

SMOKE CONTROL MODIFICATIONS  
NZP PANDA HOUSE

3001 Connecticut Avenue, NW  
Washington, DC 20008  
SF PROJECT #2033101

PROJECT TEAM

ARCHITECT:

QUINN EVANS ARCHITECTS  
2121 WARD PLACE NW, 4TH FLOOR  
WASHINGTON, DC 20037

PH. (202) 298-6700  
FAX. (202) 298-6666

STRUCTURAL ENGINEERS:

McMULLAN & ASSOCIATES, INC.  
11800 SUNRISE VALLEY DRIVE, SUITE 430,  
RESTON, VA 20191

PH. (703) 556-0651

MECHANICAL AND ELECTRICAL ENGINEERS

MUELLER ASSOCIATES, INC.  
1306 CONCOURSE DRIVE, SUITE 100  
LINTHICUM, MARYLAND 21090

PH. (410) 646-4500  
FAX. (410) 646-4738

FIRE PROTECTION ENGINEERS

GHD  
14585 AVION PKWY STE 150  
CHANTILLY VA 20151

PH. (804) 237-0300

SHEET LIST

GENERAL		
G 001	GI	COVER SHEET
G 002	GI	GENERAL SYMBOLS & NOTES
G 003	GI	STAGING AND CODE INFORMATION
ARCHITECTURAL DEMOLITION		
AD 101	DP	DEMOLITION PLANS
AD 201	DP	ROCKWORK DEMOLITION
ARCHITECTURAL		
A 101	FP	NEW WORK PLANS
A 102	FP	ROOF PLAN
A 201	EL	STOREFRONT ELEVATIONS
A 202	EL	SECTIONS AT EXHAUST ELEVATIONS AND DETAILS AT LOUVERS
A 501	DT	STOREFRONT SECTIONS AND DETAILS
A 502	DT	STOREFRONT DETAILS
STRUCTURAL		
S 001	GI	STRUCTURAL DESIGN NOTES AND ABBREVIATIONS
S 101	FP	WALL OPENING LOCATIONS AND ROOF FRAMING PLAN
S 102	FP	STRUCTURAL PLANS
S 501	DT	SECTIONS AND DETAILS
S 502	DT	SECTIONS AND DETAILS
MECHANICAL		
M 001	KP	MECHANICAL LEGEND
MD 101	FP	FIRST FLOOR PLAN - DEMOLITION
M 101	FP	FIRST FLOOR AND ROOF PLANS
M 201	SH	MECHANICAL SCHEMATICS AND SCHEDULES
ELECTRICAL		
E 101	FP	FIRST FLOOR PLAN - ELECTRICAL
FIRE ALARM		
FA 001	CS	REFERENCE SHEET
FA 101	FP	FIRST FLOOR PLAN - DEMO AND NEW WORK
FA 501	DT	DETAILS
FA 502	DT	SMOKE EXHAUST PANEL DETAILS
FA 701	SH	MATRIX
SPRINKLER		
FX 001	CS	REFERENCE SHEET
FX 101	KP	FIRST FLOOR PLAN - DEMO AND NEW WORK



PANDA HOUSE INTERIOR, EXHIBIT 2

QUINN  
EVANS

2121 WARD PLACE, NW  
FOURTH FLOOR  
WASHINGTON, DC 20037

OFFICE OF FACILITIES ENGINEERING AND OPERATIONS  
APPROVAL BLOCK

DM: Carol R. Kelly 11-12-2020  
DESIGN CHIEF: R S Bindra 11/12/2020  
R.E.: Harold H. Miller 11/13/2020  
OPPM: W. J. Kelly 11/13/2020  
OFM&R: W. J. Kelly 11/17/2020  
OSHEM: Michael Kelly 11/20/2020  
OPS: Hugh Meehan 11/23/2020

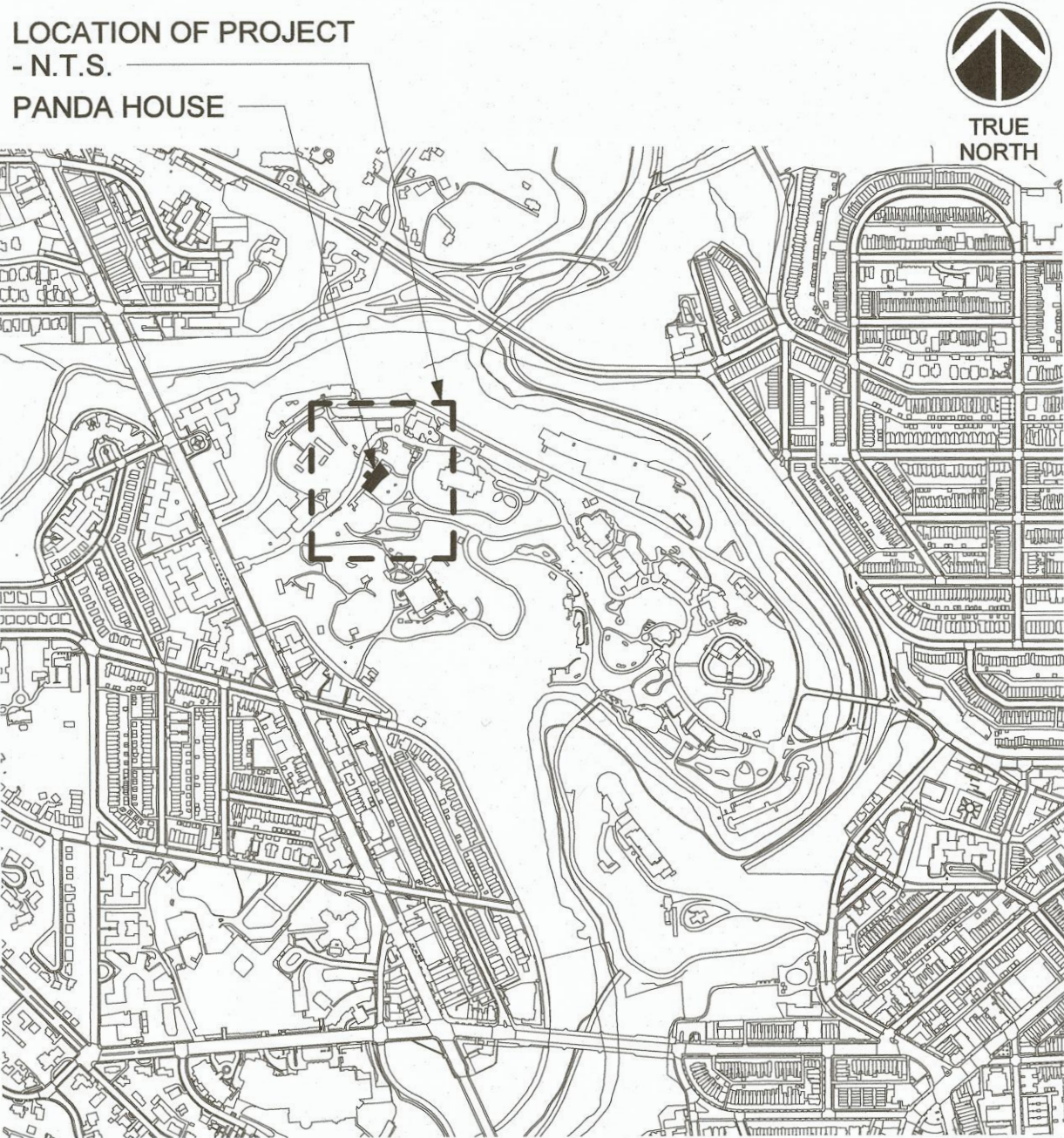
THIS PROJECT IS APPROVED AS BEING IN  
CONFORMANCE WITH THE APPLICABLE  
PROVISIONS OF SMITHSONIAN INSTITUTION  
DIRECTIVE 410

Michael J. Charnick 12/3/2020  
MICHAEL J. CHARNICK, P.E., DEPUTY DIRECTOR FOR ENGINEERING AND DESIGN, OPS

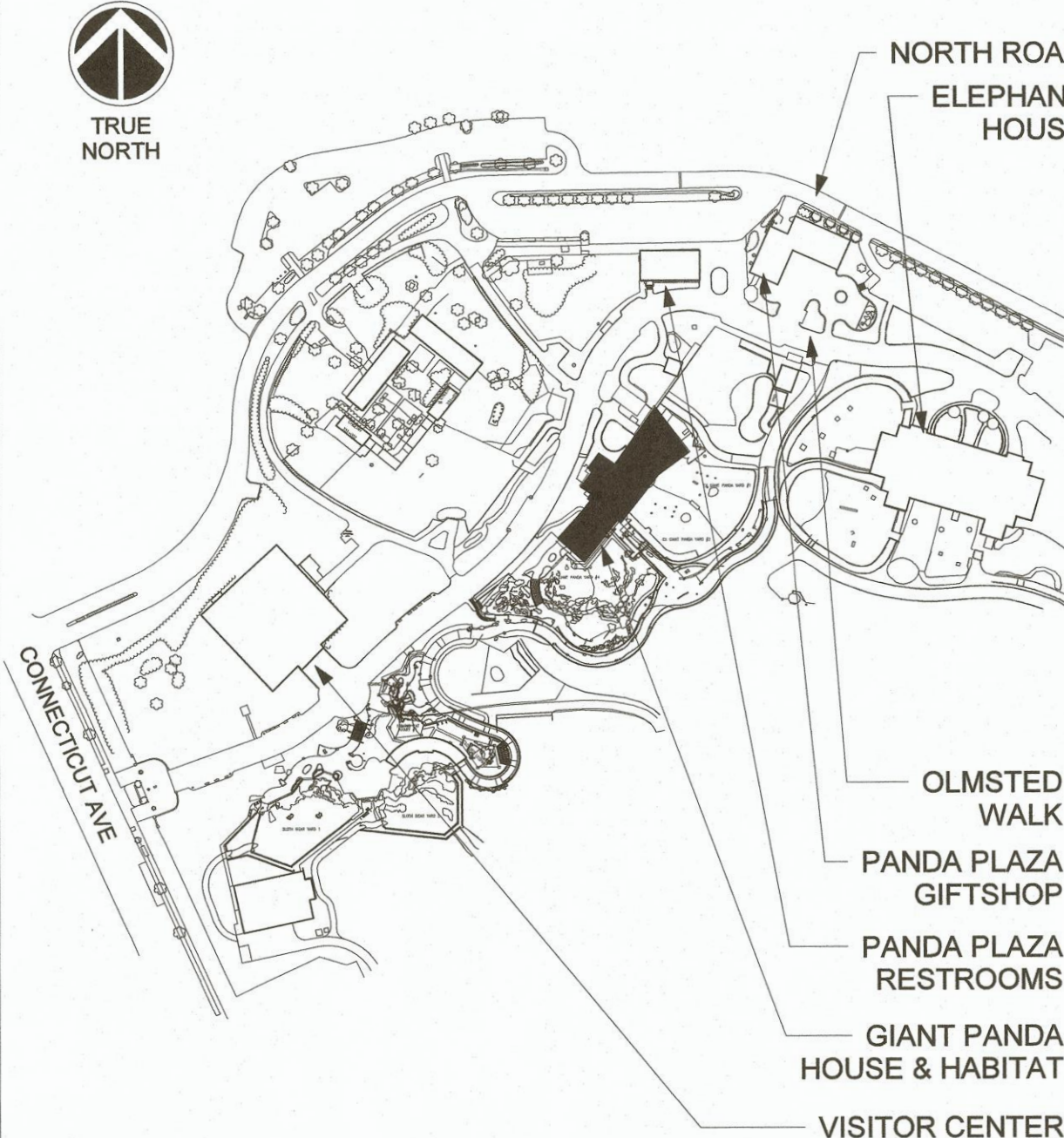
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REVISION: REVISION:

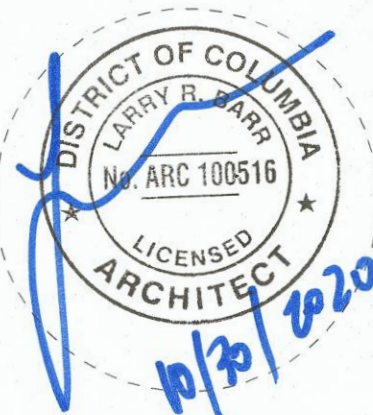
VICINITY MAP



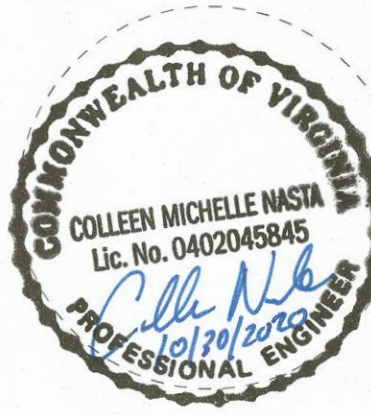
LOCATION MAP



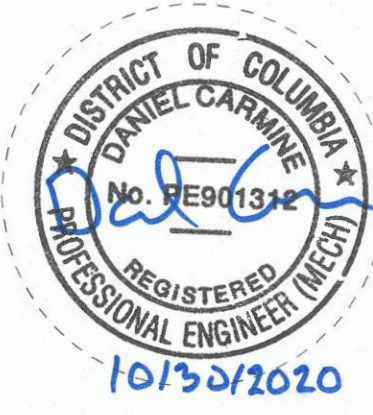
REGISTRATION STAMPS



ARCHITECT - QUINN EVANS



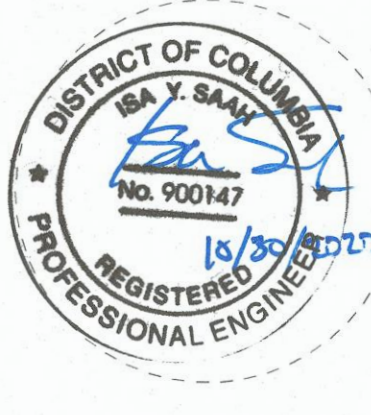
STRUCTURAL ENGINEER - McMULLAN & ASSOCIATES, INC.



MECHANICAL ENGINEER - MUELLER ASSOCIATES, INC.



ELECTRICAL ENGINEER - MUELLER ASSOCIATES, INC.



FIRE PROTECTION ENGINEER - GHD



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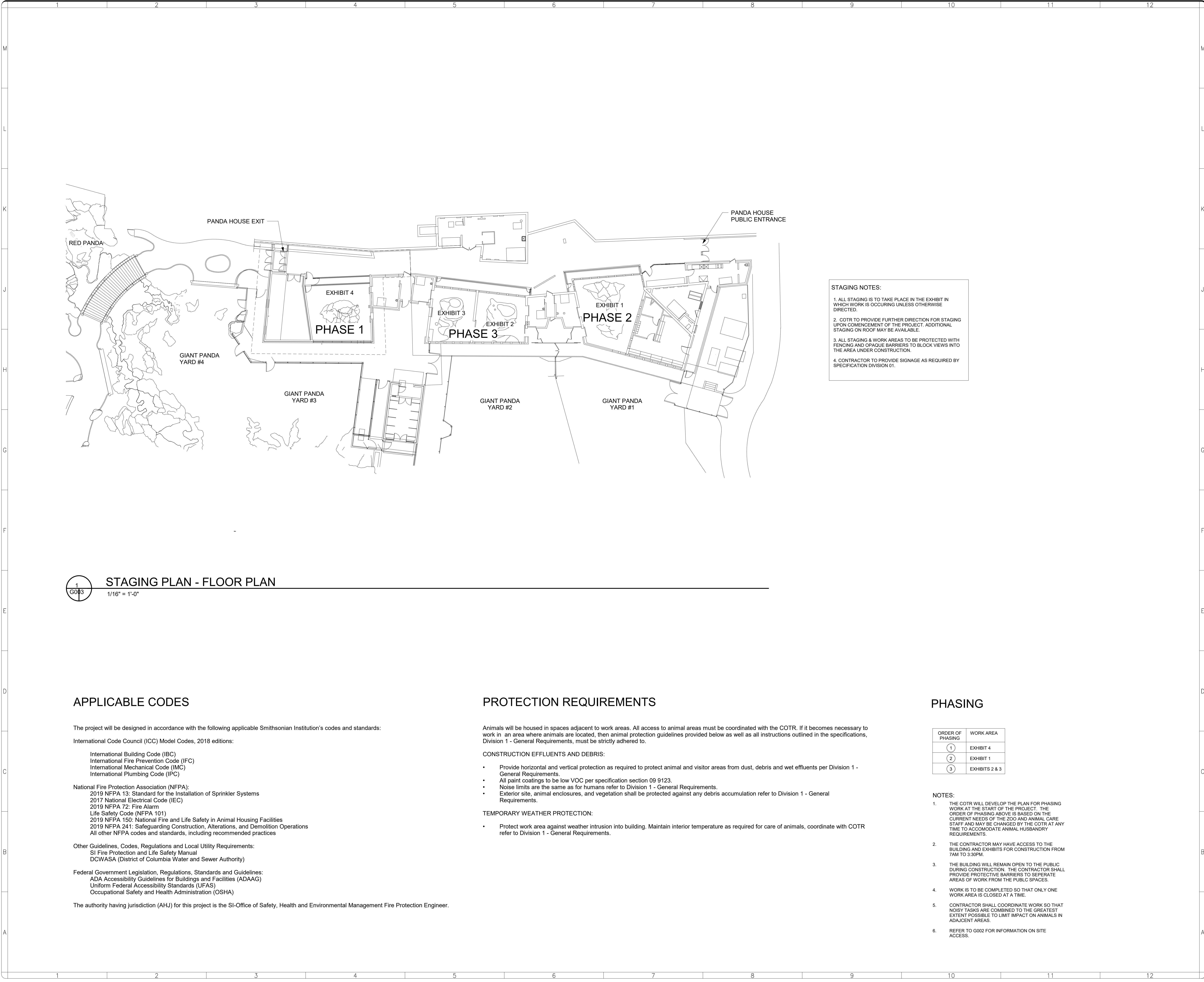
Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

BUILDING NAME	NZP PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SP PROJECT NUMBER	2033101		
A/E PROJECT NUMBER	42020400		
DRAWING TITLE	COVER SHEET		
DRAWING TYPE			
WORKING STAFF			
	DESIGNED BY	DRAWN BY	CHECKED BY
SHEET NO.	G - 001 G I		
DISCIPLINE	TYPE	SEQUENCE	



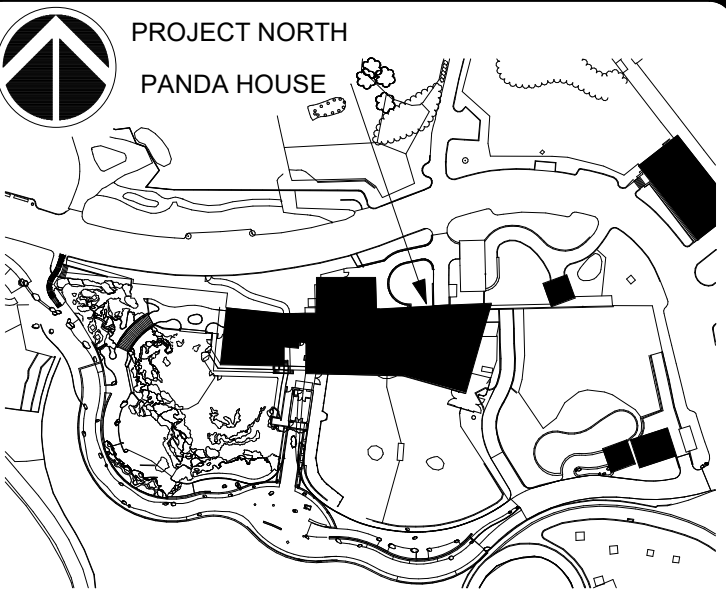
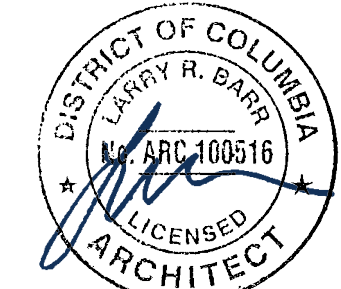




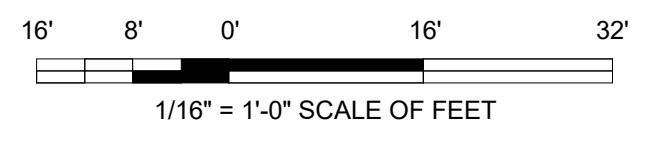


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EVANS**

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FOURTH FLOOR  
WASHINGTON, DC 20037

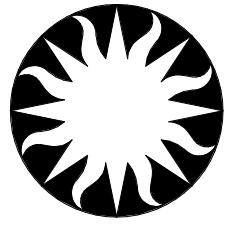


KEY PLAN



GRAPHIC SCALE(S)

DATE	SUBMISSION
10/30/20	FINAL SUBMISSION
REVISION	REVISION



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Institution**

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Washington, DC

BUILDING NAME	NZP PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SF PROJECT NUMBER	2033101		
AVE PROJECT NUMBER	42020400		
DRAWING TITLE	STAGING AND CODE INFORMATION		
DRAWING TYPE			
DRAWING STAFF			
	BB	MV	KS
DESIGNED BY	DRAWN BY	CHECKED BY	
SHEET NO.	G-003GI		
	DISCIPLINE	TYPE	SEQUENCE

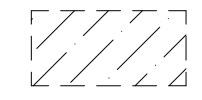
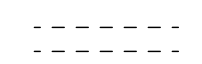
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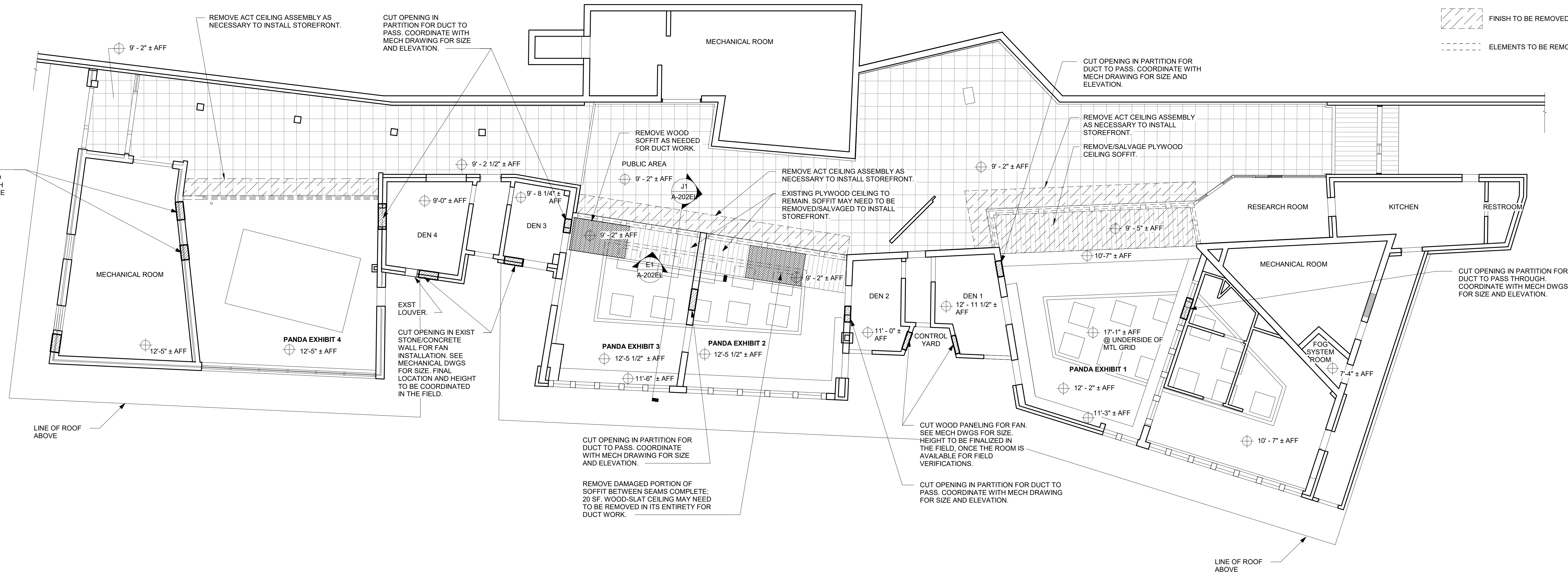


**SHEET NOTES:**

1. CONTRACTOR TO COORDINATE DEMOLITION WITH ADJACENT ELECTRICAL, FIRE ALARM & FIRE PROTECTION EQUIPMENT. REFER TO SELECTIVE DEMOLITION SPECIFICATION.
2. CONTRACTOR TO COORDINATE DEMOLITION OF WOOD CEILING IN THE EXHIBIT SPACES WITH SECURITY PROVIDER FOR CAMERAS. COORDINATE CAMERA LOCATIONS SO THAT EXISTING SIGHTLINES ARE RETAINED.

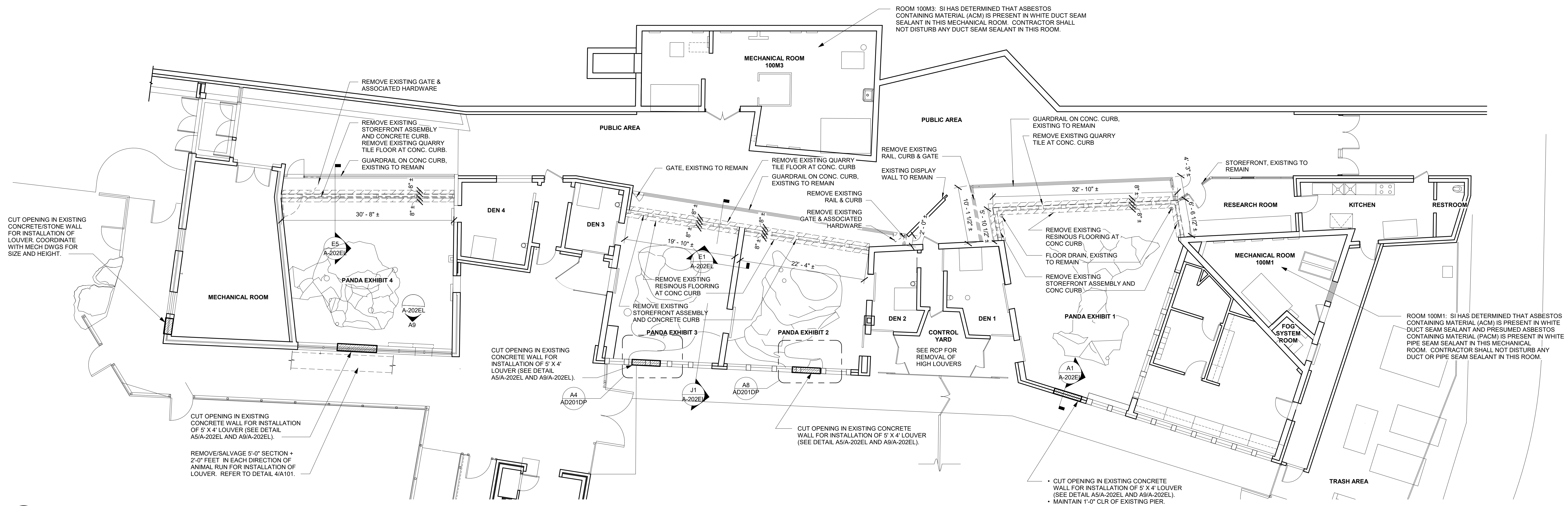
**DEMOLITION LEGEND**

-  FINISH TO BE REMOVED
-  ELEMENTS TO BE REMOVED



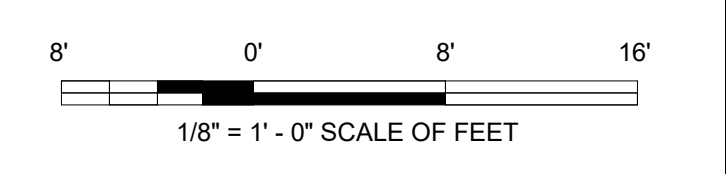
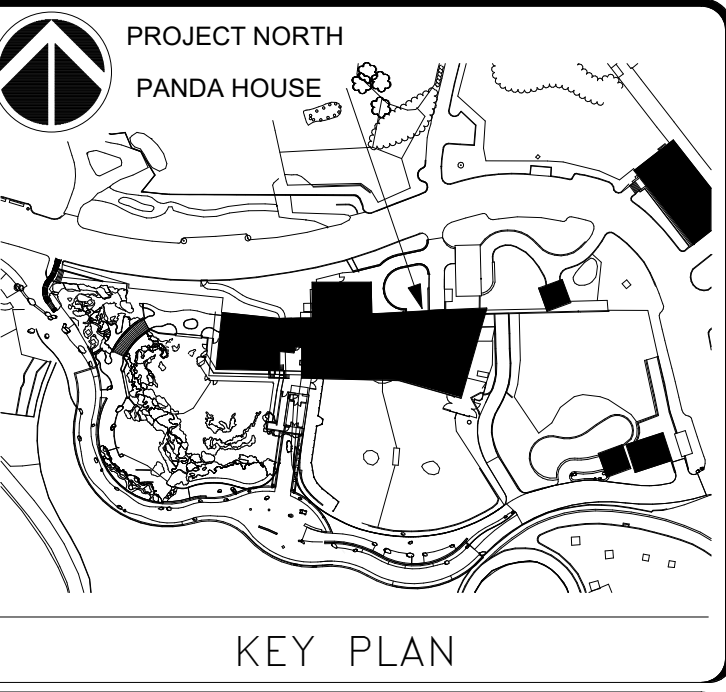
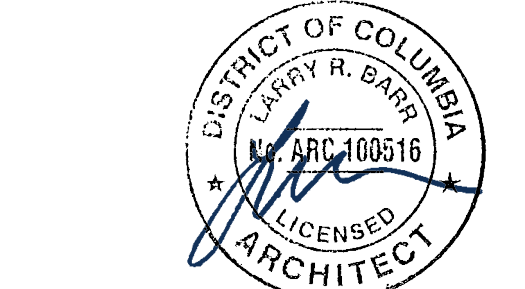
**F1 REFLECTED CEILING PLAN - DEMOLITION**

A-202ELAD101DP 1/8" = 1'-0"



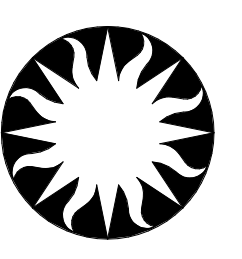
**A1 FLOOR PLAN - DEMOLITION**

A-202ELAD101DP 1/8" = 1'-0"



**GRAPHIC SCALE(S)**

DATE	10/30/20
SUBMISSION	FINAL SUBMISSION
REVISION	
REVISION	
REVISION	
REVISION	



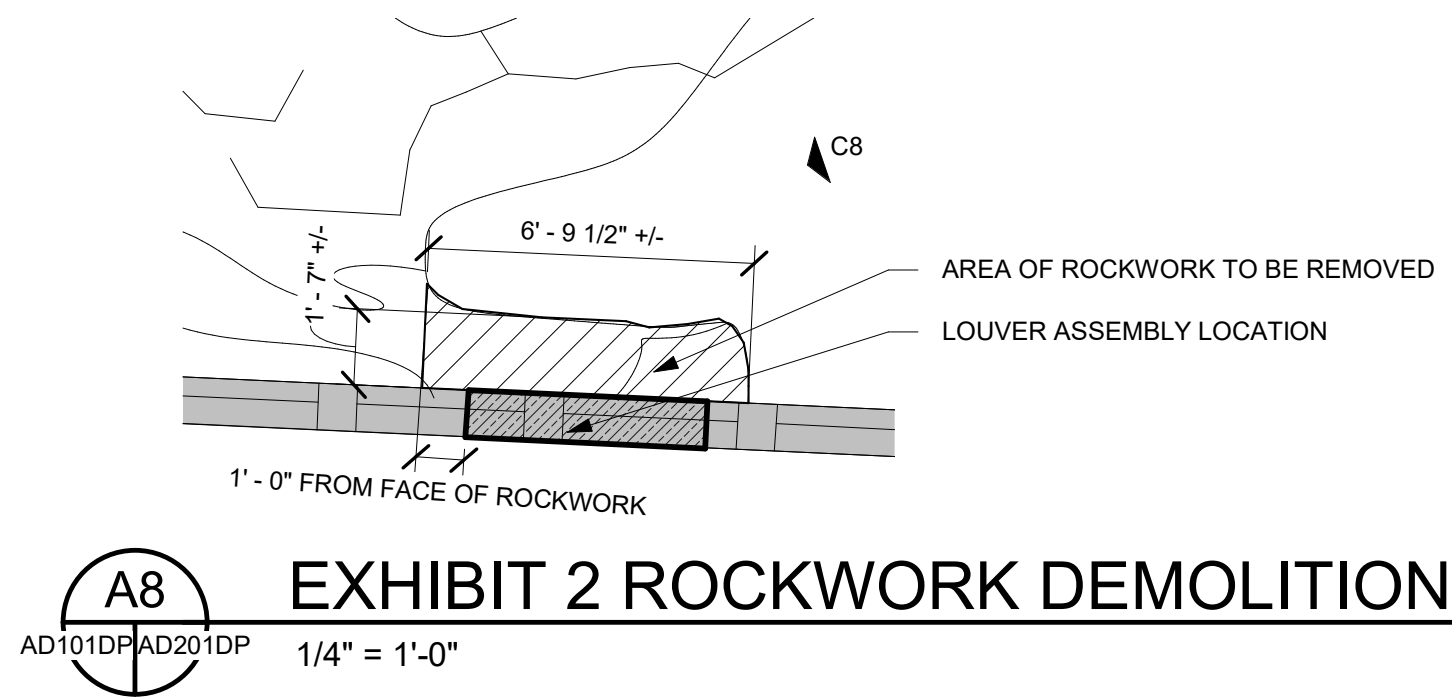
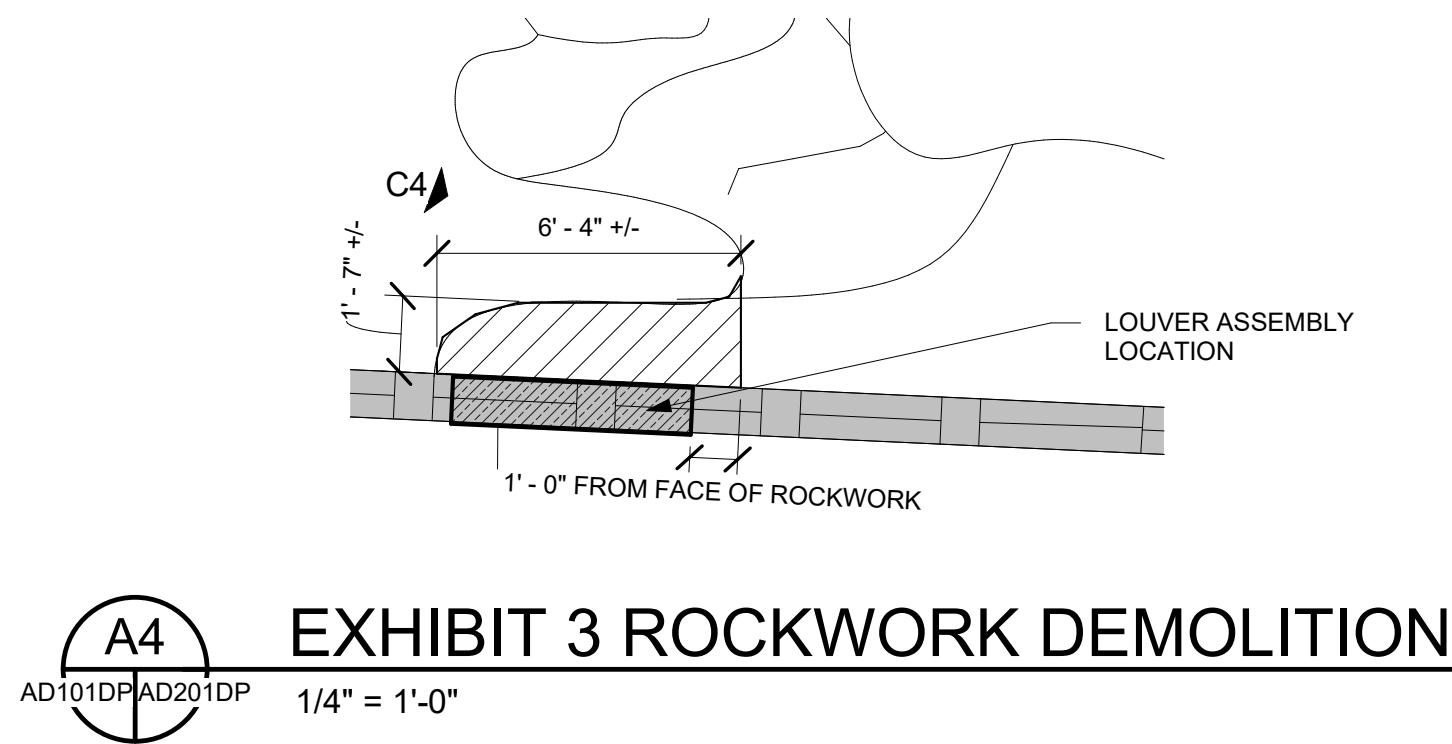
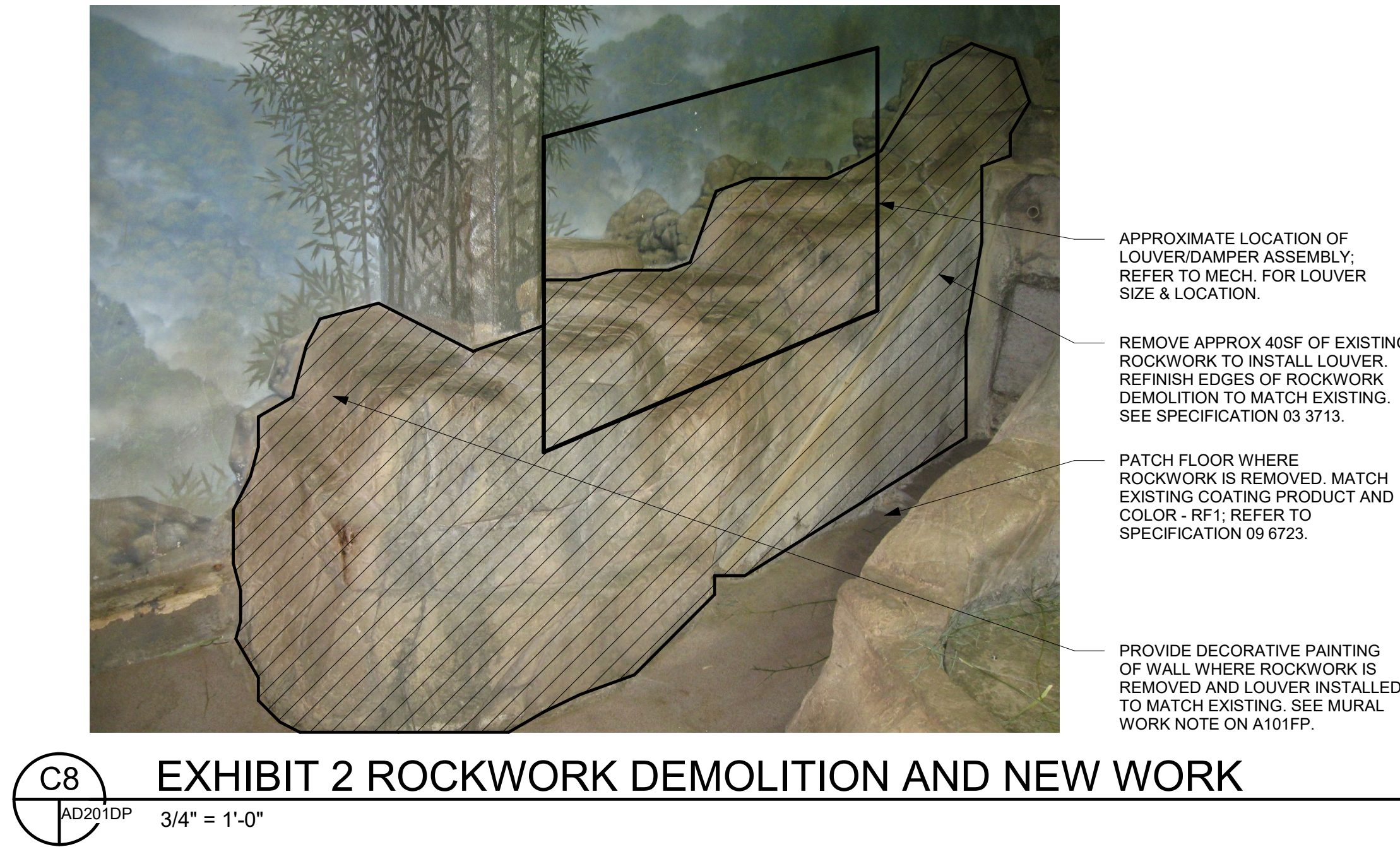
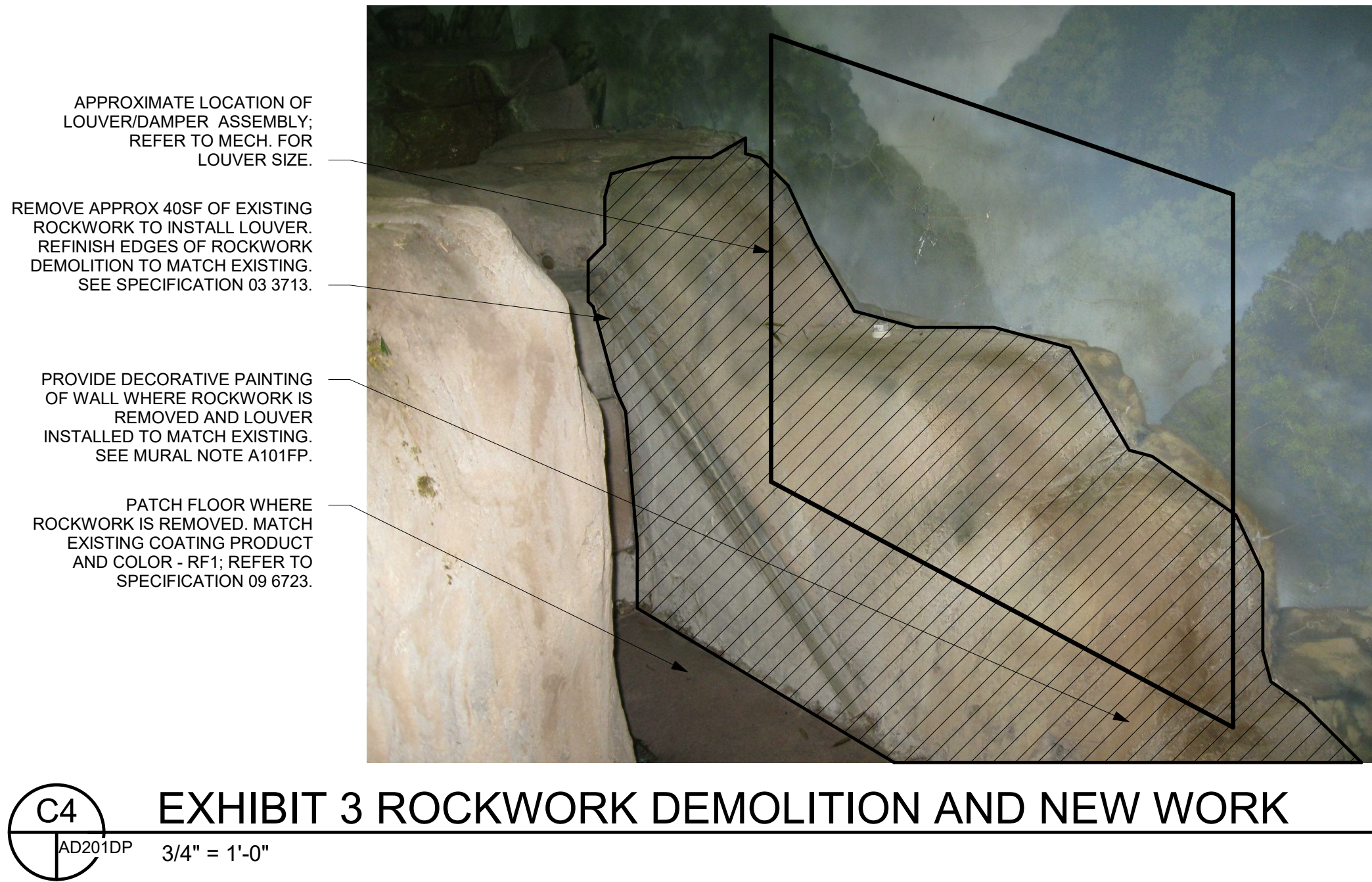
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Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC

BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SF PROJECT NUMBER	2033101
N/E PROJECT NUMBER	42020400
DRAWING TITLE	DEMOLITION PLANS
DRAWING TYPE	
WORKING STAFF	
SHEET NO.	AD101DP
DISCIPLINE	
TYPE	
SEQUENCE	

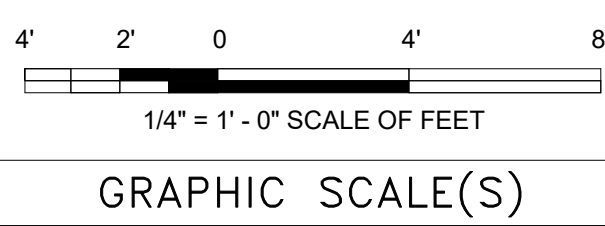
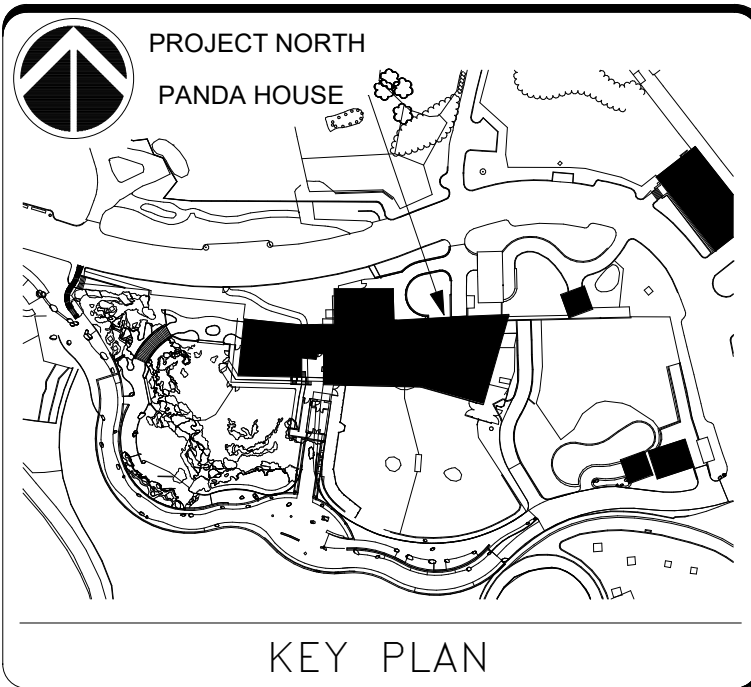
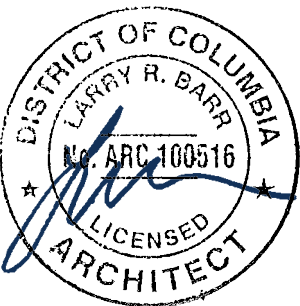


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AD201DP BY Approved 10/16/20 FINAL BACK CHECK

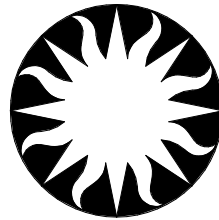


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REVISION	REVISION



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Washington, DC

BUILDING NAME	NZP PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SF PROJECT NUMBER	2033101		
1/4" PROJECT NUMBER	42020400		
DRAWING TITLE	ROCKWORK DEMOLITION		
DRAWING TYPE	DESIGNED BY	AUTHOR	CHECKER
WORKING STAFF	DESIGNED BY	DRAWN BY	CHECKED BY
SHEET NO.	AD201DP		
DISCIPLINE	TYPE	SEQUENCE	



