CADILLAC PLACE 15TH FLOOR - BUILD THREE JUDICIAL SUITES

CADILLAC PLACE
3044 W. GRAND BLVD
DETROIT, MI, 48202

FILE #: 950/22357.MNB

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

ARCHITECT:
G.H. FORBES ASSOCIATES
816 EAST 4TH ST.
ROYAL OAK, MI 48067

MECHANICAL, ELECTRICAL AND PLUMBING:
PETER BASSO ASSOCIATES
5145 LIVERNOIS, SUITE 100
TROY, MICHIGAN 48098

SHEET INDEX

ABBREVIATIONS

A.B.	ANCHOR BOLTS	D.J.	DOOR JAMB	LAM.	LAMINATE	RAD.	RADIUS
A.C.T.	ACOUSTICAL CEILING TILE	DN.	DOWN	LAV.	LAVATORY	R.C.P.	REFLECTED CEILING PLAN
A.C.M.	ASBESTOS CONTAINING MATERIAL	D.O.	DOOR OPENING	LB.	POUND	R	RISER
ADDN.	ADDITIONAL	DR.	DOOR	LEV.	LEVEL	R.D.	ROOF DRAIN
ADJ.	ADJACENT	D.S.	DOWN SPOUT	L.F.	LINEAR FEET	RTU	ROOF TOP UNIT
A.F.F.	ABOVE FINISHED FLOOR	DWG.	DRAWING	LG.	LONG	REF.	REFERENCE
A.F.G.	ABOVE FINISHED GRADE	DWL.	DOWEL	LGTH.	LENGTH	REFL.	REFLECTED
A.H.J.	AUTHORITY HAVING JURISDICTION	EA.	EACH	L.H.	LOUVER HEAD	REINF.	REINFORCEMENT
A.H.U.	AIR HANDLING UNIT	E.J.	EXPANSION JOINT	L.J.	LOUVER JAMB	REM.	REMOVABLE
ALT.	ALTERNATE	EL.	ELEVATION	L.L.	LIVE LOAD	REQD.	REQUIRED
ANCH.	ANCHOR	ELEC.	ELECTRICAL	LLH	LONG LEG HORIZONTAL	R.R.	RAILROAD
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE	EMB.	EMBEDMENT	LLV	LONG LEG VERTICAL	RM.	ROOM
A.P.	ACCESS PANEL	EQ.	EQUAL	L.O.	LOUVER OPENING	SCHED.	SCHEDULE
APPROX.	APPROXIMATE	EQUIP.	EQUIPMENT	L.P.	LOW POINT	SECT.	SECTION
ARCH.	ARCHITECT, ARCHITECTURAL	EQUIV.	EQUIVALENT	L.S.	LOUVER SILL	S.F.	SQUARE FEET
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS	E.W.	EACH WAY	LVR.	LOUVER	SGL.	SINGLE
B.A.S.	BUILDING AUTOMATION SYSTEM	EXC.	EXCAVATED	M	METER	SHT.	SHEET
B/B	BACK TO BACK	EXP.	EXPANSION	MACH.	MACHINE	SIM.	SIMILAR
B.C.	BOTTOM CHORD	EXP.B.	EXPANSION BOLT	MAINT.	MAINTENANCE	SP.	SPACE
B.E.	BOTTOM ELEVATION	EXIST./(E)	EXISTING	MAS.	MASONRY	SPEC.	SPECIFICATIONS
BET.	BETWEEN	EXT.	EXTERIOR	MAX.	MAXIMUM	SQ.	SQUARE
B.F.	BARRIER FREE	F/F	FACE TO FACE	MECH.	MECHANICAL	S.S.	STAINLESS STEEL
B.F.F	BELOW FINISHED FLOOR	F.D.	FLOOR DRAIN	MET.	METAL	SSTL.	STRUCTURAL STEEL
BLDG.	BUILDING	FDN.	FOUNDATION	MEZZ.	MEZZANINE	STAGG.	STAGGERED
BLK.	BLOCK	F.F.E.	FINISH FLOOR ELEVATION	MFR.	MANUFACTURER	STD.	STANDARD
BM.	BEAM	FIN.	FINISH, FINISHED	M.I.	MISCELLANEOUS IRON	STIFF.	STIFFENER
B.O.S.	BOTTOM OF STEEL	FL.	FLOOR	MIN.	MINIMUM	STL.	STEEL
BOTT.	BOTTOM	F.S.	FAR SIDE	MISC.	MISCELLANEOUS	STL. PL.	STEEL PLATE
BRCG.	BRACING	FT.	FEET	MM.	MILLIMETER	STRUCT.	STRUCTURAL
BRG.	BEARING	FTG.	FOOTING	M.O.	MASONRY OPENING	SUPP.	SUPPORT
BRKT.	BRACKET	FUT.	FUTURE	M.R.A.C.T.	MOISTURE RESISTANT	SURF.	SURFACE
BSMT.	BASEMENT	GA.	GAGE	M.T.	METRIC TON	SYM.	SYMMETRICAL
BULL.	BULLETIN	GALV.	GALVANIZED	N.I.C.	NOT IN CONTRACT	T	TREAD
C.	CHANNEL	G.C.	GENERAL CONTRACTOR	NO.	NUMBER	T&B	TOP AND BOTTOM
C/C	CENTER TO CENTER	GEN.	GENERAL	NOM.	NOMINAL	T.C.	TOP CHORD
CERT.	CERTIFIED	G.L.	GIRT LINE	N.S.	NEAR SIDE	T/E	TOP OF EAVE OR PARAPET STEEL
C.G.	CORNER GUARD	GRAT.	GRATING	N.T.S	NOT TO SCALE	TEMP.	TEMPERATURE, TEMPORARY
CHKD. PL.	CHECKERED PLATE	GRT.	GROUT	O/O	OUT TO OUT	THD.	THREAD
C.J.	CONSTRUCTION/CONTROL JOINT	GWB.	GYPSUM WALL BOARD	O.D.	OUTSIDE DIAMETER	THK.	THICKNESS
C.L.	CENTER LINE	GYP. BD.	GYPSUM BOARD	OHD.	OVERHEAD	T.L.	TOTAL LOAD
CLG.	CEILING	H.	HIGH	OPNG.	OPENING	T/M	TOP OF MASONRY
CLR.	CLEAR	HGR.	HANGER	OPP.	OPPOSITE	T.O.F.	TOP OF FOOTING
CM.	CENTIMETER	HM.	HOLLOW METAL	OPP. HD.	OPPOSITE HAND	T/STL.	TOP OF STEEL
C.M.U.	CONCRETE MASONRY UNIT	HT.	HEIGHT	P-LAM	PLASTIC LAMINATE	T/S	TOP OF SLAB
CNVR.	CONVEYOR	HORIZ.	HORIZONTAL	PAR.	PARALLEL	TYP.	TYPICAL
COL.	COLUMN	H.P.	HIGH POINT	PC.	PIECE	U/S	UNDERSIDE
CONN.	CONNECT/CONNECTION	H.R.	HANDRAIL	P/C	PRECAST	U.N.O.	UNLESS NOTED OTHERWISE
CONSTR.	CONSTRUCTION	H.S.	HIGH STRENGTH	P.C.F.	POUNDS PER CUBIC FOOT	VERT.	VERTICAL
CONT.	CONTINUATION/CONTINUOUS	I.D.	INSIDE DIAMETER	PEN.	PENETRATION	V.C.T.	VINYL COMPOSITE TILE
CONTR.	CONTRACTOR	I.E.	INVERT ELEVATION	PH.	PHASE	W/	WITH
COV.	COVER	IN.	INCHES	PL.	PLATE	W/O	WITHOUT
CTR.	CENTER	INCL.	INCLUDE, INCLUDING	PLWD.	PLYWOOD	WD.	WOOD
DEG.	DEGREE	INFO.	INFORMATION	PREFAB.	PREFABRICATION	W.H.	WINDOW HEAD
DEMO	DEMOLITION	J.C.	JANITOR'S CLOSET	PROJ.	PROJECT, PROJECTION	W.J.	WINDOW JAMB
DET.	DETAIL	JT.	JOINT	P.S.F.	POUNDS PER SQUARE FOOT	W.O.	WINDOW OPENING
D.H.	DOOR HEADER	K.B.	KNEE BRACE	P.S.I.	POUNDS PER SQUARE INCH	WPT.	WORKING POINT
DIA.	DIAMETER	K.O.P.	KNOCK OUT PANEL	PT.	POINT	W.S.	WATER STOP
DIAG.	DIAGONAL	K.P.	KICK PLATE	QTY.	QUANTITY	WT.	WEIGHT
DIM.	DIMENSION	L.	LENGTH			YD.	YARD
		LAD.	LADDER			ZC.	ZINC COATED

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES ARCHITECTURE + INTERIORS
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.ghfaa.com

PROJECT	CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES
DESIGNED	
DRAWN	DEJ/DT
CHECKED	TDS/SWG
APPROVED	SWG
DATE	12/20/2024
ISSUED FOR	CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y230138 FILE NO. 950/22357
SHEET NUMBER	1 OF 35
DRAWING TITLE	TITLE SHEET
DRAWING NUMBER	G-001

OWNER'S REPRESENTATIVE

RUSSEL RUDD
FINANCE DIRECTOR
MICHIGAN COURT OF APPEALS
PH: (517)–373–5979
EMAIL: RRUDD@COURTS.MI.GOV

PROJECT DIRECTOR

MUSTAFA (CHRIS) BAHJET
MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION, DESIGN AND CONSTRUCTION DIVISION
3044 W. GRAND BLVD
SUITE L–100
DETROIT, MI, 48202

PH: (517)–749–7519
EMAIL: BAHJETC@MICHIGAN.GOV

ARCHITECT

G.H. FORBES ASSOCIATES
816 EAST 4TH ST.
ROYAL OAK, MI 48067
MRS. THERESA SCHERWITZ
LICENSE NUMBER IN MICHIGAN: 1301059775
PH: (248) 542–7866

ARCHITECT LISTED ABOVE SERVES AS DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE

PROVIDE COMMENTS/QUESTIONS IN WRITING TO THE ARCHITECT AND THE PROJECT DIRECTOR

CONSULTING ENGINEERS

MECHANICAL/ ELECTRICAL:
PETER BASSO ASSOCIATES, INC.
5145 LIVERNOIS
SUITE 100
TROY, MI 48098–3276

PROJECT DESCRIPTION

THIS PROJECT INCLUDES THE DEMOLITION OF AN EXISTING OFFICE SPACE BUILT OUT IN 2013 AND CONSTRUCTION OF (3) NEW JUDGES SUITES. TWO SUITES WILL SHARE A WING OF THE BUILDING WHILE THE THIRD SUITE IS TO BE CONSTRUCTED IN THE SPLINE OF THE BUILDING. EACH JUDGES SUITE WILL INCLUDE OFFICE SPACE APPROXIMATELY 4 EMPLOYEES INCLUDING THE JUDGES.

APPLICABLE CODES

- 2015 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS – LEVEL 2
- 2015 MICHIGAN MECHANICAL CODE
- 2017 MICHIGAN ELECTRICAL CODE
- 2018 MICHIGAN PLUMBING CODE
- 2015 MICHIGAN ENERGY CODE
- ARCHITECTURAL WOODWOOK STANDARDS (AWS), 2ND EDITION
- ANSI 117.1 – 2009

DEFERRED SUBMITTALS

TO BE DESIGNED AND SUBMITTED BY GENERAL CONTRACTOR

- FIRE ALARM SYSTEM
- FIRE SUPPRESSION SYSTEM
- FLAME SPREAD & SMOKE DEVELOPMENT OF ALL INTERIOR FINISHES

BUILDING DESCRIPTION

NUMBER OF STORIES: MAIN BUILDING FIFTEEN
THE ANNEX PORTION OF THE BUILDING IS FIVE STORIES
FUNCTION: THE FACILITY INCLUDES OFFICE SPACE FOR MANY OF THE STATE AGENCIES, MICHIGAN COURT OF APPEALS AND RETAIL SPACES ON THE FIRST FLOOR.
THE PROJECT AREA IS LOCATED ON THE FIRST FLOOR OF THE MAIN BUILDING
FIRE ALARM AND FIRE SUPPRESSION IS PRESENT THROUGHOUT THE BUILDING.

AREA:

TOTAL BUILDING:
USEABLE: 901,056 SF
COMMON: 438,620 SF
RENTABLE: 1,339,676 SF

AREA OF RENOVATION: 5,158 SF
PERCENTAGE OF USEABLE AREA; 5,158 / 901,056 = 0.6%

TOTAL BUILDING HEIGHT:

220' +/– FROM GRADE TO ROOF

CONSTRUCTION OF BUILDING:

BUILDING STRUCTURE: CONCRETE
EXTERIOR WALL: CONCRETE AND LIMESTONE
TYPE OF CONSTRUCTION: TYPE IB

UTILITIES

ALL UTILITIES WILL REMAIN THE SAME INCLUDING POWER, WATER, GAS, SANITARY SEWER AND STORM SEWER.

OCCUPANCY CALCULATIONS

AREA #1
JUDGES SUITE #1:.....1,352 SF
JUDGES SUITE #2:.....1,352 SF
COMMON AREA:.....1,114 SF

TOTAL AREA 1:.....3,818 SF/ 100 = 38 OCCUPANTS (CALCULATED)

AREA #2
JUDGES SUITE #3:.....1,340 SF

TOTAL AREA 2:.....1,340 SF/ 100 = 14 OCCUPANTS (CALCULATED)

REQUIRED NUMBER OF EXITS CALCULATION:

AREA #1	
GROSS AREA:	3,818 SF
BUSINESS USE GROUP FACTOR:	100 GROSS
CALCULATED OCCUPANT LOAD:	38 PERSONS
ACTUAL OCCUPANT LOAD:	12 +/– PERSONS
NUMBER OF EXITS PROVIDED:	1 (COMPLIES WITH NFPA 101–7.4.1.1)

AREA #2	
GROSS AREA:	1,340 SF
BUSINESS USE GROUP FACTOR:	100 GROSS
CALCULATED OCCUPANT LOAD:	14 PERSONS
ACTUAL OCCUPANT LOAD:	12 +/– PERSONS
NUMBER OF EXITS PROVIDED:	1 (COMPLIES WITH NFPA 101–7.4.1.1)

EGRESS REQUIREMENTS

EGRESS WIDTH PER MBC 1005.1
REQUIRED EXIT WIDTH PER OCCUPANT =0.2"
AREA #1
38 OCCUPANTS X 0.2" = 7.6" COMPLIES – ONE EXIT PROVIDED TOTALING 36" EXIT WIDTH.

AREA #2
14 OCCUPANTS X 0.2" = 2.8" COMPLIES – ONE EXIT PROVIDED TOTALING 36" EXIT WIDTH.

MINIMUM NUMBER OF EXITS:
(1) EXITS ARE REQUIRED PER MBC TABLE 1006.3.1 – COMPLIES – SEE SAFETY PLAN

MAXIMUM LENGTH OF EXIT ACCESS TRAVEL DISTANCE PER MBC TABLE 1017.2
B = 300 FEET WITH SPRINKLERS

MAXIMUM LENGTH OF COMMON PATH OF TRAVEL DISTANCE IS 100 FEET (WITH SPRINKLERS) PER MBC 1006.2.1 – MRCEB 805.2 EXCEPTION 1 REFERENCED NFPA 101 39.2.5.3.2 COMMON PATH OF TRAVEL SHALL NOT BE LIMITED IN A SINGLE–TENANT SPACE WITH AN OCCUPANT LOAD NOT EXCEEDING 30 PEOPLE.

DEAD END CORRIDOR MAXIMUM LIMIT IS 50 FEET (WITH SPRINKLERS) PER MBC 1020.4 (WHEN 2 EXIT ARE REQUIRED) – COMPLIES – SEE SAFETY PLAN

EXIT DISTANCES

POINT #1:
TOTAL EXIT TRAVEL DISTANCE: 145' TO STAIR 1 (COMPLIES)
[REFER TO GEN. NOTE 1] 247' TO STAIR 2 (COMPLIES)

COMMON PATH OF TRAVEL
TO POINT #2: 138' (COMPLIES – MRCEB 805.2 EXCEPTION1)

TO SUITE EXIT #1: 95'

POINT #3:
TOTAL EXIT TRAVEL DISTANCE: 140' TO STAIR 1 (COMPLIES)
[REFER TO GEN. NOTE 1] 100' TO STAIR 2 (COMPLIES)

COMMON PATH OF TRAVEL
TO POINT #4: 66' (COMPLIES)

TO SUITE EXIT #2: 63'

