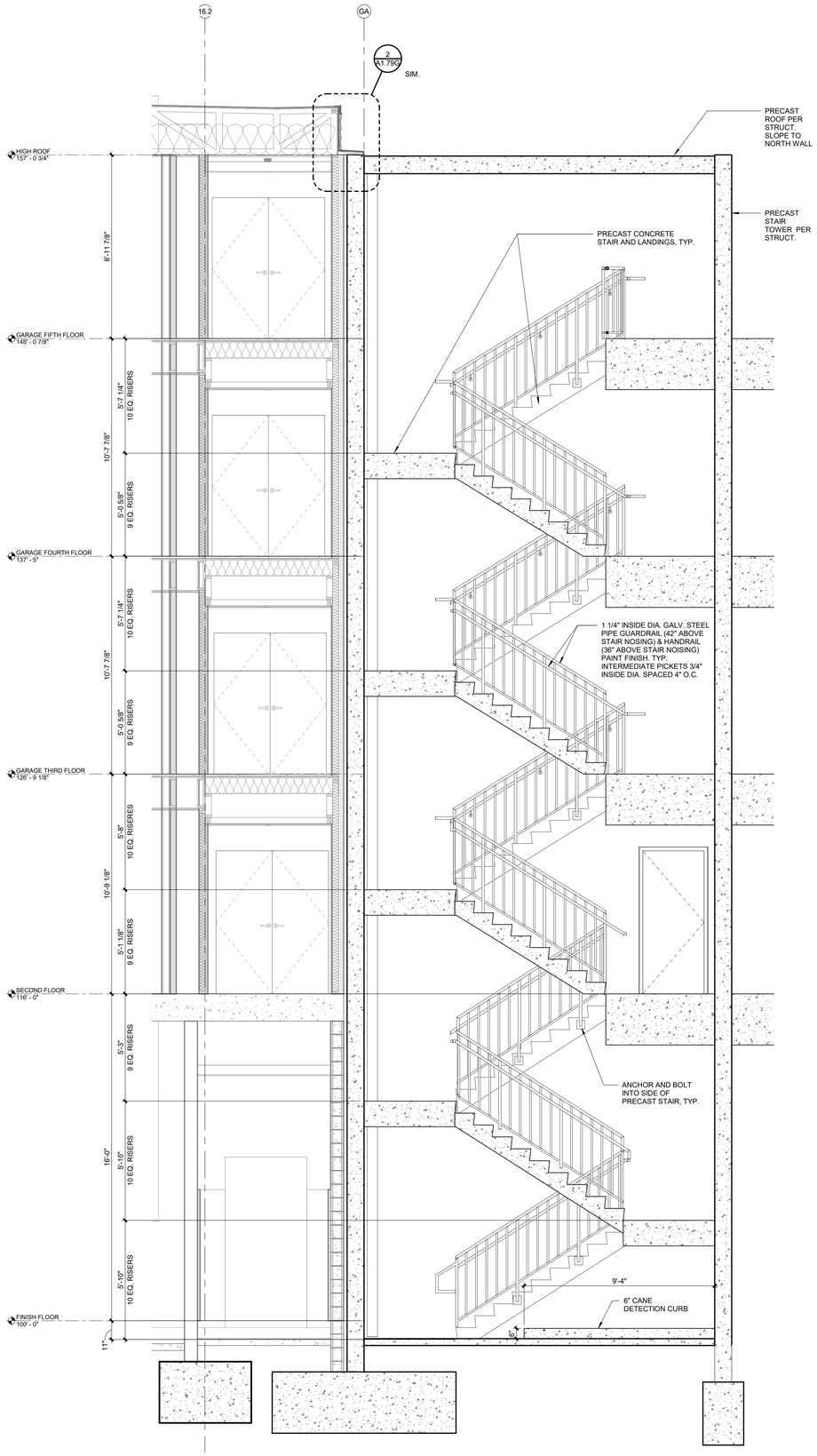
SHEET TITLE

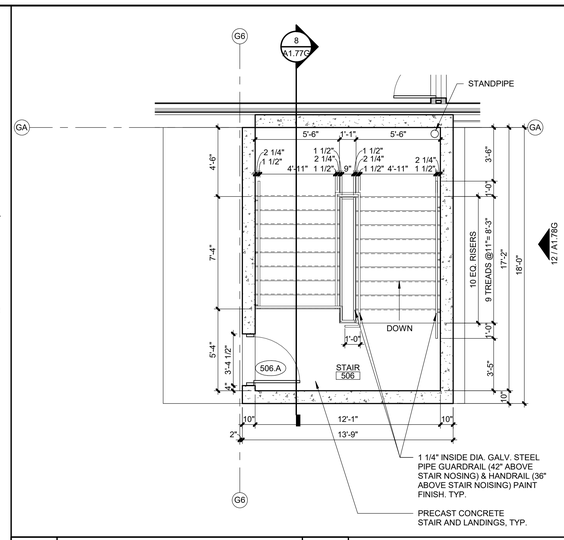
GARAGE SECTIONS

SHEET NUMBER

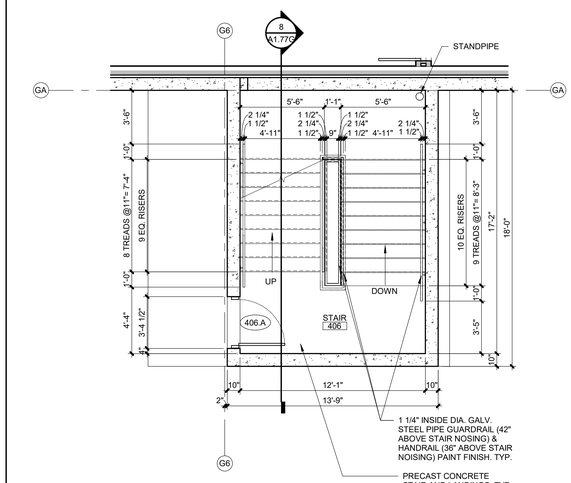
A1.76G



8 | STAIR SECTION
A1.77G | SCALE : 3/8" = 1'-0"



6 | GARAGE 5- STAIR
A1.77G | SCALE : 1/4" = 1'-0"



4 | GARAGE 4 - STAIR
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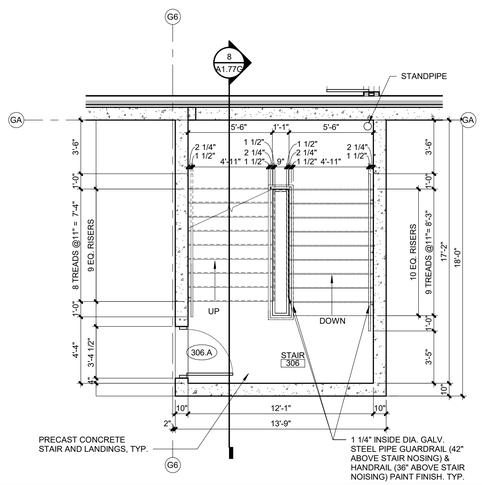
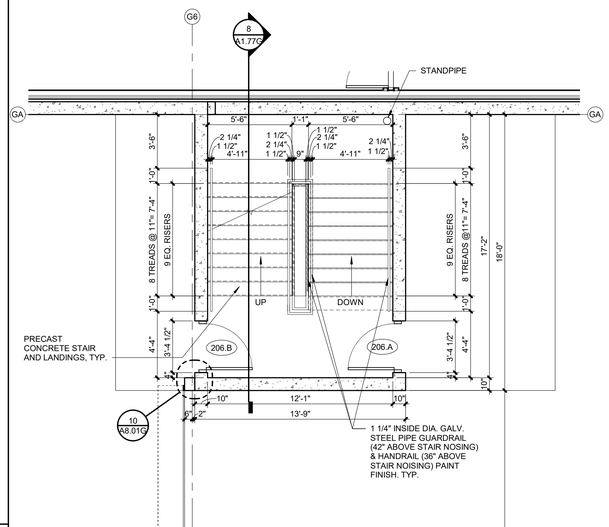


3 | GARAGE 3 - STAIR
A1.77G | SCALE : 1/4" = 1'-0"



2 | GARAGE 2 - STAIR
A1.77G | SCALE : 1/4" = 1'-0"

1 | GARAGE 1 - STAIR
A1.77G | SCALE : 1/4" = 1'-0"

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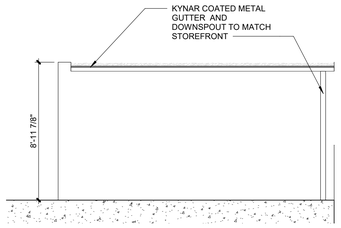
SHEET TITLE

GARAGE STAIRS

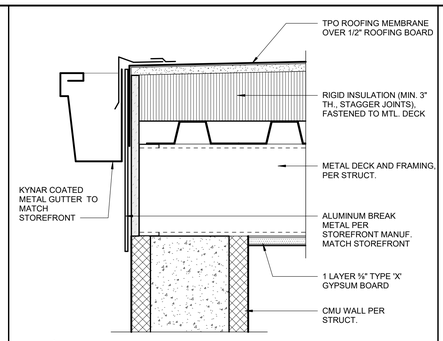
SHEET NUMBER

A1.77G



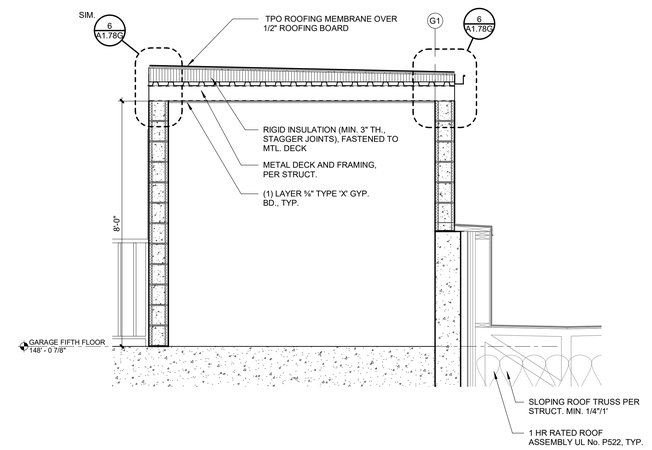
12 STAIR TOWER

A1.78G SCALE : 1/4" = 1'-0"



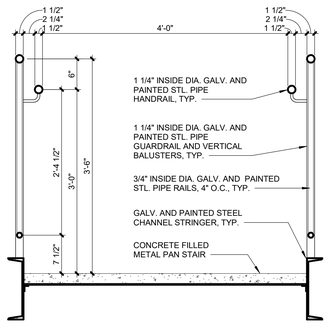
6 GARAGE ENTRY

A1.78G SCALE : 3" = 1'-0"



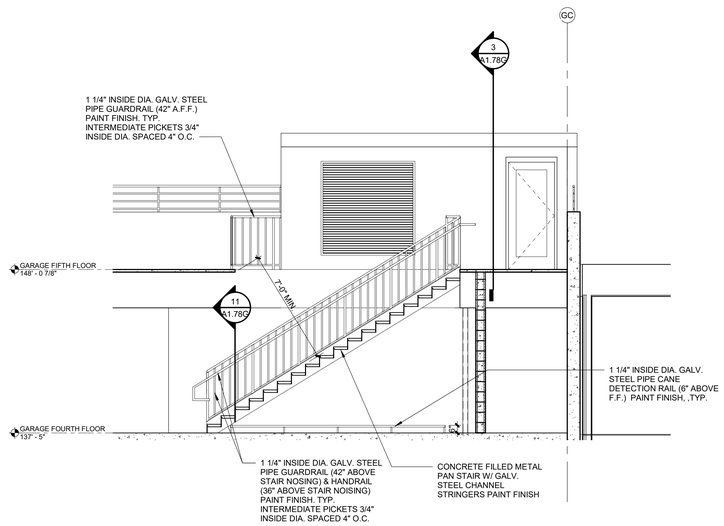
3 SECTION @ GARAGE ROOF CLOSET NE

A1.78G SCALE : 1/2" = 1'-0"



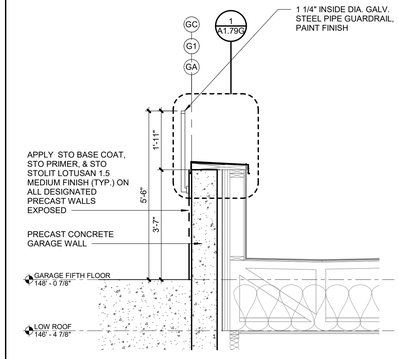
11 STAIR SECTION DETAIL

A1.78G SCALE : 1" = 1'-0"



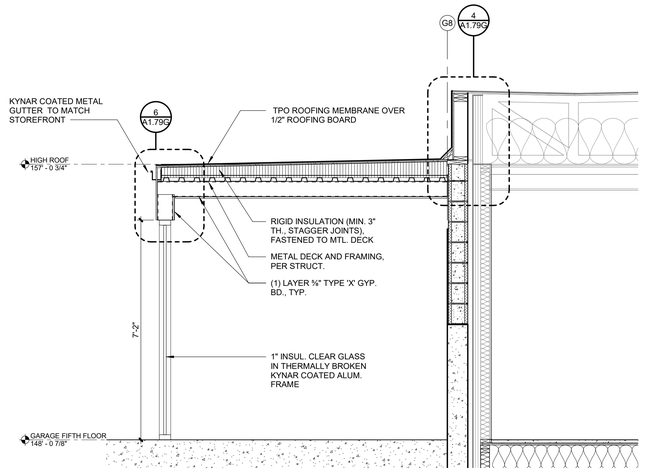
9 NE STAIR

A1.78G SCALE : 1/4" = 1'-0"



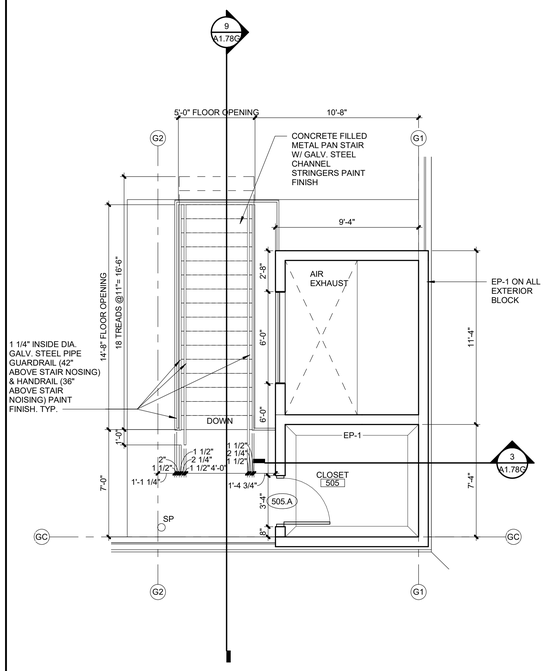
5 SECTION @ LOW ROOF/GARAGE

A1.78G SCALE : 1/2" = 1'-0"



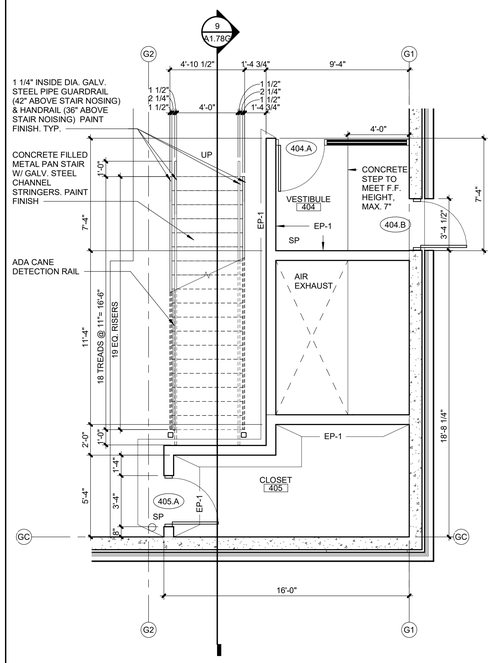
2 SECTION @ GARAGE ROOF ENTRY

A1.78G SCALE : 1/2" = 1'-0"



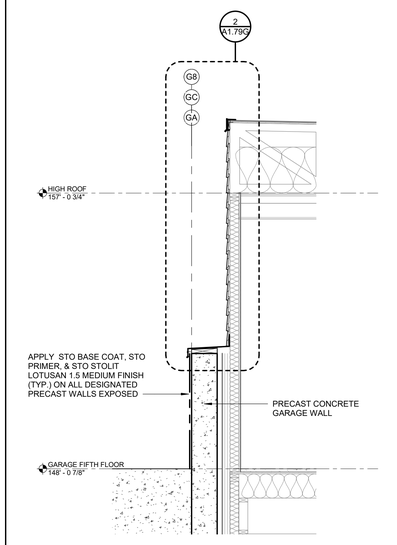
8 GARAGE 5 - NE STAIR

A1.78G SCALE : 1/4" = 1'-0"



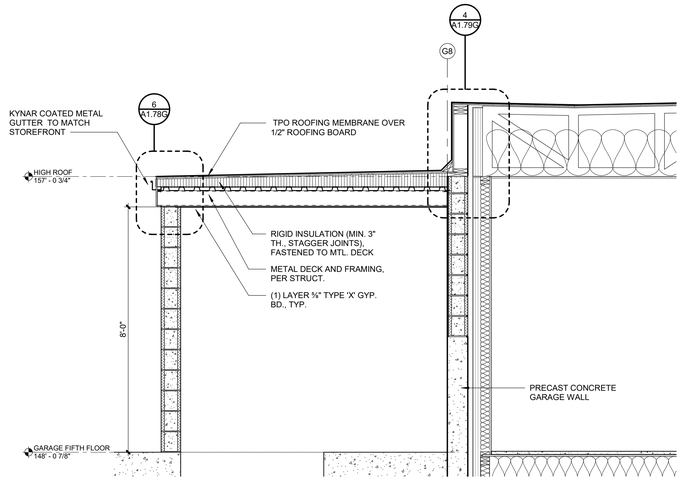
7 GARAGE 4 - NE STAIR

A1.78G SCALE : 1/4" = 1'-0"



4 SECTION @ HIGH ROOF/GARAGE

A1.78G SCALE : 1/2" = 1'-0"



1 SECTION @ GARAGE ROOF CLOSET SW

A1.78G SCALE : 1/2" = 1'-0"

BIM 360://Paragon Star - Multifamily R21/Paragon Star_Multifamily_R21 (REVIT SERVER)_ellenfoster.rvt

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017,19050.17,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI REGISTERED ARCHITECT DAVID ALAN WILLIAMS NUMBER A-5540

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

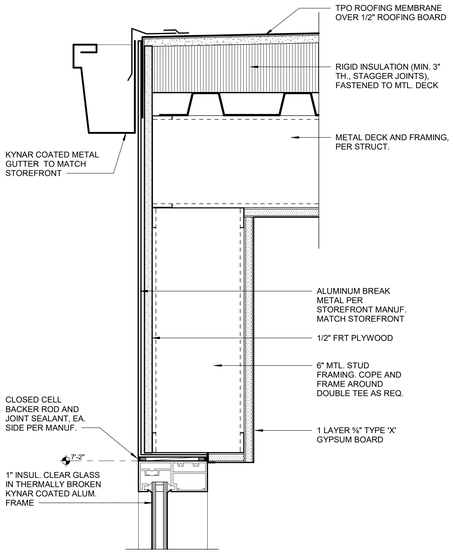
FINKLE + WILLIAMS ARCHITECTURE
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 .498.1550
www.finklewilliams.com

SHEET TITLE

GARAGE STAIRS AND SECTIONS

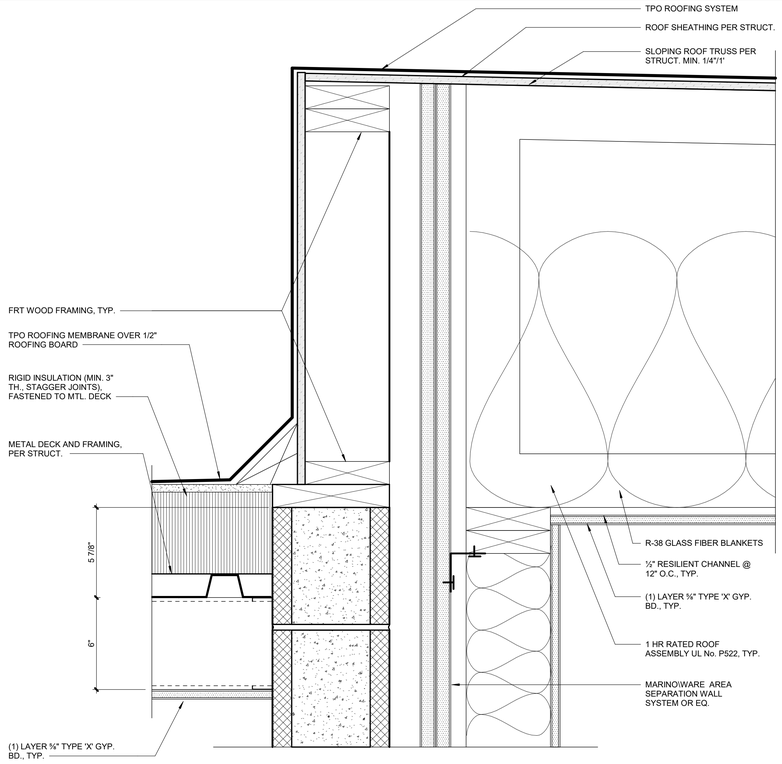
SHEET NUMBER

A1.78G



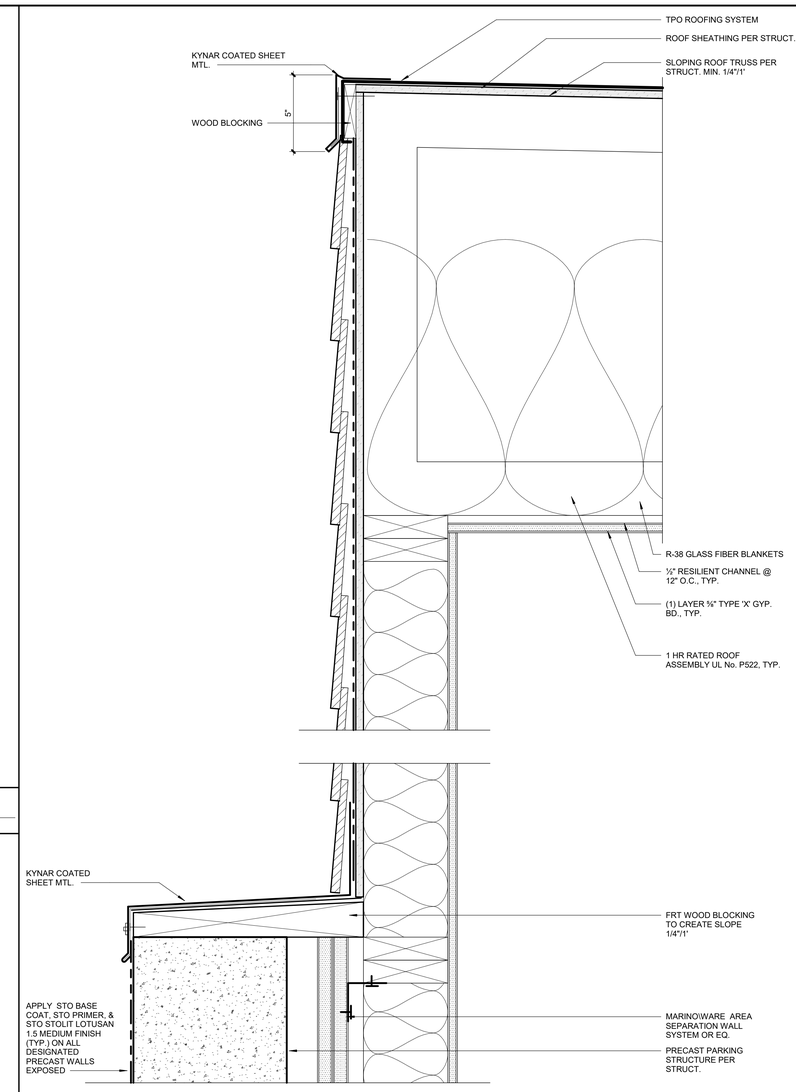
6 GARAGE ENTRY

A1.79G SCALE : 3" = 1'-0"



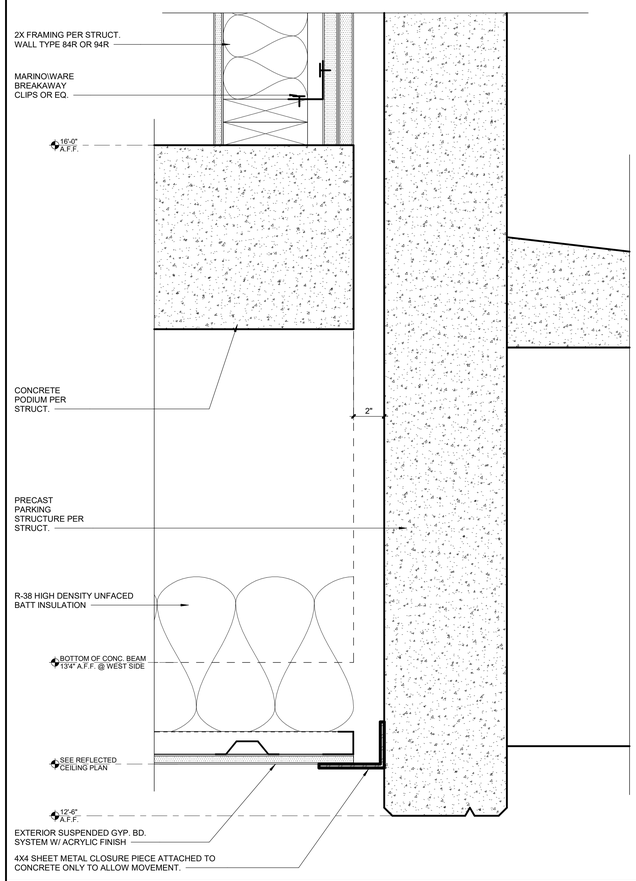
4 GARAGE- HIGH ROOF

A1.79G SCALE : 3" = 1'-0"



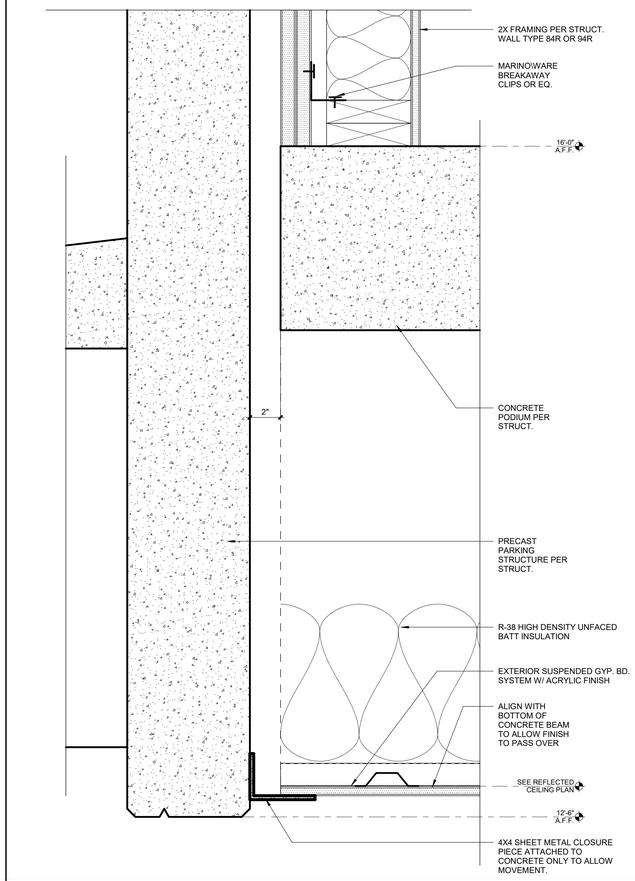
2 GARAGE- HIGH ROOF

A1.79G SCALE : 3" = 1'-0"



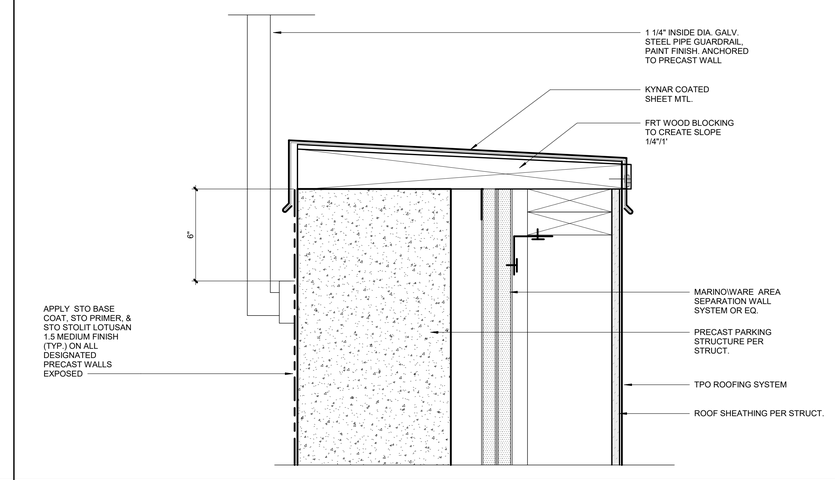
5 GARAGE DETAIL- RETAIL

A1.79G SCALE : 3" = 1'-0"



3 GARAGE DETAIL- RETAIL

A1.79G SCALE : 3" = 1'-0"



1 GARAGE- LOW WALL

A1.79G SCALE : 3" = 1'-0"

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.17,19050.08
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913 .498.1550
www.finklewilliams.com

SHEET TITLE

GARAGE DETAILS

SHEET NUMBER

A1.79G

HARDWARE SETS

GENERAL NOTES:

1. ALL HARDWARE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
2. ALL DOOR HARDWARE SHALL BE FINISH US26D OR EQUIVALENT.
3. ALL LATCHSETS AND LOCKSETS SHALL BE EQUIPPED WITH LEVER TYPE OPERATING TRIM W/ THE "CLUTCH" FEATURE.
4. ALL CLOSERS SHALL BE LOCATED ON ROOMS SIDES OF DOORS.
5. CONTRACTOR'S HARDWARE CONSULTANT SHALL BE RESPONSIBLE FOR DETERMINING APPROPRIATE HARDWARE FUNCTION AND OPTIONS.
6. CONTRACTOR SHALL COORDINATE FINAL KEYING WITH OWNER.

(EL) EXTERIOR LOCKSETS

SET # EL.1
- HINGES
- LATCHSET
- CLOSER
- ADJUSTABLE THRESHOLD
- SMOKE GASKET
- BOTTOM SWEEP
- PANIC DEVICE (GARAGE SIDE) (1)

SET # EL.2
- HINGES
- LOCKSET
- CLOSER

SET # EL.3 (1)
NOT USED

SET # EL.4
- HINGES
- LATCHSET
- CLOSER

SET # EL.5
- HINGES
- LOCKSET
- CLOSER
- THRESHOLD
- WEATHERSTRIPPING
- BOTTOM SWEEP

(AL) ALUMINUM DOORS

SET # AL.1
- HINGES (CONT. HEAVY DUTY)
- CLOSER
- PUSH/PULL
- THRESHOLD
- WEATHERSTRIP
- BOTTOM SWEEP

DOOR TYPES

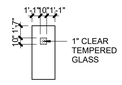
ALL HOLLOW METAL DOORS TO BE FACTORY PRIMED. PAINT TO BE SPRAYED

MED. STILE CLEAR PREFINISHED ALUMINUM DOOR W/ 1" PREFINISHED TEMPERED CLEAR GLASS

(A1)

EXT. DOOR TO BE GRADE III EXTRA HEAVY DUTY, MODEL 4 INSUL., MIN. 16 GA. GALV. STL. (FINISH W/ 2 COATS SEMI-GLOSS ACRYLIC LATEX PAINT)

(H1)



EXT. DOOR TO BE GRADE III EXTRA HEAVY DUTY, MODEL 4 INSUL., MIN. 16 GA. GALV. STL. (FINISH W/ 2 COATS SEMI-GLOSS ACRYLIC LATEX PAINT)

(H2)

STL. COILING OVERHEAD DOOR RATED FOR 115MPH (PREFINISHED INTERIOR AND EXTERIOR FACES)

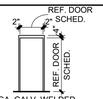
(O1)

FRAME TYPES

ALL HOLLOW METAL FRAMES TO BE FACTORY PRIMED. PAINT TO BE SPRAYED

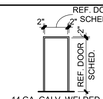
KYNAR COATED ALUMINUM FRAME

(1)



14 GA. GALV. WELDED HOLLOW METAL FRAMES, FINISH TO BE SPRAYED W/ 2 COATS SEMI-GLOSS ACRYLIC LATEX PAINT

(2)

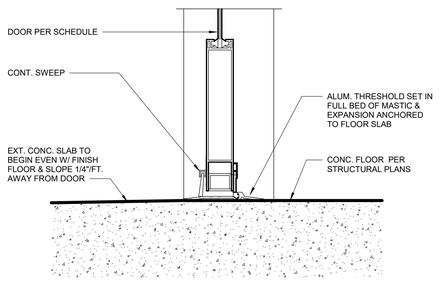


14 GA. GALV. WELDED HOLLOW METAL FRAMES, FINISH TO BE SPRAYED W/ 2 COATS SEMI-GLOSS ACRYLIC LATEX PAINT

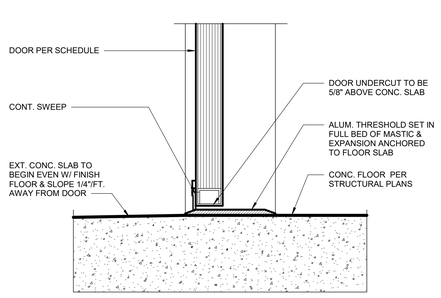
(3)

DOOR AND FRAME SCHEDULE GARAGE

	DOOR					FRAME			DETAILS				
	SIZE												
NO.	W.	H.	Th.	TYPE	MAT.	TYPE	MAT.	RATING	JAMB	HEAD	SILL	HARDWARE	REMARKS
103.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	2	HM	-	1/A8.01G	2/A8.01G	-	EL.2	
105.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.1 (1)	(2)
105.B	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	5/A8.01G SIM	6/A8.01G SIM	9/A8.01G	EL.4	(2)
106.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.4	(2)
106.B	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	1/A8.07	2/A8.07	-	EL.1	(2)
200.A	24' - 6"	7' - 0"	MFR.	O1	STL.	MFR.	MFR.	-	10/A8.01G	11/A8.01G	-	MFR.	(1)
201.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
201.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1 (1)	
202.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
202.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1 (1)	
203.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
203.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
204.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
204.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
206.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.2	(2)
206.B	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.4	(2)
301.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
301.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
302.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
302.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
303.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
303.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	1	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
304.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
304.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	1	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
306.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.2	(2)
401.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
401.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
402.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
402.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	3	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
403.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
403.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	1	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
404.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
404.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	1	MFR.	90 MIN.	5/A8.01G	6/A8.01G	9/A8.01G	EL.1	
405.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	2	HM	-	1/A8.01G	2/A8.01G	-	EL.2	
406.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.2	(2)
501.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	6/A1.79G	12/A8.01G	AL.1	
501.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	1	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
502.A	3' - 0"	7' - 0"	1 3/4"	A1	AL	1	MFR.	-	MFR.	4/A1.74G	12/A8.01G	AL.1	
502.B	3' - 0"	7' - 0"	1 3/4"	H2	HM	1	MFR.	90 MIN.	7/A8.01G	8/A8.01G	9/A8.01G	EL.1	
505.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	2	HM	-	1/A8.01G	2/A8.01G	9/A8.01G	EL.5	
506.A	3' - 0"	7' - 0"	1 3/4"	H1	HM	3	HM	90 MIN.	3/A8.01G	4/A8.01G	-	EL.5	(2)



12 SILL DETAIL
A8.01G SCALE : 3" = 1'-0"



9 SILL DETAIL
A8.01G SCALE : 3" = 1'-0"

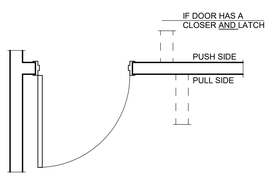
REMARKS

(1) BOTTOM OF DOOR TO FOLLOW SLOPE OF FLOOR

(2) PROVIDE 16" X 34" KICK PLATE

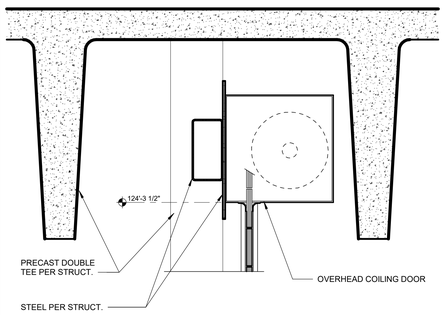
DOOR LOCATION PLAN

FOR ALL DOORS NOT LOCATED ON PLAN

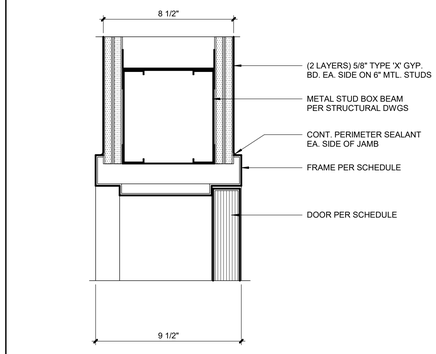


MATERIAL LEGEND

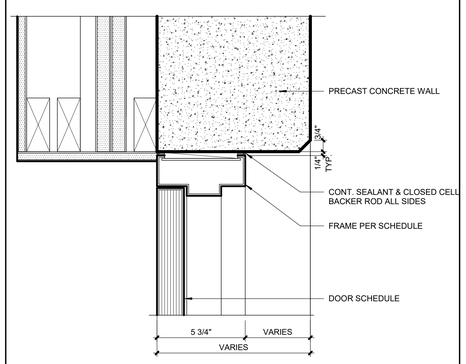
GL	-	GLASS
HM	-	HOLLOW METAL
WD	-	WOOD
STL	-	STEEL
AL	-	ALUMINUM
MFR	-	PER MANUFACTURER
POLY	-	POLYETHYLENE
P	-	POLYCARBONATE



11 DOOR HEAD DETAIL
A8.01G SCALE : 1 1/2" = 1'-0"



8 DOOR HEAD DETAIL
A8.01G SCALE : 3" = 1'-0"



6 DOOR HEAD DETAIL
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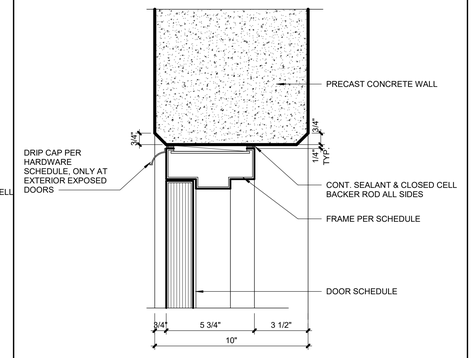
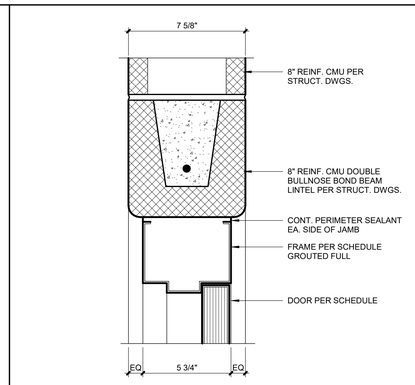


4 DOOR HEAD DETAIL
A8.01G SCALE : 3" = 1'-0"



2 DOOR HEADS DETAIL
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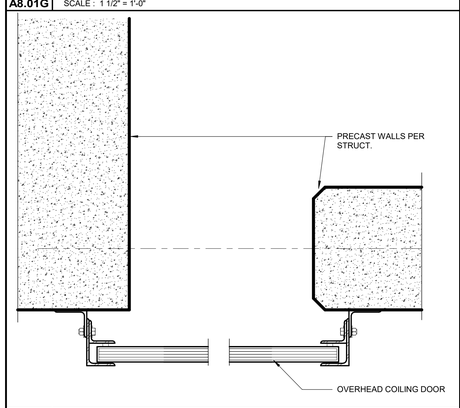
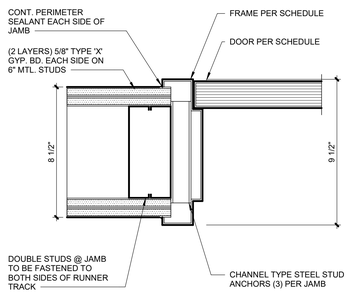


10 DOOR JAMB DETAIL
A8.01G SCALE : 3" = 1'-0"



7 DOOR JAMB DETAIL
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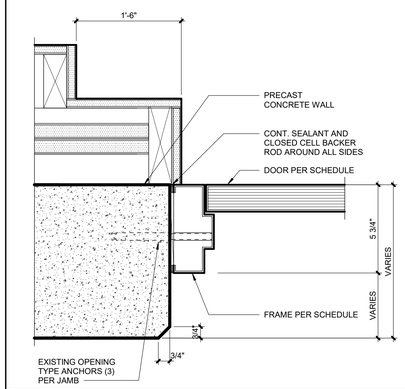

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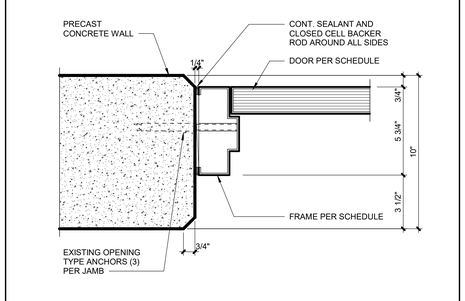

3 DOOR JAMB DETAIL
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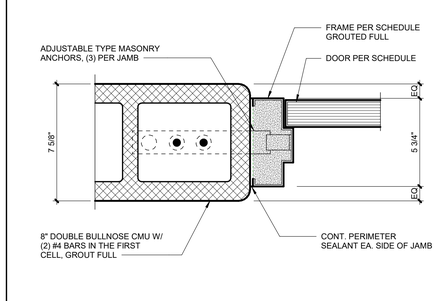

1 DOOR JAMB DETAIL
A8.01G SCALE : 3" = 1'-0"

BIM 360://Paragon Star - Multifamily R21/Paragon Star_Multifamily_R21 (REVIT SERVER)_ellenfoster.rvt

paragon star

PARAGON STAR
NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.17,19050.08
Date: 10.18.24
Issued For: GARAGE PERMIT

REVISIONS

No.	Date	Description
1	11/14/24	ASI 1

REGISTRATION

STATE OF MISSOURI
DAVID ALAN WILLIAMS
NUMBER A-5540
REGISTERED ARCHITECT

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

FINKLE + WILLIAMS
ARCHITECTURE
8787 RENNER BLVD., SUITE 100
LENEXA, KANSAS 66219
913 .498.1550
www.finklewilliams.com

SHEET TITLE

DOOR SCHEDULE AND DETAILS

SHEET NUMBER

A8.01G

GENERAL NOTES - STRUCTURAL

1. General Information

A. The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.

B. The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. In the case of work in an existing building the contractor shall scan existing structure to locate all rebar in the area of the new core/opening using ground penetrating radar and notify the engineer of record for review prior to coring/cutting. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.