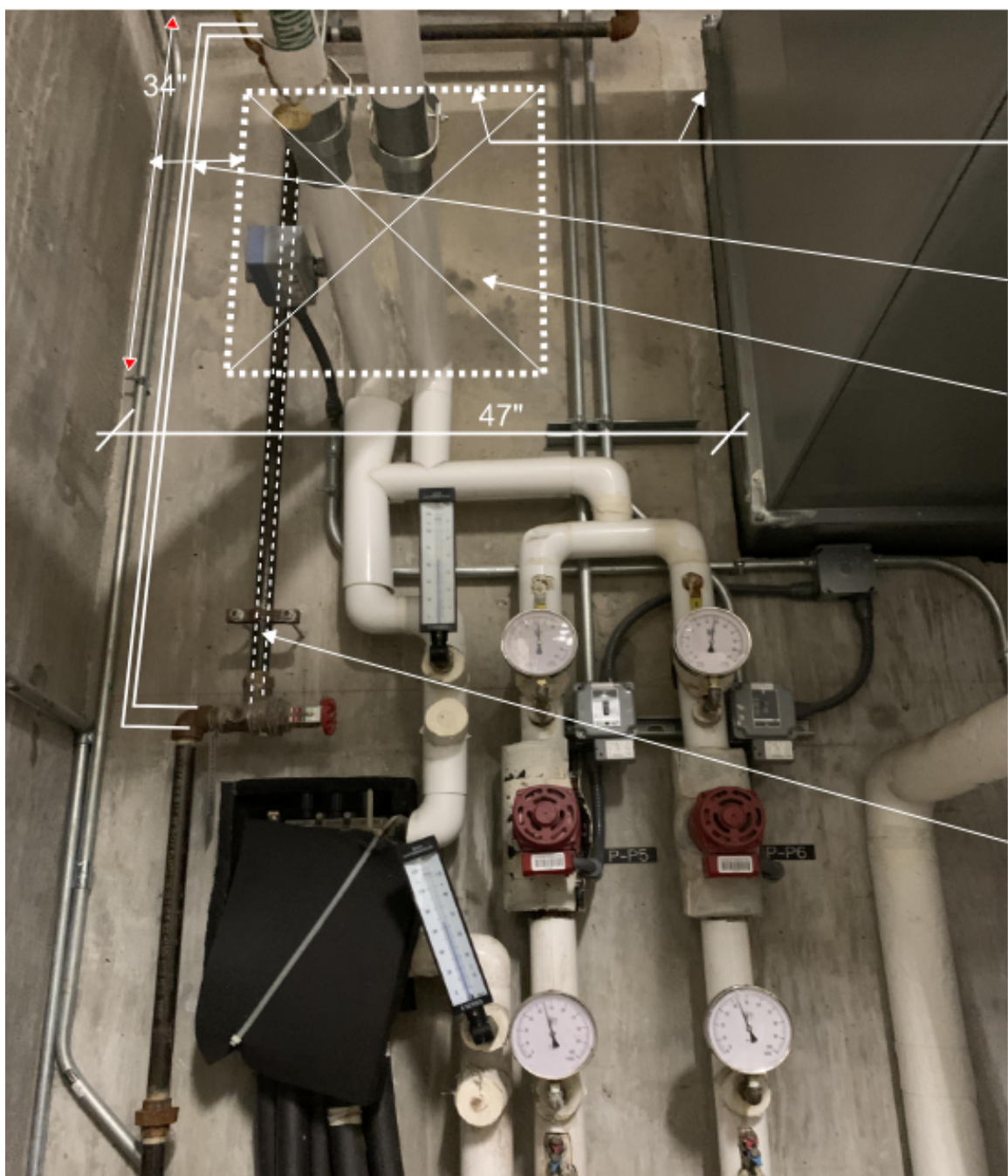


PHOTO A - MECH ROOM



PHOTO B - DEN 3 & 4 EXTERIOR WALL

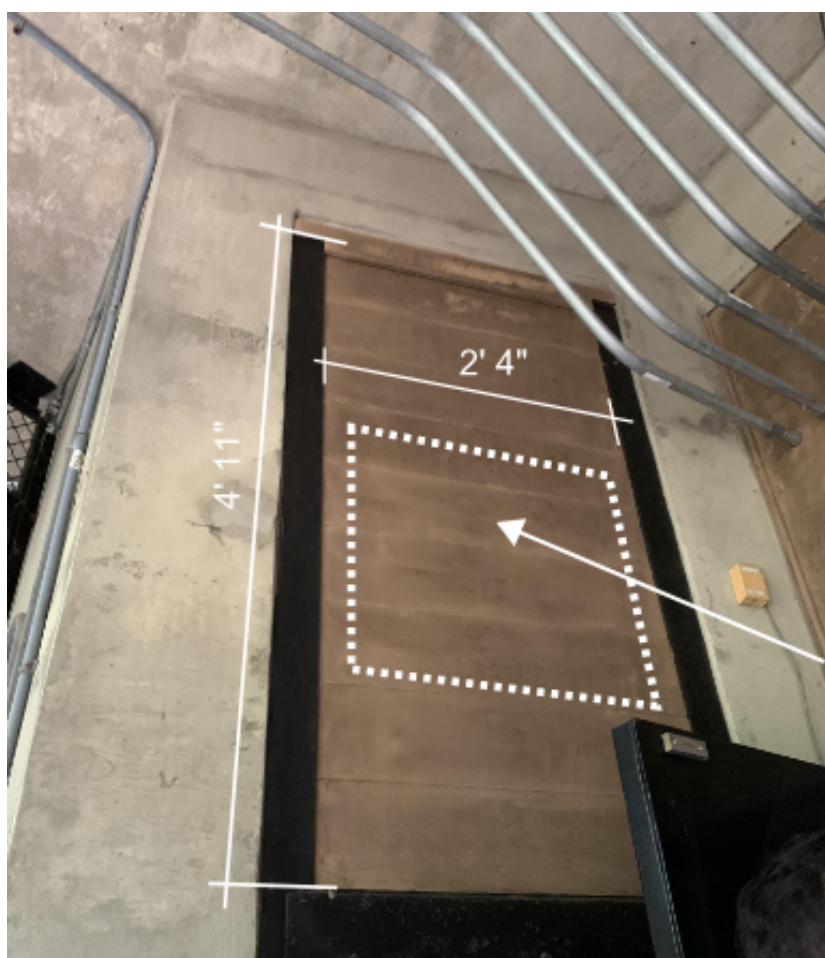


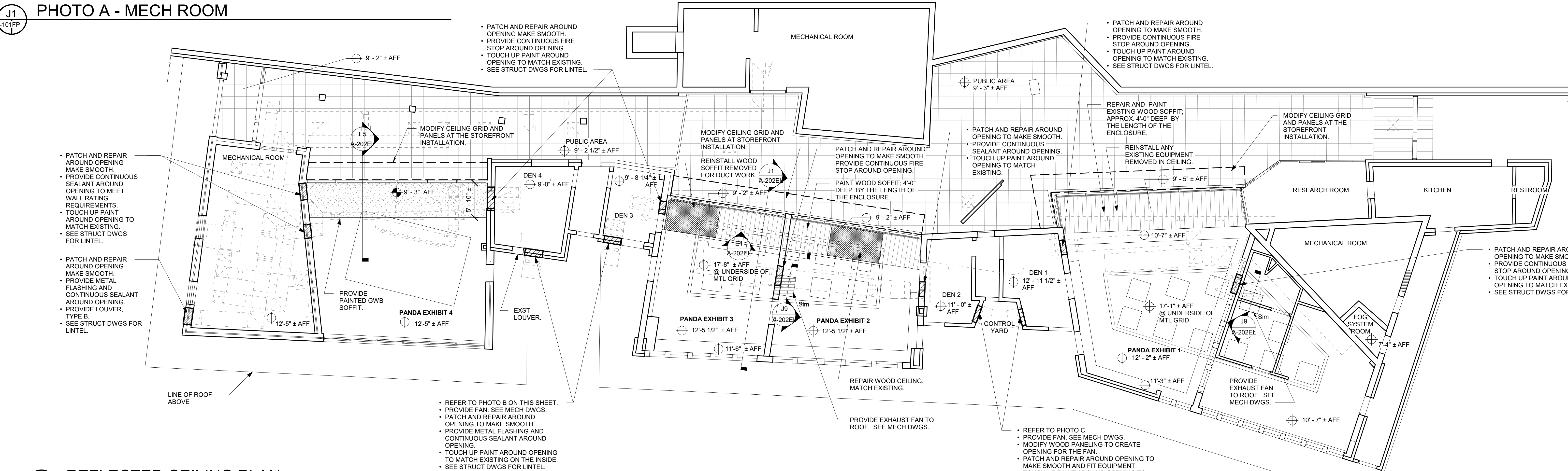
PHOTO C - DENS 1 & 2 WOOD PANELING

SHEET NOTES:

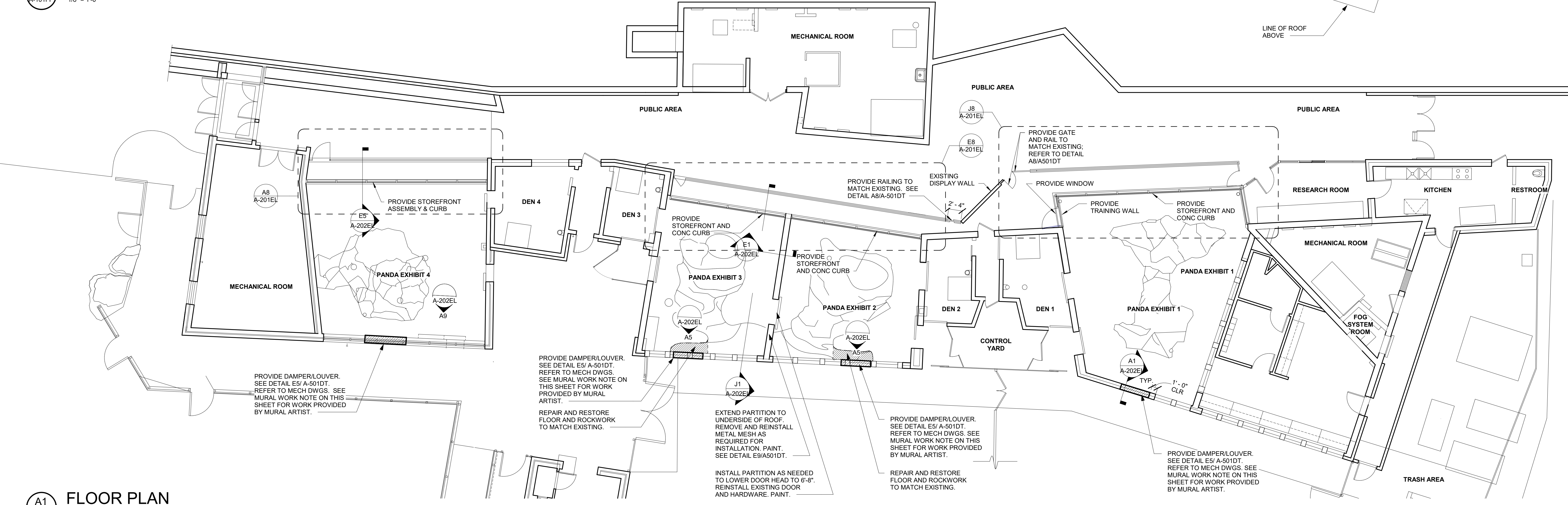
- CONTRACTOR TO REINSTALL ANY DEVICE DEMOUNTED DURING DEMOLITION.
- CONTRACTOR TO PROVIDE SMOOTH SURFACE MATCHING THE EXISTING INTERIOR WALL FINISH.

MURAL WORK:

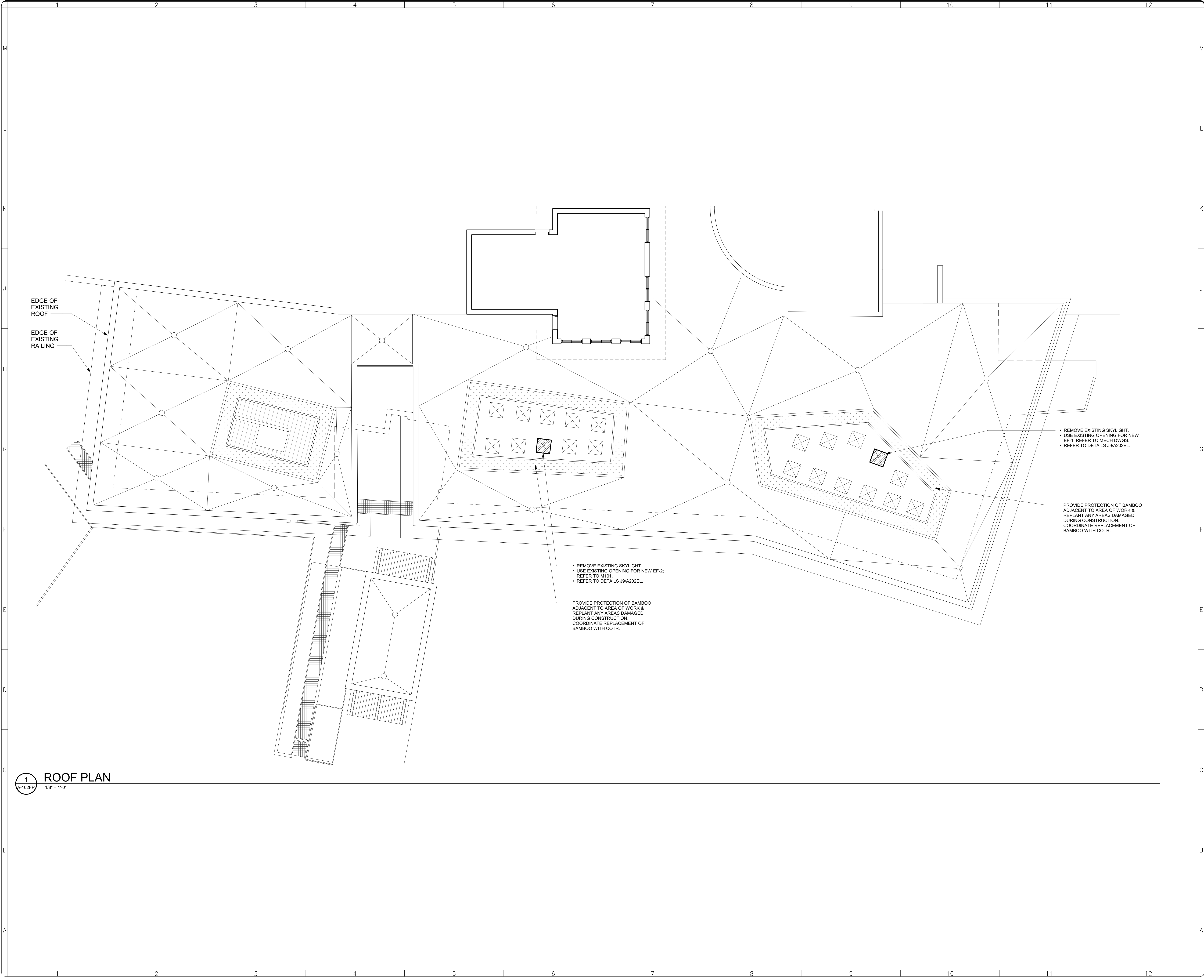
- CONTRACTOR TO PROVIDE SMOOTH SURFACE MATCHING THE EXISTING INTERIOR WALL FINISH.
- ARTIST TO PRIME WITH ZINSSER BULLS EYE 1-2-3 PRIMER.
- ARTIST TO RE-ESTABLISH PAINTED MURAL ARTWORK USING SHERWIN WILLIAMS PAINT.
- ARTIST TO VARNISH REPAIRED MURAL WITH TWO COATS OF C-500 CLEAR CAT BY FAUX EFFECTS INTERNATIONAL, INC.



REFLECTED CEILING PLAN



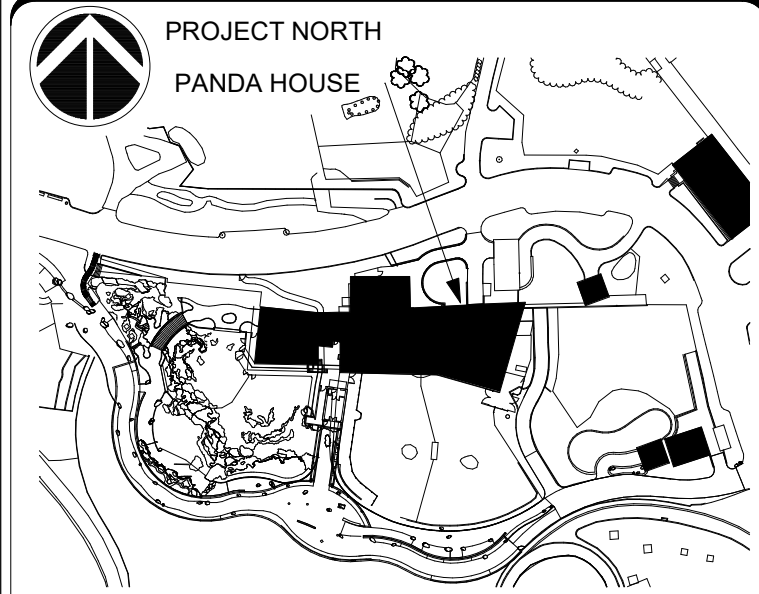
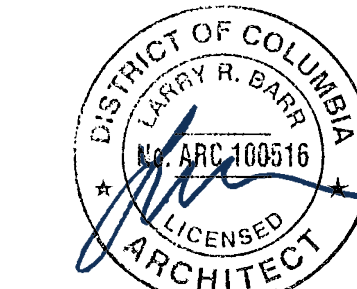




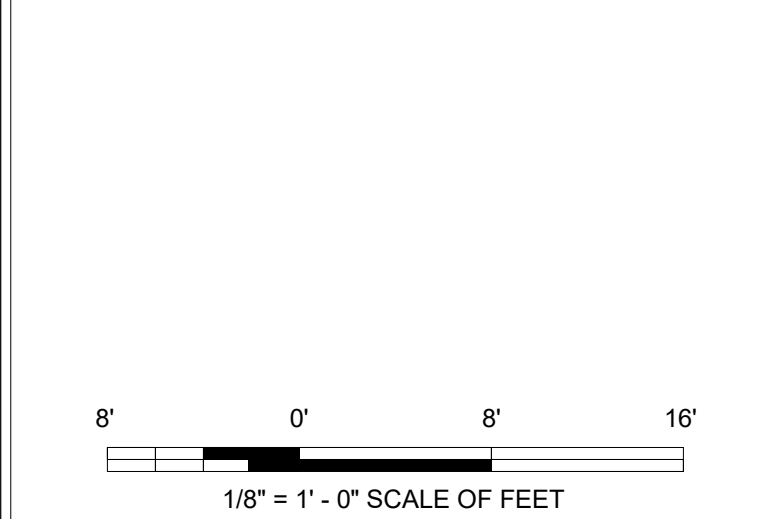
1 ROOF PLAN  
A-102FP 1/8" = 1'-0"

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FOURTH FLOOR  
WASHINGTON, DC 20037

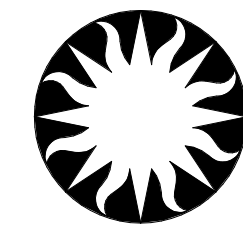


KEY PLAN



GRAPHIC SCALE(S)

DATE	SUBMISSION
10/30/20	FINAL SUBMISSION
REVISION	REVISION

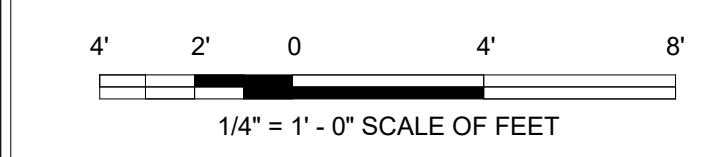
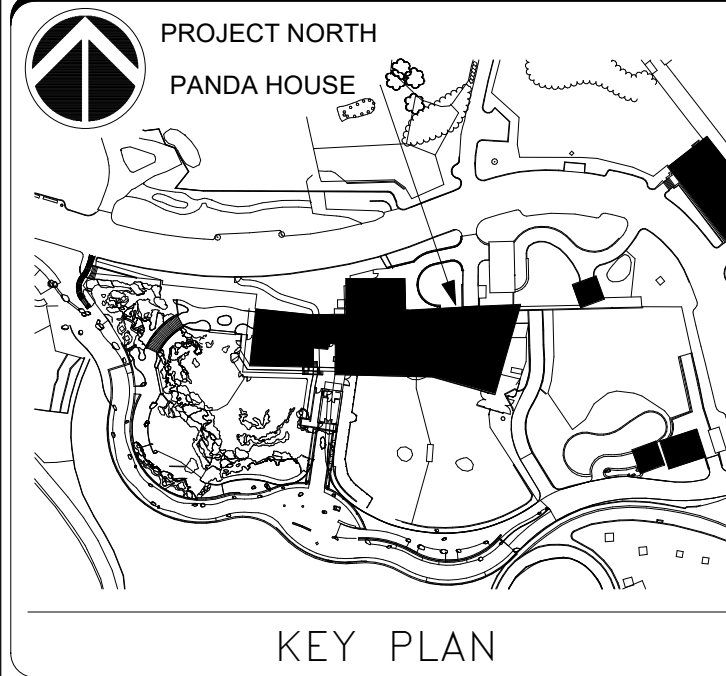
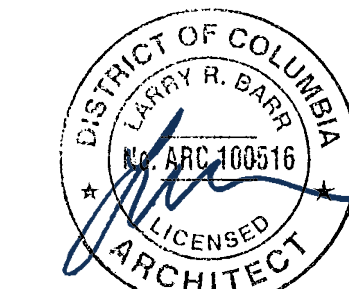


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Washington, DC

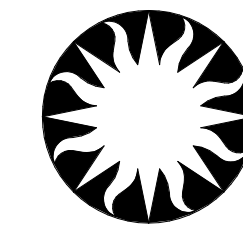
BUILDING NAME	N.Z.P. PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SF PROJECT NUMBER	2033101		
1/2 PROJECT NUMBER	42020400		
DRAWING TITLE	ROOF PLAN		
DRAWING TYPE			
WORKING STAFF	DESIGNED BY	DRAWN BY	CHECKED BY
	Designer	Author	Checker
SHEET NO.	A - 102FP		
	DISCIPLINE	TYPE	SEQUENCE





GRAPHIC SCALE(S)

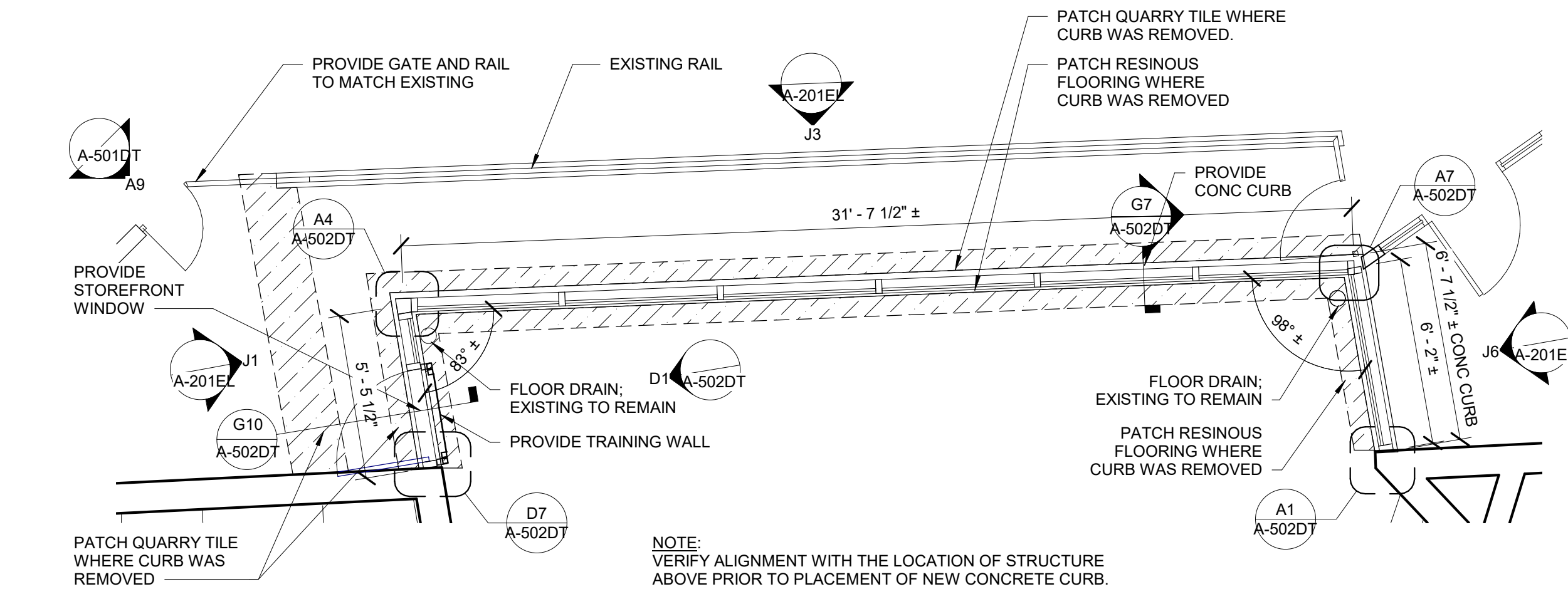
DATE	SUBMISSION
10/30/20	FINAL SUBMISSION
REVISION	REVISION



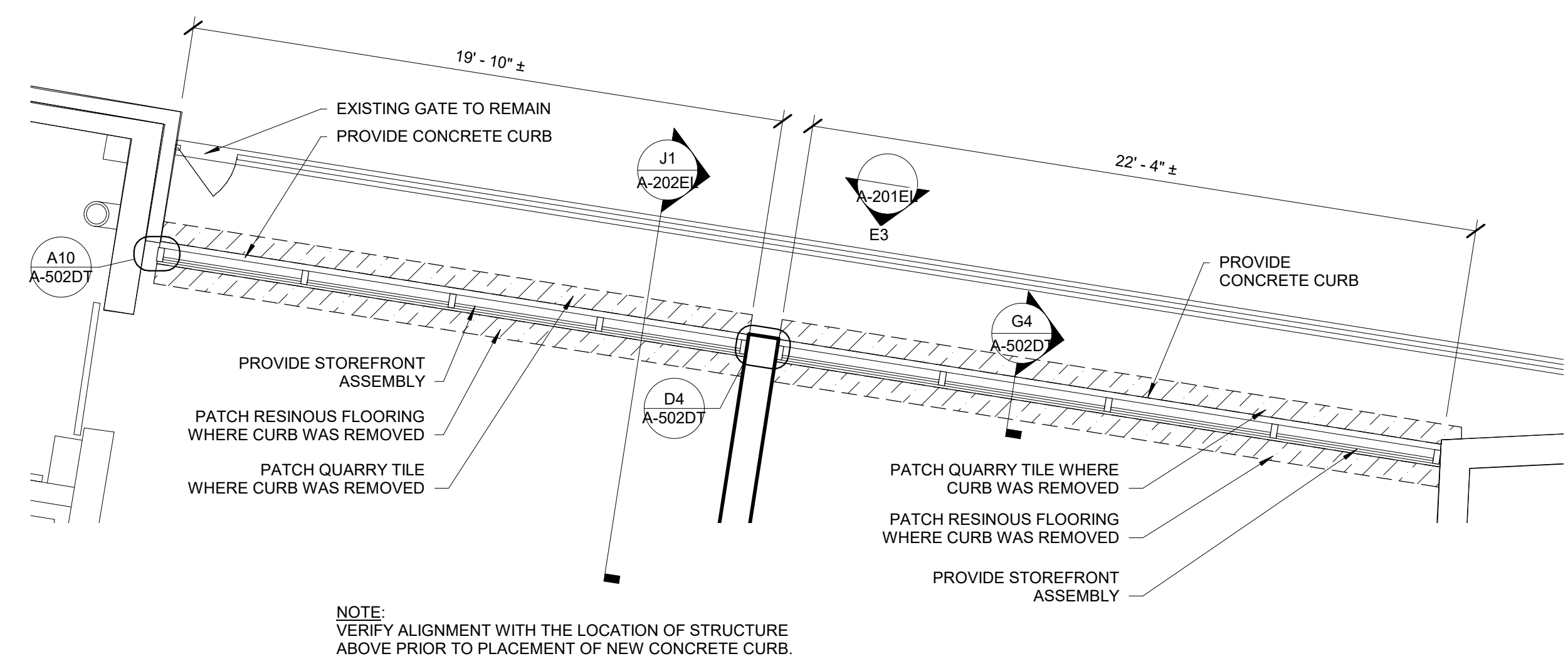
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Washington, DC

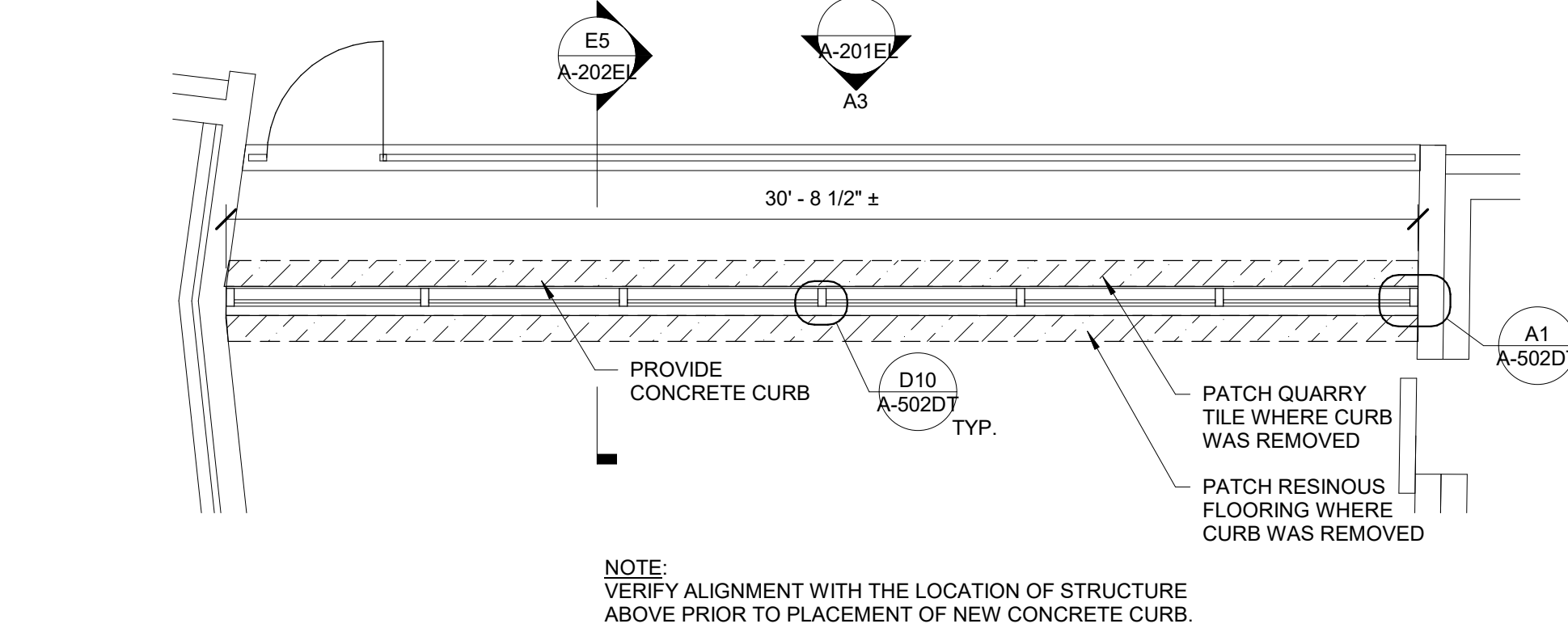
BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SF PROJECT NUMBER	2033101
1/2 PROJECT NUMBER	42020400
DRAWING TITLE	STOREFRONT ELEVATIONS
DRAWING TYPE	
WORKING STAFF	DESIGNED BY: BB    MV    KS DRAWN BY:    CHECKED BY:
SHEET NO.	A-201EL
DISCIPLINE	TYPE
SEQUENCE	



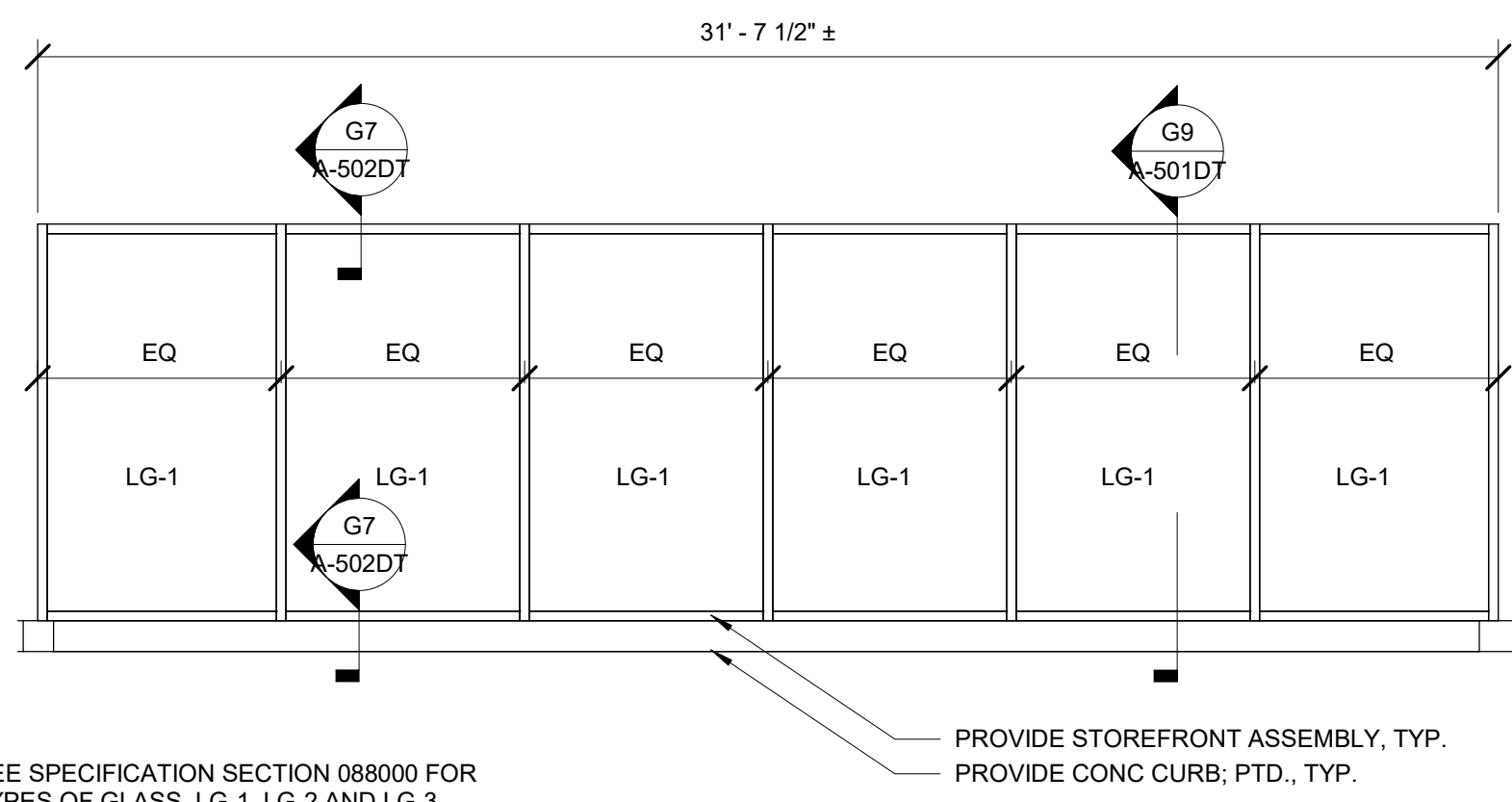
**J8 PLAN @ EXHIBIT 1 STOREFRONT AND TRAINING WALL**



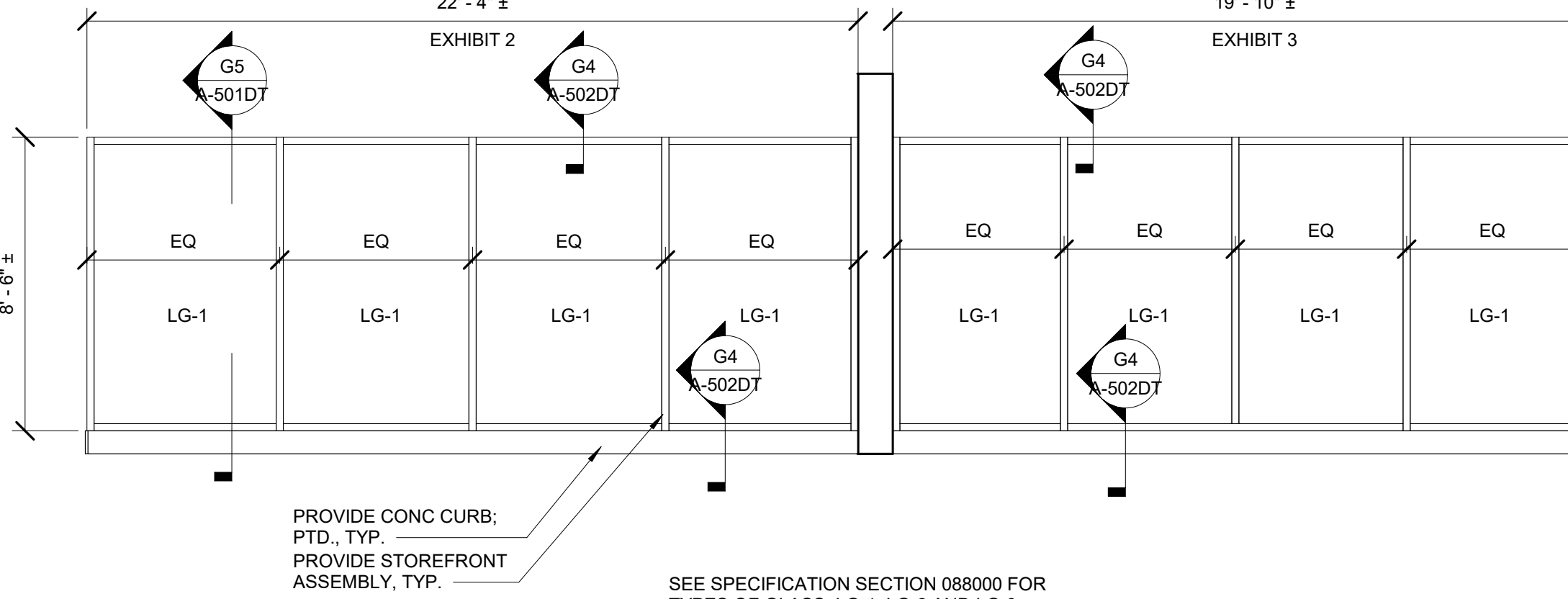
**E8 PLAN @ EXHIBIT 2 & 3 STOREFRONT**



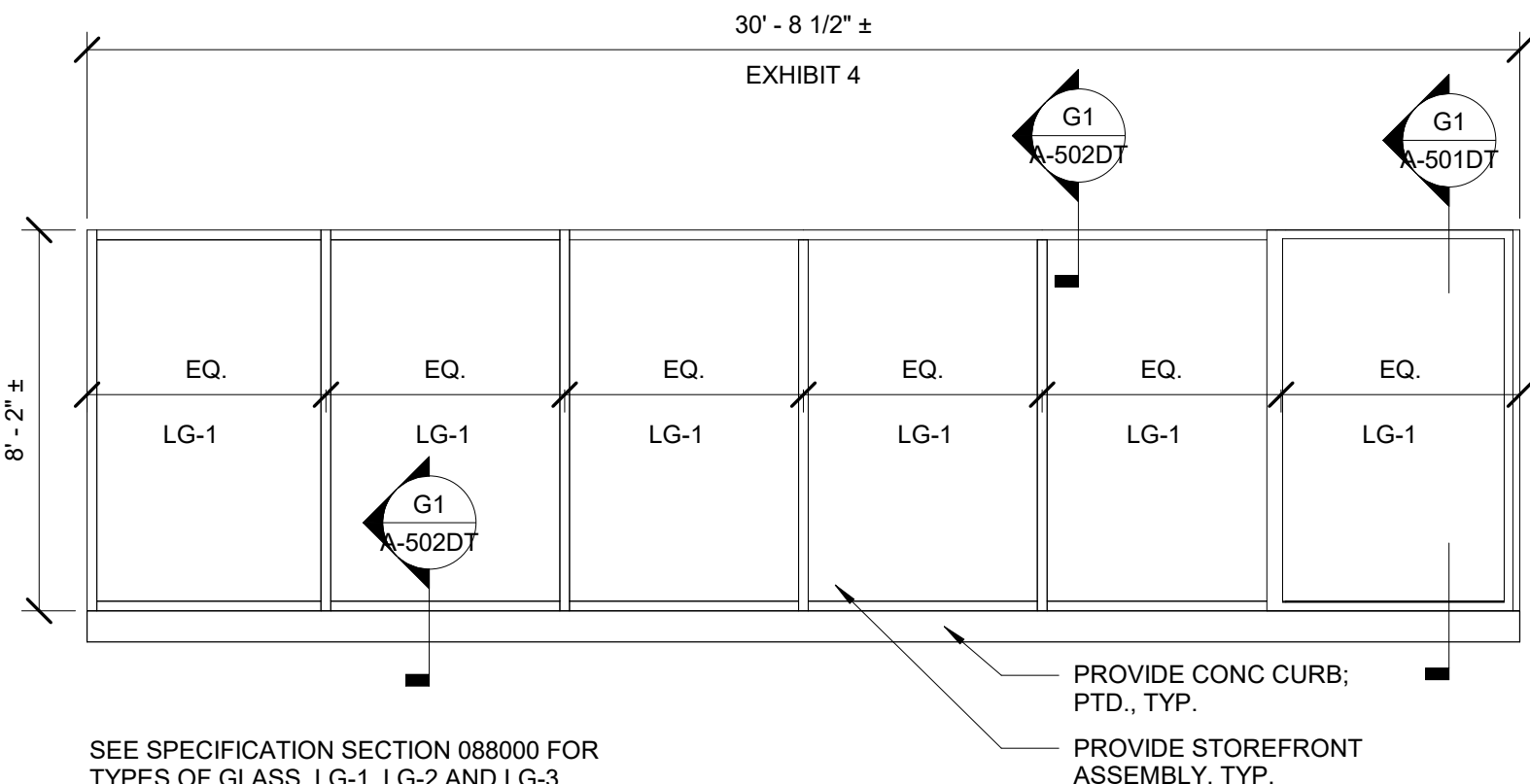
**A8 PLAN @ EXHIBIT 4 STOREFRONT**



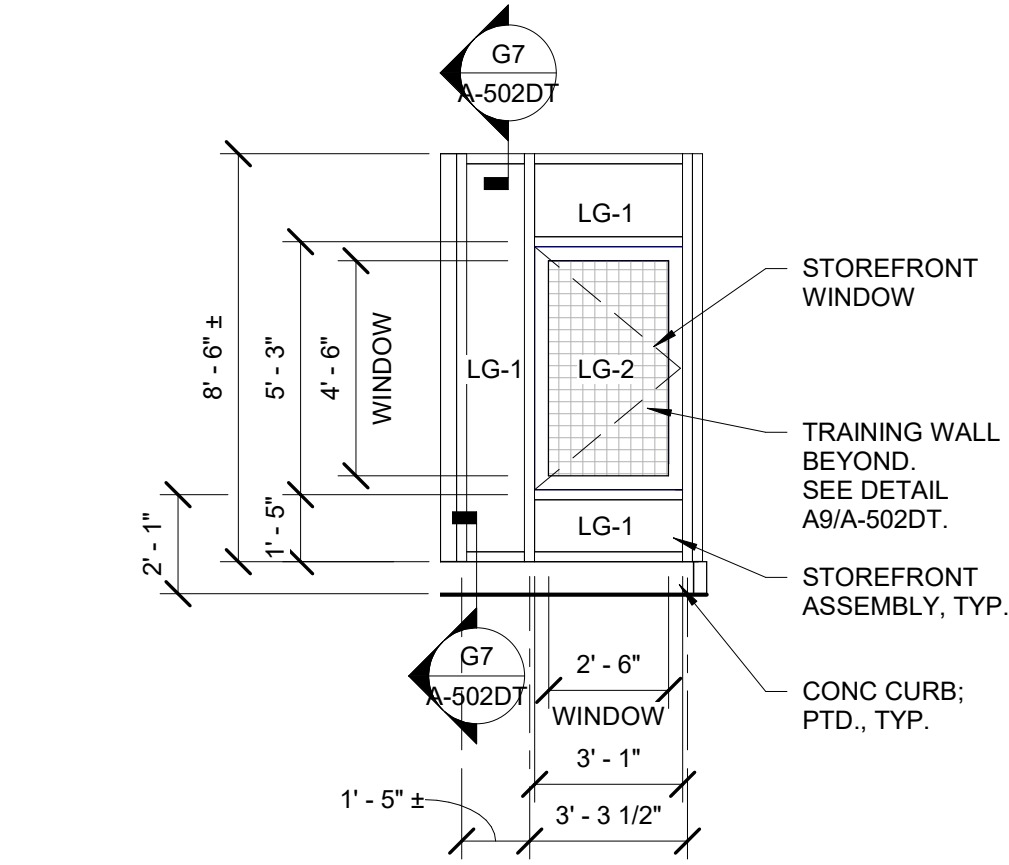
**J3 EXHIBIT 1 STOREFRONT - NORTH**



**E3 EXHIBIT 2 & 3 STOREFRONT - NORTH**



**A3 EXHIBIT 4 STOREFRONT - NORTH**

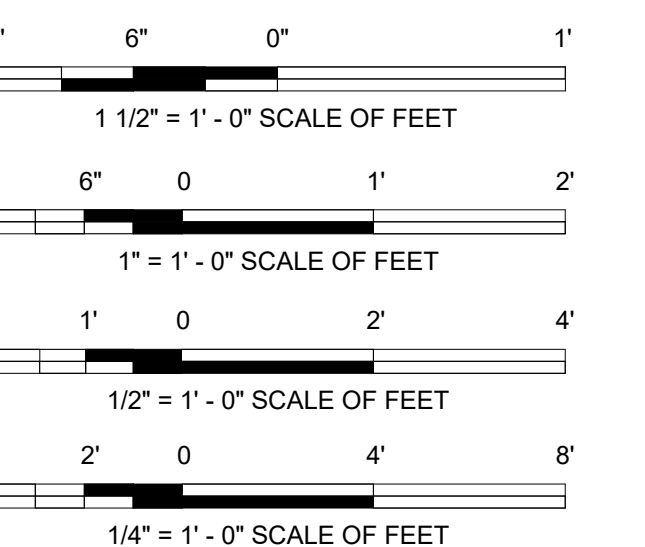
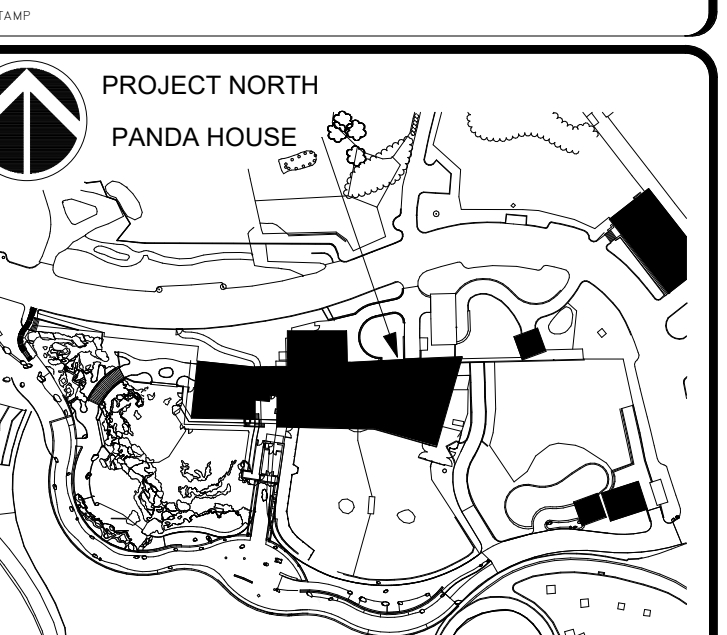
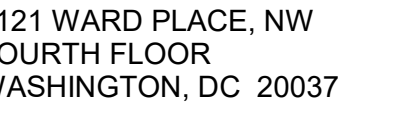


**J1 EXHIBIT 1 STOREFRONT - WEST**

**J6 EXHIBIT 1 STOREFRONT - EAST**

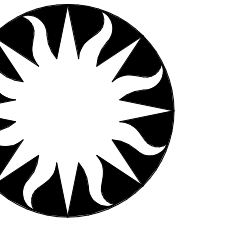
**J8 PLAN @ EXHIBIT 1 STOREFRONT AND TRAINING WALL**





GRAPHIC SCALE(S)

DATE 10/30/20	SUBMISSION FINAL SUBMISSION
REVISION	REVISION

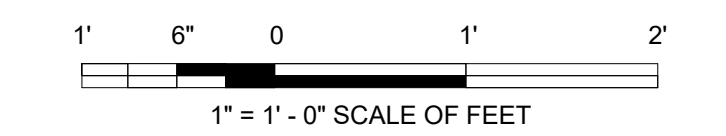
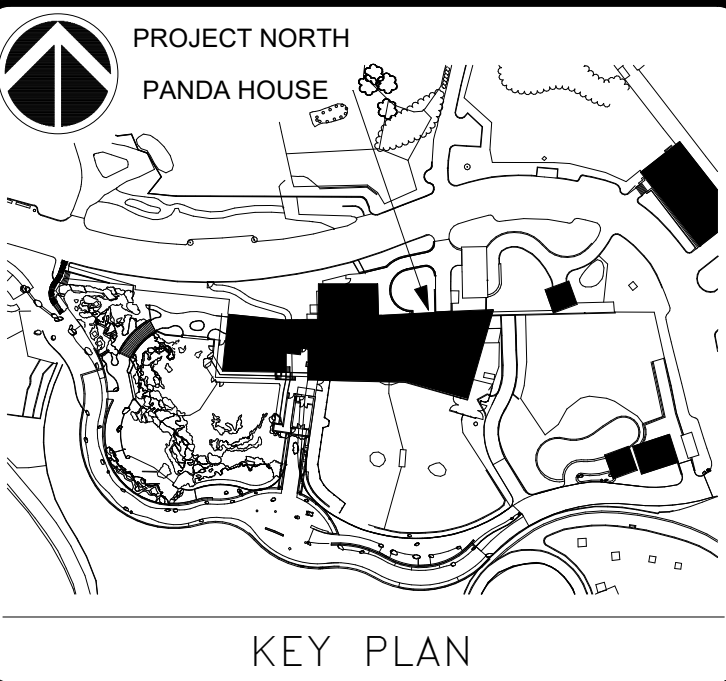
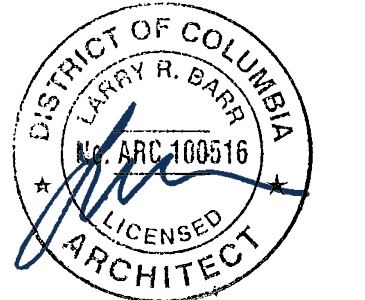
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600 Maryland Avenue S.W. Suite 5001  
Washington, DC