GENERAL NOTES

1. ****** THERE ARE KNOWN HAZARDOUS MATERIALS WITHIN THE PROJECT AREA. REFER TO THE PRE–ALTERATION ASSESSMENT AND HAZARDOUS MATERIALS REPORT IN THE SPECIFICATIONS. IF THE CONTRACTOR ENCOUNTERS SUSPICIOUS MATERIALS NOTIFY THE ARCHITECT AND STATE IMMEDIATELY. ******
2. REFER TO SPECIFICATION SECTION 00800 MICHSPEC APPENDIX II "ASBESTOS ABATEMENT PROCEDURES", 02 80 00 "HAZARDOUS MATERIALS REMEDIATION", 02 82 00 "ASBESTOS REMEDIATION", AND 02 83 00 "LEAD PAINT REMEDIATION" THE REQUIREMENTS IN THESE SECTIONS INCLUDE FOLLOWING ALL STATE AND LOCAL REGULATIONS WHICH MAY OR MAY NOT INCLUDE AIR MONITORING BY A THIRD PARTY ASBESTOS CONSULTANT.
3. THE EXISTING LAY IN TILE CEILING IS NOT KNOWN TO BE CONTAMINATED WITH ASBESTOS DEBRIS BASED ON THE SURVEY PERFORMED BY WEC. THE OBSERVED ASBESTOS CONTAINING GLUE PODS AND PIPE INSULATION IN THE WORK AREA APPEAR TO BE INTACT WITH NO FALLEN DEBRIS. (REFER TO APPENDIX 1)
4. SEE TITLE SHEET FOR LIST OF ABBREVIATIONS.
5. DRAWINGS ARE NOT TO BE SCALED FOR ANY DIMENSIONS.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND RELATED INSPECTIONS. INCLUDE ALL ASSOCIATED COSTS IN THE PROPOSAL.
7. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. ALL EXISTING CONDITIONS ARE TO BE FIELD VERIFIED BY THE G.C. AND ANY DISCREPANCIES BROUGHT TO THE ARCHITECTS ATTENTION.
8. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR TO VERIFY CONDITION OF EXISTING CONSTRUCTION. DOCUMENT ANY EXISTING CONDITION THAT COULD BE MISCONSTRUED AS DAMAGED DURING NEW CONSTRUCTION. NOTIFY THE GOVERNMENT OF EXISTING CONDITIONS IN WRITING PRIOR TO THE COMMENCEMENT OF WORK.
9. REMOVE ALL POWER & DATA INCLUDING TELEPHONE AND ALL FLOOR MONUMENTS INCLUDING WIRING TO SOURCE. ALL ELECTRICAL OUTLETS TO REMAIN ON COLUMNS. IF COLUMNS ARE FURRED OUT, EXISTING ELECTRICAL IS TO EXTEND TO NEW FACE – TYPICAL. CONFIRM USAGE OF EXISTING TELEDATA WIRING WITH GOVERNMENT REPRESENTATIVE. TEST WIRES AT GOVERNMENT DIRECTION PRIOR TO REMOVAL.
10. PATCH & REPAIR FLOOR SLAB AND PLASTER WALLS AS REQUIRED TO PROVIDE A SMOOTH, EVEN FINISH SUITABLE FOR THE APPLICATION OF SPECIFIED FINISHES. WHERE ELECTRICAL AND TEMPERATURE CONTROL DEVICES ARE TO BE REMOVED FROM COLUMNS OR WALLS, REMOVE WIRING TO SOURCE. IF TEMPERATURE CONTROL DEVICES ARE PNEUMATIC, REMOVE LINE BACK TO ¾" MAIN LINE OR UNTIL LINE IS SHARED BY AN OPERATING TEMPERATURE CONTROL DEVICE OUTSIDE THE CONTRACT LIMITS. PATCH WALL WHERE DEVICES ARE REMOVED.
11. ITEMS TO BE RELOCATED SHALL BE REMOVED, STORED, CLEANED AND REINSTALLED BY THE CONTRACTOR. COORDINATE WITH SPECIFICATIONS.
12. ITEMS NOTED AS BEING REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR.
13. COORDINATE DEMOLITION WITH MECHANICAL AND ELECTRICAL DRAWINGS.
14. LIGHT FIXTURES TO BE REMOVED SHALL INCLUDE ASSOCIATED WIRING, CONDUITS AND BOXES TO SOURCE. COORDINATE WITH ADJACENT OFFICE SPACES SUCH THAT THEIR LIGHT FIXTURES REMAIN OPERATIONAL.
15. THE TERM "CONTRACT LIMITS" IS INTENDED ONLY TO PROVIDE A GENERAL AREA OF WHERE THE WORK IS TO OCCUR. WORK AS DESCRIBED IN THE DOCUMENTS, WILL NEED TO OCCUR OUTSIDE OF THE CONTRACT LIMITS FOR A COMPLETE PROJECT.
16. PATCH AND REPAIR WHERE EXISTING ITEMS (I.E. PLUMBING/MECHANICAL FIXTURES, RECEPTACLES) ARE TO BE REMOVED FROM WALLS OR FLOORS. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS.
17. 8'–5" CEILING HEIGHT U.N.O. FLOOR TO FLOOR HEIGHT IS TYPICALLY 12'–6" +/– TO UNDERSIDE OF CONCRETE DECK. ORGINAL PLASTER CEILING REMIANS AT APPROX. 10'–8" +/– AFF.
18. FIRE SPRINKLERS TO BE MODIFIED IN ORDER TO COVER NEW LAYOUT PER THE APPROPRIATE CODE JURISDICTION. MAINTAIN THESE SYSTEMS AS FULLY OPERATIONAL FOR THE ADJACENT OCCUPIED SPACES.
19. EXISTING INTERIOR PARTITIONS ARE TYPICALLY METAL STUD WALLS U.N.O.
20. EXISTING BUILDING UTILITY CLOSET WALLS ARE CONCRETE BLOCK TO DECK.
21. MAINTAIN ALL PATHS OF EGRESS FROM CONSTRUCTION SPACE AND FROM ADJACENT OCCUPIED SPACES CLEAR OF DEBRIS, MATERIALS AND EQUIPMENT.
22. WHERE EXISTING CEILING TO REMAIN MEETS EXISTING CEILING TO BE DEMOLISHED CUT AND REBUILD GRID TO ALIGN WITH THE NEW WALL. PROVIDE COMPLETE, FINISHED APPEARANCE OUTSIDE OF PROJECT AREA.
23. CONTRACTOR TO PROVIDE CONSTRUCTION SIGNAGE, DUST PROTECTION/BARRIER, AND FLOOR PROTECTION OUTSIDE OF THE PROJECT AREA AS IT IMPACTS PUBLIC CORRIDORS, ELEVATOR LOBBIES, ETC.
24. ALL WORK MUST COMPLY WITH THE DRAWINGS AND SPECIFICATIONS. ANY REVISIONS REQUIRED DUE TO FIELD CONDITIONS MUST BE REVIEWED AND APPROVED BY DTMB PRIOR TO CONSTRUCTION.
25. THE G.C. SHALL BE RESPONSIBLE FOR MAINTAINING THE SAFETY AND HEALTH OF ALL BUILDING OCCUPANTS AT ALL TIMES. CONTRACTORS TO WEAR PROPER PPE AT ALL TIMES AND OBSERVE PRECAUTIONS RELATED TO COVID–19.
26. ALL EXISTING BUILDING FURNISHINGS/CONTENTS ARE TO BE PROTECTED FROM DAMAGE DURING THE ENTIRE PROJECT. THE G.C. WILL BE RESPONSIBLE FOR ANY DAMAGES THAT DO OCCUR.
27. THE INTERIOR OF THE BUILDING IS TO BE MAINTAINED IN A CLEAN CONDITION. DUST AND DIRT ASSOCIATED WITH THE PROJECT ACCUMULATING ON EXISTING FURNISHINGS, CONTENTS, AND BUILDING WALLS AND FLOORS SHALL BE REMOVED DAILY.
28. ALL PARTITIONS TO BE CONSTRUCTED OF NON COMBUSTIBLE MATERIALS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, LATEST EDITION.
29. FLAME SPREAD RATINGS: ALL MATERIALS USED FOR INTERIOR WALLS, CEILING AND FLOORS SHALL BE RATED PER NFPA 101, LIFE SAFETY CODE 2021.
    A. STAIRWAYS, LOBBIES AND PUBLIC CORRIDORS: CLASS 0–25
    B. INTERIOR OFFICES AND SPACES: CLASS 25–75
27. ALL EXIT DOORS TO BE KEYLESS IN THE DIRECTION OF EGRESS PER NFPA 101, LIFE SAFETY CODE, LATEST EDITION.
28. WHERE NEW CONSTRUCTION ABUTS EXISTING CONSTRUCTION AND APPEARS TO ALIGN FLUSH WITH EXISTING CONSTRUCTION, THE NEW CONSTRUCTION SHALL ALIGN AND BE FLUSH WITH NO VISIBLE JOINT.
29. ALL PARTITIONS THAT APPEAR TO HAVE THE SAME CENTERLINE WITH COLUMN ENCLOSURES, WINDOW MULLION OR PILASTERS SHALL BE ERECTED CENTERED ON THESE RESPECTIVE CENTERLINES U.N.O.
30. ALL VERTICAL DIMENSIONS SHOWN FOR NEW CONSTRUCTION ARE FROM THE TOP OF FINISH FLOOR (AFF). G.C TO VERIFY DIMENSIONAL THICKNESS OF ALL FLOOR FINISHES.
31. WALLS TO STRUCTURAL DECK SHALL FOLLOW DECK AND BEAM PROFILE.
32. ALL ROUGH FRAMING WOOD (E.G. PLYWOOD ETC.) BEING INSTALLED SHALL BE TREATED WITH FIRE–RETARDANT CHEMICALS BY A PRESSURE–IMPREGNATION PROCESS OR OTHER METHODS WHICH TREAT THE MATERIAL THROUGHOUT (AS OPPOSED TO A SURFACE TREATMENT) TO MAKE IT FIRE SAFE.
33. 'EXIT' SIGNAGE AND EMERGENCY LIGHTING SHALL MEET THE REQUIREMENTS OF NFPA 101, LIFE SAFETY CODE, LATEST EDITION. ALL 'EXIT' SIGNAGE AND EMERGENCY LIGHTING MUST REMAIN OPERATIONAL DURING CONSTRUCTION.
34. ALL EXISTING AND NEW CONDUIT AND PIPE PENETRATIONS IN ACOUSTICAL WALLS SHALL BE SEALED. ALL EXISTING AND NEW PENETRATIONS IN FIRE RATED WALLS AND IN ALL FLOORS SHALL BE FIRE STOPPED. PROVIDE FLOOR–TO–FLOOR FIRESTOPPING AT ANY VERTICAL PIPING OR CONDUIT PENETRATIONS WHICH ARE EXPOSED IN THE COURSE OF THIS RENOVATION WORK. NEW PENETRATIONS MUST MATCH OR EXCEED ORIGINAL PENETRATION RATINGS.
35. PARTITION TYPES ARE DETAILED ON SHEET A–501.
36. RELOCATE CONDUITS, SPRINKLERS/ LINES, ETC. TO ACCOMMODATE LIGHT FIXTURES, HVAC ACCESSORIES AND VARIOUS DEVICES.
37. ALL WALL MOUNTED DEVICES SHALL BE FULLY CONCEALED EXCEPT WHERE MOUNTED ON EXISTING WALLS.
38. PROVIDE ESCUTCHEONS FOR ALL VISIBLE FLOOR AND WALL PENETRATIONS.
39. ALL SPRINKLER SYSTEM MODIFICATIONS SHALL BE IN ACCORDANCE WITH SECTION 21 13 15. EXACT QUANTITIES AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE GOVERNMENT.
40. ALL SPRINKLER EQUIPMENT (E.G. PIPING, SPRINKLERS, ETC.) OUTSIDE THE AREA BEING RENOVATED SHALL REMAIN ACTIVE AT ALL TIMES (EXCEPT FOR CAPPING THE MAIN PIPE OR PIPES THAT FEED THE AREA TO BE RENOVATED). THE WORK SHALL BE RESTORED TO A FULLY OPERATING CONDITION PRIOR TO THE CONTRACTOR LEAVING THE WORK SITE EACH DAY. ALL SPRINKLER EQUIPMENT IN THE RENOVATED SPACE CAN BE TAKEN OUT OF SERVICE WHILE WORK IS BEING ACCOMPLISHED EACH DAY, BUT SHALL BE RESTORED TO FULLY OPERATION BEFORE THE CONTRACTOR VACATES THE WORK SITE EACH DAY.
41. ALL FIRE ALARM SYSTEM MODIFICATIONS SHALL BE IN ACCORDANCE WITH SECTION 28 31 04. EXISTING FIRE ALARM EQUIPMENT IN RENOVATED SPACE AND ADJACENT SPACES SHALL REMAIN FULLY OPERATIONAL THROUGHOUT CONSTRUCTION.
42. ALL NOISY AND/OR DISRUPTIVE WORK IS TO BE PERFORMED AFTER HOURS. COORDINATE SCHEDULE OF WORK WITH PROPERTY MANAGEMENT AND THE AGENCY.
43. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH SECURITY AND ALL PROPERTY MANAGEMENT SUBCONTRACTORS.
44. THE CONTRACTOR IS RESPONSIBLE TO PAY FOR ALL BUILDING O+M CONTRACTOR FEES REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT.
45. THE CONTRACTOR SHALL PROVIDE 2–WEEKS NOTICE FOR ANY AFTER HOURS WORK TO ALLOW DTMB AND TENANT TO COORDINATE SECURITY PERSONNEL.
46. CONSTRUCT TEMPORARY BARRIER AROUND CONSTRUCTION AREA PRIOR TO DEMOLITION TO CONTAIN DUST AND DEMOLISHED MATERIALS. MAINTAIN ALL EGRESS PATHS.
47. THE EXISTING ROOF IS NOT UNDER WARRANTY.
48. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION OF EXISTING FINISHES.
49. ALL NON–BUILT–IN FURNITURE, E.G. DESKS, TABLES AND CHAIRS WHETHER NEW OR EXISTING WILL BE SUPPLIED AND MOVED BY THE COURTS.
50. THE INTERIOR FINISH OF THE EXTERIOR BUILDING WALLS AND THE FINISH ON THE COLUMNS IS TYPICALLY CEMENTITIOUS PLASTER. INTERIOR PARTITIONS ARE TYPICALLY GYPSUM BOARD.
51. THERE IS A 10'–8" CLEARANCE LIMITATION IN THE LOADING DOCK FOR DELIVERY TRUCKS. ALL DELIVERIES OVER THIS HEIGHT ARE TO BE MADE FROM THE STREET LEVEL ON THE 2ND AVENUE SIDE. DTMB WILL ASSIST WITH THE UNLOADING MATERIAL WITH THEIR LIFT TRUCK AND TAKE TO THE CONCOURSE LEVEL. FROM THERE CONTRACTORS WILL BRING MATERIALS TO THEIR WORK SITE. PREFERRED TIMES FOR DELIVERIES IS MONDAY–FRIDAY 7AM–2:00PM.
52. NORMAL BUSINESS HOURS FOR THE WORK AREA IS MONDAY THROUGH FRIDAY 7:00 AM – 5:00 PM. PER SPECIFICATION SECTION 01 50 00 "TEMPORARY FACILITIES AND CONTROLS," RESTRICT THE USE OF NOISE MAKING TOOLS AND EQUIPMENT TO HOURS THAT WILL MINIMIZE THE COMPLAINTS FROM PERSONS NEAR THE SITE. IT IS ANTICIPATED THAT THIS WILL INCLUDE TALKS LIKE CORE DRILLING THROUGH THE SLAB.
53. THE TENANT (COURTS) WILL BE INSTALLING THE TELECOMMUNICATION SYSTEMS. PER DEMOLITION KEY NOTE A, THE DATA CABLE SHALL BE REMOVED FROM ITS EXISTING FACEPLATE AND NEATLY COILED ABOVE THE CEILING. AVOID CUTTING THE DATA CABLE AT THE TOP OF THE WALL. THE TENANT WILL RE–LAND THIS CABLE AND INSTALL NEW AS REQUIRED. RACEWAYS (E.G. CONDUITS AND BOXES) FOR THE TELECOMMUNICATIONS SYSTEMS IS THE SCOPE.

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT

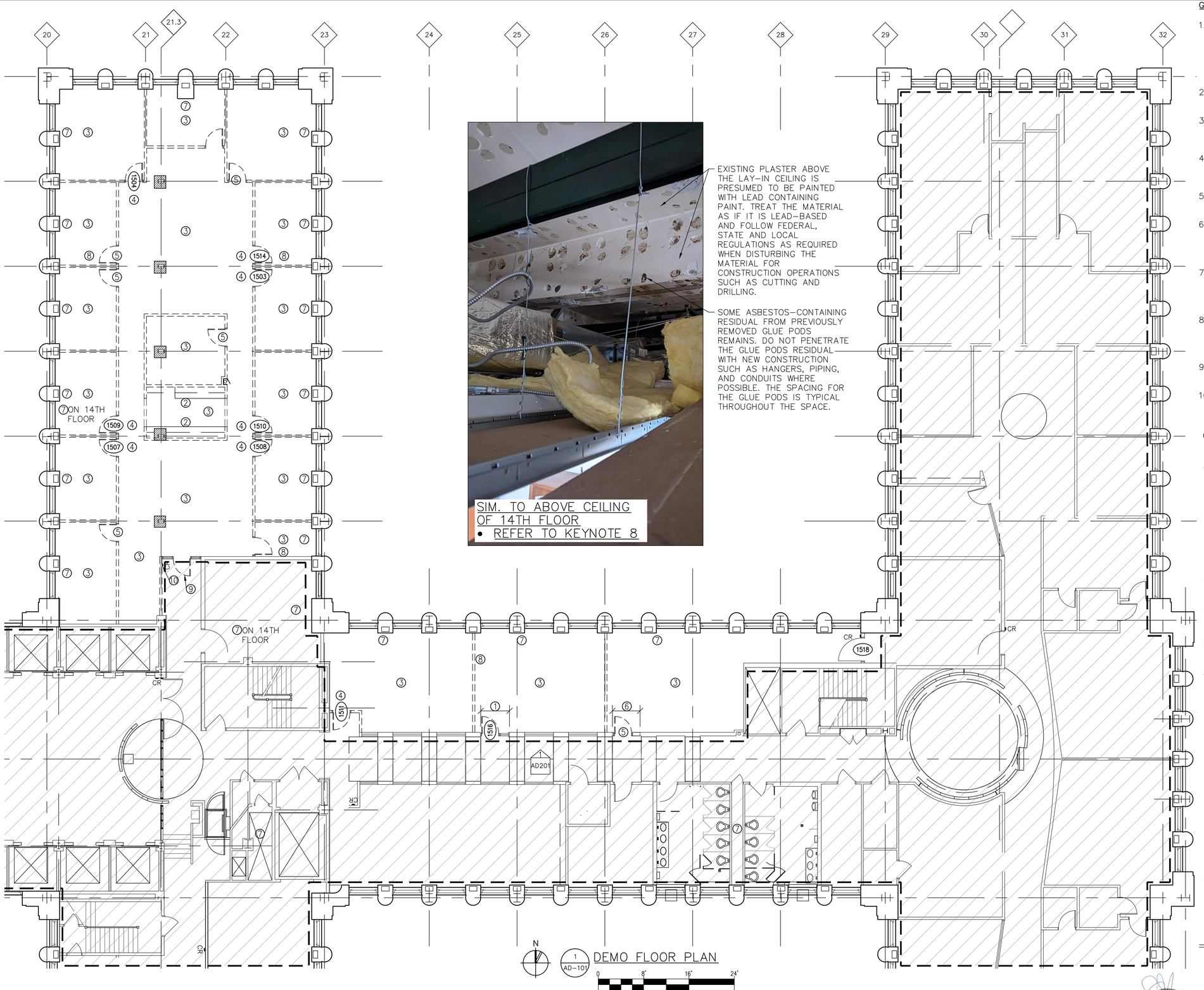
STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES ASSOCIATES ARCHITECTS
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866//www.ghfaa.com

PROJECT	CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES
DESIGNED	
DRAWN	DES/DT
CHECKED	TDS/SWG
APPROVED	SWG
DATE	12/20/2024
ISSUED FOR	CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: 723038 FILE NO. 950/22357
SHEET NUMBER	2 OF 35
DRAWING TITLE	CODE REVIEW
DRAWING NUMBER	G-002

EXISTING PLASTER ABOVE THE LAY–IN CEILING IS PRESUMED TO BE PAINTED WITH LEAD CONTAINING PAINT. TREAT THE MATERIAL AS IF IT IS LEAD–BASED AND FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS AS REQUIRED WHEN DISTURBING THE MATERIAL FOR CONSTRUCTION OPERATIONS SUCH AS CUTTING AND DRILLING.