C. All design and construction work for this project shall conform to the requirements of the following governing design codes:
1. International Building Code (IBC 2018) as amended by the city of Lee's Summit, Missouri
2. Minimum Design Loads for Buildings and Other Structures (ASCE7-16)
3. Specification for Structural Steel Buildings (AISC 360-16)
   Member Design Basis is Allowable Stress Design (ASD)
   Connection Design Basis is Allowable Stress Design (ASD)
4. Structural Welding Code (AWS D1.4-17)
5. Building Code Requirements for Structural Concrete (ACI 318-14)
6. Building Code Requirements for Masonry Structures (TMS 402-16)
7. North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100-16)
8. National Design Specification (NDS) for Wood Constriction with 2018 Supplements (ANSI/AWC NDS-2018)
9. Special Design Provisions for Wind and Seismic (AWC SDPWS-2015)

D. These drawings are for this specific project and no other use is authorized.

2. Structural Load Design Criteria

A. Dead Load:

Floor, Apartment	= 35 psf
Floor, Balony	= 15 psf
Floor, Corridor (Above Podium)	= 25 psf
Garage Collateral	= 5 psf
Roof	= 25 psf
Stair, Metal Pan	= 60 psf
Stair, Wood	= 25 psf

B. Live Load:

Floor, Apartment	= 40 psf
Floor, Balcony	= 60 psf
Floor, Corridor (Serving Apartment)	= 40 psf
Floor, Corridor)Serving Public)	= 100 psf
Floor, Public (Clubhouse)	= 100 psf
Floor, Storage	= 125 psf
Garage	= 40 psf
Roof	= 20 psf
Roof, MEP Equipment Zone	= 45 psf
Stair	= 100 psf

C. Snow:
Pg = 20psf, Ce = 1.0
Pf = 14 psf (Apt) & 16.8 psf (Garage), Pm = 20 psf
Is = 1.0, Cs = 1.0, Ct = 1.0 (Apt) & 1.2 (Garage)
Drift & unbalanced snow loads per ASCE/SEI 7-16

D. Lateral Loads:
1.) Wind V(ult) = 109 mph, exposure C. Iw=1.0 GCpi=+/-0.18
Design wind pressures to be used for the design of exterior component and cladding materials on the designated zones of wall and roof surfaces shall be per section 30.7 and Table 30.7-2 of ASCE/SEI 7-16. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable
2.) Seismic: Ss = 0.099, S1 = 0.068, Ie=1.0,
Site Classification D
Seismic Design Category B
Basic Seismic Force-resisting System:
At Podium:
A.2 - Ordinary Reinforced Concrete Shear Walls
R = 4, Omega = 4, Cd = 2 1/2, V = 0.053W
At Apartments Above Podium:
A.17 - Light-Framed Walls with Shear Panels of All Other Materials
R = 2, Omega = 2 1/2, Cd = 2, V = 0.053W
At Precast Garage:
A.6 - Ordinary Precast Shear Walls (N/S Direction)
R = 3, Omega = 2 1/2, Cd = 3, V = 0.035W
B.9 - Ordinary Precast Shear Walls (E/W Direction)
R = 4, Omega = 2 1/2, Cd = 4, V = 0.026W

E. This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the International Building Code.

3. Concrete

A. All concrete for foundations (walls, grade beams, footings and piers) shall develop minimum ultimate compressive design strength of 3500 psi in 28 days, but not less than 500 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 6 gallons of water per 100 pounds of cement and not over 4 inches of slump.

B. All concrete for interior flatwork (without floor covering) shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 525 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.75 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).

C. All concrete for interior flatwork (with floor covering) shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 540 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.40 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).

D. All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 560 pounds of cement per cubic yard of concrete, not over 5 gallons of water per 100 pounds of cement, with 6% +/- 1% air entrainment, and a maximum of 4 inches of slump.

E. All concrete for columns shall develop a minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 560 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5 gallons of water per 100 pounds of cement and not over 4 inches of slump.

F. The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to the mix at manufacturer's dosage rates for improved workability.

G. The preceding minimum mix requirements may have up to 15% maximum of the cement content replaced with an approved ASTM C618 Class C fly ash, provided the total minimum cementitious content is not reduced.

H. Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 18 percent and not less than 8 percent retained on an individual sieve, except that less than 8 percent may be retained on coarsest sieve and on No. 50 and finer sieves. Submit this gradation report with the concrete mix design shop drawings.

I. All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than 0.01 perms, tested after mandatory conditioning. All joints shall be lapped and sealed per manufacturer's recommendations. All penetrations, as well as damaged vapor barrier material shall also be sealed per manufacturer's recommendation prior to concrete placement. Install barrier per manufacturer recommended details at all discontinuous edges (at interior columns, exterior edge of slab, etc.) to ensure terms of warranty are followed. The vapor barrier shall be placed over free-draining granular material as prescribed by the project soils report.

J. Basement foundation walls shall be braced at the base and top of wall by the contractor until the slab on grade at the base and the floor framing/slab at the top of wall is complete and the concrete has achieved 75% of the design strength. The contractor is responsible for engineering and design of the wall bracing, if required.

K. All concrete is reinforced concrete unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.

L. Control joints in dirt formed slab to be as shown on plans. Where not shown, limit controlled areas to not more than 144 square feet, or 12 feet on any side. Slab panel side ratio shall not exceed 1 1/2 to 1.

M. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.

N. Construction joints in beams, slabs, and grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2 x 4 horizontal keys at construction joints for shear transfer.

O. No aluminum items shall be embedded in any concrete.

4. Reinforcing Steel

A. All reinforcing steel shall conform to the requirements of ASTM A615 or A706 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A185.

B. Clear minimum coverage of concrete over reinforcing steel shall be as follows:

1. Concrete placed against earth:	3"
2. Formed concrete against earth:	2"
3. Slabs:	1"
4. Beams or Columns:	1-1/2"
5. Other	2"

All coverage shall be nominal bar diameter minimum.

C. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 24" minimum unless noted otherwise).

D. At corners of all walls, beams, and grade beams supply corner bars (minimum 2'-0" in each direction or 48 bar diameters) in outside face of wall, matching size and spacing of horizontal bars. Where there are no vertical bars in outside face of wall, supply 3 - #4 vertical support bars for corner bars.

E. Bars marked continuous and all vertical steel shall be lapped 48 bar diameters (2'-0" minimum) at splices and embedments, unless shown otherwise. Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise.

F. At all holes in concrete walls and slabs, add 2 - #5 bars (opening dimension plus 96 diameters long) at each of four sides and add 2 - #5 x 5'-0" diagonally at each of four corners of hole. Openings in 8" thick walls are reinforced similar, but with 1 - # 5 instead of 2 - #5, respectively.

G. Unless otherwise covered on architectural plans or specifications, vertical control joints in concrete wall shall be spaced at a maximum of 20'-0" on center and coordinated with the architect. Every other horizontal wall reinforcing bar shall be discontinuous at control joints except heavy top and bottom bars unless noted otherwise. Provide base seal waterstop style number 772 (by Greenstreak Inc. or approved equal) on dirt face side of wall at all walls below grade.

H. Accessories shall be as specified in latest edition of the ACI Detailing Handbook and the concrete Reinforcing Steel Institute Design Handbook. Maximum accessory spacing shall be 4'-0" on center, and all accessories on exposed surfaces are to have plastic coated feet.

I. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. All exterior porches and stoops not otherwise detailed may be constructed in any standard manner, solid or hollow, but must be reinforced with #4 bars at 12" on center each way minimum. Porches shall be doweled to adjacent walls or grade beams with #4 bars at 12" on center, hooked or embedded 48 diameters into both members. Slope porches 1/8" per foot for drainage unless noted otherwise.

J. Allow 2 tons of reinforcing bars #4 or larger to be used as directed in the field for special conditions by the engineer of record (labor for placing same to be included).

5. Structural Steel

A. All structural steel beams and columns shall be ASTM A992, grade 50 steel and all miscellaneous steel shall be ASTM A36 grade steel (except at moment connections where plates shall be ASTM A572, grade 50). Hollow Structural Sections (HSS) shall be ASTM A500, grade C. Fabrication and erection shall be in accordance with AISC 303-05 "Code of Standard Practice for Steel Buildings and Bridges" in the 13th Edition of the AISC Steel Construction Manual.

B. All welding shall conform to the recommendations of the AWS.

C. All exterior steel and connections, and brick relief angles shall be hot-dip galvanized.

D. All bolts not otherwise specified shall be 3/4" diameter high strength (ASTM A325-N). All bolts shall be fully pretensioned. All beam connections shall be designed per the AISC Manual of Steel Construction "Framed Beam Connections" for the indicated reactions or at least 0.4 x beam total shear capacity, Vn/Omega, shown in the maximum total uniform load tables, whichever is greater; and, shall account for eccentricity when the bolt line is more than 2" from the center of the support. All connections must be two bolt minimum. Additional connection elements may not be specifically shown in the conceptual details in this set but may be required by the final connection design, such as stiffener plates, doubler plates, supplement/reinforcing plates or other connection material. Connection design and shop drawing preparation shall be completed under the direct supervision of a professional engineer licensed in the state the project is located and shop drawings and connection calculations shall bear his/her seal.

E. All anchor bolts shall be 3/4" diameter, ASTM F1554, Grade 36 unless noted otherwise. Washers of minimum size and thickness for the given anchor diameter in Table 14-2 of the AISC Steel Construction Manual shall be provided at every column anchor bolt. Washers shall have a standard size hole for the anchor bolt. At braced frames washers shall be welded all around to the column base plate with 3/16” fillet weld.

F. Allow 2.0 tons structural steel to be used as directed in field for special conditions by the engineer of record. Cost for shop drawings, fabrication, delivery, detailing, and erection to be included. 50% of structural steel allowance shall be bid as miscellaneous galvanized angle and plate.

6. Post Installed Anchors

A. Post-installed anchors shall be used only where specified on the drawings unless approved in writing by the engineer of record. See drawings for anchor diameter, spacing and embedment. Performance values of the anchors shall be obtained for specified products using appropriate design procedures and/or standards as required by the governing building code. Anchors installed in concrete shall have an ICC-ES Evaluation Service Report. Special inspection is required for all post installed anchors. The contractor shall coordinate an on-site meeting with the post installed anchor manufacturer field representative to educate the construction team on the anchor installation guidelines and requirements.

B. Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 355.2 and ICC-ES AC193. All anchors shall be installed per the anchor manufacturer's written instructions.

C. Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308. All anchors shall be installed per the anchor manufacturer's written instructions.

D. Mechanical anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC01. All anchors shall be installed per the anchor manufacturer's written instructions.

E. Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC58. All anchors shall be installed per the anchor manufacturer's written instructions.

F. Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106 or ICC-ES AC58 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

7. Foundations

A. The soil investigation was prepared by Terracon, the report number is 02215169 and the telephone number is 913-492-7777.

B. Structural foundations consist of a network of stright shaft auger pressure grouted piles established on moderatly weathered shale capable of safely supporting 40ksf end bearing. Each pile shall penetrate 5'-0" minimum into the moderately weathered shale. Spread footing and shallow foundations for ancillary structures are designed to bear on engineered fill or undisturbed soil capable of safely supporting 1,500 psf.

C. Retaining walls are designed for an active lateral load of 50 pcf equivalent fluid pressure.

D. Basement walls are designed for an at rest lateral load of 70 pcf equivalent fluid pressure. See General Note 3.J for wall bracing requirements.

E. Contractor shall provide for dewatering at excavations from either surface water or seepage.

F. All foundation excavations shall be inspected by a qualified soil engineer, approved by the architect and/or structural engineer, prior to placement of steel or concrete. This inspection shall be at the owner's expense.

G. All concrete in the structural portion retaining the backfill shall have attained its design strength prior to being backfilled.

H. Moisture content in soils beneath building locations should not be allowed to change after footing excavations and after grading for slabs on grade are completed. If subgrade materials become desiccated or softened by water or other conditions, recompact materials to the density and water content specified for engineered fill. Do not place concrete on frozen ground.

8. Drilled Auger Pressure-Grouted Piers

A. Piers not otherwise indicated shall be 30" diameter.

B. All piers shall have (4) #7x6'-0" hooked dowels unless otherwise indicated.

C. Pier dowels shall extend 40 diameters above top of pier. Driving dowels into concrete after initial set is not allowed.

D. Refer to the specifications (sections for excavation and concrete) for other detailed requirements.

E. Pier concrete to have 6" slump.

9. Concrete Masonry Units

A. Concrete block used in exterior walls or load bearing walls shall meet the requirements of ASTM C90 and have a minimum net compressive strength of 2650 psi and laid up using type N mortar such that f'm equals 2000 psi. Mortar shall be volume proportion based cement lime mortar. Proportioning shall be completed by box measure. Any block in contact with earth shall be normal weight units, laid using type "S" mortar and grouted solid.

B. The contractor shall provide adequate temporary bracing for all masonry walls during construction.

C. All concrete block shall have 9 gage (or larger) horizontal joint reinforcing (ladder or truss) per architectural drawings and specifications (16" maximum vertical spacing).

D. Cavity wall construction shall be reinforced as designed for specific concrete block used. The horizontal joint reinforcing shall be of the ladder or truss style per specification and continuous between brick and block, as prescribed by the architectural drawings.

E. Concrete block shall be reinforced as follows in 6", 8", 10", and 12" walls:
1. Vertical reinforcing shall be a minimum of 1 - #4 bar in 6" and 8" walls and 2 - #4 bars in 10" and 12" walls at 4'-0" on center, at each corner, at each door and window jamb, each side of control joints and in the end void of each length of wall. Lap splices for masonry vertical reinforcing shall be 48 bar diameters or 24" minimum.
2. Horizontal reinforcing:
   A. Horizontal joint reinforcing as noted above.
   B. Continuous horizontal bars shall be included per section or detail in bond beam or optional running bond beam where noted. Where bond beams are continuous at corners of walls, supply corner bars matching size of horizontal bars (minimum 2'-0" or 40 bar diameters in each direction).

F. Grout, where noted above, shall have a minimum design ultimate compressive strength of 2500 psi at 28 day test and 3/8" maximum aggregate size.

G. Non-load bearing concrete block walls shall be isolated from adjacent structural elements with vertical 3/8" control joints and at the top of the wall with 1" air space or compressible material and support per architectural detail.

H. Unless otherwise covered on architectural plans or specifications, vertical control joints in masonry construction shall be 3/8" wide, full height of wall. Joints shall be spaced at a maximum of 24'-0" on center and coordinated with the architect. All horizontal joint reinforcing shall be discontinuous at control joints in masonry. All bond beam horizontal reinforcing shall be continuous through control joints.

I. Lintels over all openings up to 8'-0" wide in new and existing masonry walls not otherwise covered shall be one 6x3 1/2x5/16 angle for each 4" width of masonry. All exterior lintels to be galvanized.

J. Walls shall be anchored top and bottom by dowels matching wall vertical reinforcing(unless noted otherwise) from floor slab bottom and bracing angles at the top, per details on the drawings.

10. Light Gage Metal Structural Framing

A. All load bearing, light gage structural studs, track, and bridging shall be of the type, size, gage, and spacing as shown on the plans, minimum.

B. All materials shall be 33,000 psi minimum yield, except studs of 16 gage or heavier shall have a minimum yield of 50,000 psi.

C. All properties, fabrication, and erection shall be in accordance with latest editions of the AISI "Specifications for the Design of Cold-Formed Structural Members."

D. All framing components shall be cut squarely or at an angle to fit squarely against abutting members. Splicing of axially loaded members is not permitted. Members shall be held firmly in place until properly fastened. Attachments of similar components shall be by welding, screw attachment, or bolting. Wire tying of components is not permitted.

E. Tracks shall be securely anchored to floor and overhead members. Special anchorage requirements required for wind bracing shall be as shown on the plans.

F. Prior to fabrication and/or erection, the contractor shall submit shop drawings complete with detail of erection, fabrication, attachments, anchorages, lintels, etc., for review by the architect/engineer.

11. Timber and Wood Framing

A. Quality and construction of wood framing members and their fasteners for load supporting purposes not otherwise indicated on the drawings shall be in accordance with the 2018 International Building Code.

B. All studs and top and bottom plates shall be Douglas Fir No. 2 grade visually graded lumber, with an allowable fiber stress in bending of 900 psi minimum and an elastic modulus of 1,600,000psi unless noted otherwise. All joist, truss members, and headers to be No. 2 grade (min.) unless noted otherwise. All lumber for exterior decks and balconies shall be treated Southern Yellow Pine No. 2 grade.

C. Bridging of stud bearing walls and shear walls shall be solid, matching sheathing joints.

D. Joist blocking and bridging shall be solid wood or cross bridging of either wood or metal straps. Spacing, in any case, shall not exceed 8’-0".

E. Wood members and sheathing shall be fastened with number and size of fasteners not less than that set forth in Table 2304.9.1 of the 2018 International Building Code. Floor sheathing shall be APA rated tongue and groove Sturd-I-Floor, exposure 1, glued and nailed with 10d nails or # 10 screws at 12" on center field. Sheathing of shear walls or roof diaphragms shall be edge nailed with 8d common nails at 6" on center and nailed to intermediate framing and/or blocking members with 8d common nails at 12" on center unless otherwise noted on the drawings. .

F. Sill plates shall be bolted to concrete slabs with 1/2" diameter bolts at 32" on center (UNO, re: shearwall schedule.) Provide plate washers at sill plate anchors for shearwalls per shearwall schedule. Plates in direct contact with concrete or masonry shall be preservative-treated .

G. All hangers, ties and connections shown are based on Simpson Strong Tie as the basis of design, provide Simpson Strong Tie or an approved equal. Joist hangers shall be equal to "LUS" for wood application and "LB" for steel weld-on application. Roof truss ties shall be equal to "H2.5A" and tie the roof truss to the top plate (provide (2) "H2.5A" diagonally across from each other when uplift load shown in truss shop submittal exceeds 600lbs). Roof girder ties shall be equal to a "LGT2", "LTG3" or "LGT4" tie (dependent on number of plies) and tie the truss girder to the top plate. Provide "H2.5A" at the top of each stud to top track when the top track has roof truss attached.

H. Service condition - dry with moisture content at or below 19% in service.

I. Laminated strand lumber (LSL) shall have an allowable flexural stress (Fb) of 1,700 psi (reduced by size factor) and an elastic modulus (E) of 1,300,000 psi.

J. Laminated veneer lumber (LVL) shall have an allowable flexural stress (Fb) of 2,600 psi (reduced by size factor) and an elastic modulus (E) of 2,000,000 psi.

K. Parallel Strand Lumber (PSL) shall have an allowable flexural stress (Fb) of 2,900 psi (reduced by size factor) and an elastic modulus (E) of 2,000,000 psi. ((E) = 2,200,000 psi for members > 18").

L. Glulams shall be 24F-V8 or better with an allowable flexural stress (Fb) of 2,400 psi and an elastic modulus (E) of 1,800,000 psi. Exterior glulams shall be moisture-resistant treated.

M. Pre-engineered wood trusses shall be designed in accordance with the Truss Plate Institute's national design standard for metal-plate connected wood truss construction (ANSI/TPI-1 latest edition). Trusses shall be designed and manufactured by an authorized member of the Wood Truss Council of America (WTCA). Truss design shall conform to specified codes, allowable stress increases, deflection limitations and other applicable criteria of the governing code.

N. Truss shop drawings showing complete erection and fabrication details and calculations (including connections) shall be submitted to the project architect/engineer for review prior to fabrication and/or erection. Calculations and layout plan shall bear the seal of a professional engineer, registered in the state of the project location. Layout plan shall incldue truss locations, spacing and all hanger designations used to support trusses to beams or other trusses. Calculations shall indicate max reactions in all directions, number of plies for the truss and dead, live and total load deflections along with a list or key of all standard and non-standard utilized load combination. Shop drawings shall also be submitted to the local government controlling agency when requested by that agency.

O. All trusses shall be securely braced both during erection and permanently, as indicated on the approved truss design drawings and in accordance with TPI's commentary and recommendations for handling, installing and bracing metal-plate connected wood trusses (HIB-91, booklet) and the latest edition of ANSI/TPI-1.

P. The truss manufacturer shall supply all hardware and fasteners for joining truss members together and fastening truss members to their supports. Metal connector plates shall be manufactured by a member of the Wood Truss Council of America (WTCA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM A924 galvanized coating designation G60.

Q. Provide truss space directly above and centered over HVAC closets. Refer to Architectural and MEP drawings for exact locations.

R. Shipment, handling, and erection of trusses shall be by experienced, qualified persons and shall be performed in a manner so as not to endanger life or property. Apparent truss damage shall be reported to the truss manufacturer for evaluation prior to erection.Cutting or alteration of trusses is not permitted.

S. Pre-Engineered Floor Trusses:

Top Chord Dead Load	= 30 psf
Top Chord Live Load	= Per General Note 5B
Bottom Chord Dead Load	= 10 psf
Live Load Deflection	= L/480; (1/2" max)
Total Load Deflection	= L/360

T. Roof Truss Design Criteria:

Top Chord Dead Load	= 15 psf (TPO Roof)
Top Chord Live Load	= 20 psf (Plus Rooftop Equipment)
Top Chord Snow Load	= 20 psf or 14 psf plus Drift
Bottom Chord Dead Load	= 10 psf
Bottom Chord Live Load	= 5 psf
Live Load Deflection	= L/360
Total Load Deflection	= L/300

U. Roof trusses shall be designed per IBC 2018 for net uplift resulting from wind loading as calculated using components and cladding loading. Top and bottom chord dead load used in combination with wind uplift shall be 5psf for each chord.

V. Construction bracing shall be provided by the contractor as required to keep the building and studs plumb.

W. Structural members shall not be cut for pipes, etc., unless specifically detailed. Nothing and boring of studs and top of plates shall conform to the provisions of section 2308.9.10 and 2308.9.11 of the IBC. Where top plates or sole plates are cut for pipes, a metal tension tie with minimum 0.058 inches thick and 1 1/2" inches wide shall be fastened to each plate across and to each side of the opening with not less than (6) 16d nails, in accordance with section 2308.9.8 of the IBC.

X. All fasteners for wood to wood connections and wood connectors shall be as indicated in structural drawings or manufacturer literature to achieve full capacity of connector. Alternate fasteners may be submitted as a substitution request. Submittal must show that alternative fasteners will not reduce the capacity of the connection.

12. Precast Concrete Members

A. The contractor/supplier is responsible for the design of all the precast members and connection between them and other structural members. Submit design calculations, sealed by an engineer licensed in the state of the project location, for review by the architect/engineer of record.

B. All precast members are to be designed in accordance with ACI 318-11, 2012 IBC and other applicable codes, standards (see specs) and design criteria shown on design documents.

C. Precast concrete members shall conform to the 2012 IBC for the required fire ratings (refer to architects documents).

D. All wall panels should be designed for building wind loads, seismic loads, gravity loads, and transmit these loads to the foundation through properly designed connections.

E. Provide blockouts and openings for mechanical/electrical equipment. Refer to mechanical/electrical documents.

F. Shop drawings shall be complete and shall include a layout plan, fabrication details, estimated camber, connection and anchorage details and member identification marks. Identification marks shall appear on manufactured units to facilitate correct field placement.

13. Deferred Submittal and Shop Drawing

A. Bob D. Campbell and Company, Inc. will review the General Contractor’s (GC) shop drawings and related submittals (as indicated below) with respect to the ability of the detailed work, when complete, to be a properly functioning integral element of the overall structural system designed by Bob D. Campbell and Company, Inc.

B. Deferred submittals shall be submitted to the architect of record for review who shall forward to the building official for review and approval. Design calculations for deferred sub mittals shall be submitted at the same time as the shop drawings for review. Design calculations shall be prepared and sealed by a Professional Engineer licensed in the state of the project. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official.

C. Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
1. Review each submission for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
2. Review and approve each submission.
3. Stamp each submission as approved.

D. Bob D. Campbell and Company, Inc. shall assume that no submission comprises a variation unless the GC advises Bob D. Campbell and Company, Inc. with written documentation.

E. Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submission has met the above requirements. Bob D. Campbell and Company, Inc. shall return without comment unrequired material or submissions without GC approval stamp.

F. Shop drawings and related material (if any) required are indicated below. Should Bob D. Campbell and Company, Inc. require more than ten (10) working days to perform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
1. Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
2. Reinforcing steel shop drawings including erection drawings and bending details.Bar list will not be reviewed for correct quantities.
3. Elevations of all reinforced concrete masonry walls at a scale no smaller than 3/8" = 1’-0" showing all required reinforcing.
4. Grout mix designs (for CMU).
5. Construction and control joint plans and/or elevations.
6. Structural steel shop drawings including erection drawings and piece details. Include joist, decking and connector submittals. Include miscellaneous framing specified on the structural drawings, but do not submit framing specified on non-structural drawings for Bob D. Campbell and Company, Inc. review.
7. Defferred Submittal: Railings and guardrails with sealed calculations
8. Defferred Submittal: Metal stair framing with sealed calculations
9. Defferred Submittal: Exterior cold-formed metal framing
10. Defferred Submittal: Exterior curtain wall
11. Deferred Submittal: Structural steel connection design calculations submitted concurrently with structural steel shop drawings.
12. Miscellaneous anchors shown on the structural drawings.
13. Deferred Submittal: Wood truss design calculations and detailed erection and fabrication drawings. Standard stick framing shop drawings need not be submitted.
14. Standard details and bridging information for light gage metal framing. Erection plans and details for light gage metal joists and lintels spanning more than 6’-0" shall be submitted. Standard wall framing need not be submitted.
15. Deferred Submittal: Augured pile foundation plans and details.
16. Deferred Submittal: Precast concrete shop drawings including erection drawings and connection details.
17. Deferred Submittal: Precast concrete connection design calculations.
18. Deferred Submittal: Cold-Formed metal framing for exterior walls.

14. Statement of Structural Special Inspections

A. The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.

B. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.

C. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority, building official and structural engineer.

D. The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the building code.

E. The following inspections and tests are required with the frequency (continuous or periodic) as defined within the referenced section or standard listed below. The General Contractor shall provide notification to the inspector when items requiring inspection are ready to be inspected and provide access for those inspections.
1. Shop Fabrication – structural steel per Section 1704.2.5 unless AISC certified shop
2. Shop Fabrication – pre-engineered wood trusses per Section 1704.2.5 unless TPI certified shop
3. Shop Fabrication – precast concrete per Section 1704.2.5 unless PC certified shop
4. Steel Construction per Section 1705.2 and the quality assurance requirements of AISC 341 Chapter J (as referenced by AISC 360)
5. Concrete Construction per Section 1705.3 and Table 1705.3
   a. Reinforcing Steel Placement
   b. Reinforcing Steel Welding
   c. Cast in Place Anchors
   d. Post Installed Anchors
   e. Design Mix Verification
   f. Concrete Sampling and Testing
   g. Concrete Placement
   h. Concrete Curing
   i. Prestressed Concrete Stressing and Grouting
   j. Erection of Precast
   k. Verification of In-situ Concrete Strength Prior to Stressing Post-Tensioned Concrete
   l. Formwork Shape, Location and Dimensions
6. Masonry Construction per Section 1705.4 and the quality assurance requirements of TMS 402/ACI530/ASCE5 and TMS602/A530.1/ASCE6 Level B
7. Verification of Soils per Table 1705.6
8. Inspections and Tests of Cast-In-Place Deep Foundation per Table 1705.8
9. Wood Lateral System (periodic)
   a. Wood shearwalls (include sheathing, rim board and bottom plate attachments)
   b. Portal frames
   c. Shear wall and portal frame holdowns
   d. Shear wall tension rod system
10. Wood Gravity Framing and Placement (adjust frequency of random sampling where indicated as required)
   a. Heavy timber/SCL/glulam beams and supports (periodic)
   b. Headers and jambs (random sampling)
   c. Bearing walls (random sampling)
   d. Connector/hardware installation (random sampling)
   e. Floor and roof trusses (random sampling)

15. Copyright and Disclaimer

A. All drawings in the structural set (S-series drawings) are the copyrighted work of Bob D. Campbell and company, Inc. These drawings may not be photographed, traced, or copies in any manner without the written permission of Bob D. Campbell and Company, Inc. Exception: Original drawings may be printed for distribution to the owner, architect, and general contractor for coordination, bidding, and construction. Subcontractors may not reproduce these drawings for any purpose or in any manner.

B. I, Christopher A. Beverlin, P.E., registered engineer and a representative of Bob D. Campbell and Company, Inc., do hereby accept professional responsibility as required by the professional registration laws of this state for the structural design drawings consisting of S-series drawings. I hereby disclaim responsibility for all other drawings in the construction document package, they being the responsibility of other design professionals whose seals and signed statements may appear elsewhere in the construction document package.

STRUCTURAL ABBREVIATIONS

@	AT	FLR	FLOOR	PERP	PERPENDICULAR
&	AND	FS	FAR SIDE	PL	PLATE
Ø	ROUND, DIAMETER	FTG	FOOTING	PLF	POUNDS PER LINEAR FOOT
ADTL	ADDITIONAL	FV	FIELD VERIFY	PJP	PARTIAL JOINT PENETRATION
AFF	ABOVE FINISHED FLOOR	GA	GAGE	PSF	POUNDS PER SQUARE FOOT
ALT	ALTERNATE	GALV	GALVANIZE(D)	PSI	POUNDS PER SQUARE INCH
ARCH	ARCHITECTURAL	GEN	GENERAL	QTY	QUANTITY
BLDG	BUILDING	GR	GRADE	RAD	RADIUS
B/	BOTTOM OF	GRBM	GRADE BEAM	RD-#	ROOF DECK TYPE
BM	BEAM	HORIZ	HORIZONTAL	REF	REFERENCE
BOTT	BOTTOM	HSS	HOLLOW STRUCTURAL SECTION	REINF	REINFORCEMENT
BRG	BEARING	IF	INSIDE FACE	REQD	REQUIRED
C	CAMBER	INFO	INFORMATION	REV	REVISION
CD-#	CONCRETE DECK TYPE	INT	INTERIOR	RLL	ROOF LIVE LOAD
CJ	CONSTRUCTION/CONTROL JOINT	JST	JOIST	RTU	ROOF TOP UNIT
CJP	COMPLETE JOINT PENETRATION	JT	JOINT	SC	SLIP CRITICAL
CL	CENTERLINE	K	KIPS (1000 LBS)	SCHED	SCHEDULE(D)
CMU	CONCRETE MASONRY UNIT	KSF	KIPS PER SQUARE FOOT	SECT	SECTION
COL	COLUMN	KSI	KIPS PER SQUARE INCH	SHT	SHEET
CONC	CONCRETE	LBS, #	POUNDS	SIM	SIMILAR
CONN	CONNECTION	Ld	DEVELOPMENT LENGTH	SJ	SAW JOINT
CONT	CONTINUOUS	LL	LIVE LOAD	SL	SNOW LOAD
COORD	COORDINATE	LLH	LONG LEG HORIZONTAL	SOG	SLAB-ON-GRADE
COV, CVR	COVER	LLV	LONG LEG VERTICAL	SOG-#	SLAB-ON-GRADE TYPE
DBL	DOUBLE	LONG	LONGITUDINAL	SPCG	SPACING
DET	DETAIL	LSLT	LONG-SLOTTED HOLE TRANSVERSE	SPEC	SPECIFICATION
DIA	DIAMETER	LTWT	LIGHTWEIGHT	SPRT	SUPPORT
DIM	DIMENSION	M	MOMENT FORCE	SQ	SQUARE
DL	DEAD LOAD	MAX	MAXIMUM	SS	STAINLESS STEEL
DWG	DRAWING	MECH	MECHANICAL	SSLT	SHORT-SLOTTED HOLE TRANSVERSE
EA	EACH	MFGR	MANUFACTURER	STD	STANDARD
EF	EACH FACE	MIN	MINIMUM	STIFF	STIFFENER
EJ	EXPANSION JOINT	MISC	MISCELLANEOUS	STIR	STIRRUP
EL, ELEV	ELEVATION	MSRY	MASONRY	STL	STEEL
EMBED	EMBEDMENT, EMBEDDED	MTL	METAL	STRUCT	STRUCTURE, STRUCTURAL
ENGR	ENGINEER	NF	NEAR FACE	T/	TOP OF
EOD	EDGE OF DECK	NS	NEAR SIDE	THRU	THROUGH
EOR	ENGINEER OF RECORD	NTS	NOT TO SCALE	TOS	TOP OF STEEL, TOP OF SLAB
EOS	EDGE OF SLAB	NW	NORMAL WEIGHT	TRANS	TRANSVERSE
EQ	EQUAL	OC	ON CENTER	TYP	TYPICAL
EQUIP	EQUIPMENT	OF	OUTSIDE FACE	UNO	UNLESS NOTED OTHERWISE
EW	EACH WAY	OPNG	OPENING	V	SHEAR FORCE
EXP	EXPANSION	OPP	OPPOSITE	VERT	VERTICAL
EXT	EXTERIOR	OVS	OVERSIZED HOLE	W/	WITH
EXTG, EXIST	EXISTING	P	AXIAL FORCE	W/0	WITHOUT
FD-#	FLOOR DECK TYPE	PAF	POWDER ACTUATED FASTENER	WF	WIDE FLANGE
FDN	FOUNDATION	PC	PRECAST / PILE CAP	WL	WIND LOAD
FF	FAR FACE	PCF	POUNDS PER CUBIC FOOT	WP	WORK POINT
FIN	FINISH	PEMB	PRE-ENGINEERED METAL BUILDING	WWF	WELDED WIRE FABRIC

STRUCTURAL DECK & SLAB SCHEDULE

MARK	DESCRIPTION
FD-1	1" TO 1 1/4" GYPCRETE ATOP 23/32" APA RATED T&G STURD-I-FLOOR, EXP 1 SHEATHING. SHEATHING SHALL BE GLUED AND NAILED W/ 8d RING SHANK NAILS OR #10 SCREWS AT 6"o.c. AT EDGES & 12"o.c. AT FIELD.
CD-1	3" NORMAL WEIGHT CONC. SLAB (4500psi, AIR-ENTRAINED) REINFORCE WITH CELLULOSE FIBER AT 1.5 LBS/CU. YD. ATOP WATERPROOFING MEMBRANE (RE: ARCH.) ATOP 15/32" EXTERIOR GRADE PLYWOOD SHEATHING (SLOPE PER ARCH.) RE: NOTE 5
CD-2	3" NORMAL WEIGHT CONC. SLAB (4500psi, AIR-ENTRAINED) REINFORCE WITH CELLULOSE FIBER AT 1.5lb/cu. yd. ATOP PRECAST STAIR LANDING
CD-3	3" NORMAL WEIGHT CONC. SLAB (4500psi, AIR-ENTRAINED) REINFORCE WITH CELLULOSE FIBER AT 1.5lb/cu. yd. ATOP 2" RIGID INSULATION ATOP WATERPROOFING PER ARCH ATOP PODIUM SLAB. SLOPE TO DRAIN PER ARCH. RE: NOTE 5
SOG-1	4" CONC. SLAB (4000psi) REINFORCE WITH 6x6-W2.9xW2.9 WWF ATOP 15 MIL VAPOR BARRIER ATOP 4" OF 3/4" CLEAN GRANULAR LEVELING COURSE ATOP SUITABLE SUBGRADE MATERIAL PER GEOTECH SPECIFICATIONS. T/SLAB EL. = PER PLAN, SLOPE TO DRAIN
SOG-2	4" CONC. SLAB (4500psi, AIR-ENTRAINED) REINFORCE WITH 6x6-W2.9xW2.9 WWF ATOP 4" OF 3/4" CLEAN GRANULAR LEVELING COURSE, ATOP SUITABLE SUBGRADE MATERIAL PER GEOTECH SPECIFICATIONS T/SLAB EL. = PER PLAN, SLOPE TO DRAIN
SOG-3	8" CONC. SLAB (4500psi, AIR-ENTRAINED) REINFORCE WITH #4 @ 12"oc EACH WAY BOTTOM ATOP 4" OF 3/4" CLEAN GRANULAR LEVELING COURSE, ATOP SUITABLE SUBGRADE MATERIAL PER GEOTECH SPECIFICATIONS. T/SLAB EL. = PER PLAN, SLOPE TO DRAIN
SOG-4	6" CONC. SLAB (4500psi, AIR-ENTRAINED) REINFORCE WITH #4 @ 12"o.c. EACH WAY ATOP 4" OF 3/4" CLEAN GRANULAR LEVELING COURSE, ATOP SUITABLE SUBGRADE MATERIAL PER GEOTECH SPECIFICATIONS T/SLAB EL. = PER PLAN, SLOPE TO DRAIN
RD-1	19/32" APA RATED, EXP 1 SHEATHING ATTACHED WITH #10 SCREWS AT 6"o.c. AT EDGES & 12"o.c. AT FIELD. (PROVIDE FRT TREATED PLYWOOD AT FIREWALLS - REFER TO ARCH DRAWINGS FOR LOCATION AND EXTENTS)
RD-2	23/32" APA RATED T&G STURD-I-FLOOR, EXP 1 SHEATHING. SHEATHING SHALL BE GLUED AND NAILED W/ 10d RING SHANK NAILS OR #10 SCREWS AT 4"o.c. AT EDGES & 12"o.c. AT FIELD WITH ALL EDGES BLOCKED

NOTES:
1. FD = FLOOR DECK TYPE.
2. CD = CONCRETE DECK TYP.
3. SOG = SLAB-ON-GRADE TYP.
4. RD = ROOF DECK TYP.
5. PROVIDE 1" DEEP TOOLED CONTROL JOINT (TRANSVERSE DIRECTION) @ MID-SPAN OF BALCONY (8'-0" MAX SPACING) FILL JOINT w/ SEALANT.

LEGEND:

⇄ ...... SPAN DIRECTION OF DECK - DECK TYPE PER SCHEULE ON S0.01
(1) HSS 6x6x1/4 COLUMN SIZE
BASE PLATE MARK - SEE SCHEDULE ON SHEET S0.04
A#-# ...... BEAM OR HEADER PER SCHEDULE ON S0.02
A#-#u ...... UPSET BEAM OR HEADER PER SCHEDULE ON S0.02
...... BEARING WALL TYPE PER SCHEDULE ON S0.02
A ...... SHEARWALL HOLDDOWN TYPE PER SCHEDULE ON S0.03
...... NUMBER OF WALL STUDS IN STUD PACK
#/# ...... NUMBER OF JACK STUDS/KING STUDS IN STUD PACK
A ...... PLAN NOTE PER SCHEDULE ON S0.02
SW# ...... SHEARWALL TYPE PER SCHEDULE ON S0.03
CSW# ...... CONCRETE SHEARWALL TYPE PER SCHED ON S0.10
3/4" ...... AMOUNT OF UPWARD POSITIVE CAMBER
8 ...... PILE CAP SIZE PER SCHEDULE ON S3.02
A ...... SHEAR RAIL TYPE PER SCHEDULE ON S3.15

STRUCTURAL SHEET LIST

Sheet Number	Sheet Name	Current Revision	Current Revision Date
S0.01	GENERAL NOTES	4	9.28.22
S0.02	WOOD SCHEDULES & TYPICAL DETAILS	3	7.20.22
S0.03	WOOD SCHEDULES & TYPICAL DETAILS	3	7.20.22
S0.04	STEEL SCHEDULES	3	7.20.22
S0.05	CMU DETAILS	2	7.11.22
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S1.02	SECOND FLOOR FRAMING PLAN		
S1.03	THIRD FLOOR FRAMING PLAN		
S1.04	FOURTH FLOOR FRAMING PLAN		
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S1.11A	BUILDING A FOUNDATION PLAN	3	7.20.22
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S1.25B	BUILDING B ROOF FRAMING PLAN	4	9.28.22
S1.26B	BUILDING B SHEARWALL PLAN	4	9.28.22
S1.31C	BUILDING C FOUNDATION PLAN	4	9.28.22
S1.32C	BUILDING C SECOND FLOOR FRAMING PLAN	4	9.28.22
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S1.41D	BUILDING D FOUNDATION PLAN	4	9.28.22
S1.42Da	BUILDING D PODIUM SLAB REINFORCEMENT PLAN	3	7.20.22
S1.42Db	BUILDING D PODIUM STUD RAIL & SLAB GEOMETRY PLAN	3	7.20.22
S1.43D	BUILDING D THIRD FLOOR FRAMING PLAN	4	9.28.22
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S1.51E	BUILDING E FOUNDATION PLAN	4	9.28.22
S1.52Ea	BUILDING E PODIUM SLAB REINFORCEMENT PLAN	2	7.11.22
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S1.53E	BUILDING E THIRD FLOOR FRAMING PLAN	4	9.28.22
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S1.63F	BUILDING F THIRD FLOOR FRAMING PLAN	2	7.11.22
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TO BE
PERMITTED
SEPARATELY

paragon
star

PARAGON STAR
NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.24
Issued For: GARAGE PERMIT

REVISIONS

No.	Date	Description
1	6.08.22	Permit Response
2	7.11.22	ADDENDUM 1
3	7.20.22	ADDENDUM 2
4	9.28.22	ASI 1

REGISTRATION

CHRISTOPHER A. BEVERLIN
NUMBER PE-2017012583
10.18.24

PROJECT TEAM

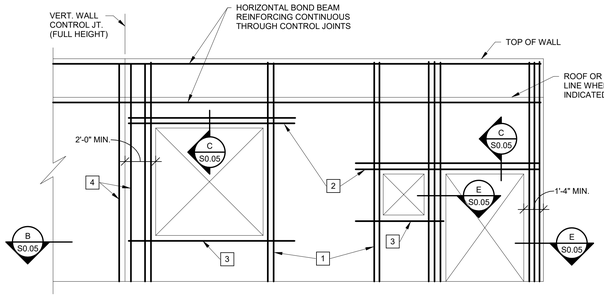
ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

BOB D. CAMPBELL & CO.
Structural Engineers Since 1957
4338 Belleview Ave. 816.531.4144
Kansas City, MO 64111 www.bdc-engrs.com

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
S0.01

T:\E-G\FWI Projects\FWI2101 - Paragon Star\FWI2101 Dwgs\FWI2101 - S21 - Paragon Star_jlf.rvt



TYPICAL CMU WALL REINFORCING AT OPENINGS

LEGEND:

1. FULL HEIGHT VERTICAL BARS AS JAMB REINFORCING IN FIRST 2 CELLS ADJACENT TO OPENING. REINFORCE EACH CELL WITH SIZE & QUANTITY OF BAR TO MATCH WALL REINFORCING (1 BAR TYPICAL IN 8" WALLS AND 2 BARS TYPICAL IN 12" WALLS).
2. LINTEL REINFORCING PER SECTION C. EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).
3. 2-#5 CONTINUOUS HORIZONTAL BARS AS SILL REINFORCING IN 8" COURSE BELOW OPENING (U.N.O.). EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).
4. FULL HEIGHT VERTICAL BARS PER MASONRY VERTICAL REINFORCING SCHEDULE LOCATED IN END CELL AT EACH SIDE OF VERTICAL WALL CONTROL JOINTS.

GENERAL CRITERIA: (SECTION A CONTINUED):

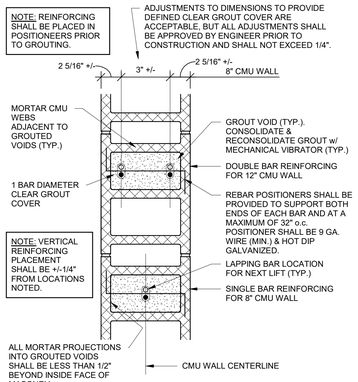
1. VERTICAL REINFORCING BARS SHALL BE DOWELED TO FOUNDATION WITH A DOWEL OF MATCHING SIZE AND SPACING.
2. CONTRACTOR SHALL COORDINATE AND VERIFY OPENINGS IN MASONRY WALLS. OPENINGS SHALL BE DETAILED ON REINFORCING STEEL SHOP DRAWING ELEVATIONS.
3. VERTICAL CONTROL JOINTS IN MASONRY WALLS SHALL BE 3/8" WIDE, FULL HEIGHT OF WALL. JOINTS SHALL BE SPACED AT A MAXIMUM OF 24'-0" ON CENTER AND NOT LESS THAN 2'-0" FROM THE EDGE OF ANY OPENING. ALL HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS. ALL BOND BEAM HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. CONTRACTOR SHALL COORDINATE AND VERIFY ALL CONTROL JOINT LOCATIONS.

MASONRY VERTICAL REINFORCING SCHEDULE
FOR LOAD BEARING MASONRY (CMU) WALLS

WALL THICKNESS	LOCATION	VERTICAL REINF. (IN GROUTED CELLS)	SPACING
8"	GARAGE ATOP PRECAST	1- #5	48"oc
8"	EXT WALLS BELOW PODIUM	1- #5	32"oc
8"	ELEVATOR	1- #5	32"oc

NOTES:
1. IN ADDITION TO SPACING SHOWN IN SCHEDULE, VERTICAL REINFORCING SHALL BE PROVIDED IN GROUTED CELLS AT THE FOLLOWING LOCATIONS
   - A.) IN THE FIRST 2 CELLS ADJACENT TO EACH OPENING
   - B.) IN THE END CELLS ON EACH SIDE OF VERTICAL CONTROL JOINTS
   - C.) IN THE END CELLS OF EACH LENGTH OF WALL
   - D.) AT EACH CORNER OF WALLS
2. ALL MASONRY VOIDS AND BOND BEAMS TO BE GROUTED SHALL BE FREE OF DEBRIS AND MORTAR DROPPINGS PRIOR TO GROUTING. ANY MASONRY w/ DROPPINGS OR DEBRIS OBSERVED IN VOIDS SHALL BE REJECTED.