ORDERING NAME	NZP PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
PROJECT NUMBER	2033101		
PROJECT NUMBER	42020400		
DRAWING TITLE	SECTIONS AT EXHAUST ELEVATIONS AND DETAILS AT LOUVERS		
DRAWING TYPE	Designer	Author	Checker
DRAWING STAFF	DESIGNED BY	DRAWN BY	CHECKED BY
SHEET NO.	A - 2 0 2 E L		
	DISCIPLINE	TYPE	SEQUENCE

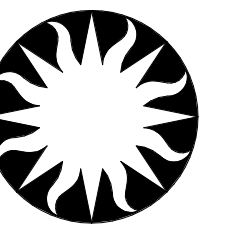






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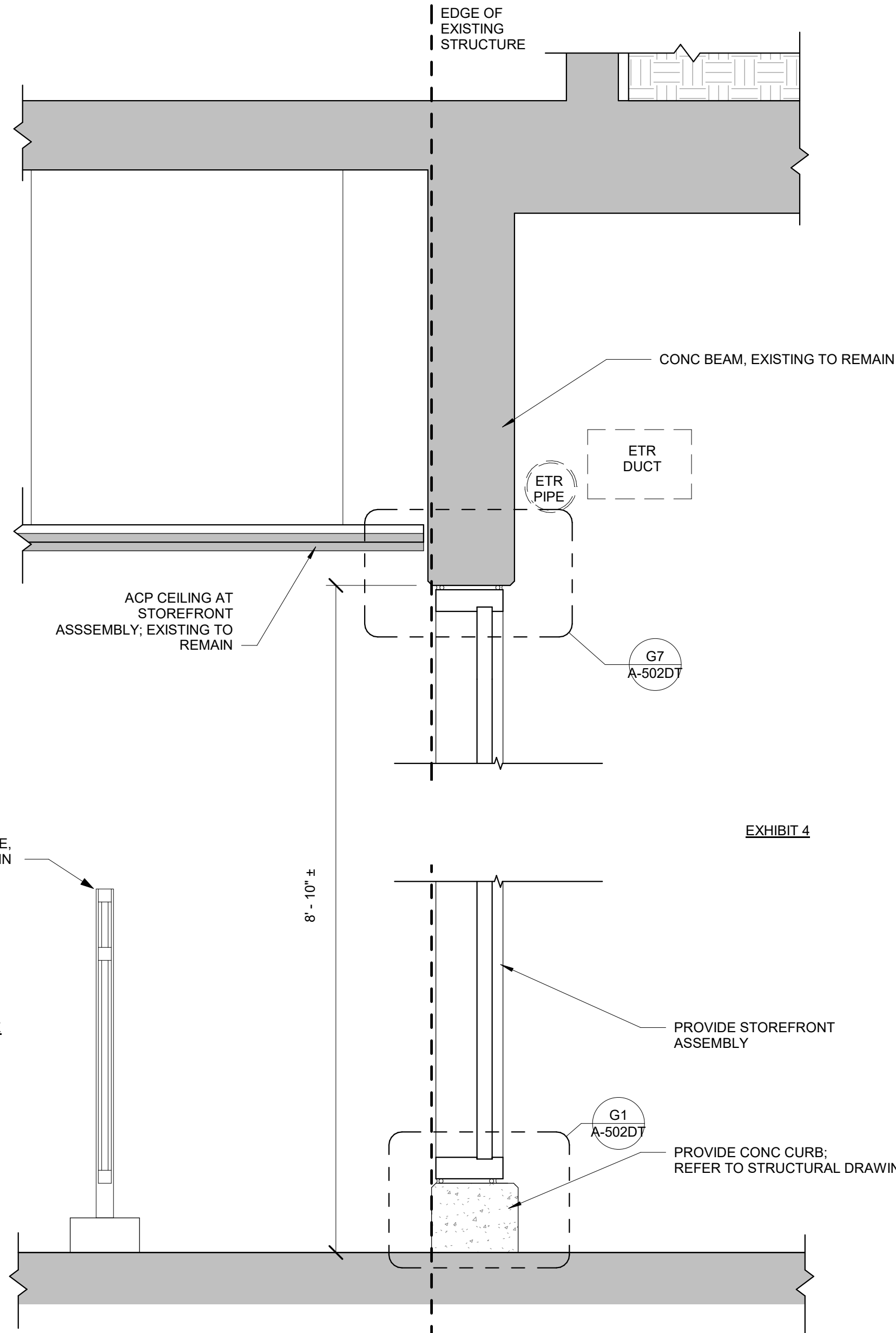
DATE	10/30/20
SUBMISSION	FINAL SUBMISSION
REVISION	REVISION



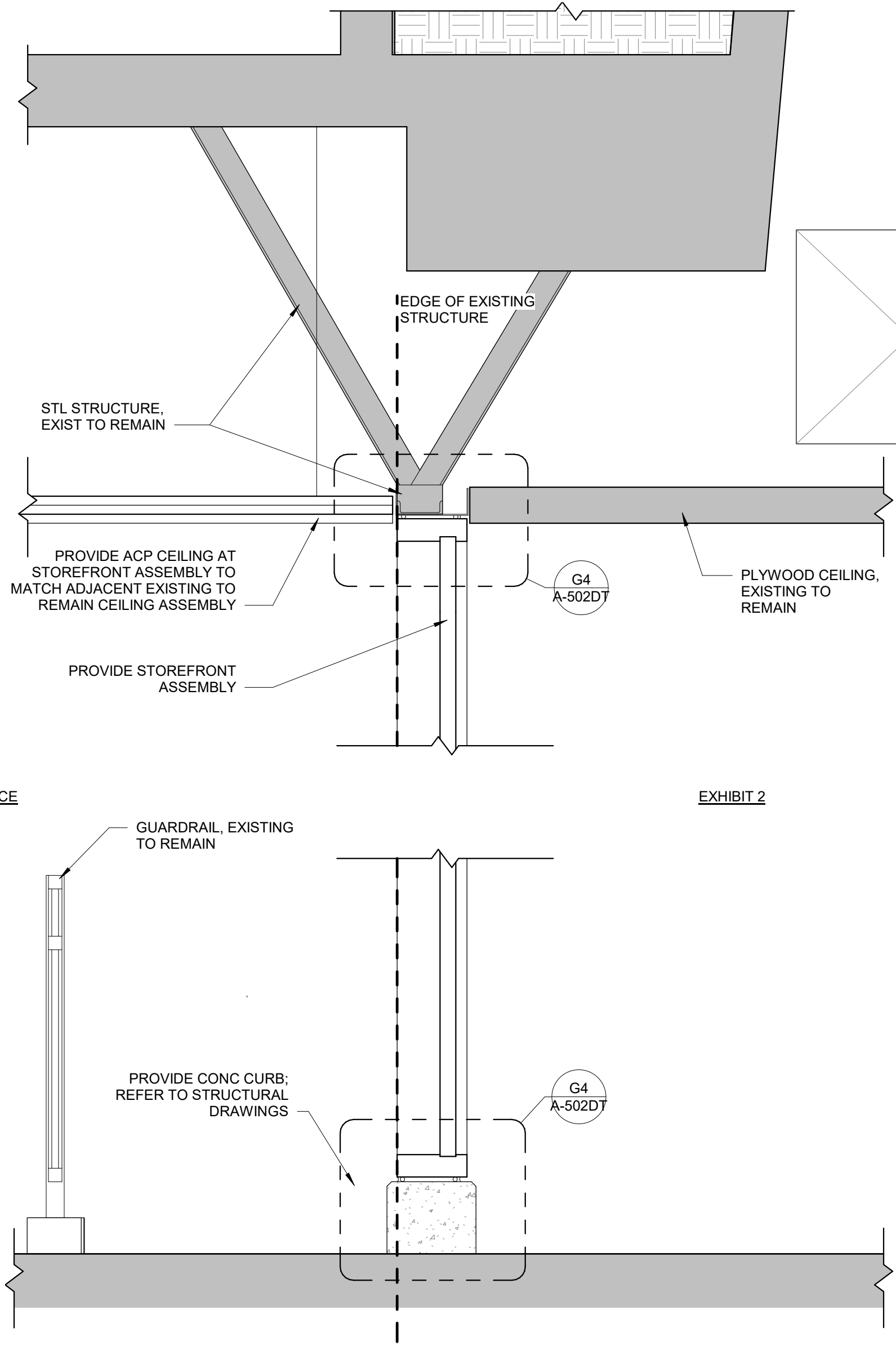
**Smithsonian  
Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC

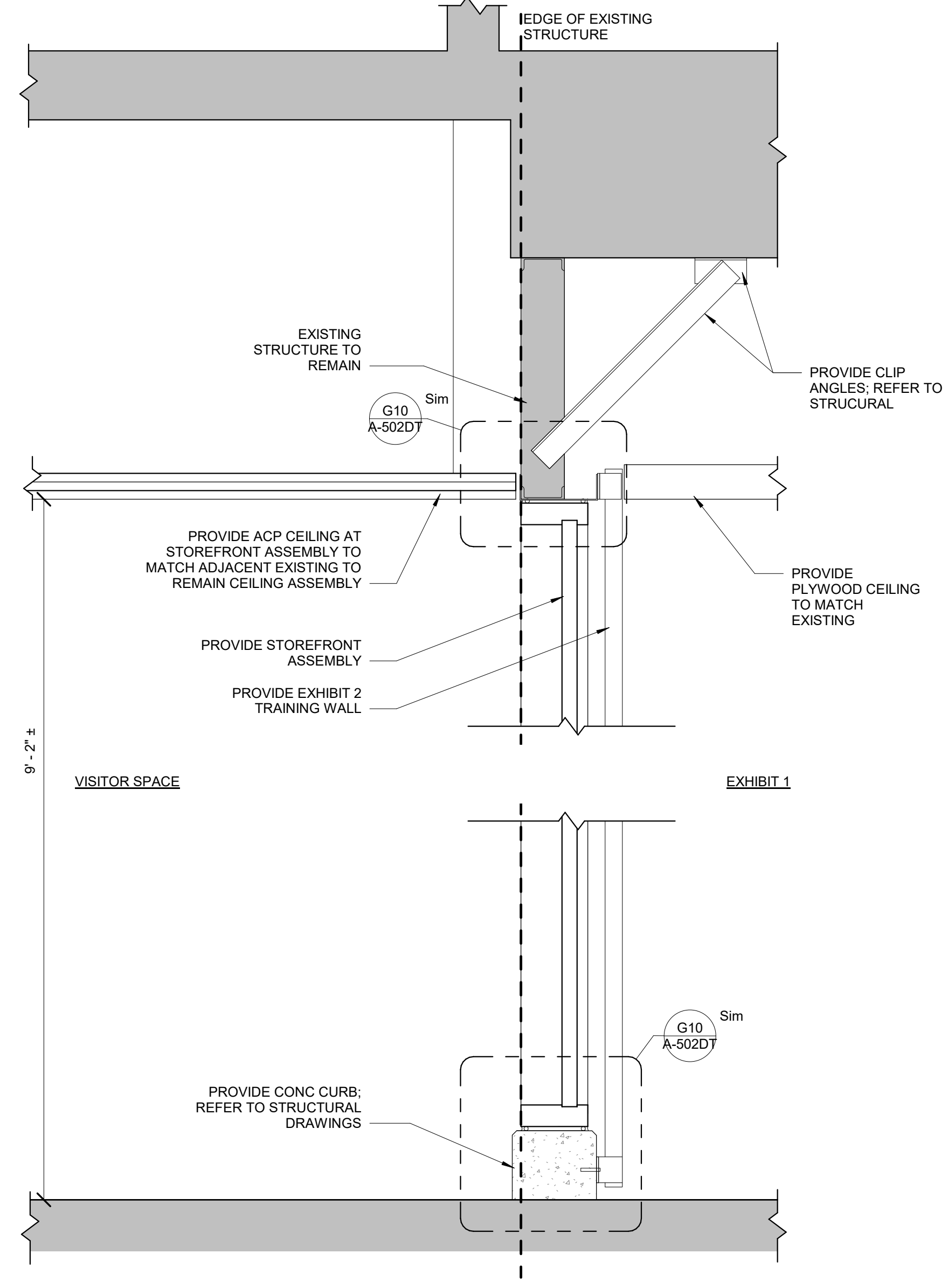
BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SF PROJECT NUMBER	2033101
1/2 PROJECT NUMBER	42020400
DRAWING TITLE	STOREFRONT SECTIONS AND DETAILS
DRAWING TYPE	DESIGNED BY:    AUTHOR:    CHECKER:
WORKING STAFF	DESIGNED BY:    DRAWN BY:    CHECKED BY:
SHEET NO.	A-501DT
DISCIPLINE	TYPE
SEQUENCE	



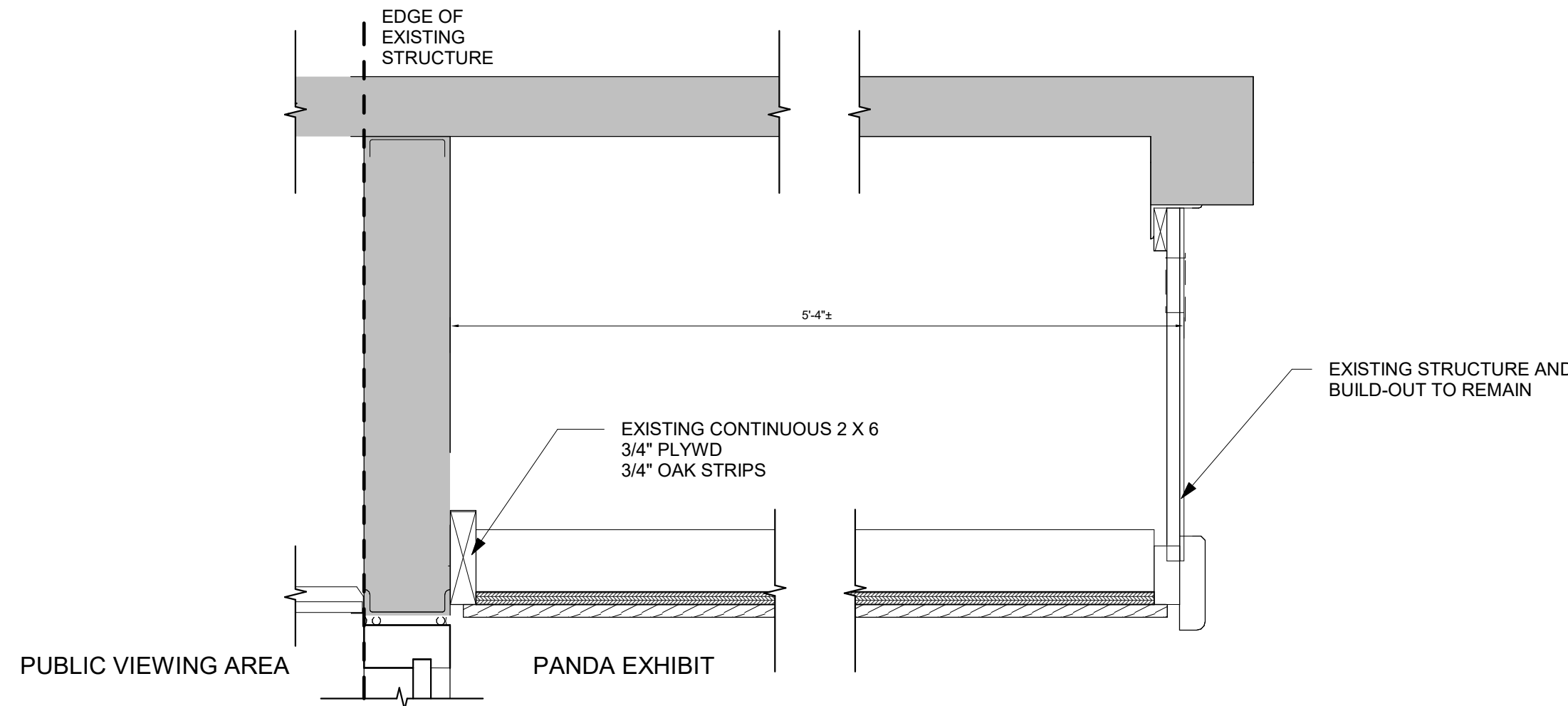
**G1 SECTION @ EXHIBIT 4**  
A-201EL/A-501DT 1" = 1'-0"



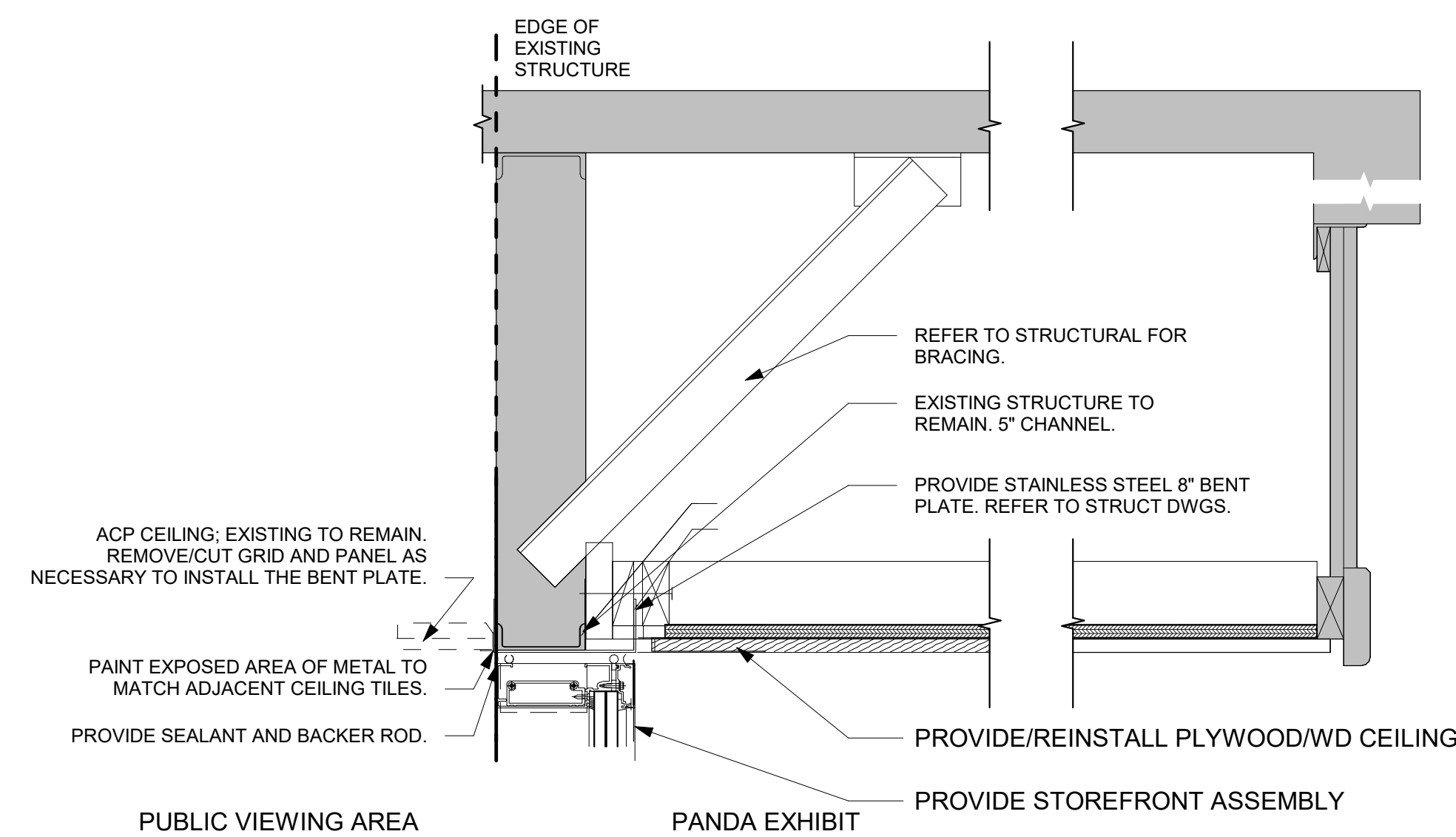
**G5 SECTION @ EXHIBIT 2 AND 3 (EXHIBIT 1 SIM)**  
A-201EL/A-501DT 1" = 1'-0"



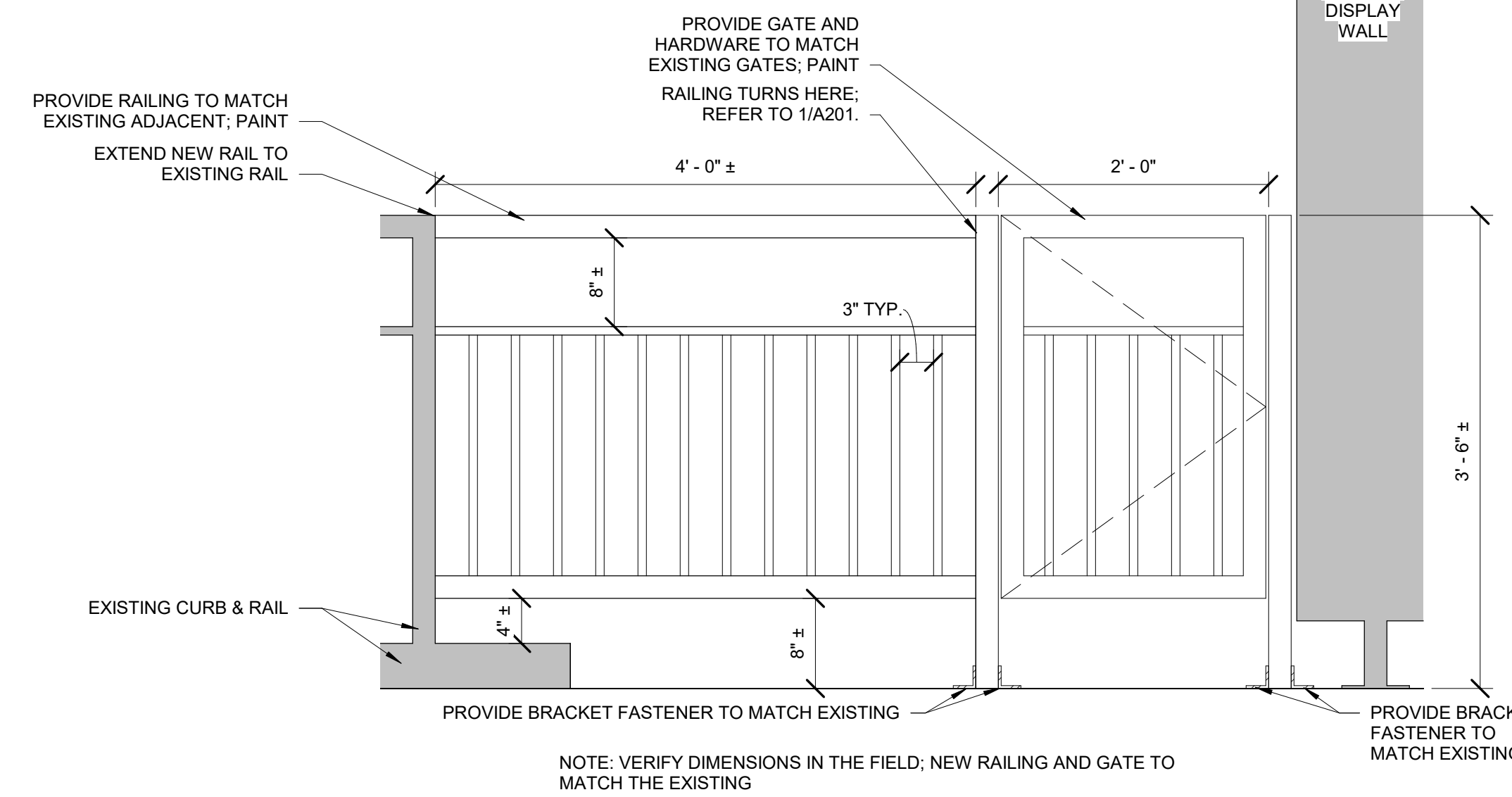
**G9 SECTION @ EXHIBIT 1 AT TRAINING WALL**  
A-201EL/A-501DT 1" = 1'-0"



**D4 CEILING DETAIL @ EXHIBIT 1 - DEMOLITION**  
A-501DT 1 1/2" = 1'-0"

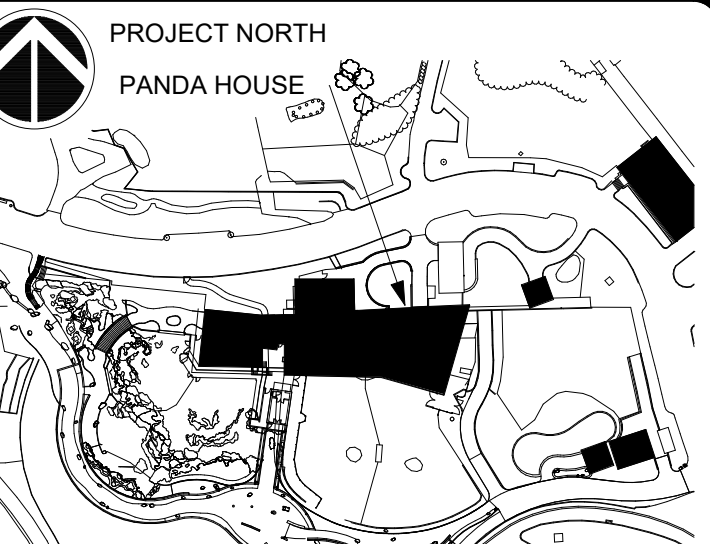


**A4 CEILING DETAIL @ EXHIBIT 1 - NEW WORK**  
A-501DT 1 1/2" = 1'-0"



**A9 NEW GATE ELEVATION AT DISPLAY WALL**  
A-201EL/A-501DT 1" = 1'-0"





1/2" = 1' - 0" SCALE OF FEET

3" = 1' - 0" SCALE OF FEET

[illegible]

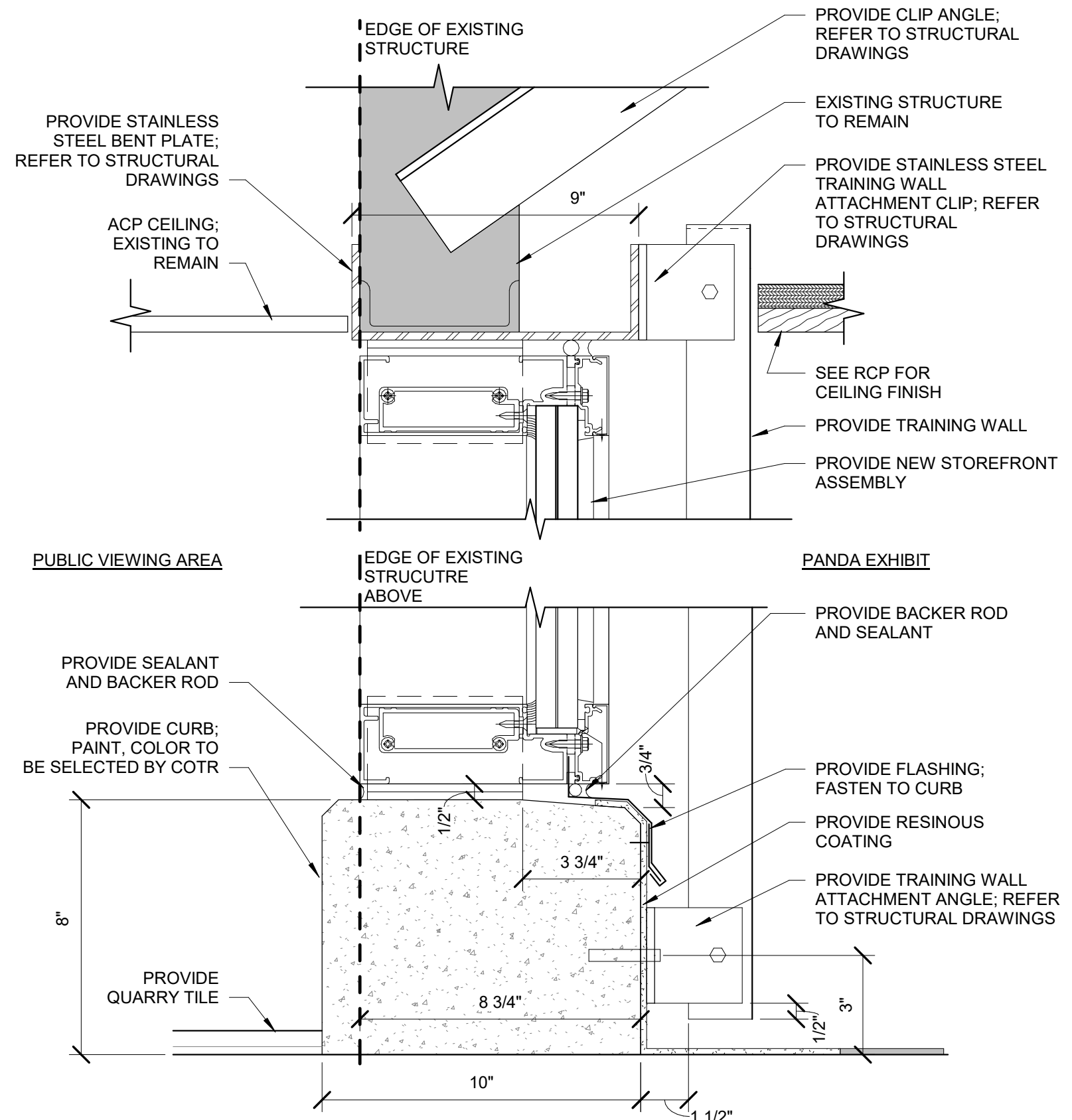
LEAD NAME	NZP PANDA HOUSE
RESS	3001 Connecticut Avenue, NW Washington, DC 20008


STOREFRONT DETAILS

BB	MV	KS
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DESIGNED BY	DRAWN BY	CHECKED BY
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A 1502 D T

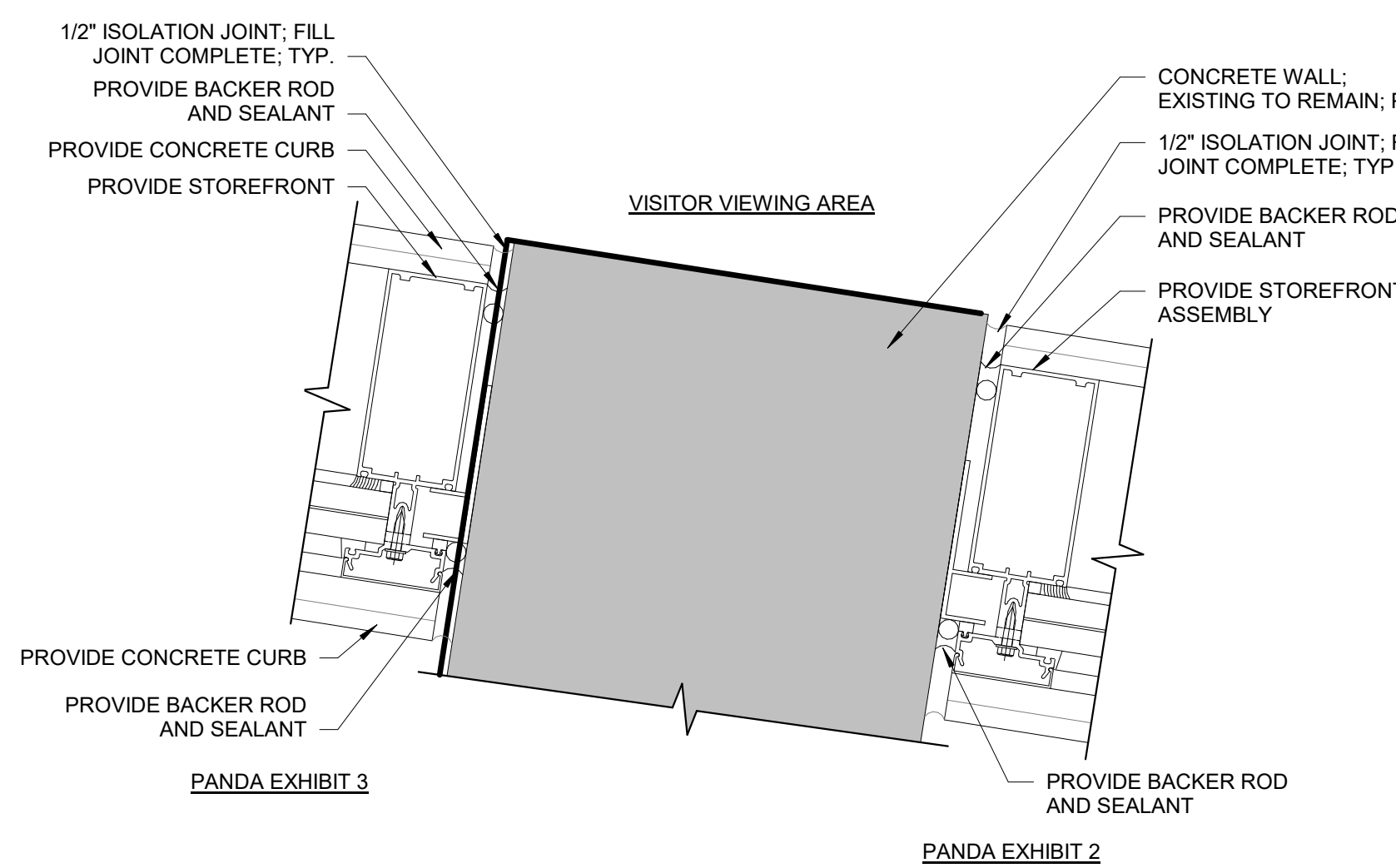




**STOP**  
 A-201ELA-502DT      3" = 1'-0"


**STO**  
 A-201EL A-502DT      3" = 1'-0"


**G7** **STO**  
 A-201EL A-502DT 3" = 1'-0"



D1 TRAIN  
A-201ELA-502DT 1/2" = 1'-0"

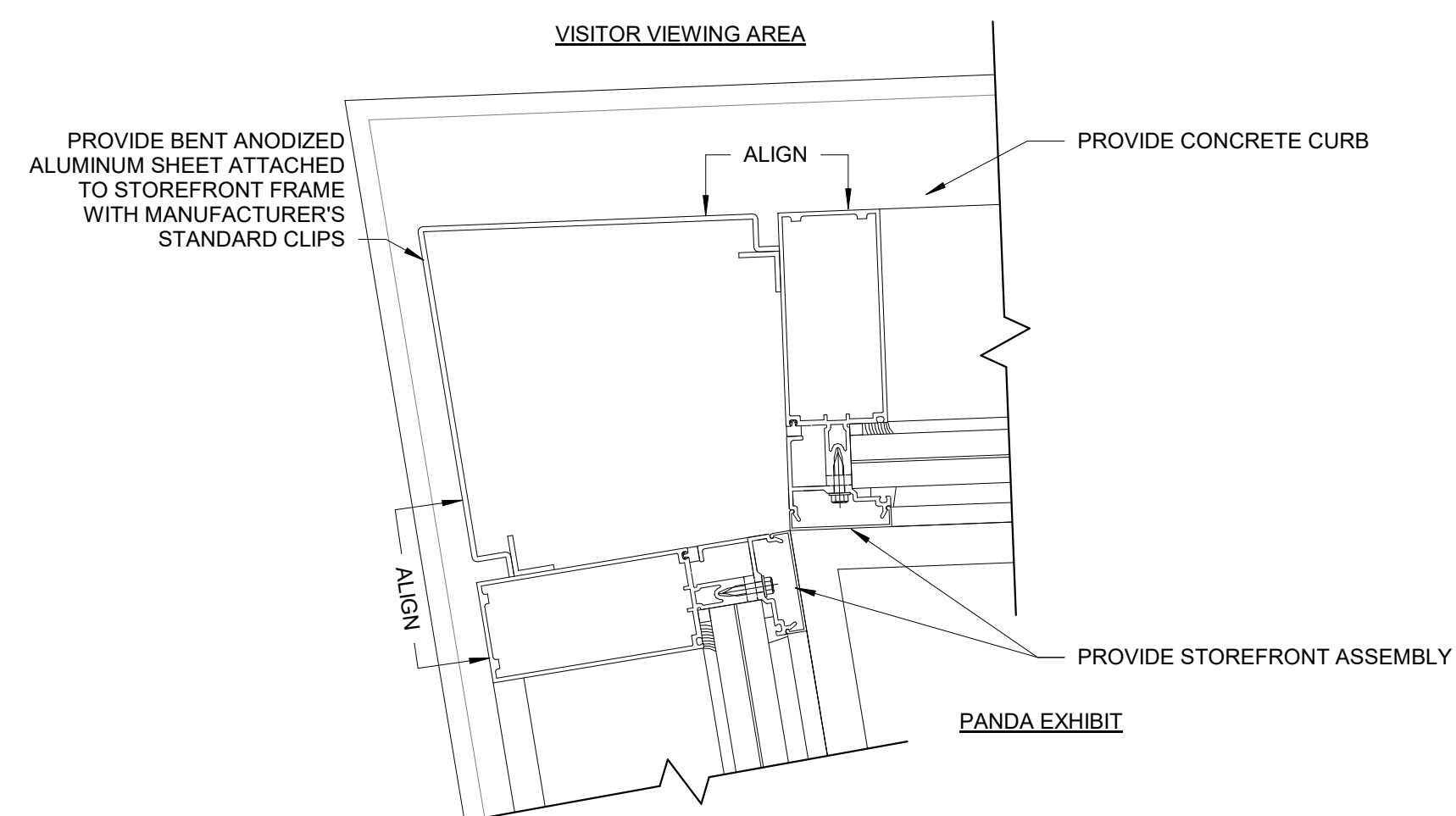
D4 EXH  
A-201ELA-502DT 3" = 1'-0"

D7

A-201EL A-502DT

3" = 1'-0"

D10 TYP  
A-201ELA-502DT 3" = 1'-0"

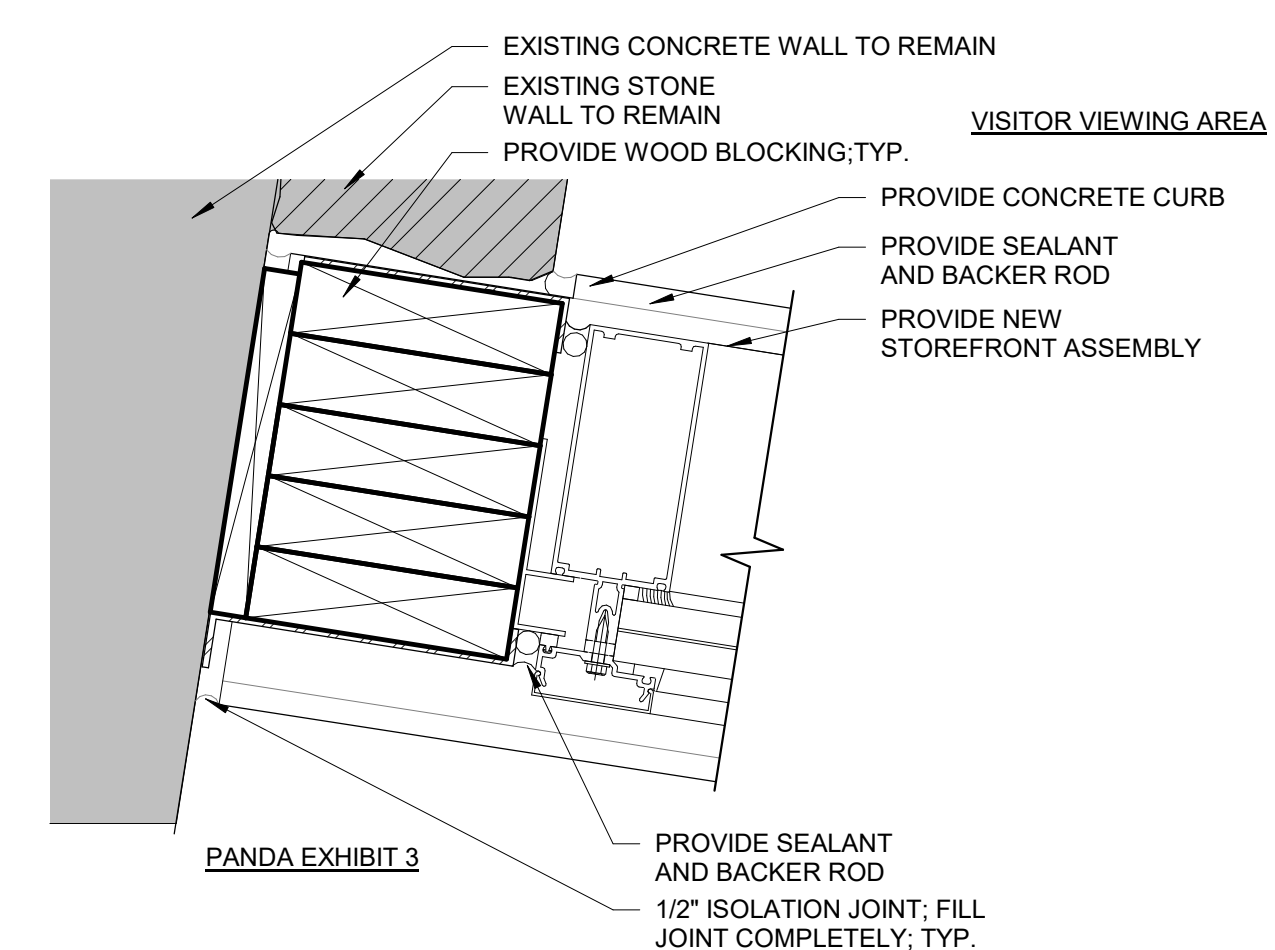


A1 STOR  
A-201ELA-502DT 3" = 1'-0"

A4 WES  
A-201ELA-502DT 3" = 1'-0"

A7 EAS  
A-201EL A-502DT 3" = 1'-0"

A10 WES  
A-201ELA-502DT 3" = 1'-0"





DESIGN NOTES

I. CODES AND STANDARDS

- A. WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE SMITHSONIAN INSTITUTIONS CODES AND STANDARDS, AND THE INTERNATIONAL BUILDING CODE, 2018.

II. DESIGN AND LOADING CRITERIA

- A. ALL CODES, REFERENCES AND STANDARDS REFERRED TO SHALL BE THE CURRENT VERSION UNLESS A DIFFERENT VERSION IS LISTED IN THE BUILDING CODE.

B. WIND LOAD

1. BASIC WIND SPEED: = 120 MPH  
2. RISK CATEGORY: = III  
3. EXPOSURE: = C  
4. INTERNAL PRESSURE COEFF: = +/- 0.18  
5. COMPONENT AND CLADDING:  
FOR WALL = 40 PSF  
OTHER DESIGN PRESSURES MAYBE USED IF SIGNED & SEALED CALCULATIONS ARE SUBMITTED FOR REVIEW

C. FLOOR DESIGN MINIMUM LIVE LOADS:

1. ASSEMBLY AREAS = 100 PSF

III. CONCRETE AND REINFORCING

- A. CONCRETE WORK SHALL BE IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318. AS MODIFIED BY IBC CODE.

- B. CONCRETE DESIGN IS IN ACCORDANCE WITH "STRENGTH DESIGN METHOD."

- C. ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE AT 7 DAYS (f'c) (HIGH EARLY STRENGTH) SHALL BE:

1. CURBS: = 4,000 PSI with MAX W/C RATIO 0.45.

D. CONCRETE MATERIALS:

1. CEMENT: ASTM C-150 TYPE III HIGH EARLY STRENGTH CEMENT  
2. AGGREGATES: ASTM C-33 (NORMAL WEIGHT)  
3. WATER REDUCING ADMIX: ASTM C-494 TYPE A OR F  
4. SET ACCELERATING ADMIX: ASTM C-494 TYPE C OR E

- E. CONCRETE SHALL BE THOROUGHLY COMPACTED DURING PLACEMENT AND WORKED AROUND EMBEDDED ITEMS AND INTO CORNERS OF FORMS.

- F. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ITEMS EMBEDDED IN CONCRETE AND SHALL ENSURE THAT ALL ARE ACCURATELY LOCATED AND SECURE.

- G. DEPRESSIONS SHALL BE LOCATED FROM ARCHITECTURAL PLANS.

- H. CONCRETE SLUMP SHALL = 4" PLUS OR MINUS 1".

- I. GROUT SHALL BE NON-SHRINKABLE, NON-METALLIC CONFORMING TO ASTM C1107, AND SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 6,000 PSI.

- J. REINFORCING BARS #3 THRU #11 SHALL BE DEFORMED AND IN ACCORDANCE WITH "SPECIFICATIONS FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT" ASTM A-615. GRADE 60 KSI.

- K. SUBMIT SHOP DRAWINGS FOR REINFORCEMENT TO THE COTR FOR APPROVAL. PREPARE DRAWINGS UNDER THE SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION DETAILING FABRICATING, BENDING, AND PLACING CONCRETE REINFORCEMENT. COMPLY WITH ACI 315 AND ACI DETAILING MANUAL SP-66, SHOWING BAR SCHEDULES, STIRRUP SPACING, BENT BAR DIAGRAMS, AND ARRANGEMENT OF CONCRETE REINFORCEMENT.

- L. BARS MARKED CONTINUOUS (CONT) SHALL BE LAPPED IN ACCORDANCE WITH REQUIREMENTS FOR SPLICES AS DEFINED IN ACI 318, MINIMUM 50 BAR DIAMETERS, UNLESS INDICATED OTHERWISE.

- M. BAR LENGTHS SHOWN ON PLAN DO NOT INCLUDE LENGTH OF HOOK WHERE A HOOK IS INDICATED. PROVIDE STANDARD HOOK UNLESS DETAILED OTHERWISE.

- N. MINIMUM CONCRETE COVER BETWEEN FACE OF REINFORCING BAR AND FACE OF CONCRETE SHALL BE 2".

- O. ALL PRECAST CONCRETE LINTELS SHALL BE AIR-ENTRAINED, HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH = 4,000 PSI, AND HAVE A MINIMUM BEARING WIDTH OF 8". LINTEL SHALL BE PROPORTIONED AS FOLLOWS FOR EACH 4" OF WALL WIDTH, UNO

OPENING SIZE	DEPTH	REINFORCEMENT
UP TO 6'-0"	8"	1#4, T&B
6'-1" TO 8'-0"	8"	1#5, T&B
8'-1" TO 10'-0"	8"	1#6, T&B

IV. WOOD AND TIMBER FRAMING MATERIALS:

- A. LUMBER AND TIMBER DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH:

1. "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION."  
2. "AMERICAN SOFTWOOD LUMBER STANDARDS."  
3. GRADES FOR JOISTS, BEAMS AND POSTS SHALL BE SOUTHERN PINE #1, WITH MAXIMUM MOISTURE CONTENT 19%.

- B. TREATED LUMBER SHALL COMPLY WITH REQUIREMENTS OF THE "WOOD-PRESERVERS" ASSOCIATION."

1. TIMBER & LUMBER: AWPAC C1  
2. PILES: AWPAC C3  
3. MARINE CONSTRUCTION: AWPAC C18

- C. MULTIPLE MEMBERS SHALL BE FASTENED TOGETHER WITH 16D NAILS @ 12" O.C. AS FOLLOWS:

1. TO 8" DEEP ONE ROW STAGGERED  
2. 9" TO 12" DEEP TWO ROWS  
3. GREATER THAN 13" DEEP THREE ROWS.

- D. PROVIDE JOIST HANGERS WITH CAPACITY AS FOLLOWS:

SUPPORTED MEMBER	REQUIRED HANGER CAPACITY
2 X 6	650 LBS
2 X 8	650 LBS
2 X 10	825 LBS
2 X 12	1000 LBS
1-3/4" X 9-1/2" L.V.L.	3150 LBS
1-3/4" X 11-7/8" L.V.L.	3925 LBS
1-3/4" X 14" L.V.L.	4650 LBS

VALUES SHOWN SHALL BE MULTIPLIED BY THE NUMBER OF MEMBERS IN MULTIPLE FRAMING MEMBERS.

- E. NAIL FRAMING IN ACCORDANCE WITH RECOMMENDED WOOD FASTENING SCHEDULE IN IBC TABLE 2304.10.1 UNLESS NOTED OTHERWISE. PROVIDE BLOCKING, BRIDGING, BRACING PER IBC AND NDS.

V. STRUCTURAL STEEL

- A. STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND THE "MANUAL OF STEEL CONSTRUCTION" FOURTEENTH EDITION.

B. STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHAPES & PLATES: ASTM A-36 Fy = 36,000 PSI  
2. HOLLOW STRUCTURAL SECTIONS SQUARE & RECTANGULAR ASTM A-500B Fy = 46,000 PSI  
3. STAINLESS STEEL BARS AND SHAPES: ASTM A-276 TYPE 304L, Fy = 35,000 PSI MIN  
4. STAINLESS STEEL TUBING: ASTM A269  
5. STAINLESS STEEL BOLTS: ASTM F-593  
6. STAINLESS STEEL NUTS: ASTM F-594 ALLOY GROUP (A1)  
7. GALVANIZING (HOT-DIP): ASTM A-123

- C. ALTERNATE CONNECTIONS TO THOSE SHOWN ON PLANS AND DETAILS WILL BE ALLOWED ONLY WITH THE APPROVAL OF THE COTR. IF SUCH APPROVAL IS GRANTED, CONNECTIONS, ETC. NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS (FABRICATOR'S REDESIGN) SHALL BE SUBMITTED WITH SHOP DRAWINGS UNDER THE SEAL OF LICENSURE OF THE FABRICATOR'S ENGINEER FOR THE LOCAL JURISDICTION.

- V. GROUT UNDER BEAM BEARING PLATES AND COLUMN BASE PLATES SHALL BE NON-SHRINK, NON-METALLIC CONFORMING TO ASTM C1107, AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'C = 6000 PSI. PREROUTING OF BASE PLATES SHALL NOT BE PERMITTED.

- W. ALL EXTERIOR EXPOSED (INCLUDING IN EXTERIOR WALL WYTHES) STRUCTURAL STEEL SHAPES, PLATES AND BOLTS SHALL BE HOT DIPPED GALVANIZED TO ASTM A123 GRADE Z350. TOUCH UP ALL DAMAGED AREAS, INCLUDING FIELD WELDS.

- X. FULL PENETRATION WELDS SHALL BE MADE AGAINST A 1/8" X 1" BACKER PLATE TACK WELDED IN PLACE BELOW THE WELD. PENETRATION WELDS SHALL BE EQUIVALENT IN DEPTH AND LENGTH TO THE PARTS JOINED.

- Y. WELDING SHALL CONFORM TO REQUIREMENTS OF THE "STRUCTURAL WELDING CODE" AWS D1.1-08. USE 70 KSI LOW-HYDROGEN ELECTRODES.

- Z. UNLESS GALVANIZED OR STAINLESS STEEL, STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH-UP COAT OF RUST-INHIBITING PAINT AFTER ERECTION.

- AA. NO FABRICATION SHALL PROCEED PRIOR TO SHOP DRAWINGS APPROVAL.

- AB. NO OPENINGS IN BEAMS OR COLUMNS ARE PERMITTED WITHOUT THE APPROVAL OF THE COTR.

- AC. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE COTR AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.

- AD. DEVELOPMENT OF STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER REGISTERED IN PROJECT JURISDICTION AND SHALL INCLUDE DETAILS FOR APPLICATION AND ASSEMBLY OF ALL STRUCTURAL MEMBERS. INCLUDE DETAILS OF CUTS, CONNECTIONS, HOLES, AND OTHER PERTINENT DATA. INDICATE WELDS BY STANDARD AWS 2.1 SYMBOLS SHOWING SIZE, LENGTH AND TYPE OF EACH WELD. SHOP DRAWINGS SHALL BE SUBMITTED TO THE COTR FOR APPROVAL.

- AE. ALL MISCELLANEOUS STEEL CONNECTIONS SHALL BE WELDED ALL AROUND WITH ONE-QUARTER-INCH FILLET WELD UNLESS OTHERWISE NOTED, EXCEPT FOR SLOTTED CONNECTIONS.

- AF. ALL STEEL LINTELS SHALL HAVE A MINIMUM OF 8" BEARING AND SHALL BE PROPORTIONED AS FOLLOWS FOR EACH 4" OF WALL WIDTH.

OPENING SIZE	LINTEL
UP TO 4'-0"	L 4 X 3-1/2 X 5/16
4'-1" TO 5'-0"	L 5 X 3-1/2 X 5/16
5'-1" TO 6'-0"	L 5 X 3-1/2 X 3/8

VI. POST- INSTALLED ANCHORS

- A. POST-INSTALLED ANCHORS SHALL MEET THE FOLLOWING REQUIREMENTS

1. ANCHORAGE TO CONCRETE:

- a) STAINLESS STEEL MECHANICAL ANCHORS FOR CRACKED AND UNCRACKED CONCRETE.  
b) ULTIMATE SHEAR STRENGTH = 3,000 POUNDS MINIMUM  
c) FLAT HEAD PROFILE.  
d) BASIS OF DESIGN ANCHOR: POWERS WEDGE BOLT 410 STAINLESS STEEL.

2. REBAR DOWELING INTO CONCRETE:

- a) ADHESIVE DOWELING FOR CRACKED AND UNCRACKED CONCRETE. DEVELOP THE FULL YIELD STRENGTH OF THE REBAR DOWEL.  
b) BASIS OF DESIGN PRODUCT: POWERS AC100+ GOLD

- B. SUBSTITUTION REQUESTS FOR ALTERNATE POST INSTALLED ANCHOR PRODUCTS MUST BE APPROVED IN WRITING BY THE COTR PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

- C. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.

- D. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE COTR MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

- E. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS

- F. CONCRETE AT TIME OF ANCHOR INSTALLATION SHALL HAVE A MINIMUM MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

- G. CONCRETE AT INDOOR ANCHOR APPLICATIONS SHALL BE DRY AT THE TIME OF ANCHOR INSTALLATION.

- H. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY HILTI FERROSCAN, GPR, X-RAY, CHIPPING OR OTHER MEANS. THE COTR SHALL BE NOTIFIED OF ANY CONFLICTS BEFORE SHOP DRAWINGS ARE SUBMITTED AND WORK BEGINS.

VII. GENERAL

- A. INFORMATION SHOWN REGARDING EXISTING CONDITIONS HAS BEEN OBTAINED BY LIMITED VISUAL OBSERVATIONS. AREAS NOT VISIBLE HAVE BEEN ASSUMED TYPICAL WITH OBSERVED EXISTING CONDITIONS.

- B. MEASURE AND PROVIDE ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOB SITE PRIOR TO CONSTRUCTION AND THE SUBMISSION OF SHOP DRAWINGS, AND NOTIFY THE COTR IMMEDIATELY OF ANY DISCREPANCIES. VERIFICATION AND NOTIFICATION SHALL PROCEED PRIOR TO THE START OF WORK SO THAT ANY NECESSARY CHANGES CAN BE MADE WITHOUT DELAYING THE PROJECT SCHEDULE.

- C. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE SHOWN OR NOTED.

- D. SHOP DRAWINGS SUBMITTED TO COTR SHALL BEAR THE CONTRACTOR'S STAMP, DATE AND SIGNATURE VERIFYING DOCUMENTS HAVE BEEN REVIEWED AND CORRECTED FOR CONFORMANCE TO AND COORDINATION WITH CONTRACT DOCUMENTS.

- E. FABRICATION SHALL PROCEED ONLY AFTER SHOP DRAWING APPROVAL.

- F. DO NOT REPRODUCE ANY PORTION OF CONTRACT DOCUMENTS IN THE SHOP DRAWINGS.

- G. INSPECTION REPORTS AND MATERIALS TESTING REPORTS SHALL BE SUBMITTED IN A TIMELY MANNER SUCH THAT CONSTRUCTION DELAY WILL BE AVOIDED.

- H. MEANS AND METHODS OF CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

VIII. TESTING AND INSPECTION

- THE CONTRACTOR SHALL RETAIN THE SERVICES OF A TESTING AND INSPECTION AGENCY TO PERFORM THE SERVICES SPECIFIED.

- A. MINIMUM SERVICES PROVIDED SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE LOCAL JURISDICTION.

- B. FAILURE TO RETAIN A TESTING AGENCY TO PROVIDE REQUIRED SERVICES OR A FAILURE TO SUBMIT SIGNED AND SEALED REPORTS SHALL BE CONSIDERED NON-COMPLIANCE WITH CONTRACT DOCUMENTS.

- C. CONSTRUCTION CONSIDERED NON-COMPLIANT SHALL BE REMOVED AND REPLACED.

- D. TESTING AND INSPECTION SHALL BE UNDER THE DIRECTION OF AN ENGINEER LICENSED TO PRACTICE IN THIS LOCAL JURISDICTION.

- E. REPORTS SHALL BE SUBMITTED TO THE COTR IN A TIMELY MANNER, UNDER THE NAME AND SIGNATURE OF THE INSPECTOR AND LICENSURE SEAL AND SIGNATURE OF THE PROFESSION ENGINEER RESPONSIBLE FOR TESTING AND INSPECTION.

- F. INSPECTION SHALL MINIMALLY INCLUDE THE FOLLOWING:

1. REINFORCING: LOCATION, ASTM DESIGNATION, BAR SIZES, TYPE (PLAIN OR EPOXY COATED), QUANTITY, PLACEMENT, SPACING, AND CLEARANCES.  
2. CONCRETE: ALL STRUCTURAL CONCRETE; LOCATION, STRENGTH, TYPE (NORMAL OR LIGHTWEIGHT), SLUMP, PLACEMENT, AIR TEMPERATURE, CURING AND WEATHER ACCOMMODATIONS AND CONCRETE ADDITIVES.  
3. STRUCTURAL STEEL: LOCATION, ASTM DESIGNATION, MEMBER SIZES, TYPE (PLAIN, PAINTED, GALVANIZED), PLACEMENT AND CONNECTIONS INCLUDING WELDS AND BOLTS, STUDS IN COMPOSITE CONSTRUCTION, POST INSTALLED ANCHORS, ANCHOR BOLTS AND GROUTING.  
4. ADHESIVE ANCHORS: LOCATION, QUANTITY, PLACEMENT, EMBEDMENT, SPACING, CLEARANCES, AND ADHERENCE TO MANUFACTURER'S INSTALLATION INSTRUCTIONS

- G. MATERIAL TESTING SHALL MINIMALLY INCLUDE THE FOLLOWING:

1. FOUNDATION & EARTHWORK: SOIL BEARING CAPACITIES AND COMPACTION DENSITIES.  
2. REINFORCING: YIELD AND ULTIMATE STRENGTHS. (MILL REPORTS ARE ACCEPTABLE.)  
3. CONCRETE: SLUMP TESTS; EVERY THIRD TRUCKLOAD OF CONCRETE AND IN ADDITION, ONE FOR EACH SET OF STRENGTH-TEST CYLINDERS AT PREPARATION. STRENGTH TESTS; ONE SET OF CYLINDERS FOR MAXIMUM OF EACH 50 CY OF CONCRETE PLACEMENT. ONE SET OF CYLINDERS FOR EACH 2500 SQUARE SLAB AREA.  
4. STRUCTURAL STEEL: YIELD AND ULTIMATE STRENGTHS. (MILL REPORTS ARE ACCEPTABLE.)

- H. COMPLY WITH CODE REQUIREMENTS and the FOLLOWING:

1. CONCRETE CYLINDERS: ONE SET OF SIX 6x12 LABORATORY CURED CYLINDERS SHALL BE TAKEN FOR EACH DAY'S POUR FOR EACH MIX: (2) 7-DAY, (2) 28-DAY, (2) HOLD;

IX. DEMOLITION

- A. ALL MEANS AND METHODS OF SAFELY REMOVING ALL EXISTING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- B. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING REQUIRED FOR DEMOLITION OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF AND PROCEDURES FOR THE REQUIRED TEMPORARY SHORING. THE DESIGN PROCEDURES SHALL CONFORM TO ALL GOVERNING CODES AND SAFETY REQUIREMENTS.

- C. WHERE EXISTING CONCRETE SLABS OR WALLS ARE TO BE CORE DRILLED, PERFORM GPR TO LOCATE EXISTING REINFORCING BARS, DO NOT CORE DRILL THRU REINFORCING BARS. COTR SHALL BE NOTIFIED TO APPROVE DRILLING LOCATION ONCE THE GPR SCANNING IS COMPLETED AND REINFORCING BARS ARE LOCATED AND MARKED ON WALL OR SLAB.

ABBREVIATION INDEX FOR STRUCTURAL DRAWINGS

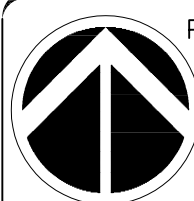
ADDL	ADDITIONAL	HORIZ	HORIZONTAL
ALT	ALTERNATE	IN	INCH(ES)
ABT	ANCHOR BOLT	IF	INSIDE FACE
ARCH	ARCHITECT, ARCHITECTURAL	INT	INTERIOR
@	AT	JT	JOINT
BM	BEAM	JST	JOIST
BRG	BEARING	JH	JOIST HEADER
BTWN	BETWEEN	K	KIP
BOT	BOTTOM	LG	LENGTH, LONG
BRK	BRICK	LT WT	LIGHT WEIGHT
BLDG	BUILDING	LL	LIVE LOAD
CANT	CANTILEVER	LOC	LOCATION
CIP	CAST IN PLACE	LLH	LONG LEG HORIZONTAL
CLG	CEILING	LLV	LONG LEG VERTICAL
CTR	CENTER	MFR	MANUFACTURER
CL OR C	CENTERLINE	MAX	MAXIMUM
C/C	CENTER TO CENTER	MECH	MECHANICAL
CLR	CLEAR	MTL	METAL
COL	COLUMN	MIN	MINIMUM
COMP	COMPOSITE	MISC	MISCELLANEOUS
CONC	CONCRETE	MONO	MONOLITHIC
CONN	CONNECTION	NTS	NOT TO SCALE
CONT	CONTINUOUS	NO	NUMBER
COORD	COORDINATE	OC	ON CENTER
DL	DEAD LOAD	OPNG	OPENING
D	DEPTH	OPP	OPPOSITE
DET	DETAIL	OF	OUTSIDE FACE
DIAG	DIAGONAL	PL OR P	PLATE
DIA OR Ø	DIAMETER	PT	POINT
DIM	DIMENSION	LB	POUND
DWLS	DOWELS	PSF	POUNDS PER SQUARE FOOT
DN	DOWN	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	REF	REFERENCE
EA	EACH	REINF	REINFORCE, REINFORCING
EA END, EE	EACH END	REQD	REQUIRED
EF	EACH FACE	RT	RIGHT
EW	EACH WAY	SCHED	SCHEDULE
EL	ELEVATION	SECT	SECTION
EQ	EQUAL	SHT	SHEET
EQ SP	EQUALLY SPACED	SIM	SIMILAR
EQUIP	EQUIPMENT	SOG	SLAB ON GRADE
EXIST	EXISTING	SPEC	SPECIFICATIONS
EXT	EXTERIOR	SQ	SQUARE
FF	FAR FACE	SF	SQUARE FOOT
FS	FAR SIDE	STD	STANDARD
FIN	FINISH	S.S.	STAINLESS STEEL
FP	FIREPROOFING	STL	STEEL
FL/FLR	FLOOR	STIFF	STIFFENER
FD	FLOOR DRAIN	STRUCT	STRUCTURAL
FTG	FOOTING	T/SLAB	TOP OF SLAB
FDN	FOUNDATION	TYP	TYPICAL
FRMG	FRAMING	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED	VERT	VERTICAL
GA	GAGE	WT	WEIGHT
GC	GENERAL CONTRACTOR	WWF	WELDED WIRE FABRIC
HD	HEADED	W	WIDTH
HDR	HEADER	W/	WITH
HT	HEIGHT	WO	WALL OPENING
HS	HIGH STRENGTH	WP	WORK POINT

QUINN  
EVANS

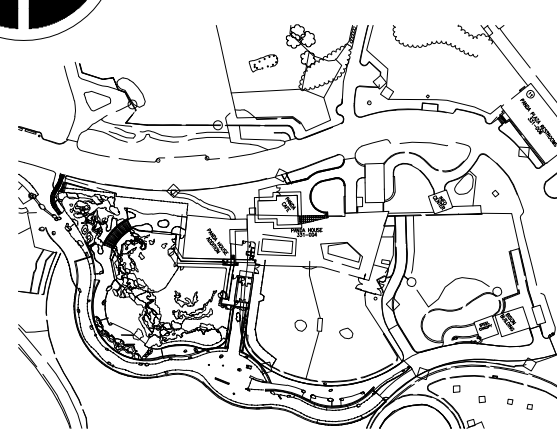
2121 WARD PLACE, NW  
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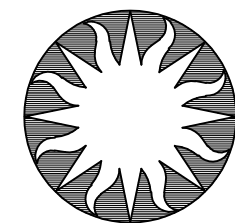
PROJECT NORTH  
PANDA HOUSE



KEY PLAN

GRAPHIC SCALE(S)

DATE	SUBMISSION
10/30/20	FINAL SUBMISSION
REVISION	REVISION
REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4	
REVISION 5	
REVISION 6	
REVISION 7	

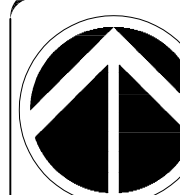


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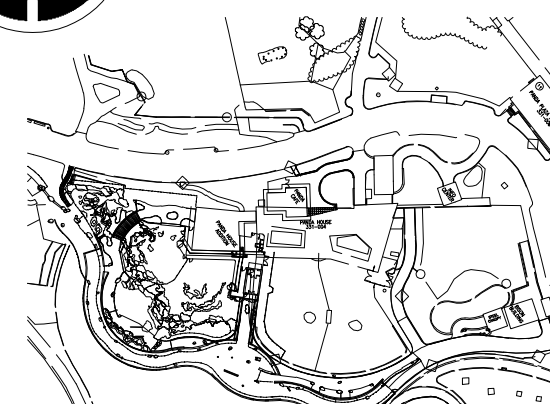
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20560

BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington DC 2008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SP PROJECT NUMBER	2033115
N/E PROJECT NUMBER	42020400
DRAWING TITLE	STRUCTURAL DESIGN NOTES AND ABBREVIATIONS
DRAWING TYPE	GENERAL
WORKING STAFF	DESIGNED BY: SCP CHECKED BY: CEN DB
SHEET NO.	S 001 GI
6 OF 29	DISCIPLINE TYPE SEQUENCE





PROJECT NORTH  
PANDA HOUSE



KEY PLAN

8' 4' 0' 8' 16'

1/8" = 1'-0" SCALE OF FEET

GRAPHIC SCALE(S)

DATE  
10/30/20

SUBMISSION  
FINAL SUBMISSION

REVISION 1

REVISION 2

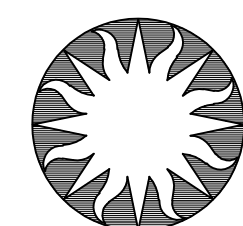
REVISION 3

REVISION 4

REVISION 5

REVISION 6

REVISION 7



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BUILDING NAME

NZP PANDA HOUSE

ADDRESS

3001 Connecticut Avenue,  
NW Washington DC 2008

PROJECT TITLE

SMOKE CONTROL  
MODIFICATIONS

BY PROJECT NUMBER

2033115

DATE PROJECT NUMBER

42020400

DRAWING TITLE

WALL OPENING LOCATIONS  
AND ROOF FRAMING PLAN

DRAWING TYPE

GENERAL

WORKING STAFF

SCP

CEN

DB

DESIGNED BY

DRAWN BY

CHECKED BY

SHEET NO.

S

101

FP

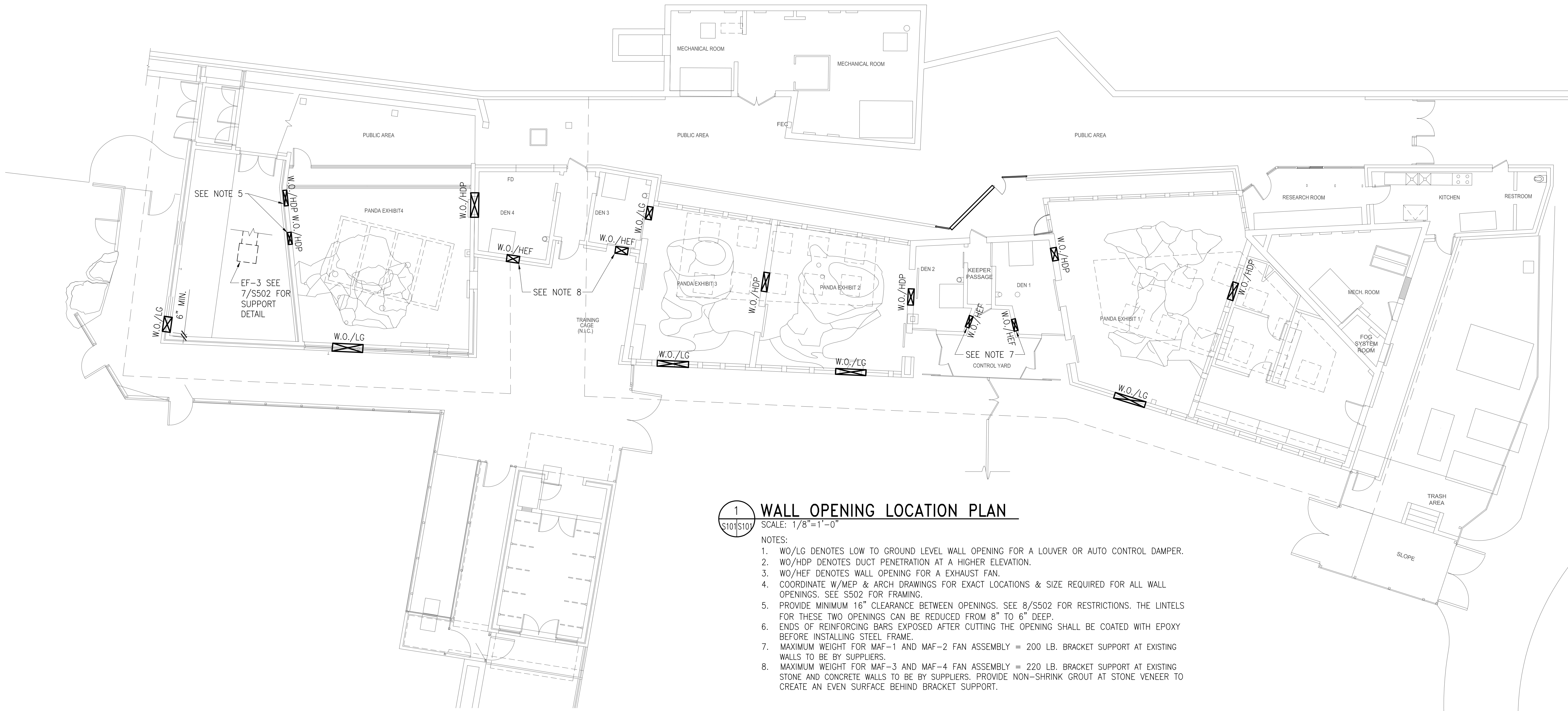
7 OF 29

DISCIPLINE

TYPE

SEQUENCE

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

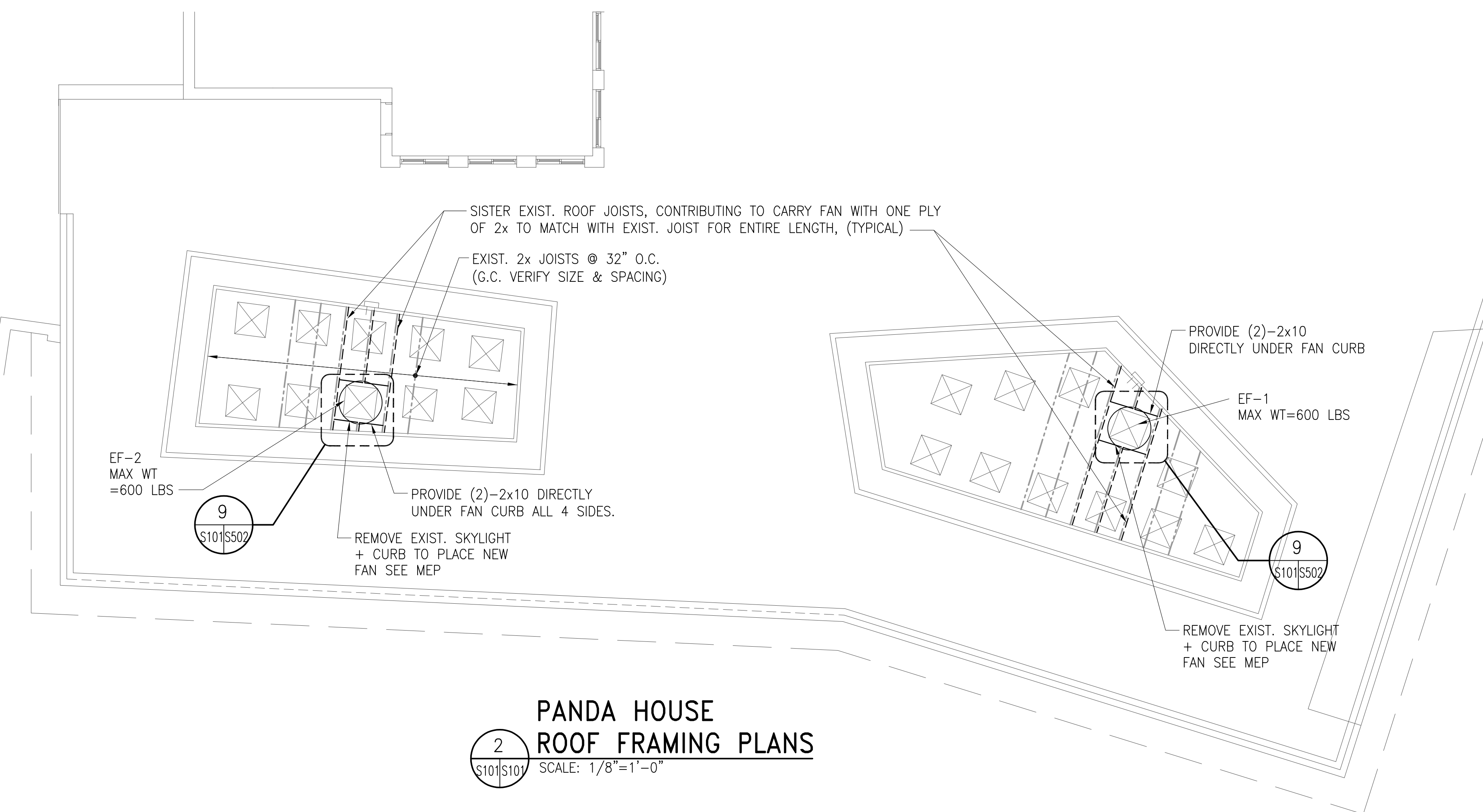


## 1 WALL OPENING LOCATION PLAN

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

NOTES:

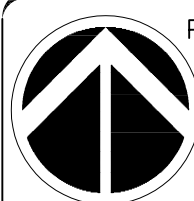
1. WO/LG DENOTES LOW TO GROUND LEVEL WALL OPENING FOR A LOUVER OR AUTO CONTROL DAMPER.
2. WO/HDP DENOTES DUCT PENETRATION AT A HIGHER ELEVATION.
3. WO/HEF DENOTES WALL OPENING FOR A EXHAUST FAN.
4. COORDINATE W/MEP & ARCH DRAWINGS FOR EXACT LOCATIONS & SIZE REQUIRED FOR ALL WALL OPENINGS. SEE S502 FOR FRAMING.
5. PROVIDE MINIMUM 16" CLEARANCE BETWEEN OPENINGS. SEE 8/S502 FOR RESTRICTIONS. THE LINTELS FOR THESE TWO OPENINGS CAN BE REDUCED FROM 8" TO 6" DEEP.
6. ENDS OF REINFORCING BARS EXPOSED AFTER CUTTING THE OPENING SHALL BE COATED WITH EPOXY BEFORE INSTALLING STEEL FRAME.
7. MAXIMUM WEIGHT FOR MAF-1 AND MAF-2 FAN ASSEMBLY = 200 LB. BRACKET SUPPORT AT EXISTING WALLS TO BE BY SUPPLIERS.
8. MAXIMUM WEIGHT FOR MAF-3 AND MAF-4 FAN ASSEMBLY = 220 LB. BRACKET SUPPORT AT EXISTING STONE AND CONCRETE WALLS TO BE BY SUPPLIERS. PROVIDE NON-SHRINK GROUT AT STONE VENEER TO CREATE AN EVEN SURFACE BEHIND BRACKET SUPPORT.



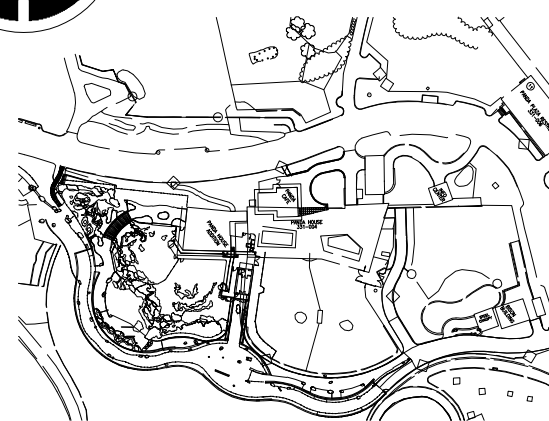
## 2 PANDA HOUSE ROOF FRAMING PLANS

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





PROJECT NORTH  
PANDA HOUSE



KEY PLAN

4' 2' 0' 4' 8'  
1/4" = 1'-0" SCALE OF FEET

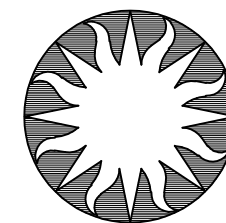
GRAPHIC SCALE(S)

DATE  
10/30/20

SUBMISSION  
FINAL SUBMISSION

REVISION  
REVISION 1  
REVISION 2  
REVISION 3  
REVISION 4  
REVISION 5  
REVISION 6  
REVISION 7

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REVISION 6  
REVISION 7



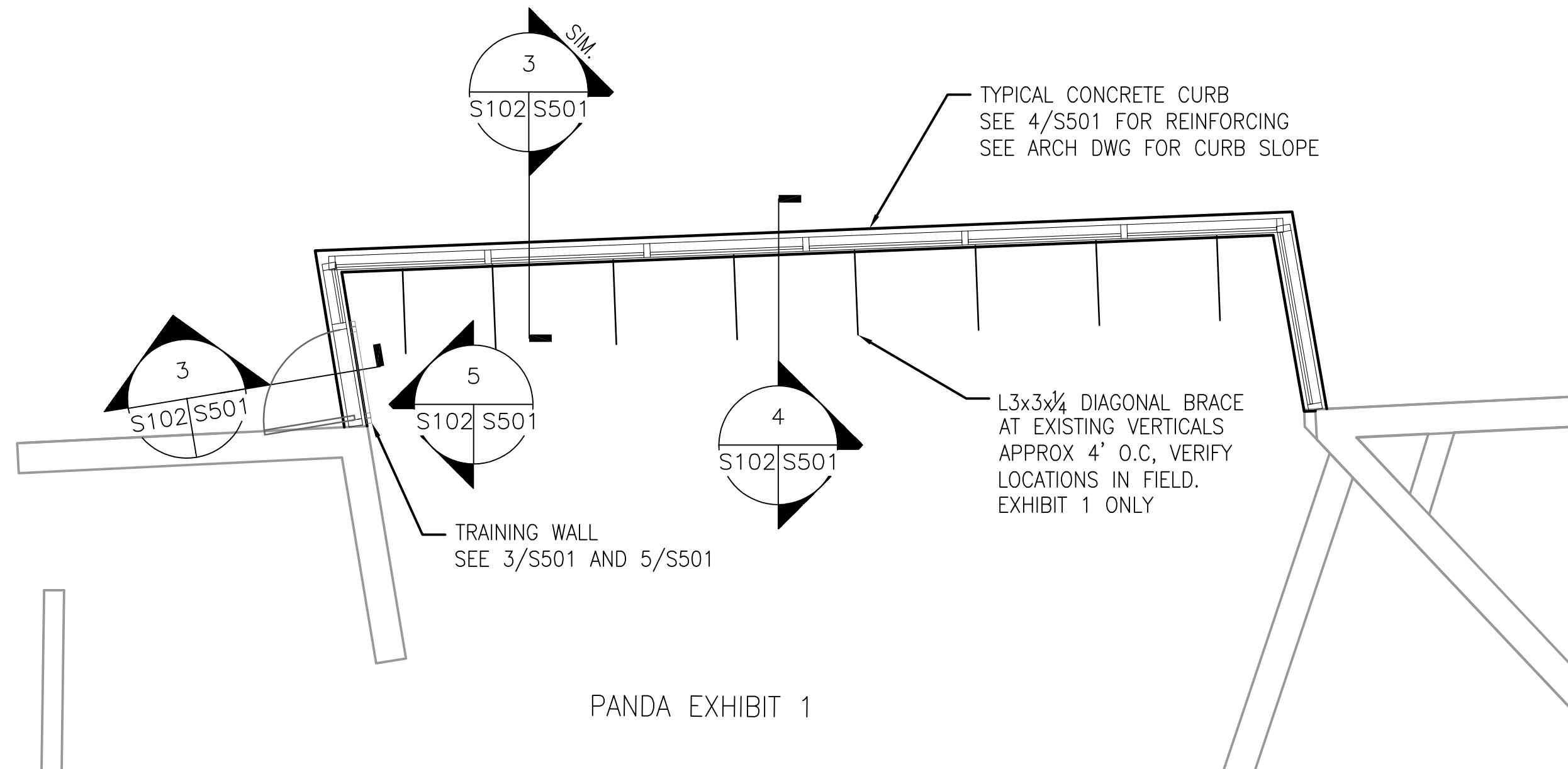
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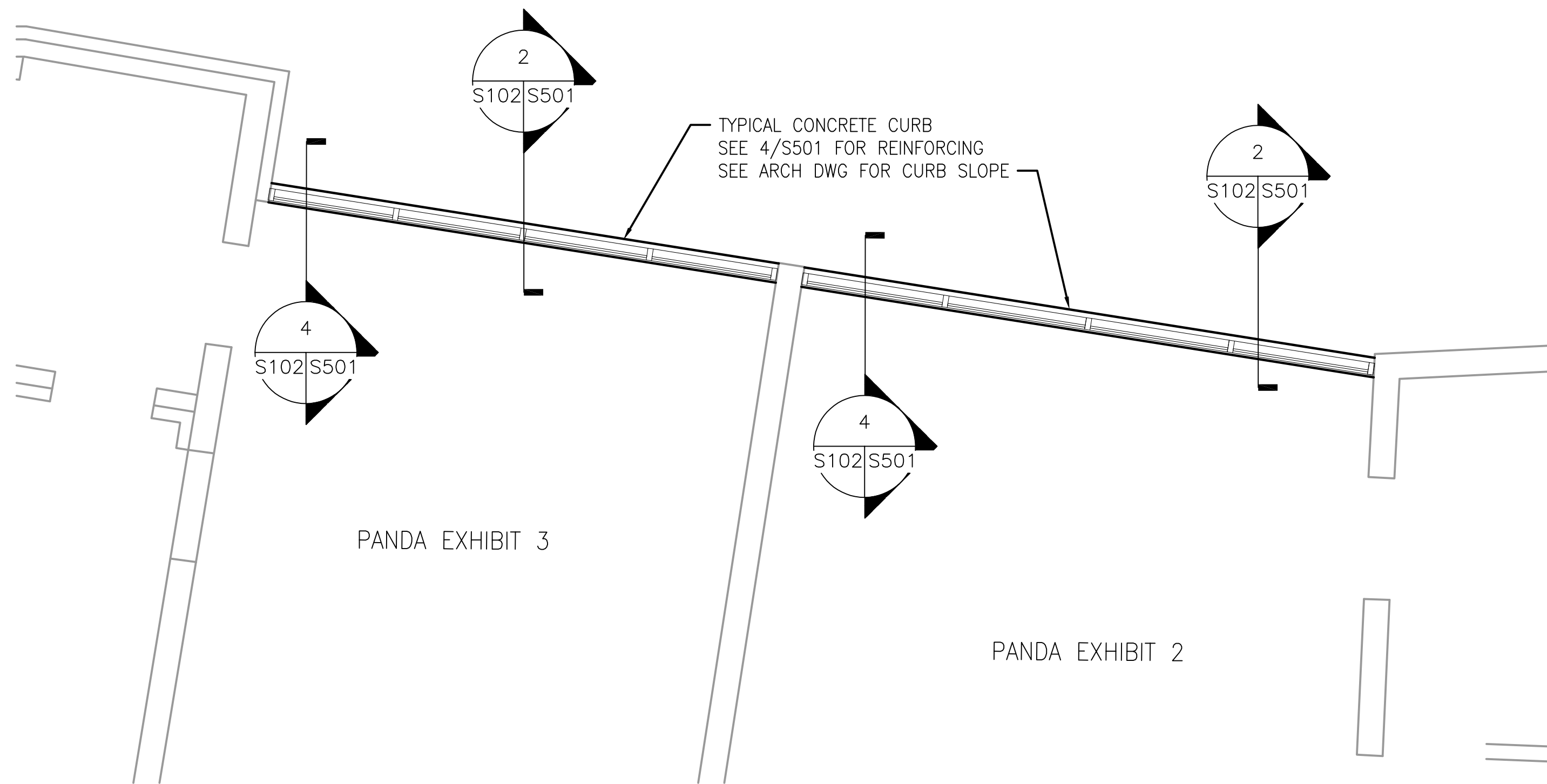
BUILDING NAME  
N2P PANDA HOUSE  
ADDRESS  
3001 Connecticut Avenue,  
NW Washington DC 2008  
PROJECT TITLE  
SMOKE CONTROL  
MODIFICATIONS  
2033115  
N/E PROJECT NUMBER  
42020400

DRAWING TITLE  
STRUCTURAL PLANS  
DRAWING TYPE  
GENERAL  
WEEKEND STAFF  
SCP CEN DB  
DESIGNED BY  
DRAWN BY  
CHECKED BY

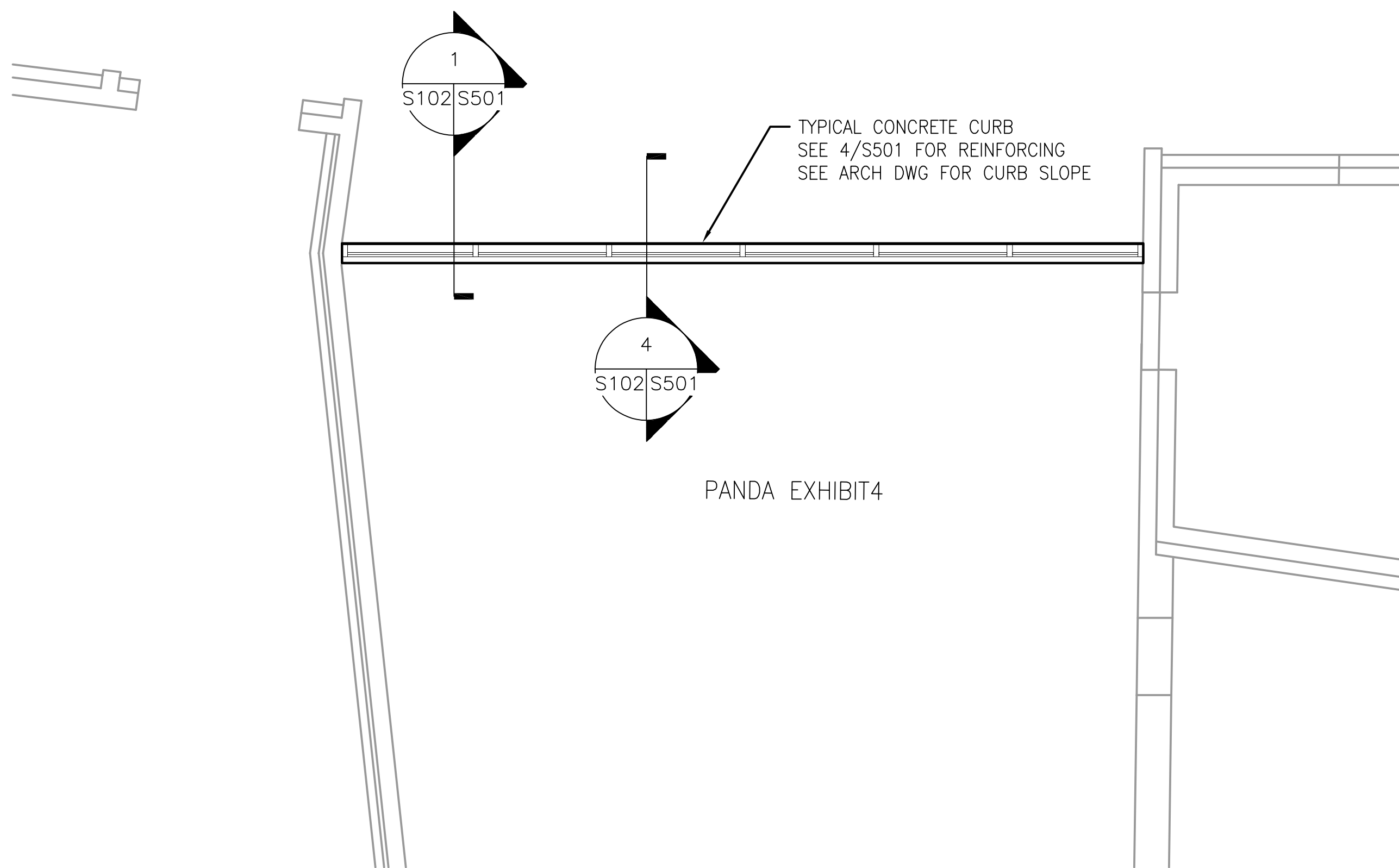
SHEET NO.  
8 OF 29  
S 102 FP  
DISCIPLINE TYPE SEQUENCE



1 EXHIBIT 1 STRUCTURAL PLAN  
S102 S102 1/4" = 1'-0"



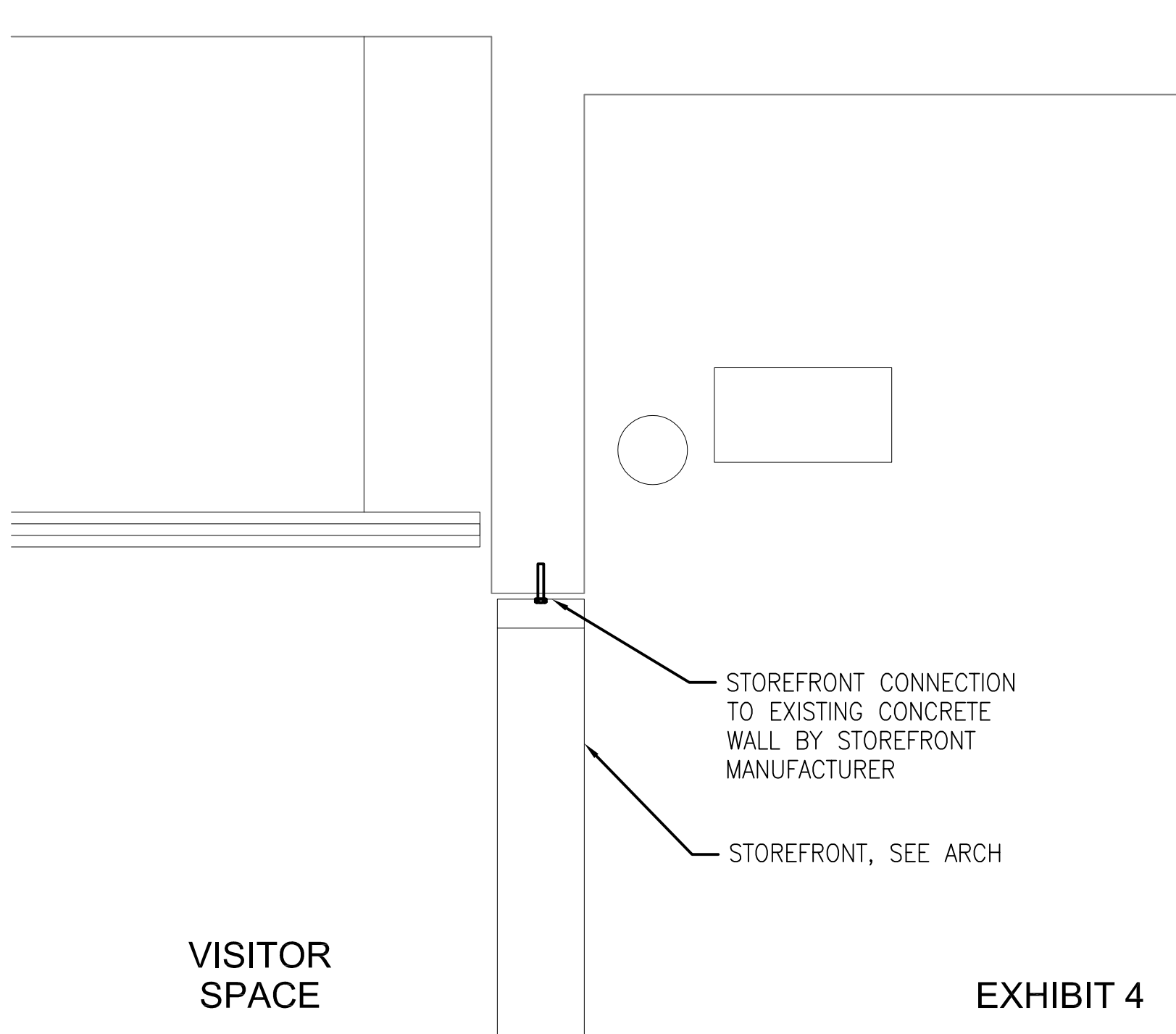
2 EXHIBIT 2 & 3 STRUCTURAL PLAN  
S102 S102 1/4" = 1'-0"



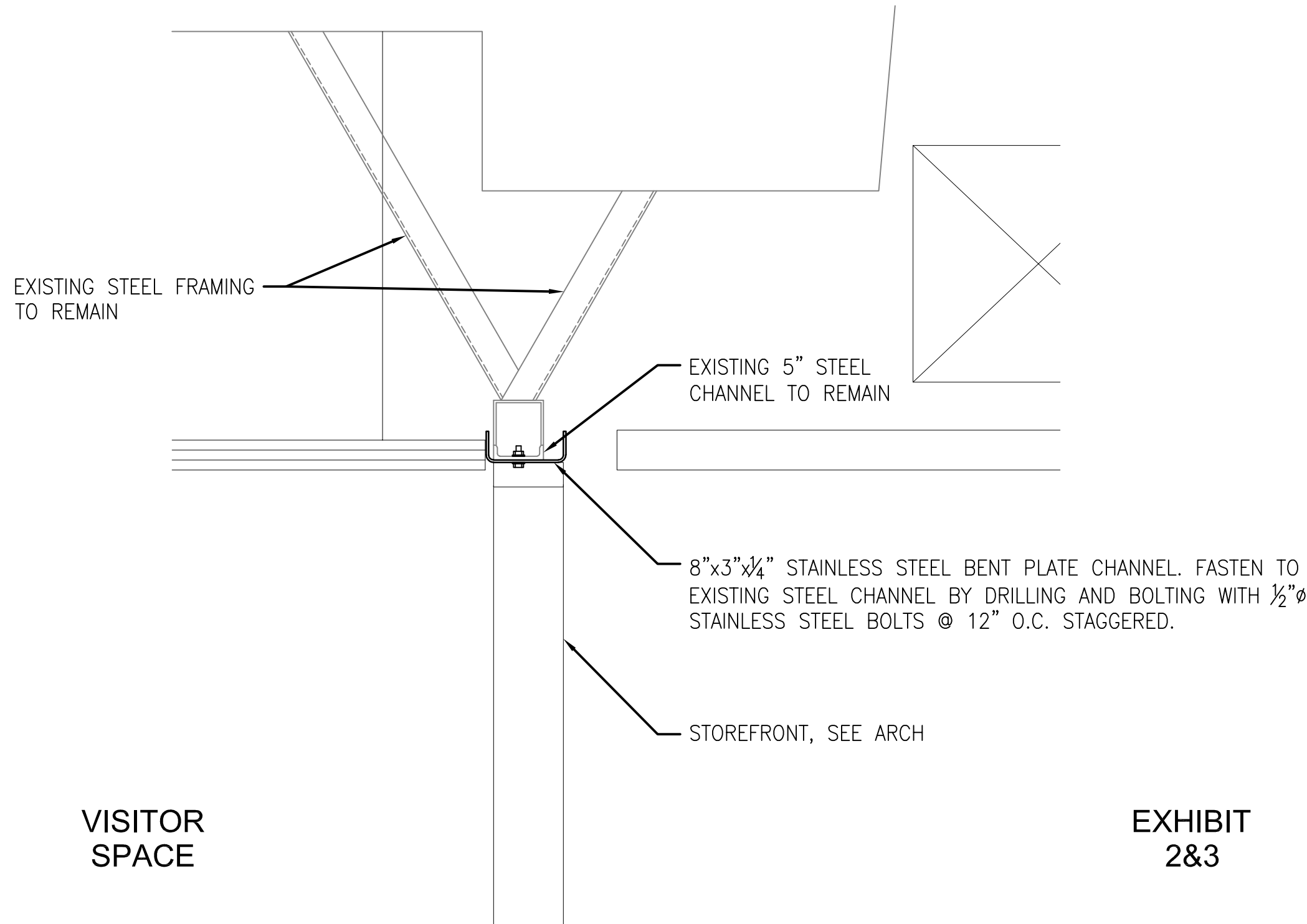
3 EXHIBIT 4 STRUCTURAL PLAN  
S102 S102 1/4" = 1'-0"

SHEET NOTES:  
1. REFER TO ARCHITECTURAL PLAN FOR DIMENSIONAL INFORMATION.