SOME ASBESTOS–CONTAINING RESIDUAL FROM PREVIOUSLY REMOVED GLUE PODS REMAINS. DO NOT PENETRATE THE GLUE PODS RESIDUAL WITH NEW CONSTRUCTION SUCH AS HANGERS, PIPING, AND CONDUITS WHERE POSSIBLE. THE SPACING FOR THE GLUE PODS IS TYPICAL THROUGHOUT THE SPACE.



1 AD–101 DEMO FLOOR PLAN

SCALE: 1/8"=1'–0"

GENERAL NOTES:

1. THERE AREA KNOWN HAZARDOUS MATERIALS (LEAD BASED PAINT, ASBESTOS, MERCURY, ETC.) WITHIN THE PROJECT AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE HAZARDOUS MATERIALS TESTING REPORTS INCLUDED IN THE SPECIFICATION AND COMPLY WITH APPROPRIATE WORKING PROCEDURES.
2. CONTRACTOR SHALL COMPLY WITH THE GOVERNMENTS RULES AND REGULATIONS.
3. CONTRACTOR SHALL PROTECT ALL EXISTING CONSTRUCTION AND FINISHES TO REMAIN WITHIN THE PREMISES AND IN ADJACENT AREAS.
4. EXISTING FINISHES ON COLUMNS AND CORE WALLS ARE TO REMAIN U.N.O. – REFER TO A–101. PATCH AND REFINISH TO ACCEPT NEW SCHEDULED FINISH.
5. INTERIOR WALLS TO BE REMOVED ARE STEEL STUD AND GYP BD.
6. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. ALL EXISTING CONDITIONS ARE TO BE FIELD VERIFIED BY THE G.C. AND ANY DISCREPANCIES BROUGHT TO THE ARCHITECT'S ATTENTION.
7. THE CONTRACTOR SHALL MAINTAIN EGRESS PATHS FROM CONSTRUCTION SITE AT ALL TIMES. PROVIDE TEMPORARY DOORS AS REQUIRED WHERE DOORS TO GENERAL CORRIDORS ARE NOTED TO BE REPLACED.
8. CONTRACTOR TO PROTECT SIGNAGE, DUST PROTECTION, AND FLOOR PROTECTION AS REQUIRED FROM THE PROJECT AREA THROUGH PUBLIC CORRIDORS AND ELEVATOR LOBBIES TO PROTECT EXISTING FINISHES.
9. REFER TO ED–101 FOR DEMOLITION INSTRUCTIONS REGARDING POWER AND RECEPTACLE.
10. CONTRACTOR TO PROTECT ALL EXISTING WINDOW SHADES DURING CONSTRUCTION.

KEY NOTES:

① REMOVE AND PROTECT DOOR, FRAME, AND SIDELITE IN ORDER TO BE REINSTALLED

② REMOVE BUILT–IN MILLWORK AND APPLIANCES (MINI FRIDGE, SINK, ETC.)

③ REMOVE EXISTING FLOOR FINISHES, VARIES BETWEEN CARPET AND VCT (APPX 5,500 SF). THERE ARE (2) LAYERS OF EXISTING FLOOR LEVELER BELOW THE EXISTING FINISHES. THE INTENT IS TO LEAVE AS MUCH IN TACT AS POSSIBLE AND INSTALL NEW FLOOR LEVELER TO FILL IN GAPS. APPX. 1,400 SF OF LEVELER IS LIKELY NEEDED AT $\frac{1}{8}$"–$\frac{1}{4}$" DEEP.

④ REMOVE AND PROTECT DOOR AND FRAME IN ORDER TO BE REINSTALLED

⑤ SALVAGE DOOR AND FRAME AND TURN OVER TO FACILITIES

⑥ DEMOLISH SECTION OF WALL TO REINSTALL DOOR 1516 AND SIDELITE

⑦ ASBESTOS IS PRESENT IN THE AREA, INCLUDING ACM PIPE INSULATION. HANDLE ASBESTOS IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS. REFER TO THE APPENDIX FOR TEST REPORT FROM 2013.

⑧ CORE FLOOR AS REQUIRED FOR THE INSTALLATION OF NEW PLUMBING WORK. COORDINATE WITH TENANTS ON 14TH FLOOR TO PERFORM NEW WORK BELOW THE 15TH FLOOR SLAB. DEMOLISH EXISTING PLASTER CEILING (PRESUMED TO HAVE LEAD BASED PAINT) ON THE 14TH FLOOR AS REQUIRED TO ACCOMMODATE NEW WORK. THE PLASTER CEILING IS CONCEALED BY A LAY–IN CEILING. PREVIOUSLY REMOVED ASBESTOS CONTAINING GLUE PODS ABOVE THE CEILING HAVE LEFT SOME RESIDUAL A.C.M. CUTTING THE CEILING WILL DISTURB THE ACM GLUE POD RESIDUAL BUT THE CUT CAN BE MADE IN SUCH A MANNER AS TO AVOID CUTTING THROUGH THE RESIDUAL. LESS THAN 1 SQ FT OF ACM WASTE WILL BE GENERATED. CONTRACTOR IS TO FOLLOW APPROPRIATE WORKING PROCEDURES.

⑨ REMOVE DOOR AND SIDELITES, TURN OVER TO THE CLIENT.

⑩ REMOVE CARD READER FROM WALL

LEGEND:

=== DEMO GYPSUM BOARD ON METAL STUD WALL TO PLASTER CEILING

REMOVE DOOR – SALVAGE TAGGED DOORS FOR REINSTALLATION

EXISTING DOOR TO REMAIN

EXISTING WALL

EXISTING GLAZING TO REMAIN

PROJECT AREA NOT WITHIN SCOPE OF PROJECT

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047864
LICENSED ARCHITECT

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES ARCHITECTS ASSOCIATES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.ghfaa.com

PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN DES/DT
CHECKED TDS/SWG
APPROVED SWG

DATE
12/20/2024

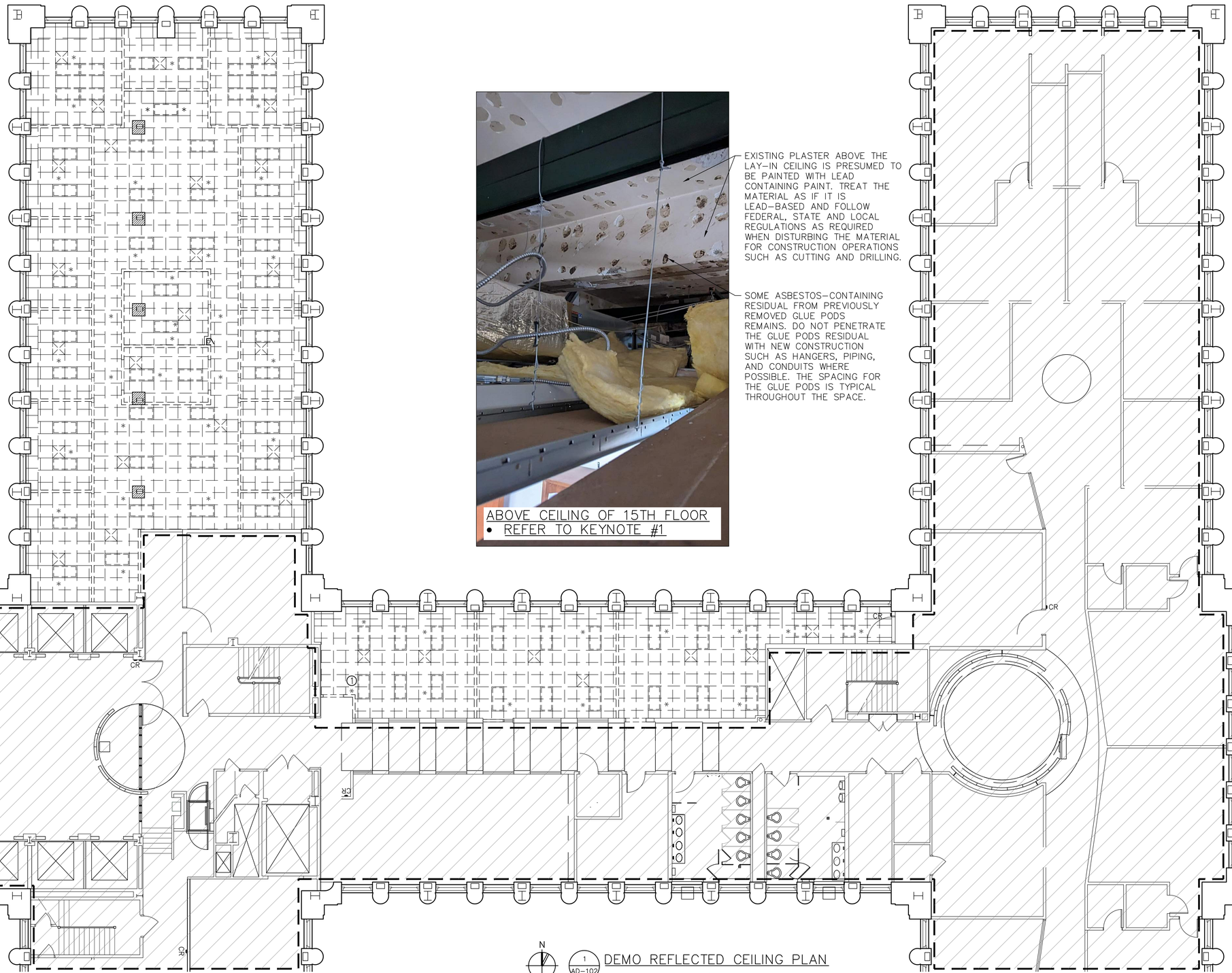
ISSUED FOR
CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/22357

SHEET NUMBER
3 OF 35

DRAWING TITLE
DEMO FLOOR PLAN

DRAWING NUMBER
AD-101



ABOVE CEILING OF 15TH FLOOR
- REFER TO KEYNOTE #1

EXISTING PLASTER ABOVE THE LAY–IN CEILING IS PRESUMED TO BE PAINTED WITH LEAD CONTAINING PAINT. TREAT THE MATERIAL AS IF IT IS LEAD–BASED AND FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS AS REQUIRED WHEN DISTURBING THE MATERIAL FOR CONSTRUCTION OPERATIONS SUCH AS CUTTING AND DRILLING.

SOME ASBESTOS–CONTAINING RESIDUAL FROM PREVIOUSLY REMOVED GLUE PODS REMAINS. DO NOT PENETRATE THE GLUE PODS RESIDUAL WITH NEW CONSTRUCTION SUCH AS HANGERS, PIPING, AND CONDUITS WHERE POSSIBLE. THE SPACING FOR THE GLUE PODS IS TYPICAL THROUGHOUT THE SPACE.

GENERAL NOTES:

1. THERE AREA KNOWN HAZARDOUS MATERIALS (LEAD BASED PAINT, ASBESTOS, MERCURY, ETC.) WITHIN THE PROJECT AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE HAZARDOUS MATERIALS TESTING REPORTS INCLUDED IN THE SPECIFICATION AND COMPLY WITH APPROPRIATE WORKING PROCEDURES.
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7. THE CONTRACTOR SHALL MAINTAIN EGRESS PATHS FROM CONSTRUCTION SITE AT ALL TIMES. PROVIDE TEMPORARY DOORS AS REQUIRED WHERE DOORS TO GENERAL CORRIDORS ARE NOTED TO BE REPLACED.
8. CONTRACTOR TO PROTECT SIGNAGE, DUST PROTECTION, AND FLOOR PROTECTION AS REQUIRED FROM THE PROJECT AREA THROUGH PUBLIC CORRIDORS AND ELEVATOR LOBBIES TO PROTECT EXISTING FINISHES.
9. CONTRACTOR TO PROTECT ALL EXISTING WINDOW SHADES DURING CONSTRUCTION.
10. DTMB PROPERTY MANAGEMENT WILL PROVIDE AN ONSITE CONTAINER IN WHICH DEMOLISHED MERCURY–CONTAINING LAMPS CAN BE PLACED. THE COST OF THE DISPOSAL WILL BE COVERED BY DTMB. REFER TO APPENDIX 1 IN THE SPECIFICATION FOR LOCATION/ QUANTITY.

KEY NOTES:

① CUT THROUGH SLAB AND PLASTER CEILING FOR INSTALLATION OF NEW EXHAUST. COORDINATE WITH EF 15–1 SHOWN ON ON DRAWING M–401. DEMOLISH EXISTING PLASTER CEILING PRESUMED TO HAVE LEAD BASED PAINT AS REQUIRED TO ACCOMMODATE THE NEW WORK. THE PLASTER CEILING IS CONCEALED BY A LAY–IN CEILING. PREVIOUSLY REMOVED ASBESTOS CONTAINING GLUE PODS ABOVE THE CEILING HAVE LEFT SOME RESIDUAL ACM. CUTTING THE CEILING WILL DISTURB THE ACM GLUE POD RESIDUAL BUT THE CUT CAN BE MADE IN SUCH A MANNER AS TO AVOID CUTTING THROUGH THE RESIDUAL. LESS THAN 2 SQ FT OF ACM WASTE WILL BE GENERATED. CONTRACTOR IS TO FOLLOW APPROPRIATE WORKING PROCEDURES.

LEGEND:

- DEMO WALL
- DEMO DOOR HEADER
- EXISTING DOOR HEADER TO REMAIN
- DEMO 2'X4' LIGHT FIXTURE (REFER TO GENERAL NOTE 10)
- DEMO 2'X2' LIGHT FIXTURE (REFER TO GENERAL NOTE 10)
- DEMO 2'X2' CEILING AND GRID
- * DEMO FIRE SPRINKLER AND FLEXIBLE ARM OVER
- DEMO HVAC SUPPLY
- PROJECT AREA NOT WITHIN SCOPE OF PROJECT

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.ghfaa.com

PROJECT: CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED: DEJ/DT
DRAWN: TDS/SWG
CHECKED: SWG
APPROVED:

DATE: 12/20/2024

ISSUED FOR: CONSTRUCTION DOCUMENTS

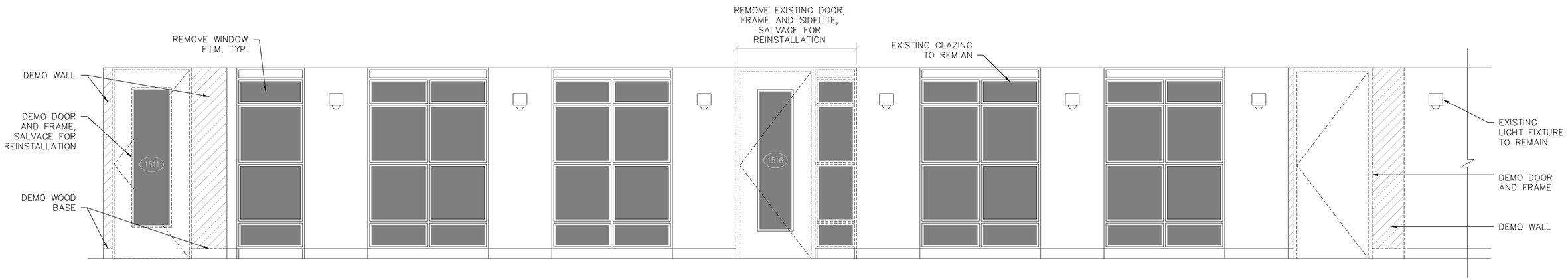
IDENTIFICATION NUMBER: PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/22357

SHEET NUMBER: 4 OF 35

DRAWING TITLE: DEMO. REFLECTED CEILING PLAN

DRAWING NUMBER: AD-102

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT



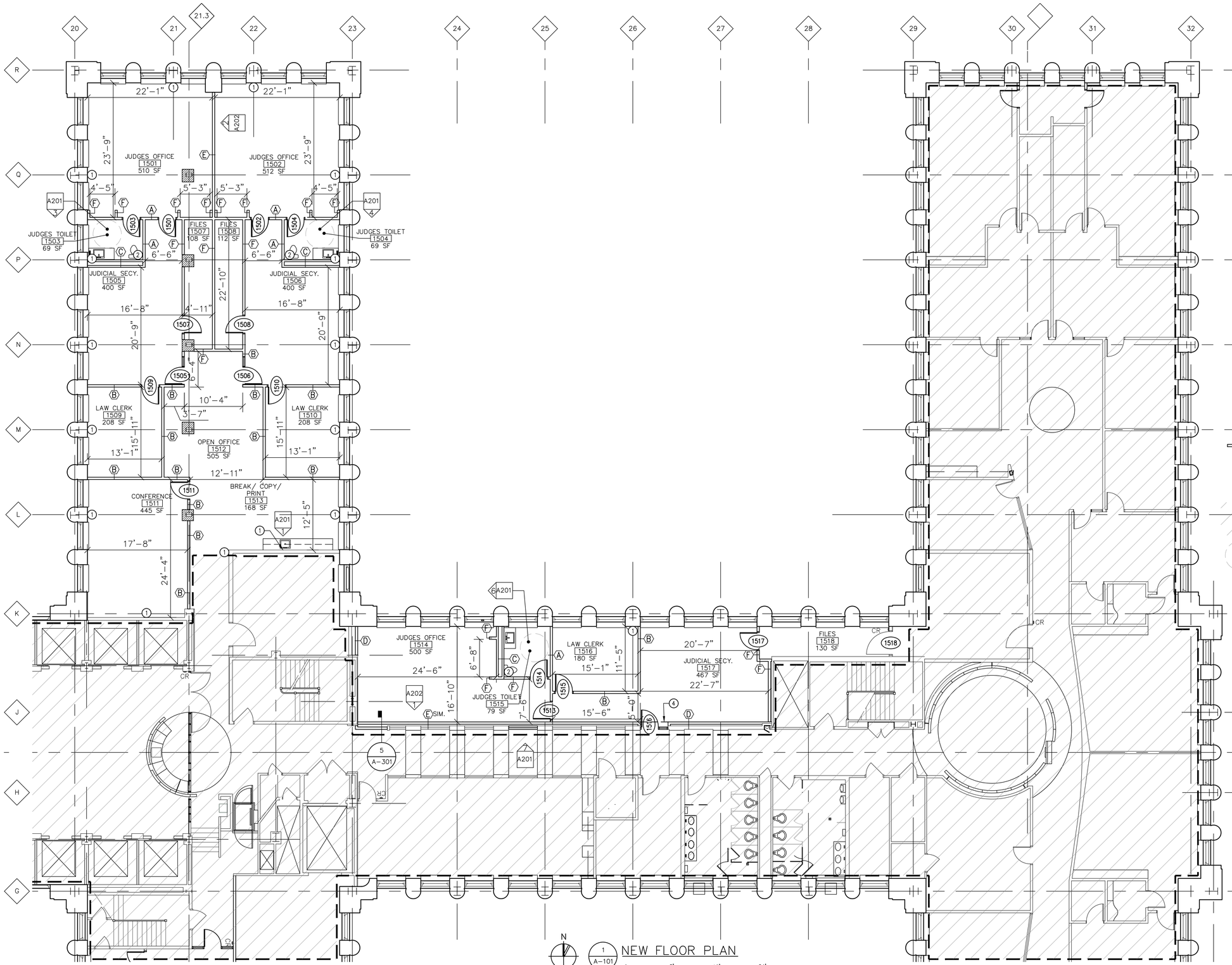
1 / AD-201 PUBLIC CORRIDOR ELEVATION – DEMO
SCALE: 1/2" = 1'-0"

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866//www.ghfaa.com

PROJECT	CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES
DESIGNED	DES./DT DRAWN TDS/SWG CHECKED SWG APPROVED
DATE	12/20/2024
ISSUED FOR	CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: 923038 FILE NO. 950/22357
SHEET NUMBER	5 OF 35
DRAWING TITLE	DEMO ELEVATIONS
DRAWING NUMBER	AD-201



GENERAL NOTES:

1. DIMENSIONS ARE MEASURED TO THE FACE OF WALL.
2. CONTRACTOR SHALL LAYOUT WALL LOCATIONS AND REVIEW WITH ARCHITECT PRIOR TO CONSTRUCTING ANY PARTITIONS.
3. REFER TO A-501 FOR WALL TYPE DETAILS.
4. ALL DOORS REQUIRE CLEARANCE OF 18" PULL SIDE AND 12" PUSH SIDE U.N.O.