A CMU WALL ELEVATION
1 1/2" = 1'-0"



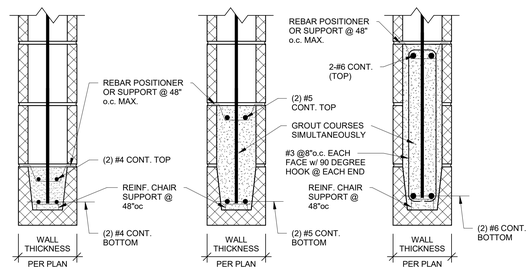
NOTE: ALL MASONRY VOIDS AND BOND BEAMS TO BE GROUTED SHALL BE FREE OF DEBRIS AND MORTAR DROPPINGS PRIOR TO GROUTING. ANY MASONRY w/ DROPPINGS OR DEBRIS OBSERVED IN VOIDS SHALL BE REJECTED.

TYPICAL REBAR POSITIONING DETAIL

B SECTION
1 1/2" = 1'-0"

TYPICAL MASONRY REINFORCING NOTE:

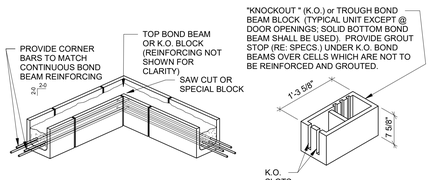
ALL INTERIOR & EXTERIOR MASONRY WALLS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE TO BE REINFORCED HORIZONTALLY WITH BOND BEAMS (2 - #5 BOTTOM) AT BOTTOM COURSE, TOP COURSE, JOIST BEARING ELEVATION AND AT 5'-0" MAXIMUM O.C. AND VERTICALLY AS INDICATED ON DRAWINGS. THESE WALLS ARE TO BE ANCHORED TOP AND BOTTOM TO THE FOUNDATION, FLOOR, OR ROOF PER TYPICAL DETAILS. THE VERTICAL REINFORCING IS CONTINUOUS (IN 6'-6" MAXIMUM LENGTHS, LAPPED 2'-6" MINIMUM). FILL BLOCK CELLS AND BOND BEAMS WITH 2,500psi GROUT. RE: DETAILS "A" THROUGH "E" ON THIS SHEET.



OPENINGS UP TO 4'-0" | OPENINGS 4'-0" TO 7'-4" | OPENINGS 7'-4" TO 12'-0"

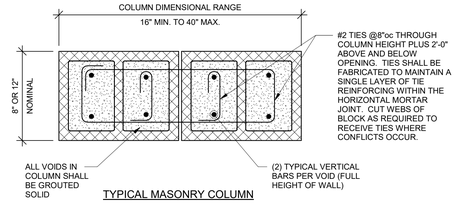
TYPICAL LINTELS AT ALL CMU WALLS (U.N.O.)

C SECTION
1 1/2" = 1'-0"



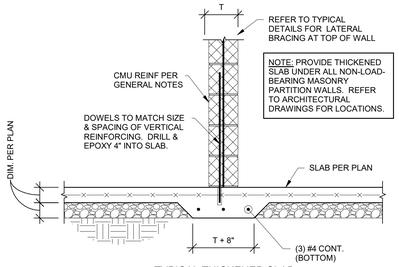
TYPICAL BOND BEAM DETAIL AT CORNER OF CMU WALL

D DETAIL
3/4" = 1'-0"



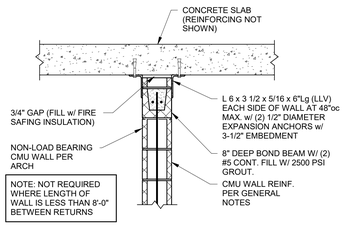
TYPICAL MASONRY COLUMN

E SECTION
1 1/2" = 1'-0"



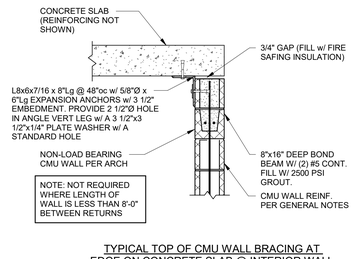
TYPICAL THICKENED SLAB
(UNDER NON-LOAD-BEARING MASONRY)

1 SECTION
3/4" = 1'-0"



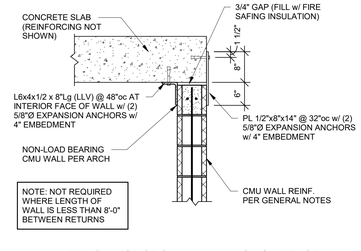
TYPICAL TOP OF CMU WALL BRACING BELOW CONCRETE SLAB

2 SECTION
3/4" = 1'-0"



TYPICAL TOP OF CMU WALL BRACING AT EDGE ON CONCRETE SLAB @ INTERIOR WALL

2B SECTION
3/4" = 1'-0"



TYPICAL TOP OF CMU WALL BRACING AT EDGE OF CONCRETE SLAB @ EXTERIOR WALL

2C SECTION
3/4" = 1'-0"

NOT USED

3 SECTION
3/4" = 1'-0"

NOT USED

3A SECTION
3/4" = 1'-0"

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paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description
2	7.11.22	ADDENDUM 1

REGISTRATION

STATE OF MISSOURI — CHRISTOPHER A. BEVERLIN — NUMBER PE-2011012503 — PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
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Since 1957
4338 Belleview Ave.
Kansas City, MO 64111
816.531.4144
www.bdc-engrs.com

SHEET TITLE

CMU DETAILS

SHEET NUMBER

S0.05

BEAM SCHEDULES

MARK	SIZE b	SIZE d	SHAPE OR SECTION	LONGITUDINAL STEEL: QUANTITY	SIZE	TOTAL LENGTH	MK	TOP PLACED	BOT. PLACED	REMARKS	STIRRUPS: NO.	SHAPE	SPACING
								℄ OF SUPPORT 1/4 PT. OF SPAN FACE OF SUPPORT 1/4 PT. OF ADJ. SPAN					
B1	36"	36"		4	#8	32-0		●			#4		18 @ 4"oc RIGHT END RMDR @ 12"oc
				6	#8	12-0		●					
				6	#8	27-0			●				
B2	36"	36"		4	#8	34-0		●			#4		10 @ 4"oc, 12" @ 8"oc LEFT END RMDR @ 12"oc
				6	#8	12-0		●					
				6	#8	27-0			●				
B3	48"	36"		6	#8	32-0		●		PROJECT 4'-0" PAST GRID F.2	(2) #4		@ 10"oc
				8	#8	36-0			●	6" CLR FROM BOTT			
				12	#8	46-0			●				
B4	48"	36"		6	#8	40-0		●		PROJECT 4'-0" PAST 12" WALL	(2) #4		@ 10"oc
				12	#8	24-0		●					
				8	#8	14-0			●				
B5	36"	36"		4	#8	32-0		●		PROJECT 4'-0" PAST GRID F.2	#4		@ 10"oc
				4	#8	36-0			●	6" CLR FROM BOTT			
				10	#8	46-0			●				
B6	36"	36"		4	#8	40-0		●		PROJECT 4'-0" PAST 12" WALL	#4		@ 10"oc
				10	#8	24-0		●					
				6	#8	14-0			●				
B7	36"	32"		4	#8	42-0		●			#4		@ 12"oc
				2	#8	16-0		●					
				3	#8	22-0			●				
				5	#8	34-0			●				
B8	36"	32"		4	#8	42-0		●			#4		@ 12"oc
				2	#8	24-0			●				
				4	#8	36-0			●				
B9	36"	32"		3	#8	22-0		●			#4		@ 12"oc
				6	#8	16-0			●				
B10	36"	32"		4	#8	40-0		●			#4		12 @ 6"oc RIGHT END RMDR @ 12"oc
				4	#8	16-0		●					
				4	#8	22-0			●				
				8	#8	34-0			●				
B11	36"	32"		4	#8	42-0		●			#4		@ 12"oc
				4	#8	16-0		●					
				2	#8	22-0			●				
				4	#8	34-0			●				
B12	36"	32"		2	#8	18-0		●			#4		@ 8"oc
				2	#8	12-0			●				
				6	#8	16-0			●				
B13	36"	32"		6	#8	28-0		●			#4		@ 3"oc BTWN GRID 16.2 & GA RMDR @ 8"oc
				8	#8	26-0		●					
				2	#8	24-0			●				
				6	#8	27-0			●				
B14	48"	32"		12	#8	32-0		●		ALT HOOK DIRECTION	(2) #4		@ 12"oc
				12	#8	26-0			●	6" CLR FROM BOTT			
				18	#8	32-0			●	ALT HOOK DIRECTION			
B15	42"	32"		8	#8	32-0		●		ALT HOOK DIRECTION	#4		@ 8"oc
				8	#8	26-0			●	6" CLR FROM BOTT			
				14	#8	32-0			●	ALT HOOK DIRECTION			
B16 B16R	36"	40"		8	#8	40-0		●			#4		@4"oc AT CANTILEVER RMDR @12"oc
				4	#8	16-0		●					
				4	#5	25-0				1/2 EA FACE @ 10"oc FROM BOTT			
				6	#8	30-0			●				
B17 B17R	36"	40"		8	#8	36-0		●		1/2 AT EA COLUMN	#4		@ 12"oc
				2	#8	24-0		●					
				4	#5	42-0				1/2 EA FACE @ 10"oc FROM BOTT			
				4	#8	42-0			●				
				4	#8	48-0			●				
B18	36"	40"		4	#8	36-0		●			#4		@ 12"oc
				4	#8	18-0		●					
				4	#5	18-6				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	20-0			●				
				4	#8	24-0			●				
B19	36"	40"		4	#8	24-0		●			#4		@ 12"oc
				4	#5	17-0				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	17-0			●				
				4	#8	24-0			●				
B20	24"	40"		4	#8	40-0		●			#4		@ 12"oc
				4	#5	32-9				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	32-0			●				
				6	#8	34-0			●	ALT HOOK DIRECTION			
B21	36"	40"		10	#8	36-0		●			#4		@ 12"oc
				2	#8	20-0			●				
				4	#5	21-0				1/2 EA FACE @ 10"oc FROM BOTT			
				4	#8	28-0			●				
B22	36"	40"		8	#8	38-0		●		1/2 AT EA COLUMN	#4		(20) @ 6"oc EA END RMDR @ 12"oc
				4	#5	40-0				1/2 EA FACE @ 10"oc FROM BOTT			
				6	#8	40-0			●				
				6	#8	46-0			●				
B23	36"	40"		10	#8	28-0		●			#4		@ 12"oc
				4	#5	12-0				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	12-0			●				
				4	#8	16-0			●				
B24	36"	40"		2	#8	28-0		●			#4		@ 12"oc
				4	#5	19-0				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	20-0			●				
				4	#8	24-0			●				
B25	36"	40"		4	#8	36-0		●			#4		@ 12"oc
				4	#5	19-6				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	20-0			●				
				4	#8	24-0			●				
B26	36"	40"		8	#8	38-0		●		1/2 AT EA COLUMN	#4		@ 12"oc
				4	#5	40-0				1/2 EA FACE @ 10"oc FROM BOTT			
				4	#8	40-0			●				
				4	#8	46-0			●				
B27	36"	40"		6	#8	28-0		●			#4		@ 12"oc
				4	#5	12-0				1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	12-0			●				
				4	#8	16-0			●				
B28	36"	40"		2	#8	30-0		●			#4		(18) @ 4"oc RIGHT END RMDR @ 12"oc
				4	#5	24-0				1/2 EA FACE @ 10"oc FROM BOTT			
				4	#8	18-0			●				
				4	#8	28-0			●				
B29	36"	40"		4	#8	18-0		●			#4		(20) @ 4"oc LEFT END RMDR @12"oc
				4	#5					1/2 EA FACE @ 10"oc FROM BOTT			
				2	#8	12-0			●				
				4	#8	16-0			●				
B30	48"	40"		4	#8	36-0		●			(2) #4		12"oc AT CANTILEVER (10) @ 6"oc EA. END BTWN COLS RMDR @ 12"oc
				4	#8	36-0		●					
				4	#5	11-0				1/2 EA FACE @ 10"oc FROM BOTT			
				10	#8	26-0			●	6" CLR FROM BOTT			
				16	#8	36-0			●	ALT HOOK DIRECTION			
B31	48"	40"		8	#8	36-0		●		ALT HOOK DIRECTION	(2) #4		(10) @ 6"oc EA END RMDR @12"oc
				4	#5	35-0				1/2 EA FACE @ 10"oc FROM BOTT			
				10	#8	32-0			●	6" CLR FROM BOTT			
				16	#8	36-0			●	ALT HOOK DIRECTION			

BEAM SCHEDULES

MARK	SIZE b	SIZE d	SHAPE OR SECTION	LONGITUDINAL STEEL: QUANTITY	SIZE	TOTAL LENGTH	MK	TOP PLACED	BOT. PLACED	REMARKS	STIRRUPS: NO.	SHAPE	SPACING
								℄ OF SUPPORT 1/4 PT. OF SPAN FACE OF SUPPORT 1/4 PT. OF ADJ. SPAN					
B32	24"	36"		4	#7	26-0		●			#4		@ 12"oc
				2	#7	20-0			●				
				4	#7	22-0			●	ALT HOOK DIRECTION			
B33	24"	36"		4	#7	22-0		●		ALT HOOK DIRECTION	#4		@ 12"oc
				4	#7	20-0			●				
				4	#7	22-0			●	ALT HOOK DIRECTION			
B34	24"	36"		4	#7	29-0		●		ALT HOOK DIRECTION	#4		@ 12"oc
				4	#8	26-0			●				
				4	#8	27-0			●	ALT HOOK DIRECTION			

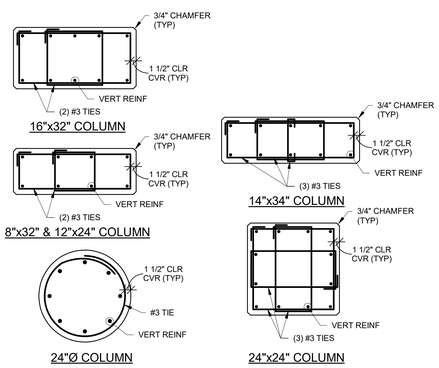
CONCRETE SHEARWALL SCHEDULE

TYPE	THICKNESS	VERTICAL REINFORCEMENT	HORIZONTAL REINFORCEMENT	COLUMN @ END OF WALL	LATERAL LOAD ALONG WALL FOR PILE DESIGN (klf)	UPLIFT AT EACH END OF WALL FOR PILE DESIGN (kips)
CSW1	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW2	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW3	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW4	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW5	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW6	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW7	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW8	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW9	8"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW10	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW11	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW12	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW13	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW14	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW15	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW16	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW17	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW18	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW19	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW20	8"	#5 @ 12"oc CTR IN WALL	#5 @ 12"oc CTR IN WALL	8"x32"		
CSW21	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW22	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		
CSW23	12"	#5 @ 12"oc EA FACE	#6 @ 12"oc EA FACE	12"x24"		

NOTES:
1) PROVIDE (2)#7 CONT TOP AND BOTTOM OF EACH WALL WITHIN 4" OF THE TOP AND BOTTOM. SPLICE BOTTOM BARS 5'-0" AND TOP BARS 6'-0" WITH 90 DEG HOOKS AT DISTONT ENDS
2) VERTICAL FOUNDATION DOWELS TO MATCH VERTICAL WALL REINFORCEMENT SIZE AND SPACING WITH 48 BAR Ø LAP INTO WALL AND 90 DEG HOOK INTO BOTTOM OF FOOTING BELOW.
3) TERMINATE TOP OF VERTICAL BARS WITH 90 DEG HOOK INTO TOP OF SLAB WITH 3" OF CLEAR COVER.

CONCRETE COLUMN SCHEDULE

COLUMN SIZE	REINFORCEMENT	COLUMN SIZE	REINFORCEMENT
8X32	(8) #7 VERTICAL (2) #3 TIES @ 8"oc	16X32	(10) #8 VERTICAL (2) #3 TIES @ 16"oc
12X24	(8) #7 VERTICAL (2) #3 TIES @ 12"oc	24X24	(12) #8 VERTICAL (3) #3 TIES @ 16"oc
14X34	(10) #8 VERTICAL (3) #3 TIES @ 14"oc	24Ø	(10) #8 VERTICAL #3 TIES @ 12"oc



7 CONCRETE COLUMN DETAILS
3/4" = 1'-0"

CONCRETE COLUMN NOTES:
1) PROVIDE (4) SETS OF TIES AT 3"oc TOP & BOTTOM OF EACH COLUMN
2) ALL COLUMNS TO CENTER ON GRIDLINE AND PIER/FOUNDATION U.N.O.
3) PROVIDE VERTICAL FOUNDATION DOWELS MATCH SIZE AND QUANITY OF VERTICAL REINFORCEMENT WITH 48 BAR Ø LAP INTO COLUMN AND 90 DEG HOOK INTO BOTTOM OF FOOTING.
4) PROVIDE VERTICAL SLAB DOWELS AT TOP OF COLUMN WITH 48 BAR Ø LAP INTO COLUMN AND 90 DEG HOOK INTO TOP OF SLAB ABOVE.

REBAR DEVELOPMENT LENGTH AND LAP SPLICE SCHEDULE

CONCRETE STRENGTH = 5000 psi					CONCRETE STRENGTH = 4000 psi					CONCRETE STRENGTH = 3500 psi				
CASE / BAR SIZE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP		CASE / BAR SIZE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP		CASE / BAR SIZE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	24	24	24	24	#3	24	24	24	24	#3	24	24	26	24
#4	24	24	29	24	#4	25	24	33	25	#4	27	24	35	27
#5	28	24	36	28	#5	31	24	41	31	#5	33	26	43	33
#6	34	26	43	34	#6	37	29	49	37	#6	40	31	52	40
#7	49	38	63	49	#7	54	42	71	54	#7	58	45	75	58
#8	56	43	72	56	#8	62	48	81	62	#8	66	51	86	66
#9	63	48	81	63	#9	70	54	91	70	#9	75	58	97	75
#10	71	54	92	70	#10	79	61	102	79	#10	84	65	109	84
#11	78	60	102	78	#11	87	67	113	87	#11	93	72	121	93

NOTES:
1. UNLESS SPECIFICALLY INDICATED OTHERWISE, USE THE MINIMUM LENGTH FOR A CLASS B LAP SPLICE OR THE MINIMUM DEVELOPMENT LENGTH INDICATED IN THE TABLES ABOVE MULTIPLIED BY THE APPLICABLE FACTOR(S) LISTED BELOW.
2. WHERE THE CLEAR SPACING BETWEEN BARS LAP SPLICED OR EMBEDDED AT ANY SECTION IS LESS THAN 2 BAR DIAMETERS, OR WHERE THE BAR COVER IS LESS THAN OR EQUAL TO THE BAR DIAMETER. INCREASE THE INDICATED BAR SPLICE OR DEVELOPMENT LENGTH BY 50%.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
4. MECHANICAL COUPLERS MAY BE SUBSTITUTED FOR TENSION LAP SPLICED BARS PROVIDED THAT THEY MEET THE REQUIREMENTS OF ACI 318-11, 12.14.
5. AT LOCATIONS WHERE REINFORCING WITHIN A STRUCTURAL ELEMENT WILL BE SPLICED, ALTERNATING SPLICES SHALL BE STAGGERED A MINIMUM OF THE CLASS B SPLICE LENGTH UNLESS INDICATED OTHERWISE.

SLAB NOTES

1. SEE GENERAL NOTES (STRUCTURAL) ON SHEET S001.
2. PODIUM SLAB IS 15" THICK REINFORCED WITH A CONTINUOUS (60" LAP AT COLUMN CENTERLINE OF COLUMN STRIPS AND 24" LAP AT COLUMN CENTERLINE OF MID-STRIPS) BOTTOM MAT OF #6 @ 12" EACH WAY. SEE PLAN FOR BOTTOM MAT EXTENDING EAST/WEST THAT SHALL BE SUPPORTED ON 1" SLAB BOLSTERS AT 4'-0"o.c.
3. TOP REINFORCING BARS PLACING SEQUENCE:
   14A 5 19'-9"
   - 14 = TOTAL LENGTH OF BAR IN FEET AND INCHES
   - A = SIZE OF BAR AND LOCATION IN SLAB AS NOTED BELOW
   - 5 = TOTAL NUMBER OF EXTRA BARS IN STRIP DEFINED ON PLAN

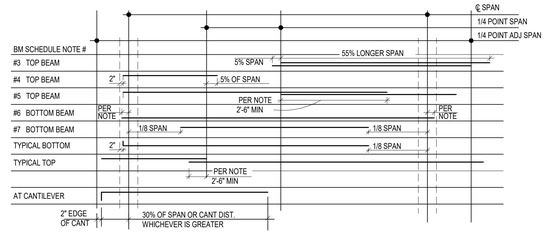
   "A" #6 EXTRA BOTTOM BARS WITH 1" CLEAR COVER BOTTOM. (PLACE WITH 1" CLEAR COVER BOTTOM MAT BARS.)
   "B" #6 EXTRA BOTTOM BARS WITH 1 3/4" CLEAR COVER BOTTOM. (PLACE WITH 1 3/4" CLEAR COVER BOTTOM MAT BARS.) PLACE ON TOP OF PERPENDICULAR (1" CLEAR COVER) BOTTOM MAT AND "A" BARS.
   "C" #7 TOP BARS WITH 1 7/8" CLEAR COVER WHERE TWO LAYERS OF BARS OCCUR AND 1" CLEAR COVER WHERE ONE LAYER OF BARS OCCUR ON IHC @4'-0" o.c. AND #5 SUPPORT BARS @4'-0"o.c.
   "D" #7 TOP BARS WITH 1" CLEAR COVER TOP. PLACE ON TOP OF "C" BARS WHERE THEY OCCUR OR OTHERWISE PLACE ON IHC AT 4'-0"o.c. AND #5 SUPPORT BARS AT 4'-0" o.c.
   "E" #6 TOP BARS WITH 1" CLEAR COVER WHERE ONE LAYER OF BARS OCCUR ON IHC AT 4'-0" o.c. AND #5 SUPPORT BARS AT 4'-0"o.c.
   "F" #5 TOP BARS WITH 1 7/8" CLEAR COVER WHERE TWO LAYERS OF BARS OCCUR AND 1" CLEAR COVER WHERE ONE LAYER OF BARS OCCUR ON IHC AT 4'-0" o.c. AND #5 SUPPORT BARS AT 4'-0"o.c.
   "G" #5 TOP BARS WITH 1" CLEAR COVER TOP. PLACE ON TOP OF "F" BARS WHERE THEY OCCUR, OTHERWISE PLACE ON IHC AT 4'-0" o.c. AND #5 SUPPORT BARS AT 4'-0"o.c.
4. REINFORCING SHALL BE SPLAYED AROUND OPENINGS LESS THAN 18" WIDE. REINFORCING SHALL BE CUT AT OPENINGS GREATER THAN 18" WIDE WITH EQUAL CONTINUOUS BARS ADDED ONE-HALF EACH SIDE OF OPENING. PROVIDE REINFORCING PER GENERAL NOTE 7F AT ALL OPENINGS LARGER THAN 8".
5. STRIP LINES ARE LOCATED AT 1/4 POINTS BETWEEN COLUMN CENTERLINES UNLESS NOTED ON PLAN OTHERWISE.
6. SEE DETAIL 2/S3.10 FOR PLACING PATTERN FOR TOP REINFORCING BARS OVER INTERIOR COLUMN AS NOTED.
7. TOP BARS SHOWN STAGGERED ON PLAN SHALL BE STAGGERED WHEN PLACED. THE END OF EVERY OTHER BAR TO BE PLACED AT RELATIVE STRIP LINE, UNLESS NOTED ON PLAN.
8. BOTTOM BARS ARE SHOWN THUS — — — — — —
   TOP BARS ARE SHOWN THUS ————————
   TOP BARS SHOWN ON PLAN THUS ⌐¬ SHALL HAVE A STANDARD ACI 90 DEG. HOOK.
9. UNLESS SHOWN ON "S" SERIES DRAWINGS, NO HOLES LARGER THAN TEN INCH DIAMETER SHALL BE PLACED THROUGH SLAB. NOT MORE THAN ONE, SIX TO EIGHT INCH DIAMETER HOLES, OR TWO FOUR INCH DIAMETER HOLES, OR THREE TWO INCH DIAMETER OR SMALLER HOLES SHALL BE PLACE WITHIN 20" OF THE FACE OF THE COLUMNS.
10. CAMBER ALL SPANS BETWEEN 16'-0" AND 24'-0" (CENTERLINE TO CENTERLINE OF SUPPORTS) FOR L/600 MINIMUM AT MIDSPAN (WITH L = SPAN IN INCHES) (I.E., 3/8 AT MIDSPAN FOR 18'-0" SPAN. CAMBER ALL SPANS LONGER THAN 24'-0" FOR L/480 (I.E., 3/4" AT MIDSPAN FOR 30'-0" SPAN.)
11. AT TERMINATION OF COLUMN STRIP AT COLUMN, WALL, BEAM, PROVIDE 90° STANDARD ACI HOOK EACH END AT (4) BOTTOM BARS NEAREST TO COLUMN CENTERLINE PER 6/S3.10

BEAM SCHEDULE PLACING NOTES

1. See General Notes (Structural) on sheet S0.01.
2. Orientation of beams in schedule are as seen from the bottom or right of the plan sheet.
3. Center group of top bars indicated thus ——||—— in "placed" schedule on centerline of support. Stagger bars 5% of longer span. Bar length = 55% of longer span.
4. Top bars scheduled thus ⊢ | ||| extend 2" from face of exterior soffet to 5% of span past 1/4 point of span.
5. All lapped top bars shall have a minimum of lap of 2'-6" or 48 bar diameters. Perimeter beams shall have two bars lapped a minimum of 66 bar diamters.
6. Bottom bars indicated thus ||——|| in "placed schedule to have scheduled bars extend 12" past centerline of support each end and a minimum 2 bars with a 66 bar diameter lap.
7. Bottom bars scheduled thus ||——|| extend to within 1/8 point of span.
8. Start stirrups 2" from face of support each end unless noted.
9. All bars shown thus ⌐¬ to have standard ACI hook. Extend to within 2" of exterior face.
10. No holes, sleeves, or conduit larger than 1" diameter round shall be put through beams without written authorization from the engineer. All conduit shall be PVC (non metalic).
11. Splice length at bars of different sizes shall be based on the larger of the two bar diameters.

BEAM PLACEMENT SCHEDULE

NOTE: ALL SIMILAR CONDITIONS TO BE PLACED PER THE PLACING SCHEDULE.



paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.24
Issued For: GARAGE PERMIT

REVISIONS

No.	Date	Description
2	7.11.22	ADDENDUM 1

REGISTRATION

STATE OF MISSOURI — CHRISTOPHER A. BEVERLIN — NUMBER PE-2010012583 — PROFESSIONAL ENGINEER — 10-18-24

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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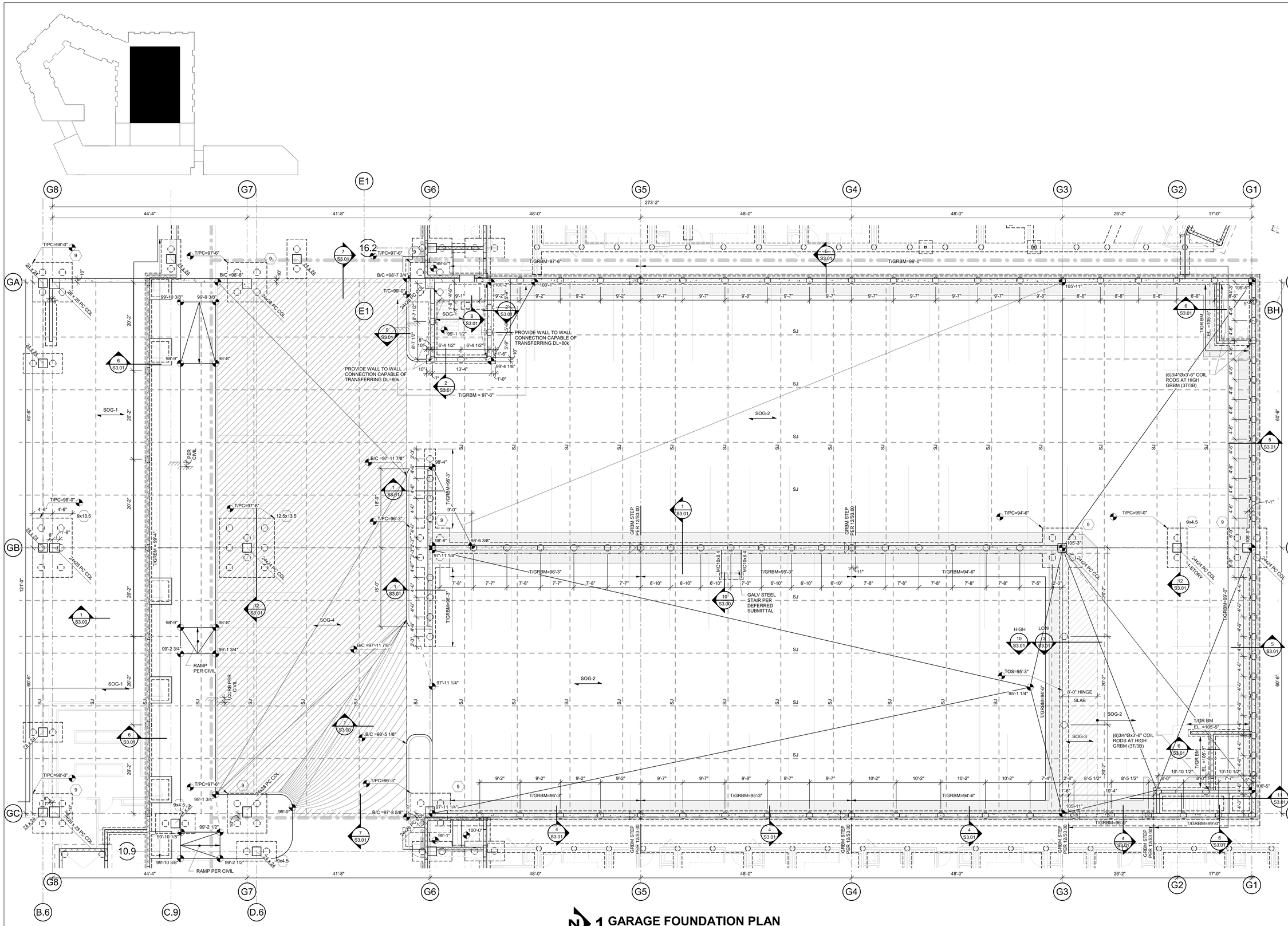
SHEET TITLE

CONCRETE SCHEDULE

SHEET NUMBER

S0.10



1 GARAGE FOUNDATION PLAN

1/8" = 1'-0"

FOUNDATION NOTES - GARAGE:

1. REFER TO GENERAL NOTES ON SHEET S0.01.
2. REFER TO PILE CAP SCHEDULE ON S3.02.
3. REFER TO CIVIL AND ARCH DRAWING FOR SLAB ELEVATIONS.
4. ELEVATION 100'-0" EQUALS CIVIL DATUM ELEVATION 820.67.
5. TOP OF EXTERIOR FOOTINGS = 99'-0", UNO
6. TOP OF INTERIOR PILE CAPS = 98'-8" UNO
7. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF SPOT AND TRENCH DRAINS.
8. REFER TO S3.00-SERIES DRAWINGS FOR TYPICAL FOUNDATION DETAILS.

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REVISIONS

No.	Date	Description
1	6.08.22	Permit Response
2	7.11.22	ADDENDUM 1
4	9.28.22	ASI 1

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2010012553
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
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STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
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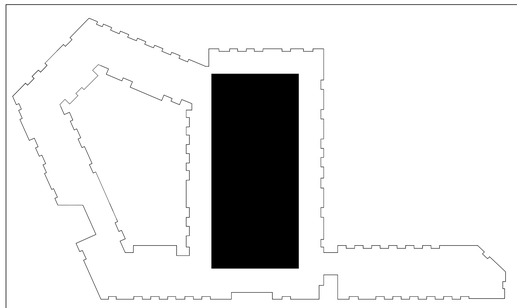
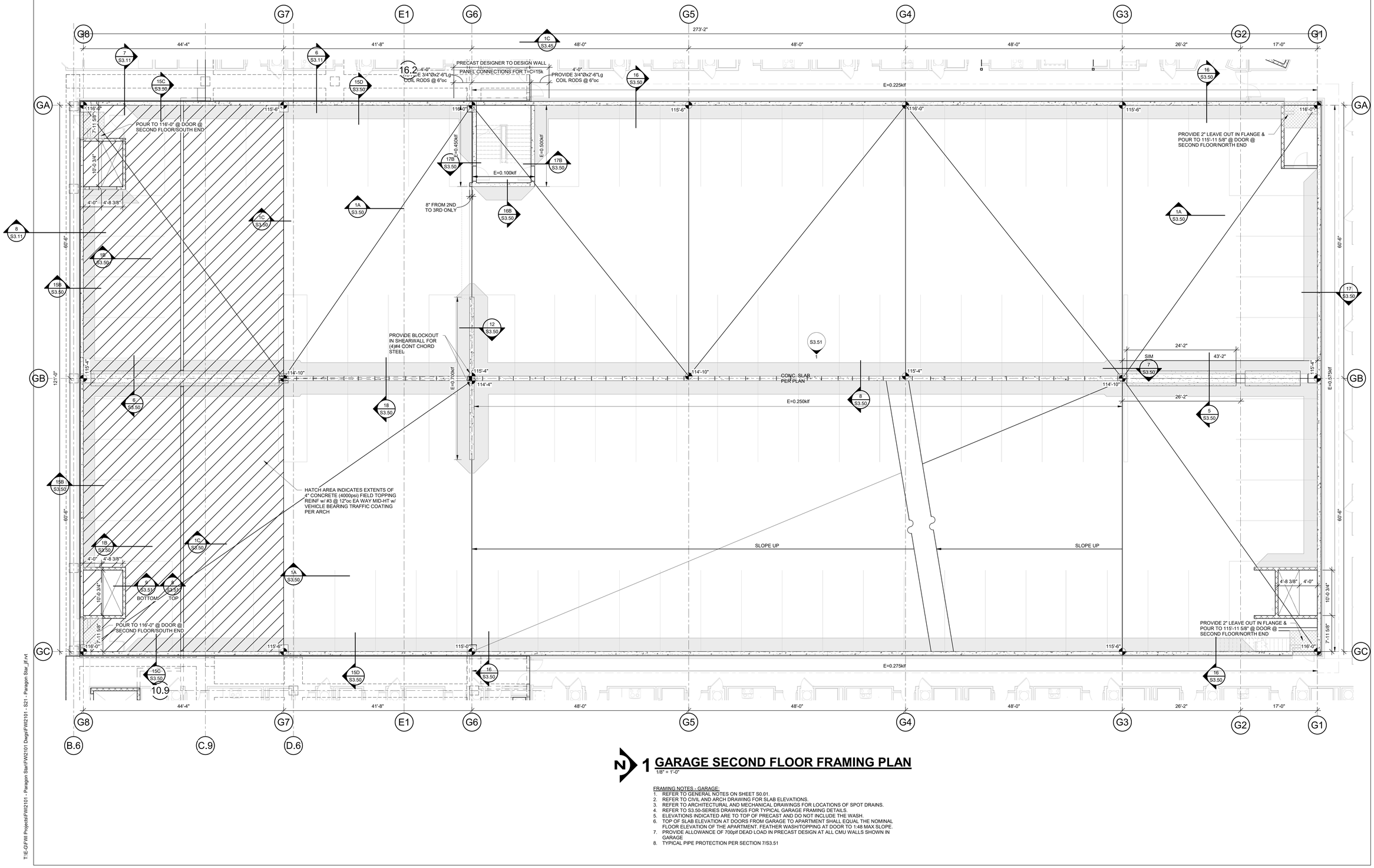
SHEET TITLE

GARAGE FOUNDATION PLAN

SHEET NUMBER

S1.71G





1 GARAGE SECOND FLOOR FRAMING PLAN

1/8" = 1'-0"

FRAMING NOTES - GARAGE:

1. REFER TO GENERAL NOTES ON SHEET S0.01
2. REFER TO CIVIL AND ARCH DRAWING FOR SLAB ELEVATIONS.
3. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF SPOT DRAINS.
4. REFER TO S3.50-SERIES DRAWINGS FOR TYPICAL GARAGE FRAMING DETAILS.
5. ELEVATIONS INDICATED ARE TO TOP OF PRECAST AND DO NOT INCLUDE THE WASH.
6. TOP OF SLAB ELEVATION AT DOORS FROM GARAGE TO APARTMENT SHALL EQUAL THE NOMINAL FLOOR ELEVATION OF THE APARTMENT. FEATHER WASH/TOPPING AT DOOR TO 1:48 MAX SLOPE.
7. PROVIDE ALLOWANCE OF 70lpf DEAD LOAD IN PRECAST DESIGN AT ALL CMU WALLS SHOWN IN GARAGE
8. TYPICAL PIPE PROTECTION PER SECTION 7/S3.51

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PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017,19050.07,19050.08
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Issued For:	GARAGE PERMIT

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No.	Date	Description
1	6.08.22	Permit Response

REGISTRATION

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
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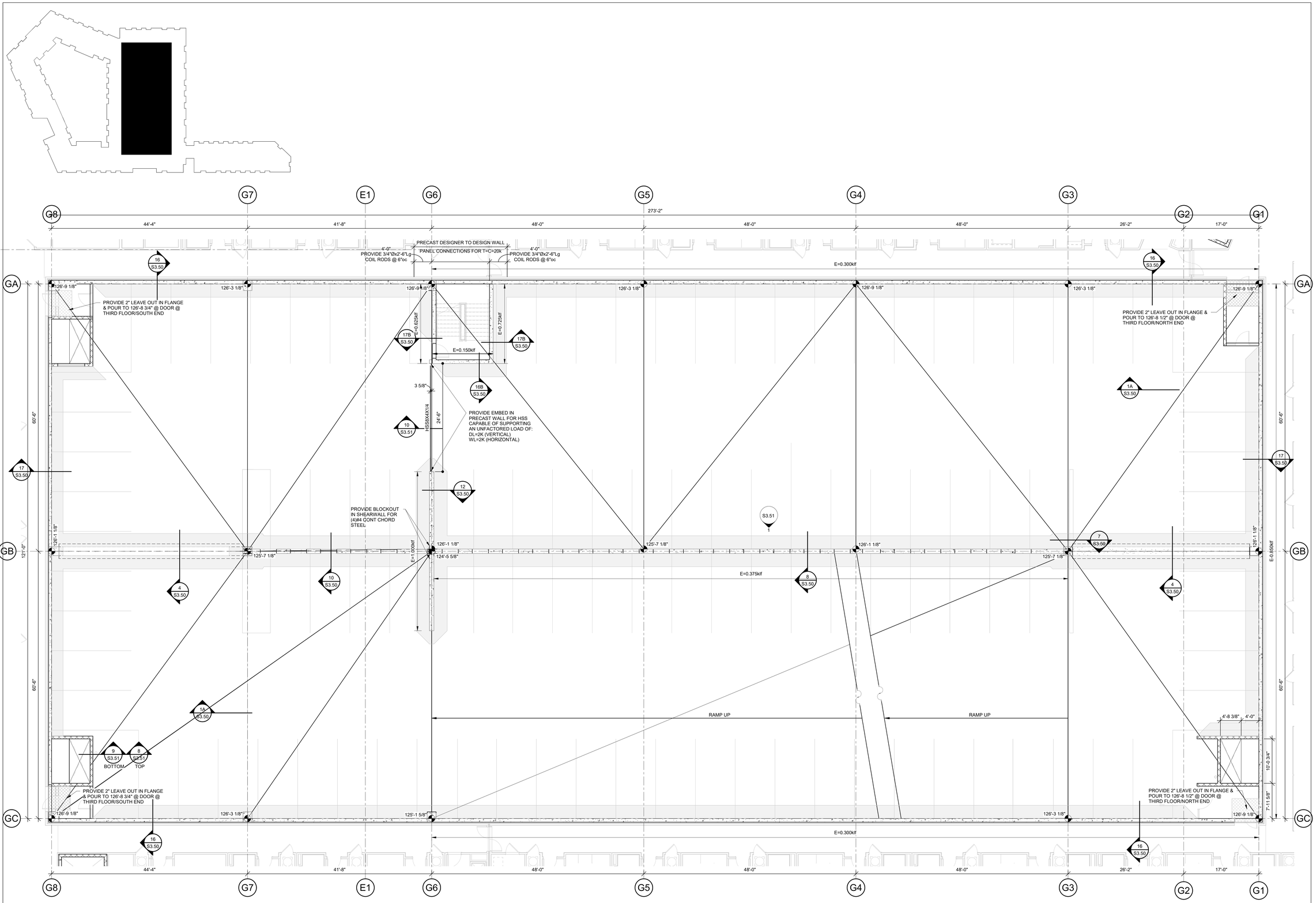
SHEET TITLE

GARAGE SECOND FLOOR FRAMING PLAN

SHEET NUMBER

S1.72G



1 GARAGE THIRD FLOOR FRAMING PLAN

1/8" = 1'-0"

FRAMING NOTES - GARAGE:

1. REFER TO GENERAL NOTES ON SHEET S0.01.
2. REFER TO CIVIL AND ARCH DRAWING FOR SLAB ELEVATIONS.
3. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF SPOT DRAINS.
4. REFER TO S3.50-SERIES DRAWINGS FOR TYPICAL GARAGE FRAMING DETAILS.
5. ELEVATIONS INDICATED ARE TO TOP OF PRECAST AND DO NOT INCLUDE THE WASH.
6. TOP OF SLAB ELEVATION AT DOORS FROM GARAGE TO APARTMENT SHALL EQUAL THE NOMINAL FLOOR ELEVATION OF THE APARTMENT. FEATHER WASH/TOPPING AT DOOR TO 1:48 MAX SLOPE.
7. PROVIDE ALLOWANCE OF 700plf DEAD LOAD IN PRECAST DESIGN AT ALL CMU WALLS SHOWN IN GARAGE
8. TYPICAL PIPE PROTECTION PER SECTION 7/S3.51

T:\E-G\FW\ Projects\FW2101 - Paragon Star\FW2101 Dwgs\FW2101 - S21 - Paragon Star_jlf.rvt

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STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2010012553
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
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GARAGE THIRD FLOOR FRAMING PLAN