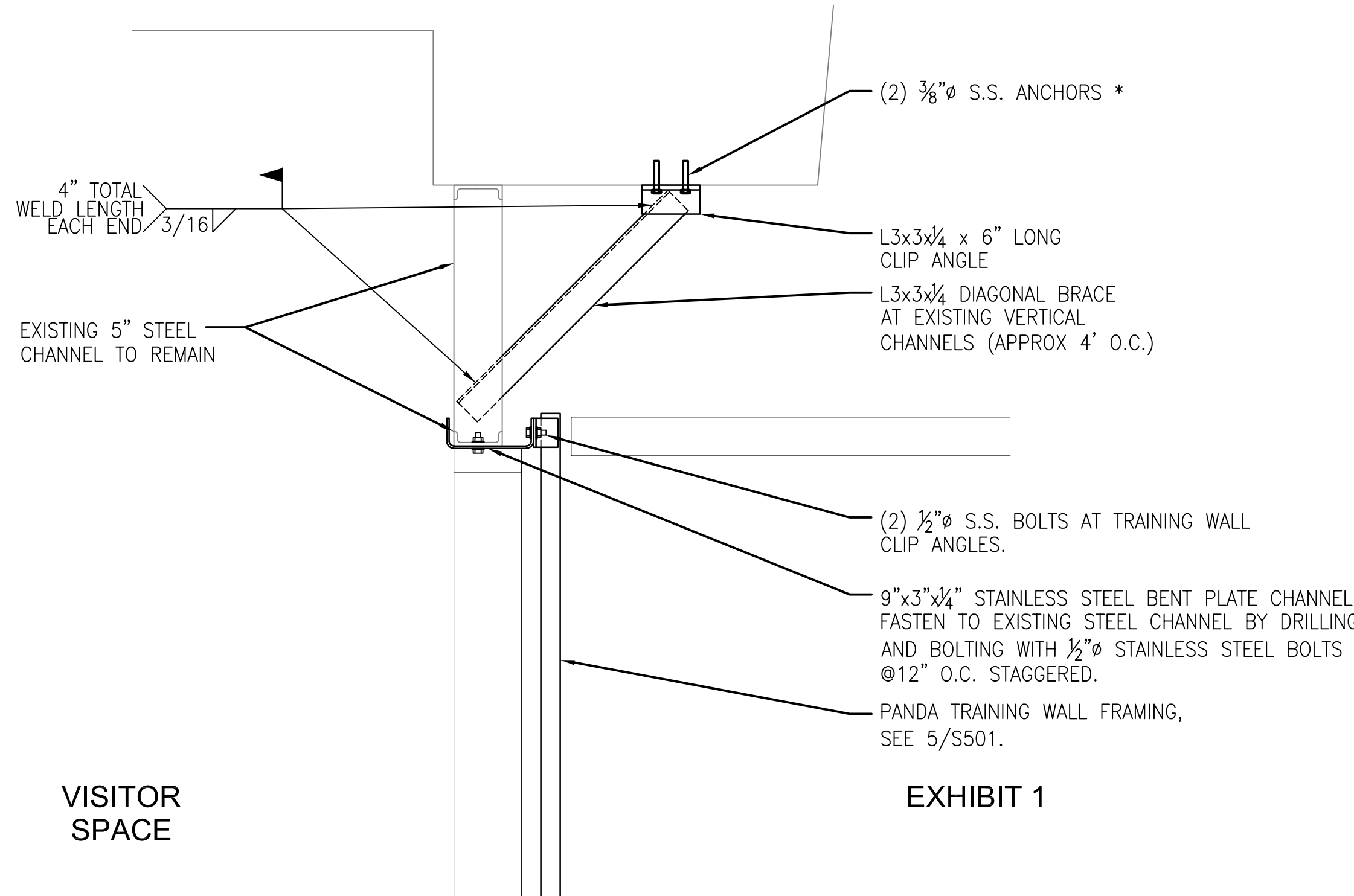




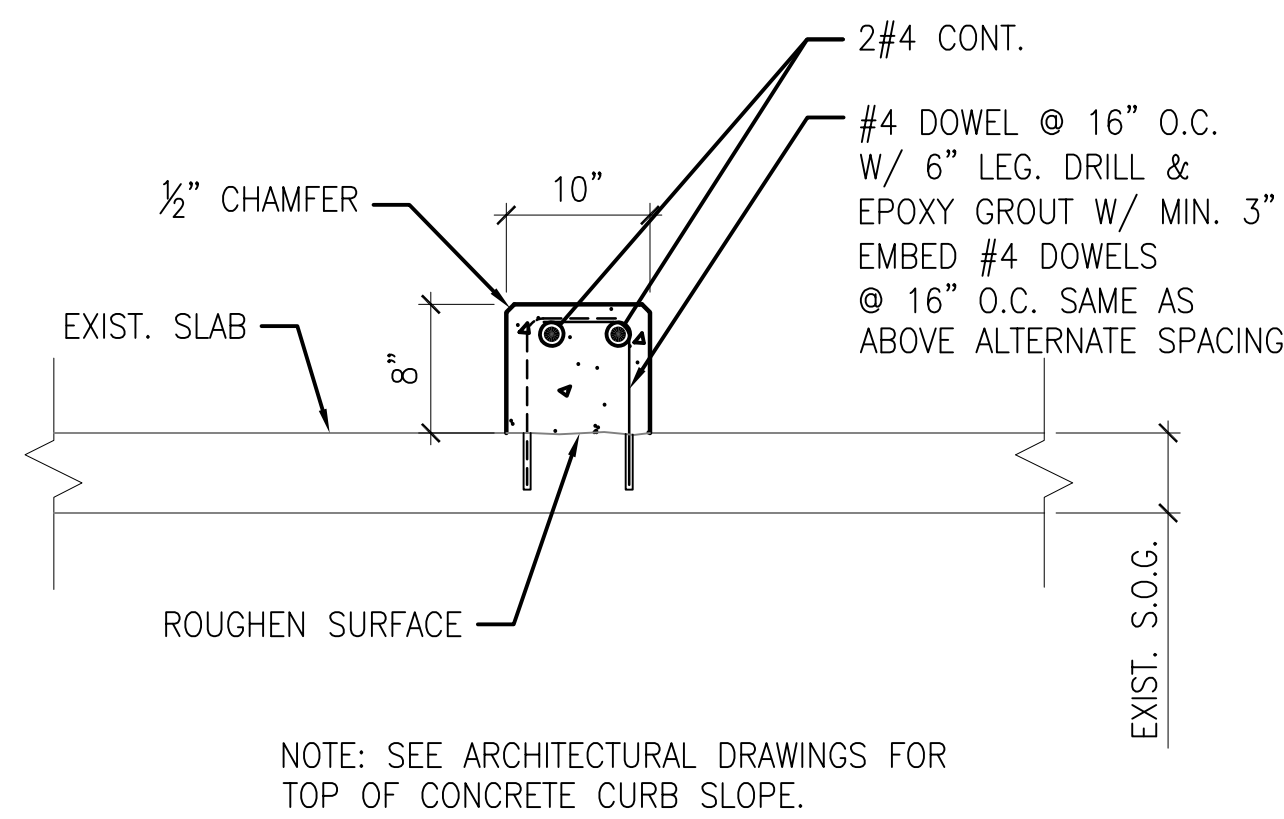
1 HEAD DETAIL AT EXHIBIT 4  
S102 S501 1" = 1'-0"



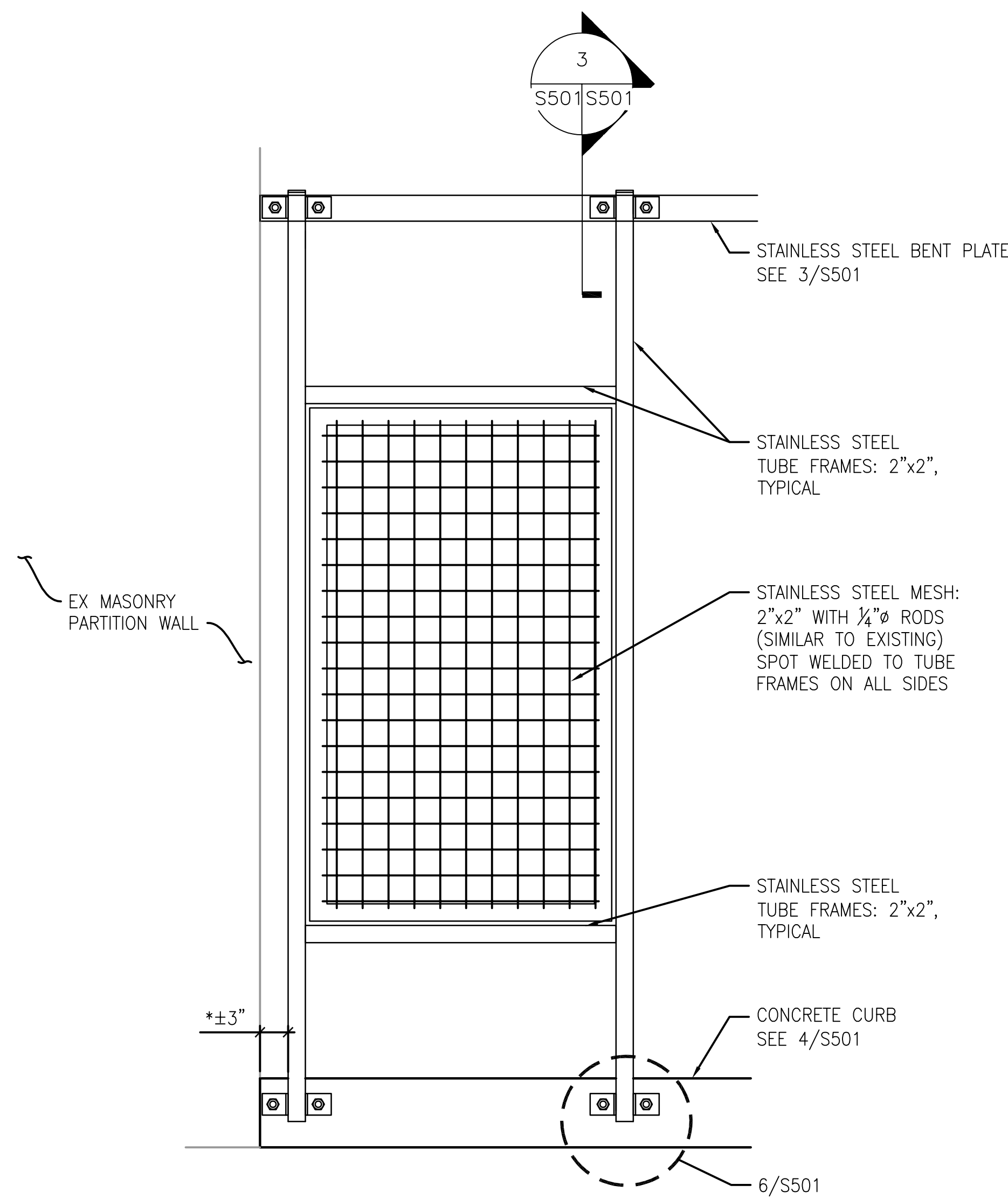
2 HEAD DETAIL AT EXHIBIT 2 & 3  
S102 S501 1" = 1'-0"



3 HEAD DETAIL AT EXHIBIT 1  
S102 S501 1" = 1'-0"

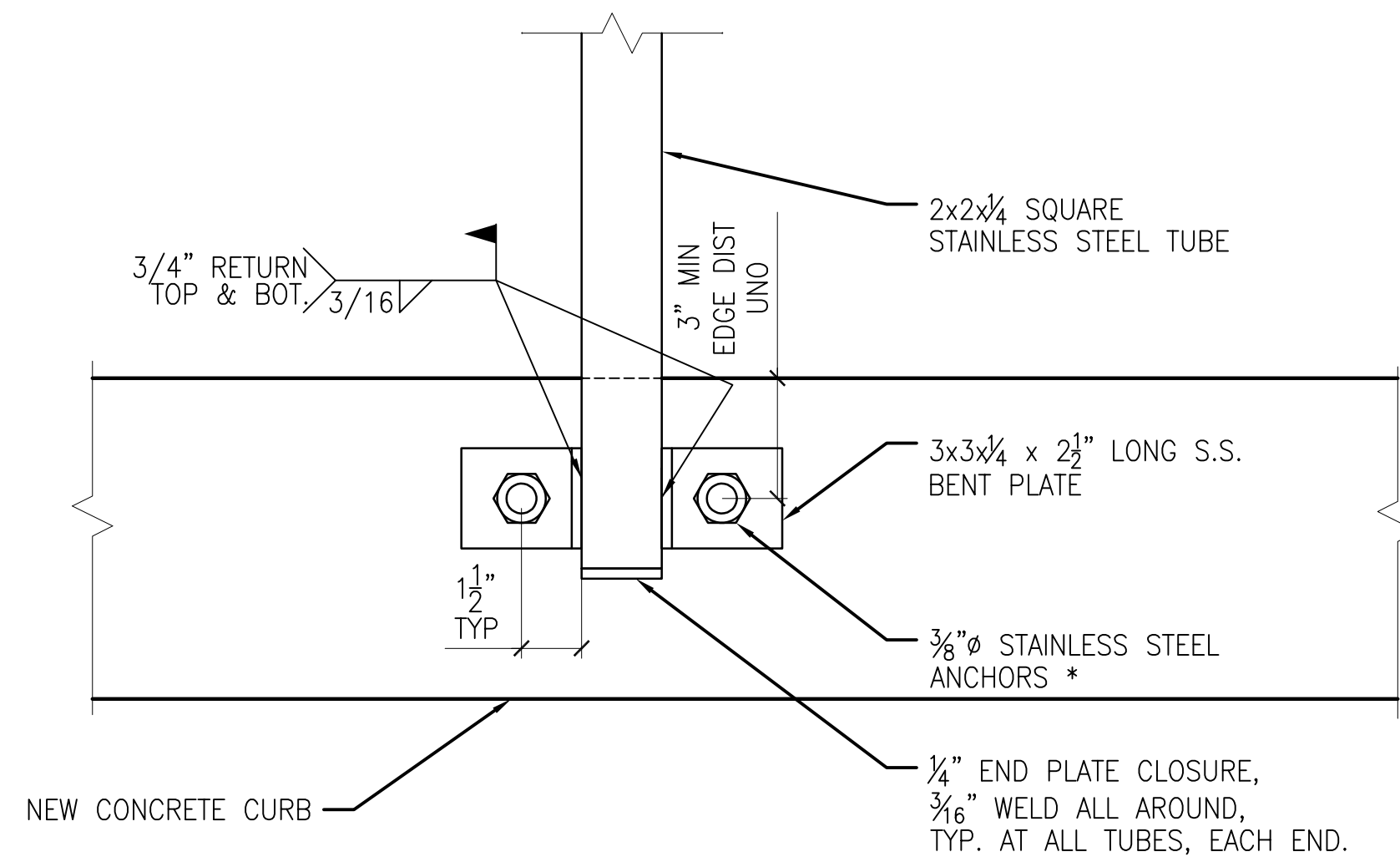


4 TYPICAL CURB DETAIL  
S501 S501 3" = 1'-0"



5 TRAINING WALL ELEVATION  
S102 S501 1" = 1'-0"

NOTE:  
\* FIELD VERIFY THIS DIMENSION PRIOR TO TRAINING WALL SHOP DRAWING PRODUCTION. IF THE DISTANCE FROM THE EDGE OF THE STEEL TUBE TO THE EXISTING MASONRY WALL IS LESS THAN 3", THEN PROVIDE A BENT PLATE OR AN L8x4x1/4 x0'-2 1/2" LONG ANGLE CUT TO FIT.



\* NOTE: ALL CONCRETE ANCHORS SHOWN TO BE:  
-STAINLESS STEEL  
-MINIMUM ULTIMATE SHEAR CAPACITY = 3,000 POUNDS.  
-FLAT HEAD PROFILE.  
BASIS OF DESIGN:  
POWERS 410 STAINLESS STEEL WEDGE BOLT.  
TACK WELD OR USE "LOCTITE" TO PREVENT BOLTS FROM LOOSENING.

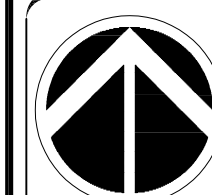
6 TRAINING WALL ANCHORAGE TO CONCRETE  
S501 S501 3" = 1'-0"

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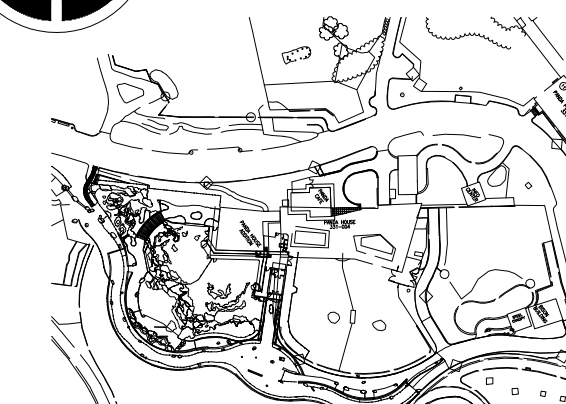
2121 WARD PLACE, NW  
FOURTH FLOOR  
WASHINGTON, DC 20037



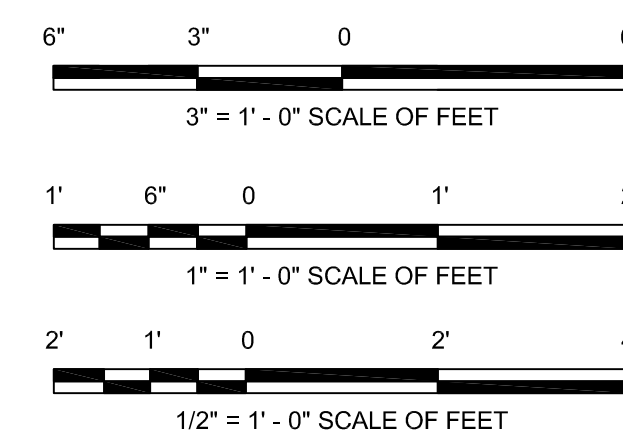
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PROJECT NORTH  
PANDA HOUSE

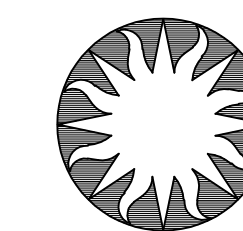


KEY PLAN



GRAPHIC SCALE(S)

DATE	SUBMISSION
10/30/20	FINAL SUBMISSION
REVISION	REVISION
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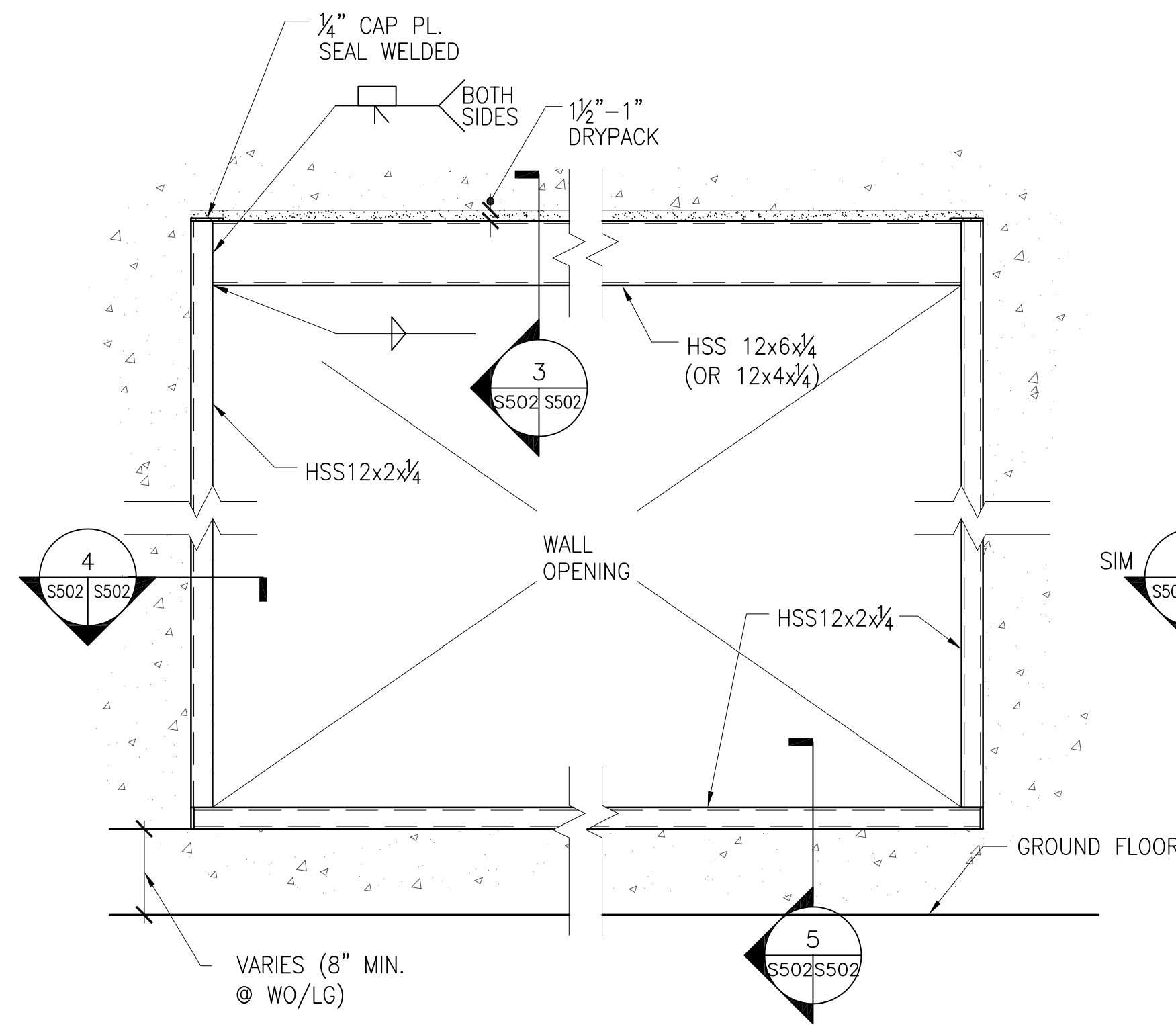
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20560

BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington DC 2008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
BY PROJECT NUMBER	2033115
DATE PROJECT NUMBER	42020400

DRAWING TITLE	SECTIONS AND DETAILS
DRAWING TYPE	GENERAL
WORKING STAFF	SCP CEN CN
DESIGNED BY	DRAWN BY
CHECKED BY	

SHEET NO.	S	501	DT
9 of 29	DISCIPLINE	TYPE	SEQUENCE



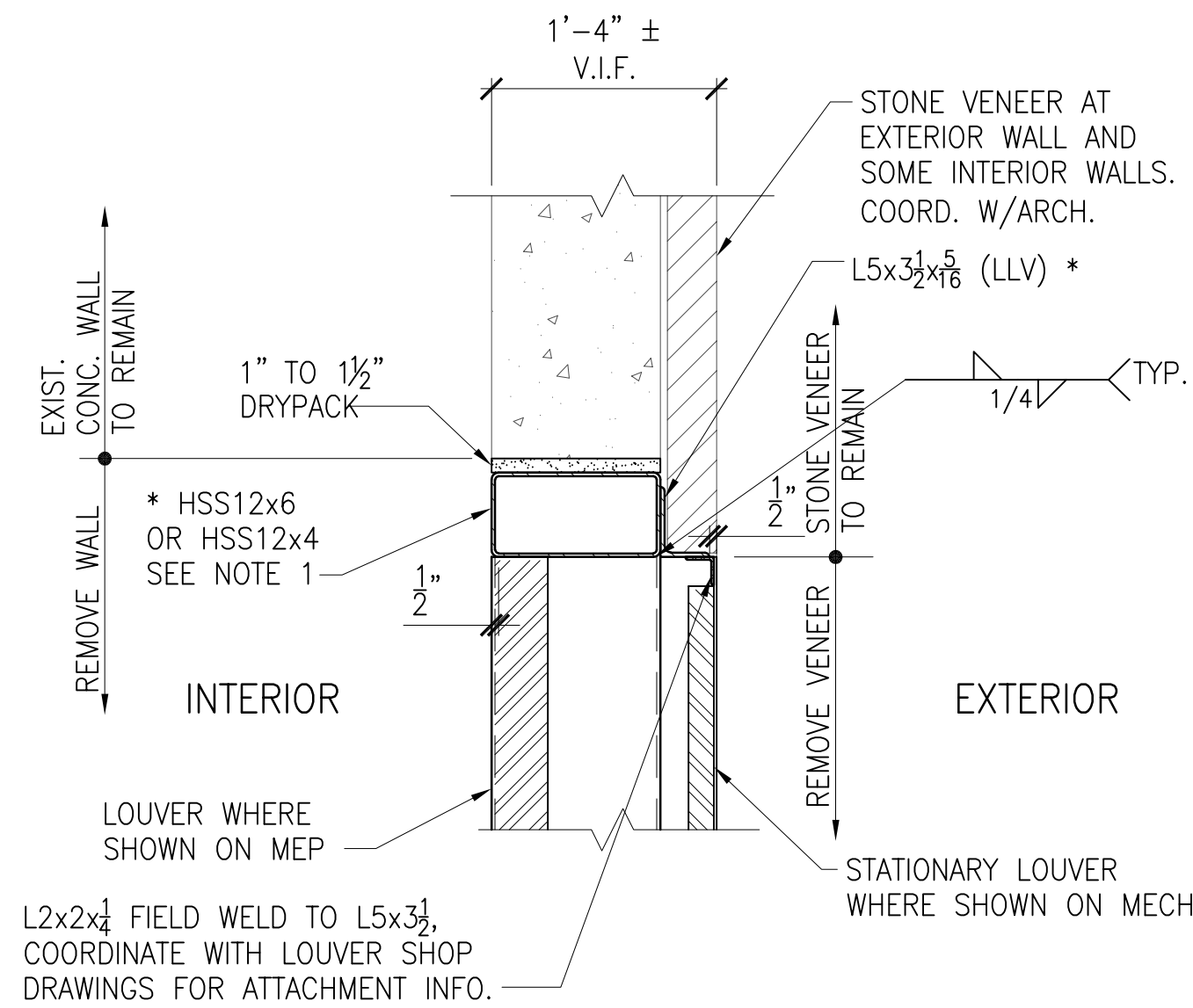


### FRAMING @ OPENING WALL THICKNESS 12" OR GREATER

SCALE: 1"=1'-0"

NOTE:

1. NO STEEL FRAMING REQUIRED IF THE OPENING WIDTH IS 12" (OR LESS) WIDE.
2. G.C. SHALL COORDINATE W/MEP AND THESE DETAILS FOR REQUIRED ROUGH OPENING & PROVIDE ROUGH OPENING SIZE TO STEEL FABRICATOR.

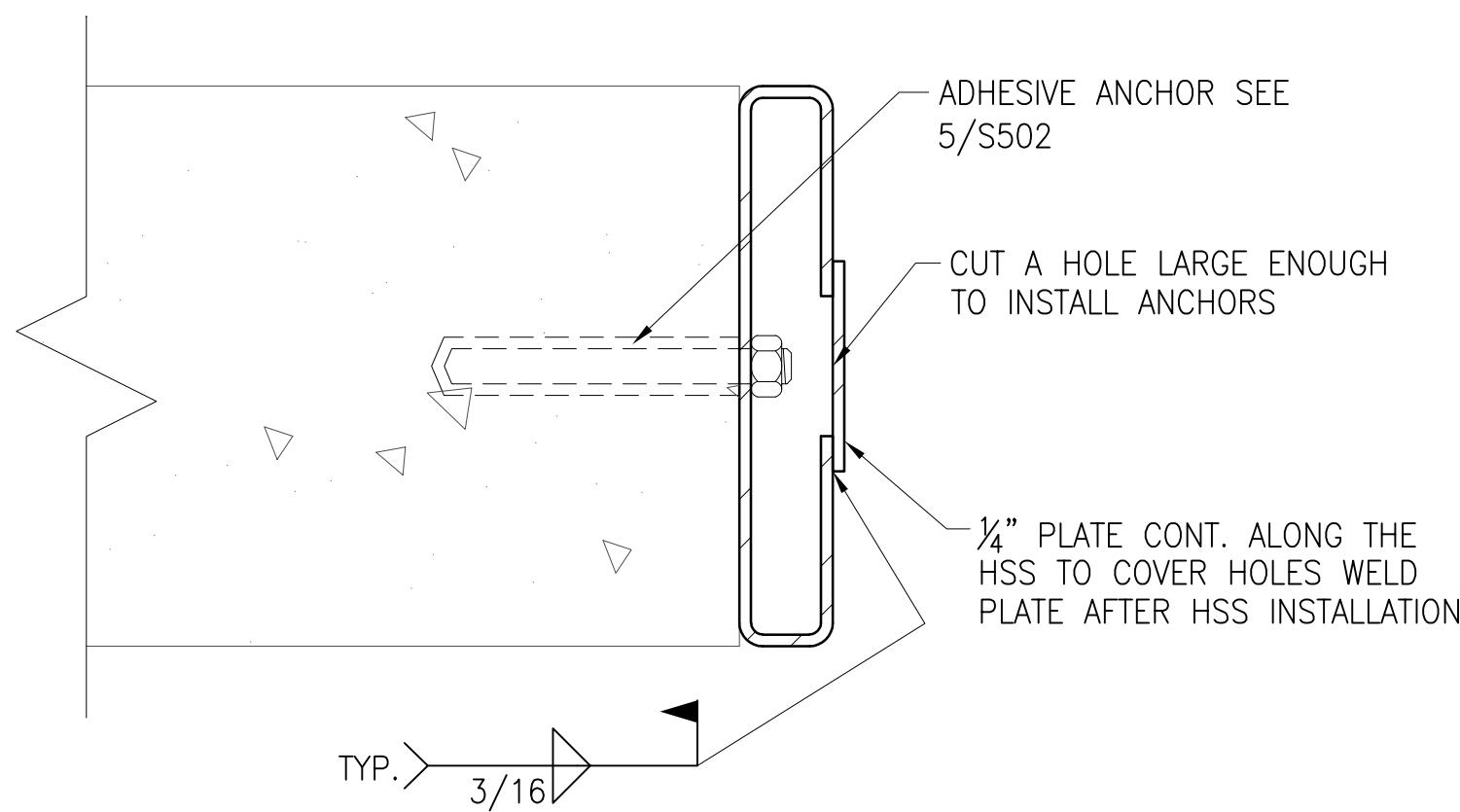


### SECTION @ TOP OF OPENING

SCALE: 1"=1'-0"

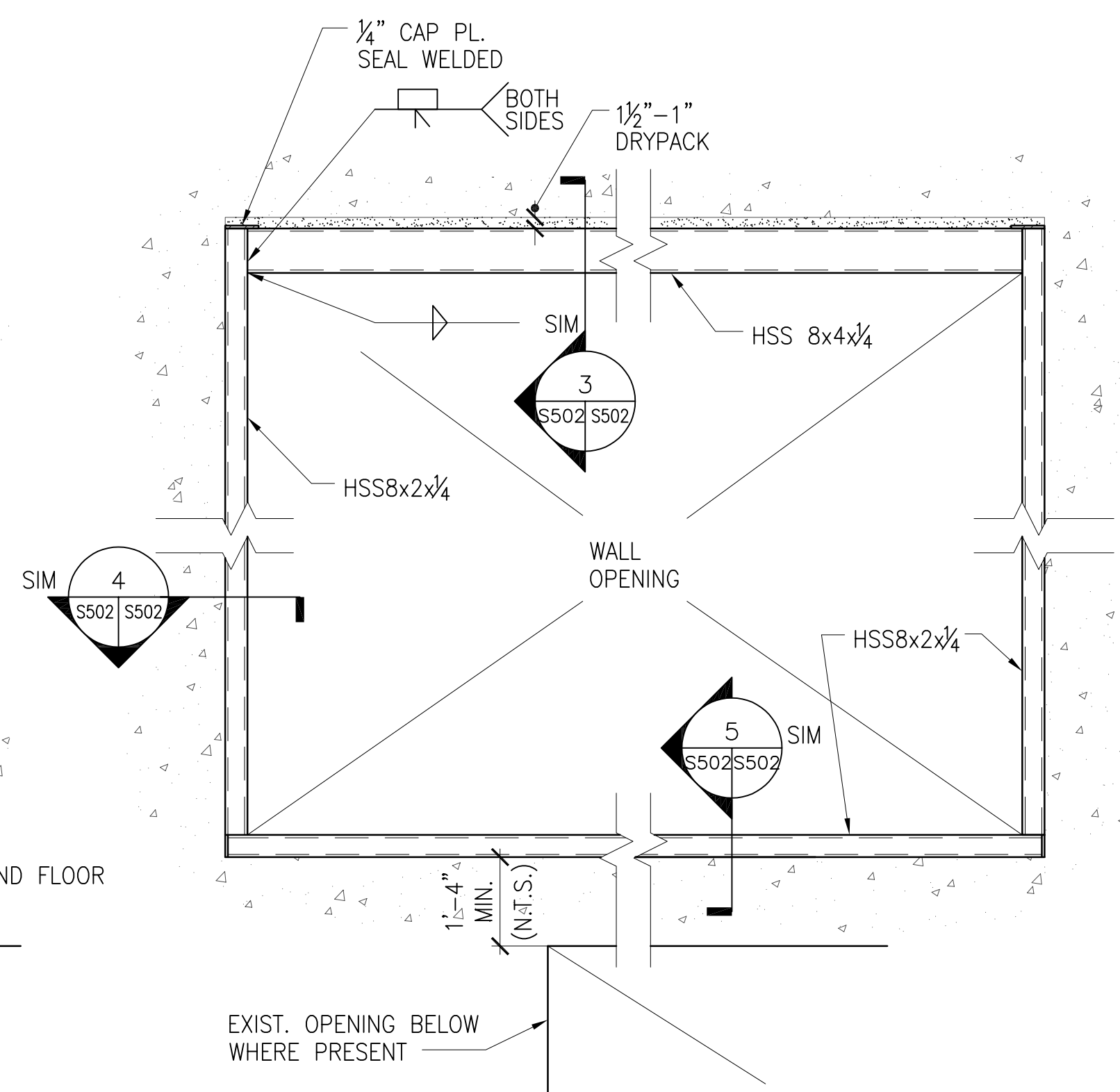
NOTES:

1. FOR WALLS 12" THICK OR GREATER USE HSS12x6x1/4 WHERE OPENING IS MORE THAN 4'-0" WIDE USE HSS12x4x1/4 FOR OPENINGS LESS THAN 4'-0" WIDE.
2. FOR WALLS 8" OR 10" THICK USE HSS8x4x1/4 FOR OPENINGS 5'-0" WIDE OR LESS.
3. \* OMIT STEEL ANGLE WHERE VENEER DOES NOT EXIST.



### DETAIL

SCALE: 3"=1'-0"

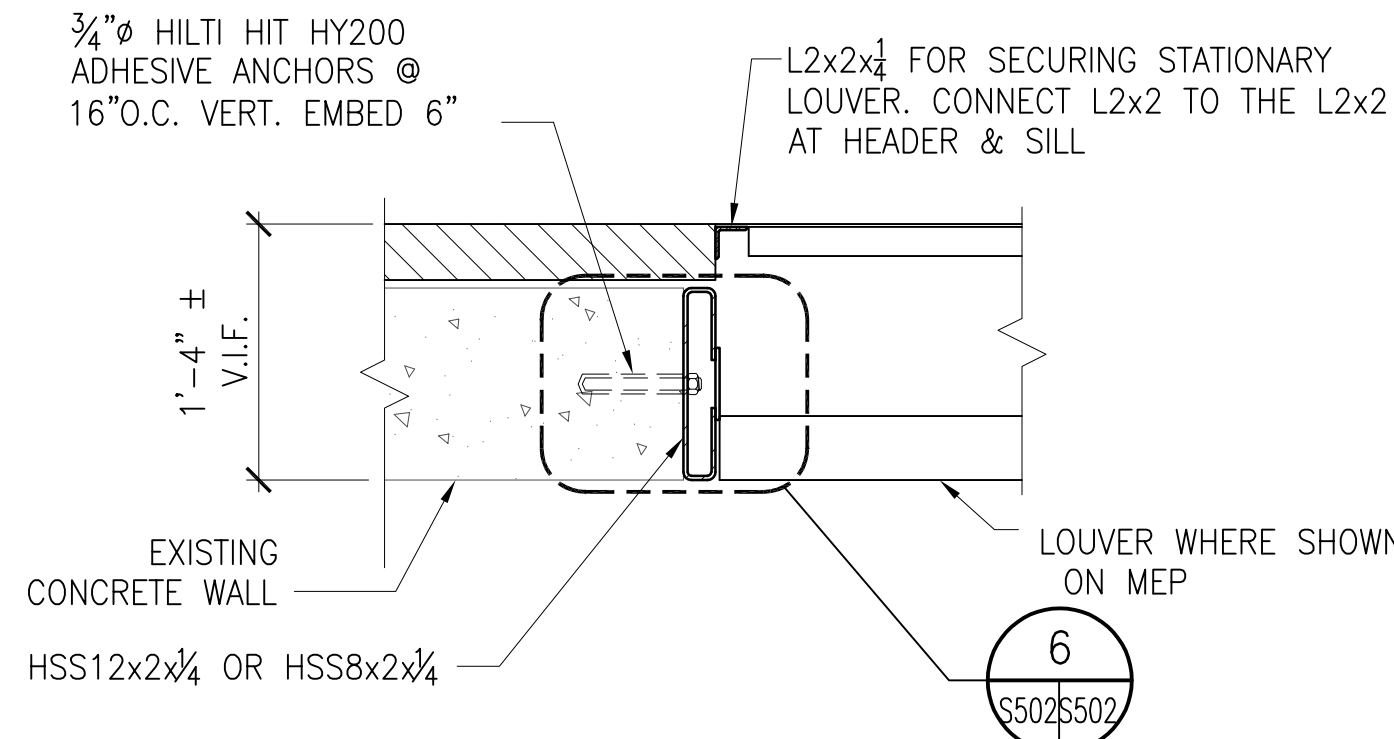


### FRAMING @ OPENING WALL THICKNESS 8" OR 10" (NO VENEER)

SCALE: 1"=1'-0"

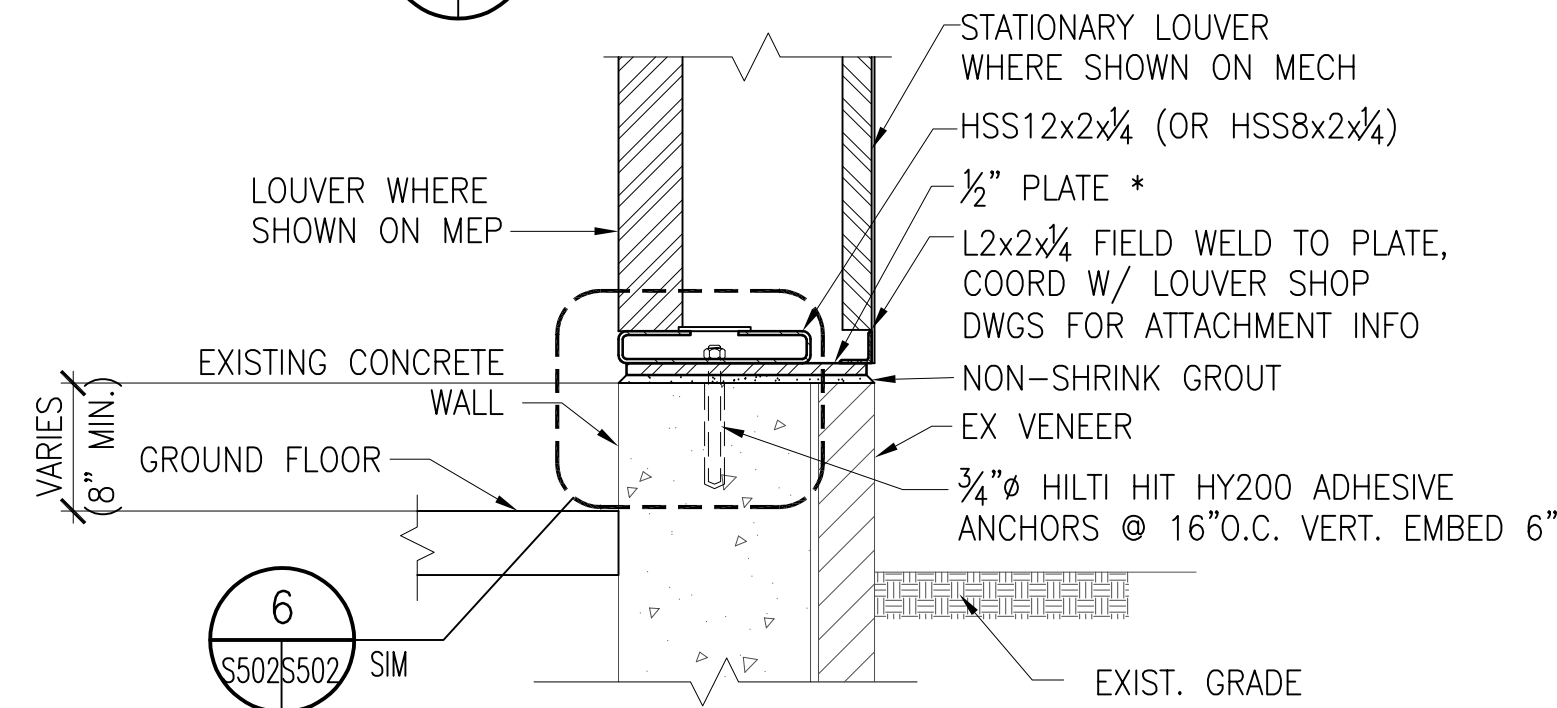
NOTES:

1. NO STEEL FRAMING REQUIRED IF THE OPENING WIDTH IS 12" (OR LESS) WIDE.
2. G.C. SHALL COORDINATE W/MEP AND THESE DETAILS FOR REQUIRED ROUGH OPENING & PROVIDE ROUGH OPENING SIZE TO STEEL FABRICATOR.



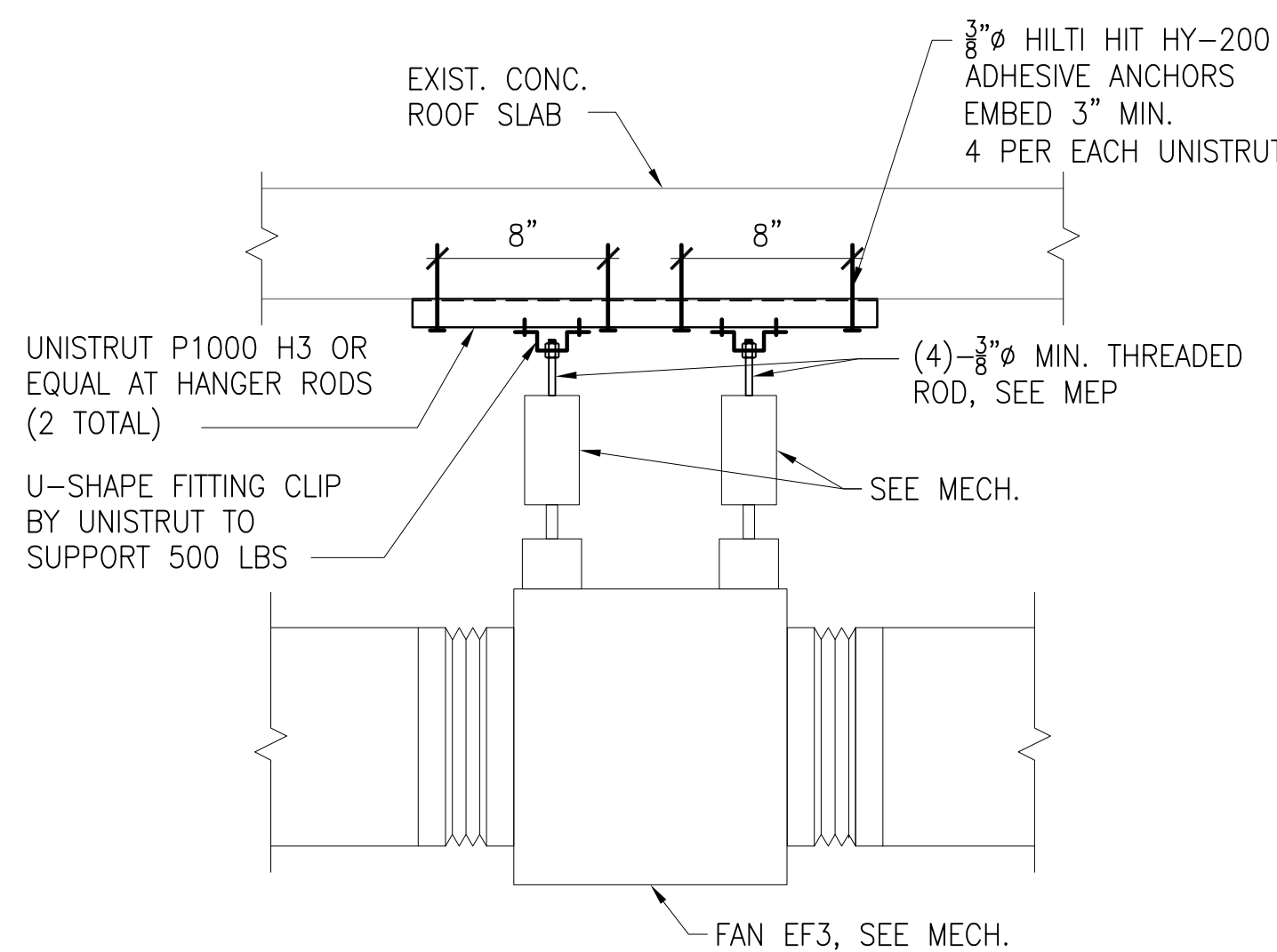
### JAMB SECTION

SCALE: 1"=1'-0"



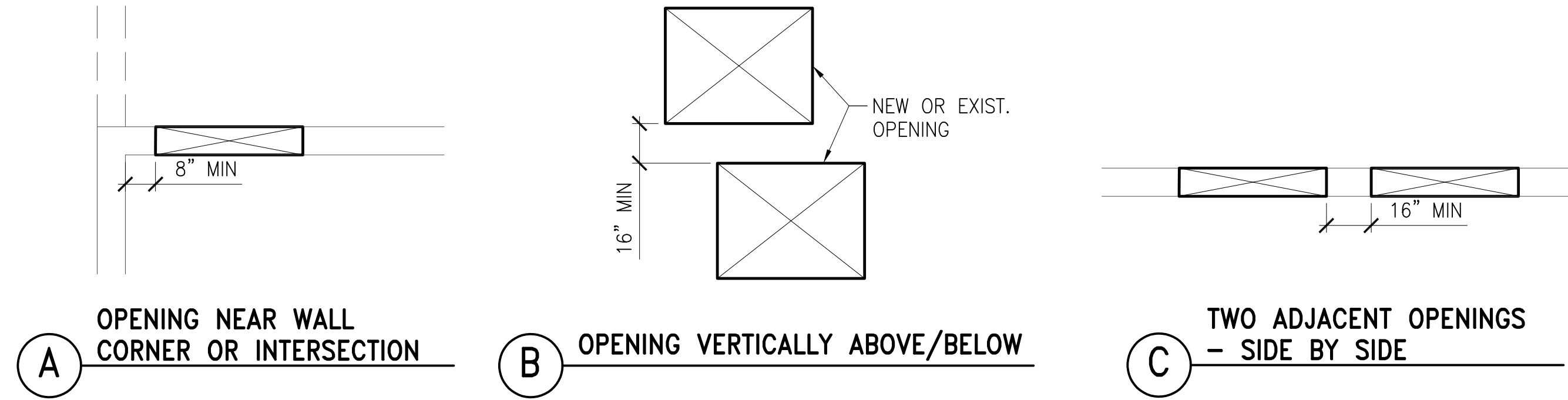
### DETAIL

SCALE: 1"=1'-0"



### DETAIL

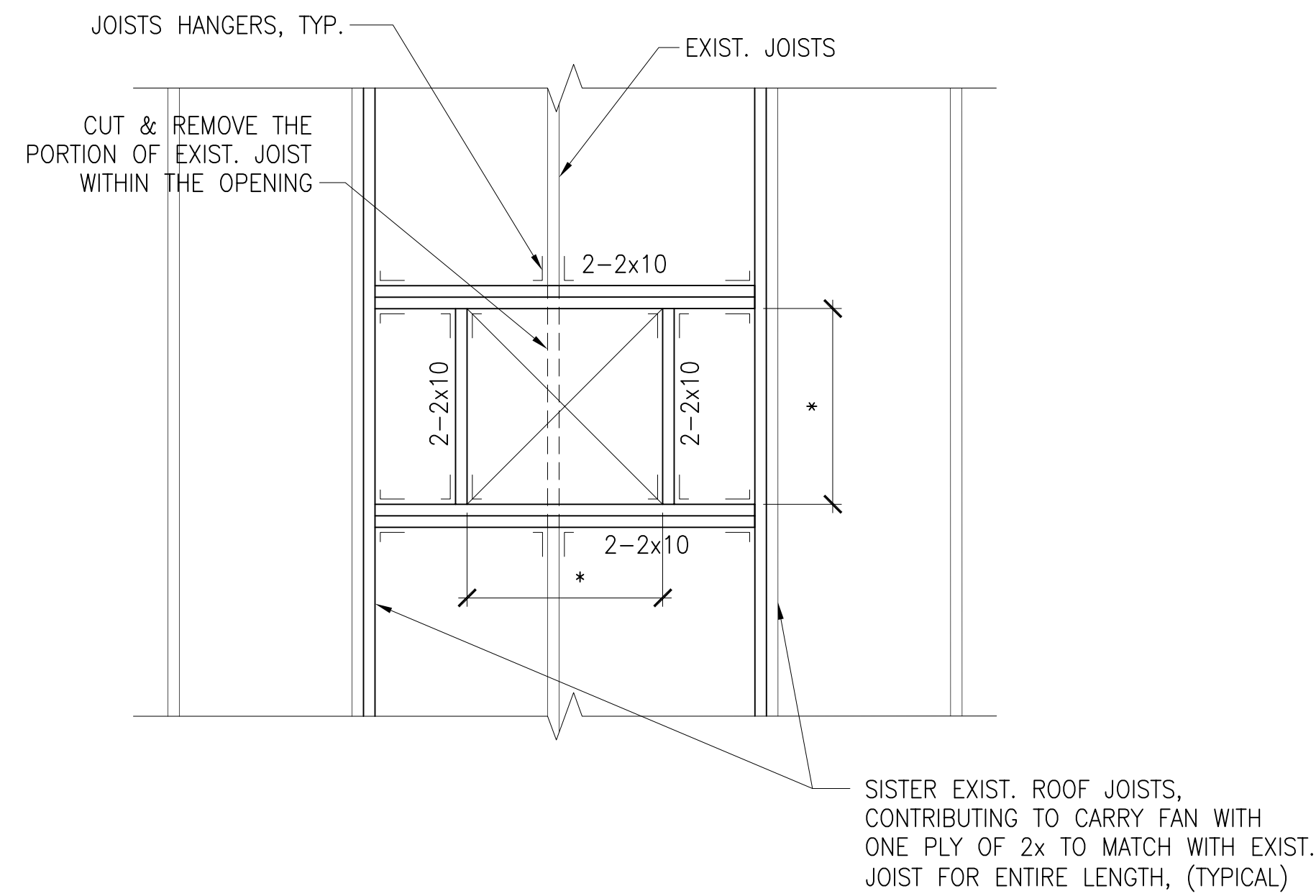
SCALE: N.T.S.