KEY NOTES:

① PATCH AND REPAIR WALL WHERE EXISTING WALL WAS DEMOLISHED.

② ADD FIRE RETARDANT WOOD BLOCKING IN WALL FOR FUTURE INSTALLATION OF GRAB BARS

③ PATCH AND REPAIR WALL WHERE CARD READER IS REMOVED.

④ CONTINUE NEW WALL AND FRAME OUT HEAD ABOVE DOOR

LEGEND:

NEW WALL

NEW DOOR

EXISTING DOOR TO REMAIN

PROJECT AREA NOT WITHIN SCOPE OF PROJECT

ACCESSIBLE CLEARANCE

(XXXX) DOOR TAG REFER TO SHEET A-601

WALL TYPES:

(A)– 5/8" GYPSUM BOARD ON 3 5/8" METAL STUD FILLED WITH 3½" INSULATION TO ABOVE CEILING. INSTALL PLENUM RATED 3½" INSULATION FOR 24" HORIZONTALLY ALONG ENTIRE LENGTH OF WALL.

(B)– 5/8" GYPSUM BOARD ON 3 5/8" METAL STUD FILLED WITH 3½" INSULATION TO UNDERSIDE OF STRUCTURAL DECK.

(C)– 5/8" GYPSUM BOARD ON (2) 3 5/8" METAL STUDS WITH 3½" BATTEN INSULATION. (CHASE FOR PLUMBING)

(D)– 5/8" GYPSUM BOARD ON 3 5/8" METAL STUDS WITH 3½" BATTEN INSULATION IN FRONT OF EXISTING GLAZING

(E)– WOOD FEATURE WALL ON EACH SIDE. 5/8" GYPSUM BOARD ON 3 5/8" METAL STUD TO ABOVE CEILING FILLED WITH 3½" INSULATION. INSTALL PLENUM RATED 3½" INSULATION FOR 24" HORIZONTALLY ALONG ENTIRE LENGTH OF WALL.

(F)– 5/8" GYPSUM BOARD ON 3 5/8" METAL STUD FILLED WITH 3½" INSULATION

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES ARCHITECTURE ENGINEERING
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.ghfaa.com

PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED DEJ/DT
DRAWN TDS/SWG
CHECKED SWG
APPROVED

DATE 12/20/2024

ISSUED FOR CONSTRUCTION DOCUMENTS

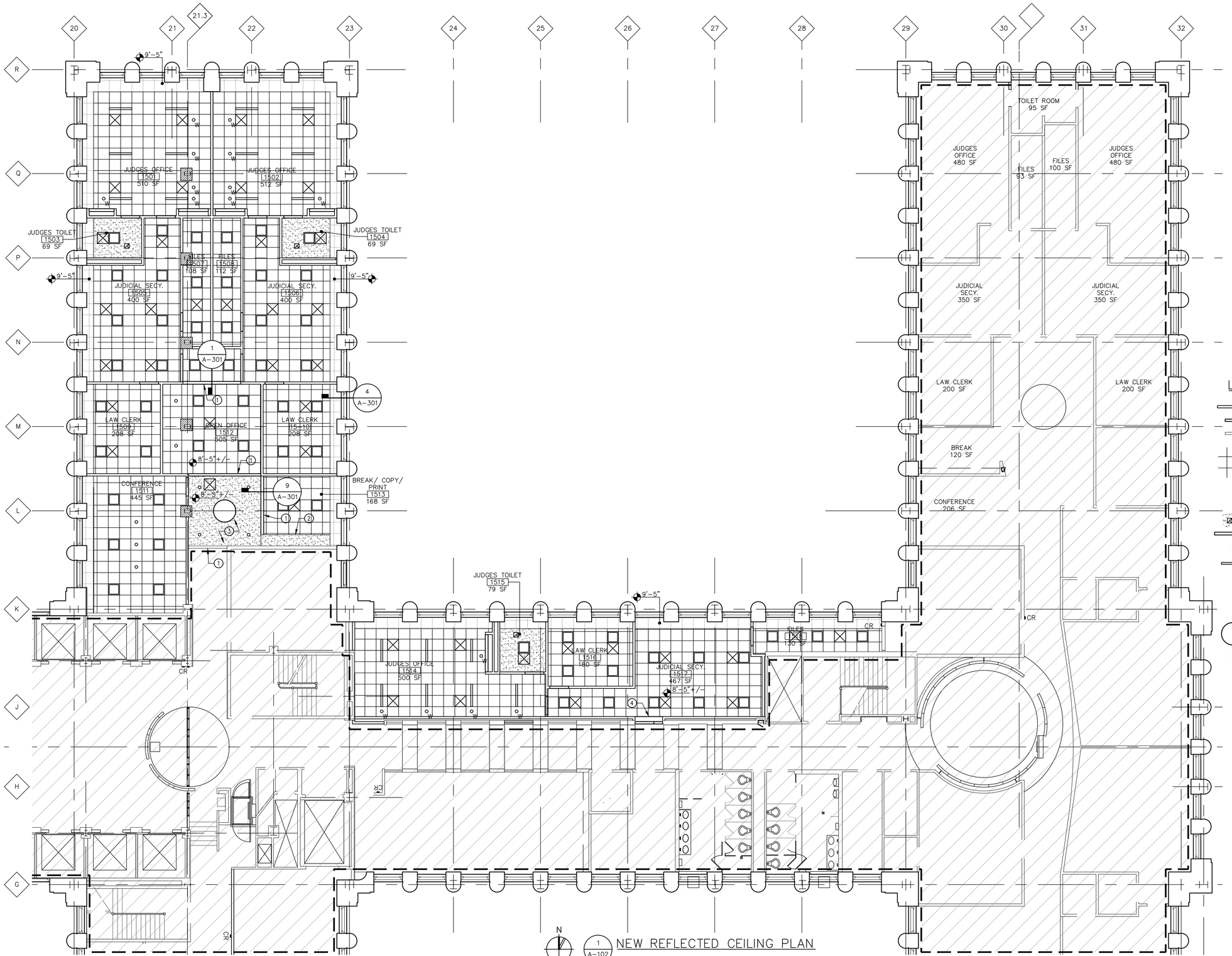
IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y230138
FILE NO. 950/223S7

SHEET NUMBER 6 OF 35

DRAWING TITLE NEW FLOOR PLAN

DRAWING NUMBER A-101

STATE OF MICHIGAN
SCOTT W. WOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT



N

1 A-102 NEW REFLECTED CEILING PLAN

0 8' 16' 24'

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

GENERAL NOTES:

1. DIMENSIONS ARE MEASURED TO THE FACE OF WALL.
2. CONTRACTOR SHALL LAYOUT WALL LOCATIONS AND REVIEW WITH ARCHITECT PRIOR TO CONSTRUCTING ANY PARTITIONS.
3. REFER TO A-501 FOR WALL TYPE DETAILS.

KEY NOTES:

1. GYPSUM BOARD SOFFIT AT 8'-5" AFF.
2. GYPSUM BOARD SOFFIT ABOVE CABINETS AT 7'-6"
3. NEW FEATURED CEILING
4. CONTINUE NEW WALL AND FRAME OUT HEAD ABOVE DOOR

LEGEND:

- NEW WALL
- NEW DOOR HEADER
- EXISTING DOOR HEADER
- NEW 2'X2' CEILING GRID 8'-5" AFF. AND 9'-5" AT WINDOWS, REFER TO DETAIL 4 ON A-301
- NEW GYPSUM BOARD CEILING
- NEW SOFFIT
- NEW 2'X2' LIGHT FIXTURE
- NEW 4"X4' SUSPENDED LIGHT FIXTURE
- NEW 6" LED DOWNLIGHT
- W NEW WALL WASH DOWNLIGHT
- NEW 48" SURFACE MOUNTED ACCENT LIGHT FIXTURE
- NEW 24"X24" HVAC SUPPLY
- NEW HVAC EXHAUST GRILLE

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DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
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FORBES ARCHITECTURE ENGINEERING
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gtlaa.com

PROJECT: CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED: DE/DT
DRAWN: TDS/SWG
CHECKED: SWG
APPROVED:

DATE: 12/20/2024

ISSUED FOR: CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER: PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/22357

SHEET NUMBER: 7 OF 35

DRAWING TITLE: NEW REFLECTED CEILING PLAN

DRAWING NUMBER: A-102

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
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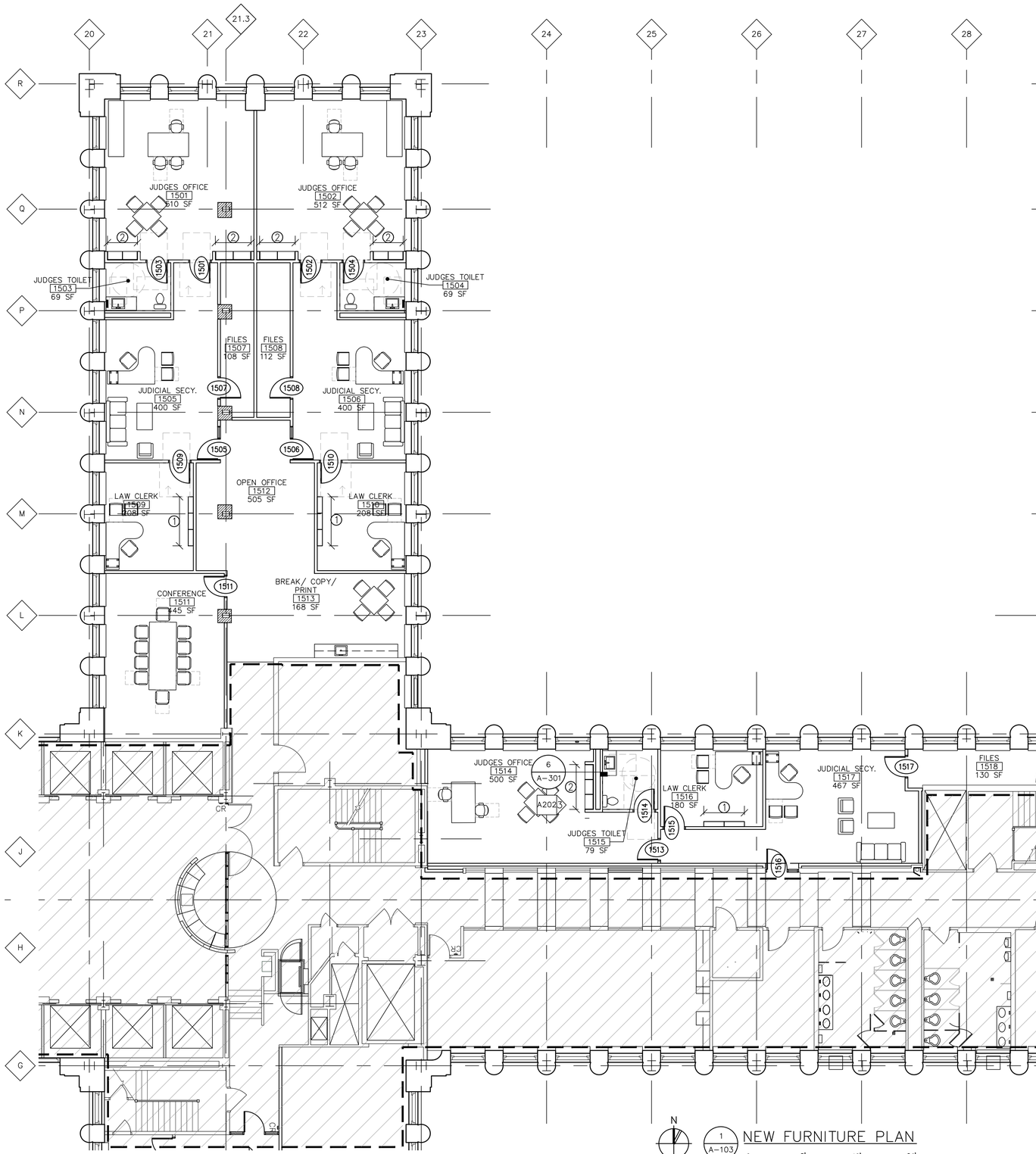

N

1 A-103 NEW FURNITURE PLAN

0 8' 16' 24'

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

GENERAL NOTES:

1. DIMENSIONS ARE MEASURED TO THE FACE OF WALL.
2. CONTRACTOR SHALL LAYOUT WALL LOCATIONS AND REVIEW WITH ARCHITECT PRIOR TO CONSTRUCTING ANY PARTITIONS.
3. REFER TO A-501 FOR WALL TYPE DETAILS.
4. REFER TO SHEET A-601 FOR DOOR SCHEDULE.
5. PROVIDE IN WALL BLOCKING FOR WALL STOPS. REFER TO A-601.
6. ALL DOORS REQUIRE CLEARANCE OF 18" PULL SIDE AND 12" PUSH SIDE U.N.O.
7. WHEREVER TERMINOLOGY (ABA) OCCURS, REFERENCE IS MADE TO THE ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS.
8. ALL SWINGING DOORS WITHOUT KEY NUMBERS ARE EXISTING TO REMAIN.
9. ALL NEW PARTITIONS TO DECK ARE TO FOLLOW THE PROFILE OF THE UNDERSIDE OF THE DECK ABOVE.
10. ALL DOORS TO BE INSTALLED WITH OPENING 4" OFF ADJACENT PARTITION U.N.O.
11. FURNITURE IS PROVIDED BY OTHERS AND SHOWN FOR REFERENCE ONLY. U.N.O.

KEY NOTES:

① NEW BOOKSHELVES SUPPLIED AND INSTALLED BY COURTS.