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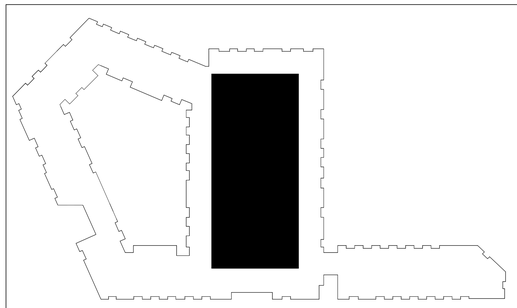
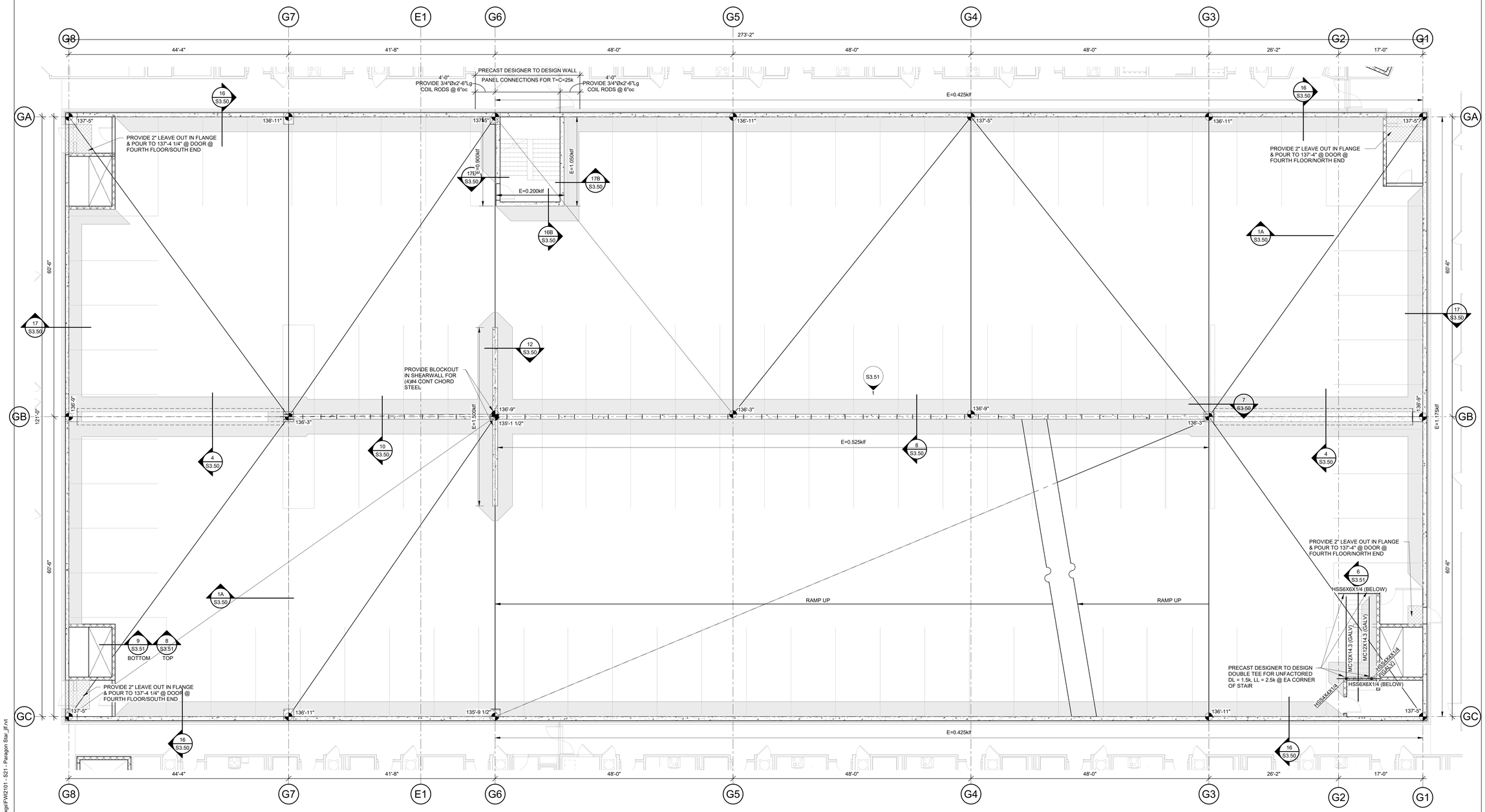
S1.73G





1 GARAGE FOURTH FLOOR FRAMING PLAN

1/8" = 1'-0"

FRAMING NOTES - GARAGE:

1. REFER TO GENERAL NOTES ON SHEET S0.01.
2. REFER TO CIVIL AND ARCH DRAWING FOR SLAB ELEVATIONS.
3. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF SPOT DRAINS.
4. REFER TO S3.50-SERIES DRAWINGS FOR TYPICAL GARAGE FRAMING DETAILS.
5. ELEVATIONS INDICATED ARE TO TOP OF PRECAST AND DO NOT INCLUDE THE WASH.
6. TOP OF SLAB ELEVATION AT DOORS FROM GARAGE TO APARTMENT SHALL EQUAL THE NOMINAL FLOOR ELEVATION OF THE APARTMENT. FEATHER WASH/TOPPING AT DOOR TO 1:48 MAX SLOPE.
7. PROVIDE ALLOWANCE OF 700plf DEAD LOAD IN PRECAST DESIGN AT ALL CMU WALLS SHOWN IN GARAGE
8. TYPICAL PIPE PROTECTION PER SECTION 7/S3.51

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PARAGON STAR NORTH VILLAGE

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REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2010012553
PROFESSIONAL ENGINEER
14-18-24

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
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STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
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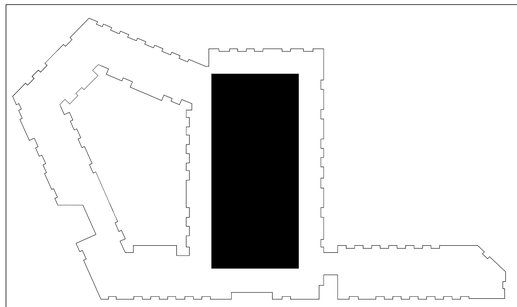
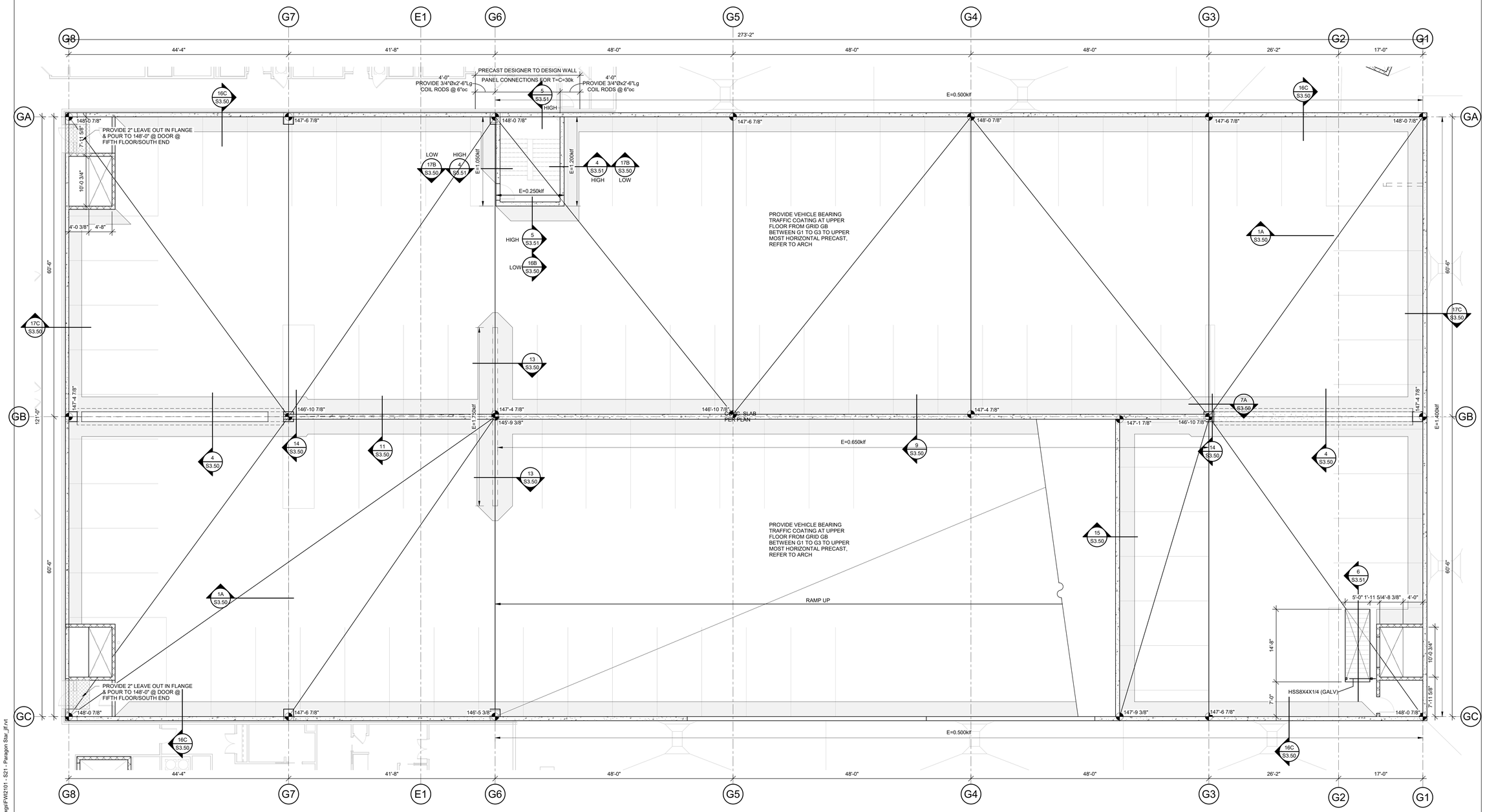
SHEET TITLE

GARAGE FOURTH FLOOR FRAMING PLAN

SHEET NUMBER

S1.74G





1 GARAGE FIFTH FLOOR FRAMING PLAN

1/8" = 1'-0"

FRAMING NOTES - GARAGE:

1. REFER TO GENERAL NOTES ON SHEET S0.01.
2. REFER TO CIVIL AND ARCH DRAWING FOR SLAB ELEVATIONS.
3. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF SPOT DRAINS.
4. REFER TO S3.50-SERIES DRAWINGS FOR TYPICAL GARAGE FRAMING DETAILS.
5. ELEVATIONS INDICATED ARE TO TOP OF PRECAST AND DO NOT INCLUDE THE WASH.
6. TOP OF SLAB ELEVATION AT DOORS FROM GARAGE TO APARTMENT SHALL EQUAL THE NOMINAL FLOOR ELEVATION OF THE APARTMENT. FEATHER WASH/TOPPING AT DOOR TO 1:48 MAX SLOPE.
7. PROVIDE ALLOWANCE OF 700plf DEAD LOAD IN PRECAST DESIGN AT ALL CMU WALLS SHOWN IN GARAGE
8. TYPICAL PIPE PROTECTION PER SECTION 7/S3.51

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PARAGON STAR NORTH VILLAGE

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LEE'S SUMMIT, MO 64081

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STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2010012553
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
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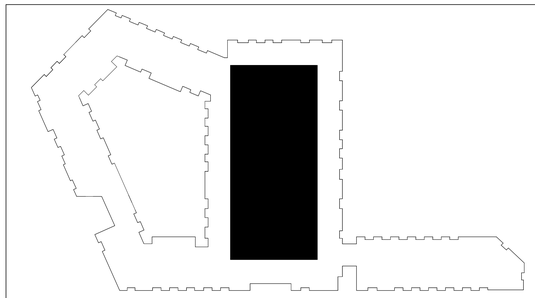
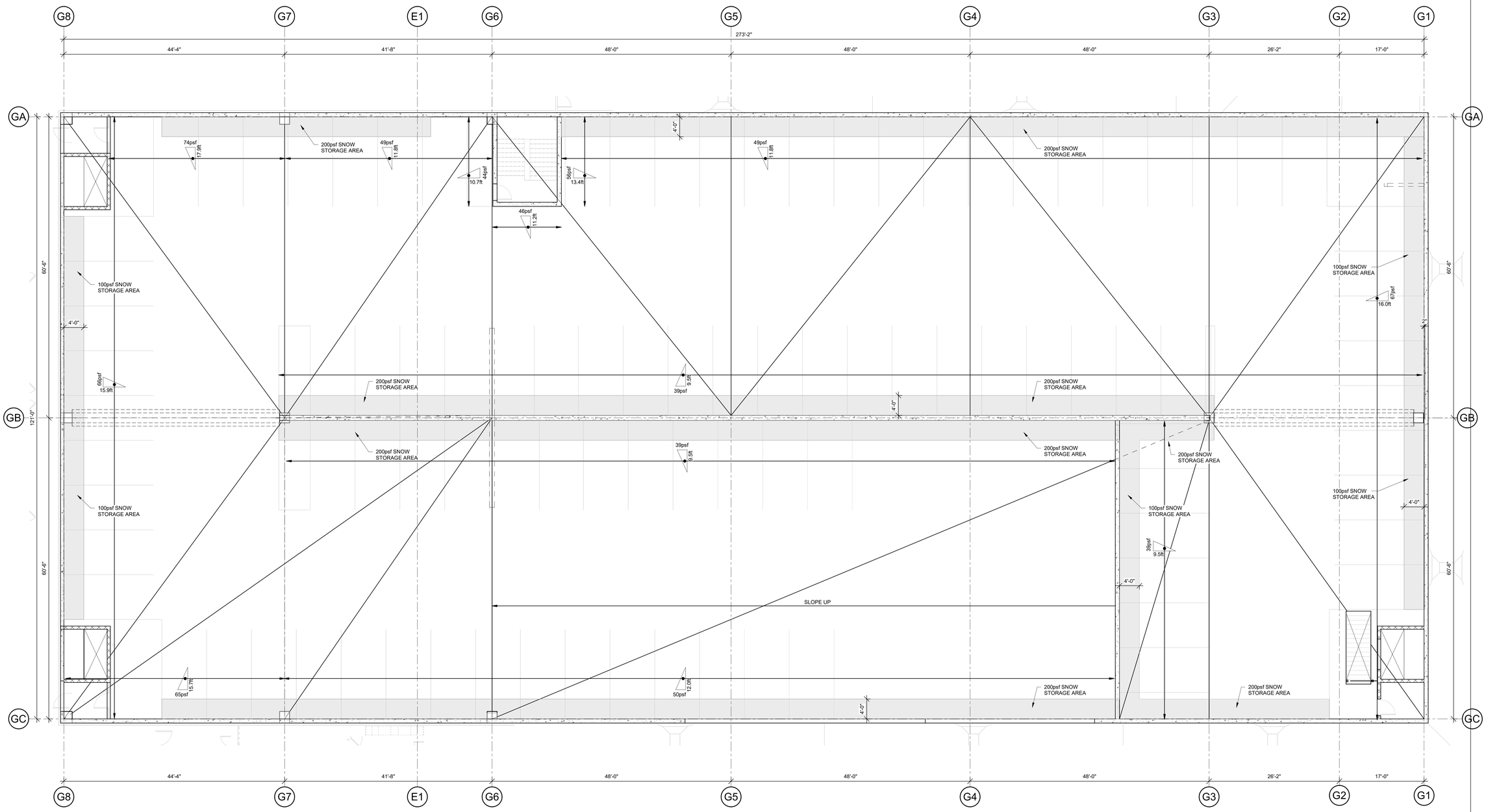
SHEET TITLE

GARAGE FIFTH FLOOR FRAMING PLAN

SHEET NUMBER

S1.75G





1 GARAGE SNOW LOADING PLAN AT TOP FLOOR

1/8" = 1'-0"

NOTES:
1. SNOW STORAGE SHOWN IN HATCH IS ADDITIONAL TO SNOW DRIFT SHOWN WITH TRIANGULAR LOADING SYMBOL.
2. PROVIDE ALLOWANCE OF 700plf DEAD LOAD IN PRECAST DESIGN AT ALL CMU WALLS SHOWN IN GARAGE.

T:\E-GF\WI Projects\FW\2101 - Paragon Star\FW\2101 Dwgs\FW\2101 - S21 - Paragon Star_jlf.rvt

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017,19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2017012503
PROFESSIONAL ENGINEER
10-18-24

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

BOB D. CAMPBELL & CO.
Structural Engineers
Since 1957
4338 Belleview Ave.
Kansas City, MO 64111
816.531.4144
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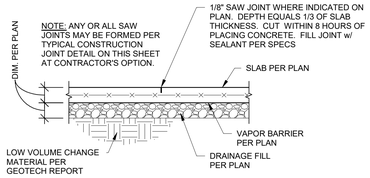
SHEET TITLE

GARAGE SNOW LOADING PLAN

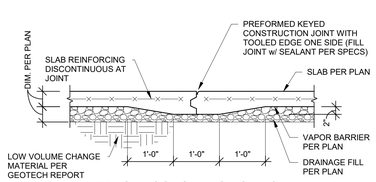
SHEET NUMBER

S1.76G



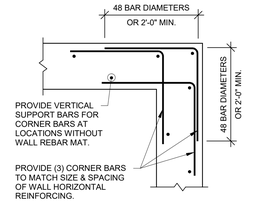
TYPICAL SAW JOINT
NOTED "SJ" ON PLAN

1 SECTION
3/4" = 1'-0"

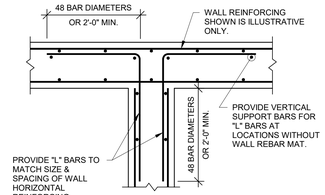


TYPICAL CONSTRUCTION JOINT
NOTED "CJ" ON PLAN

2 SECTION
3/4" = 1'-0"

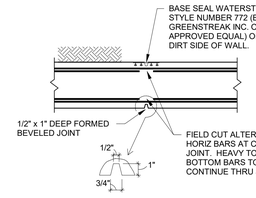


TYPICAL CORNER BARS AT
CONCRETE WALLS & FOUNDATIONS

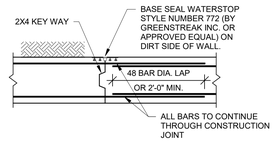


TYPICAL T-INTERSECTION REINFORCING
AT CONCRETE WALLS & FOUNDATIONS

3 TYPICAL INTERSECTING CONCRETE WALL REINFORCING
3/4" = 1'-0"

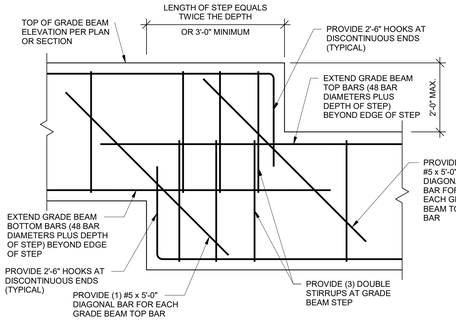


VERTICAL WALL CONTROL JOINT
MAXIMUM SPACING = 25'-0"
(COORDINATE LOCATIONS WITH ARCHITECT/ALIGN WITH MASONRY CONTROL/EXPANSION JOINTS ABOVE)

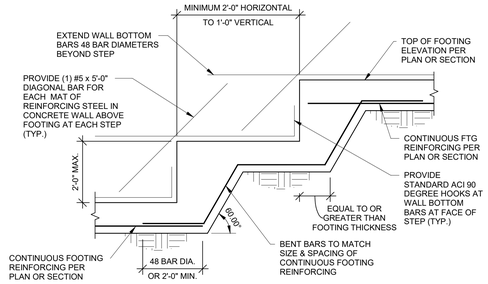


VERTICAL WALL CONSTRUCTION JOINT
MAXIMUM SPACING = 100'-0"

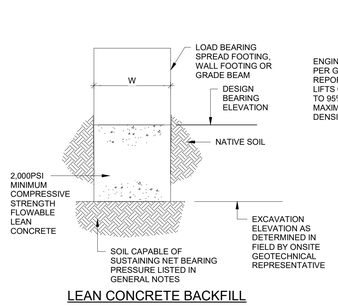
4 VERTICAL WALL CONTROL JOINT
3/4" = 1'-0"



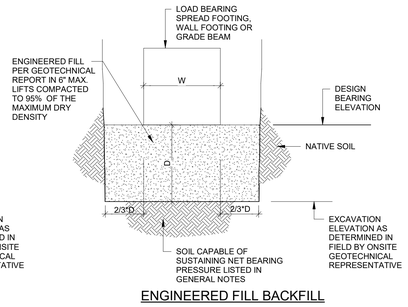
5 TYPICAL GRADE BEAM STEP
3/4" = 1'-0"



6 TYPICAL FOOTING STEP
1/2" = 1'-0"

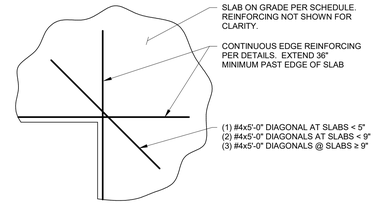


LEAN CONCRETE BACKFILL



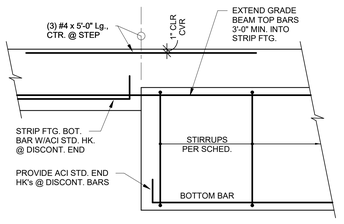
ENGINEERED FILL BACKFILL

7 OVEREXCAVATION DETAIL
3/4" = 1'-0"



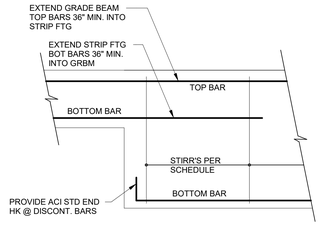
TYPICAL SLAB ON GRADE RE-ENTRANT CORNER BARS

8 DETAIL
1/2" = 1'-0"



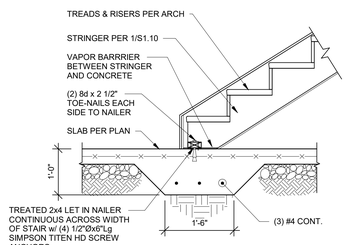
TYPICAL STEP @ GRADE BEAM TO STRIP FOOTING

9A SECTION
3/4" = 1'-0"



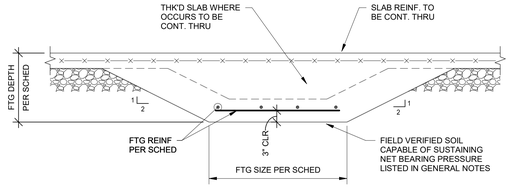
TYPICAL STEP @ GRADE BEAM TO STRIP FOOTING

9B SECTION
3/4" = 1'-0"



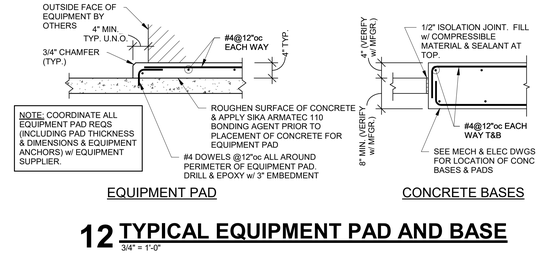
TYPICAL THICKENED SLAB AT BASE OF STAIR

10 SECTION
3/4" = 1'-0"



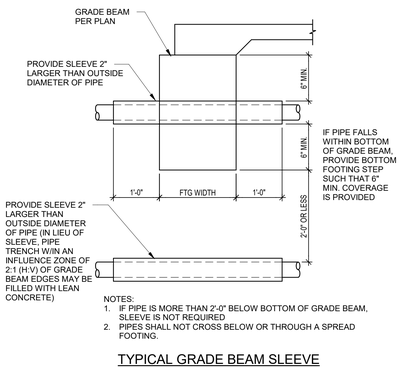
TYPICAL SPREAD FTG AT
CONTINUOUS THICKENED SLAB

11 SECTION
3/4" = 1'-0"



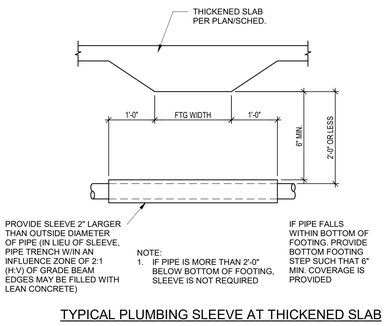
EQUIPMENT PAD
CONCRETE BASES

12 TYPICAL EQUIPMENT PAD AND BASE
3/4" = 1'-0"



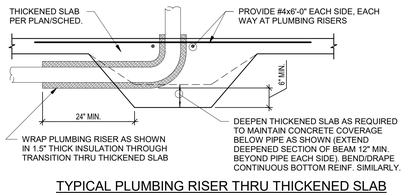
TYPICAL GRADE BEAM SLEEVE

14 SECTION
3/4" = 1'-0"



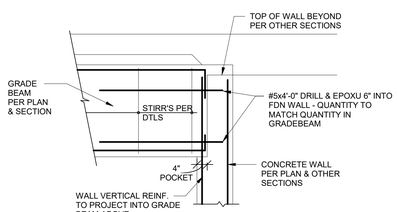
TYPICAL PLUMBING SLEEVE AT THICKENED SLAB

15 SECTION
3/4" = 1'-0"

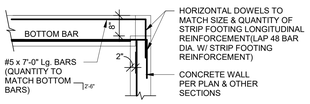


TYPICAL PLUMBING RISER THRU THICKENED SLAB

16 SECTION
3/4" = 1'-0"

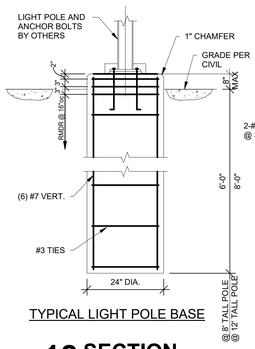


GRADE BEAM TO CONCRETE
FOUNDATION WALL CONNECTION



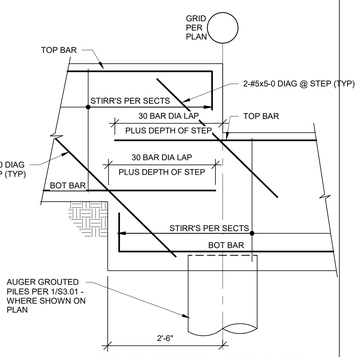
STRIP FOOTING TO CONCRETE
FOUNDATION WALL CONNECTION

17 SECTION
1/2" = 1'-0"



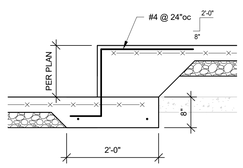
TYPICAL LIGHT POLE BASE

18 SECTION
1/2" = 1'-0"



TYP GRADE BEAM STEP AT PIER

19 SECTION
3/4" = 1'-0"



20 SECTION
3/4" = 1'-0"

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paragon star

PARAGON STAR
NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description
2	7.11.22	ADDENDUM 1

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2011012583
12-18-24
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

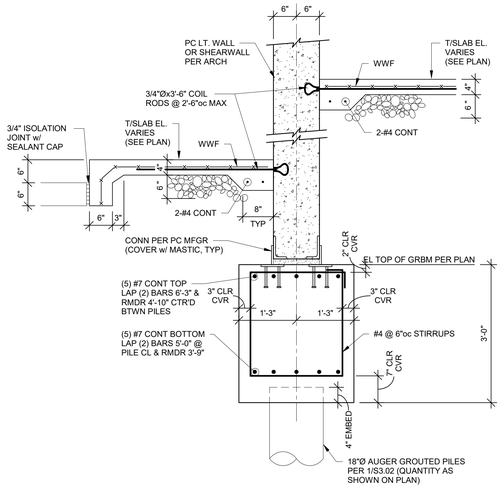
BOB D. CAMPBELL & CO.
Structural Engineers
Since 1957
816.531.4144
4338 Belleview Ave.
Kansas City, MO 64111
www.bdc-engrs.com

SHEET TITLE

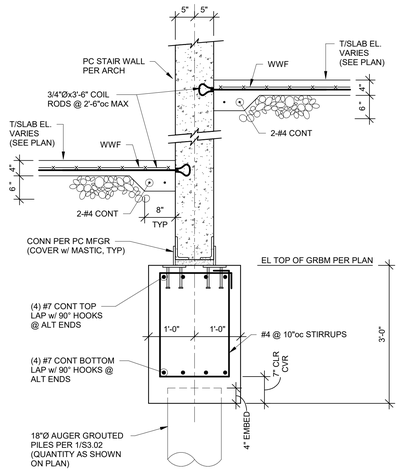
TYPICAL
FOUNDATION
DETAILS

SHEET NUMBER

S3.00



1 SECTION
3/4" = 1'-0"



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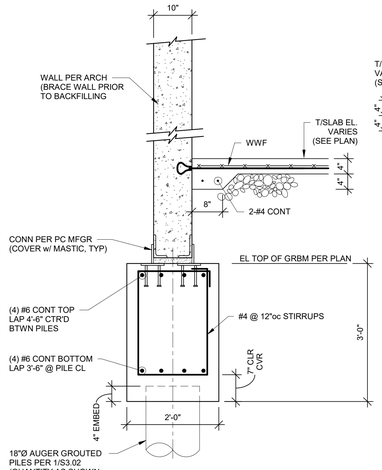
3/4" = 1'-0"



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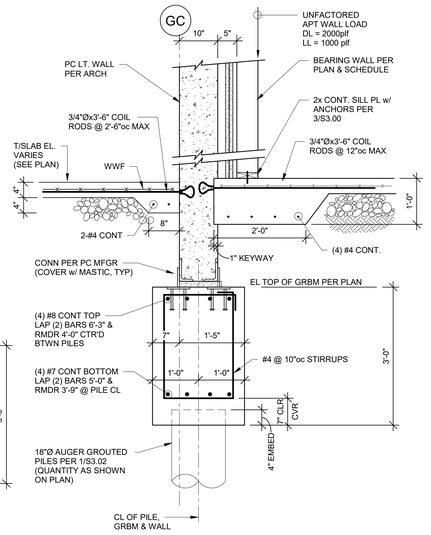
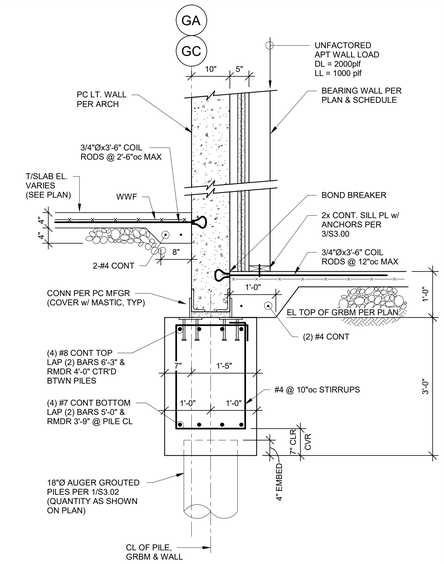
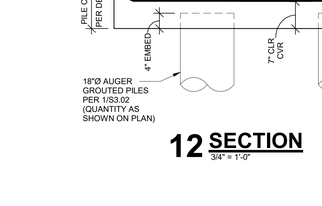


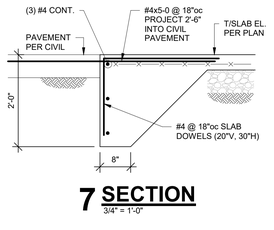
4 SECTION
3/4" = 1'-0"



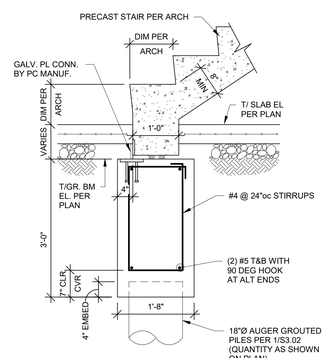
5 SECTION
3/4" = 1'-0"



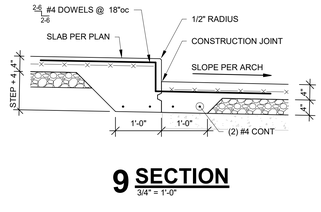
6 SECTION
3/4" = 1'-0"



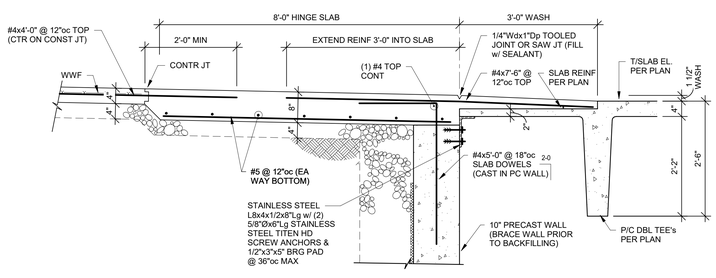
7 SECTION
3/4" = 1'-0"



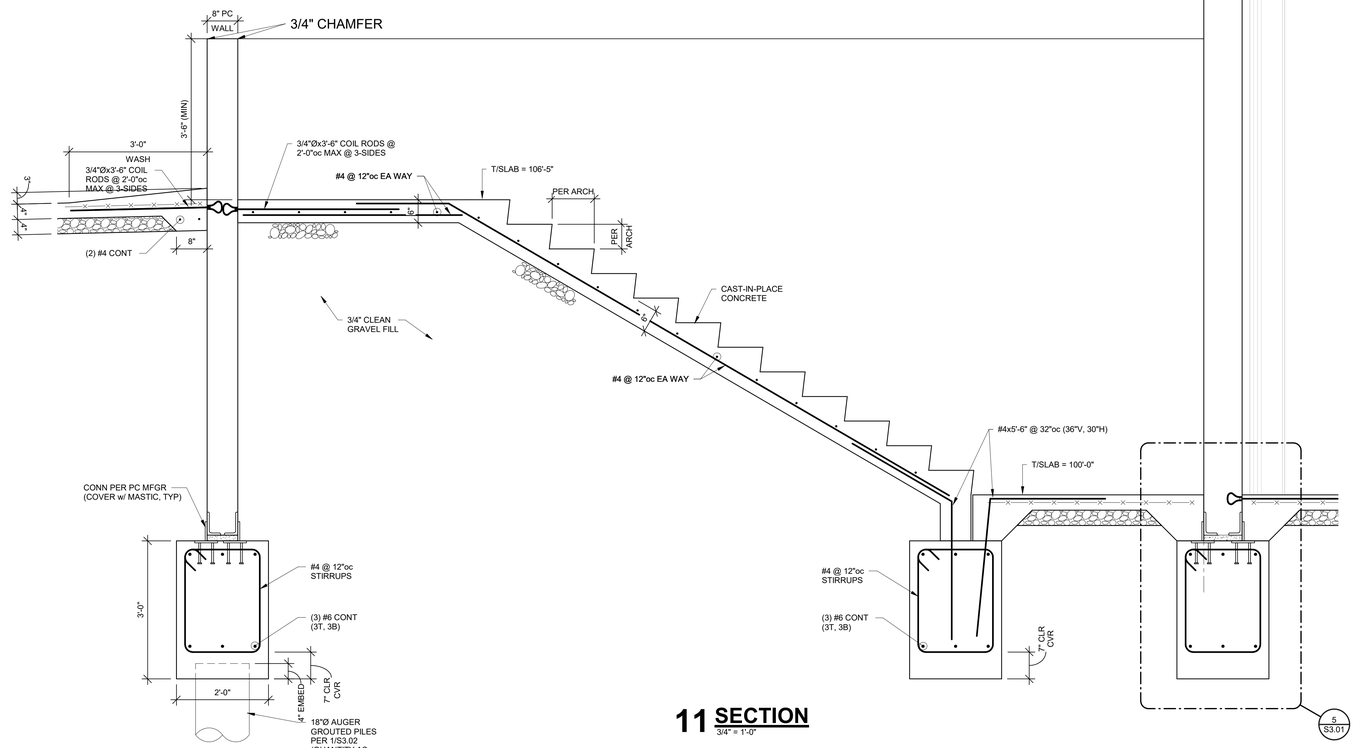
8 SECTION
3/4" = 1'-0"



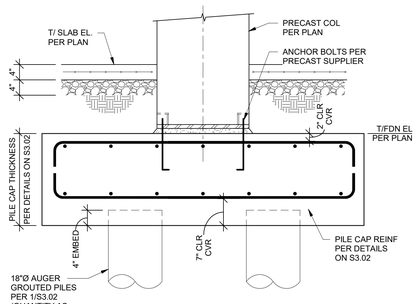
9 SECTION
3/4" = 1'-0"



10 SECTION
3/4" = 1'-0"



11 SECTION
3/4" = 1'-0"



12 SECTION
3/4" = 1'-0"

T:\E-GF\WI Projects\FWI2101 - Paragon Star\FWI2101 Dwgs\FWI2101 - S21 - Paragon Star_jlf.rvt

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017,19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description
1	6.08.22	Permit Response
2	7.11.22	ADDENDUM 1

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2011012553
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

BOB D. CAMPBELL & CO.
Structural Engineers
Since 1957
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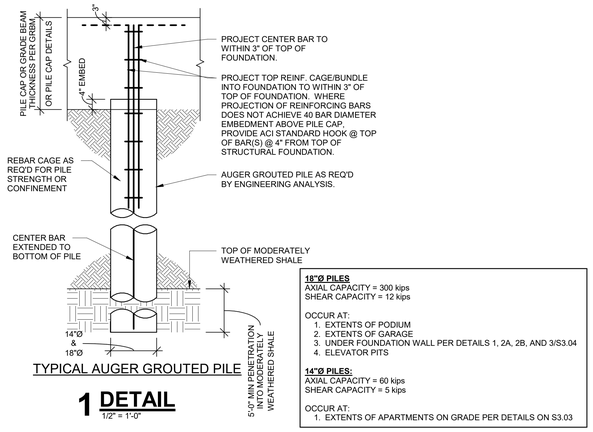
4338 Belleview Ave.
Kansas City, MO 64111
www.bdc-engrs.com

SHEET TITLE

GARAGE FOUNDATION DETAILS

SHEET NUMBER

S3.01



TYPICAL AUGER GROUTED PILE

1 DETAIL
1/2" = 1'-0"

18"Ø PILES
AXIAL CAPACITY = 300 kips
SHEAR CAPACITY = 12 kips

OCCUR AT:
1. EXTENTS OF PODIUM
2. EXTENTS OF GARAGE
3. UNDER FOUNDATION WALL PER DETAILS 1, 2A, 2B, AND 3/S3.04
4. ELEVATOR PITS

14"Ø PILES:
AXIAL CAPACITY = 60 kips
SHEAR CAPACITY = 5 kips

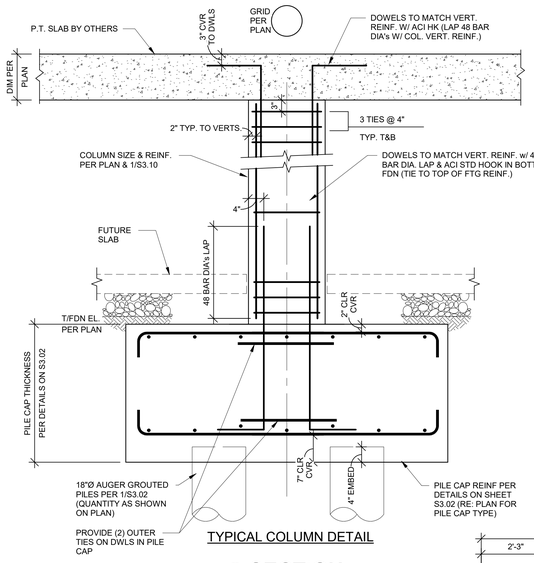
OCCUR AT:
1. EXTENTS OF APARTMENTS ON GRADE PER DETAILS ON S3.03

PILE CAP SCHEDULE

PILE CAPACITY (KIPS): 300 @ 18"Ø PILE / 600 @ 14"Ø	CONCRETE (PSI): 3500	REBAR (KSI): 60

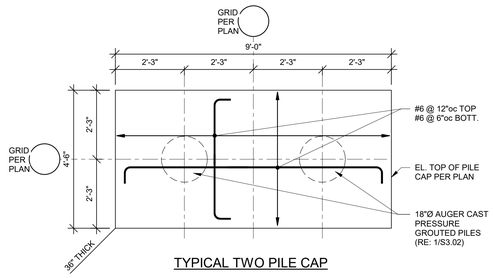
TYPE	FOOTING SIZE (FT.) THICKNESS (IN.)	QTY/SIZE OF BARS EACH WAY
3.5	3'-6" x 3'-6" x 30" w/ 14"Ø PILE	#5 @ 6"oc BOTTOM / #5 @ 12"oc TOP
6x4.5	9'-0" x 4'-6" x 36"	#6 @ 6"oc BOTTOM / #6 @ 12"oc TOP
9	9'-0" x 9'-0" x 36"	#7 @ 6"oc BOTTOM / #7 @ 12"oc TOP
9x13.5	9'-0" x 13'-6" x 60"	#7 @ 6"oc BOTTOM / #7 @ 12"oc TOP
12.5x13.5	12'-6" x 13'-6" x 54"	#7 @ 6"oc BOTTOM / #7 @ 12"oc TOP

NOTE:
1.) EXTERIOR PILE CAPS SHALL BE POURED MONOLITHIC WITH GRADE BEAMS AND EXTERIOR.
2.) PROVIDE #4 @ 12"o.c. EACH WAY IN TOP OF FTG. AT ALL MOMENT FRAMES AND AT BRACE BAY COLUMNS.
3.) CENTER PILE CAPS ON COLUMNS AND/OR WALL CENTER LINES PER PLAN, UNLESS OTHERWISE NOTED.
4.) PROVIDE ACI STANDARD HOOK AT EACH END OF BARS.