### OPENING LOCATION RESTRICTIONS

SCALE: N.T.S.

- NOTES: IF FIELD CONDITIONS DO NOT ALLOW ADHERENCE TO ABOVE RESTRICTIONS NOTIFY COTR FOR NECESSARY ACTIONS.



### PLAN DETAIL - ROOF OPENING FRAMING AT ROOF TOP FANS

SCALE: 1/2"=1'-0"

NOTE:

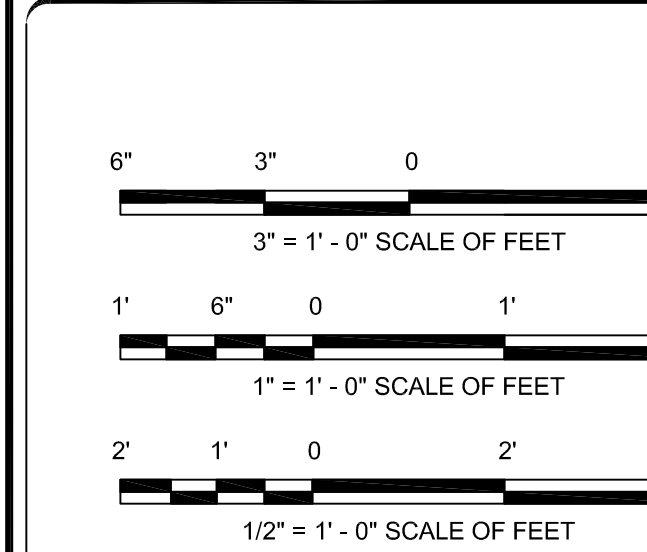
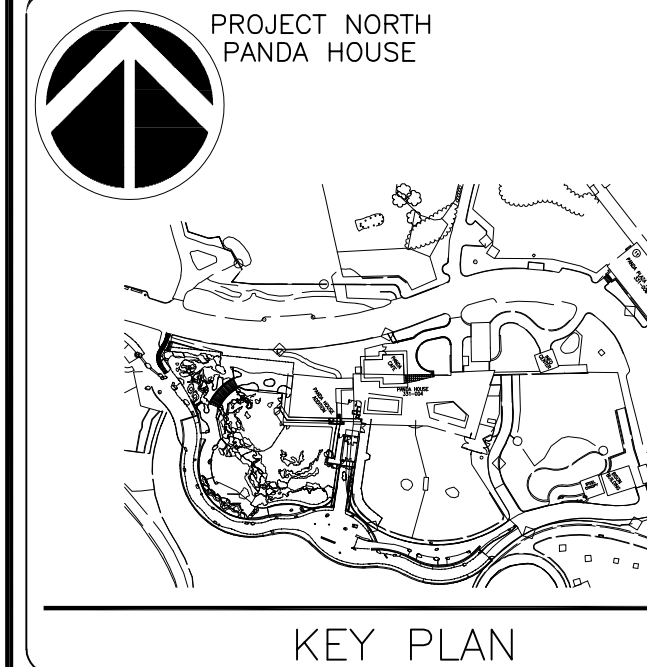
1. \* COORD. EXACT OPENING SIZE W/MEP.

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### GRAPHIC SCALE(S)

DATE	SUBMISSION
10/30/20	FINAL SUBMISSION
REVISION	REVISION
REVISION 1	
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REVISION 4	
REVISION 5	
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REVISION 7	



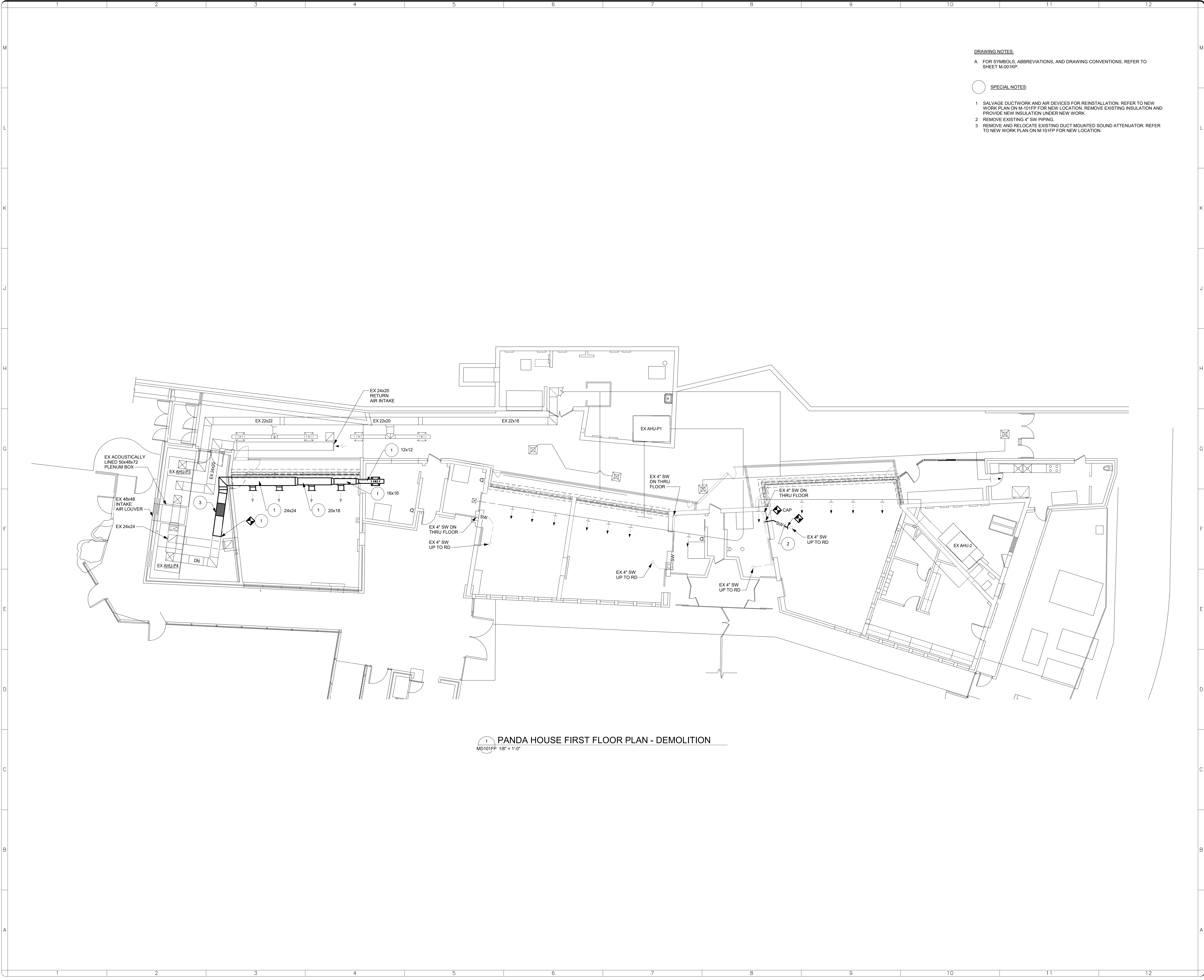
Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20560

BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington DC 2008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
BY PROJECT NUMBER	2033115
DATE PROJECT NUMBER	42020400

SECTION TITLE	GENERAL	CEN	DB
DRAWING TYPE	SCP	CEN	DB
WORKING STAFF	DESIGNED BY	DRAWN BY	CHECKED BY

SHEET NO.	S	502	DT
10 OF 29	DISCIPLINE	TYPE	SEQUENCE





**DRAWING NOTES:**

A. FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO SHEET M-001KP.

**SPECIAL NOTES:**

- 1 SALVAGE DUCTWORK AND AIR DEVICES FOR REINSTALLATION. REFER TO NEW WORK PLAN ON M-101FP FOR NEW LOCATION. REMOVE EXISTING INSULATION AND PROVIDE NEW INSULATION UNDER NEW WORK.
- 2 REMOVE EXISTING 4" SW PIPING.
- 3 REMOVE AND RELOCATE EXISTING DUCT MOUNTED SOUND ATTENUATOR. REFER TO NEW WORK PLAN ON M-101FP FOR NEW LOCATION.

**QUINN  
EVANS**

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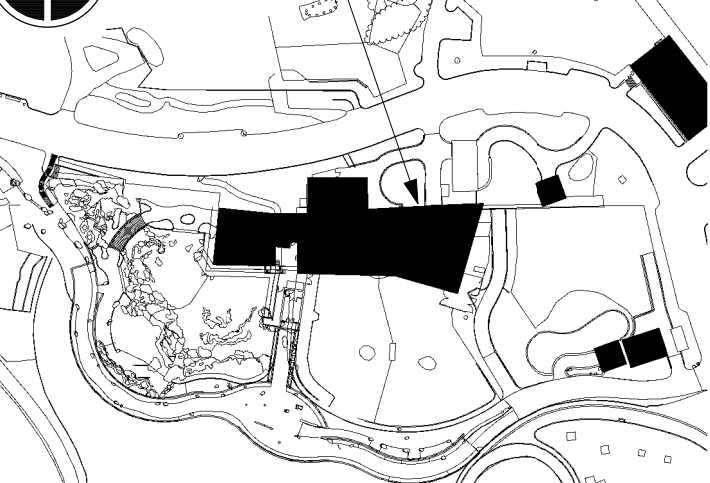
**Mueller**

**Mueller Associates, Inc.**  
Consulting Engineers  
1306 Concourse Drive, Suite 100  
Linthicum, MD 21090  
410.646.4500 tel > 410.646.4738 fax  
www.muellerassoc.com



STAMP

PROJECT NORTH  
PANDA HOUSE



KEY PLAN

IF DRAWING IS REDUCED,  
USE GRAPHIC SCALE  
5' 0' 5' 10'  
1/8" = 1'-0"

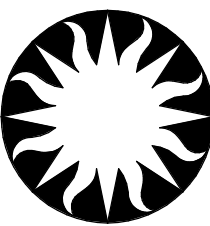
GRAPHIC SCALE(S)

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FINAL SUBMISSION

REVISION

REVISION



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600 Maryland Avenue S.W. Suite 5001  
Washington, DC

BUILDING NAME

NZP PANDA HOUSE

ADDRESS

3001 CONNECTICUT AVE, NW  
Washington, DC 20008

PROJECT TITLE

SMOKE CONTROL  
MODIFICATIONS

SF PROJECT NUMBER

2033101

VE PROJECT NUMBER

42020400

DRAWING TITLE

FIRST FLOOR PLAN -  
DEMOLITION

DRAWING TYPE

DESIGNED BY: KES  
DRAWN BY: AJR  
CHECKED BY: DC

WORKING STAFF

SHEET NO.

MD101FP

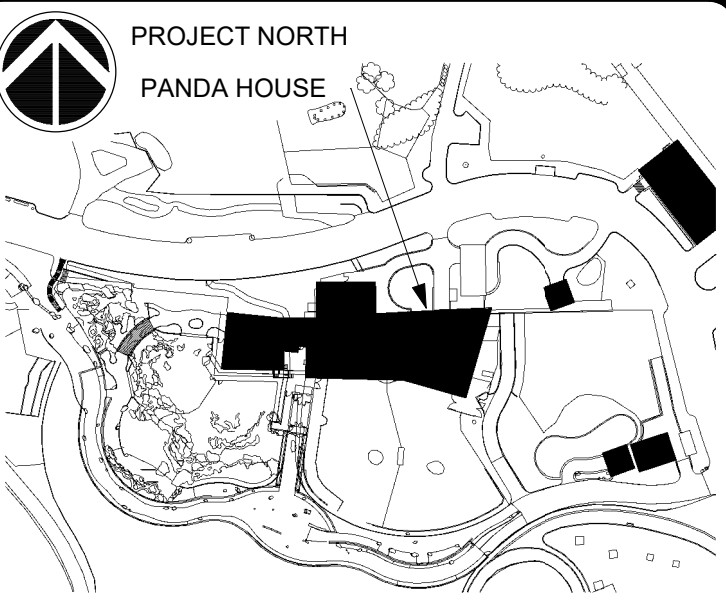
DISCIPLINE TYPE SEQUENCE



10/28/2020 4:44:04 PM M-001K2 BY Approval: 10/30/20 FINAL SUBMISSION

ABBREVIATIONS				SYMBOLS				DRAWING CONVENTIONS				
ABBREV	ABBREVIATION	IB	INVERTED BUCKET TRAP		SUPPLY AIR DUCT (UP, DOWN)		BOUNDARY LINE		SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ABD	ABANDONED	IN	INTERMEDIATE LANDING		RETURN/OUTDOOR/RELIEF AIR DUCT (UP, DOWN)		SAN (FOG)			INDICATES DIRECTION OF CUTTING PLANE		POINT OF CONNECTION, NEW TO EXISTING
ADV	ABOVE	INV	INVERT ELEVATION		EXHAUST AIR DUCT (UP, DOWN)		CRW			NUMBER OR LETTER INDICATES SECTION OR ELEVATION		DEMOLITION WORK TERMINATION POINT
A/C	AIR CONDITIONING	KVA	KILOVOLT AMPERES		FIRE DAMPER WITH ACCESS DOOR		D					INDICATES AIR DEVICE
AD	ACCESS DOOR	KW	KILOWATT		SMOKE DAMPER WITH ACCESS DOOR		CRV					NUMBER INDICATES AIR DEVICE DESIGNATION. REFER TO SCHEDULE FOR SIZE AND TYPE
AFT	ABOVE FINISHED FLOOR	L	LENGTH		COMBINATION FIRE AND SMOKE DAMPER WITH ACCESS DOOR		SW			DRAWING NUMBER WHERE ELEVATION OR SECTION IS TAKEN OR DRAWN		INDICATES SPECIAL NOTE
AHU	AIR HANDLING UNIT	LB(S)	POUND(S)		MANUAL VOLUME DAMPER		SSW					NUMBER INDICATES SPECIAL NOTE DESIGNATION. REFER TO SPECIAL NOTE LIST ON DRAWING FOR DESCRIPTION OF ITEM
ALUM	ALUMINUM	LF	LINEAR FEET		FLEXIBLE CONNECTION (DUCT)		FND					
APD	AIR PRESSURE DROP	L.P.	LOW PRESSURE		SOUND ATTENUATOR		SAND					
APPROX	APPROXIMATE	LVG	LEAVING WET BULB		SOUND LINED DUCTWORK		SWP					
ARCH	ARCHITECT, ARCHITECTURAL	LWT	LEAVING WATER TEMPERATURE		TRANSITION ROUND TO RECTANGULAR		ICW					
ARR	ARRANGEMENT	MAX	MAXIMUM		DUCT (SIZE IN INCHES; FIRST FIGURE IS SIDE SHOWN)		HW					
AST	ABOVEGROUND STORAGE TANK	MECH	MECHANICAL		DUCT OFFSET UP IN DIRECTION OF ARROW		ICW					
ATC	AUTOMATIC TEMPERATURE	MBH	THOUSAND BTU'S PER HOUR		DUCT OFFSET DOWN IN DIRECTION OF ARROW		HW					
ATM	ATMOSPHERE	MFR	MANUFACTURER		ROUND FLEXIBLE DUCT		DIS					
ATR	AIR TEMPERATURE	MIN	MINIMUM		SUPPLY AIR TERMINAL UNIT		DIR					
ATU	AIR TERMINAL UNIT	MO	MOTOR OPERATOR		SUPPLY AIR TERMINAL UNIT WITH REHEAT COIL		G					
AVG	AVERAGE	MS	MOP SINK		FAN POWERED AIR TERMINAL UNIT WITH HEATING COIL		V					
AWT	AVERAGE WATER TEMPERATURE	MTD	MOUNTED		DUCT MOUNTED REHEAT COIL		X					
		NAT	NATURAL		SUPPLY AIR DEVICE		CRW					
BAS	BUILDING AUTOMATION SYSTEM	NC	NOISE CRITERIA		RETURN AIR DEVICE		X					
BWV	BACK WATER VALVE	N.C.	NORMALLY CLOSED		EXHAUST AIR DEVICE		X					
BHP	BRAKE HORSEPOWER	NO	NORMALLY OPEN		LINEAR SLOT DIFFUSER WITH PLENUM		X					
BLDG	BUILDING	N.O.	NUMBER		SIDEWALL DIFFUSER W/ FIELD		X					
BOP	BOTTOM OF PIPE	OA	OUTDOOR AIR		FABRICATED PLENUM		X					
BTM	BOTTOM	OED	OPEN ENDED DUCT		DUCT OR WALL MOUNTED AIR DEVICE		X					
BTUH	BRITISH THERMAL UNITS PER HOUR	OFD	OVERFLOW DRAIN		PROPELLER UNIT HEATER		X					
BFP	BACKFLOW PREVENTER	OS&Y	OUTSIDE SCREW AND YOKE		FINNED TUBE RADIATION OR RADIANT HEATING PANEL		X					
		PD	PRESSURE DROP		RETURN AIR FLOW DIRECTION		X					
*C	DEGREES CELSIUS	PF	POWER FACTOR		SUPPLY AIR FLOW DIRECTION		X					
CAV	CONSTANT AIR VOLUME	PG	PROPYLENE GLYCOL		DIAMETER		X					
CC	COOLING COIL	PH	PHASE		CUBIC FEET PER MINUTE		X					
CD	CEILING DIFFUSER	PHC	PREHEAT COIL		CENTER LINE		X					
CFM	CUBIC FEET PER MINUTE	PLBG	PLUMBING		FLAT OVAL		X					
CLG	CEILING	PPH	POUNDS PER HOUR (STEAM)		AREA DRAIN		X					
CLQ	CELANOUT / CARBON MONOXIDE	PPM	PPARTS PER MILLION		FLOOR DRAIN		X					
CO	COOLING COIL	PRESS.	PRESSURE		ROOF DRAIN/SECONDARY (OVERFLOW) ROOF DRAIN		X					
CO2	CARBON DIOXIDE	PRV	PRESSURE REDUCING VALVE		TRENCH DRAIN		X					
COMP	COMPRESSED	PSI(G)	POUNDS PER SQUARE INCH (GAGE)		INVERT ELEVATION		X					
CONC	CONCRETE	RD	ROOF DRAIN		CLEANOUT IN HORIZONTAL		X					
CONN	CONNECTION, CONNECT	REQ'D	REQUIRED		CLEANOUT IN VERTICAL		X					
CONT	CONTINUATION	RH	RELATIVE HUMIDITY		DOMESTIC WATER BACKFLOW PREVENTER		X					
CRAC	CONDENSATE PUMP	RHC	REHEAT COIL		BACK WATER VALVE (ARROW INDICATES DIRECTION OF FLOW)		X					
CRU	CONDENSATE RETURN UNIT	RHP	RAINLEADER		SHOCK ABSORBER		X					
CU FT	CUBIC FEET	RLF	RELIEF AIR		HOSE BIBB		X					
CUH	CABINET UNIT HEATER	RPM	REVOLUTIONS PER MINUTE		NON-FREEZE CONCEALED OUTLET WALL HYDRANT		X					
CX	CONNECT TO EXISTING	RHZ	REDUCED PRESSURE ZONE		TRAP PRIMER PIPE		X					
CW	DOMESTIC COLD WATER PIPE	RK	REMOVE EXISTING		SPACE TEMPERATURE SENSOR OR THERMOSTAT		X					
		SA	SUPPLY AIR		SPACE HUMIDITY SENSOR OR HUMIDISTAT		X					
D	DRAIN OR DEPTH	SF	SQUARE FEET		SPACE CARBON DIOXIDE SENSOR		X					
DB	DRY BULB OR DECIBEL	SH	SENSIBLE HEAT OR SHOWER		DUCT OR PIPE MOUNTED TEMPERATURE SENSOR/TRANSMITTER		X					
DBA	DECIBEL (REFERENCE "A" SCALE)	SL	SOUND LINING		DUCT MOUNTED HUMIDITY SENSOR/TRANSMITTER		X					
DBL	DOUBLE	SP	STATIC PRESSURE		DUCT MOUNTED CARBON DIOXIDE SENSOR/TRANSMITTER		X					
DCC	DIRECT DIGITAL CONTROL	SPEC	SPECIFICATION/PROJECT MANUAL		FREEZESTAT		X					
DDC	DIRECT DIGITAL CONTROL	SQ	SQUARE		CONTROL DAMPER		X					
DESIG	DESIGNATION	SRD	SECONDARY (OVERFLOW) ROOF DRAIN		STATIC PRESSURE SENSOR/AIR FLOW STATION		X					
DF	DRINKING FOUNTAIN	SRL	SECONDARY (OVERFLOW) RAIN LEADER		FAN INLET AIR FLOW MEASURING STATION		X					
DFU	DRAINAGE FIXTURE UNITS	S/S	STAINLESS STEEL		TWO WAY CONTROL VALVE		X					
DIA	DIAMETER	STL	STEEL		THREE WAY CONTROL VALVE		X					
DIFF	DIFFUSER	STRUCT	STRUCTURAL		FLOW SWITCH		X					
DN	DOWN	TEMP	TEMPERATURE		DIFFERENTIAL PRESSURE SWITCH		X					
DW	DOMESTIC WATER	TH	TOTAL HEAT		DIFFERENTIAL PRESSURE TRANSMITTER		X					
DWG	DRAWING	TD	TRENCH DRAIN		CURRENT SENSING RELAY		X					
		THD	THERMODYNAMIC TRAP		MANUAL OVERRIDE SWITCH		X					
H	ENTERING AIR TEMPERATURE	TSP	TOTAL STATIC PRESSURE		MAGNAHELIC PRESSURE GAGE		X					
EAT	ENTERING AIR TEMPERATURE	TYP	TYPICAL		FLOW METER		X					
EDB	ENTERING DRY BULB	UC	DOOR UNDER CUT				X					
EFF	EFFICIENCY	UH	UNIT HEATER				X					
EG	ETHYLENE GLYCOL	UON	UNLESS OTHERWISE NOTED				X					
EJ	EXPANSION JOINT	UST	UNDERGROUND STORAGE TANK				X					
ELEC	ELECTRICAL, ELECTRIC	V	VOLTS				X					
ELEV	ELEVATION OR ELEVATOR	V	VOLT AMPERES				X					
EMD	END OF MAIN DRIP	VAV	VARIABLE AIR VOLUME				X					
ENT	ENTERING	VEL	VELOCITY				X					
ESP	EXTERNAL STATIC PRESSURE	VFC	VARIABLE FREQUENCY CONTROLLER				X					
ETC	ET CETERA	VTR	VENT THRU ROOF				X					
EW	ENTERING WET BULB	W	WIDTH				X					
EWB	ELECTRIC WATER COOLER	WB	WET BULB				X					
CW	ENTERING WATER TEMPERATURE	WC	WATER COLUMN				X					
EX	EXISTING	WG	WATER GAGE				X					
EXP	EXPOSED	W	WITH				X					
		W/O	WITHOUT				X					
		WPD	WATER PRESSURE DROP				X					
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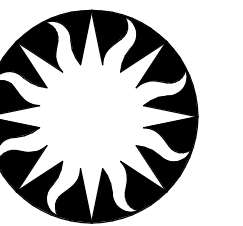




IF DRAWING IS REDUCED,  
USE GRAPHIC SCALE  
5' 0' 5' 10'  
1/8" = 1'-0"

GRAPHIC SCALE(S)

DATE	10/30/20
SUBMISSION	FINAL SUBMISSION
REVISION	REVISION



**Smithsonian  
Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC

BUILDING NAME	NZP PANDA HOUSE
ADDRESS	3001 CONNECTICUT AVE, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SF PROJECT NUMBER	2033101
N/E PROJECT NUMBER	42020400
DRAWING TITLE	FIRST FLOOR & ROOF PLANS - NEW WORK
DRAWING TYPE	
WORKING STAFF	DESIGNED BY: AJR    DRAWN BY: AJR    CHECKED BY: DC
SHEET NO.	M-1011FP
DISCIPLINE	TYPE
	SEQUENCE

**2 PANDA HOUSE ROOF PLAN - NEW WORK**  
M-1011FP 1/8" = 1'-0"

**SPECIAL NOTES:**

- 5'-0" L x 4'-0" H MAKE-UP AIR STATIONARY LOUVER AND COMBINATION LOUVER/DAMPER. REFER TO ARCHITECTURAL DRAWINGS. MOUNT BOTTOM OF LOUVER 6" ABOVE FINISHED GRADE. COORDINATE FINAL LOCATION WITH ARCHITECTURAL PLANS.
- 36" WIDE x 30" HIGH x 12" DEEP PLENUM.
- 72" WIDE x 12" HIGH x 12" DEEP PLENUM.
- RELOCATED SOUND ATTENUATOR.
- UL LISTED DDC PANEL.
- SALVAGED AND RELOCATED EXISTING SUPPLY DUCT AND DIFFUSERS. PROVIDE NEW INSULATION.
- PROVIDE NEW COMBINATION FIRE/SMOKE DAMPER IN RELOCATED DUCT. PROVIDE COMBINATION FIRE/SMOKE DAMPER WITH AUXILIARY SWITCH FOR POSITION INDICATION.
- PROVIDE FIRE WRAP ON NEW EXHAUST DUCTWORK WITHIN MECHANICAL ROOM.
- BALANCE AIR DEVICE TO DESIGN FIRE DF-2 AIRFLOW.
- COORDINATE ALL NEW WORK WITH EXISTING HANGERS, SUPPORTS, DUCTWORK, PIPING, SPRINKLER, SENSORS, ETC. MODIFY EXISTING HANGERS AS NECESSARY TO FIT NEW DUCTWORK FOR EF-3 AND REUSED DUCTWORK SERVING EX AHU-P4.

**DRAWING NOTES:**

- FOR SYMBOLS, ABBREVIATIONS, AND DRAWING CONVENTIONS, REFER TO SHEET M-001KP.
- RE-WORK EXISTING HANGERS AND SUPPORTS OF EXISTING TO REMAIN DUCTWORK AND PIPING TO ACCOMMODATE FOR NEW WORK INSTALLATION.
- ALL EQUIPMENT, MATERIALS, AND ACCESSORIES SHALL COMPLY WITH SECTION 909 OF THE LATEST EDITION OF THE IBC.
- REFER TO ARCHITECTURAL DIVISIONS FOR OTHER SPECIALTY SYSTEMS AND ACCESSORIES.

**1 PANDA HOUSE FIRST FLOOR PLAN - NEW WORK**  
M-1011FP 1/8" = 1'-0"







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E-101FP BY: [redacted] 10/30/20 FINAL SUBMISSION

## SYMBOLS

S	SINGLE POLE SWITCH MOUNTED 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED
	INDUSTRIAL WALL MOUNT FLUORESCENT LIGHTING FIXTURE
	WALL MOUNT EXTERIOR LIGHTING FIXTURE
	2X4 LIGHTING FIXTURE
	208Y/120V PANELBOARD
	480Y/277V PANELBOARD
	DUPLEX RECEPTACLE MOUNTED 18" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED SUBSCRIPTS AS FOLLOWS: G - GROUND FAULT CIRCUIT INTERRUPTER TYPE
	MOTOR CONNECTION
	COMBINATION MAGNETIC MOTOR STARTER
	MANUAL MOTOR STARTER
	GROUND
	TRANSFORMER
	CURRENT TRANSFORMER
	STATIONARY CIRCUIT BREAKER
	METER

## DRAWING CONVENTIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	INDICATES FEEDER		CONDUIT RUN CONCEALED IN WALL OR CEILING IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS (3/12 IN 3/4" UNLESS OTHERWISE NOTED)
	INDICATES FEEDER DESIGNATION. REFER TO FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT SIZE		CONDUIT UNDERGROUND OR CONCEALED IN SLAB (3/12 IN 3/4" UNLESS OTHERWISE NOTED)
	INDICATES SPECIAL NOTE		CONDUIT UP
	INDICATES SPECIAL NOTE DESIGNATION. REFER TO SPECIAL NOTE LIST ON DRAWING FOR DESCRIPTION OF ITEM		CONDUIT DOWN
	LIGHTING FIXTURE		HEAVY LINE WEIGHT DESIGNATES NEW WORK ON NEW WORK PLANS, REMOVAL WORK ON DEMOLITION PLANS.
	SWITCH DESIGNATION		LIGHT LINE WEIGHT DESIGNATES EXISTING WORK TO REMAIN.
	LIGHTING FIXTURE TYPE. REFER TO LIGHTING FIXTURE SCHEDULE		
	INDICATES DETAIL DESIGNATION		
	DRAWING WHERE DETAIL IS DRAWN		
	INDICATES PANELBOARD OR MOTOR CONTROL CENTER DESIGNATION AND CIRCUIT NUMBER		
	BRANCH CIRCUIT HOME RUN, ARROWHEADS INDICATE NUMBER OF CIRCUITS		
	SHORT CROSSHATCH LINE INDICATES PHASE CONDUCTORS (1/12 UNLESS OTHERWISE NOTED)		
	LONG CROSSHATCH LINE INDICATES NEUTRAL CONDUCTOR (1/12 UNLESS OTHERWISE NOTED)		
	LONG CROSSHATCH LINE WITH DOT AT THE END INDICATES GROUNDING CONDUCTOR (1/12 UNLESS OTHERWISE NOTED)		
	CIRCUIT WITHOUT CROSSHATCH LINES INDICATES 3/12 IN 3/4" C		
	"E" INDICATES EMERGENCY CIRCUIT WITH 3/10 IN 3/4" C		

### DRAWING NOTES:

- REFER TO ARCHITECTURAL DIVISION FOR OTHER SPECIALTY SYSTEMS AND ACCESSORIES.
  - ELECTRICAL CONDUIT ROUTED EXPOSED IN PANDA SPACES SHALL BE ROUTED HIGH AND TIGHT TO STRUCTURE. CONDUITS SHALL BE ROUTED SO THEY ARE OUT OF REACH OF THE PANDAS.
- SPECIAL NOTES:**
- RELOCATE CONDUIT ROUTED ABOVE WALL TO EAST OF WALL.
  - RELOCATE EXISTING LIGHTING FIXTURE TO UNDERSIDE OF DUCT. DISCONNECT EXISTING FLEXIBLE CABLE FROM NEAREST JUNCTION BOX. RECONNECT CABLE IN JUNCTION BOX AFTER RELOCATION OF FIXTURE. EXTEND EXISTING BRANCH CIRCUIT WHERE REQUIRED. PROVIDE STRUCTURAL STEEL CHANNEL TO MOUNT LIGHTING FIXTURE.
  - RELOCATE EXISTING SECURITY CONDUIT. PROVIDE JUNCTION BOXES ON BOTH SIDES CONNECTING TO NEW CONDUIT ABOVE DOORWAY. NEW CONDUIT SHALL BE ROUTED TIGHT TO UNDERSIDE OF NEW DUCT.
  - REMOVE AND RELOCATE EXISTING LIGHTING FIXTURES TO BELOW NEW EXHAUST FAN. PROVIDE NEW STRUCTURAL STEEL CHANNEL TO SUPPORT LIGHTING FIXTURES. EXTEND EXISTING BRANCH CIRCUIT WHERE REQUIRED.
  - REMOVE AND RELOCATE EXISTING FEEDERS TO PUMP P-5 AND P-6 TO ACCOMMODATE NEW DUCTWORK. EXTEND EXISTING BRANCH CIRCUIT WHERE REQUIRED.
  - REMOVE AND REINSTALL EXISTING LIGHTING FIXTURE TO ACCOMMODATE INSTALLATION OF NEW DUCTWORK AND FAN. EXTEND EXISTING BRANCH CIRCUIT WHERE REQUIRED.
  - PROVIDE 2/12, 1/12 GROUND TO SINGLE POLE SWITCH FOR CONTROL DAMPER. PROVIDE 120V CIRCUIT FROM PANEL EML2 CIRCUIT 23.
  - PROVIDE STRUCTURAL STEEL CHANNEL TO MOUNT VFC ADJACENT TO FAN ON ROOF. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF EQUIPMENT.
  - CONNECT TO EXISTING BREAKER IN PANEL.
  - REMOVE (3) EXISTING CIRCUIT BREAKER IN PANEL AND PROVIDE 3P20A CIRCUIT BREAKER IN PLACE. NEW CIRCUIT BREAKER SHALL MATCH AIC RATING OF EXISTING CIRCUIT BREAKERS.

## MOTOR DISCONNECT, CONTROLLER AND CIRCUIT SCHEDULE

SERVES	HP (KW) [A]	VOLT	P	DISCONNECT SIZE	DEVICE	CONTROLLER TYPE	NEMA SIZE	AUXILIARIES	NEMA ENCL	CIRCUIT WIRE	GND	C"	REMARKS
EXHAUST FAN EF-1	3	480	3	20	CB	VFC			3R	3 - #10	#12	3/4	-
EXHAUST FAN EF-2	3	480	3	20	CB	VFC			3R	3 - #10	#12	3/4	-
EXHAUST FAN EF-3	5	480	3	20	CB	VFC			1	3 - #10	#12	3/4	-
MAKE-UP AIR FAN MAF-1	0.5	480	3	3	MCP	FVNR	0	A,B,C,D	4X	3 - #10	#12	3/4	-
MAKE-UP AIR FAN MAF-2	0.5	480	3	3	MCP	FVNR	0	A,B,C,D	4X	3 - #10	#12	3/4	-
MAKE-UP AIR FAN MAF-3	0.5	480	3	3	MCP	FVNR	0	A,B,C,D	4X	3 - #10	#12	3/4	-
MAKE-UP AIR FAN MAF-4	0.5	480	3	3	MCP	FVNR	0	A,B,C,D	4X	3 - #10	#12	3/4	-
AUXILIARIES: A. 480-120V CONTROL POWER XFMR B. RED "ON" INDICATING LIGHT C. GREEN "OFF" INDICATING LIGHT D. HAND-OFF-AUTOMATIC SELECTOR SWITCH													

PANELBOARD: EH1A (EXISTING)		BUS RATING: 250A		MAIN: 250A MCB	
MIN AIC: 35,000		VOLTS: 480Y/277V		PHASES: 3 WIRES: 4	
NEMA 1 ENCLOSURE		MOUNTING: SURFACE		BRANCH CIRCUIT DEVICE: CB	
LOCATION: MECHANICAL ROOM		NOTES: EATON CUTLER HAMMER PRL3A			
SERVES	CB	CIRCUIT NUMBER	CB	SERVES	
CHILLER	3	150	1 2	60	3
UNKNOWN LOAD	3	30	3 4	30	3
CONDENSING UNIT - PANDA CAVE	3	20	5 6	20	3
CONDENSING UNIT - PANDA CAVE	3	20	7 8	20	3
MAKE UP AIR FAN MAF-4	3	20	9 10	20	3
MAKE UP AIR FAN MAF-3	3	20	11 12	20	3
EXHAUST FAN EF-3	3	20	13 14 15 16 17 18	20	3

PANELBOARD: EML2 (EXISTING)		BUS RATING: 50A		MAIN: 50A MCB	
MIN AIC: 27,000		VOLTS: 208Y/120V		PHASES: 3 WIRES: 4	
NEMA 1 ENCLOSURE		MOUNTING: SURFACE		BRANCH CIRCUIT DEVICE: CB	
LOCATION: MECHANICAL ROOM		NOTES: SQUARE D NODD			
SERVES	CB	CIRCUIT NUMBER	CB	SERVES	
B-P1	1	20	1 2	20	1
B-P2	1	20	3 4	20	1
B-P3	1	20	5 6	20	1
B-P7	1	20	7 8	20	1
B-P8	1	20	9 10	20	1
B-P9	1	20	11 12	20	1
EXIT LIGHTS - SALAMA NOOK	1	20	13 14	20	1
LEAKY COAX	1	20	15 16	20	1
SMOKE DAMPERS PH	1	20	17 18	20	1
UNKNOWN LOAD	1	20	19 20	20	1
UNKNOWN LOAD	1	20	21 22	20	1
CONTROL DAMPERS	1	20	23 24	20	1



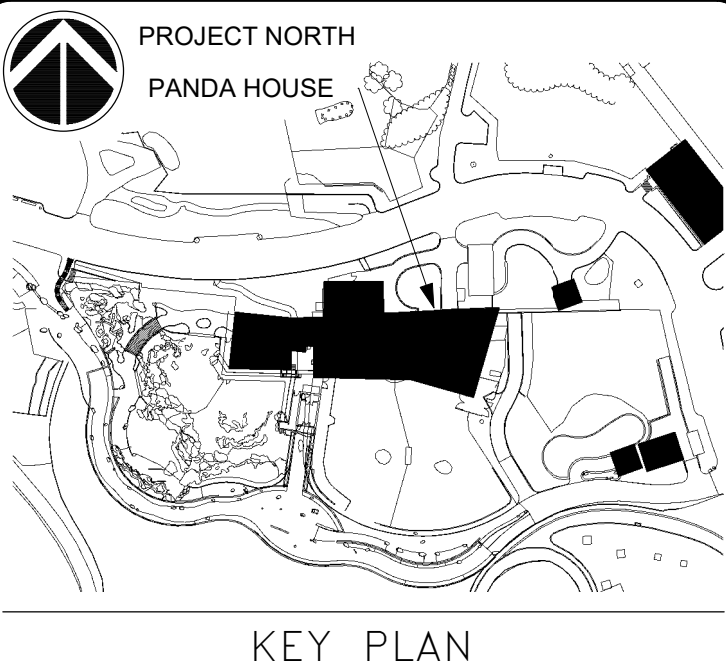
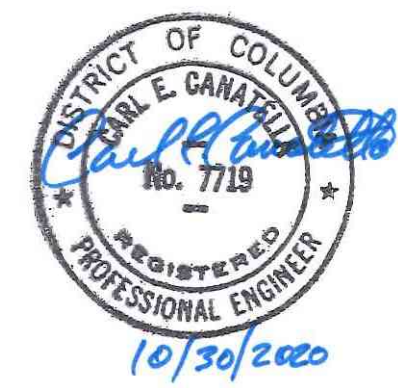
1 FLOOR PLAN - ELECTRICAL  
E-101FP 1/8" = 1'-0"

QUINN  
EVANS

2121 WARD PLACE, NW  
FOURTH FLOOR  
WASHINGTON, DC 20037

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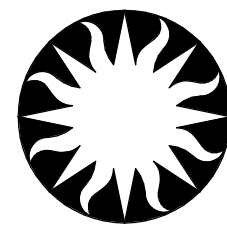
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IF DRAWING IS REDUCED,  
USE GRAPHIC SCALE  
1/8" = 1'-0"

### GRAPHIC SCALE(S)

DATE	10/30/20	SUBMISSION	FINAL SUBMISSION
REVISION		REVISION	



Smithsonian  
Institution

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC

BUILDING NAME	NZP PANDA HOUSE		
ADDRESS	3001 CONNECTICUT AVE, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SF PROJECT NUMBER	2033101		
V/E PROJECT NUMBER	42020400		
DRAWING TITLE	FIRST FLOOR PLAN - ELECTRICAL		
DRAWING TYPE	SAS      SAS      CEC		
DESIGNED BY	DRAWN BY	CHECKED BY	
SHEET NO.	E - 101FP		
	DISCIPLINE	TYPE	SEQUENCE



### GENERAL NOTES

- THE SCOPE OF THE FIRE ALARM DRAWINGS IS TO MODIFY THE EXISTING FIRE ALARM SYSTEM TO ACCOMMODATE THE NEW SMOKE EXHAUST SYSTEM AS DESCRIBED IN THESE DRAWINGS AND SPECIFICATIONS IN THE ANIMAL HOLDING AREAS OF THE PANDA HOUSE AT THE NATIONAL ZOOLOGICAL PARK IN WASHINGTON, DC. CONTRACTOR SHALL PROVIDE WIRING, RACEWAYS, ADDRESSABLE INTERFACE DEVICES, ADDRESSABLE RELAYS, FIREFIGHTER'S SMOKE EXHAUST PANEL, PROGRAMMING, SYSTEM CHECK OUT AND TESTING AND ALL ACCESSORIES NECESSARY, WHETHER MENTIONED OR NOT.
- ALL WORK AND INSTALLATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE 2018 INTERNATIONAL BUILDING CODE, 2020 NFPA 70 – NATIONAL ELECTRICAL CODE AND THE 2019 NFPA 72 – NATIONAL FIRE ALARM AND SIGNALING CODE.
- CONTRACTOR IS ADVISED THAT THE BUILDING IS OCCUPIED BY PEOPLE AND ANIMALS AND THE BUILDING MUST REMAIN OPEN AND FUNCTIONAL FOR THEIR OWN SAFETY. CONTRACTOR SHALL UTILIZE EXTREME CAUTION AND FOLLOW STRICT REQUIREMENTS CONTAINED IN THE SPECIFICATIONS WHEN WORKING IN THE ANIMAL HOLDING AREAS. CONTRACTOR WILL BE RESTRICTED TO SPECIFIED WORK AREAS AND TIME PERIODS AS DESCRIBED IN THE PHASED WORK PLANS AND SPECIFICATIONS. CONTRACTOR WILL NOT BE PERMITTED FREE ACCESS TO ANIMAL HOLDING AREAS AND MUST COMPLETE WORK IN COMPLIANCE WITH PHASED WORK PLANS.
- CONTRACTOR IS ADVISED THAT THE SCOPE AND THE GOAL OF THIS PROJECT IS TO MODIFY THE FIRE ALARM SYSTEM IN THE BUILDING IN A MEANS THAT PROHIBITS ANY ACCESS TO ANY COMPONENTS OF THE SYSTEM BY THE ANIMALS HOUSED IN THE BUILDING. TO ACHIEVE THIS MEANS, IT MAY BE NECESSARY TO INSTALL SPECIFIC FIRE ALARM SYSTEM COMPONENTS OUTSIDE OF THE PRESCRIPTIVE REQUIREMENT OF THE INSTALLATION STANDARDS OR OUTSIDE OF THE APPROVAL LIMITATIONS OF A SPECIFIC SYSTEM COMPONENT. IT IS UNDERSTOOD THAT THIS WILL ONLY OCCUR WHEN NO OTHER SOLUTION EXISTS TO ACHIEVE FULL FIRE ALARM COVERAGE IN ACCORDANCE WITH THE PRESCRIPTIVE REQUIREMENTS OF THE INSTALLATION STANDARDS AND APPROVAL LISTINGS. HOWEVER, WHERE SUCH A CONDITION OCCURS, APPROVAL BY THE SMITHSONIAN AHJ MUST FIRST BE OBTAINED BEFORE PROCEEDING WITH INSTALLATION.
- FIRE ALARM DEVICES, CONDUIT REMOVED, AND ROUTING SHOWN ON THE DRAWINGS ARE SHOWN FOR PURPOSE OF DESIGN INTENT. SYSTEM SHALL BE DESIGNED SO THAT ANIMALS HAVE NO CONTACT WITH FIRE ALARM DEVICES OR WIRING. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING COMPLETE FIRE ALARM COVERAGE EXCEPT WHERE DEEMED NECESSARY TO KEEP ANIMALS FROM COMING IN CONTACT WITH DEVICES AND THEN APPROVED BY THE SI-AHJ.
- INFORMATION CONTAINED IN THESE DRAWINGS IS BASED ON LIMITED FIELD MEASUREMENT VERIFICATION. THE INFORMATION CONTAINED HEREIN MAY REQUIRE ADJUSTMENTS AND/OR MODIFICATIONS TO CONFORM TO EXISTING CONDITIONS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE COTR IF ANY DISCREPANCY IN EXISTING CONDITION SHOULD PROHIBIT EXECUTION OF THE DESIGN INTENT OF THESE DRAWINGS.
- FIELD DIMENSIONS SHALL GOVERN. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE CONCERNING EXISTING AND NEW WORK BEFORE PROCEEDING WITH EITHER FABRICATION OR INSTALLATION OF NEW WORK.
- ANY CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION. THE CONTRACTOR(S) SHALL NOT PROCEED WITH ANY WORK, EXCEPT AT THEIR OWN RISK, UNTIL CLARIFICATIONS OF THE CONFLICTS ARE ISSUED TO THE CONTRACTOR(S) BY THE CONTRACTING OFFICER.
- ALL ELEVATIONS ABOVE THE FINISHED FLOOR (AFF) INDICATED FOR STRUCTURAL MEMBERS, CEILINGS, AND OBSTRUCTIONS ARE APPROXIMATE. VARIANCES OF ± 1-INCH CAN BE EXPECTED DUE TO SLOPING FLOORS AND STRUCTURAL MEMBERS.
- CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE BUILDING DURING CONSTRUCTION. WORK IN OCCUPIED AREAS SHALL BE PROPERLY SECURED WITH BARRIERS SO AS NOT TO CREATE A SAFETY HAZARD. MATERIALS SUCH AS TOOLS, LADDERS, AND INSTALLATION MATERIAL SHALL BE KEPT TO A MINIMUM AND SHALL ALLOW EASY PASSAGE OF BUILDING TENANTS. PROVIDE DROP CLOTHES OR OTHERWISE PROTECT BUILDING FINISHES FROM ALL CONSTRUCTION DEBRIS AND DUST. REMOVE ALL TRASH AND DEBRIS ON A DAILY BASIS AND RESTORE AREAS TO PRE CONSTRUCTION CONDITION AS WORK IS COMPLETED. SEE DIVISION 1 SPECIFICATIONS AND ARCHITECTURAL PHASING DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- DUCTWORK, PIPING, MECHANICAL EQUIPMENT AND CEILINGS SHALL NOT BE UTILIZED AS LADDERS, SCAFFOLDING OR WORK PLATFORMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLS, DUCTS, STRUCTURAL MEMBERS, PIPES, CAGES AND OTHER OBSTRUCTIONS ENCOUNTERED, WHETHER THEY ARE INDICATED ON THESE DRAWINGS OR NOT.
- CONTRACTOR IS ADVISED THAT THE BUILDING CONTAINS SUBSTANTIAL CONCRETE AND MASONRY WALLS THAT WILL REQUIRE CORE DRILLING. ALL WALL AND FLOOR PENETRATIONS SHALL BE CORE-DRILLED. ALL PENETRATIONS IN WALLS, CEILINGS, AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS OF THE PENETRATION. PENETRATION IN FIRE-RATED WALLS, CEILINGS AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS WITH AN APPROVED THROUGH PENETRATION FIRE STOP SYSTEM. REFER TO ARCHITECTURAL DRAWINGS FOR RATED ASSEMBLY LOCATIONS AND RATINGS.
- ALL DAMAGE TO EXISTING WALLS, CEILINGS, FLOORS, AND STRUCTURAL MEMBERS FROM PENETRATIONS, REMOVALS, INSTALLATIONS OR OTHER ACTIONS OF THE CONTRACTOR SHALL BE PATCHED, REPAIRED AND PAINTED WITH NEW MATERIALS BY THE CONTRACTOR TO MATCH ADJACENT WORK, WHETHER SPECIFICALLY NOTED OR NOT.
- NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED OR BURNED UNLESS PREVIOUSLY APPROVED BY THE COTR. CONTRACTOR SHALL NOT CUT OR PATCH STRUCTURAL WORK IN A MANNER THAT WOULD RESULT IN A REDUCTION OF LOAD-CARRYING OR OF LOAD-DEFLECTION RATIO. PRIOR TO SUCH WORK, OBTAIN APPROVAL OF COTR. SEE ARCHITECTURAL DRAWINGS FOR RECOMMENDED CORE DRILL LOCATIONS.
- THE TERM "PROVIDE" SHALL MEAN THE CONTRACTOR SHALL FURNISH, INSTALL, AND CONNECT FOR A COMPLETE AND OPERATIONAL SYSTEM READY FOR INTENDED USE.
- THE TERM "REMOVE" SHALL MEAN THE CONTRACTOR SHALL DISCONNECT AND CLEAR FROM SITE.
- UNLESS OTHERWISE NOTED, CONDUIT SHALL BE INSTALLED AS UNOBTUSIVELY AS POSSIBLE, AS CLOSE AS POSSIBLE TO FLOOR/CEILING SLAB, AND PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL CONCRETE OR MASONRY ELEMENTS. ANY CONDUIT NOTED TO BE EXPOSED SHALL BE PAINTED TO MATCH ADJACENT FINISHES.
- RIGID STEEL CONDUIT SHALL BE USED IN ALL ANIMAL HOUSING AREAS. RIGID STEEL CONDUIT SHALL BE GALVANIZED STEEL. ELECTRICAL METALLIC TUBING (EMT) SHALL BE PROVIDED IN ALL OTHER AREAS OF BUILDING. NEMA 4X WIRING PRACTICES ARE REQUIRED IN ALL ANIMAL HOUSING AREAS WHERE WIRING IS EXPOSED TO WATER AND CORROSION.
- ALL EXISTING ELECTRICAL WORK WHICH WILL NOT BE RENDERED OBSOLETE AND WHICH MAY BE DISTURBED DUE TO ANY CHANGES REQUIRED UNDER THIS CONTRACT SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION. OTHER ELECTRICAL MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED, DISCONNECTED AND REMOVED. REMOVALS SHALL STOP WHERE DAMAGE WOULD OCCUR TO BUILDING IF FURTHER REMOVAL OCCURRED. CUT CONDUIT OFF AND REMOVE WIRING AND CONDUCTORS UNDER THESE CONDITIONS. ABANDONED OUTLETS IN WALLS SHALL BE REMOVED AND STANDARD METAL COVER PLATES PAINTED TO MATCH ADJACENT SURFACES SHALL BE INSTALLED OVER THE OUTLET OPENINGS. ALL UNUSED WIRING AND DEVICES SHALL BE REMOVED. UNO, ALL DISCONNECTED MATERIAL SHALL BE REMOVED AND TURNED OVER TO THE COTR. START EXISTING SYSTEM DEMOLITION AND REMOVAL ONLY AFTER NEW SYSTEM IS INSTALLED, TESTED AND ACCEPTED BY THE AHJ.
- EXISTING CONDUIT AND BACK BOXES MAY BE REUSED IF IT OTHERWISE MEETS PROJECT SPECIFICATIONS AND IS FREE FROM CORROSION, KINKS, DIRT, DEBRIS, AND BURRS.
- ALL REMOVED FIRE ALARM EQUIPMENT, IN GOOD CONDITION SHALL BE TURNED OVER TO THE COTR. WIRING AND CONDUIT SHALL NOT BE SALVAGED.
- NO HAZARDOUS MATERIALS SURVEY WAS PERFORMED NOR WAS INFORMATION AVAILABLE DURING DESIGN THAT IDENTIFIED ASBESTOS, LEAD PAINT, PCB'S OR OTHER HAZARDOUS MATERIALS. CONTRACTOR SHALL STOP WORK IMMEDIATELY IF SUSPICIOUS MATERIAL IS ENCOUNTERED AND REQUEST CONTRACTING OFFICER TO TEST MATERIAL PRIOR TO PROCEEDING.
- SMOKE EXHAUST SYSTEMS SHALL BE PROVIDED IN EACH EXHIBIT AND DEN (TOTAL OF EIGHT SEPARATE AND DEDICATED SMOKE EXHAUST ZONES) FOR THE PANDA HOUSE. THE FIRE ALARM SYSTEM SHALL INITIATE SMOKE EXHAUST SYSTEM START, THE BUILDING AUTOMATION SYSTEM (BAS) SHALL CONTROL FAN AND ASSOCIATED DAMPER FUNCTION. THE FIRE ALARM SHALL INITIATE THE SMOKE EXHAUST MODE THROUGH INTERFACES WITH THE BAS SYSTEM. THE SMOKE EXHAUST SEQUENCE SHALL START UPON ACTIVATION OF A SMOKE DETECTOR IN THE ANIMAL HOLDING AREA OR MANUAL KEY SWITCH PROVIDED ON THE SMOKE EXHAUST PANEL. UPON RECEIPT OF AN ALARM SIGNAL FROM AN ANIMAL AREA SMOKE DETECTOR OR MANUAL KEY SWITCH AT THE SMOKE EXHAUST PANEL, THE FIRE ALARM SYSTEM SHALL SEND AN OUTPUT TO THE BAS TO CAUSE THE REQUIRED SMOKE EXHAUST FUNCTIONS TO OCCUR. REFER TO SHEET FA-701 AND M-201 FOR SEQUENCE OF OPERATION DETAILS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL COORDINATION REQUIREMENTS.