② NEW BOOKCASE – REFER TO SHEETS A-202 AND A-203 FOR DETAILS

LEGEND:

NEW WALL

NEW DOOR

EXISTING DOOR TO REMAIN

PROJECT AREA NOT WITHIN SCOPE OF PROJECT

ACCESSIBLE CLEARANCE

XXXX DOOR TAG REFER TO SHEET A-601

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT

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PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
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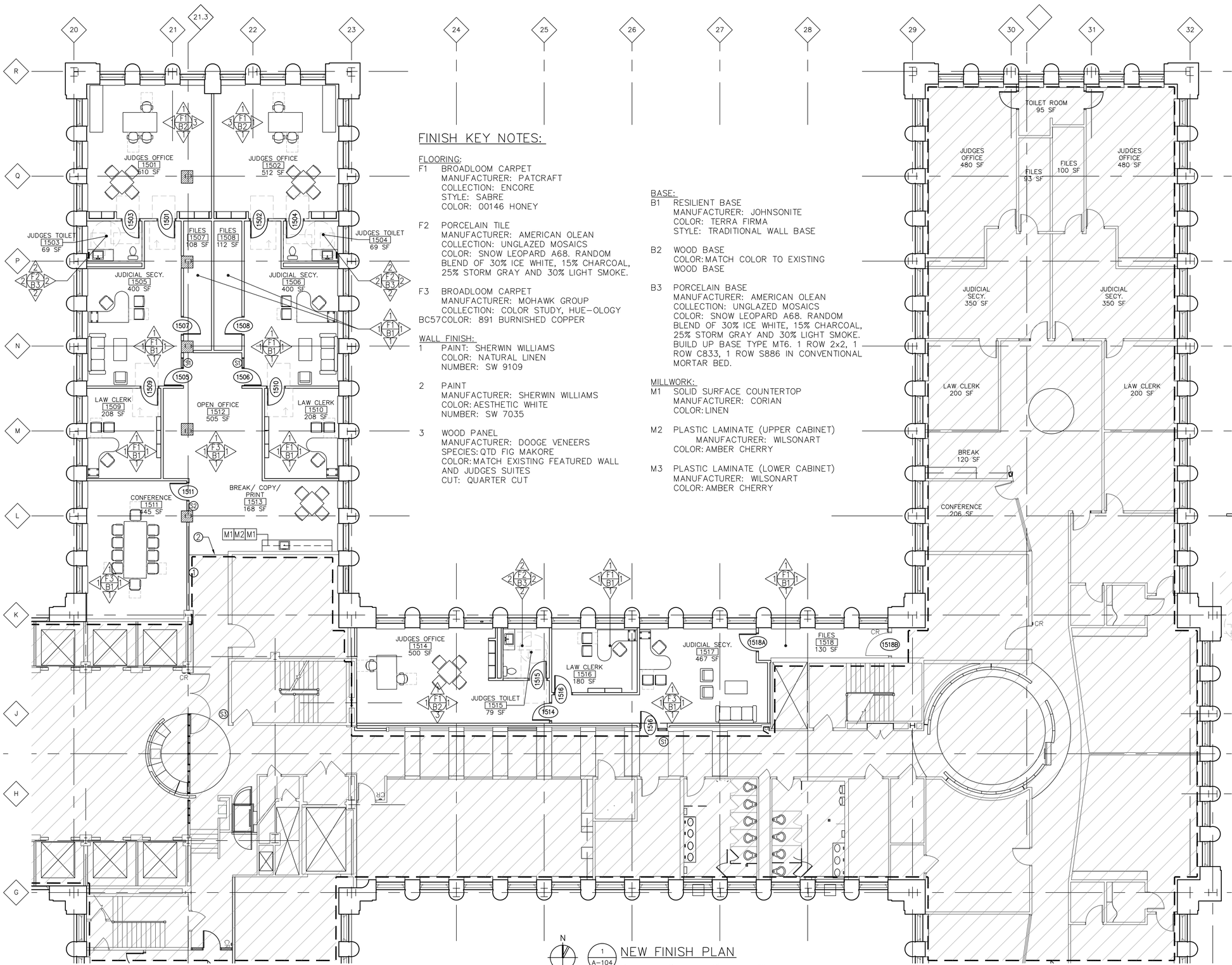
ADAM P. LACH, RA, DIRECTOR

FORBES ARCHITECTURE ENGINEERING
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866//www.ghfaa.com

PROJECT	CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES
DESIGNED	DEJ/DT
DRAWN	TDS/SWG
CHECKED	SWG
APPROVED	
DATE	12/20/2024
ISSUED FOR	CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/Y22357
SHEET NUMBER	8 OF 35
DRAWING TITLE	NEW FURNITURE PLAN
DRAWING NUMBER	A-103



FINISH KEY NOTES:

FLOORING:

F1 BROADLOOM CARPET
MANUFACTURER: PATCRAFT
COLLECTION: ENCORE
STYLE: SABRE
COLOR: 00146 HONEY

F2 PORCELAIN TILE
MANUFACTURER: AMERICAN OLEAN
COLLECTION: UNGLAZED MOSAICS
COLOR: SNOW LEOPARD A68. RANDOM BLEND OF 30% ICE WHITE, 15% CHARCOAL, 25% STORM GRAY AND 30% LIGHT SMOKE.

F3 BROADLOOM CARPET
MANUFACTURER: MOHAWK GROUP
COLLECTION: COLOR STUDY, HUE-OLOGY
BC57COLOR: 891 BURNISHED COPPER

WALL FINISH:

1 PAINT: SHERWIN WILLIAMS
COLOR: NATURAL LINEN
NUMBER: SW 9109

2 PAINT
MANUFACTURER: SHERWIN WILLIAMS
COLOR: AESTHETIC WHITE
NUMBER: SW 7035

3 WOOD PANEL
MANUFACTURER: DOOGE VENEERS
SPECIES: QTD FIG MAKORE
COLOR: MATCH EXISTING FEATURED WALL AND JUDGES SUITES
CUT: QUARTER CUT

BASE:

B1 RESILIENT BASE
MANUFACTURER: JOHNSONITE
COLOR: TERRA FIRMA
STYLE: TRADITIONAL WALL BASE

B2 WOOD BASE
COLOR: MATCH COLOR TO EXISTING WOOD BASE

B3 PORCELAIN BASE
MANUFACTURER: AMERICAN OLEAN
COLLECTION: UNGLAZED MOSAICS
COLOR: SNOW LEOPARD A68. RANDOM BLEND OF 30% ICE WHITE, 15% CHARCOAL, 25% STORM GRAY AND 30% LIGHT SMOKE. BUILD UP BASE TYPE MT6. 1 ROW 2x2, 1 ROW C833, 1 ROW S886 IN CONVENTIONAL MORTAR BED.

MILLWORK:

M1 SOLID SURFACE COUNTERTOP
MANUFACTURER: CORIAN
COLOR: LINEN

M2 PLASTIC LAMINATE (UPPER CABINET)
MANUFACTURER: WILSONART
COLOR: AMBER CHERRY

M3 PLASTIC LAMINATE (LOWER CABINET)
MANUFACTURER: WILSONART
COLOR: AMBER CHERRY

GENERAL NOTES:

1. DIMENSIONS ARE MEASURED TO THE FACE OF WALL.
2. CONTRACTOR SHALL LAYOUT WALL LOCATIONS AND REVIEW WITH ARCHITECT PRIOR TO CONSTRUCTING ANY PARTITIONS.
3. REFER TO A-501 FOR WALL TYPE DETAILS.
4. REFER TO SHEET A-601 FOR DOOR SCHEDULE.
5. PROVIDE IN WALL BLOCKING FOR WALL STOPS. REFER TO A-601.
6. ALL DOORS REQUIRE CLEARANCE OF 18" PULL SIDE AND 12" PUSH SIDE U.N.O.
7. WHEREVER TERMINOLOGY (ABA) OCCURS, REFERENCE IS MADE TO THE ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS.
8. ALL SWINGING DOORS WITHOUT KEY NUMBERS ARE EXISTING TO REMAIN.
9. ALL NEW PARTITIONS TO DECK ARE TO FOLLOW THE PROFILE OF THE UNDERSIDE OF THE DECK ABOVE.
10. ALL DOORS TO BE INSTALLED WITH OPENING 4" OFF ADJACENT PARTITION U.N.O.
11. REFER TO SPECIFICATION SECTION 06 61 16 FOR INFORMATION ON LAV-1 (BRADLEY OMNIDECK).
12. INSTALL FLOOR LEVELER AS NEEDED, COORDINATE WITH DEMO PLAN. REFER TO SPECIFICATION 03 54 16.

KEY NOTES:

① PAINT WALL WHERE CARD READER IS REMOVED TO MATCH ADJACENT PAINT. REPAINT ENTIRE SECTION OF WALL IF NEEDED.

② INSTALL NEW CARPET UP TO APPROXIMATELY THIS LINE. PROVIDE NEW TRANSITION STRIP. COORDINATE EXACT LOCATION WITH COURTS/ ARCHITECT.

LEGEND:

- NEW WALL
- NEW DOOR
- EXISTING DOOR TO REMAIN
- PROJECT AREA NOT WITHIN SCOPE OF PROJECT
- ACCESSIBLE CLEARANCE
- (XXXX) DOOR TAG REFER TO SHEET A-601
- (S1) JUDGE NAME SIGNAGE, REFER TO DETAIL 3 ON A-601
- (S2) CONFERENCE SIGNAGE, REFER TO DETAIL 4 ON A-601
- (S3) EXISTING DIRECTORY SIGNAGE, REFER TO DETAIL 5 ON A-601
- A1 / B1 — INDICATES FLOOR MATERIAL USED IN THIS AREA; INDICATES WALL FINISH ON SURFACE TO WHICH ARROW IS POINTING; INDICATES BASE USED IN THIS AREA
- M1 M2 M1 — INDICATES FINISH TO BE USED ON BASE CABINETS/VERTICAL FACE; INDICATES FINISH TO BE USED ON COUNTER AND SPLASH; INDICATES FINISH TO BE USED ON UPPER CABINETS OR SHELVES

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROPERTY MANAGEMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.gmbo.com

PROJECT: CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED: DSJ/DT
DRAWN: TDS/SWG
CHECKED: SWG
APPROVED:

DATE: 12/20/2024

ISSUED FOR: CONSTRUCTION DOCUMENTS

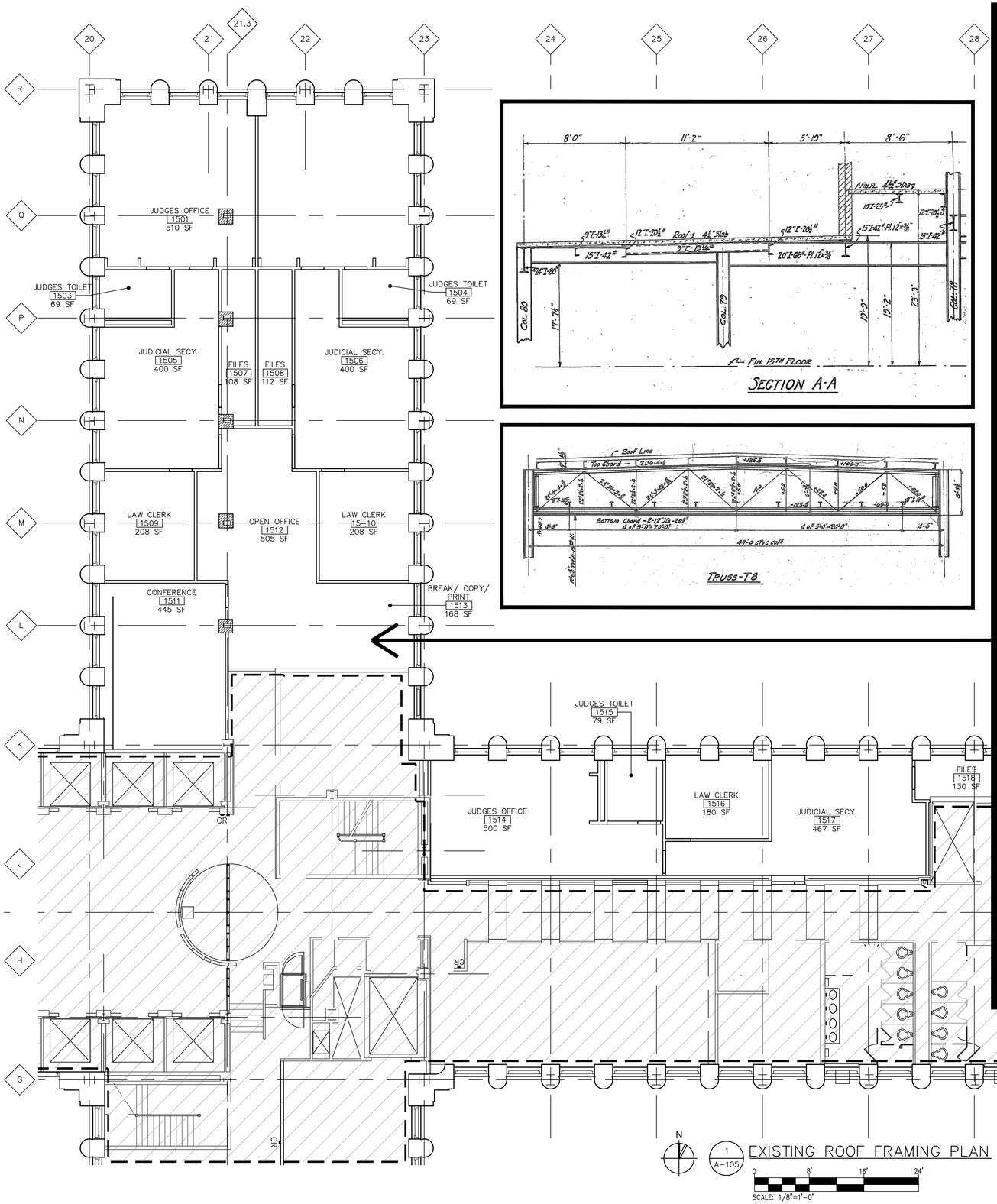
IDENTIFICATION NUMBER: PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: 923038
FILE NO. 950/22357

SHEET NUMBER: 9 OF 35

DRAWING TITLE: NEW FINISH PLAN

DRAWING NUMBER: A-104

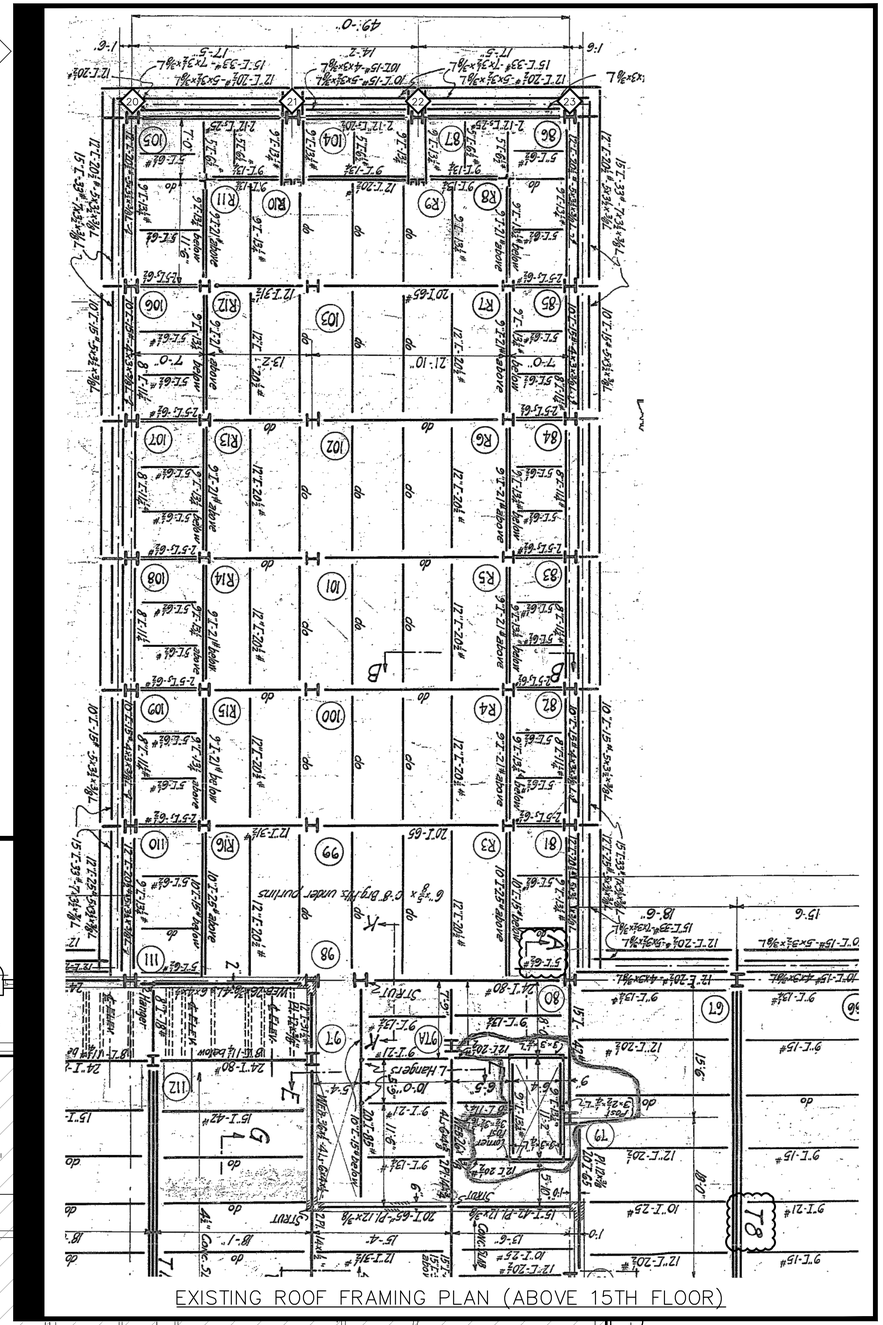
STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT



1 / A-105 EXISTING ROOF FRAMING PLAN

0 8' 16' 24'

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



STATE OF MICHIGAN
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PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES ARCHITECTS ENGINEERS
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gnfaa.com

PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN DS/DT
CHECKED TDS/SWG
APPROVED SWG

DATE
12/20/2024

ISSUED FOR
CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: 923038
FILE NO. 950/223257