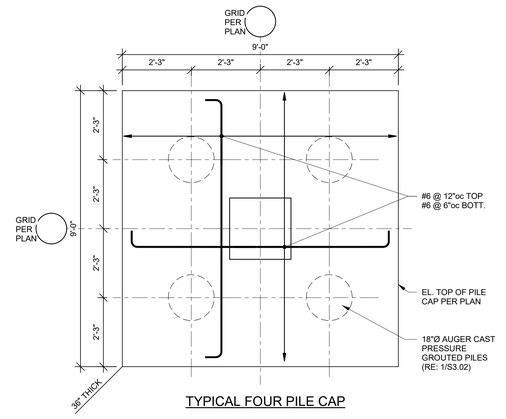
TYPICAL COLUMN DETAIL

2 SECTION
3/4" = 1'-0"



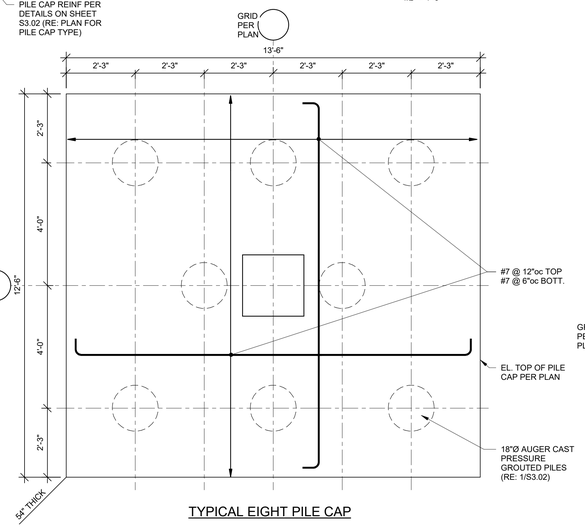
TYPICAL TWO PILE CAP

3 DETAIL
1/2" = 1'-0"



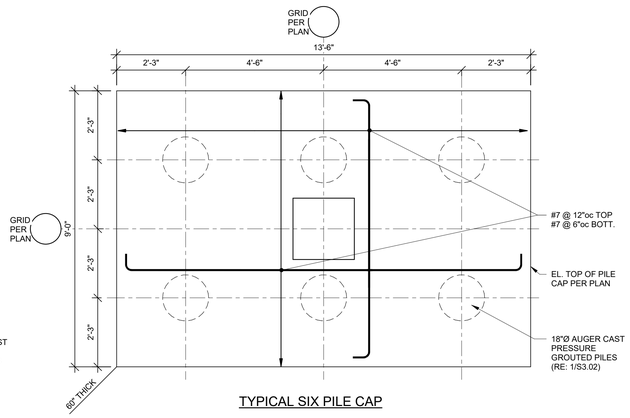
TYPICAL FOUR PILE CAP

4 DETAIL
1/2" = 1'-0"



TYPICAL EIGHT PILE CAP

5 DETAIL
1/2" = 1'-0"



TYPICAL SIX PILE CAP

6 DETAIL
1/2" = 1'-0"

T:\E-GF\FWI Projects\FWI2101 - Paragon Star\FWI2101 Dwgs\FWI2101 - S21 - Paragon Star_jlf.rvt

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description
2	7.11.22	ADDENDUM 1
3	7.20.22	ADDENDUM 2
4	9.28.22	ASI 1

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2007012583
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

BOB D. CAMPBELL & CO.
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Kansas City, MO 64111
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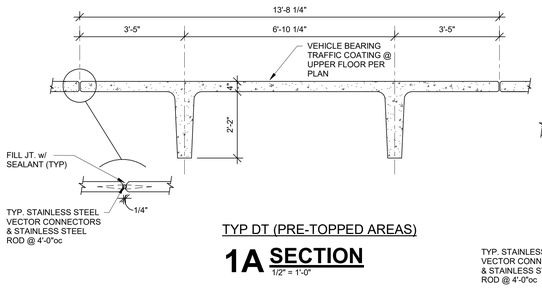
SHEET TITLE

PILE & PODIUM FOUNDATION DETAILS

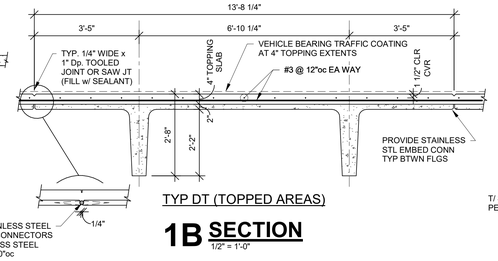
SHEET NUMBER

S3.02



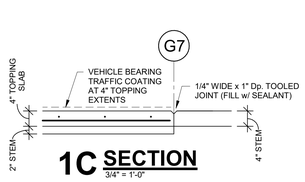
TYP DT (PRE-TOPPED AREAS)

1A SECTION
1/2" = 1'-0"

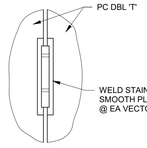


TYP DT (TOPPED AREAS)

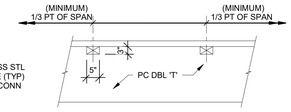
1B SECTION
1/2" = 1'-0"



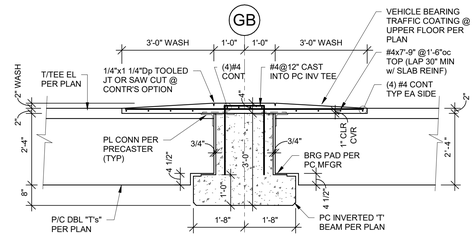
1C SECTION
3/4" = 1'-0"



2 SECTION
1 1/2" = 1'-0"

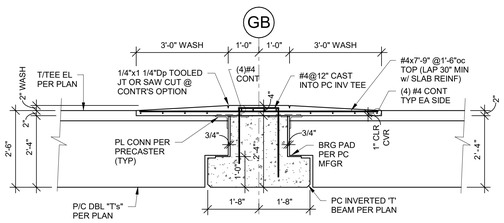


3 SECTION
1/2" = 1'-0"



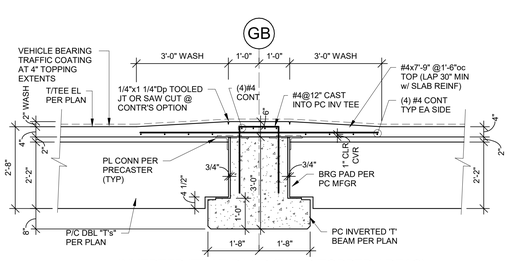
TYP INVERTED "T" (UNTOPPED AREAS)

4 SECTION
1/2" = 1'-0"



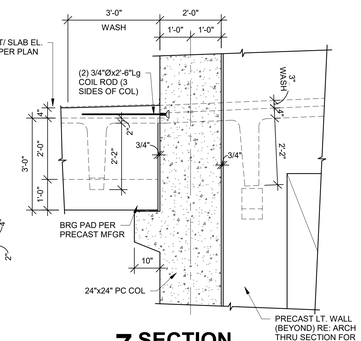
TYP INVERTED "T" (UNTOPPED AREAS)
2ND FLOOR - NORTH

5 SECTION
1/2" = 1'-0"

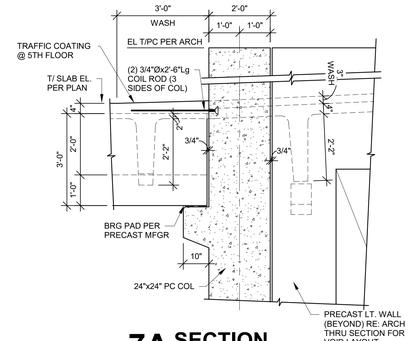


INVERTED "T" AT RAMP (FIELD TOPPED AREAS)

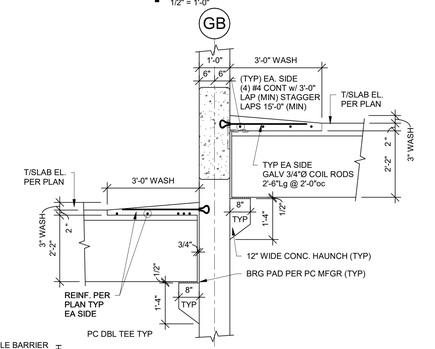
6 SECTION
1/2" = 1'-0"



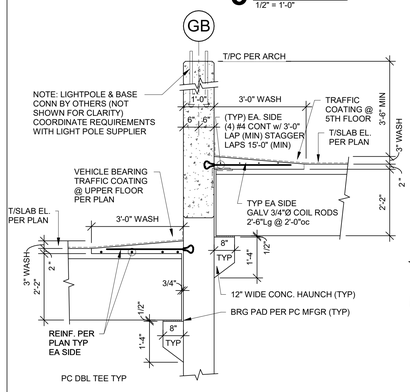
7 SECTION
1/2" = 1'-0"



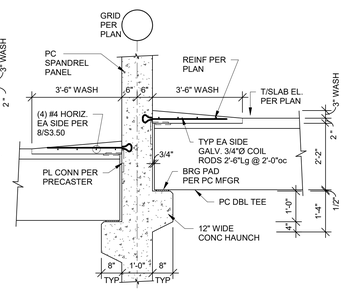
7A SECTION
1/2" = 1'-0"



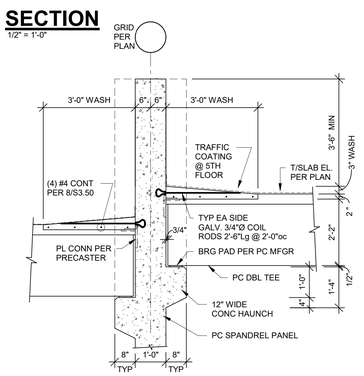
8 SECTION
1/2" = 1'-0"



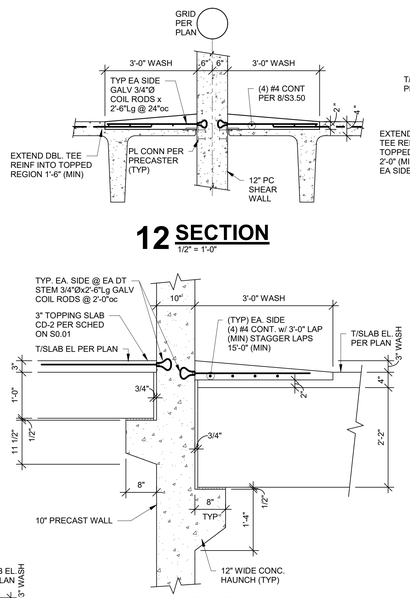
9 SECTION
1/2" = 1'-0"



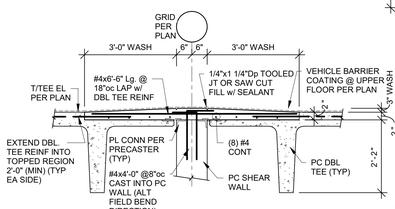
10 SECTION
1/2" = 1'-0"



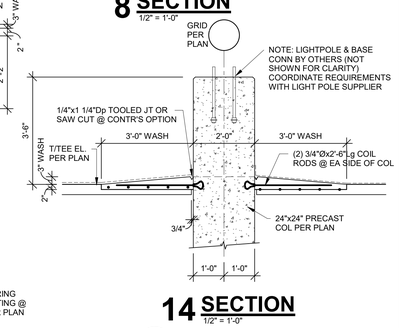
11 SECTION
1/2" = 1'-0"



12 SECTION
1/2" = 1'-0"



13 SECTION
1/2" = 1'-0"



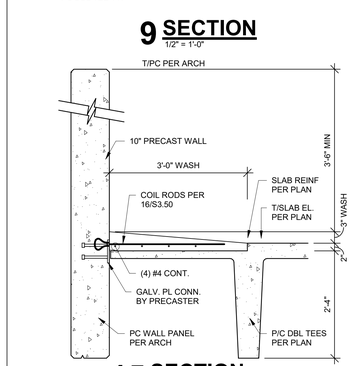
14 SECTION
1/2" = 1'-0"

11 SECTION
1/2" = 1'-0"

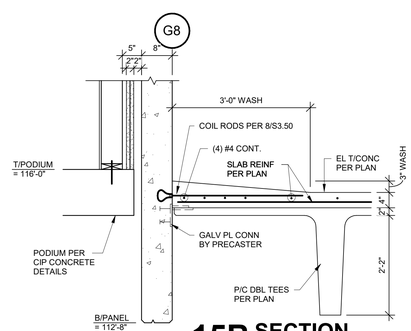
12 SECTION
1/2" = 1'-0"

13 SECTION
1/2" = 1'-0"

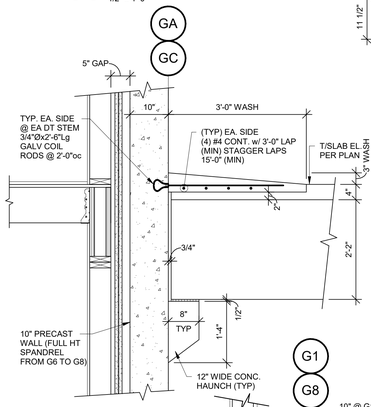
14 SECTION
1/2" = 1'-0"



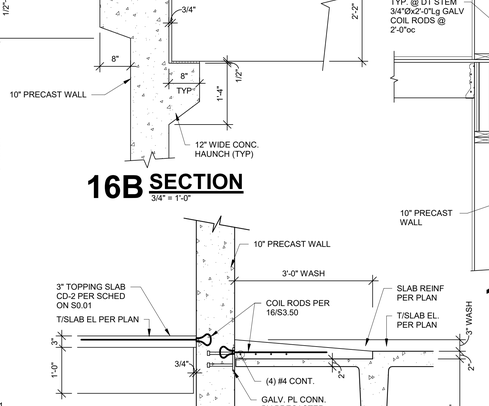
15 SECTION
3/4" = 1'-0"



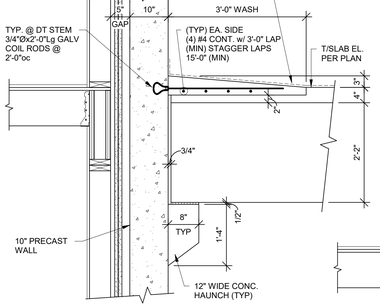
15B SECTION
3/4" = 1'-0"



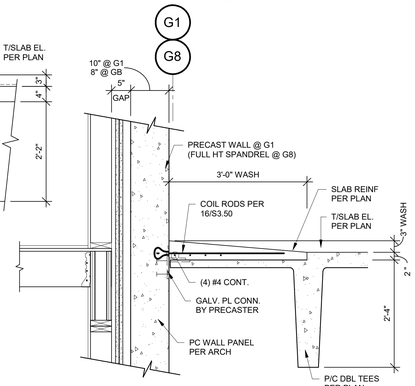
16 SECTION
3/4" = 1'-0"



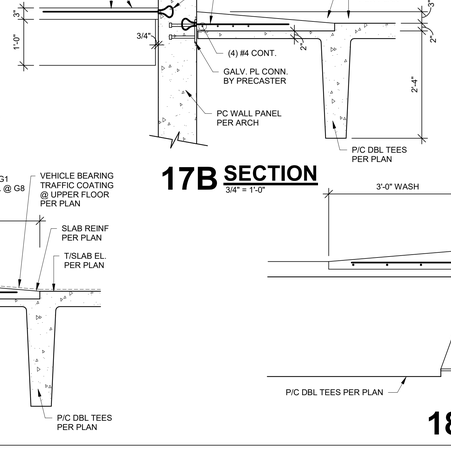
16B SECTION
3/4" = 1'-0"



16C SECTION
3/4" = 1'-0"

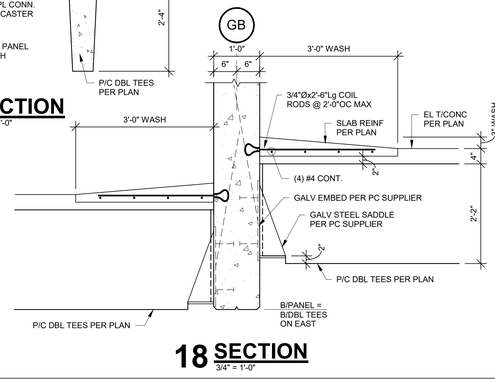


17 SECTION
3/4" = 1'-0"

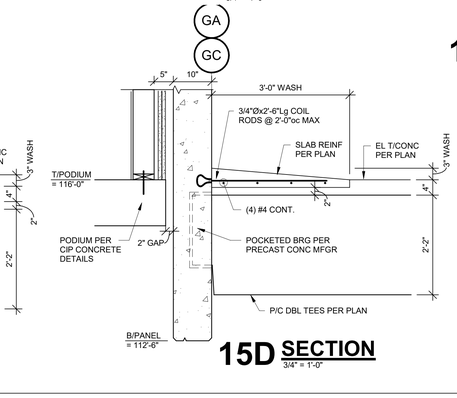


17C SECTION
3/4" = 1'-0"

17B SECTION
3/4" = 1'-0"



18 SECTION
3/4" = 1'-0"



15C SECTION
3/4" = 1'-0"

15D SECTION
3/4" = 1'-0"

paragon star

PARAGON STAR
NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2011012503
12-18-24
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

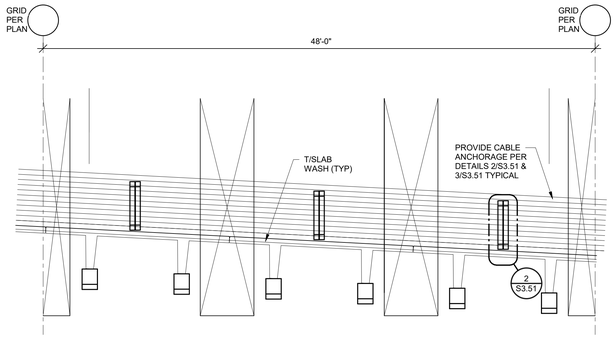
BOB D. CAMPBELL & CO.
Structural Engineers
Since 1957
4338 Belleview Ave.
Kansas City, MO 64111
816.531.4144
www.bdc-engrs.com

SHEET TITLE

PRECAST GARAGE FRAMING DETAILS

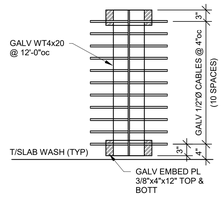
SHEET NUMBER

S3.50



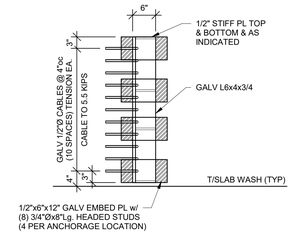
TYP LT. WALL

1 ELEVATION
1/4" = 1'-0"



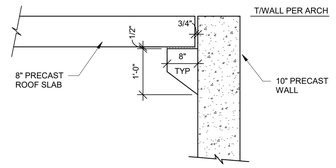
TYPICAL CABLE SUPPORT DETAIL

2 SECTION
3/4" = 1'-0"

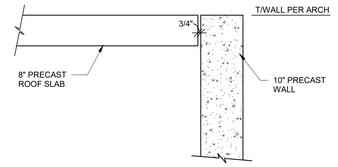


TYPICAL CABLE END ANCHORAGE DETAIL
NOTE: TENSION EA CABLE TO 5.5kips

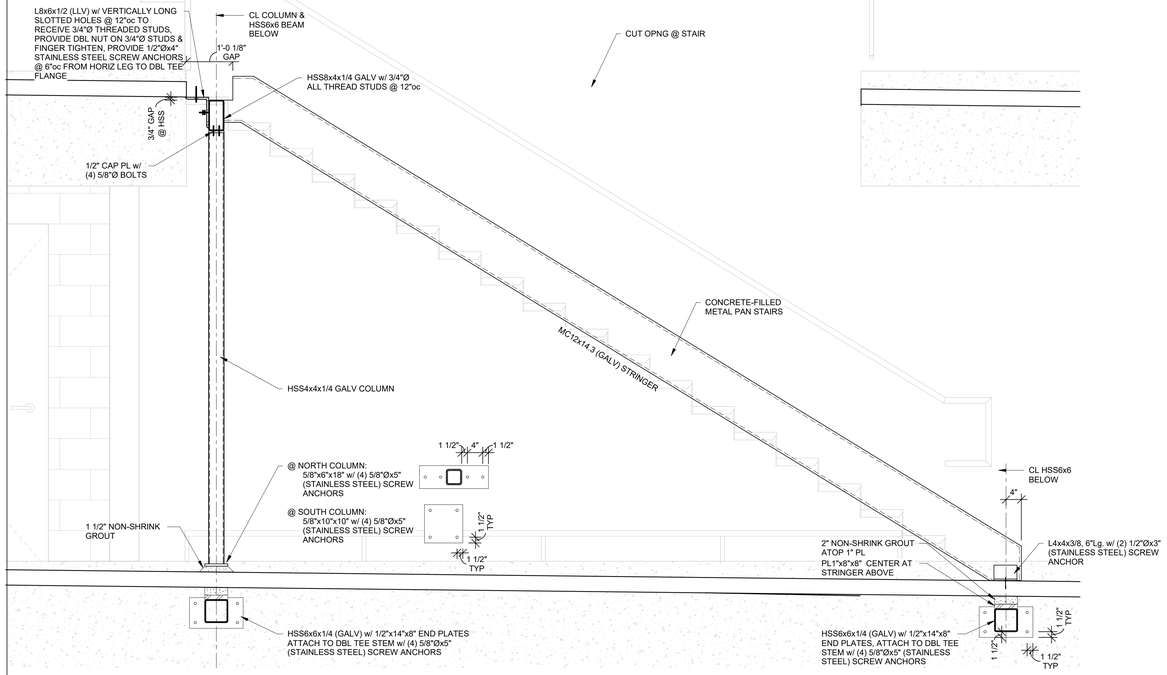
3 SECTION
3/4" = 1'-0"



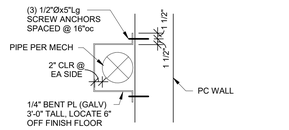
4 SECTION
3/4" = 1'-0"



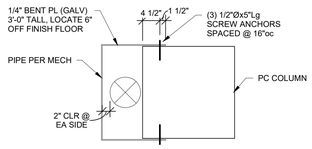
5 SECTION
3/4" = 1'-0"



6 SECTION
3/4" = 1'-0"

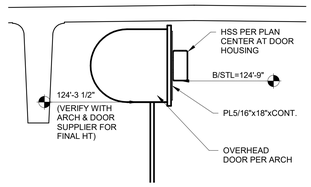


PLAN VIEW @ WALL

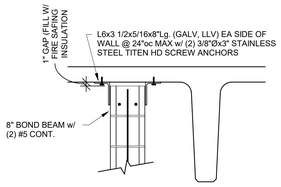


PLAN VIEW @ COLUMN

7 TYPICAL PIPE PROTECTION DETAIL
3/4" = 1'-0"

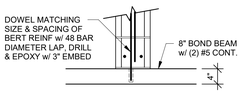


10 SECTION
3/4" = 1'-0"



TYPICAL TOP CMU TO PRECAST

8 SECTION
3/4" = 1'-0"



TYPICAL BOTTOM CMU TO PRECAST

9 SECTION
3/4" = 1'-0"

T:\E-G\FWI Projects\FWI2101 - Paragon Star\FWI2101 Dwgs\FWI2101 - S21 - Paragon Star_jlf.rvt

paragon star

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.:	18017.19050.07,19050.08
Date:	10.18.24
Issued For:	GARAGE PERMIT

REVISIONS

No.	Date	Description
4	9.28.22	ASI 1

REGISTRATION

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER PE-2011012583
PROFESSIONAL ENGINEER

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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SHEET TITLE

PRECAST GARAGE FRAMING DETAILS

SHEET NUMBER

S3.51

NFPA SYMBOLS LEGEND

Symbol	Description
	SMOKE DETECTOR
S	SMOKE DETECTOR WITH SOUNDER BASE
ISO	SMOKE DETECTOR WITH ISOLATOR BASE
	HEAT DETECTOR
	DUCT DETECTOR
	ADDRESSABLE MANUAL PULL STATION
	DOOR HOLDER
	FLOW DETECTOR/SWITCH
	TAMPER DETECTOR
[T]	TEST STATION
[R]	MR101/C SHUTDOWN RELAY, SPDT W/RED
	A/V (WALL MOUNTED) 24 VDC
	STROBE
	BELL ANNUNCIATOR
	HORN/SPEAKER
[FCP]	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE
[ARA]	AREA RESCUE CALL STATION
[ARA] M	AREA RESCUE MASTER STATION
[ZAM] S	SIGNAL ZAM
[ZAM] C	CONTROL ZAM
[ZAM] DET	DETECTOR ZAM
[IAM]	MONITOR MODULE
[IAM] R	RELAY IAM
[PC]	GRAPHIC COMMAND CENTER
[FAA]	REMOTE FIRE ALARM AUDIO
[FSA]	REMOTE ANNUNCIATOR WITH AUDIO
[ANN]	ANNUNCIATOR
[FS]	FIRE SMOKE DAMPER
[NAC]	NAC POWER EXTENDER

* ALL SYMBOLS SHOWN ABOVE MAY NOT APPEAR ON PLANS

MECHANICAL SYMBOLS LEGEND

Symbol	Description	Symbol	Description
P-1	WATER CLOSET & TYPE (TYP. FOR ALL PLUMBING FIXTURES)	CHS	CHILLED HOT SUPPLY
	WASTE LINE ABOVE EARTH (W.)	CHR	CHILLED HOT RETURN
	WASTE LINE IN EARTH (W.)		UNION
CO	CLEAN OUT		FLEXIBLE PIPE CONNECTION
FFCO	FLUSH FLOOR CLEAN OUT		MANUAL DAMPER
FGCO	FLUSH GRADE CLEAN OUT	BD	BACKDRAFT DAMPER
2" 1 FD	FLOOR DRAIN AND TYPE	AD	AUTOMATIC DAMPER
RD	ROOF DRAIN	FD	FIRE DAMPER
ORD	OVERFLOW ROOF DRAIN	FS	FIRE/SMOKE DAMPER
2" 1 RD	ROOF DRAIN AND TYPE	SD	SMOKE DAMPER
	VENT LINE (V.)	6x6 A 80	GRILLE, REGISTER OR DIFFUSER, SIZE, TYPE & CFM
	DOMESTIC COLD WATER SUPPLY (DCW)		VOLUME EXTRACTOR AND TURNING VANES
	DOMESTIC HOT WATER SUPPLY (DHW)		RETURN, EXHAUST OR FRESH AIR DUCT SECTION UP & DOWN
	DOMESTIC HOT WATER RETURN (DHWR)		SUPPLY AIR DUCT SECTION UP AND DOWN
HB/36"	HOSE BIBB AND MOUNTING HEIGHT		FLEXIBLE DUCT CONNECTION
WH	WALL HYDRANT		ROUND OR RECTANGULAR DUCT
F	FIRE LINE/STANDPIPE		FLEXIBLE DUCT
D	DRAIN LINE		THERMOSTAT
G	NATURAL GAS LINE	R	REFRIGERANT LIQUID/SUCTION
	RISE & DROP IN PIPE WITH CUT-OFF VALVE	AD	ACCESS DOOR
	REDUCER	AFF	ABOVE FINISHED FLOOR
	CHECK VALVE	EA	EXHAUST AIR
	STOP VALVE	OA	OUTSIDE AIR
	BALANCING VALVE/AUTOFLOW VALVE	RA	RETURN AIR
	PLUG VALVE	SA	SUPPLY AIR
	2-WAY CONTROL VALVE OR SOLENOID VALVE	VBS	VENT BELOW SLAB
	3-WAY CONTROL VALVE OR SOLENOID VALVE	VTR	VENT THRU ROOF
	PRESSURE REDUCING VALVE		CONNECT NEW TO EXISTING
	STRAINER		LOCKABLE GUARD
CWS	CHILLED WATER SUPPLY	VFD	VARIABLE FREQUENCY DRIVE
CWR	CHILLED WATER RETURN		
HWS	HOT WATER SUPPLY		
HWR	HOT WATER RETURN		

NOTES: ALL SYMBOLS SHOWN ABOVE MAY NOT APPEAR ON PLANS.

TELECOMMUNICATIONS SYMBOLS LEGEND:

SYMBOL	DESCRIPTION	REMARKS
D201/A	TELECOMMUNICATIONS OUTLET WITH ROOM AND TYPE IDENTIFIER	1
W	TELECOMMUNICATIONS OUTLET WALL PHONE PLATE	2
AV	AUDIO/VISUAL OUTLET	3
TV	TELEVISION OUTLET	1
	EMT CONDUIT BY E/C (1 1/4" UNLESS NOTED OTHERWISE)	4
	EMT SLEEVE BY E/C (2" UNLESS NOTED OTHERWISE)	4
AFF	ABOVE FINISHED FLOOR	
T/C	TELECOMMUNICATIONS CONTRACTOR	
E/C	ELECTRICAL CONTRACTOR	
G/C	GENERAL CONTRACTOR	
AC	DEVICE LOCATED ABOVE COUNTER	
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR	
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR	
	TELECOMMUNICATIONS CABLING	5
FACP	FIRE ALARM CONTROL PANEL	
SM	SINGLEMODE FIBER	
MM	MULTIMODE FIBER	
WAP	WIRELESS ACCESS POINT	6

TELECOMMUNICATIONS CABLING IDENTIFIER

TELECOM ROOM → D201/A ← OUTLET TYPE

1 - 4x4 STEEL CITY BACKBOX, MODEL NUMBER 72171-1-1/4 W/ SINGLE GANG PLASTER RING AND 1 1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING AS INDICATED ON DRAWINGS BY E/C.
2 - 2x4 BACKBOX WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING.
3 - 4x4 STEEL CITY BACKBOX, MODEL NUMBER 72171-1-1/4 WITH DOUBLE GANG PLASTER RING BY E/C. CONDUITS AS INDICATED ON PLANS.
4 - E/C TO PROVIDE CONDUIT BUSHING ON CONDUIT PRIOR TO T/C INSTALLING CABLING.
5 - CABLING SHALL BE SUPPORTED WITH J-HOOKS AT 48" O.C. WHERE NOT IN CONDUIT.
6 - 2x4 SURFACE MOUNT BACKBOX LOCATED ABOVE ACCESSIBLE CEILING.

ELECTRICAL SYMBOLS LEGEND

Symbol	Description	Symbol	Description
	CONDUIT CONCEALED IN CEILING OR WALL. 2 HOT + GROUND.		THERMOSTAT
	CONDUIT CONCEALED IN FLOOR SLAB		LOCKABLE GUARD
	EXPOSED CONDUIT		JUNCTION BOX
	HOMERUN - ARROW INDICATES CKT., LINES INDICATE WIRES		SWITCH - SINGLE POLE
	GROUNDING ROD		SWITCH - 3-WAY
	SINGLE RECEPTACLE	4	SWITCH - 4-WAY
	DUPLEX RECEPTACLE (20 AMP UNLESS NOTED)	A	LIGHT FIXTURE AND TYPE
U	DUPLEX RECEPTACLE WITH USB OUTLETS		EMERGENCY LIGHT FIXTURE WITH BATTERY PACK
SW	SWITCHED DUPLEX RECEPTACLE		FIXTURE ON LIFE SAFETY BRANCH OF EMERGENCY SYSTEM
	FOURPLEX RECEPTACLE		LIGHT FIXTURE (WALL MOUNTED)
	208 OR 240 VOLT RECEPTACLE (20 AMP UNLESS NOTED)		EXIT LIGHT (CEILING OR WALL MOUNTED)
	GROUND FAULT INTERRUPTER (GFI) DUPLEX RECEPTACLE		FLUSH PANELBOARD (LIGHT & RECEPTACLES)
	TELE/DATA OUTLET *		SURFACE PANELBOARD (LIGHT & RECEPTACLES)
	PUSHBUTTON		DISTRIBUTION PANEL OR SWITCHBOARD
[VFD]	VARIABLE FREQUENCY DRIVE	AC	DEVICE LOCATED ABOVE COUNTER
[ORT]	OVERRIDE TIMER	AFF	ABOVE FINISHED FLOOR
[PC]	PHOTOCELL	D	DIMMER
	MOTOR	E	INDICATES EXISTING DEVICE
	FUSIBLE SWITCH (BUSSMAN SSU)	EDF	ELECTRIC DRINKING FOUNTAIN
	DISCONNECT SWITCH (D.S.)	NL	NIGHTLIGHT FIXTURE, WIRED HOT
	COMBINATION MOTOR STARTER (CMS)	WP	WEATHERPROOF
[R]	RELAY	AFCI	ARC FAULT CIRCUIT INTERRUPTER
	FLOOR BOX		CONNECT NEW TO EXISTING

NOTES: ALL SYMBOLS SHOWN ABOVE MAY NOT APPEAR ON PLANS.

REFER TO MECHANICAL SYMBOLS LEGEND FOR MECHANICAL SYMBOLS THAT MAY BE SHOWN ON ELECTRICAL PLANS.

* 4x4 BACKBOX WITH SINGLE GANG PLASTER RING AND A 1 1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING.

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.2024
Issued For: GARAGE PERMIT SET

REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI
RICHARD R. BEARDMORE
PROFESSIONAL ENGINEER

10/18/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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Email: lsapa@lsapa.com

LSA PROJECT NO. 2104043

SHEET TITLE

COVER SHEET

SHEET NUMBER

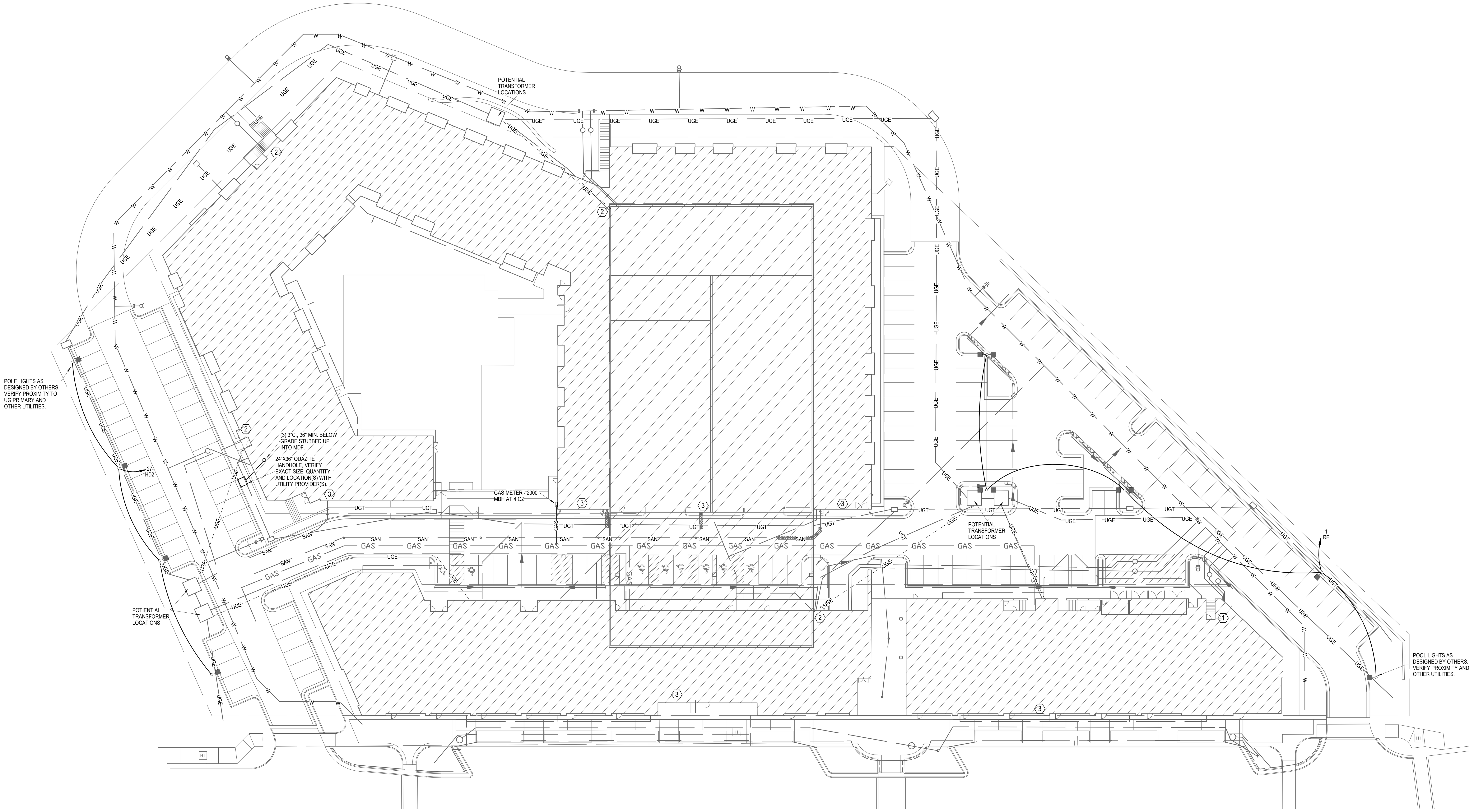
ME-000

NOTES:

1. COORDINATE WITH CIVIL PLANS FOR EXACT LOCATIONS OF UTILITIES, SITE FEATURES AND GRADE.
2. COORDINATE WITH UTILITY PROVIDERS, INCLUDE ALL REQUIREMENTS AND FEES WITHIN THE BID WORK. IF NO FEE IS AVAILABLE, PROVIDE AN ALLOWANCE AND LIST ON BID SUBMISSION.
3. TRANSFORMER LOCATIONS ARE AS SUGGESTED AND PREFERRED. POWER COMPANY WILL MAKE FINAL DETERMINATION.
4. FOR ANY GAS SERVICES, PROVIDE STEEL RISER, SHUT-OFF AND APPROPRIATE PRV AT APPLIANCES IF APPROPRIATE.
5. ALL SITE LIGHTING IS #10 WIRE IN 1" MIN. PVC CONDUIT AND ROUTE THROUGH PHOTOCELL/TIMER.

LEGEND:

(1) WATER/FIRE SERVICE ENTRANCE - SEE CIVIL.
(2) WATER SERVICE ENTRANCE - SEE CIVIL.
(3) SANITARY SEWER EXIT POINT - SEE CIVIL.



1 **SITE PLAN**
1" = 30'-0"

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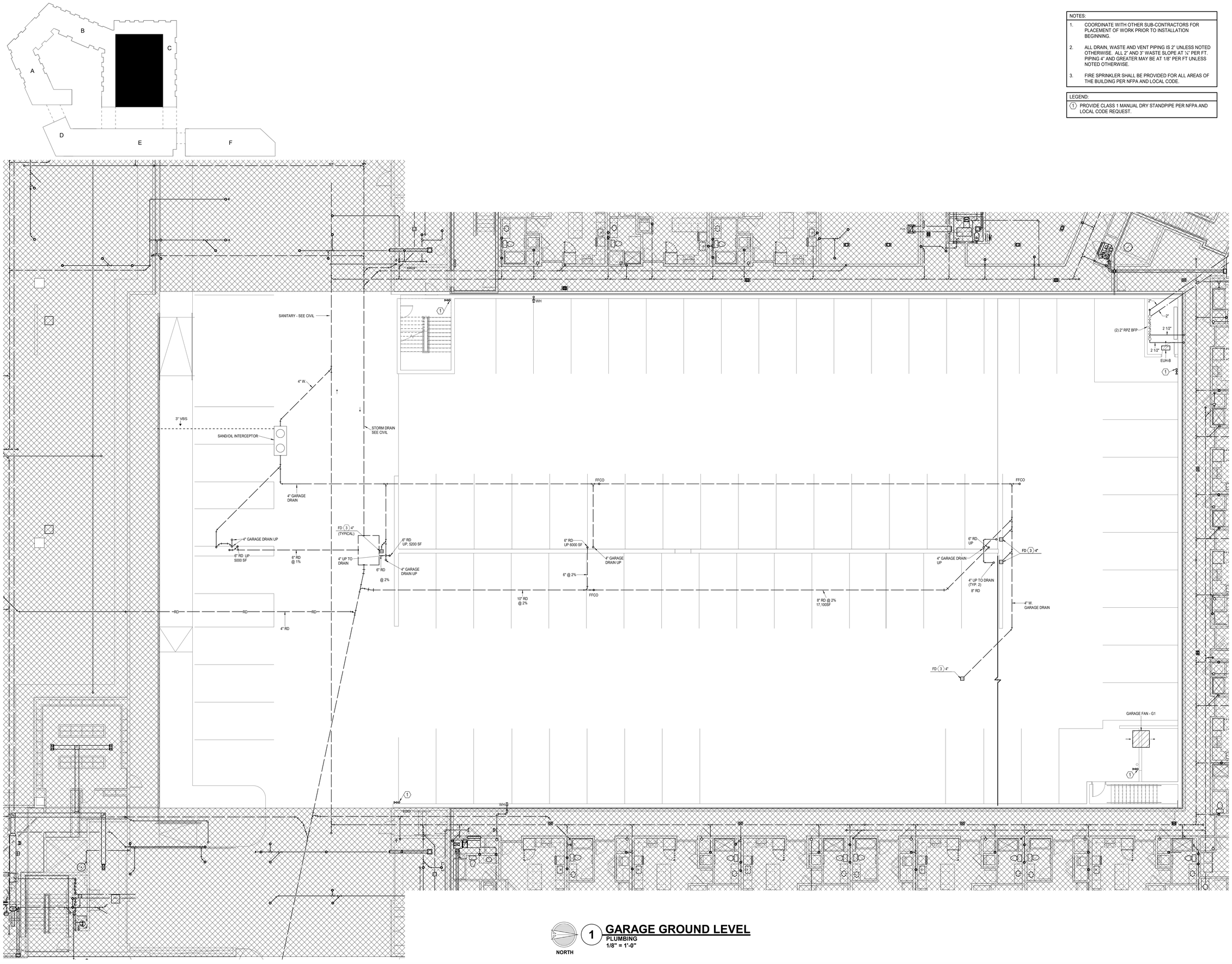
SHEET TITLE

SITE PLAN

SHEET NUMBER

ME-001



NOTES:

1. COORDINATE WITH OTHER SUB-CONTRACTORS FOR PLACEMENT OF WORK PRIOR TO INSTALLATION BEGINNING.
2. ALL DRAIN, WASTE AND VENT PIPING IS 2" UNLESS NOTED OTHERWISE. ALL 2" AND 3" WASTE SLOPE AT ¼" PER FT. PIPING 4" AND GREATER MAY BE AT 1/8" PER FT UNLESS NOTED OTHERWISE.
3. FIRE SPRINKLER SHALL BE PROVIDED FOR ALL AREAS OF THE BUILDING PER NFPA AND LOCAL CODE.

LEGEND:

(1) PROVIDE CLASS 1 MANUAL DRY STANDPIPE PER NFPA AND LOCAL CODE REQUEST.