### SYMBOL LIST

SYMBOL	DESCRIPTION
	NEW DEVICE LINE TYPE
	EXISTING TO REMAIN LINE TYPE
	EXISTING TO BE REMOVED LINE TYPE
	EXISTING TO BE RELOCATED LINE TYPE
	SMOKE ZONE BOUNDARY
	SMOKE SENSOR SIGNALING DEVICE – X=MOUNT LOCATION
	FIRE ALARM CONTROL PANEL
	FIRE ALARM TERMINAL CABINET
	REMOTE FIRE ALARM ANNUNCIATOR
	FIREFIGHTER'S SMOKE EXHAUST PANEL
	ADDRESSABLE RELAY
	JUNCTION BOX
	KEY NOTE INDICATOR
	DETAIL NUMBER
	DETAIL IDENTIFICATION BUBBLE
	SHEET DETAIL IS SHOWN ON
	SHEET DETAIL IS TAKEN FROM

### ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AHU	AIR HANDLER UNIT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION (OSHEM FIRE PROTECTION ENGINEER)
AI	ADDRESSABLE INTERFACE
AMP	AMPERE
AR	ADDRESSABLE RELAY
ARC	ADDRESSABLE RELAY CABINET
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BM	BEAM
BFC	BELOW FINISHED CEILING
C	CEILING SURFACE MOUNTED
CI	CIRCUIT INTEGRITY
CIR	CIRCUIT
CMU	CONCRETE MASONRY UNIT
CON	CONCRETE
COTR	CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE
DAR	DISCONNECT AND REMOVE
DN	DOWN
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
EMT	ELECTRICAL METALLIC TUBING
EOL	END OF LINE SUPERVISION DEVICE
EP	ELECTRIC-PNEUMATIC SWITCH
EQUIP	EQUIPMENT
(EX)	EXISTING
EXIST	EXISTING
F	CEILING FLUSH MOUNTED
FACP	FIRE ALARM CONTROL PANEL
FAZ	FIRE ALARM ZONE
FL	FLOOR
FT	FEET
GYP	GYPSUM BOARD
IDC	INITIATING DEVICE CIRCUIT
I/F	INTERFACE
IN	INCH
MAF	MAKE UP AIR FAN
MAL	MAKE UP AIR LOUVER
MC	METAL CLAD
MECH	MECHANICAL
NAC	NOTIFICATION APPLIANCE CIRCUIT
NAP	NOTIFICATION APPLIANCE PANEL
NEC	NATIONAL ELECTRICAL CODE – NFPA 70
NFAC	NATIONAL FIRE ALARM CODE – NFPA 72
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OSHEM	OFFICE OF SAFETY, HEALTH, AND ENVIRONMENTAL MANAGEMENT
R	RETURN
RCP	REMOTE CONTROL PANEL
RF	RETURN FAN
RM	ROOM
RMC	RIGID METAL CONDUIT
S	WALL SURFACE MOUNTED
SI	SMITHSONIAN INSTITUTION
SLC	SIGNALING LINE CIRCUIT
SMP	SMOKE MANAGEMENT PANEL
SPDT	SINGLE POLE, DOUBLE THROW
STR	STAIR
SUPP.	SUPPLY
TC	TERMINAL CABINET
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE/STARTER
W	WALL FLUSH MOUNTED
WP	WEATHERPROOF
ZN	ZONE

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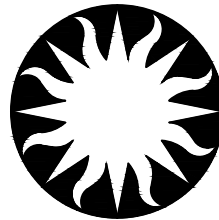
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DATE	10/30/20
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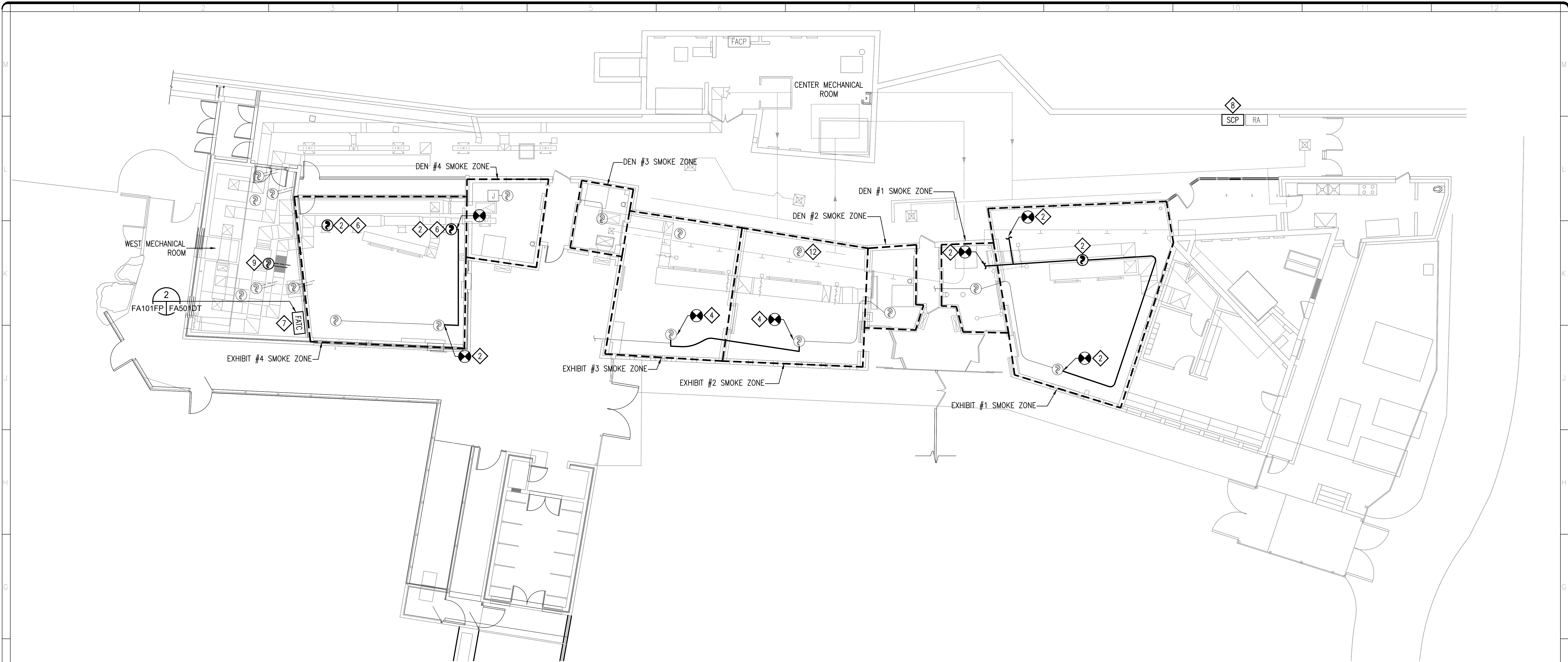


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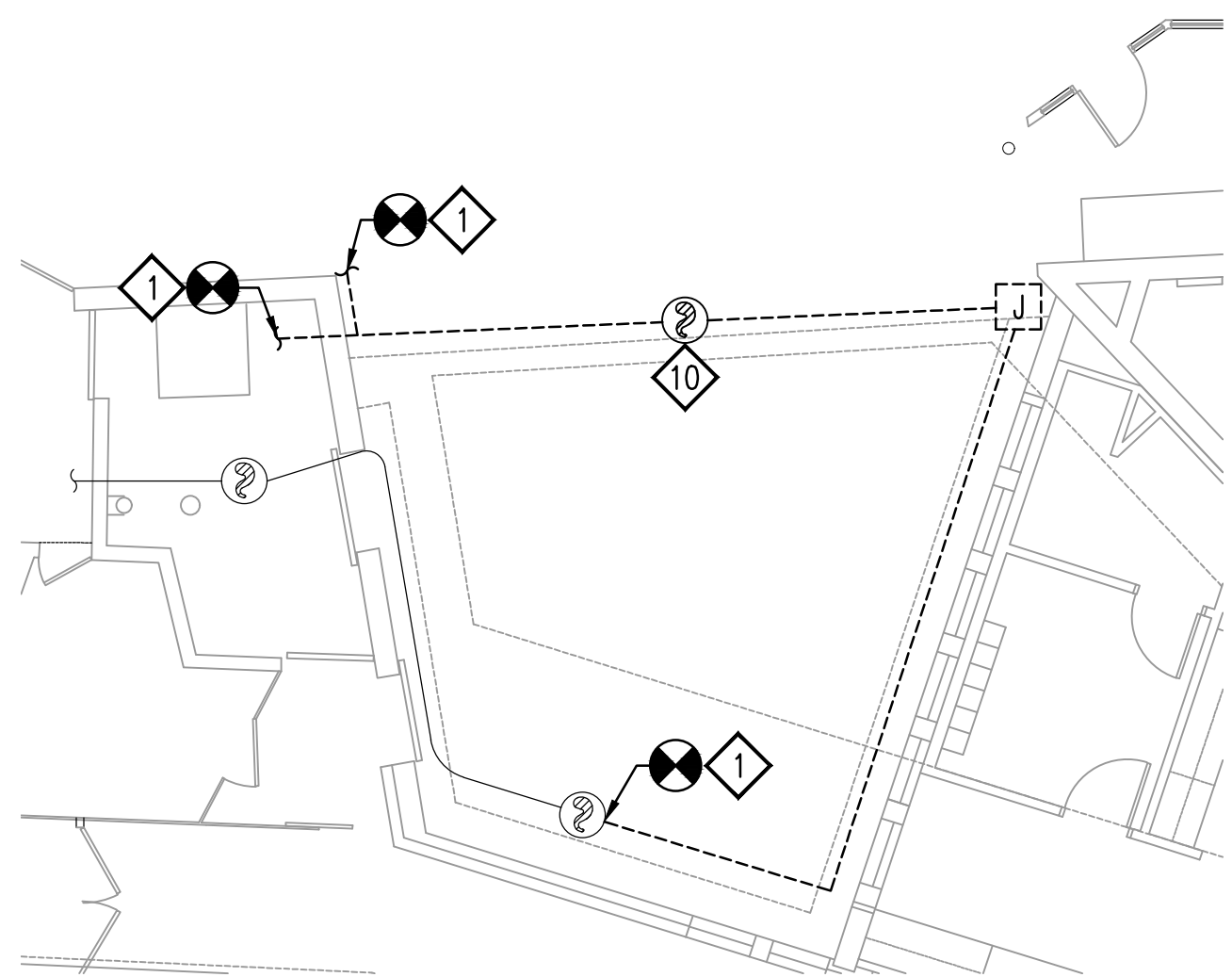
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600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

ISSUING NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SF PROJECT NUMBER	1133107/2033101
AE PROJECT NUMBER	42020400
DRAWING TITLE	REFERENCE SHEET
DRAWING TYPE	FIRE ALARM
WORKING STAFF	DESIGNED BY: JNZ DRAWN BY: LDB CHECKED BY: JMT
SHEET NO.	17
DISCIPLINE	FA
TYPE	001
SEQUENCE	CS

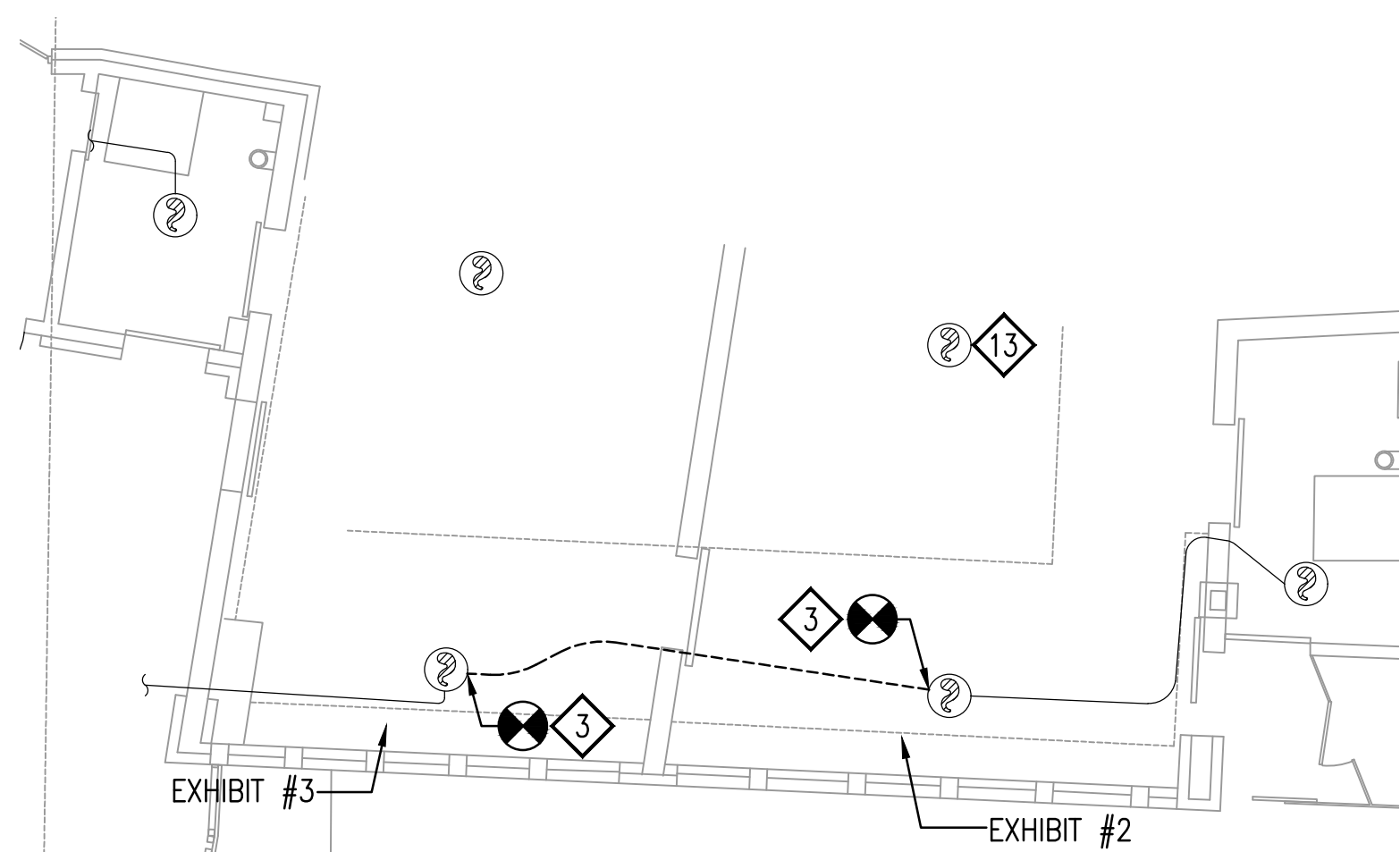




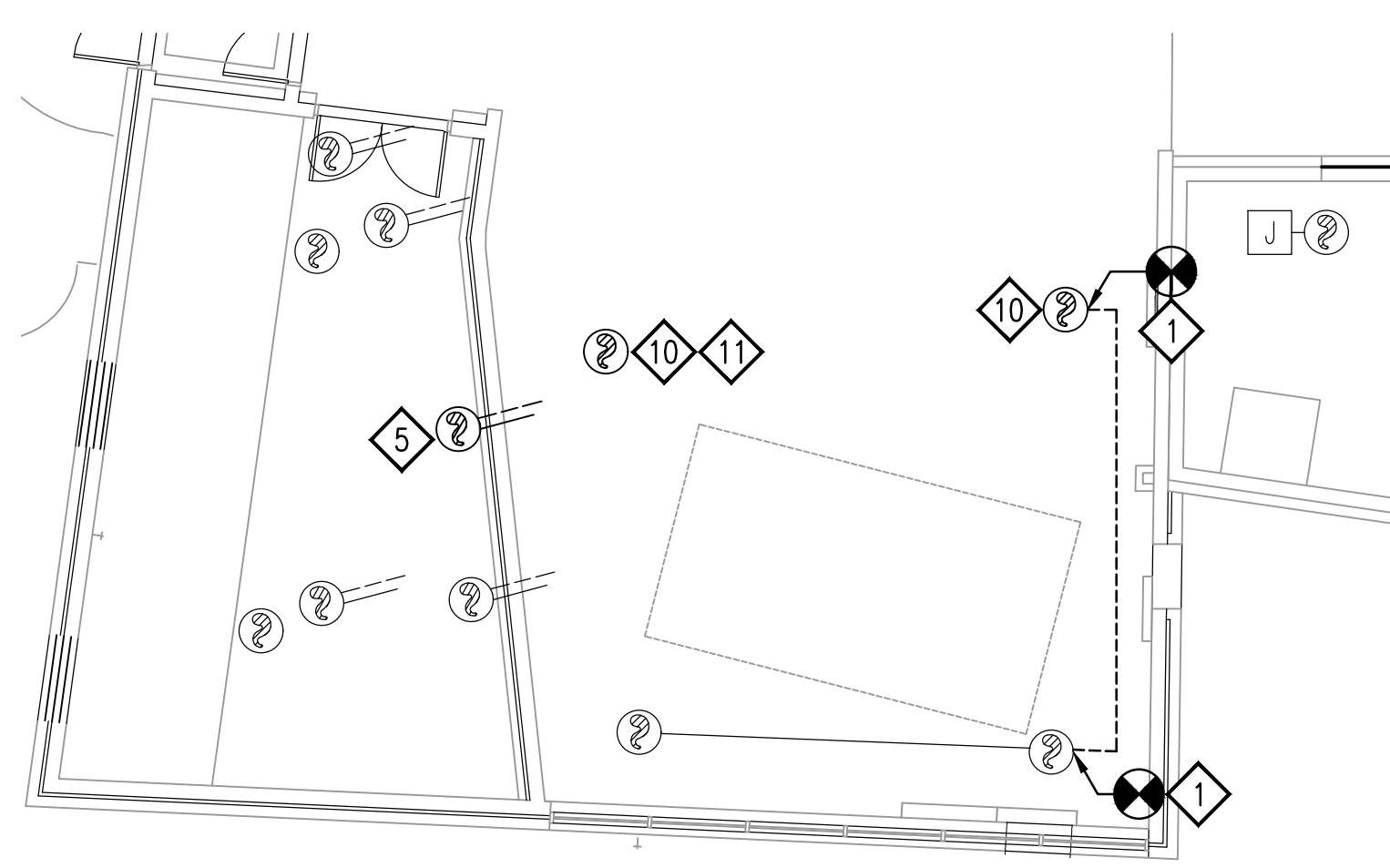
4 PANDA HOUSE FIRST FLOOR PLAN - NEW WORK  
SCALE: 1/8" = 1'-0"



1 PANDA HOUSE PARTIAL FIRST FLOOR PLAN - EXHIBIT 1 DEMO  
SCALE: 1/8" = 1'-0"



2 PANDA HOUSE PARTIAL FIRST FLOOR PLAN - EXHIBIT 2&3 DEMO  
SCALE: 1/8" = 1'-0"



3 PANDA HOUSE PARTIAL FIRST FLOOR PLAN - EXHIBIT 4 DEMO  
SCALE: 1/8" = 1'-0"

#### KEY NOTES

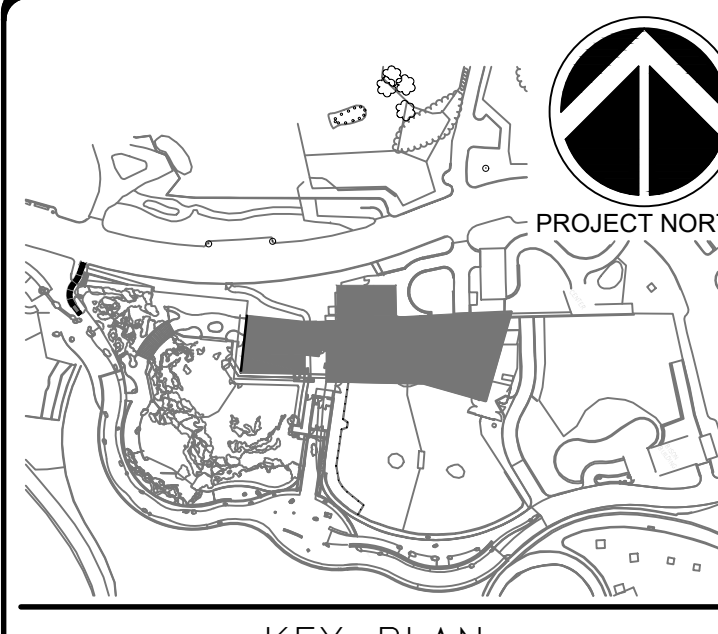
- REMOVE EXISTING FIRE ALARM CONDUIT BACK TO THE NEAREST DEVICE/JUNCTION BOX OR POINT TO ALLOW FOR INSTALLATION OF NEW DUCTWORK.
- AFTER INSTALLATION OF NEW DUCTWORK, RELOCATE SMOKE DETECTOR AND PROVIDE NEW CONDUIT TO PROVIDE DETECTION COVERAGE AS REQUIRED BY NFPA 72. LOCATE DETECTORS NOT CLOSER THAN 36 INCHES FROM AIR-SUPPLY DIFFUSER OR RETURN-AIR OPENING.
- REMOVE FIRE ALARM CONDUIT BETWEEN SMOKE DETECTORS TO ALLOW FOR INSTALLATION OF NEW WALL PARTITION.
- AFTER INSTALLATION OF NEW WALL PARTITION, PROVIDE CONDUIT TO CONNECT EXISTING SMOKE DETECTORS. FILL SPACE AROUND CONDUIT PENETRATING THE NEW WALL PARTITION WITH AN APPROVED MATERIAL TO LIMIT THE FREE PASSAGE OF SMOKE.
- RELOCATE AND INSTALL DUCT SMOKE DETECTOR ON SUPPLY SIDE OF AIR HANDLING UNIT P4, AND WIRING FOR ASSOCIATED ADDRESSABLE RELAY, WITH EXISTING DUCTWORK. REFER TO SHEET M-101FP FOR DUCTWORK RELOCATION.
- RELOCATE AND INSTALL SMOKE DETECTOR TO BELOW GYPSUM CEILING.
- PROVIDE TERMINAL CABINET AND LOCATE WITHIN 3- FEET OF BAS CONTROL PANEL. FIRE ALARM TERMINAL CABINET SHALL INCLUDE ONE ADDRESSABLE RELAY FOR ACTIVATION OF SMOKE EXHAUST IN THE SMOKE ZONE AND ONE ADDRESSABLE RELAY FOR
- TURNING OFF SMOKE EXHAUST IN EACH SMOKE ZONE. REFER TO DETAIL 2 ON FA501DT. MOUNT FIREFIGHTER'S SMOKE EXHAUST PANEL ADJACENT TO EXISTING GRAPHIC ANNUNCIATOR PANEL. SMOKE EXHAUST PANEL SHALL PERFORM THE FOLLOWINGS FUNCTIONS:
  - MONITOR SMOKE EXHAUST PANEL "ON" SWITCH.
  - MONITOR SMOKE EXHAUST PANEL "OFF" SWITCH.
  - MONITOR SMOKE EXHAUST ACTIVATION FAULT SUPERVISION.REFER TO DETAIL1 ON FA501DT FOR DESIGN INTENT.
- AFTER RELOCATION OF DUCTWORK, RELOCATE AND INSTALL DUCT SMOKE DETECTOR ON SUPPLY SIDE OF AIR HANDLING UNIT P4 AND ASSOCIATED WIRING FOR ADDRESSABLE RELAY. REFER TO SHEET M-101FP FOR EXACT LOCATION OF DUCTWORK.
- SMOKE DETECTOR SHALL BE RELOCATED AND INSTALLED TO ACCOMMODATE NEW DUCTWORK. REFER TO NEW WORK ON THIS SHEET FOR NEW SMOKE DETECTOR LOCATION. SEE NOTE 6.
- EXISTING SMOKE DETECTOR BACKBOX AND CONDUIT IS IMBEDDED IN CONCRETE SLAB.
- AFTER COMPLETION OF NEW CEILING REPAIRS (REFER TO SHEET A-102FP FOR ARCHITECTURAL NEW WORK), RELOCATE SMOKE DETECTOR AND PROVIDE NEW CONDUIT AS REQUIRED TO PROVIDE DETECTION COVERAGE PER NFPA 72.
- SMOKE DETECTOR SHALL BE RELOCATED AND INSTALLED TO ACCOMMODATE NEW CEILING REPAIRS (REFER TO SHEET A-102FP FOR REPAIR WORK). REFER TO NEW WORK ON THIS SHEET FOR NEW SMOKE DETECTOR LOCATION.

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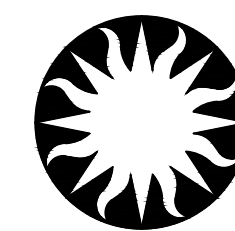


KEY PLAN

0 4' 8' 12' 16'  
1/8" = 1'-0"

GRAPHIC SCALE(S)

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REVISION	FINAL SUBMISSION
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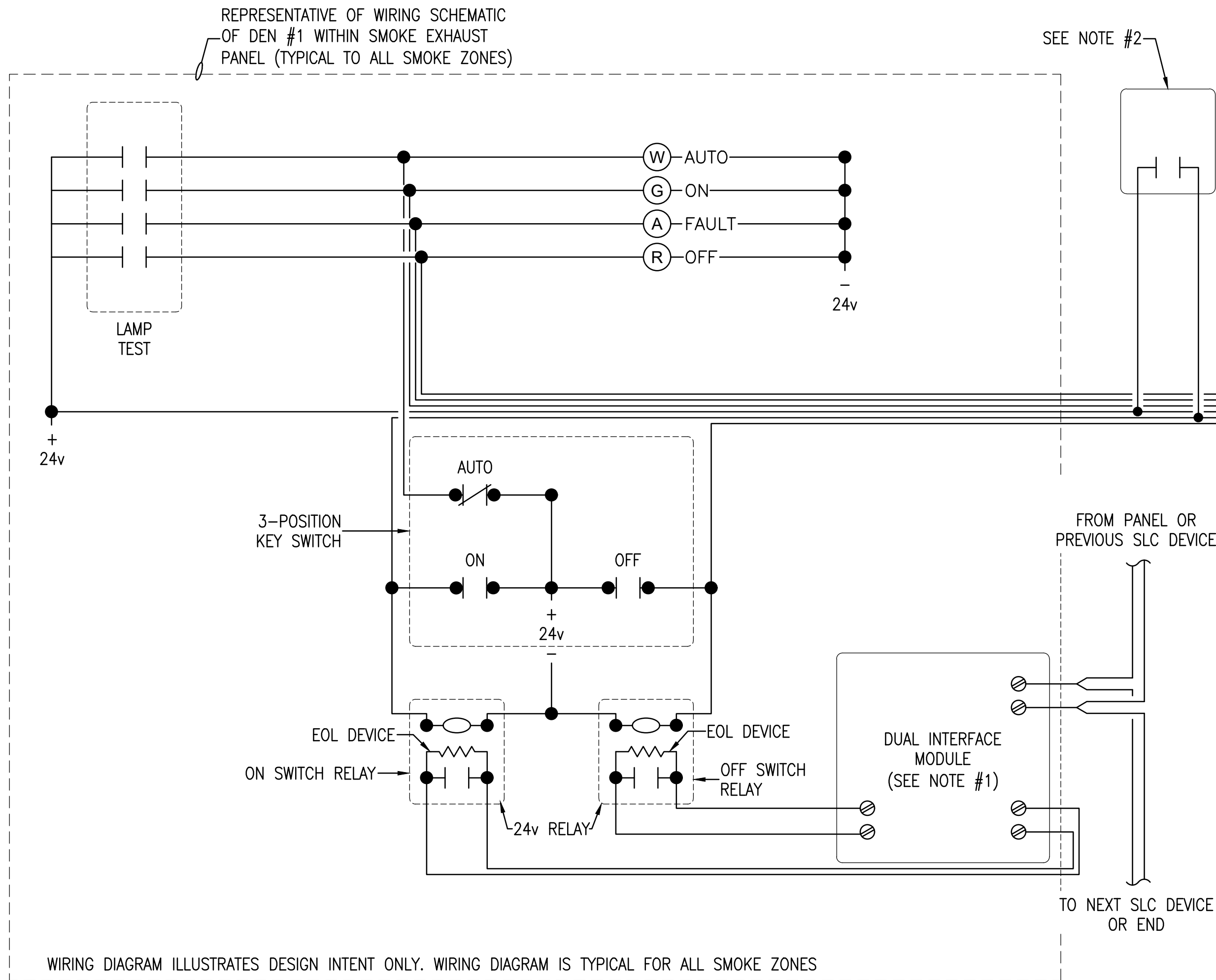


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BUILDING NAME	N2P PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SF PROJECT NUMBER	1133107/2033101		
AE PROJECT NUMBER	42020400		
DRAWING TITLE	PANDA HOUSE FIRST FLOOR PLAN - DEMO AND NEW WORK		
DRAWING TYPE	FIRE ALARM		
WORKING STAFF	JNZ	LDB	JMT
DESIGNED BY		DRAWN BY	CHECKED BY
SHEET NO.	FA	101	FP
18	DISCIPLINE	TYPE	SEQUENCE

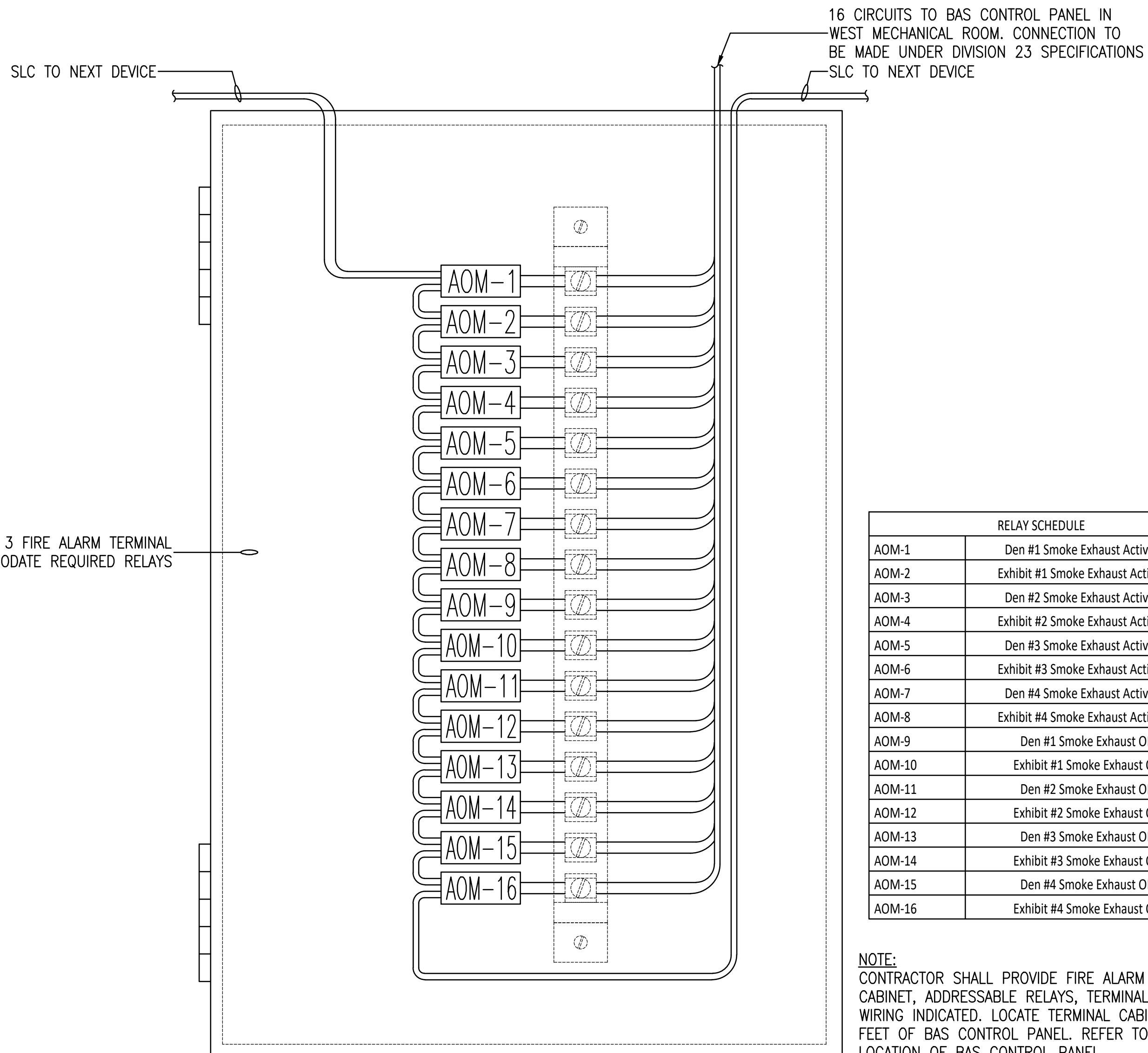




1  
FIREFIGHTER'S SMOKE EXHAUST  
PANEL WIRING DIAGRAM - DEN 1 (TYPICAL)  
SCALE: NOT TO SCALE

LOCKABLE NEMA TYPE 3 FIRE ALARM TERMINAL  
CABINET SIZED TO ACCOMMODATE REQUIRED RELAYS

2  
FIRE ALARM TERMINAL CABINET FOR BAS INTERFACE  
SCALE: NOT TO SCALE



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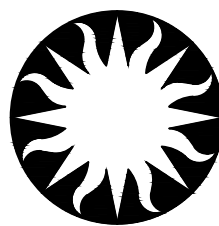
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ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SF PROJECT NUMBER	1133107/2033101
AE PROJECT NUMBER	42020400

DRAWING TITLE  DRAWING TYPE  WORKING STAFF	DETAILS		
	FIRE ALARM		
	JNZ	LDB	JMT
	DESIGNED BY	DRAWN BY	CHECKED BY

SHEET NO.	FA	501	DT
	DISCIPLINE	TYPE	SEQUENCE



# FIREFIGHTER'S SMOKE EXHAUST PANEL

## NATIONAL ZOOLOGICAL PARK - PANDA HOUSE

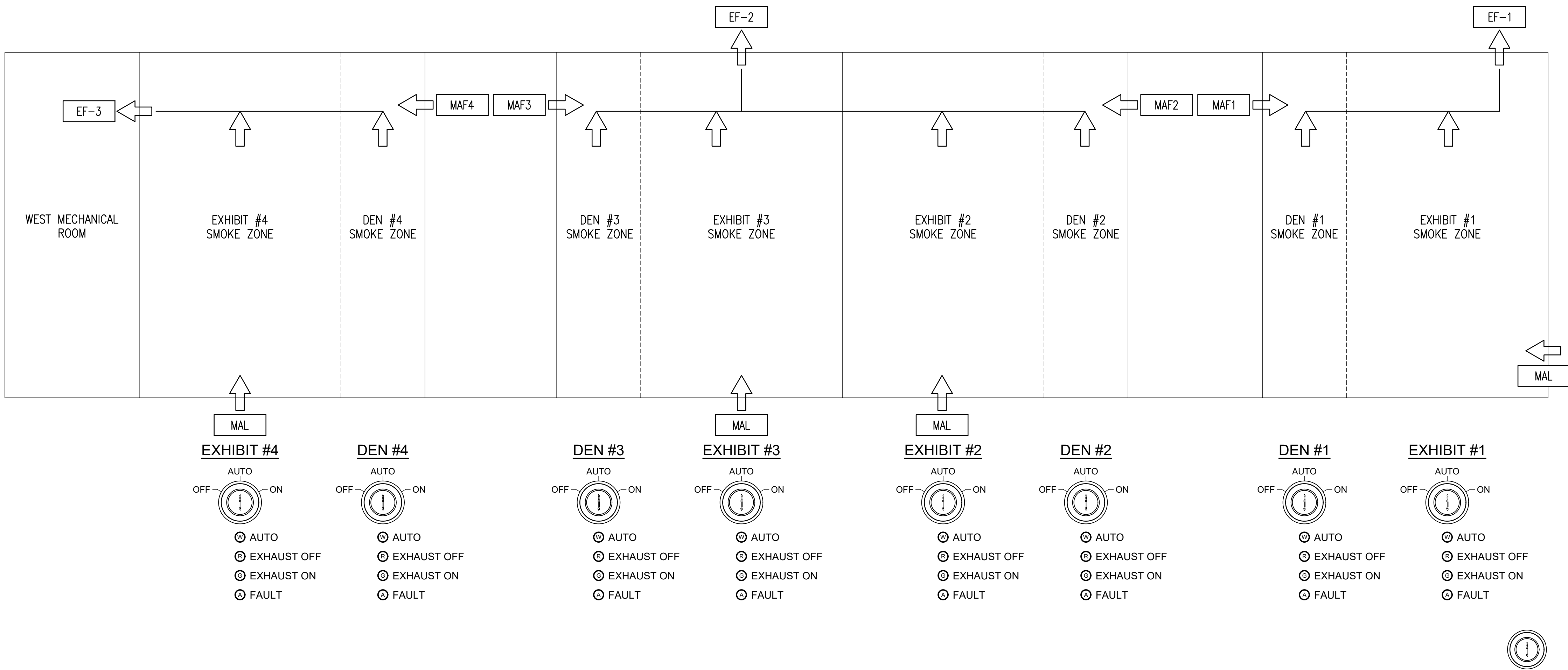
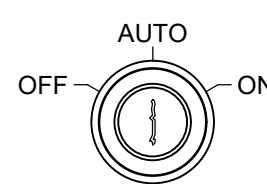
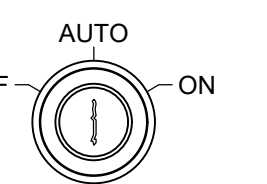


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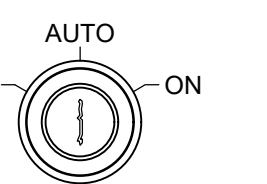
- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

DEN #4



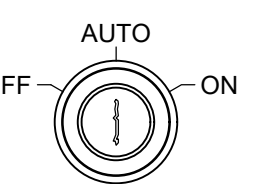
- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

DEN #3



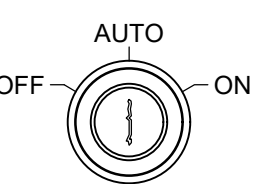
- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

EXHIBIT #3



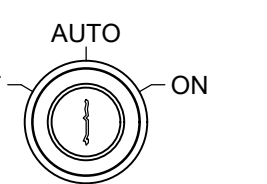
- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

EXHIBIT #2



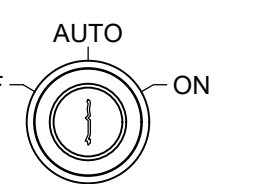
- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

DEN #2



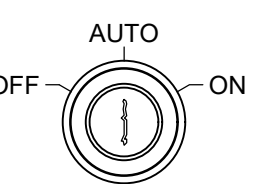
- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

DEN #1



- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

EXHIBIT #1



- AUTO
- EXHAUST OFF
- EXHAUST ON
- FAULT

### LEGEND

- EF EXHAUST FAN
- MAF MAKE UP AIR FAN
- MAL MAKE UP AIR LOUVER
- AIRFLOW DIRECTION

LAMP TEST

\*INDICATION LAMP LEDs WILL ONLY LIGHT AFTER A MAXIMUM 30 SECOND DELAY WHEN ALL SYSTEM COMPONENTS ARE IN THE PROPER POSITION.



### FIREFIGHTER'S SMOKE EXHAUST PANEL - EAST LOBBY ENTRANCE

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

### PANEL LEGEND

- KEY LOCK
- WHITE LED
- RED LED
- GREEN LED
- AMBER LED
- PUSH BUTTON

### PANEL NOTES

- CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM OSHEM FIRE PROTECTION ENGINEER FOR FIREFIGHTER'S SMOKE EXHAUST PANEL PRIOR TO FABRICATION.

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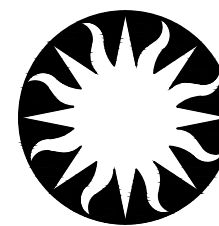
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### KEY PLAN

### GRAPHIC SCALE(S)

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DESIGNED NAME	NZP PANDA HOUSE		
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008		
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS		
SP PROJECT NUMBER	1133107/2033101		
AE PROJECT NUMBER	42020400		
DRAWING TITLE	SMOKE EXHAUST PANEL DETAILS		
DRAWING TYPE	FIRE ALARM		
WORKING STAFF	JNZ	LDB	JMT
	DESIGNED BY	DRAWN BY	CHECKED BY
SHEET NO.	FA	502	DT
20	DISCIPLINE	TYPE	SEQUENCE



Initiating Device or System Condition INPUT (NOTE 1)	Control Functions															
	Activate Addressable Relay for BAS Activation of Den #1 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Exhibit #1 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Den #2 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Exhibit #2 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Den #3 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Exhibit #3 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Den #4 Smoke Exhaust Sequence	Activate Addressable Relay for BAS Activation of Exhibit #4 Smoke Exhaust Sequence	Activate Addressable Relay for BAS To Turn Off Den #1 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Exhibit #1 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Den #2 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Exhibit #2 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Den #3 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Exhibit #3 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Den #4 Smoke Exhaust Sequence (Note 2)	Activate Addressable Relay for BAS To Turn Off Exhibit #4 Smoke Exhaust Sequence (Note 2)
Smoke Detector - Den #1	X															
Smoke Detector - Exhibit #1		X														
Smoke Detector - Den #2			X													
Smoke Detector - Exhibit #2				X												
Smoke Detector - Den #3					X											
Smoke Detector - Exhibit #3						X										
Smoke Detector - Den #4							X									
Smoke Detector - Exhibit #4								X								
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Den #1	X															
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Exhibit #1		X														
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Den #2			X													
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Exhibit #2				X												
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Den #3					X											
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Exhibit #3						X										
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Den #4							X									
Firefighter's Smoke Exhaust Panel Addressable Interface "ON" Exhibit #4								X								
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Den #1									X							
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Exhibit #1										X						
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Den #2											X					
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Exhibit #2												X				
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Den #3													X			
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Exhibit #3														X		
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Den #4															X	
Firefighter's Smoke Exhaust Panel Addressable Interface "OFF" Exhibit #4																X
Note 1: Initiating Devices and System Conditions other than those listed in this matrix shall keep the same sequence of operation as existing.																
Note 2: "OFF" key switch position on the Firefighter's Smoke Exhaust Panel shall override automatic activation of smoke exhaust system.																