SHEET NUMBER
10 OF 35

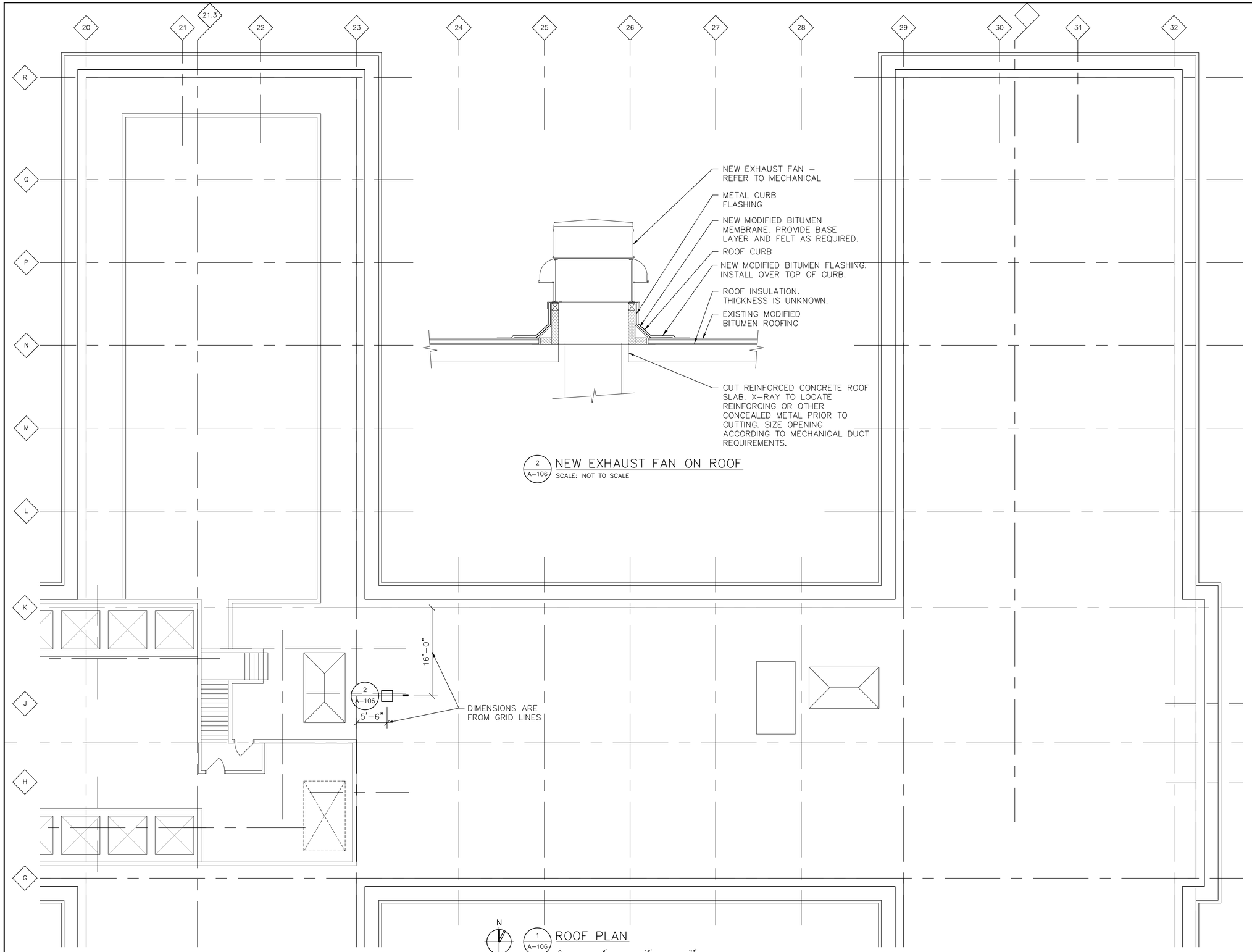
DRAWING TITLE
EXISTING FRAMING PLAN

DRAWING NUMBER
A-105

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT

2 A-106 NEW EXHAUST FAN ON ROOF

SCALE: NOT TO SCALE



STATE OF MICHIGAN
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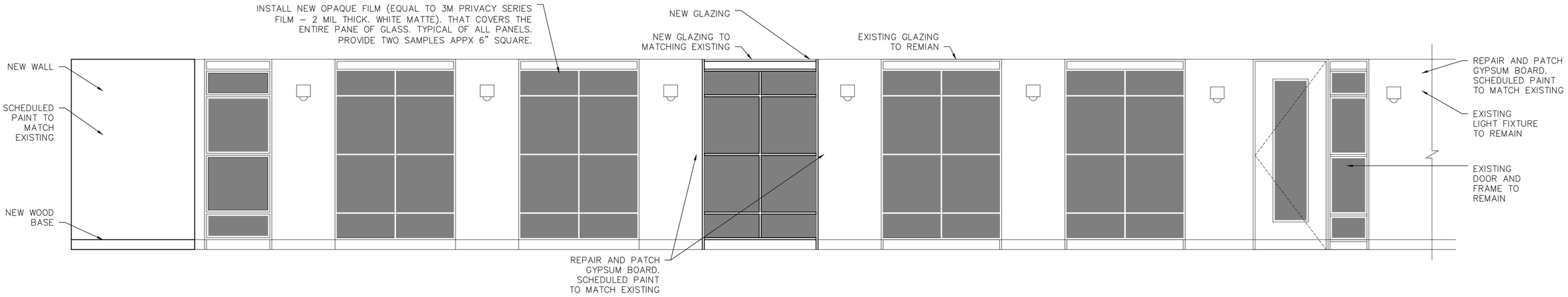
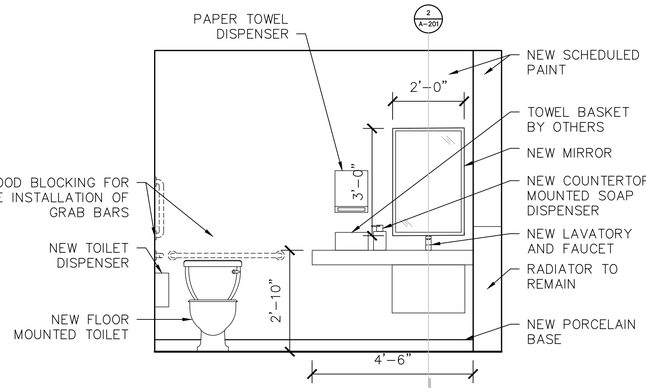
FORBES ARCHITECTURE ENGINEERING
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.ghfaa.com

PROJECT	DESIGNED	DATE	ISSUED FOR	IDENTIFICATION NUMBER	SHEET NUMBER	DRAWING TITLE	DRAWING NUMBER
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES	DRAWN DEJ/DT CHECKED TDS/SWG APPROVED SWG	12/20/2024	CONSTRUCTION DOCUMENTS	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/22357	11 OF 35	ROOF PLAN	A-106

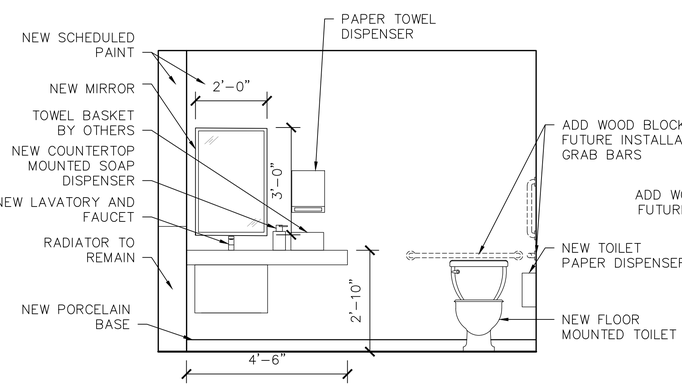
STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT



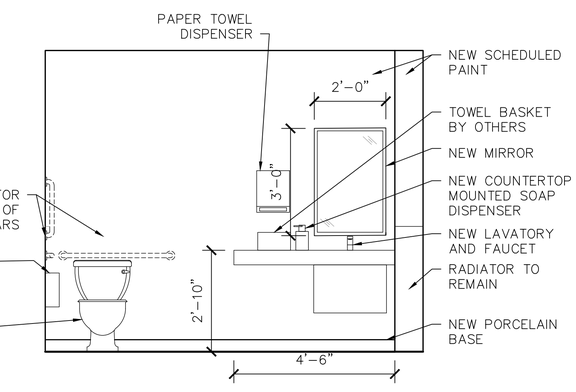
7 A–201 PUBLIC CORRIDOR ELEVATION – NEW
SCALE: 1/2" = 1'–0"



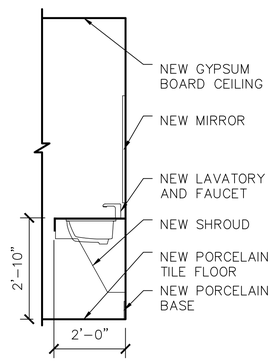
6 A–201 JUDGES TOILET WEST ELEVATION
SCALE: 1/2" = 1'–0"



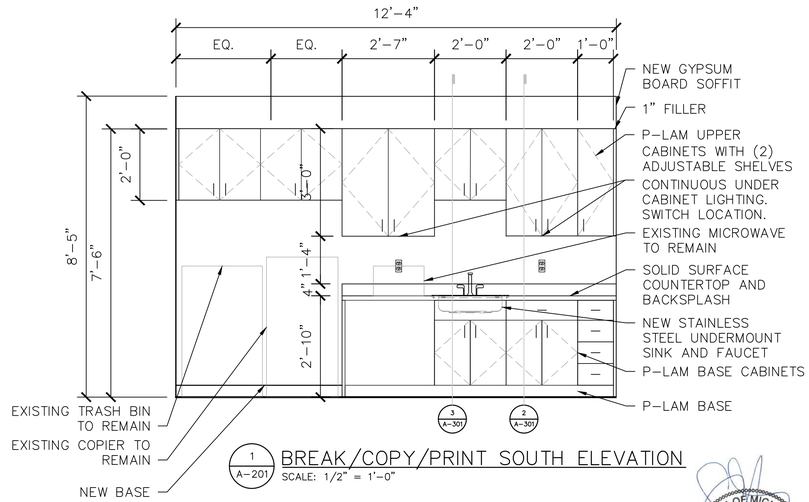
4 A–201 JUDGES TOILET SOUTH ELEVATION
SCALE: 1/2" = 1'–0"



3 A–201 JUDGES TOILET SOUTH ELEVATION
SCALE: 1/2" = 1'–0"



2 A–201 SECTION AT JUDGE'S TOILET ROOM
SCALE: 1/2" = 1'–0"



1 A–201 BREAK/COPY/PRINT SOUTH ELEVATION
SCALE: 1/2" = 1'–0"

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PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN DEJ/DT
CHECKED TDS/SWG
APPROVED SWG

DATE
12/20/2024

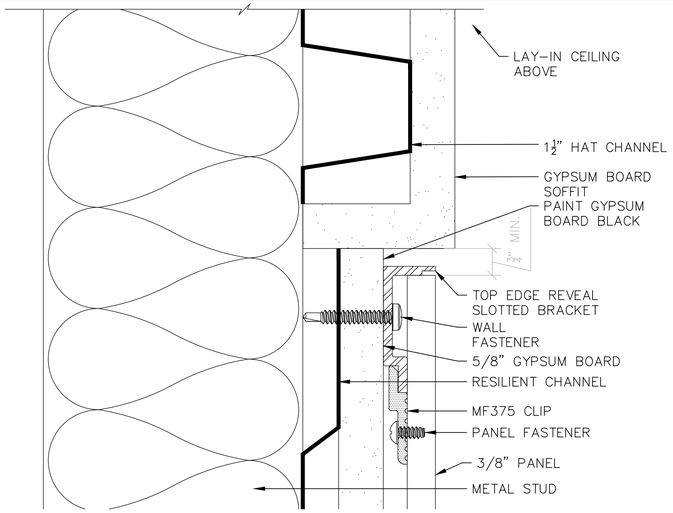
ISSUED FOR
CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/22357

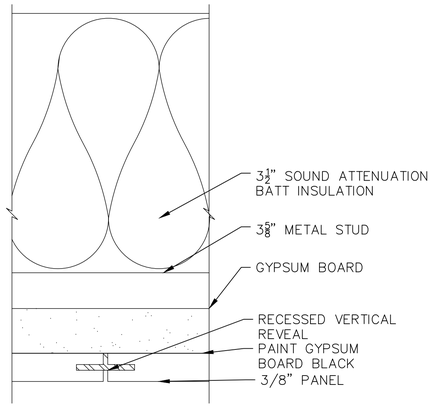
SHEET NUMBER
12 OF 35

DRAWING TITLE
NEW ELEVATIONS

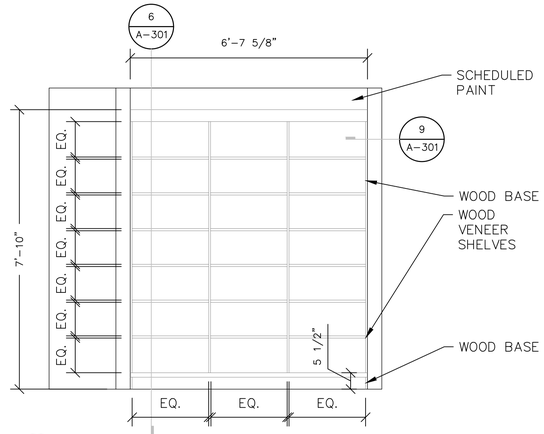
DRAWING NUMBER
A-201



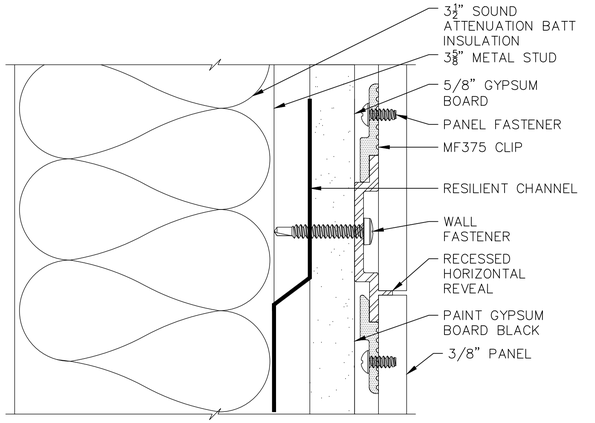
8 A-202 **3/4" PANEL TOP EDGE**
SCALE: 1'-0" = 1'-0"



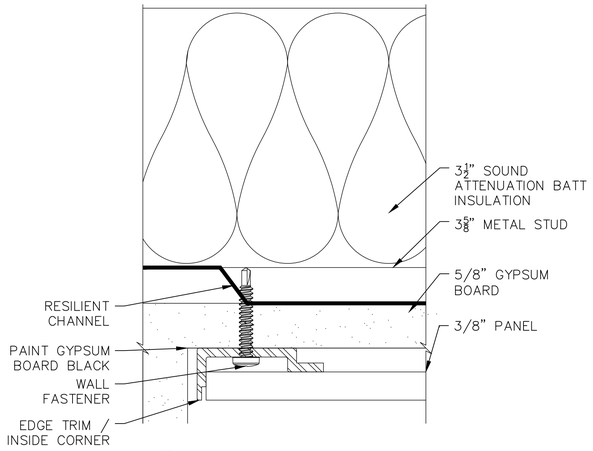
6 A-202 **3/4" PANEL RECESSED VERTICAL REVEAL**
SCALE: 1'-0" = 1'-0"



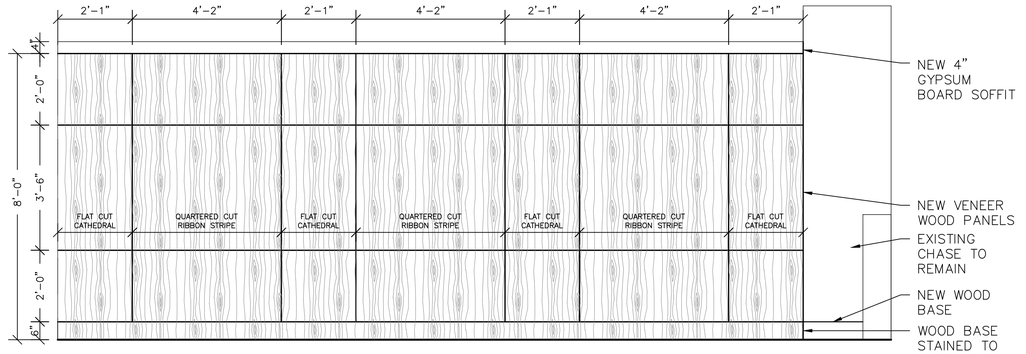
3 A-202 **BOOKSHELF ELEVATION**
SCALE: 1/2" = 1'-0"



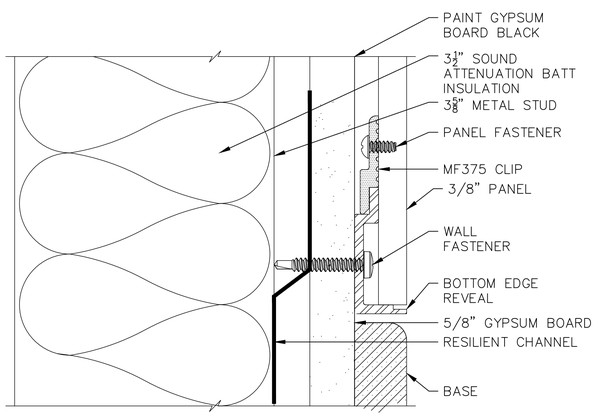
4 A-202 **3/8" PANEL RECESSED HORIZONTAL REVEAL**
SCALE: 1'-0" = 1'-0"



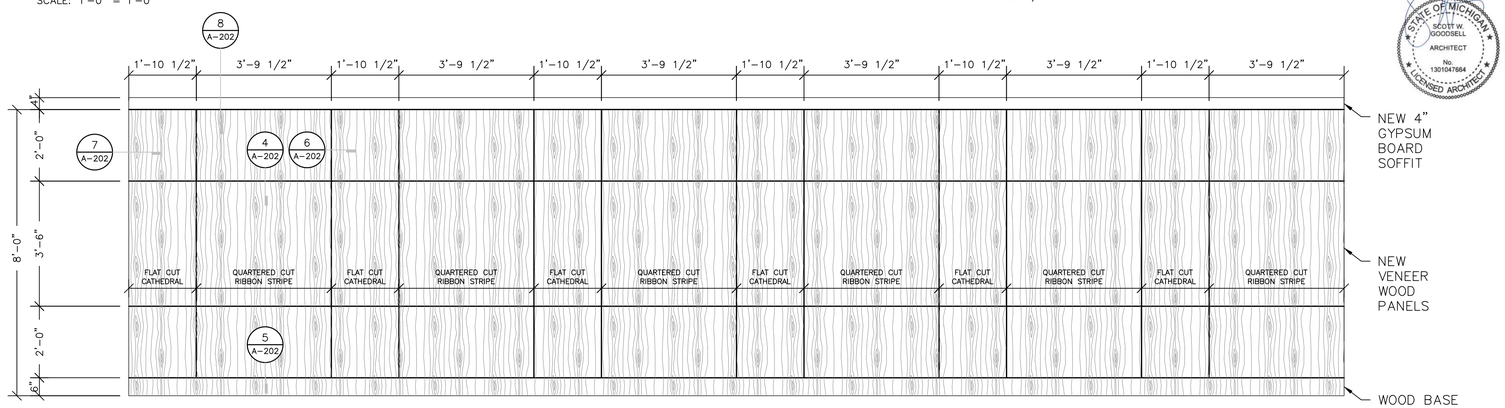
7 A-202 **3/8" PANEL VERTICAL EDGE/INSIDE CORNER**
SCALE: 1'-0" = 1'-0"



2 A-202 **NEW WOOD WALL PANEL ELEVATION**
SCALE: 1/2" = 1'-0"



5 A-202 **3/4" PANEL BOTTOM EDGE**
SCALE: 1'-0" = 1'-0"



1 A-202 **NEW WOOD WALL PANEL ELEVATION**
SCALE: 1/2" = 1'-0"

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FORBES ARCHITECTS ENGINEERS
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248.542.7866/www.gnfaa.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED DE/DT
DRAWN TDS/SWG
CHECKED SWG
APPROVED