1 GARAGE GROUND LEVEL

PLUMBING

1/8" = 1'-0"

PARAGON STAR NORTH VILLAGE

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STATE OF MISSOURI
RICHARD R. BEAUMONT
NUMBER
PROFESSIONAL ENGINEER

10/18/2024

PROJECT TEAM

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
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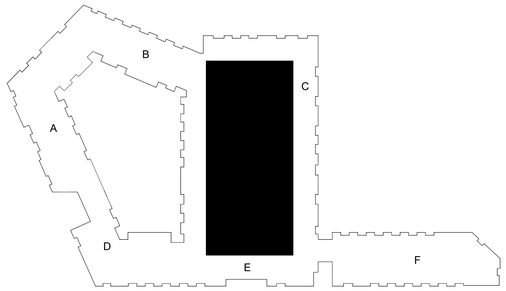
SHEET TITLE

GARAGE FIRST FLOOR - PLUMBING

SHEET NUMBER

MP1.71G



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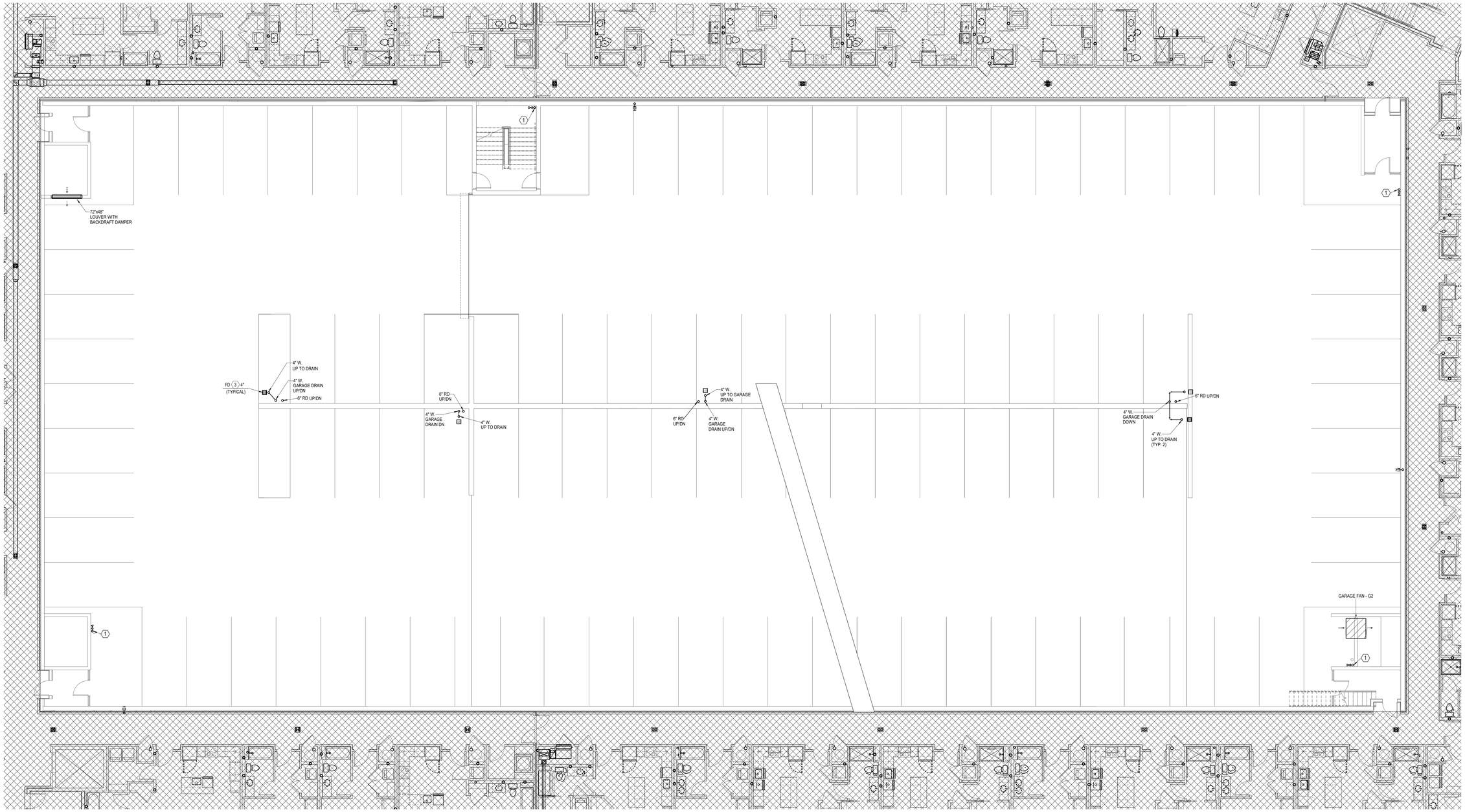

NORTH

1 **GARAGE 2**
PLUMBING
1/8" = 1'-0"

PARAGON STAR NORTH VILLAGE

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LEE'S SUMMIT, MO 64081

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RICHARD R. BEARDMORE
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PROFESSIONAL ENGINEER

10/18/2024

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
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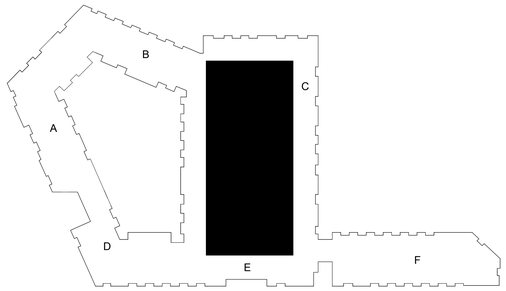
SHEET TITLE

GARAGE SECOND FLOOR - PLUMBING

SHEET NUMBER

MP1.72G



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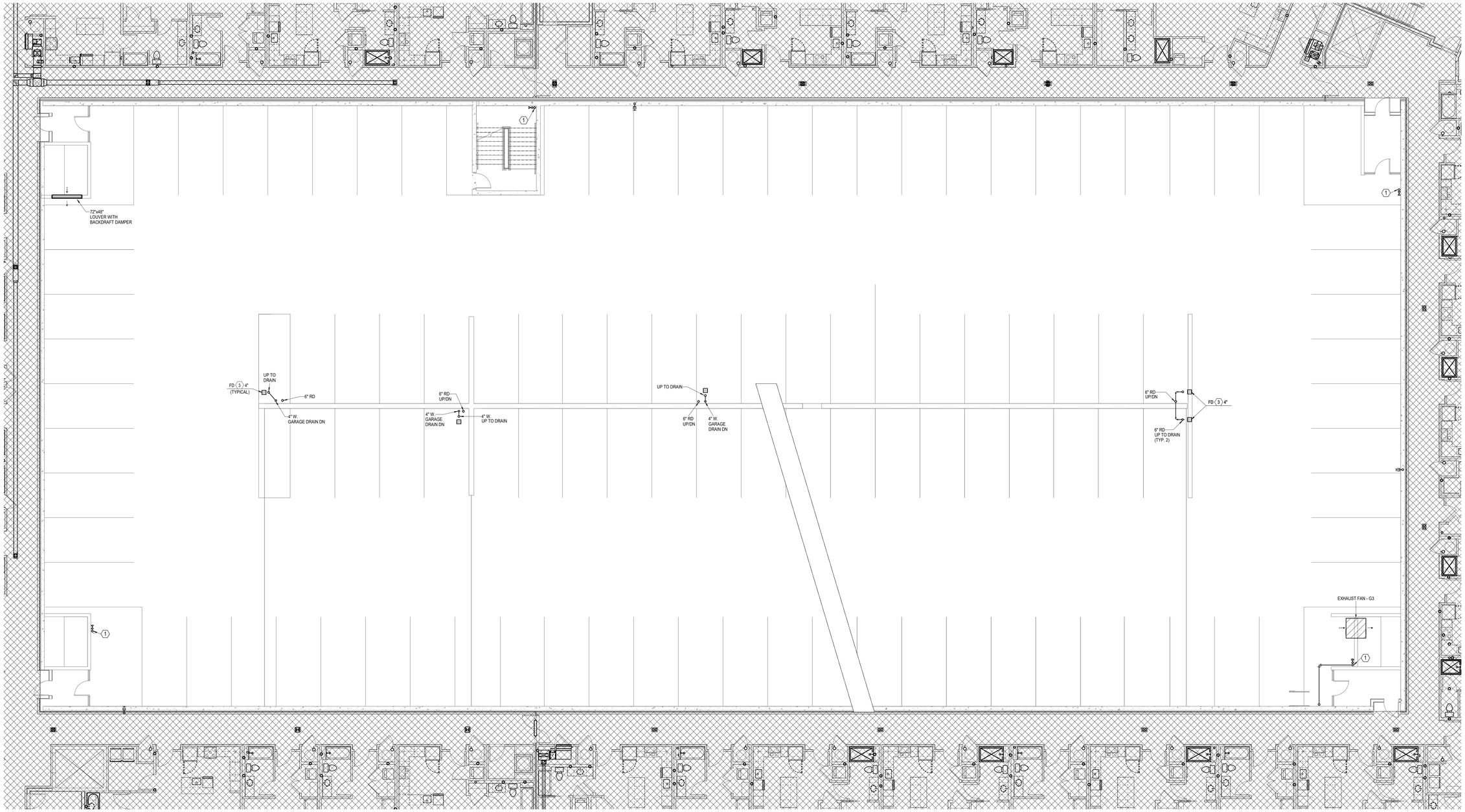

NORTH

1 GARAGE 3

PLUMBING

1/8" = 1'-0"

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
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PROJECT TEAM

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
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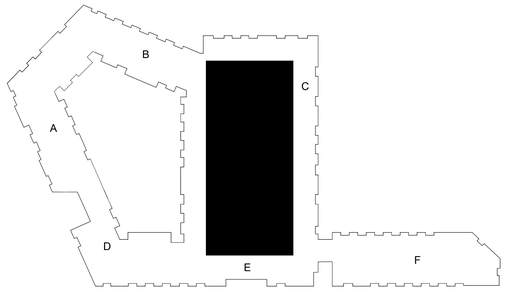
SHEET TITLE

GARAGE THIRD FLOOR - PLUMBING

SHEET NUMBER

MP1.73G



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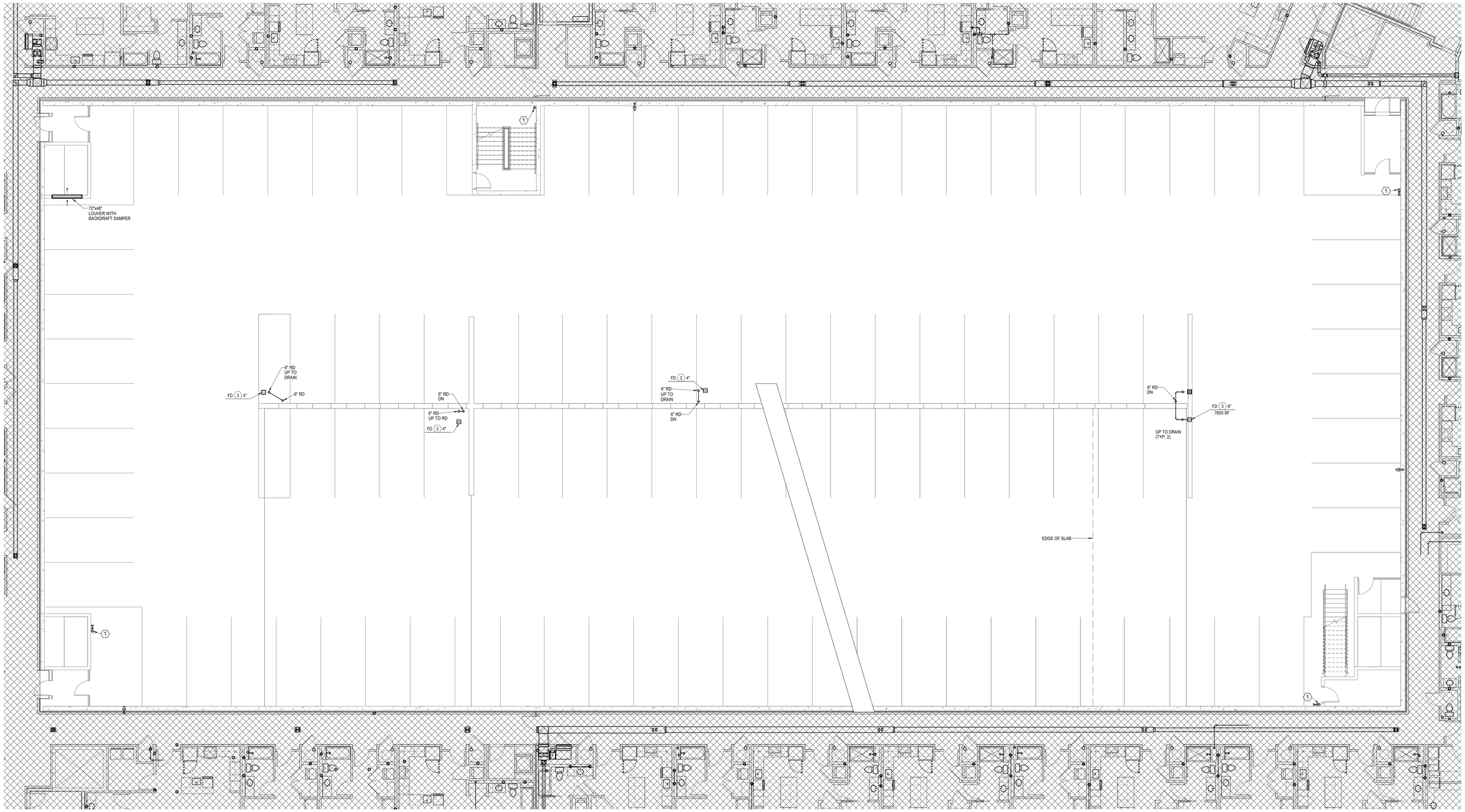

1 **GARAGE 4**
PLUMBING
1/8" = 1'-0"

NORTH

PARAGON STAR NORTH VILLAGE

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10/18/2024

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
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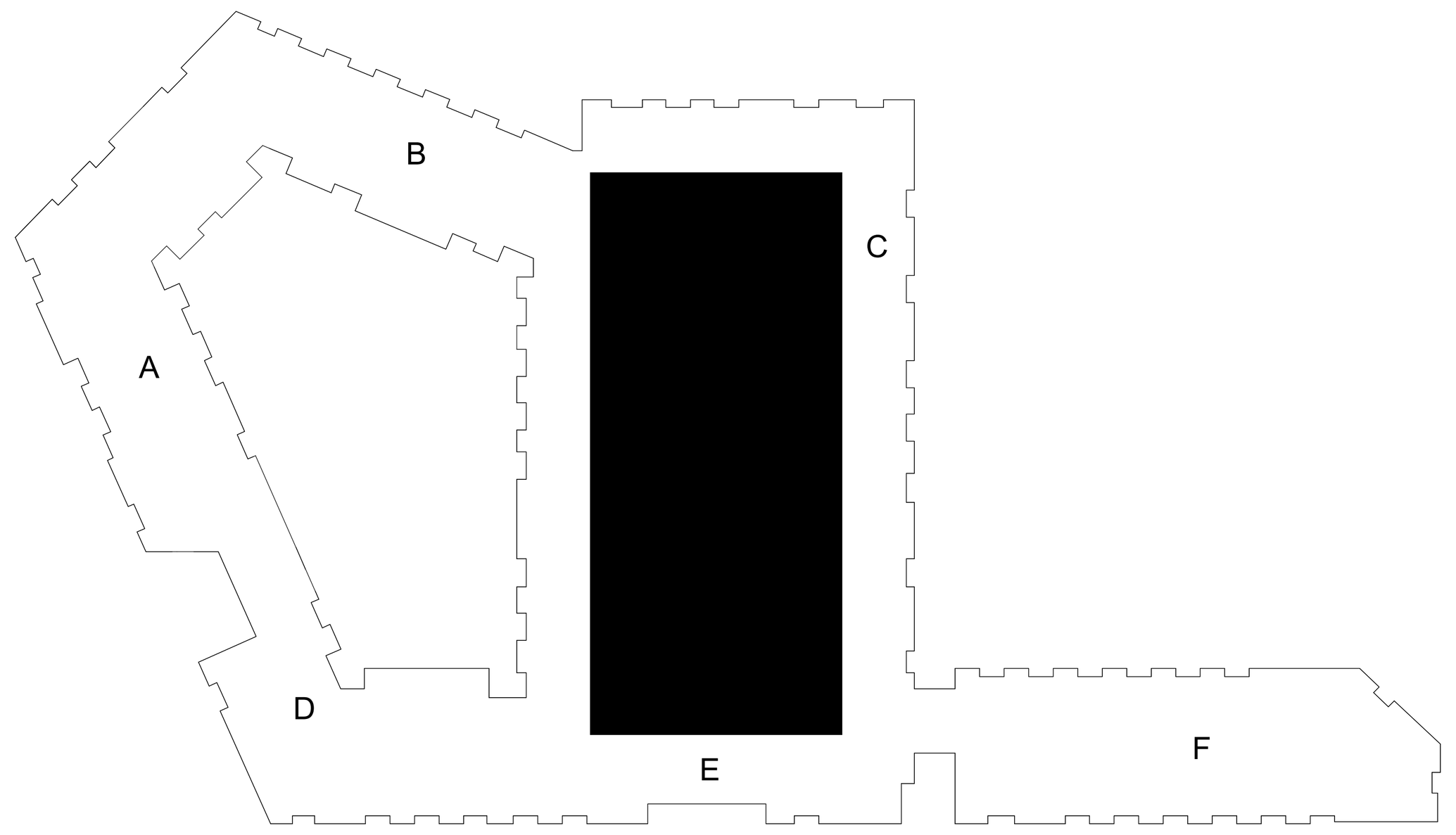
SHEET TITLE

GARAGE
FOURTH FLOOR
- PLUMBING

SHEET NUMBER

MP1.74G



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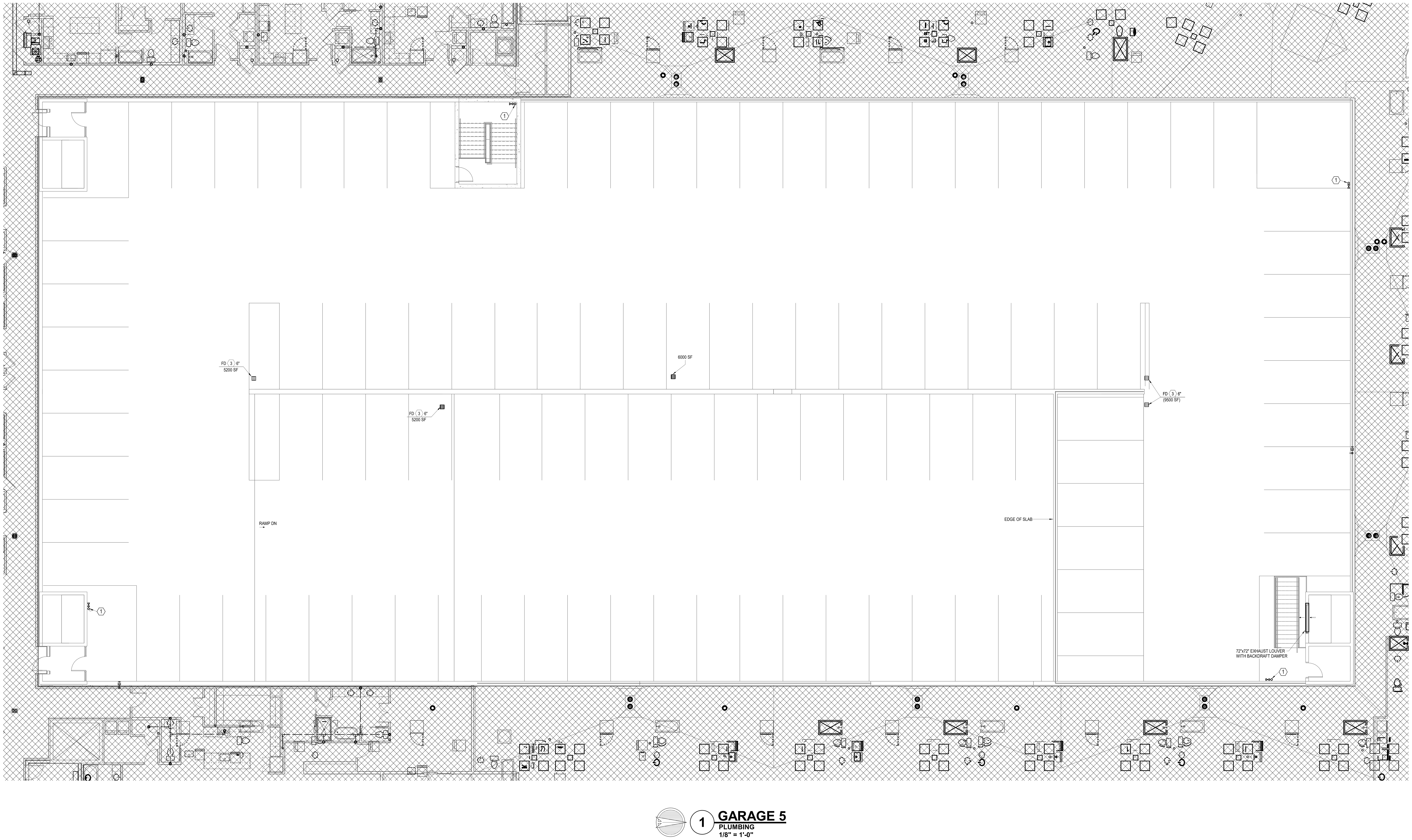

1 GARAGE 5
PLUMBING
1/8" = 1'-0"

PARAGON STAR NORTH VILLAGE

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LEE'S SUMMIT, MO 64081

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REGISTRATION

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10/18/2024

PROJECT TEAM

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SHEET TITLE

GARAGE FIFTH FLOOR - PLUMBING

SHEET NUMBER

MP1.75G

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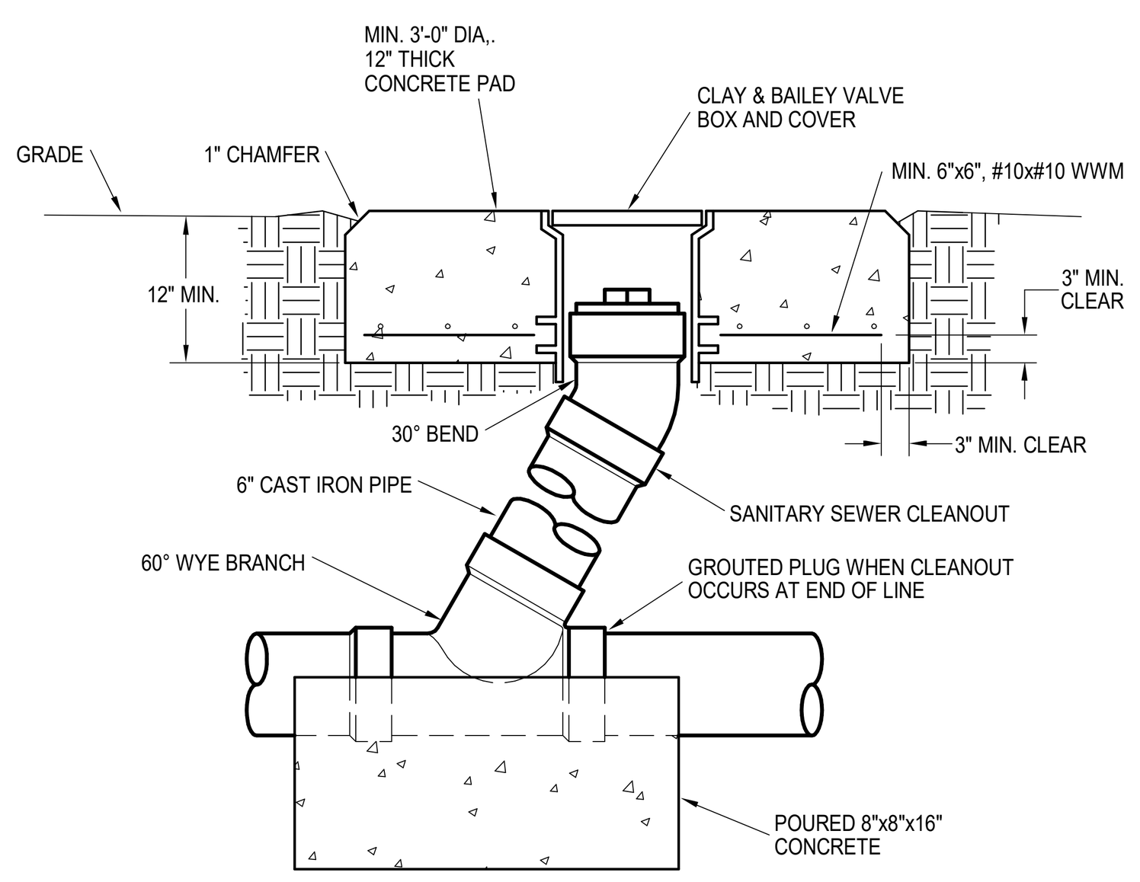
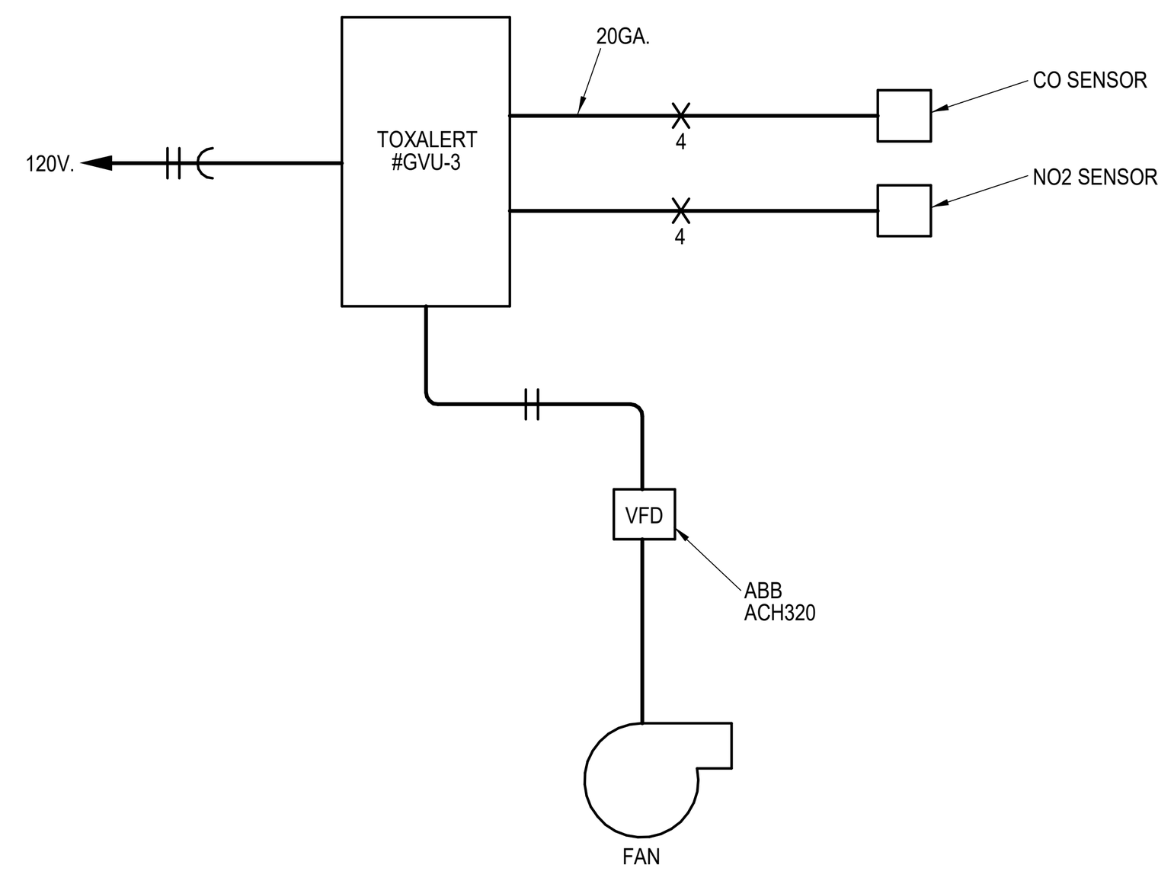


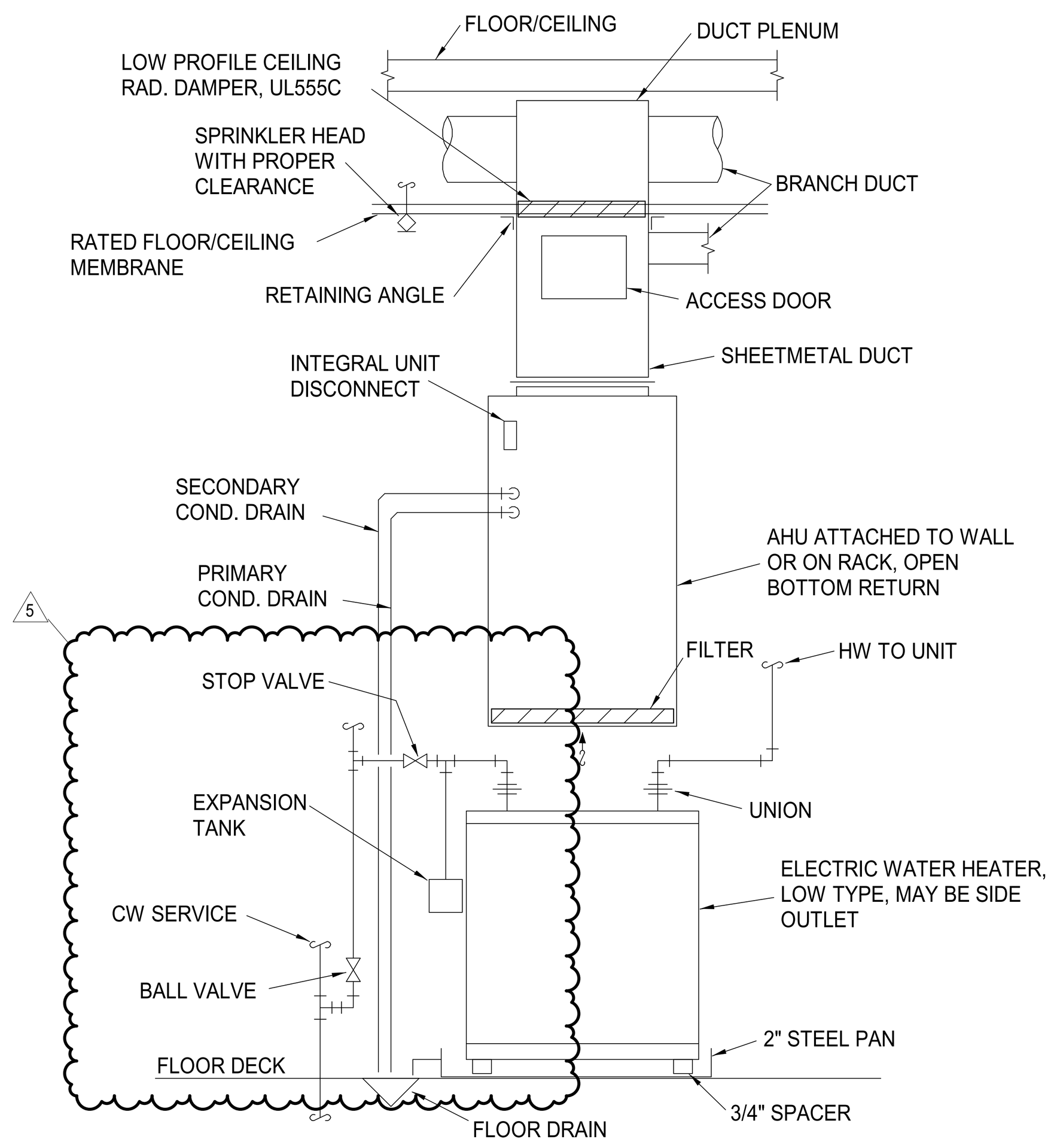
1 FLUSH GRADE CLEANOUT DETAIL
NOT TO SCALE

SEQUENCE OF OPERATION - EF OPERATES AT MINIMUM SPEED FOR 2000 CFM CONTINUOUS OPERATION.CO AND NO2 SENSORS IN GARAGE WILL BRING FAN TO FULL SPEED UNTIL SETPOINT MET.



EQUIPMENT (VFD INCLUDED) BY M/C, WIRING BY E/C. SEE DRAWING FOR QUANTITY.

2 PARKING GARAGE FAN CONTROL DETAIL
NOT TO SCALE



3 APARTMENT AHU/WATER HEATER
NOT TO SCALE

SPECIFICATIONS
1. 4" inlet/outlet Sch. 40. Plain End (No-Hub)
2. Max flow rate: 75 GPM
3. Liquid capacity: 125 gallons (16.7 cu. ft.)
4. Max oil capacity: 84.4 gallons
5. Sand capacity: 19.2 gallons
6. Unit weight w/std. covers: 130 lbs.
7. Highway rated (16,000 lb. load) or pedestrian rated (2,000 lb. load) bolted, gas/water tight composite cover (choose one).
8. Maximum operating temperature 190 °F continuous.
9. Seamless molded polyethylene tank.

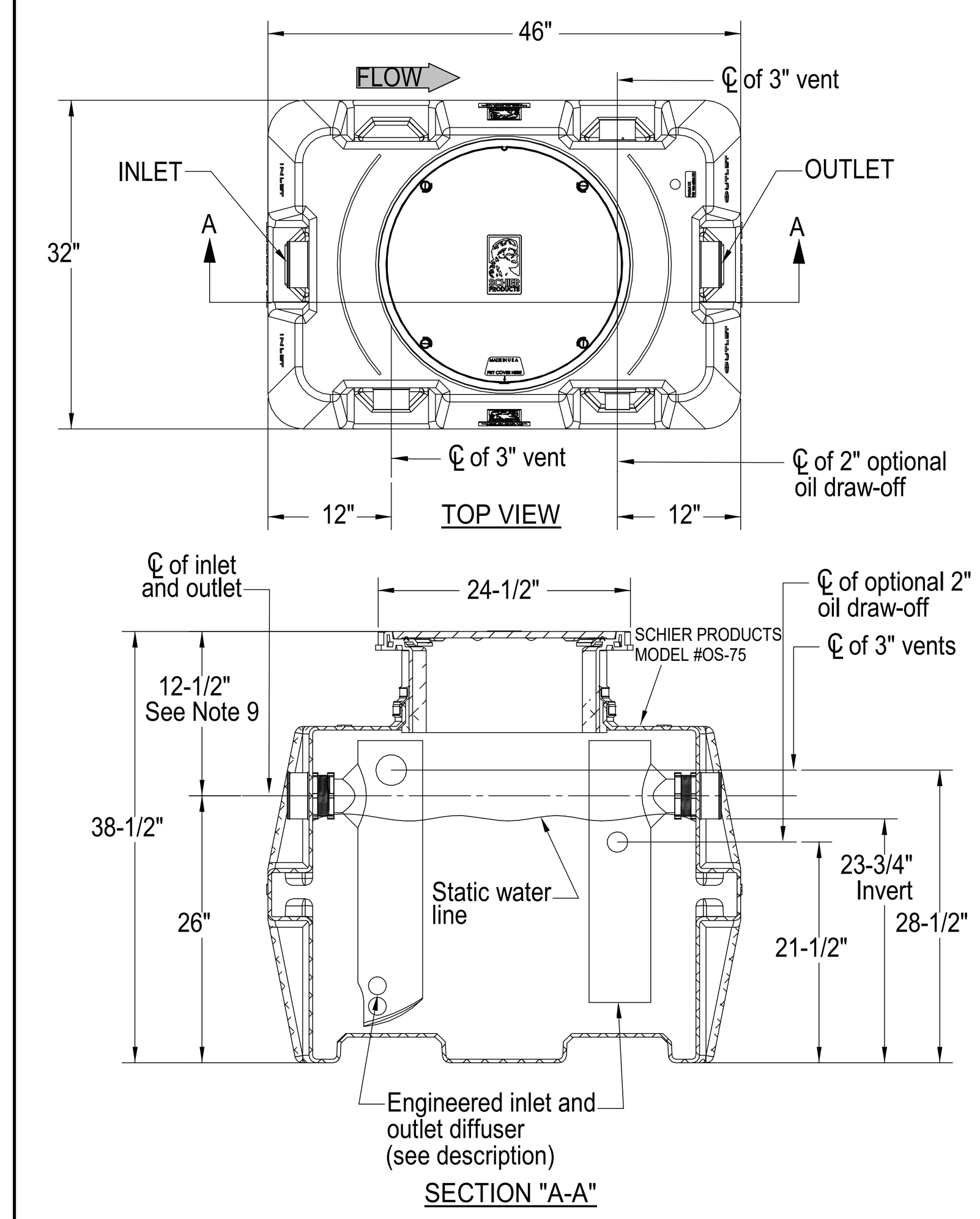
NOTES
1. Factory installed Built-in Flow control.
2. For gravity drainage applications only. Do not use for pressure applications.
3. Seamless high density polyethylene tank.
4. Unit supplied with built-in adapter for up to 6" of adjustability. Additional riser available for deeper burial depth.
5. Cover placement allows full access to tank for proper maintenance.
6. Narrow footprint allows clearance through doorways and down stairwells.
7. Engineered inlet and outlet diffusers are removable to inspect/clean piping.
8. For on the-floor or buried applications.
9. Trimming of adaptor required between 12-1/2" to 16", not required for 16" to 18-1/2".

DIFFUSION FLOW TECHNOLOGY
The inlet diffuser splits incoming effluent into two paths that utilize the entire liquid volume of the tank for efficient oil separation. The calibrated openings greatly reduce effluent turbulence. The effluent enters the main chamber without disturbing the existing oil or sediment layers.

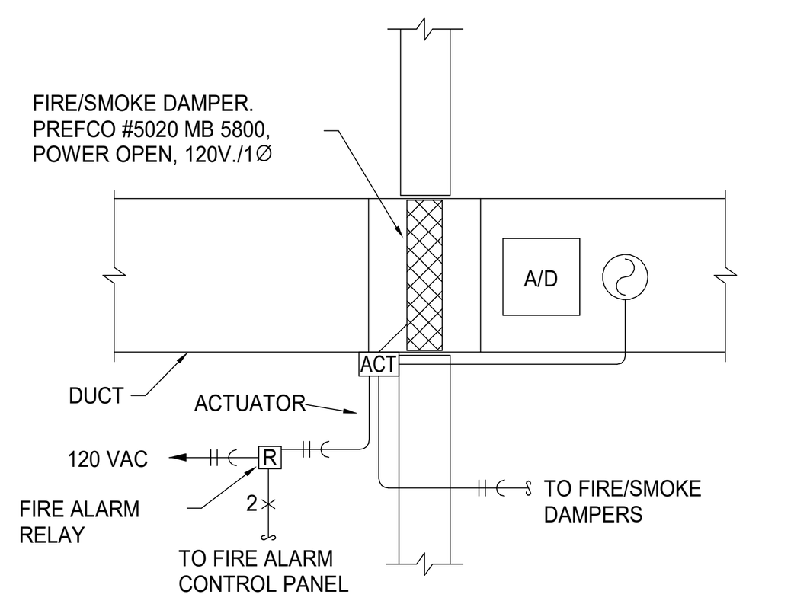
The bottom of the outlet diffuser allows only effluent which is free of oil to exit the tank.

ENGINEER SPECIFICATION GUIDE
Schier Oil Reserve - oil/sand separator model# OS-75 shall be lifetime guaranteed and made in USA of seamless, rotationally-molded High Density Polyethylene. Separator shall be furnished for above or below grade installation, with field adjustable riser system, built-in flow control, vent connections and optional oil draw-off for connection to independent collection tank. Separator flow rate shall be 75 GPM. Separator capacity shall be 84.4 gallons of oil and 19.2 gallons of sediment. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs load capacity.

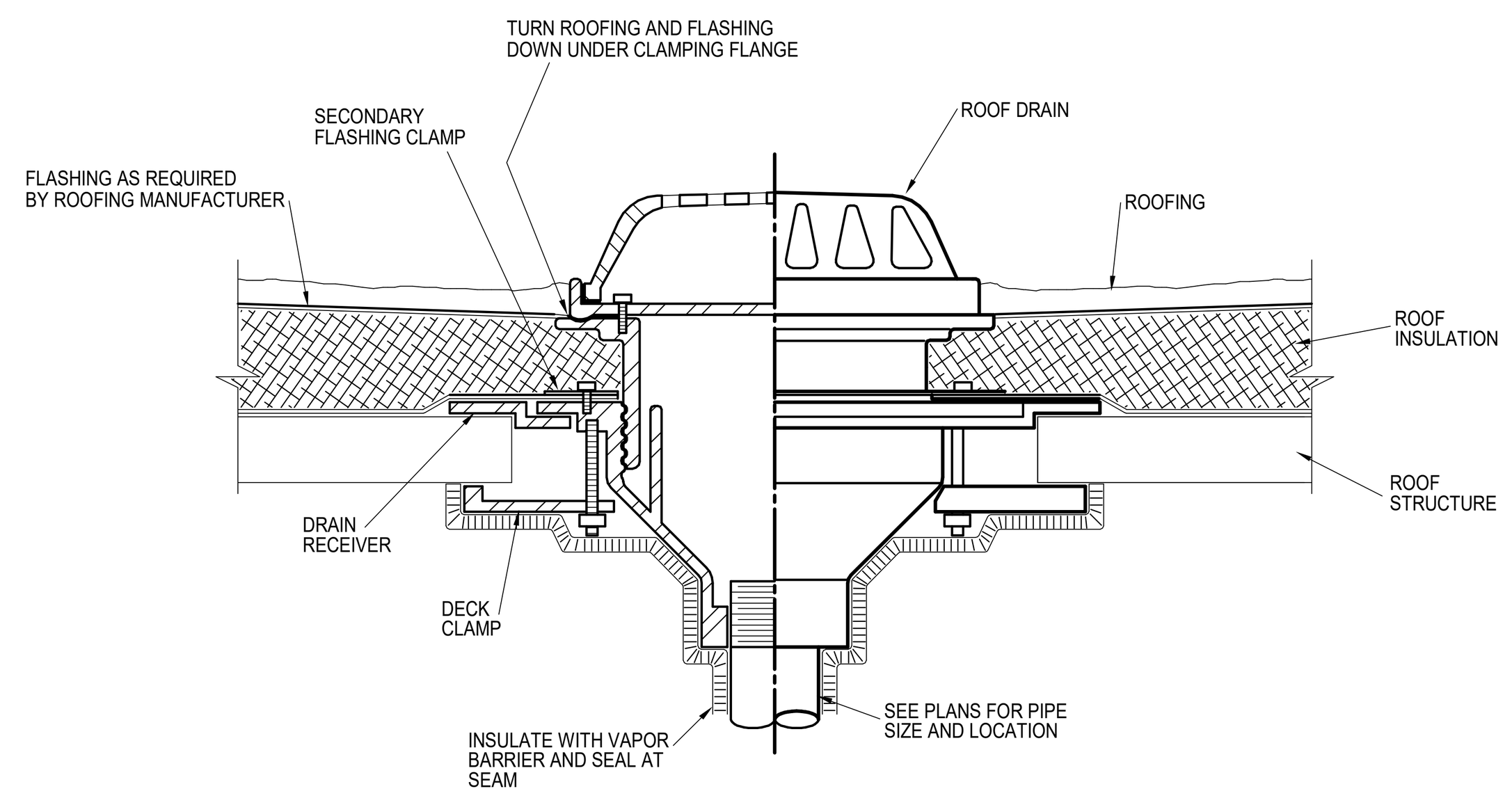
OPTIONS:
- Highway Rated Cover: 16,000 lb. capacity
- Pedestrian Rated Cover: 2,000 lb. capacity
- Teleglide field adjustable risers for extending covers to grade
- Male pipe thread connections
- 6" Plain end pipe connections (Inlet/Outlet only)
- High water Anchor Kit
- 2" Plain end oil draw-off connection
- Clean Sweep coalescing media
- Clamping Collar Kit



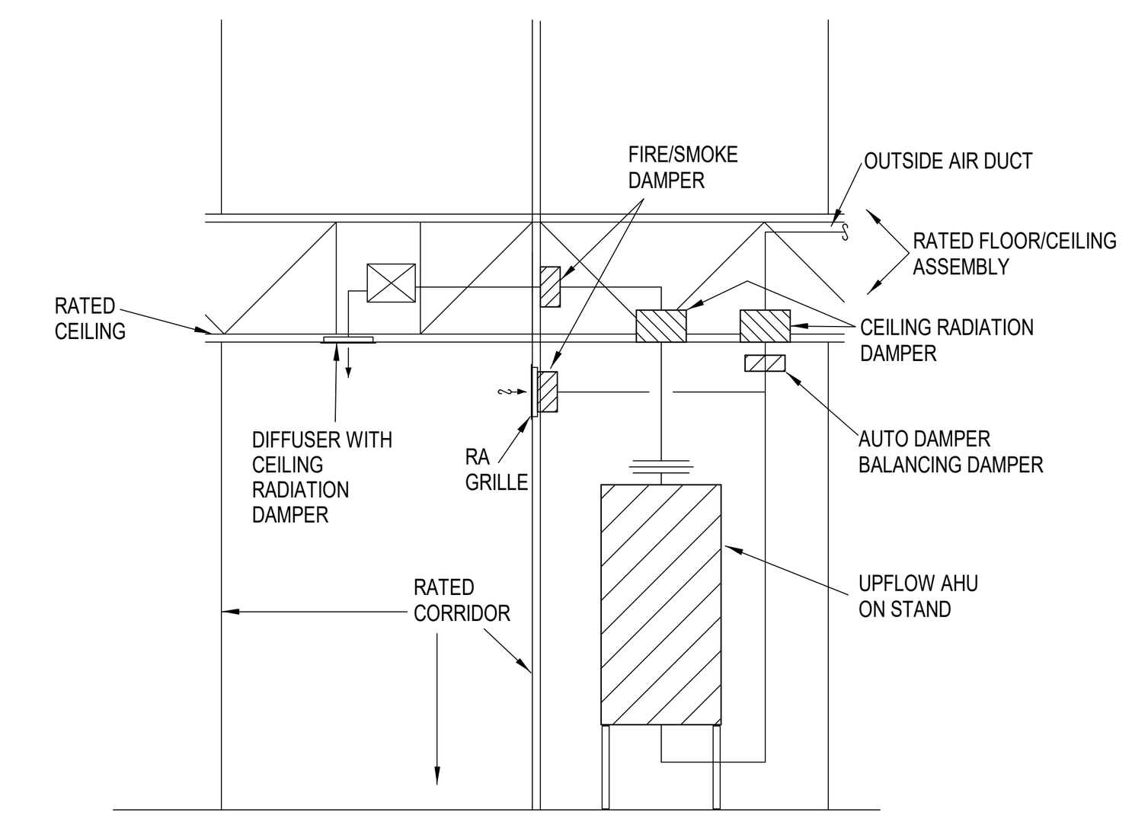
4 SAND/OIL SEPERATOR DETAIL
NOT TO SCALE