**FIRE ALARM OPERATIONAL MATRIX**

NOT TO SCALE

Key Switch Position and Function	Den #1					Exhibit #1					Den #2					Exhibit #2					Den #3					Exhibit #3					Den #4					Exhibit #4																	
	Light "White" Auto Lamp	Light "Red" Off Lamp	Light "Green" On Lamp	Light "Amber" Fault Lamp	Activates Den #1 Smoke Exhaust System	Turns Off Den #1 Smoke Exhaust System (Note 3)	Light Exhibit #1 "White" Auto Lamp	Light Exhibit #1 "Red" Off Lamp	Light Exhibit #1 "Green" On Lamp	Light Exhibit #1 "Amber" Fault Lamp	Activates Exhibit #1 Smoke Exhaust System	Turns Off Exhibit #1 Smoke Exhaust System (Note 3)	Light Den #2 "White" Auto Lamp	Light Den #2 "Red" Off Lamp	Light Den #2 "Green" On Lamp	Light Den #2 "Amber" Fault Lamp	Activates Den #2 Smoke Exhaust System	Turns Off Den #2 Smoke Exhaust System (Note 3)	Light Exhibit #2 "White" Auto Lamp	Light Exhibit #2 "Red" Off Lamp	Light Exhibit #2 "Green" On Lamp	Light Exhibit #2 "Amber" Fault Lamp	Activates Exhibit #2 Smoke Exhaust System	Turns Off Exhibit #2 Smoke Exhaust System (Note 3)	Light Den #3 "White" Auto Lamp	Light Den #3 "Red" Off Lamp	Light Den #3 "Green" On Lamp	Light Den #3 "Amber" Fault Lamp	Activates Den #3 Smoke Exhaust System	Turns Off Den #3 Smoke Exhaust System (Note 3)	Light Exhibit #3 "White" Auto Lamp	Light Exhibit #3 "Red" Off Lamp	Light Exhibit #3 "Green" On Lamp	Light Exhibit #3 "Amber" Fault Lamp	Activates Exhibit #3 Smoke Exhaust System	Turns Off Exhibit #3 Smoke Exhaust System (Note 3)	Light Den #4 "White" Auto Lamp	Light Den #4 "Red" Off Lamp	Light Den #4 "Green" On Lamp	Light Den #4 "Amber" Fault Lamp	Activates Den #4 Smoke Exhaust System	Turns Off Den #4 Smoke Exhaust System (Note 3)	Light Exhibit #4 "White" Auto Lamp	Light Exhibit #4 "Red" Off Lamp	Light Exhibit #4 "Green" On Lamp	Light Exhibit #4 "Amber" Fault Lamp	Activates Exhibit #4 Smoke Exhaust System	Turns Off Exhibit #4 Smoke Exhaust System (Note 3)					
Smoke Exhaust Panel Key Switch "Auto"																																																					
Fire Alarm Normal State - No Smoke Exhaust	X						X						X						X						X							X																					
Fire Alarm Smoke Exhaust Active/BAS Smoke Exhaust Supervision Relay "Normal State"	X			X			X			X			X			X			X			X			X						X						X																
Fire Alarm Smoke Exhaust Active/BAS Smoke Exhaust Supervision Relay "Smoke Exhaust State"	X		X				X		X				X		X				X		X				X		X		X			X		X				X															
Smoke Exhaust Panel Key Switch Turned to "ON" Position					X						X						X						X												X																		
Fire Alarm Smoke Exhaust Active/BAS Smoke Exhaust Supervision Relay "Normal State"				X						X						X						X								X								X															
Fire Alarm Smoke Exhaust Active/BAS Smoke Exhaust Supervision Relay "Smoke Exhaust State"			X						X						X														X																								
Smoke Exhaust Panel Key Switch Turned to "OFF" Position						X						X						X																																			
BAS Smoke Exhaust Supervision Relay "Smoke Exhaust State"				X					X							X																																					
BAS Smoke Exhaust Supervision Relay "Normal State"		X					X						X							X						X							X																				
Note 1: All indicating lamps are turned off unless otherwise indicated in this matrix.																																																					
Note 2: When the BAS Smoke Exhaust Supervision Relay is in Normal State, all smoke exhaust and make up air fans, dampers, and louvers are shut down. When the BAS receives smoke exhaust signal via automatic or manual (key switch) means, the BAS Smoke Exhaust Supervision Relay shall switch to the "Smoke Exhaust State" after confirmation that all smoke exhaust and make up air fans, dampers, and louvers are in their required smoke exhaust positions.																																																					
Note 3: "OFF" key switch position on the Firefighter's Smoke Exhaust Panel shall override automatic activation of smoke exhaust system.																																																					



**FIREFIGHTER'S SMOKE EXHAUST PANEL MATRIX**

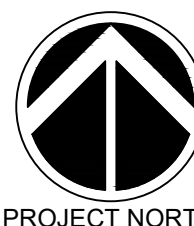
NOT TO SCALE

**QUINN  
EVANS**

2121 WARD PLACE, NW  
FOURTH FLOOR  
WASHINGTON, DC 20037



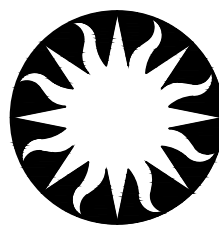
GHD Inc.  
121 North 20th Street, Suite A  
Richmond, VA 23223 USA  
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KEY PLAN

GRAPHIC SCALE(S)

DATE 10/30/20	APPROVED FINAL SUBMISSION
REVISION	REVISION



**Smithsonian  
Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

DESIGNED NAME N2P PANDA HOUSE	ADDRESS 3001 Connecticut Avenue, NW Washington, DC 20008	
PROJECT TITLE SMOKE CONTROL MODIFICATIONS	SP PROJECT NUMBER 1133107/2033101	
DATE PROJECT NUMBER 42020400	DRAWING TITLE MATRIX	
DRAWING TYPE FIRE ALARM	WORKING STAFF DESIGNED BY: JNZ DRAWN BY: LDB CHECKED BY: JMT	
SHEET NO. 21	DISCIPLINE FA	SEQUENCE 701 SH



GENERAL NOTES																																																													
<p>1. CONTRACTOR SHALL MODIFY THE EXISTING WET-PIPE SPRINKLER SYSTEM TO ACCOMMODATE THE NEW SMOKE MANAGEMENT SYSTEM DUCTWORK AS DESCRIBED IN THESE DRAWINGS AND SPECIFICATIONS IN ORDER TO PROVIDE FULL SPRINKLER PROTECTION THROUGHOUT THE WORK AREA. CONTRACTOR SHALL PROVIDE PIPING, HANGERS, SPRINKLER HEADS AND ALL ASSOCIATED EQUIPMENT WHETHER MENTIONED OR NOT, FOR A COMPLETE AND OPERATIONAL SYSTEM AS DESCRIBED IN THE SPECIFICATIONS AND SHOWN HEREIN ON THE DRAWINGS.</p> <p>2. ALL WORK AND INSTALLATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE 2019 EDITION OF NFPA 13.</p> <p>3. CONTRACTOR IS ADVISED THAT THE BUILDING IS OCCUPIED BY PEOPLE AND ANIMALS AND THE BUILDING MUST REMAIN OPEN AND FUNCTIONAL. FOR THEIR OWN SAFETY, CONTRACTOR SHALL UTILIZE EXTREME CAUTION AND FOLLOW STRICT REQUIREMENTS CONTAINED IN THE SPECIFICATIONS WHEN WORKING IN THE ANIMAL HOLDING AREAS. CONTRACTOR WILL BE RESTRICTED TO SPECIFIED WORK AREAS AND TIME PERIODS AS DESCRIBED IN THE PHASED WORK PLANS AND SPECIFICATIONS. CONTRACTOR WILL NOT BE PERMITTED FREE ACCESS TO ANIMAL HOLDING AREAS AND MUST COMPLETE WORK IN COMPLIANCE WITH PHASED WORK PLANS.</p> <p>4. CONTRACTOR IS ADVISED THAT THE SCOPE AND THE GOAL OF THIS PROJECT IS TO INSTALL THE SPRINKLER SYSTEM IN THE WORK AREA IN A MEANS THAT PROHIBITS ANY ACCESS TO ANY COMPONENTS OF THE SYSTEM BY THE ANIMALS HOUSED IN THE BUILDING. TO ACHIEVE THIS MEANS, IT MAY BE NECESSARY TO INSTALL SPECIFIC SPRINKLER SYSTEM COMPONENTS OUTSIDE OF THE PRESCRIPTIVE REQUIREMENT OF THE INSTALLATION STANDARDS OR OUTSIDE OF THE APPROVAL LIMITATIONS OF A SPECIFIC SYSTEM COMPONENT. IT IS UNDERSTOOD THAT THIS WILL ONLY OCCUR WHEN NO OTHER SOLUTION EXISTS TO ACHIEVE FULL SPRINKLER COVERAGE IN ACCORDANCE WITH THE PRESCRIPTIVE REQUIREMENTS OF THE INSTALLATION STANDARDS AND APPROVAL LISTINGS. HOWEVER, WHERE SUCH A CONDITION OCCURS, APPROVAL BY THE SMITHSONIAN AHJ MUST FIRST BE OBTAINED BEFORE PROCEEDING WITH INSTALLATION.</p> <p>5. PIPING SHOWN ON THE DRAWINGS IS SHOWN FOR PURPOSE OF DESIGN INTENT. SYSTEM SHALL BE DESIGNED SO THAT ANIMALS HAVE NO CONTACT WITH SPRINKLER OR SPRINKLER MAIN/BRANCHLINES. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING COMPLETE SPRINKLER COVERAGE EXCEPT WHERE DEEMED NECESSARY TO KEEP ANIMALS FROM COMING IN CONTACT WITH SPRINKLERS AND PIPING AND THEN APPROVED BY THE SI-AHJ.</p> <p>6. INFORMATION CONTAINED IN THESE DRAWINGS IS BASED ON LIMITED FIELD MEASUREMENT VERIFICATION. THE INFORMATION CONTAINED HEREIN MAY REQUIRE ADJUSTMENTS AND/OR MODIFICATIONS TO CONFORM TO EXISTING CONDITIONS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE COTR IF ANY DISCREPANCY IN EXISTING CONDITION SHOULD PROHIBIT EXECUTION OF THE DESIGN INTENT OF THESE DRAWINGS.</p> <p>7. FIELD DIMENSIONS SHALL GOVERN. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE CONCERNING EXISTING AND NEW WORK BEFORE PROCEEDING WITH EITHER FABRICATION OR INSTALLATION OF NEW WORK.</p> <p>8. ANY CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION. THE CONTRACTOR(S) SHALL NOT PROCEED WITH ANY WORK, EXCEPT AT THEIR OWN RISK, UNTIL CLARIFICATIONS OF THE CONFLICTS ARE ISSUED TO THE CONTRACTOR(S) BY THE CONTRACTING OFFICER.</p> <p>9. ALL ELEVATIONS ABOVE THE FINISHED FLOOR (AFF) INDICATED FOR STRUCTURAL MEMBERS, CEILINGS, AND OBSTRUCTIONS ARE APPROXIMATE. VARIANCES OF ± 1-INCH CAN BE EXPECTED DUE TO SLOPING FLOORS AND STRUCTURAL MEMBERS.</p> <p>10. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE BUILDING DURING CONSTRUCTION. WORK IN OCCUPIED AREAS SHALL BE PROPERLY SECURED WITH BARRIERS SO AS NOT TO CREATE A SAFETY HAZARD. MATERIALS SUCH AS TOOLS, LADDERS, AND INSTALLATION MATERIAL SHALL BE KEPT TO A MINIMUM AND SHALL ALLOW EASY PASSAGE OF BUILDING TENANTS. PROVIDE DROP CLOTHES OR OTHERWISE PROTECT BUILDING FINISHES FROM ALL CONSTRUCTION DEBRIS AND DUST. REMOVE ALL TRASH AND DEBRIS ON A DAILY BASIS AND RESTORE AREAS TO PRE CONSTRUCTION CONDITION AS WORK IS COMPLETED. SEE DIVISION 1 SPECIFICATIONS AND ARCHITECTURAL PHASING DRAWINGS FOR ADDITIONAL REQUIREMENTS.</p> <p>11. DUCTWORK, PIPING, MECHANICAL EQUIPMENT AND CEILINGS SHALL NOT BE UTILIZED AS LADDERS, SCAFFOLDING OR WORK PLATFORMS.</p> <p>12. CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLS, DUCTS, STRUCTURAL MEMBERS, PIPES, CAGES AND OTHER OBSTRUCTIONS ENCOUNTERED, WHETHER THEY ARE INDICATED ON THESE DRAWINGS OR NOT.</p> <p>13. CONTRACTOR IS ADVISED THAT THE BUILDING CONTAINS SUBSTANTIAL CONCRETE AND MASONRY WALLS THAT WILL REQUIRE CORE DRILLING. ALL WALL AND FLOOR PENETRATIONS SHALL BE CORE-DRILLED. ALL PENETRATIONS IN WALLS, CEILINGS, AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS OF THE PENETRATION. PENETRATION IN FIRE-RATED WALLS, CEILINGS AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS WITH AN APPROVED THROUGH PENETRATION FIRE STOP SYSTEM. REFER TO ARCHITECTURAL DRAWINGS FOR RATED ASSEMBLY LOCATIONS AND RATINGS.</p> <p>14. ALL DAMAGE TO EXISTING WALLS, CEILINGS, FLOORS, AND STRUCTURAL MEMBERS FROM PENETRATIONS, REMOVALS, INSTALLATIONS OR OTHER ACTIONS OF THE CONTRACTOR SHALL BE PATCHED, REPAIRED AND PAINTED WITH NEW MATERIALS BY THE CONTRACTOR TO MATCH ADJACENT WORK, WHETHER SPECIFICALLY NOTED OR NOT.</p> <p>15. NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED OR BURNED UNLESS PREVIOUSLY APPROVED BY THE COTR. CONTRACTOR SHALL NOT CUT OR PATCH STRUCTURAL WORK IN A MANNER THAT WOULD RESULT IN A REDUCTION OF LOAD-CARRYING OR OF LOAD-DEFLECTION RATIO. PRIOR TO SUCH WORK, OBTAIN APPROVAL OF COTR. SEE ARCHITECTURAL DRAWINGS FOR RECOMMENDED CORE DRILL LOCATIONS.</p> <p>16. THE TERM "PROVIDE" SHALL MEAN THE CONTRACTOR SHALL FURNISH, INSTALL, AND CONNECT FOR A COMPLETE AND OPERATIONAL SYSTEM READY FOR INTENDED USE.</p> <p>17. THE TERM "REMOVE" SHALL MEAN THE CONTRACTOR SHALL DISCONNECT AND CLEAR FROM SITE.</p> <p>18. UNLESS OTHERWISE NOTED, ALL SPRINKLER PIPING SHALL BE INSTALLED AS UNOBTUSIVELY AS POSSIBLE, PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL STEEL, CONCRETE OR MASONRY ELEMENTS. ANY SPRINKLER PIPE NOTED TO BE EXPOSED SHALL BE PAINTED AS INDICATED IN THE SPECIFICATIONS.</p> <p>19. CONTRACTOR SHALL MAINTAIN AT LEAST 6'-8" HEAD ROOM CLEARANCE BETWEEN BOTTOM OF SPRINKLER PIPE, FITTINGS, VALVES AND SPRINKLER HEADS WITH THE FINISHED FLOOR IN ALL AREAS OF EXPOSED PIPE.</p> <p>20. ALL AREAS ARE CONSIDERED ORDINARY HAZARD (GROUP 2) OCCUPANCIES PER NFPA 13. THE SPACING OF SPRINKLER HEADS SHALL NOT EXCEED THAT PERMITTED BY NFPA 13 FOR THE HAZARD OCCUPANCY. SPRINKLER HEADS SHALL BE IN CONFORMANCE WITH NFPA 13. RELEASE ELEMENTS SHALL BE SUITABLE FOR SPECIFIC APPLICATION AND SHALL MATCH EXISTING. PROVIDE QUICK RESPONSE HEADS IN ALL LIGHT HAZARD OFFICE AND ALL OTHER OCCUPANCIES IN WHICH THEIR USE IS LISTED OR APPROVED. HEADS LOCATED WITHIN THE AIR STREAMS OF UNIT HEATERS OR OTHER HEAT EMITTING EQUIPMENT OR SKYLIGHTS SHALL BE SELECTED FOR PROPER TEMPERATURE RATING.</p> <p>21. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL COORDINATION REQUIREMENTS.</p>																																																													
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121 North 20th Street, Suite A  
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T 1 804 237 0300 W www.ghd.com

STAMP

PROJECT NORTH

KEY PLAN

GRAPHIC SCALE(S)

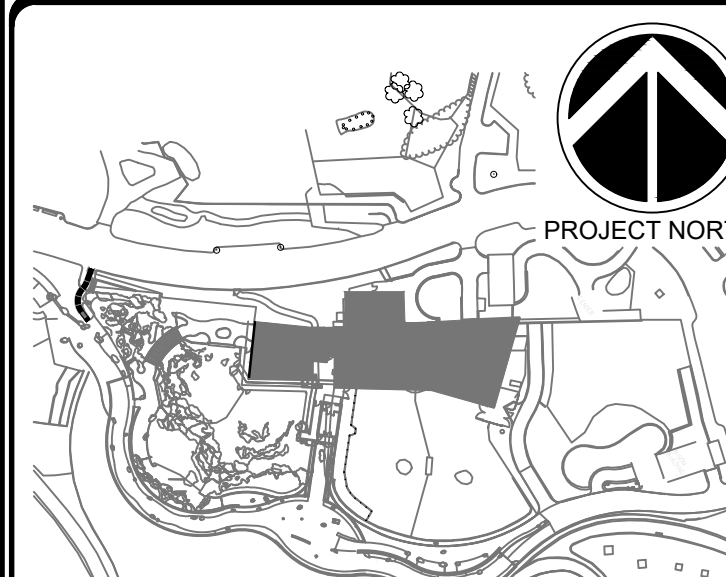
DATE	10/30/20	REVISION	FINAL SUBMISSION
REVISION		REVISION	

Smithsonian Facilities  
600 Maryland Avenue S.W. Suite 5001  
Washington, DC 20024-2520

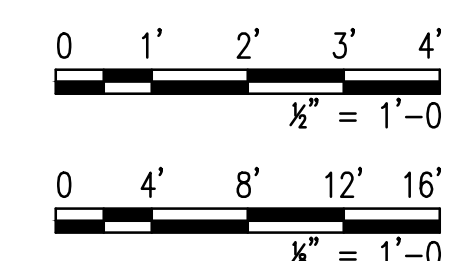
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ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008						
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS						
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AS PROJECT NUMBER	42020400						
DRAWING TITLE	REFERENCE SHEET						
DRAWING TYPE	SPRINKLER						
WORKING STAFF	<table><tr><td>JNZ</td><td>LDB</td><td>JMT</td></tr><tr><td>DESIGNED BY</td><td>DRAWN BY</td><td>CHECKED BY</td></tr></table>	JNZ	LDB	JMT	DESIGNED BY	DRAWN BY	CHECKED BY
JNZ	LDB	JMT					
DESIGNED BY	DRAWN BY	CHECKED BY					
SHEET NO.	14	FX	001	CS			
	DISCIPLINE	TYPE	SEQUENCE				

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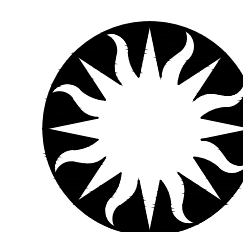


KEY PLAN



GRAPHIC SCALE(S)

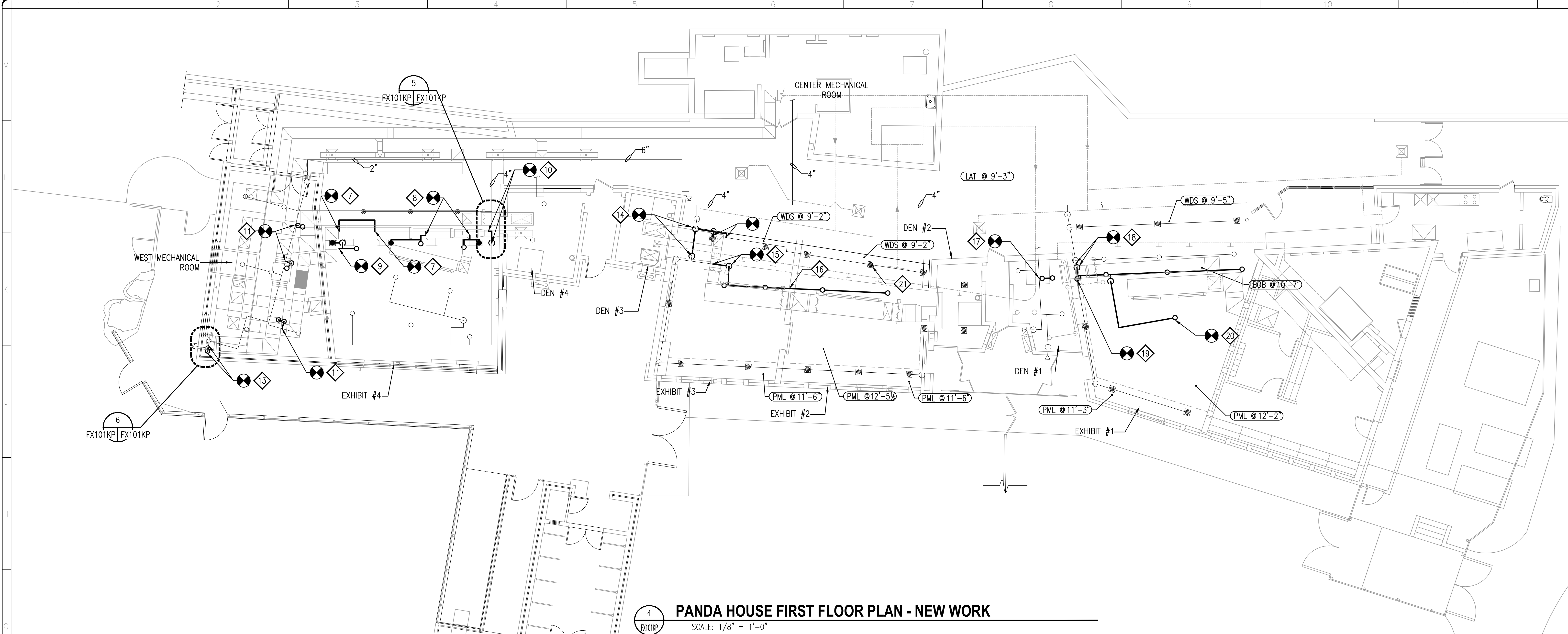
DATE	REVISION
10/30/20	FINAL SUBMISSION



**Smithsonian  
Institution**

Smithsonian Facilities  
600 Maryland Avenue S.W., Suite 5001  
Washington, DC 20024-2520

PROJECT NAME	NZP PANDA HOUSE
ADDRESS	3001 Connecticut Avenue, NW Washington, DC 20008
PROJECT TITLE	SMOKE CONTROL MODIFICATIONS
SP PROJECT NUMBER	1133107/2033101
AC PROJECT NUMBER	42020400
DRAWING TITLE	PANDA HOUSE FIRST FLOOR PLAN - DEMO AND NEW WORK SPRINKLER
DRAWING TYPE	JNZ LDB JMT
DESIGNED BY	
DRAWN BY	
CHECKED BY	
SHEET NO.	15
DISCIPLINE	FX
TYPE	101
SEQUENCE	KP

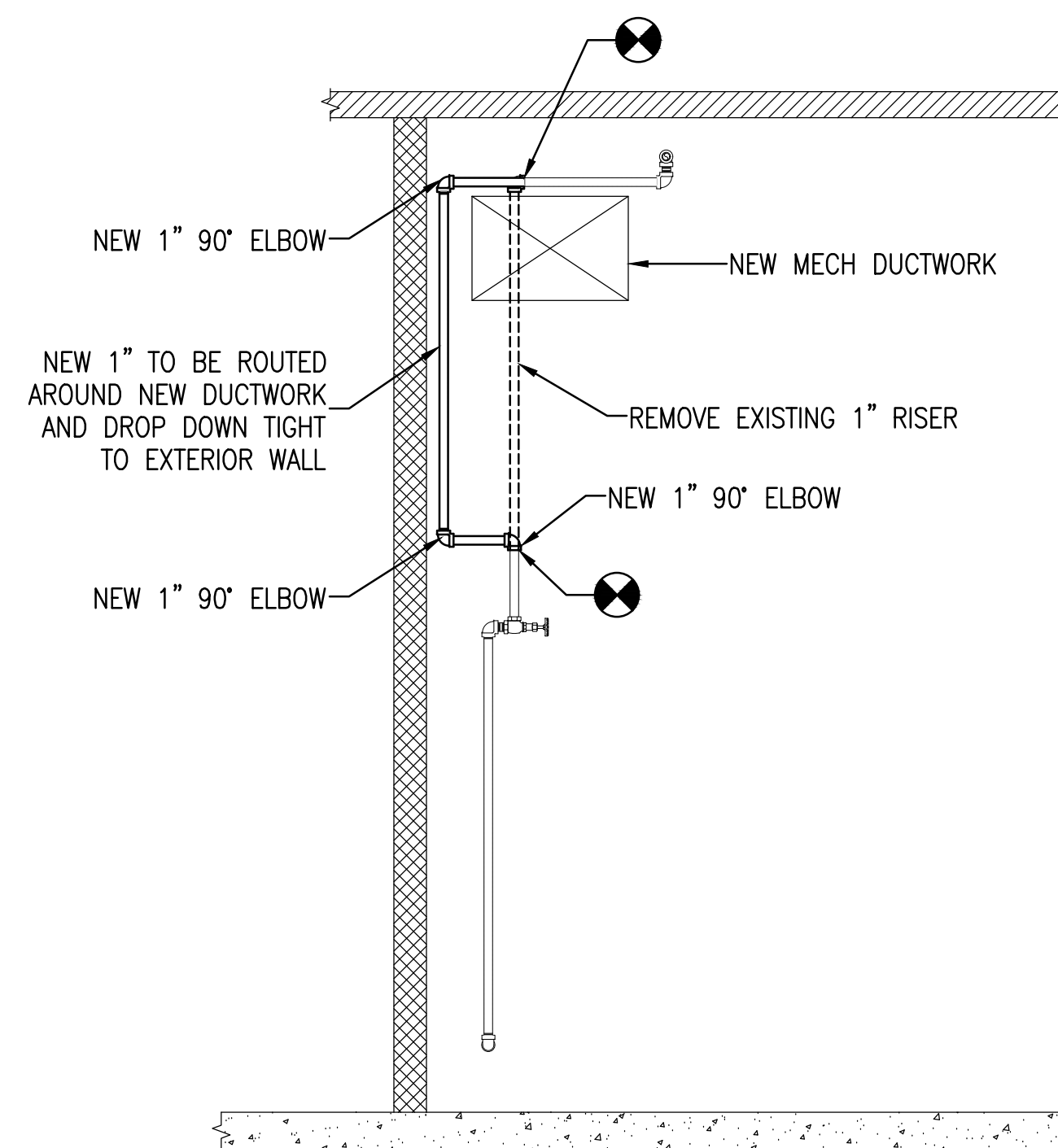


**PANDA HOUSE FIRST FLOOR PLAN - NEW WORK**

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

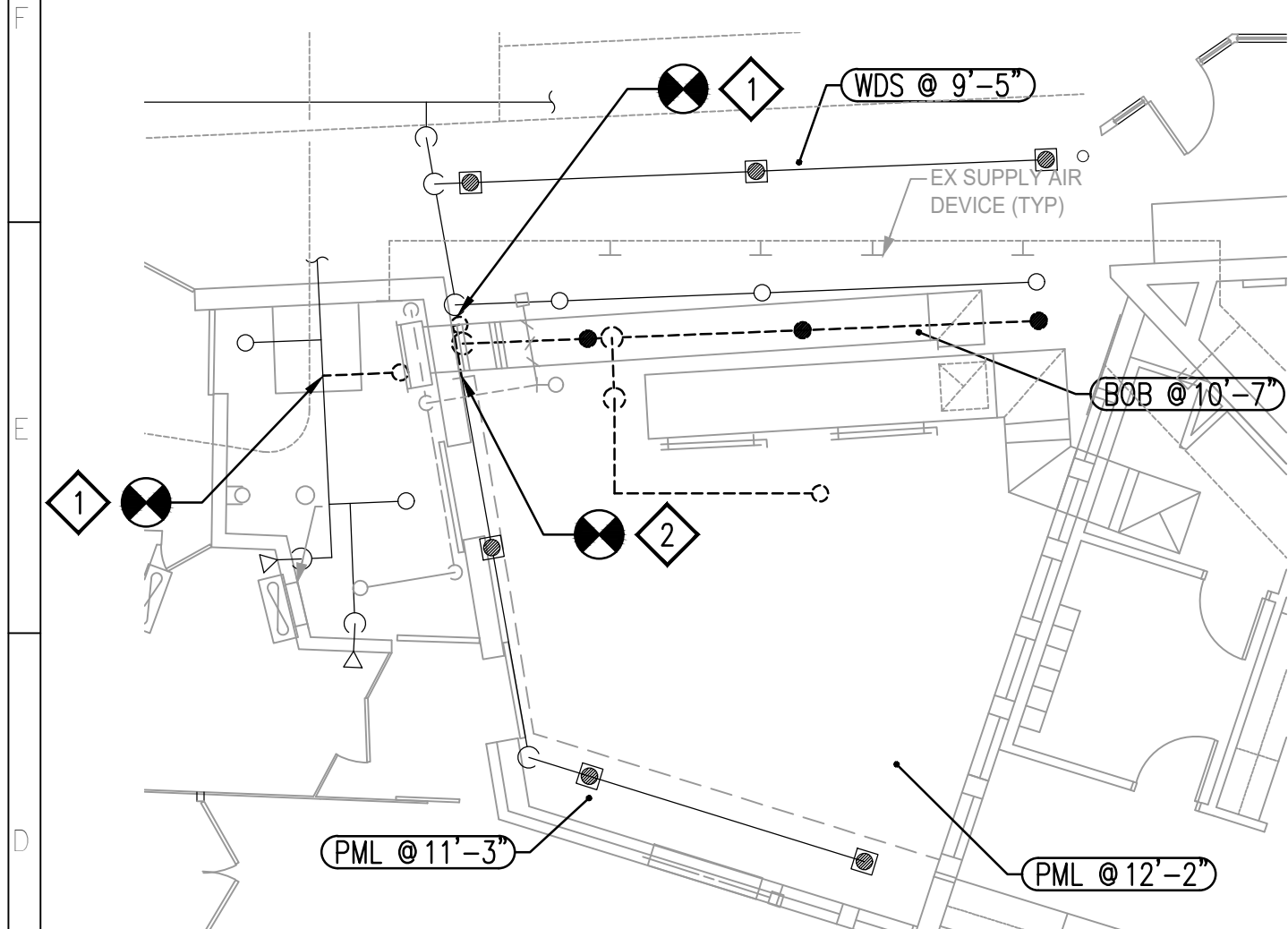
**KEY NOTES**

- 1 REMOVE EXISTING BRANCHLINES BACK TO THE TEE FITTING TO ALLOW FOR INSTALLATION OF NEW DUCTWORK.
- 2 REMOVE EXISTING SPRINKLER PIPING TO A LOCATION WHERE RECONNECTION TO EXISTING PIPING WITHIN THE SOFFIT CAN BE ACHIEVED.
- 3 REMOVE EXISTING 2 INCH PIPING TO INDICATED LOCATIONS TO ALLOW FOR INSTALLATION OF NEW DUCTWORK.
- 4 REMOVE EXISTING BRANCHLINE BACK TO THE INDICATED LOCATION TO ALLOW FOR INSTALLATION OF NEW DUCTWORK AND WALL BETWEEN EXHIBITS #2/#3.
- 5 REMOVE EXISTING 4 INCH MAIN TO INDICATED LOCATIONS TO ALLOW FOR INSTALLATION OF NEW DUCTWORK.
- 6 REMOVE EXISTING UPRIGHT SPRINKLER AND ELBOW FITTING TO PERMIT EXISTING BRANCHLINE TO BE EXTENDED.
- 7 PROVIDE NEW 3 INCH SPRINKLER MAIN AND RECONNECT AT INDICATED LOCATIONS. SPRINKLER ELEVATION MUST BE HELD ABOVE DUCTWORK AND ROUTED TO AVOID EXISTING ELECTRICAL CONDUITS.
- 8 CONNECT TO EXISTING 1 INCH ARMORER AND EXTEND NEW BRANCHLINE PIPING TO PROVIDE UPRIGHT PROTECTION ABOVE AND PENDENT PROTECTION BELOW NEW WOOD SOFFIT.
- 9 CONNECT TO EXISTING 3 INCH MAIN AND PROVIDE NEW 1 INCH BRANCHLINE TO PROVIDE UPRIGHT PROTECTION ABOVE AND PENDENT PROTECTION BELOW NEW WOOD SOFFIT.
- 10 CONNECT TO EXISTING SPRINKLER PIPING AT 10'-1" ELEVATION AND EXTEND NEW 4 INCH SPRINKLER MAIN UNDER NEW DUCTWORK. RISE UP AT LOCATION BEYOND NEW DUCTWORK AND CONNECT TO EXISTING 3 INCH SPRINKLER MAINS AT 12'-1" ELEVATION. SEE DETAIL 5 ON FX101KP FOR CLARITY.
- 11 CONNECT TO EXISTING BRANCHLINE PIPING AND PROVIDE NEW 1 INCH PIPING TO NEW UPRIGHT PROTECTION BELOW LARGE OBSTRUCTION CREATED BY NEW DUCTWORK.
- 12 REMOVE EXISTING 1 INCH INSPECTOR'S TEST RISER TO ALLOW INSTALLATION OF NEW DUCTWORK PENETRATION THROUGH EXTERIOR WALL.
- 13 RECONNECT TO EXISTING 1 INCH INSPECTOR'S TEST PIPING AND ROUTE AROUND NEW MECHANICAL DUCTWORK. RECONNECT TO EXISTING INSPECTOR'S TEST AT AN ELEVATION BELOW NEW DUCTWORK AND ABOVE EXISTING VERTICAL PIPING RESTRAINT.
- 14 CONNECT TO EXISTING 2 INCH MAIN AND PROVIDE NEW PIPING TO BE ROUTED UNDER NEW DUCTWORK.
- 15 CONNECT TO EXISTING 1 1/2 INCH BRANCHLINE. EXTEND PIPING EAST UNDER DUCTWORK AND RISE UP ALONG WALL FACE TO SPRINKLERS AND BRANCHLINE PIPING LOCATED UNDER THE EXISTING METAL FRAMED WIRE MESH CEILING.
- 16 FILL THE SPACE AROUND THE PIPE PENETRATING THE NEW WALL WITH AN APPROVED MATERIAL TO LIMIT THE FREE PASSAGE OF SMOKE.
- 17 CONNECT TO EXISTING 1 INCH ARMORER AND EXTEND NEW BRANCHLINE PIPING TO PROVIDE UPRIGHT PROTECTION ABOVE EXISTING DUCTWORK.
- 18 CONNECT TO EXISTING TEE AT 2 INCH OUTLET AND RISE UP TIGHT TO FACE OF EXISTING SOFFIT. ROUTE BRANCHLINE PIPING ABOVE NEW DUCTWORK PENETRATING WEST WALL.
- 19 CONNECT NEW 1 1/2 INCH BRANCHLINE PIPING TO EXISTING SPRINKLER BRANCHLINE WITHIN SOFFIT THAT SERVES EXISTING CONCEALED PENDENT SPRINKLERS.
- 20 LOCATE SPRINKLER BELOW EXISTING METAL FRAMED WIRE MESH CEILING.
- 21 REMOVE EXISTING CONCEALED SPRINKLER AND PLUG REDUCER ON EXISTING SPRINKLER DROP TO ACCOMMODATE REPAIRS TO THE EXISTING CEILING. REMOVE PLUG AND RE-INSTALL SPRINKLER IN ORIGINAL LOCATION WHEN CEILING REPAIR IS COMPLETED.



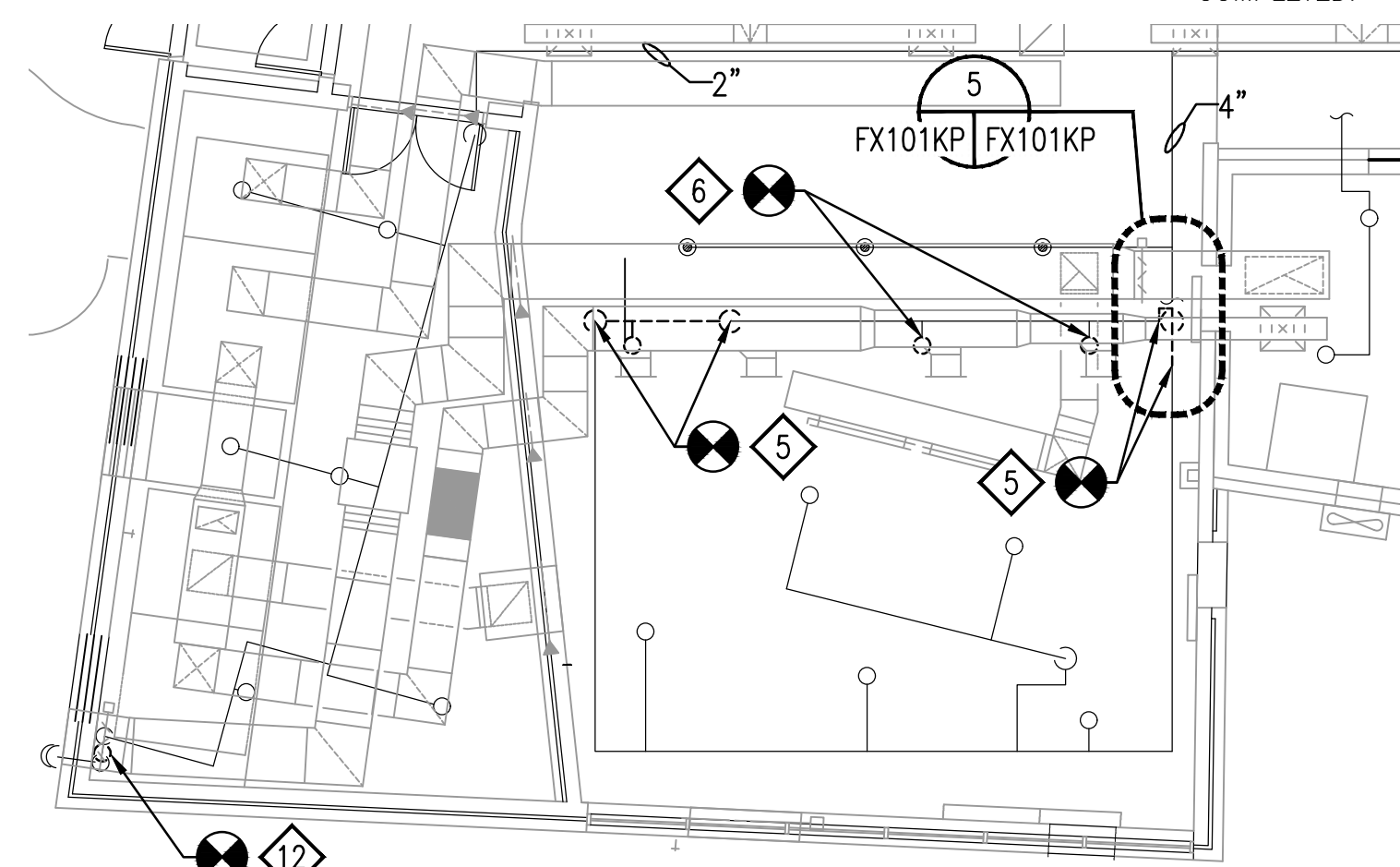
**DETAIL - INSPECTOR'S TEST MODIFICATION - WEST MECH ROOM**

SCALE: 1/2" = 1'-0"



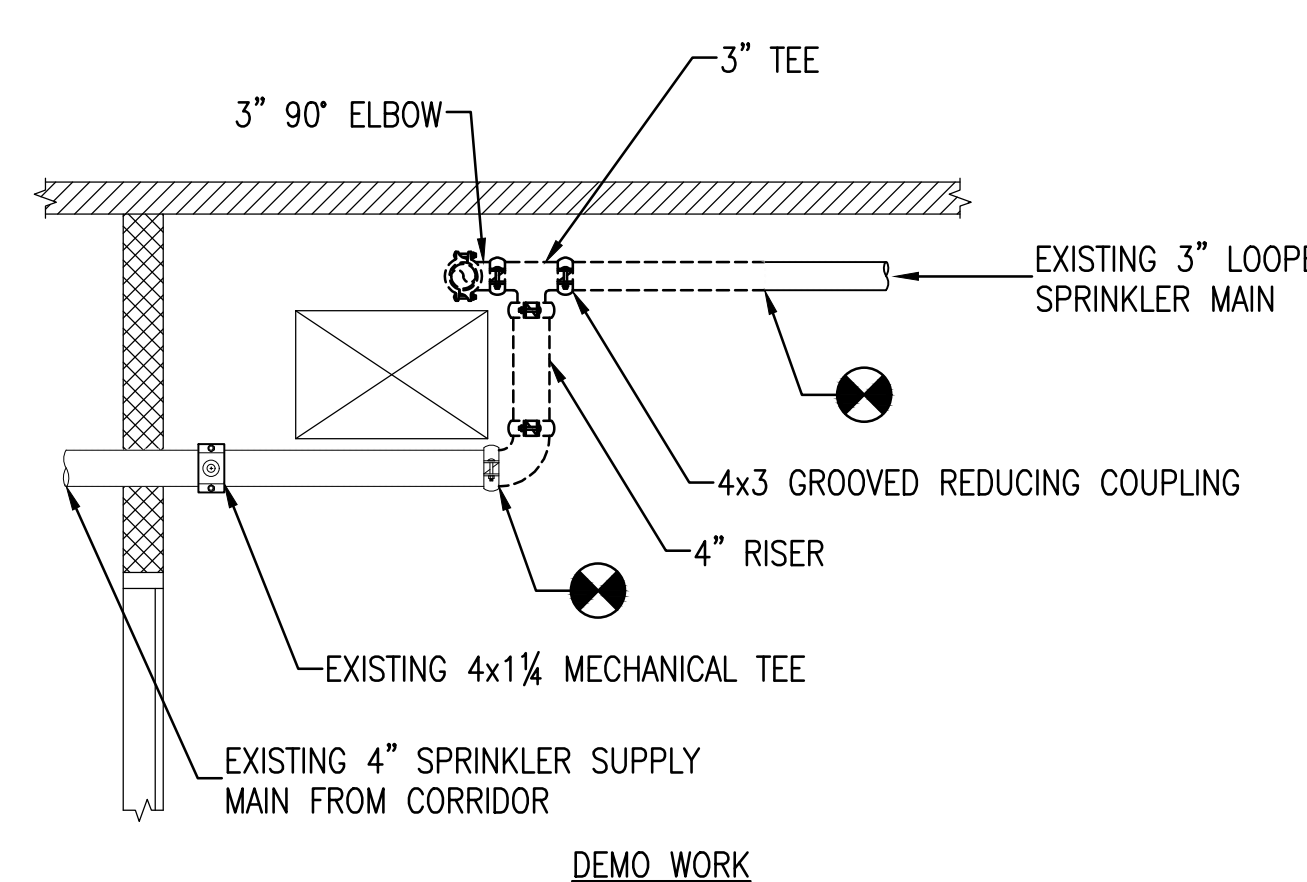
**PANDA HOUSE PARTIAL FIRST FLOOR PLAN - EXHIBIT 1 DEMO**

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



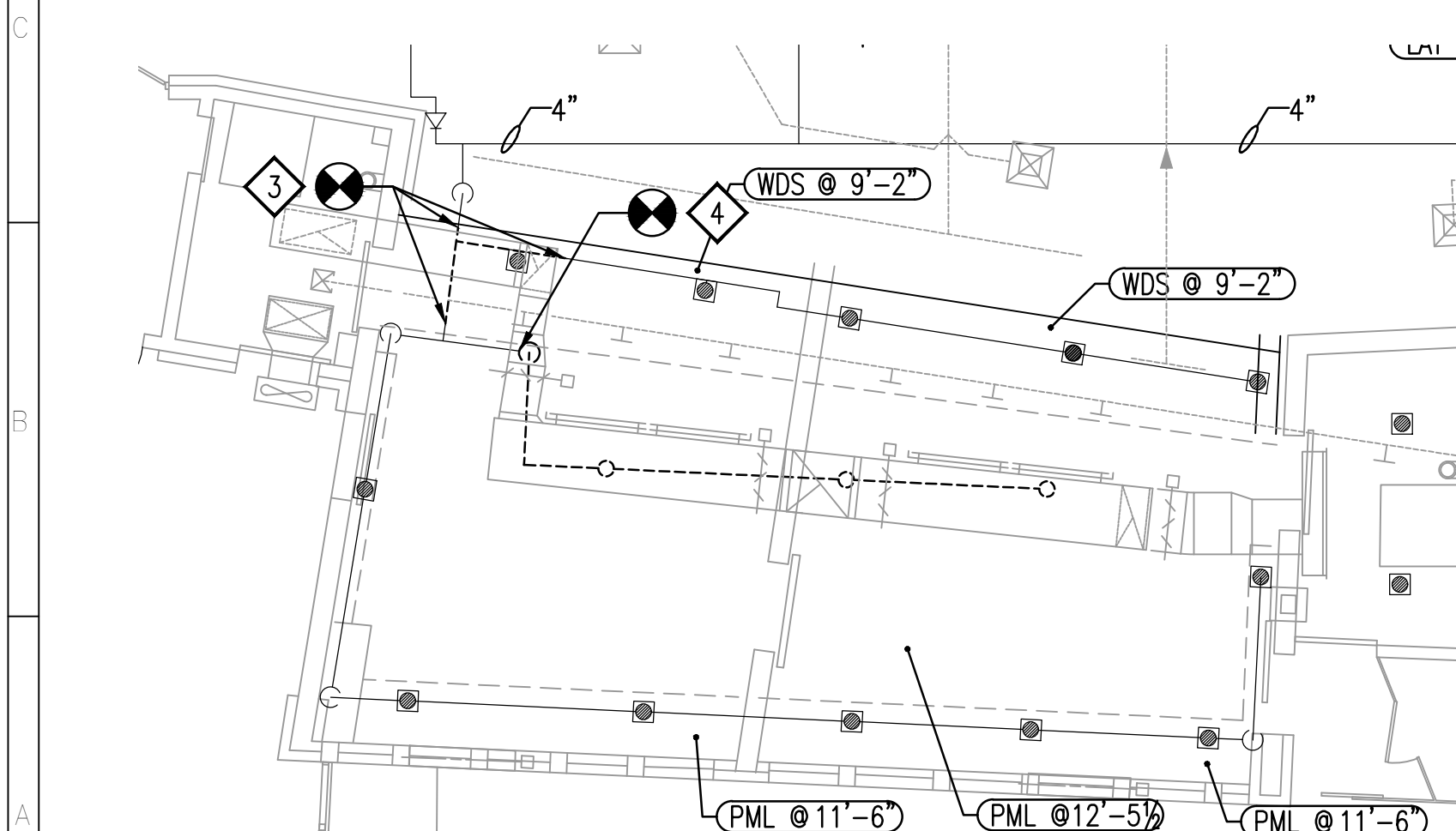
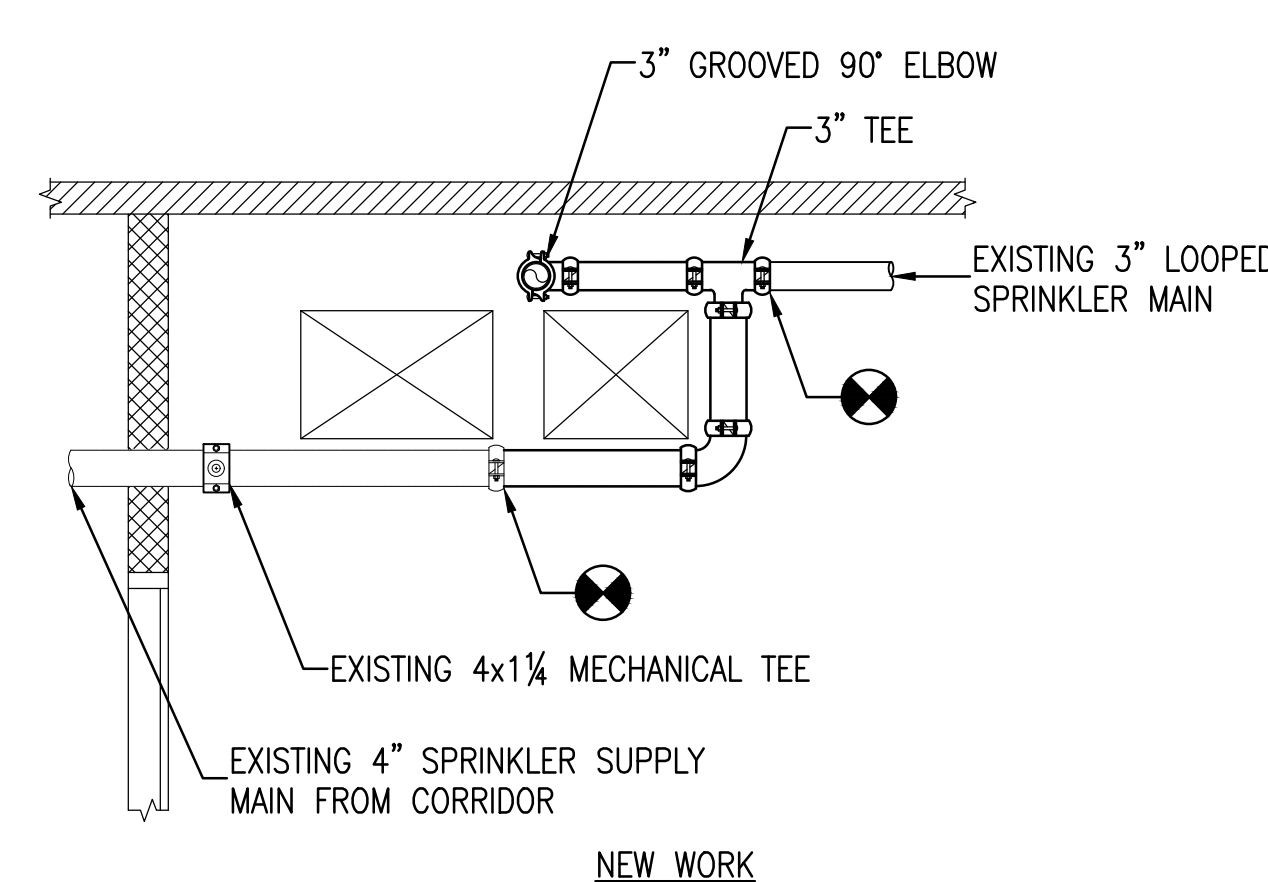
**PANDA HOUSE PARTIAL FIRST FLOOR PLAN - EXHIBIT 4 DEMO**

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



**DETAIL - PIPING CONNECTIONS EXHIBIT #4**

SCALE: 1/2" = 1'-0"



**PANDA HOUSE PARTIAL FIRST FLOOR PLAN - EXHIBIT 2 & 3 DEMO**

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