DATE 12/20/2024

ISSUED FOR CONSTRUCTION DOCUMENTS

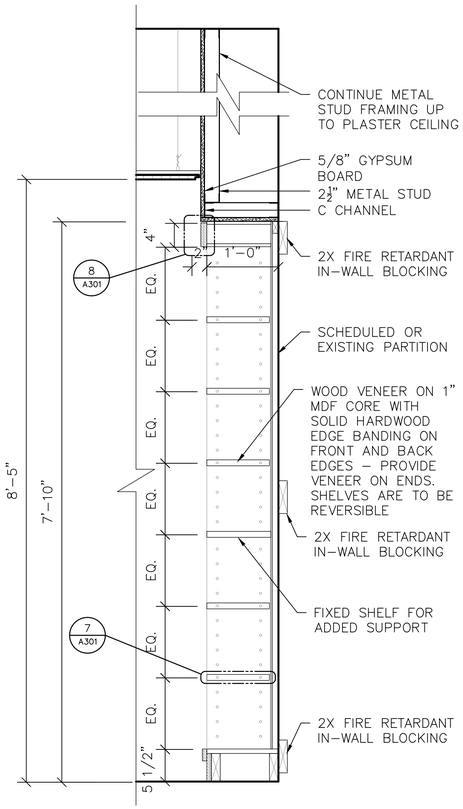
IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y230308
FILE NO. 950/22357

SHEET NUMBER 13 OF 35

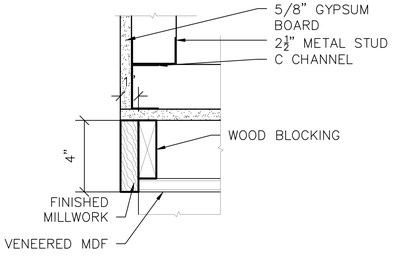
DRAWING TITLE NEW ELEVATIONS

DRAWING NUMBER A-202

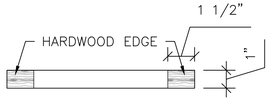
STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT



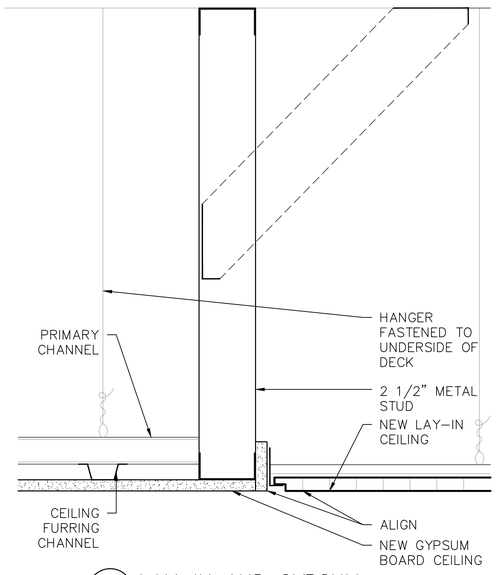
6 A-301 BOOKSHELF SECTION
SCALE: 1" = 1'-0"



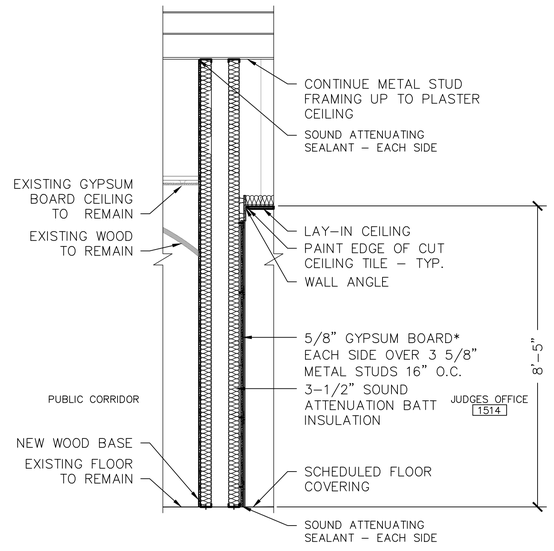
8 A-301 DETAIL AT MILLWORK
SCALE: 3" = 1'-0"



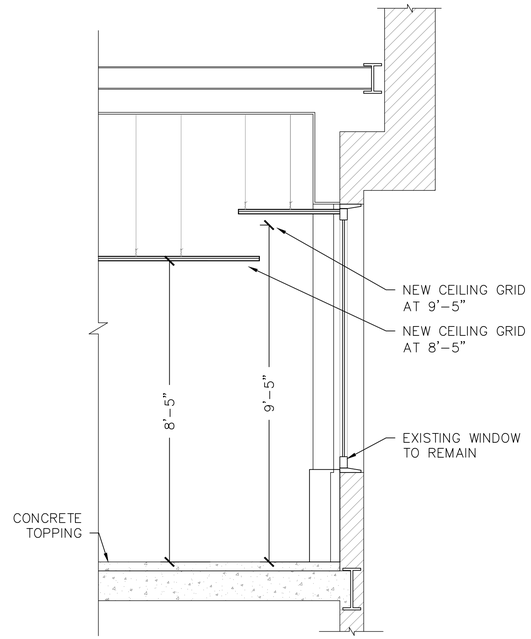
7 A-301 DETAIL AT MILLWORK SHELVES
SCALE: 3" = 1'-0"



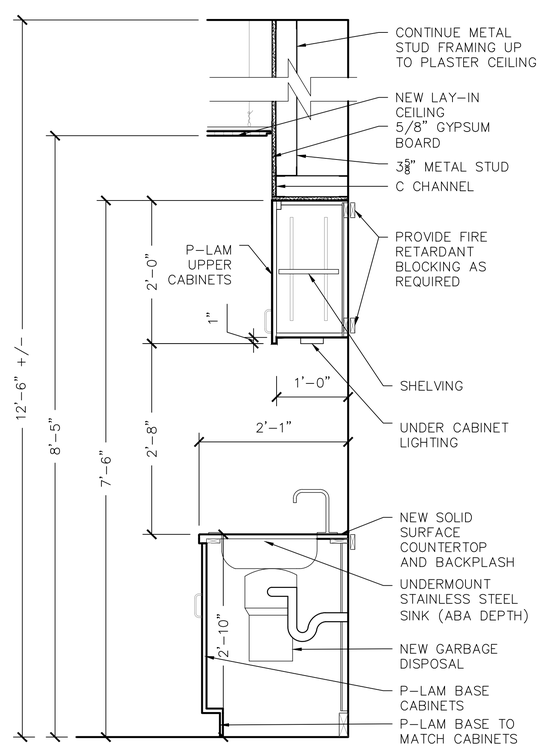
9 A-301 LAY-IN AND GYPSUM BOARD CEILING DETAIL
SCALE: 3" = 1'-0"



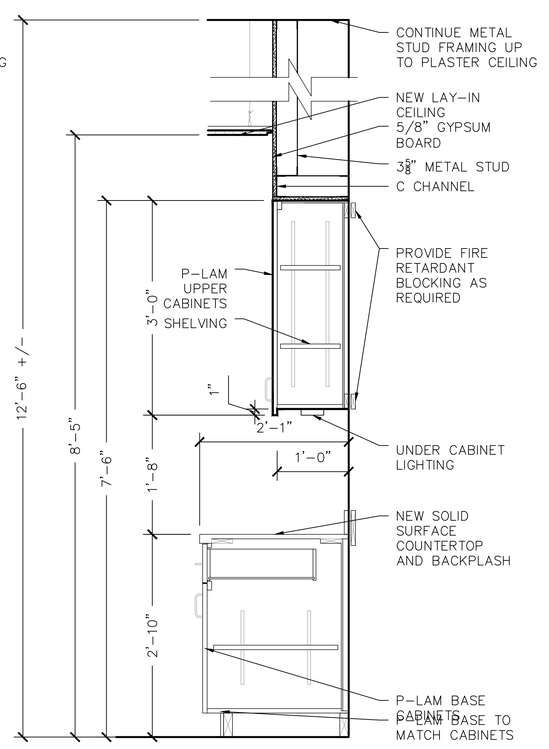
5 A-301 WALL SECTION AT PUBLIC CORRIDOR
SCALE: 1/2" = 1'-0"



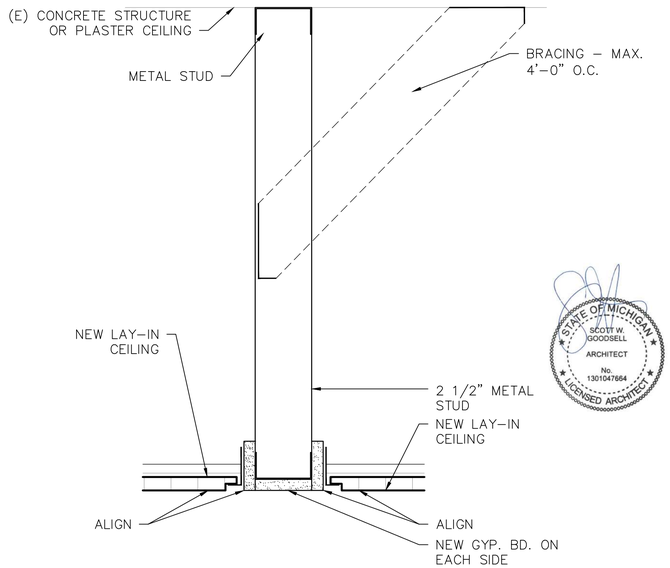
4 A-301 BUILDING SECTION AT EXTERIOR WINDOW
0 2' 4' 6'
SCALE: 1/2"=1'-0"



3 A-301 MILLWORK SECTION AT SINK
SCALE: 1" = 1'-0"



2 A-301 MILLWORK SECTION AT CABINETRY
0 1' 2' 3'
SCALE: 1"=1'-0"



1 A-301 LAY-IN CEILING AND SOFFIT DETAIL
0 4" 8" 12"
SCALE: 3"=1'-0"

STATE OF MICHIGAN
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FORBES ARCHITECTS ENGINEERS
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866//www.gnfaa.com

PROJECT: CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED: DRAWN DE/JDT; CHECKED TDS/SWG; APPROVED SWG

DATE: 12/20/2024

ISSUED FOR: CONSTRUCTION DOCUMENTS

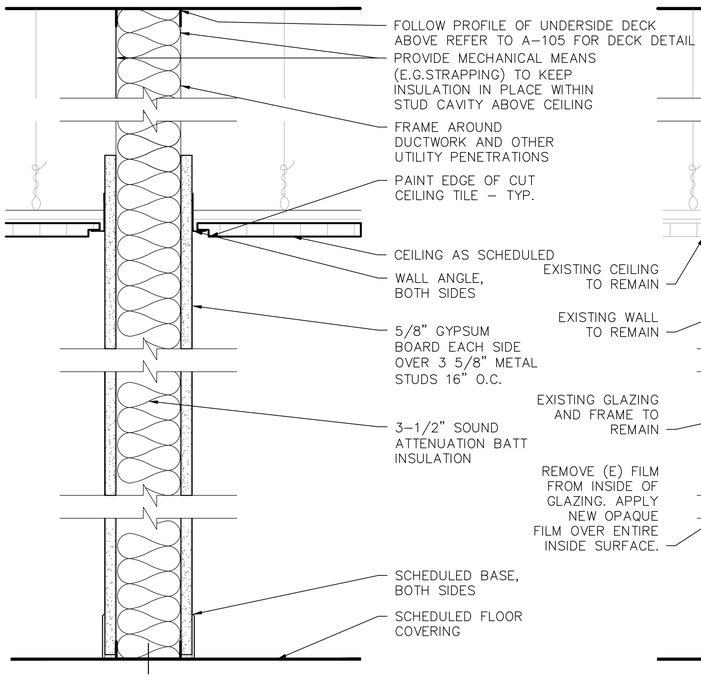
IDENTIFICATION NUMBER: PROJECT: C.P. (3) JUDICIAL SUITES; CONTRACT NUMBER: 923038; FILE NO. 950/22357

SHEET NUMBER: 14 OF 35

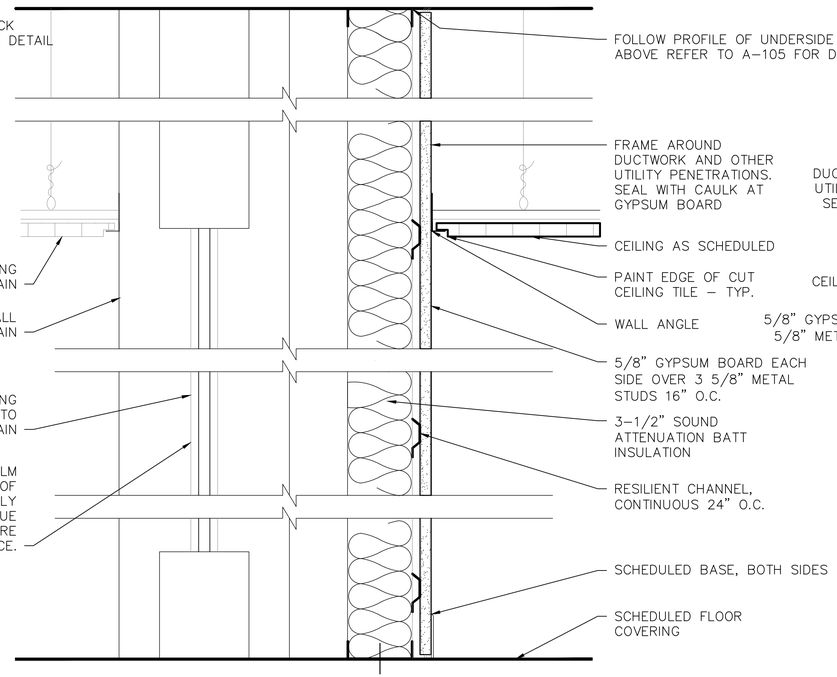
DRAWING TITLE: NEW SECTIONS

DRAWING NUMBER: A-301

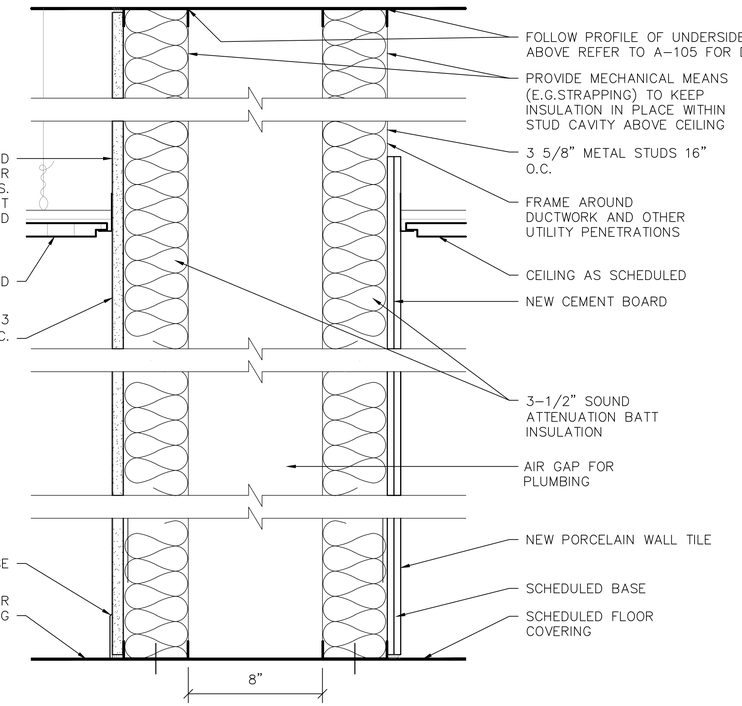
STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT



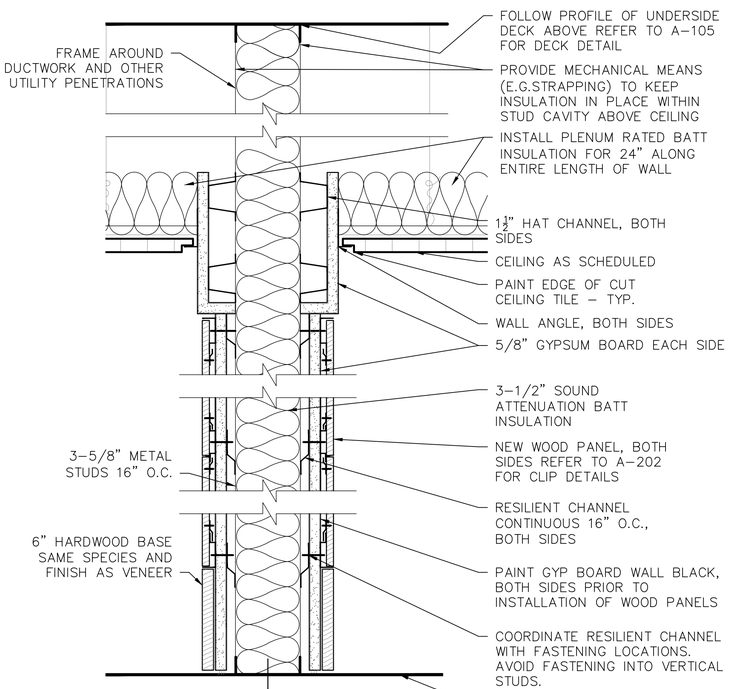
6 A–501 WALL TYPE F
SCALE: 3" = 1'–0"



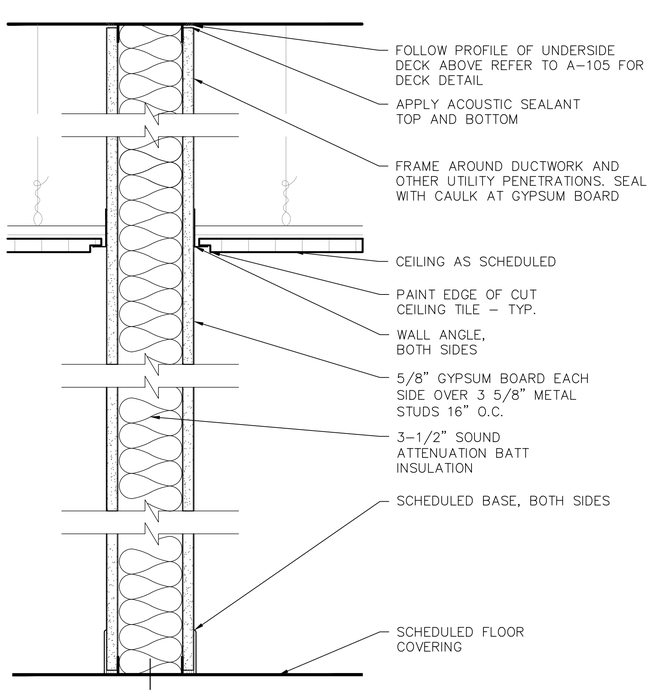
4 A–501 WALL TYPE D
SCALE: 3" = 1'–0"