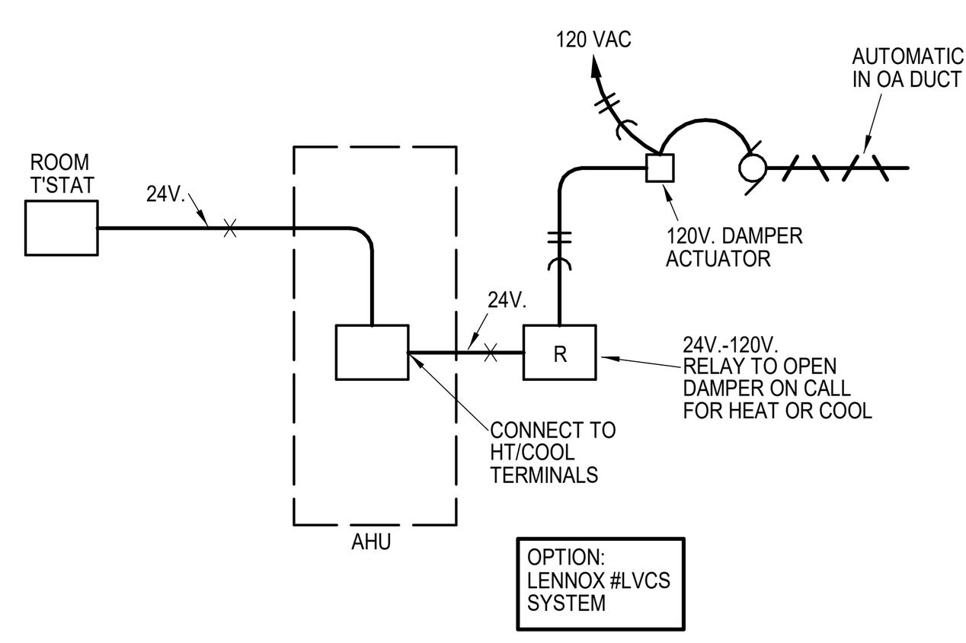
5 FIRE/SMOKE DAMPER DETAIL
NOT TO SCALE



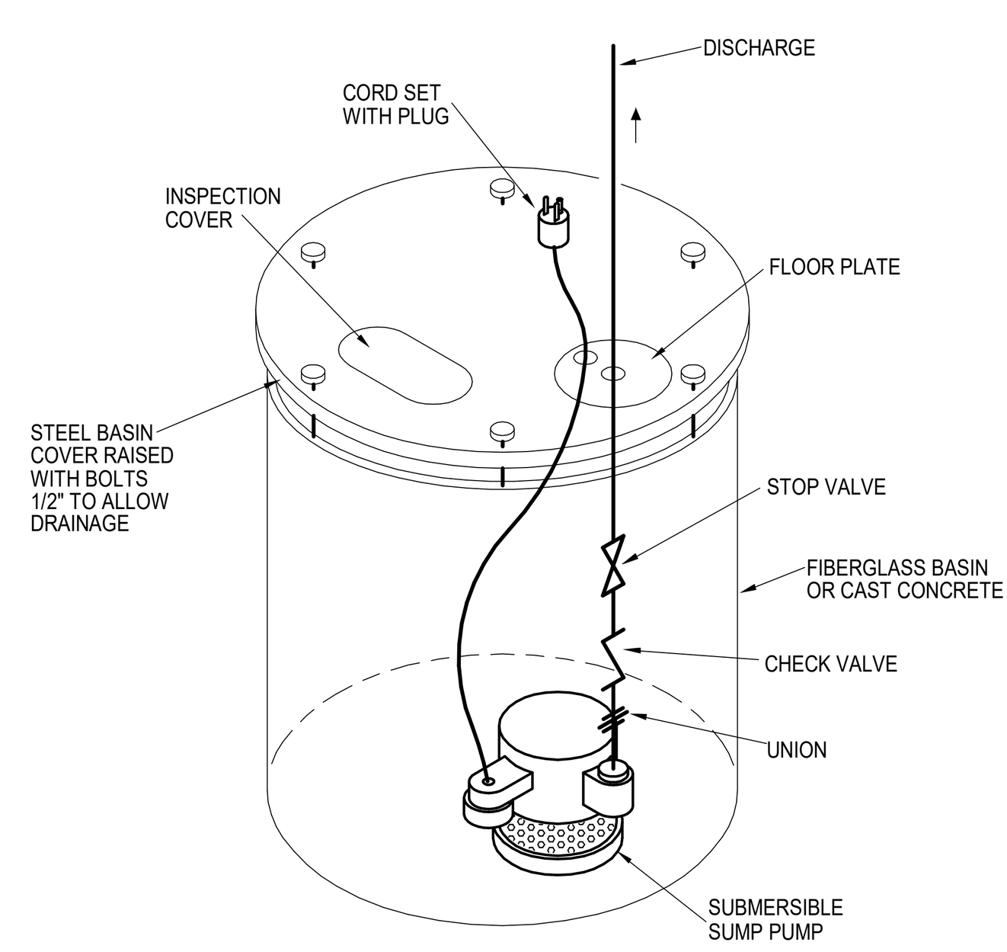
6 ROOF DRAIN DETAIL
NOT TO SCALE



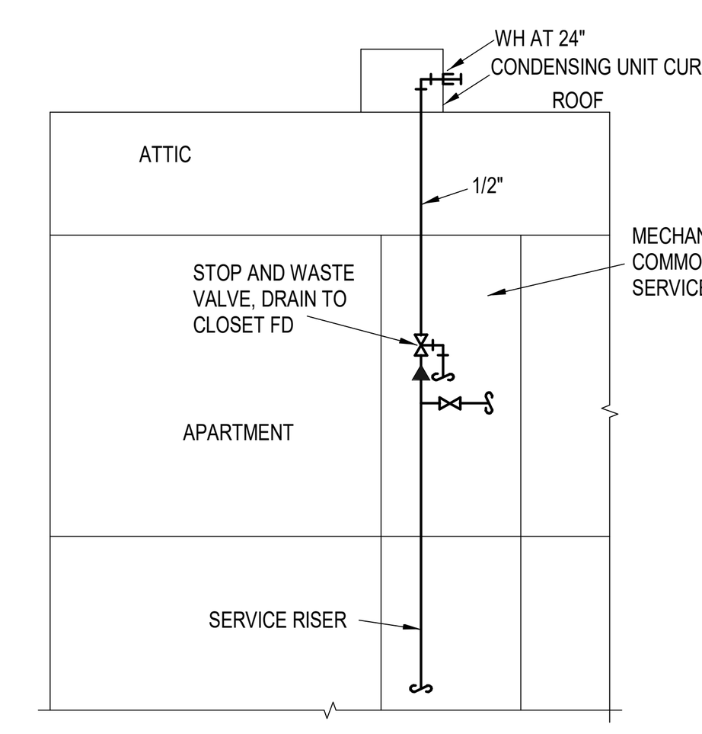
7 CORRIDOR AHU DETAIL
NO SCALE



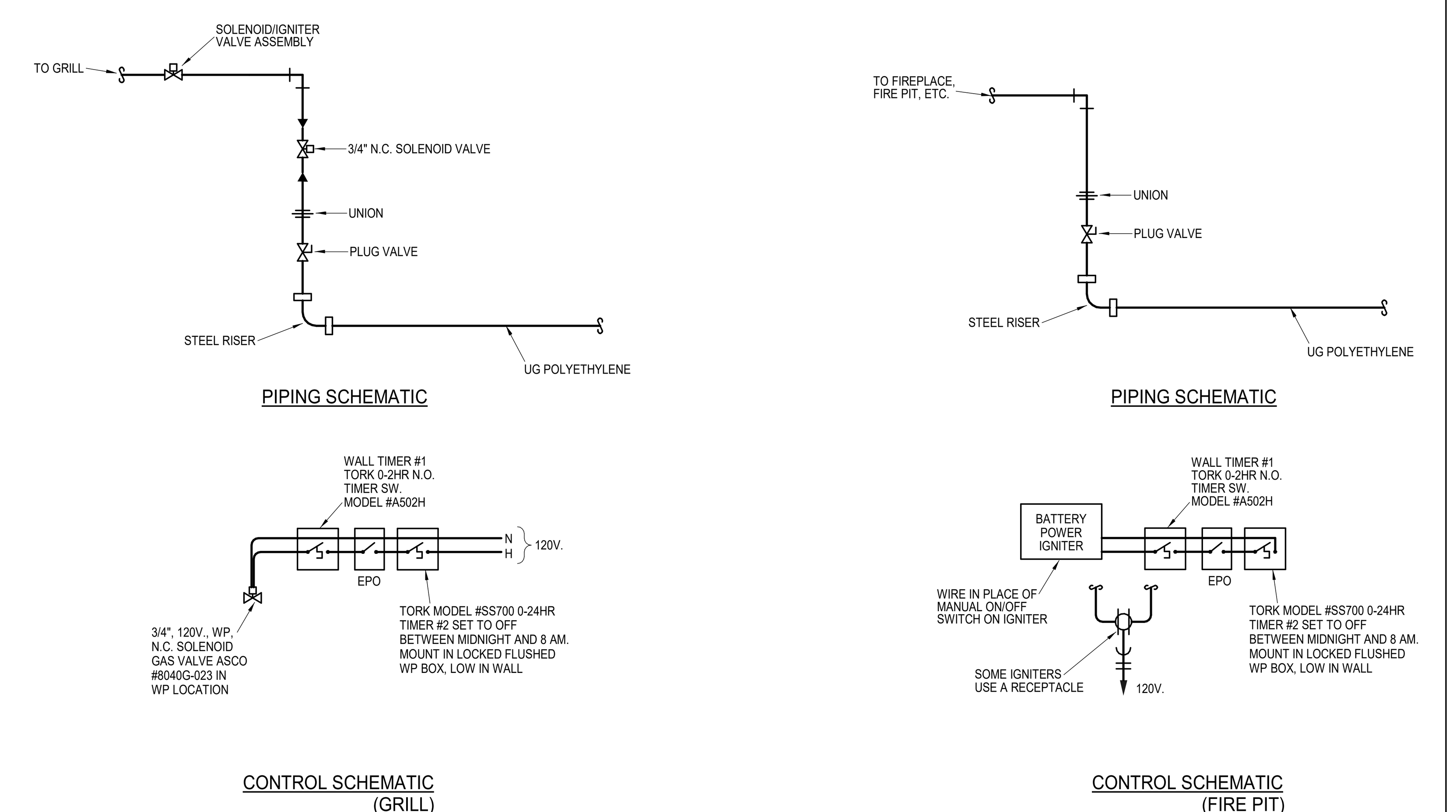
8 OUTSIDE AIR DAMPER CONTROL SCHEMATIC
NOT TO SCALE



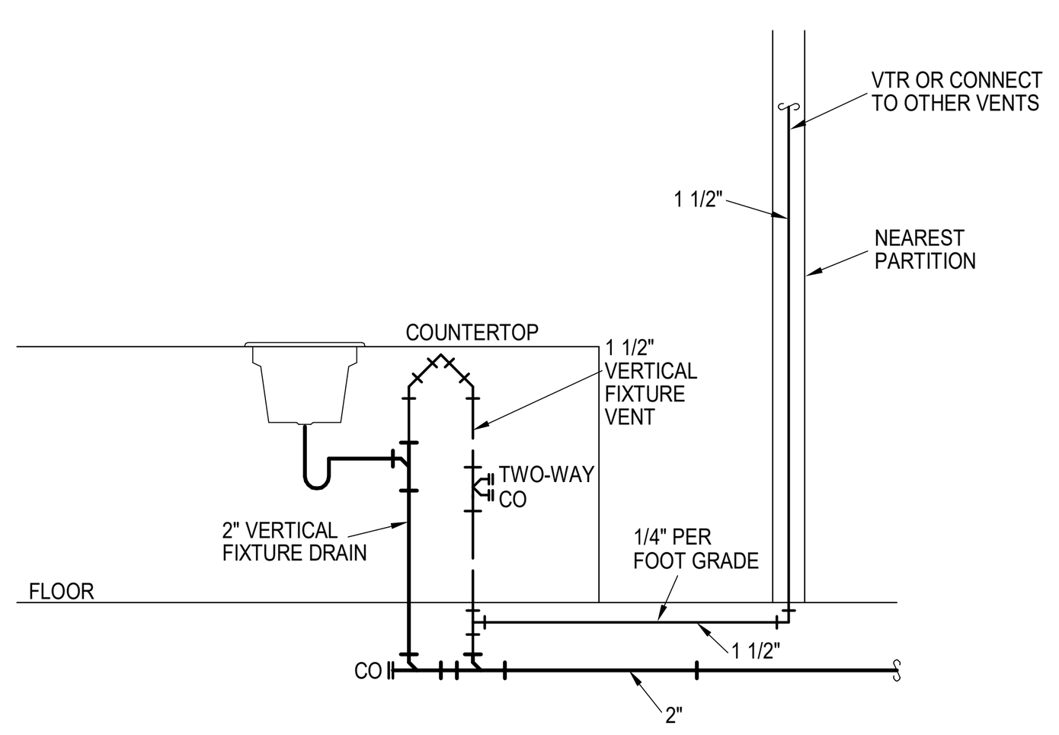
9 ELEVATOR SUMP PUMP DETAIL
NOT TO SCALE



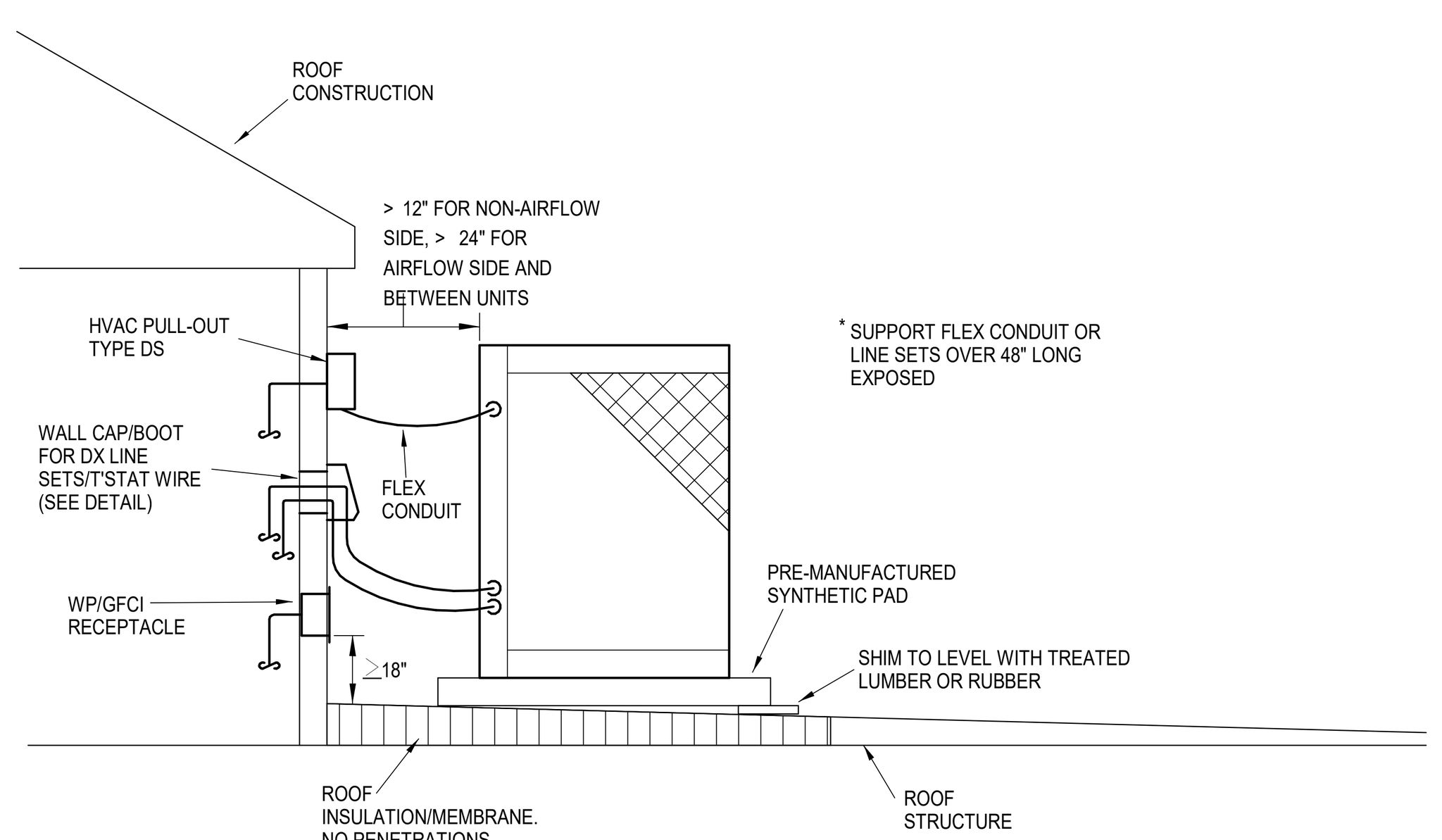
10 ROOF HYDRANT
NOT TO SCALE



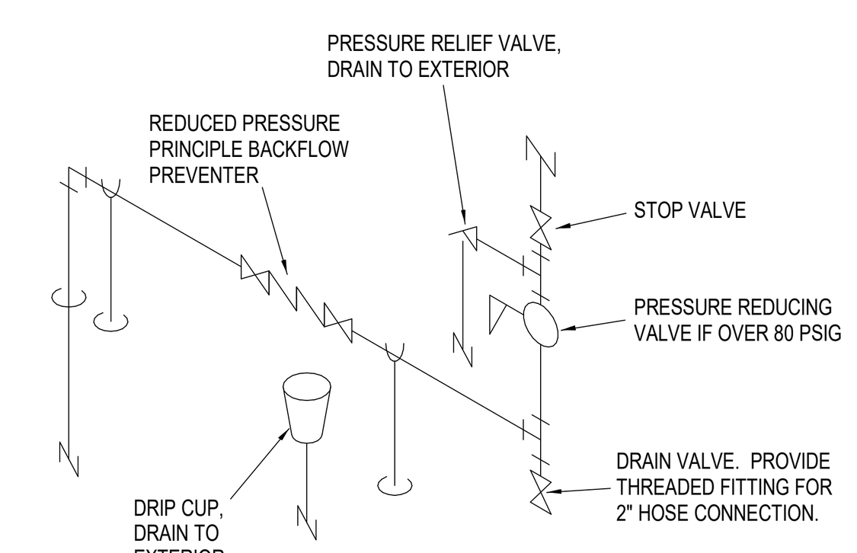
11 GAS GRILL/FIRE PIT DETAIL
NOT TO SCALE



12 ISLAND VENT DETAIL
NOT TO SCALE

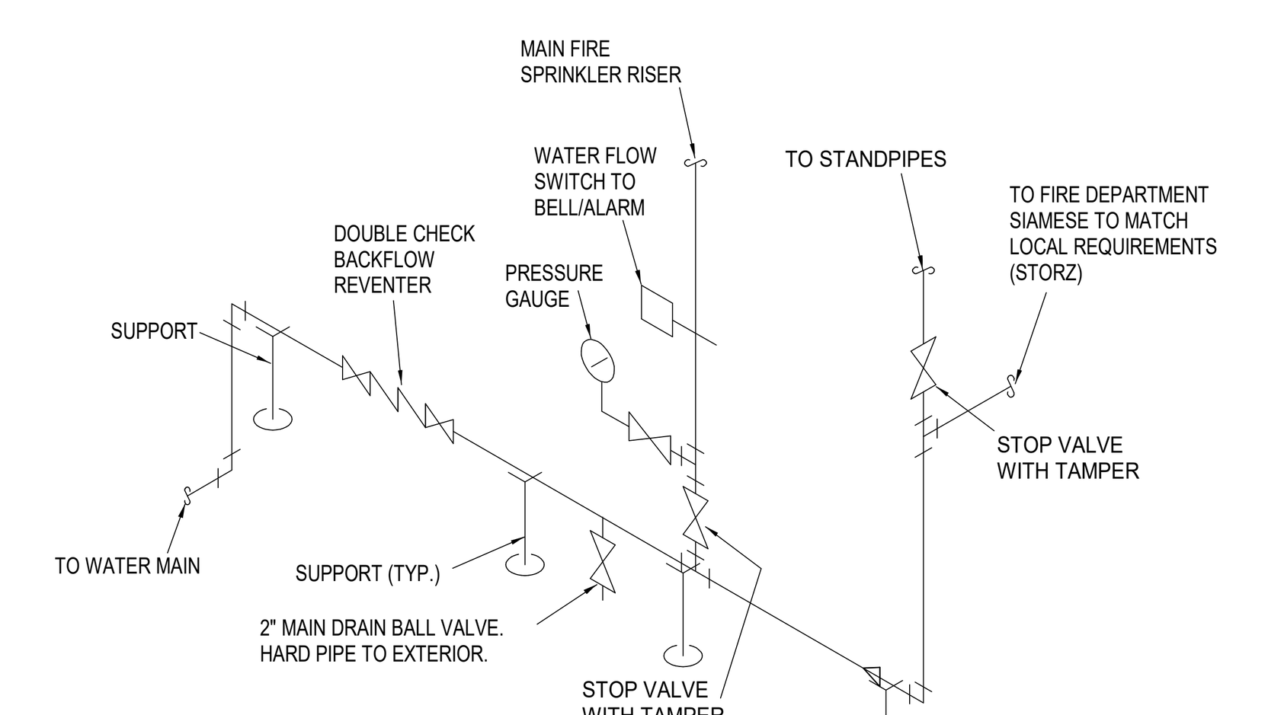


13 ROOF MOUNTED CONDENSING UNIT DETAIL
NOT TO SCALE



14 DOMESTIC WATER RISER
NO SCALE

NOTES:
1. DRAWING IS SCHEMATIC ONLY. INSTALLATION SHALL CONFORM TO NFPA AND ALL APPLICABLE LOCAL CODES.



15 FIRE SUPPRESSION ENTRANCE RISER
NO SCALE

PARAGON STAR NORTH VILLAGE
3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.2024
Issued For: GARAGE PERMIT SET

REVISIONS

No.	Date	Description

REGISTRATION

10/18/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

LS&A
Latimer Sommers & Associates P.A.
CONSULTING ENGINEERS
3639 SW Summerfield Drive, Suite A Topeka, Kansas 66614-3974
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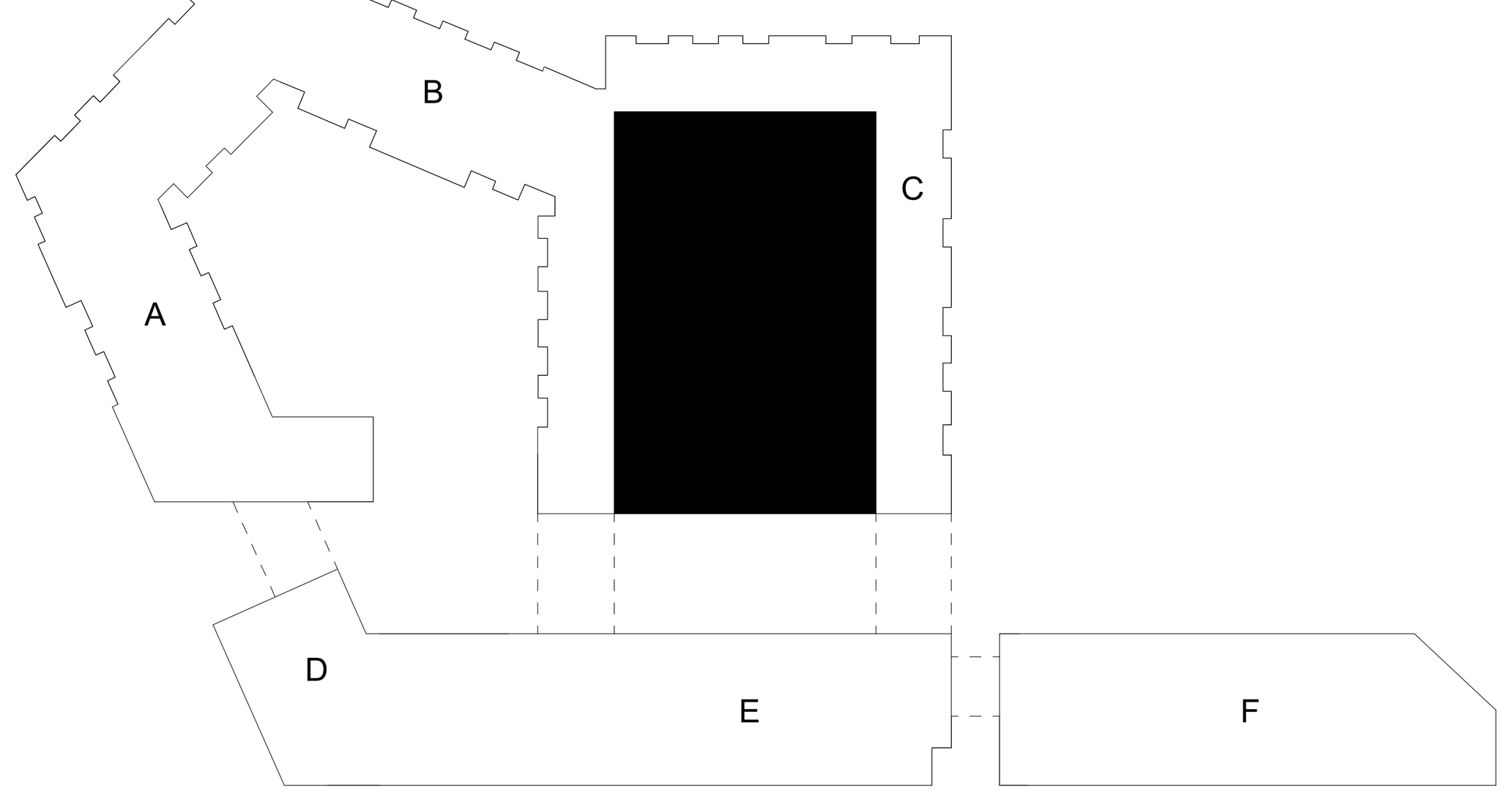
Telephone: (785) 233-3232
Email: lsapa@lsapa.com
LSA PROJECT NO. 2104643

SHEET TITLE
MECHANICAL DETAILS/SCHEDULES

SHEET NUMBER
MP2.01

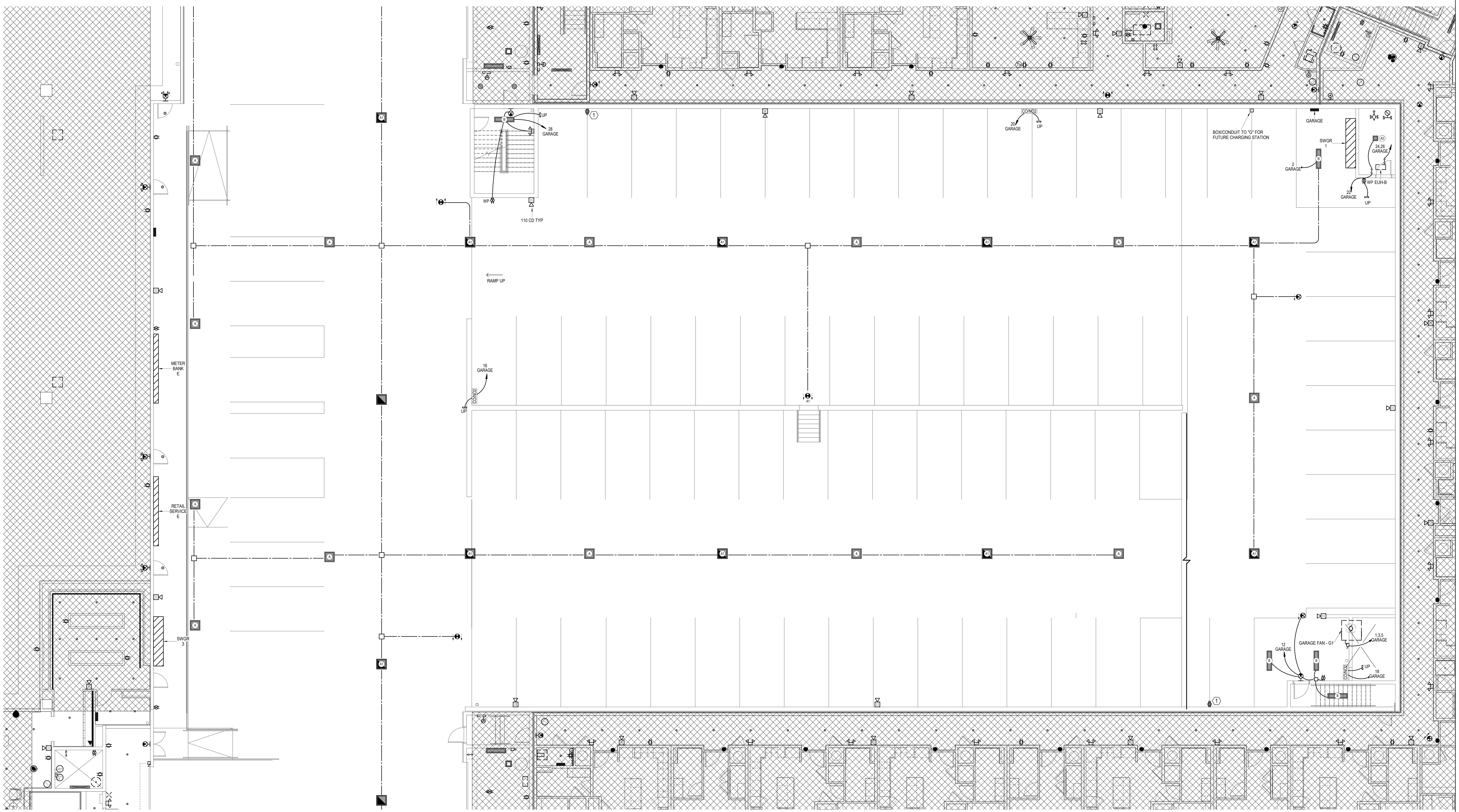


NOTES:

1. COORDINATE WITH OTHER SUB-CONTRACTORS FOR PLACEMENT OF WORK PRIOR TO INSTALLATION BEGINNING.
2. SEE FIRE SUPPRESSION SUBMITTALS AND INCORPORATE ALL DEVICES INTO FIRE ALARM.
3. EXIT LIGHTS SHALL BE VISIBLE TO OCCUPANTS.
4. PROVIDE NEC CLEARANCES FOR ALL PANELS AND ELECTRICAL EQUIPMENT.
5. LABEL ALL JUNCTION BOXES AS TO THE PANEL AND CIRCUIT NUMBER SERVED.
6. PANEL DIRECTORIES SHALL BE SPECIFIC TO THE ROOMS/EQUIPMENT SERVED.

LEGEND:

⟨1⟩ FUTURE EV CHARGING LOCATION PROVIDE BOX AND CONDUIT BACK TO SWGR-1 AREA.



NORTH

1 GARAGE GROUND LEVEL

POWER
1/8" = 1'-0"

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

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REGISTRATION

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CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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LSA PROJECT NO. 2104043

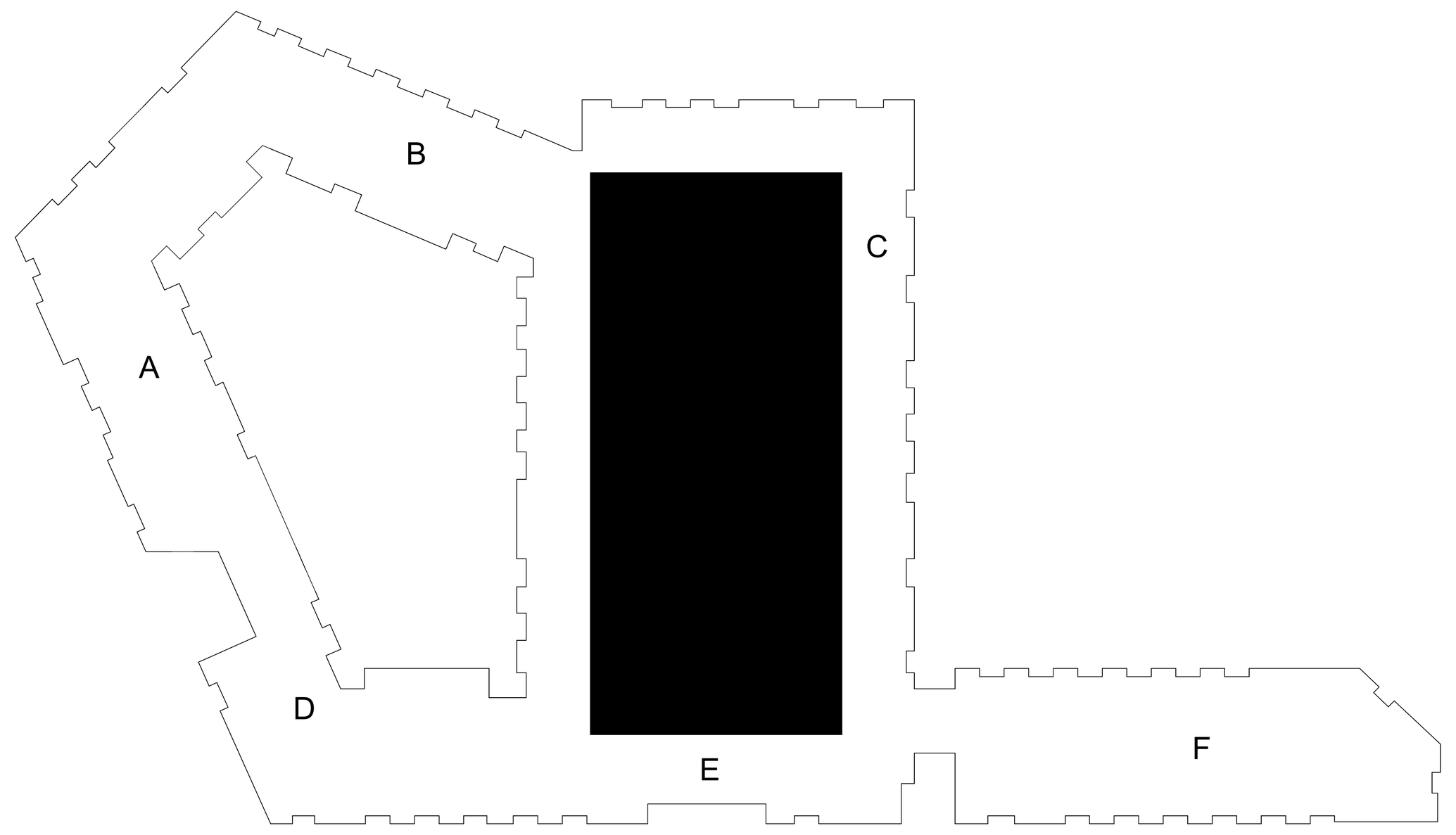
SHEET TITLE

GARAGE FIRST FLOOR PLAN - ELECTRICAL

SHEET NUMBER

E1.71G

10/25/2024 3:46:46 PM PARAGON STAR NORTH VILLAGE



NOTES:

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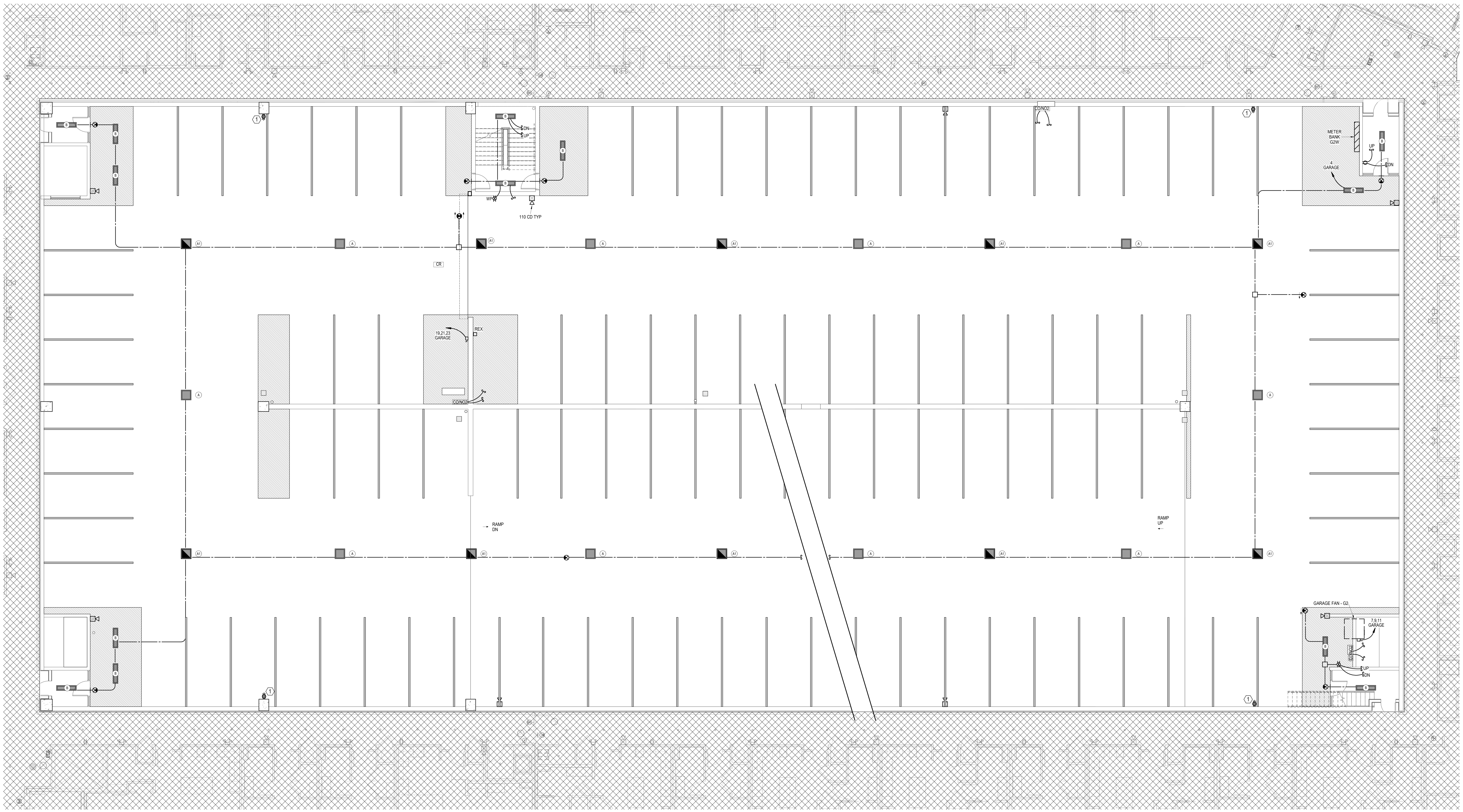
(1) FUTURE EV CHARGING LOCATION PROVIDE BOX AND CONDUIT BACK TO SWGR-1 AREA.



1 **GARAGE 2**
POWER
1/8" = 1'-0"
NORTH

10/25/2024 3:46:48 PM | PARAGON STAR NORTH VILLAGE

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.2024
Issued For: GARAGE PERMIT SET

REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI RICHARD R. BEARDMORE NUMBER PROFESSIONAL ENGINEER

10/18/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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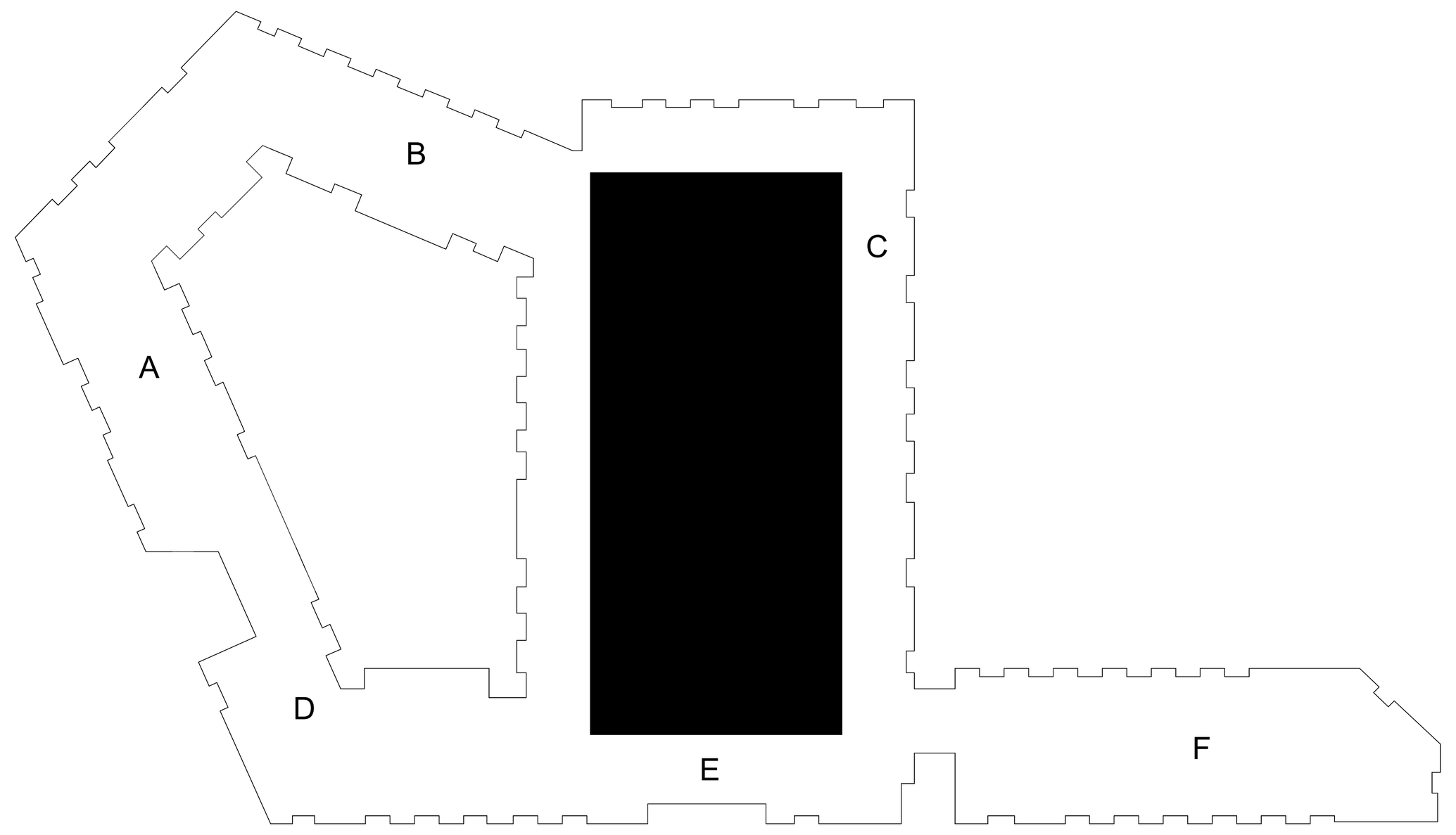
Email: lsapa@lsapa.com
LSA PROJECT NO. 2104643

SHEET TITLE

GARAGE SECOND FLOOR PLAN - ELECTRICAL

SHEET NUMBER

E1.72G



NOTES:

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5. LABEL ALL JUNCTION BOXES AS TO THE PANEL AND CIRCUIT NUMBER SERVED.
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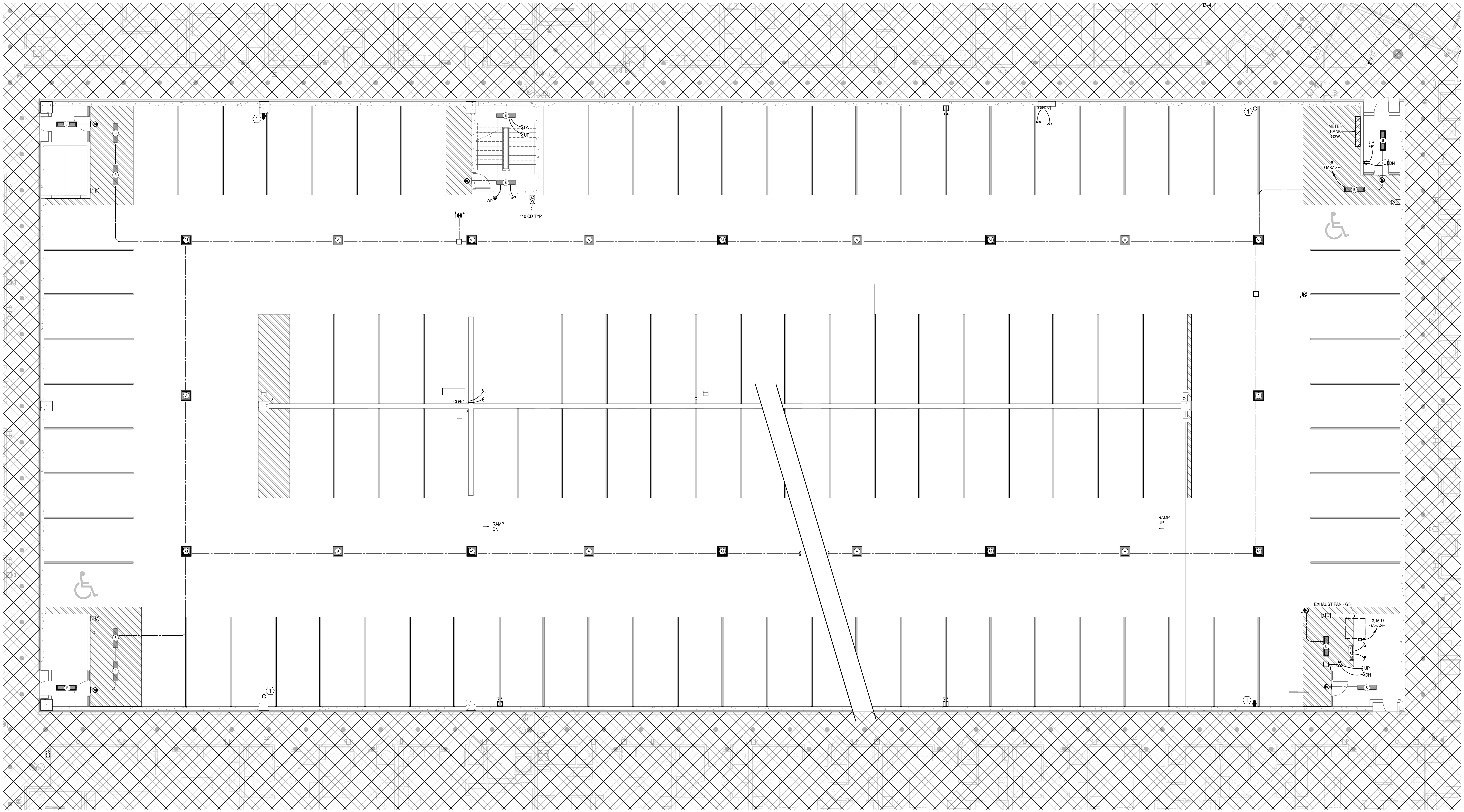
LEGEND:

(1) FUTURE EV CHARGING LOCATION PROVIDE BOX AND CONDUIT BACK TO SWGR-1 AREA.



1 GARAGE 3

POWER

1/8" = 1'-0"

NORTH

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.2024
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REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI
RICHARD R. BEARDMORE
PROFESSIONAL ENGINEER
10/18/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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LSA PROJECT NO. 2104643

SHEET TITLE

GARAGE THIRD FLOOR PLAN - ELECTRICAL

SHEET NUMBER

E1.73G

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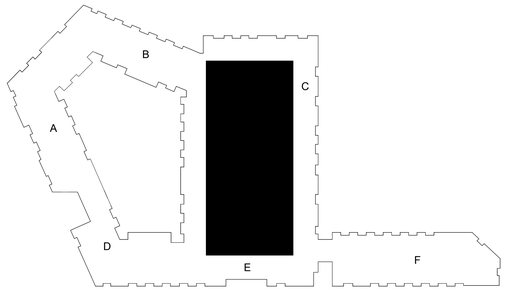

NOTES:

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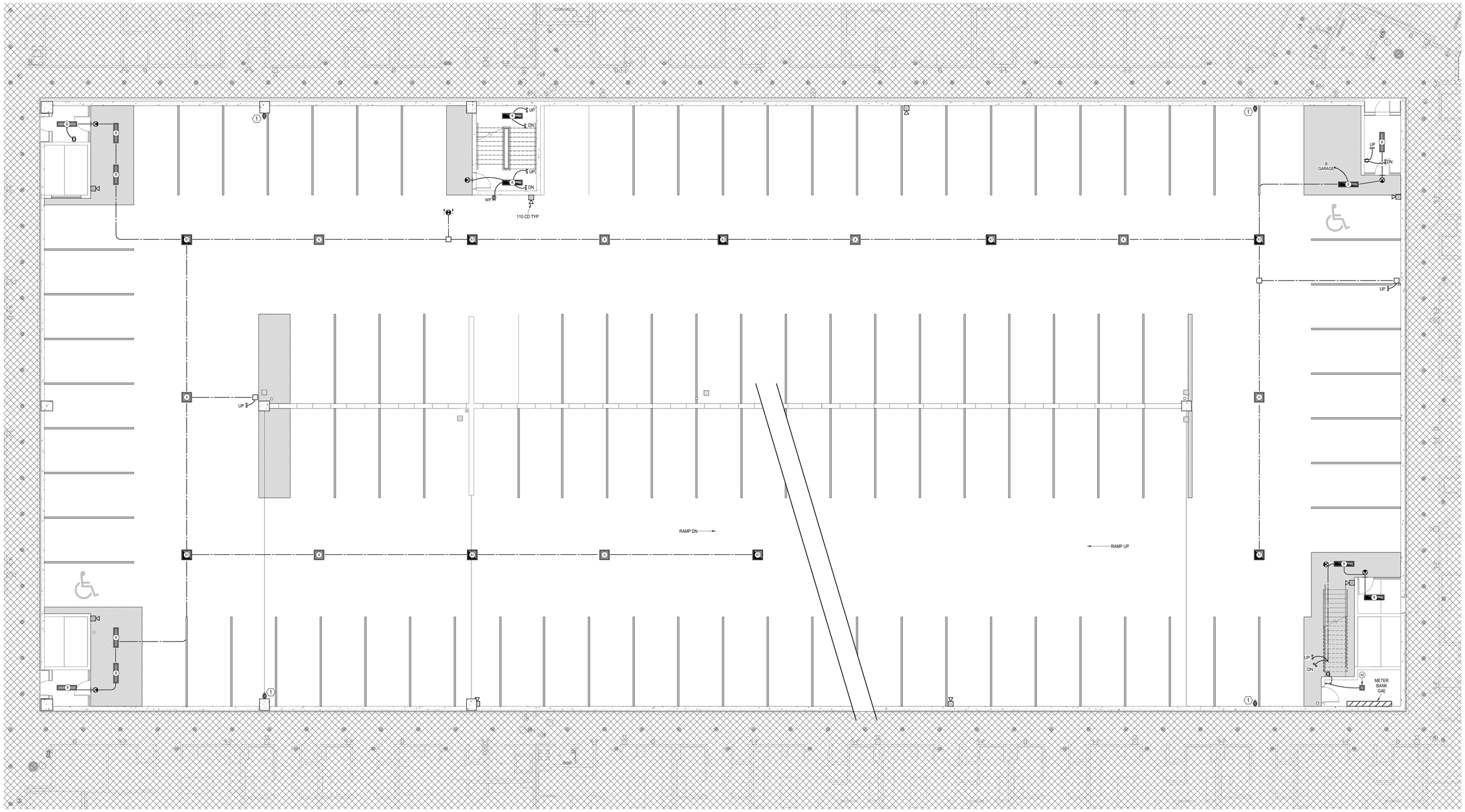
LEGEND:

(1) FUTURE EV CHARGING LOCATION PROVIDE BOX AND CONDUIT BACK TO SWGR-1 AREA.



1 **GARAGE 4**
POWER
1/8" = 1'-0"
NORTH

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.2024
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REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI
RICHARD R. BEARDMORE
NUMBER
PROFESSIONAL ENGINEER

10/18/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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Overland Park, Kansas 66210
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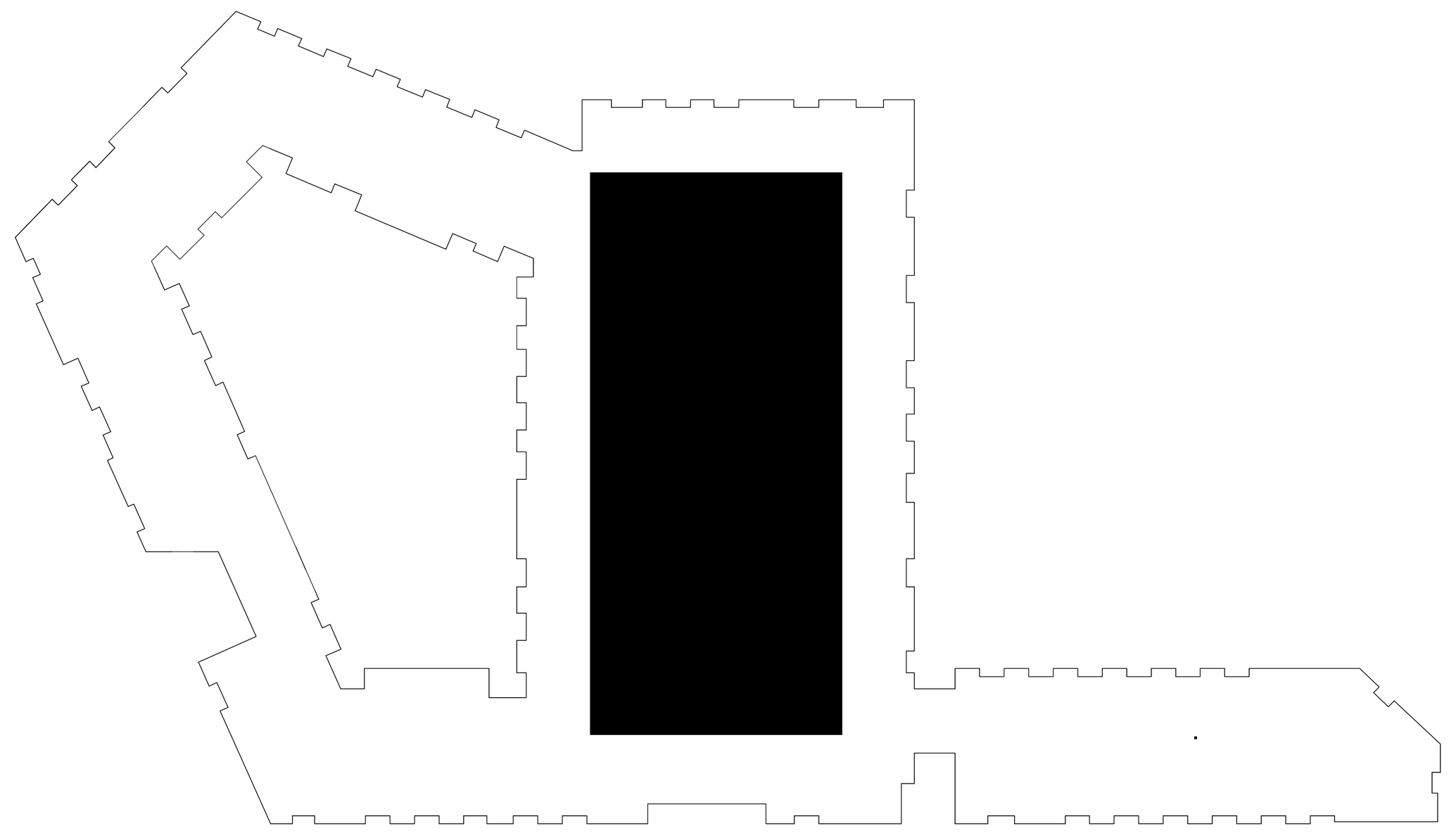
Email: lsapa@lsapa.com
LSA PROJECT NO. 2104043

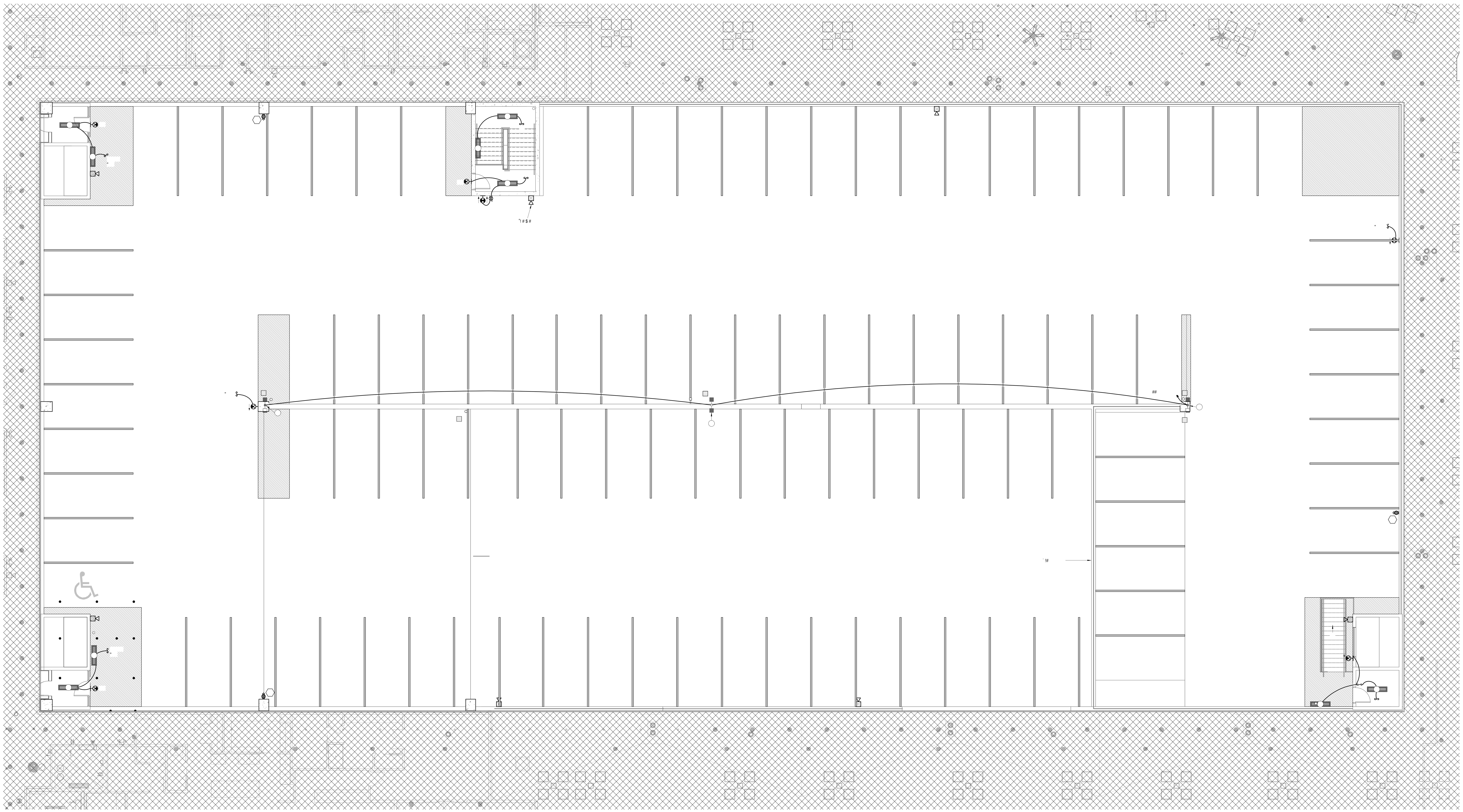
SHEET TITLE

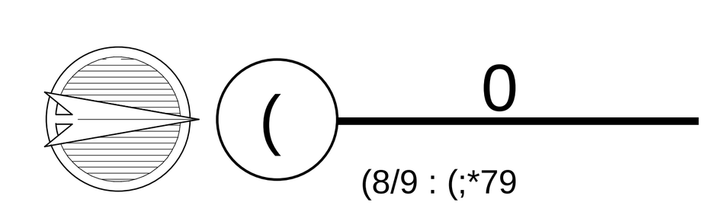
GARAGE FOURTH FLOOR PLAN - ELECTRICAL

SHEET NUMBER

E1.74G





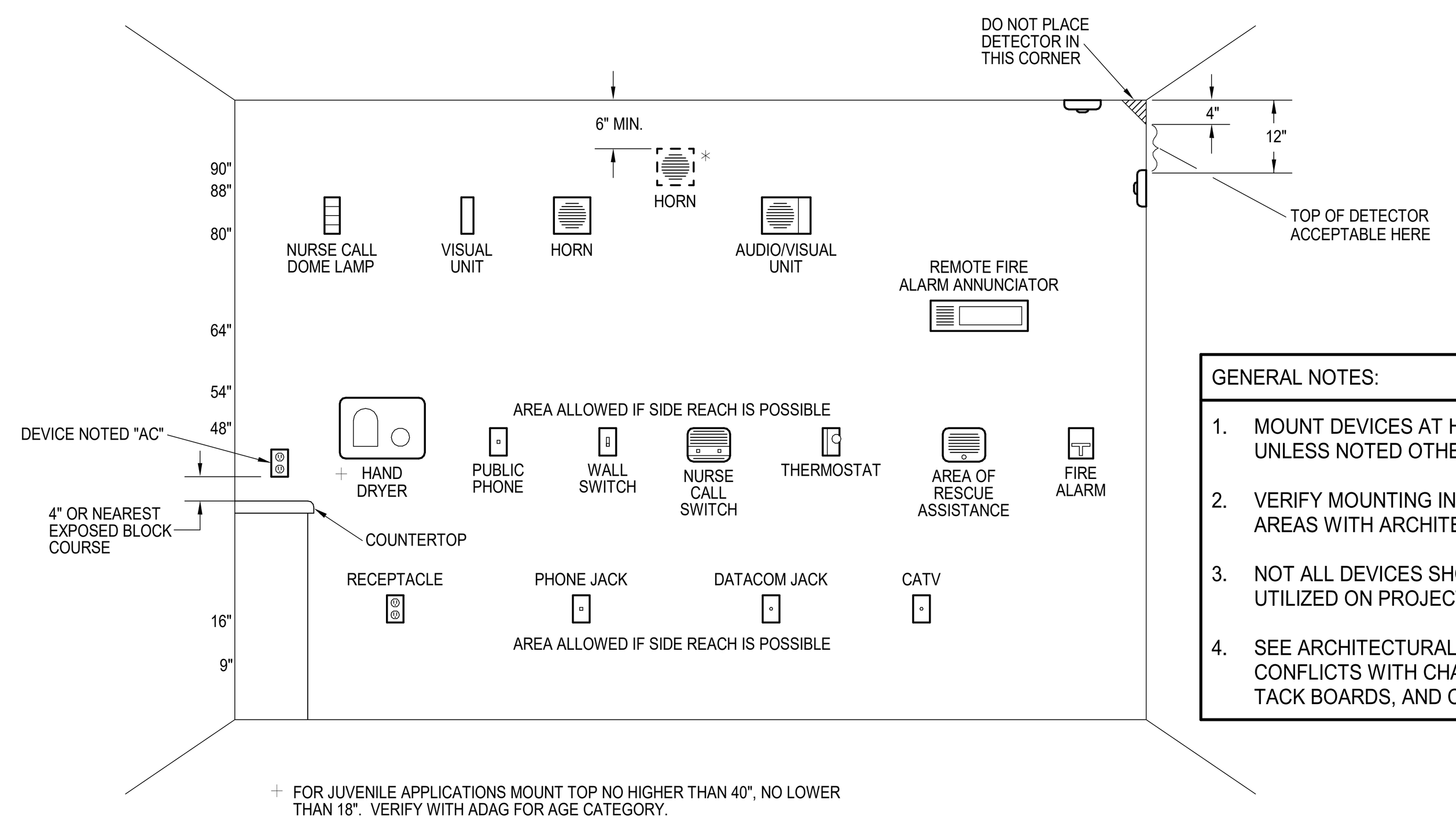


10.18.2024

STATE OF MISSOURI
RICHARD R. BEARDMORE
PROFESSIONAL ENGINEER

10/18/2024

LS&A



GENERAL NOTES:

1. MOUNT DEVICES AT HEIGHT INDICATED UNLESS NOTED OTHERWISE ON PLANS.
2. VERIFY MOUNTING IN SIDE REACH AREAS WITH ARCHITECT.
3. NOT ALL DEVICES SHOWN MAY BE UTILIZED ON PROJECT.
4. SEE ARCHITECTURAL DRAWINGS FOR CONFLICTS WITH CHALK BOARDS, TACK BOARDS, AND CASEWORK.

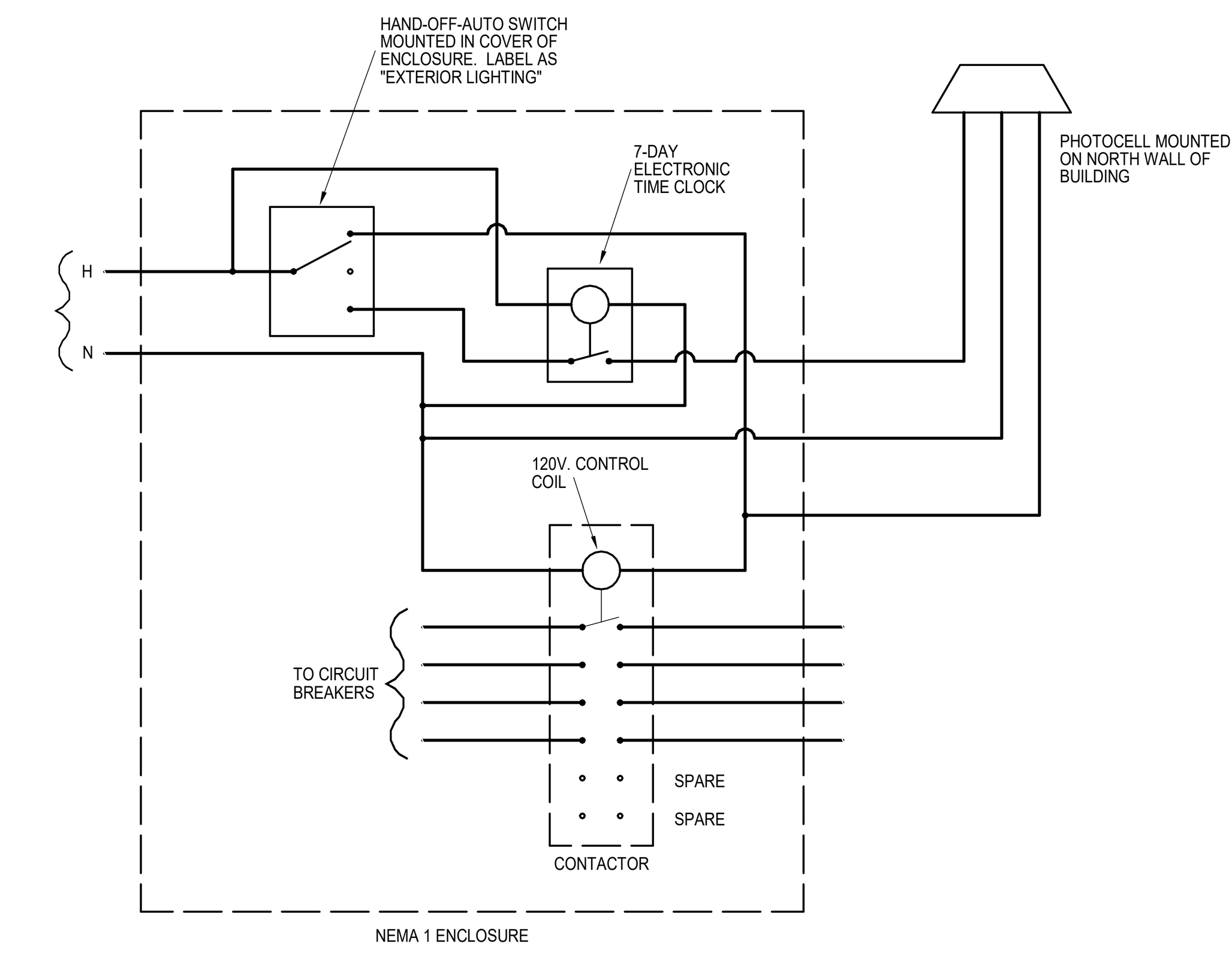
DEVICE MOUNTING NOTES:

1. VISUAL UNIT
   DEVICE BOTTOM 80" ABOVE HIGHEST FLOOR LEVEL OR TOP 6" BELOW CEILING; WHICHEVER IS LOWER.
2. AUDIO UNIT
   DEVICE BOTTOM 80" ABOVE HIGHEST FLOOR LEVEL OR TOP 6" BELOW CEILING; WHICHEVER IS LOWER.

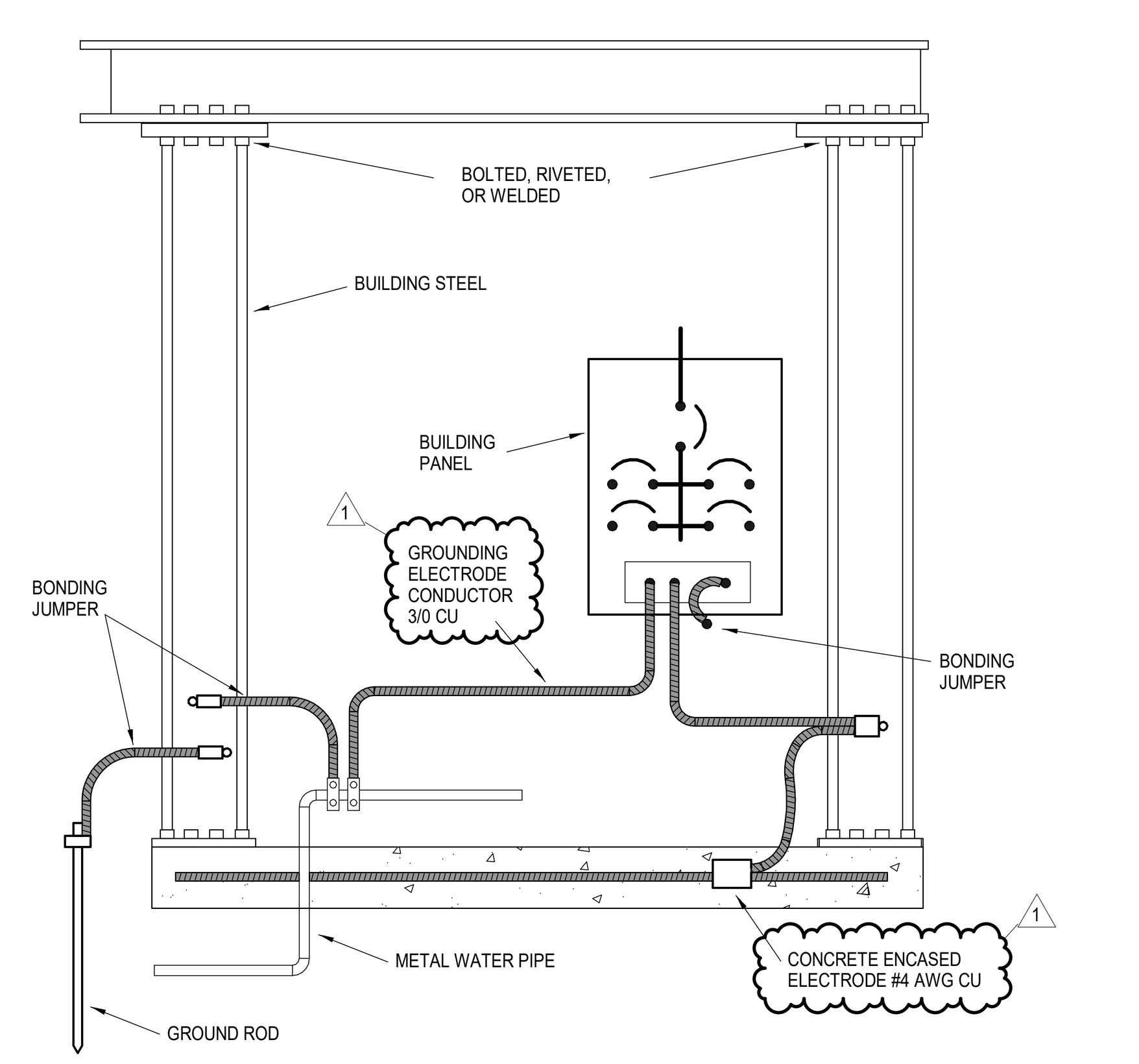
   * TOP OF UNIT NOT LESS THAN 90" ABOVE FLOOR AND NOT LESS THAN 6" BELOW CEILING (NFPA) (BOTTOM AT 88" WITH BLOCK COURSES). MOUNT AT NFPA HEIGHT ONLY IF REQUIRED BY LOCAL AHJ.
3. AUDIO/VISUAL UNIT
   DEVICE BOTTOM 80" ABOVE HIGHEST FLOOR LEVEL OR TOP 6" BELOW CEILING; WHICHEVER IS LOWER.
4. PULL STATION
   HIGHEST OPERABLE PART SHALL NOT BE MORE THAN 48" ABOVE THE FLOOR (FRONT APPROACH).

ELECTRICAL DEVICE MOUNTING HEIGHTS SHALL CONFORM TO THE LATEST EDITION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN.

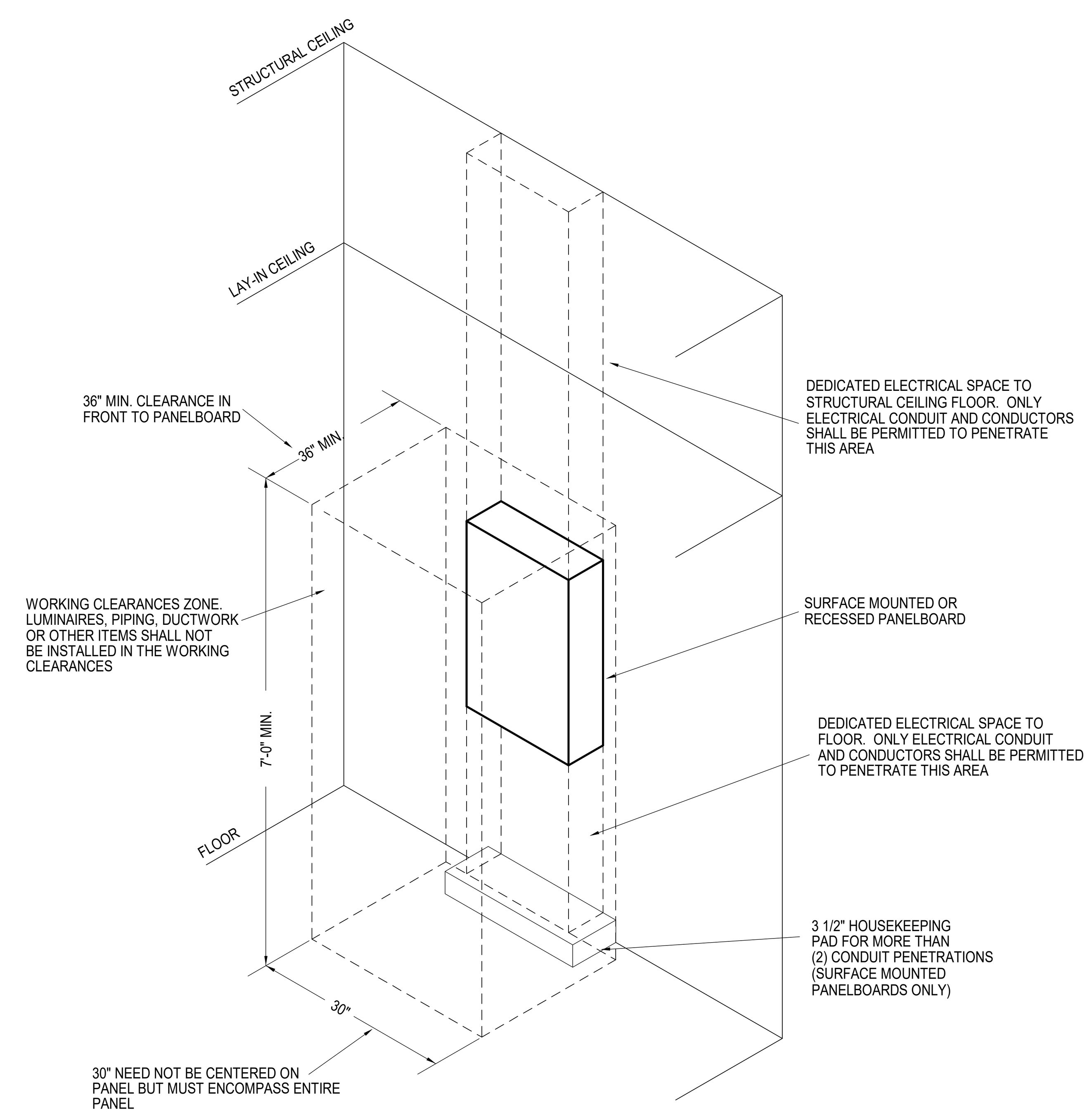
1 ELECTRICAL DEVICE MOUNTING HEIGHTS
NOT TO SCALE



2 EXTERIOR LIGHTING CONTROL PANEL SCHEMATIC
NOT TO SCALE



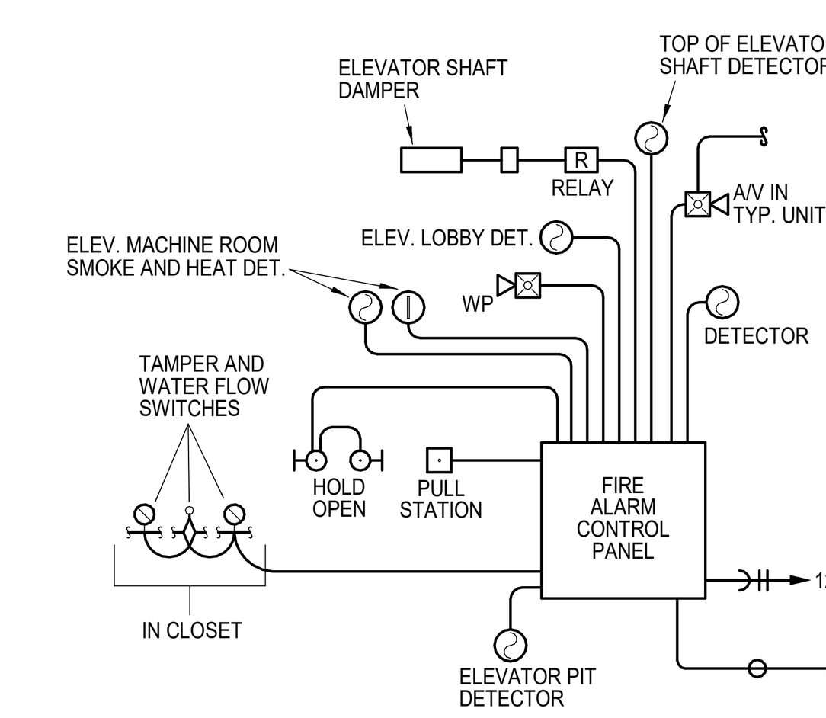
3 GROUNDING ELECTRODE SYSTEM DETAIL
NOT TO SCALE



NOTE:

COORDINATE ALL WORK WITH OTHER TRADES. MAINTAIN ALL OTHER NEC CLEARANCES AND REQUIREMENTS.

4 TYPICAL PANELBOARD INSTALLATION DETAIL
NOT TO SCALE



NOTES:

1. LOOP CIRCUITS TO COMPLETE SUPERVISION
2. WIRING TO COMPLY WITH NFPA 72.

5 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

PARAGON STAR
NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
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REVISIONS

No.	Date	Description
1	11/14/24	ASI 1

REGISTRATION

STATE OF MISSOURI
RICHARD R. BEARDMORE
PROFESSIONAL ENGINEER
10/25/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
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LSA PROJECT NO. 2104643

SHEET TITLE

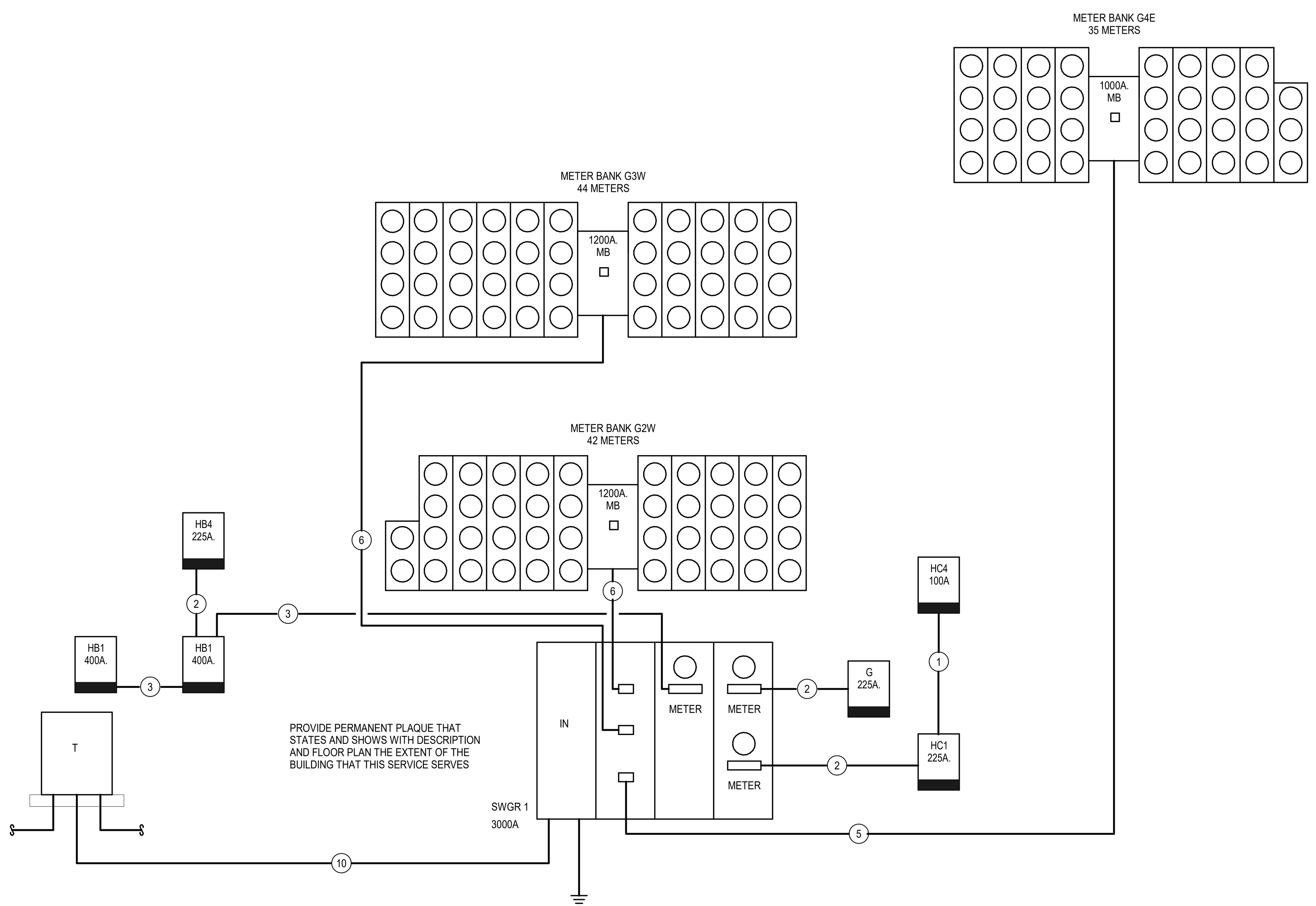
ELECTRICAL DETAILS

SHEET NUMBER

E3.01G

SWITCHGEAR LOAD ANALYSIS GARAGE								
Panel Name	Total Units	Total Connected	NEC Building Diversity	Diversified KVA	Amps @ 208V/3PH	House Load	Retail Load	Total Demand (Amps)
SWGR 1	121	3,802,320 VA	0.23	875 VA	2429	560	0	2989

Multi-Family Building Load Analysis GARAGE								
Meter Bank	Total Units	Total Connected Load	Total KVA	NEC Building Diversity	Diversified KVA	Amps @ 208V/3PH	House Load	Total Demand - Amps
Unit Type	Unit Quantity	Sum of Units						
METER BANK G2W	42	1,316,085 VA	1316	28%	369	1024	0	1024
A-1 ADA	2	57780 VA						
B-1	6	175140 VA						
C-1	17	536180 VA						
C-1S	1	31540 VA						
C-3	9	282645 VA						
C-5	2	63530 VA						
D-3	2	65360 VA						
D-4	1	32830 VA						
D-10	2	71080 VA						
METER BANK G3W	44	1,401,565 VA	1402	27%	378	1051	0	1051
A-1 ADA	2	57780 VA						
B-1	6	175140 VA						
C-1	16	504640 VA						
C-1S	2	63080 VA						
C-3	9	282645 VA						
C-5	2	63530 VA						
D-3	1	32680 VA						
D-4	2	65660 VA						
D-10	1	35540 VA						
PH-3	1	40290 VA						
PH-4	1	39690 VA						
PH-5	1	40890 VA						
METER BANK G4E	35	1,084,670 VA	1085	30%	325	904	0	904
A-1	12	346680 VA						
C-1S	16	504640 VA						
C-12	4	127180 VA						
D-5	3	106170 VA						



2 BUILDING B/C ELECTRICAL RISER DIAGRAM
NOT TO SCALE

FEEDER SCHEDULE						
MARK	OCP	SETS	NO. COND.	SIZE ALUM.	SIZE GRD. CU	CONDUIT
1	100 A	1	4	#1/0	#4	1 1/2"
2	225 A	1	4	300 KCMIL	#2	3"
3	400 A	2	4	#4/0	#1	2"
4	600 A	2	4	500 KCMIL	#2/0	3"
5	1000 A	3	4	600 KCMIL	#4/0	4"
6	1200 A	4	4	500 KCMIL	250 KCMIL	3"
7	1600 A	5	4	600 KCMIL	350 KCMIL	4"
9	800 A	3	4	400 KCMIL	#3/0	3"
10	2000 A	6	4	600 KCMIL	400 KCMIL	4"

Garage Luminaire Schedule							
MARK	**DESCRIPTION**	**MFGR**	**MODEL**	**MOUNTING**	**FINISH**	**LAMPS**	**NOTES**
A	Garage Light	Royal Pacific	4431OB-60-MS	surface	standard	60W 4000K	with 50% motion dimming
A1	Garage Light	Royal Pacific	4431OB-60-MS	surface	standard	60W 4000K	with 50% motion dimming/battery
A2	Surface Globe	Lithonia	LDN4CYL-40/LO4/AR/LSS/fcm	surface	white	1000 Lumen 4000K 10W	
B	Strip	Lithonia	MNSL-L46 1LL MVOLt 40k	surface	white	20W 4000K LED	with battery
C	Double head Pole	McGraw Edison	(2) GLEON-SA2C-740-U-5WQ	jb/surface	white	15,200 Lumen 4000K 115W LED	16 ft pole
X1	Exit	Lithonia	LQM SW3R	surface	white/red	LED	
X2	Exit - waterproof	Lithonia	WLTE-W-1R-EL	surface	white/red	LED	

Panel: GARAGE

Location: GARAGE
Supply From:
Mounting: SURFACE
Enclosure:

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Wire Size	A		B		C		Wire Size	Trip	Circuit Description	CKT
1				1321	1820					12	20 A	Lighting	2
3	GARAGE EF	15 A	12			1321	1600			12	20 A	Lighting	4
5								1321	1680	12	20 A	Lighting	6
7				1321	1752					12	20 A	Lighting	8
9	GARAGE EF	15 A	12			1321	600			12	20 A	Lighting	10
11								1321	833	12	20 A	Lighting	12
13				1321									14
15	GARAGE EF	15 A	12			1321	800			12	20 A	CO SENSOR	16
17								1321	800	12	20 A	CO SENSOR	18
19				0	800					12	20 A	CO SENSOR	20
21	Power Space 1305	20 A	12			0	296			12	20 A	Receptacle	22
23								0	2704	8	35 A	EUH-B	24
25					2704								26
27							1995			12	20 A	Lighting STAIR 106	28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
		Total Load:		10929 VA		9184 VA		9912 VA					
		Total Amps:		92 A		77 A		84 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
HVAC	17297 VA	65.00%	11243 VA		
Lighting	8652 VA	125.00%	10815 VA	**Total Conn. Load:**	30019 VA
Other	2400 VA	100.00%	2400 VA	**Total Est. Demand:**	26119 VA
Power	500 VA	100.00%	500 VA	**Total Conn.:**	83 A
Receptacle	1440 VA	100.00%	1440 VA	**Total Est. Demand:**	72 A

Notes:

PARAGON STAR NORTH VILLAGE

3200 NW PARAGON PKWY
LEE'S SUMMIT, MO 64081

Project No.: 18017,19050.07,19050.08
Date: 10.18.2024
Issued For: GARAGE PERMIT SET

REVISIONS

No.	Date	Description

REGISTRATION

STATE OF MISSOURI
RICHARD R. BEARDMORE
NUMBER
PROFESSIONAL ENGINEER

10/18/2024

PROJECT TEAM

ARCHITECT	FINKLE+WILLIAMS ARCHITECTURE
CIVIL	GBA ENGINEERS
LANDSCAPE	LAND 3
STRUCTURAL	BOB D. CAMPBELL
PLUMBING	LATIMER SOMMERS
MECHANICAL	LATIMER SOMMERS
ELECTRICAL	LATIMER SOMMERS
FIRE PROTECTION	LATIMER SOMMERS
CONTRACTOR	BRINKMANN CONSTRUCTORS

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LSA PROJECT NO. 2104043

SHEET TITLE

ELECTRICAL DETAILS/SCHEDULES

SHEET NUMBER

E3.02G