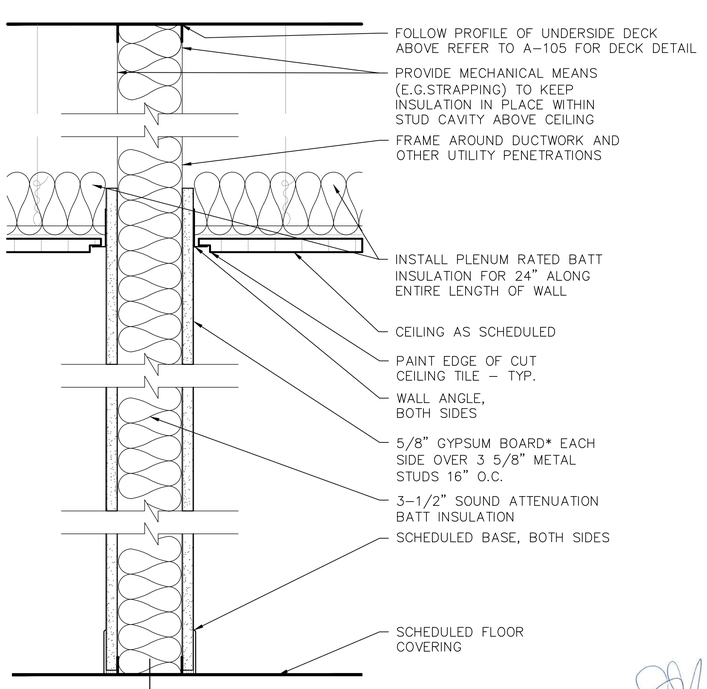
3 A–501 WALL TYPE C
SCALE: 3" = 1'–0"



5 A–501 WALL TYPE E
SCALE: 3" = 1'–0"



2 A–501 WALL TYPE B
SCALE: 3" = 1'–0"



1 A–501 WALL TYPE A
SCALE: 3" = 1'–0"

0 4" 8" 12"
SCALE: 3"=1'–0"

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PROJECT
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DESIGNED DE/DT
DRAWN TDS/SWG
CHECKED SWG
APPROVED

DATE 12/20/2024

ISSUED FOR CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/22357

SHEET NUMBER 15 OF 35

DRAWING TITLE NEW SECTIONS

DRAWING NUMBER A-501

STATE OF MICHIGAN
Scott W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT

PHOTO OF CONFERENCE ROOM SIGNAGE FOR REFERENCE

PHOTO OF EXISTING DIRECTORY SIGNAGE IN MAIN CORRIDOR FOR REFERENCE

GENERAL NOTES:

1. REFER SPECIFICATION SECTION 08 71 00 FOR HARDWARE SPECIFICATIONS AND BASIS OF DESIGN PRODUCTS.
2. NEW WOOD DOORS TO MATCH VENEER AND STAIN/ FINISH OF EXISTING DOORS TO BE REUSED.

DOOR HARDWARE SET:

HARDWARE SET #1

OFFICE FUNCTION CYLINDER LOCKSET
4 HINGES
1 WALL STOP

HARDWARE SET #2

CLASSROOM FUNCTION CYLINDER LOCKSET
1 EXIT HANDLE
4 HINGES
1 WALL STOP

DOOR SCHEDULE – U.S. COURTS LIBRARY

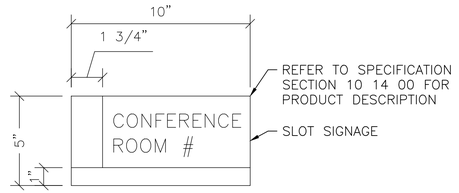
DOOR NO.	DOOR SIZE	NEW/EXST/REN	DOOR MATERIAL	DOOR FINISH	ELEVATION	FRAME TYPE	FRAME MATL	FRAME FINISH	HEAD	JAMB	HDW SET	STC RATING (MIN.)	REMARKS
1501	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	B	NEW	WD	STN	2/A601	2/A601	1	–	–
1502	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	B	NEW	WD	STN	2/A601	2/A601	1	–	–
1503	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	A	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,2
1504	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	A	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,2
1505	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	D	NEW	WD	STN	2/A601	2/A601	2	–	–
1506	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	D	NEW	WD	STN	2/A601	2/A601	2	–	–
1507	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	A	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,2
1508	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	A	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,2
1509	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	A	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,2
1510	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	A	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,2
1511	3'-0"x7'-10"x1-3/4"	REUSE	WD	EXST STN	B	REUSE	WD	EXST STN	2/A601	2/A601	REUSE	–	1,3
1512	NOT USED												
1513	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	B	NEW	WD	STN	2/A601	2/A601	1	–	–
1514	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	A	NEW	WD	STN	2/A601	2/A601	2	–	–
1515	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	A	NEW	WD	STN	2/A601	2/A601	1	–	–
1516	3'-0"x7'-10"x1-3/4"	EXST	WD	EXST STN	C	EXST	WD	EXST STN	2/A601	2/A601	1	–	1,2
1517	3'-0"x7'-10"x1-3/4"	NEW	WD	STN	A	NEW	WD	STN	2/A601	2/A601	2	–	–
1518	3'-0"x7'-10"x1-3/4"	EXST	WD	EXST STN	A	EXST	WD	EXST	2/A601	2/A601	EXST	–	–

DOOR SCHEDULE LEGEND:

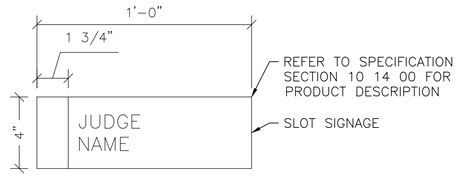
WD	WOOD
STN	STAINED
EXST	EXISTING

REMARKS:

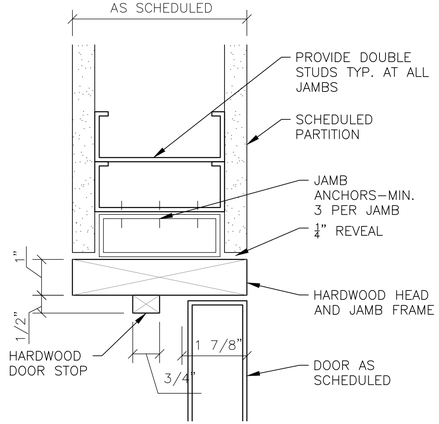
1. REMOVE DOOR AND FRAME NOTED ON AD-101 IN ORDER TO REINSTALL AS NOTED ON A-101. REUSE EXISTING HW U.N.O. (REHAND/ REVERSE FUNCTION AS NECESSARY)
2. EXISTING HARDWARE IS SET #1.
3. EXISTING HARDWARE IS SET #2.



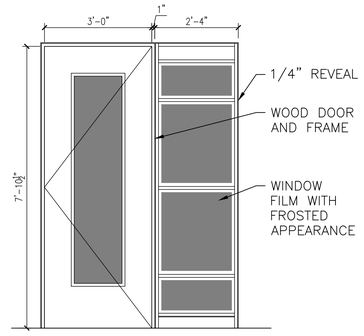
4/A-601 CONFERENCE ROOM SIGNAGE
SCALE: 3" = 1'-0"



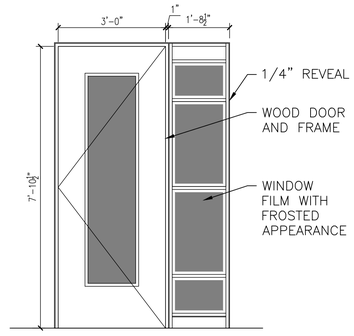
3/A-601 JUDGE'S OFFICE SIGNAGE
SCALE: 3" = 1'-0"



2/A-601 DETAIL – DOOR JAMB (HEAD SIMILAR)
SCALE: 6" = 1'-0"



ELEVATION: D



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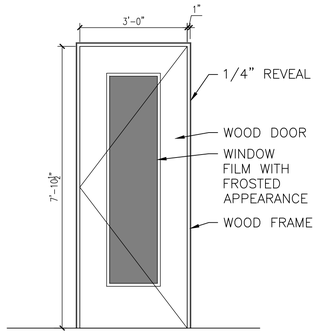
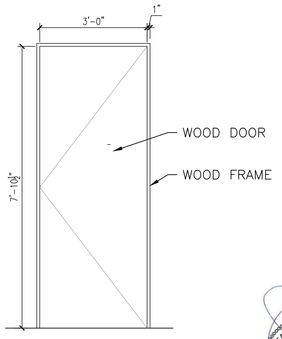
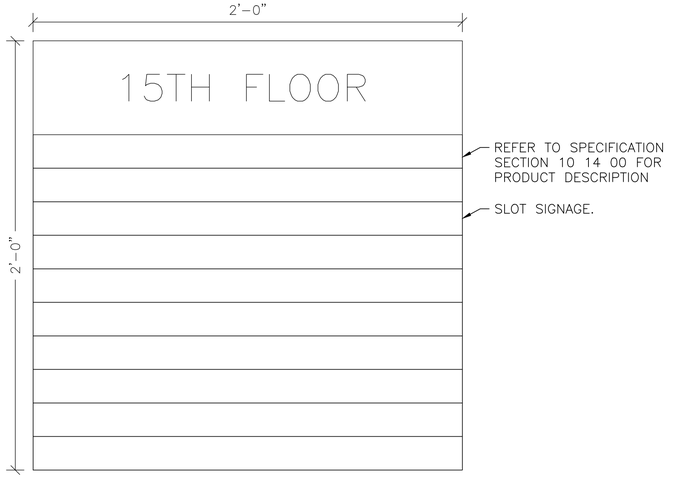


ELEVATION: B



ELEVATION: A



5/A-601 EXISTING DIRECTORY SIGNAGE IN MAIN CORRIDOR
SCALE: 3" = 1'-0"

1/A-601 DOOR ELEVATIONS
SCALE: 1/8"=1'-0"

STATE OF MICHIGAN
SCOTT W. GOODSELL
ARCHITECT
No. 1301047664
LICENSED ARCHITECT

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FORBES ARCHITECTS INTERIORS
816 E 4th ST. Royal Oak, MI 48067
248.542.7866/www.ghfaa.com

PROJECT: CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED: DRAWN DEJ/DT; CHECKED TDS/SWG; APPROVED SWG
DATE: 12/20/2024
ISSUED FOR: CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER: PROJECT: C.P. (3) JUDICIAL SUITES; CONTRACT NUMBER: Y23038; FILE NO. 950/22357
SHEET NUMBER: 16 OF 35
DRAWING TITLE: DOOR SCHEDULE
DRAWING NUMBER: A-601

MECHANICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
A	COMPRESSED AIR
A(___#)	COMPRESSED AIR (SPECIFIC PSIG)
AAV	AUTOMATIC AIR VENT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AD	AREA DRAIN
AE	AIR EXTRACTOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AMP	AMPERE
APD	AIR PRESSURE DROP
AR	ARGON
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
ATD	AIR TRANSFER DUCT
AUX	AUXILIARY
AV	ACID VENT
AVTR	ACID VENT THROUGH ROOF
AW	ACID WASTE
BAS	BUILDING AUTOMATION SYSTEM
BCU	BLOWER COIL UNIT
BDD	BACKDRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BVC	BEVERAGE CONDUIT
BWV	BACKWATER VALVE
C	COMMON
CAP	CAPACITY
CAV	CONSTANT AIR VOLUME
CB	CATCH BASIN
CC	COOLING COIL
CD	COLD DECK
CD	CONDENSATE DRAIN
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHW	CHILLED WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	COOLING
CNDS	CONDENSATE
CNDS (___#)	CONDENSATE (SPECIFIC PSIG)
CO	CLEAN OUT
CO2	CARBON DIOXIDE
CONT	CONTINUATION OR CONTINUED
CONTR	CONTRACTOR
CONV	CONVECTOR
COP	COEFFICIENT OF PERFORMANCE
CP	CIRCULATING PUMP
CRU	CONDENSATE RETURN UNIT
CSS	CLINICAL SERVICE SINK
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CW	DOMESTIC COLD WATER
CWF	DOMESTIC COLD WATER - FILTERED
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D&T	DRIP AND TRAP
DA	DISCHARGE AIR
DAT	DISCHARGE AIR TEMPERATURE
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DFU	DRAINAGE FIXTURE UNITS
DIA	DIAMETER
DMPR	DAMPER
D/N	DAY/NIGHT
DN	DOWN
DNZ	DOWNSPOUT NOZZLE
DS	DUCT SILENCER
DT	DRAIN TILE
DTC	DRAIN TILE CONNECTION
DWH	DOMESTIC WATER HEATER
DWG	DRAWING
(E)	EXISTING
E	EXHAUST GRILLE OR REGISTER
EA	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	EXPANSION COMPENSATOR
EQUH	ELECTRIC CABINET UNIT HEATER
EDB	ENTERING DRY BULB
EER	ENERGY EFFICIENCY RATIO
EES	EMERGENCY EYE WASH / SHOWER
EEW	EMERGENCY EYE WASH
EF	EXHAUST FAN
EFF	EFFICIENCY
EHC	ELECTRIC HEATING COIL
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EMS	ENERGY MANAGEMENT SYSTEM
ERL	ENERGY RECOVERY LOOP
ERLR	ENERGY RECOVERY LOOP RETURN
ERLS	ENERGY RECOVERY LOOP SUPPLY
ERU	ENERGY RECOVERY UNIT
ESH	EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	FIRE PROTECTION
°F	DEGREES FAHRENHEIT
F&B	FACE AND BYPASS
F&T	FLOAT AND THERMOSTATIC
FA	FACE AREA
FCU	FAN COIL UNIT

ABBREVIATION	DESCRIPTION
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FHV	FIRE HOSE VALVE
FLA	FULL LOAD AMPS
FLR	FLOOR
FM	FLOW METER
FMS	FLOW MEASURING STATION
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPM	FEET PER MINUTE
FP	FIRE PUMP
FPTU	FAN POWERED (AIR) TERMINAL UNIT
FS	FLOOR SINK
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FT	FEET
FTR	FINNED TUBE RADIATION
FV	FACE VELOCITY
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
GRH	GRAVITY RELIEF HOOD
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GSAN	GREASE SANITARY WASTE
H	HYDROGEN
HB	HOSE BIBB
HC	HEATING COIL
HD	HOT DECK
HEPA	HIGH EFFICIENCY PARTICULATE ARRESTANCE
HL	HIGH LIMIT
HOA	HAND/OFF/AUTO
HP	HEAT PUMP
HP	HORSEPOWER
HPCW	HIGH PRESSURE DOMESTIC COLD WATER
HPHW	HIGH PRESSURE DOMESTIC HOT WATER
HPHWR	HIGH PRESSURE DOMESTIC HOT WATER RETURN
HPL	HEAT PUMP LOOP
HPLR	HEAT PUMP LOOP RETURN
HPLS	HEAT PUMP LOOP SUPPLY
HR	HOUR
HTG	HEATING
HV	HEATING VENTILATING
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HWH	HOT WATER HEATING
HWHR	HOT WATER HEATING RETURN
HWHS	HOT WATER HEATING SUPPLY
HW	DOMESTIC HOT WATER
HW(___)	DOMESTIC HOT WATER (SPECIFIC TEMP °F)
HWR	DOMESTIC HOT WATER RETURN
HX	HEAT EXCHANGER
HZ	HERTZ
IAQ	INDOOR AIR QUALITY
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IH	INTAKE HOOD
IN	INCHES
IR	INFRARED HEATER
IW	INDIRECT WASTE
JC	JANITOR'S CLOSET
JP	JOCKEY PUMP
KA	THOUSAND AMP
KW	KILOWATT
KWH	KILOWATT-HOUR
LAT	LEAVING AIR TEMPERATURE
LAB	LABORATORY
LAV	LAVATORY
LBS	POUNDS
LDB	LEAVING DRY BULB
LL	LOW LIMIT
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
LRA	LOCKED ROTOR AMPS
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MA	MIXED AIR
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCA	MEDICAL COMPRESSED AIR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIL	1/1000th INCH
MIN	MINIMUM
MISC	MISCELLANEOUS
MMBH	MILLION BRITISH THERMAL UNITS PER HOUR
MOP	MAXIMUM OVERCURRENT PROTECTION
M/S	MOTOR STARTER
MTD	MOUNTED
MTR	MOTOR
MV	MANUAL AIR VENT
MVAC	MEDICAL VACUUM
N	NITROGEN
N2O	NITROUS OXIDE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NCTC	NORMALLY CLOSED TIMED CLOSED
NCTO	NORMALLY CLOSED TIMED OPEN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NOTC	NORMALLY OPEN TIMED CLOSED
NOTO	NORMALLY OPEN TIMED OPEN
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPCW	NON POTABLE COLD WATER
O	OXYGEN
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OB	OUTLET BOX
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER/CENTER TO CENTER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OL	OVERLOAD
ORC	OVERFLOW RAIN CONDUCTOR
ORD	OVERFLOW ROOF DRAIN
OS&Y	OUTSIDE SCREW AND YOKE
OV	OUTLET VELOCITY
OWS	OPERATOR WORKSTATION

ABBREVIATION	DESCRIPTION
PACU	PACKAGED AIR CONDITIONING UNIT
PBD	PARALLEL BLADE DAMPER
PC	PUMPED CONDENSATE
PCW	PROCESS COOLING WATER
PCWR	PROCESS COOLING WATER RETURN
PCWS	PROCESS COOLING WATER SUPPLY
PD	PRESSURE DROP (FEET OF WATER)
PH	PERIMETER HEAT
PHR	PERIMETER HEAT RETURN
PHS	PERIMETER HEAT SUPPLY
PNL	PANEL
PPM	PARTS PER MILLION
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSAN	PUMPED SANITARY
PST	PUMPED STORM
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PW	PURIFIED WATER
PWR	PURIFIED WATER RETURN
PWS	PURIFIED WATER SUPPLY
(R)	RELOCATED
R	RETURN GRILLE OR REGISTER
RA	RETURN AIR
RAT	RETURN AIR TEMPERATURE
RC	RAIN CONDUCTOR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REQD	REQUIRED
REF	ROOF EXHAUST FAN
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RLFA	RELIEF AIR
RPM	REVOLUTIONS PER MINUTE
RPDA	REDUCED PRESSURE BACKFLOW PREVENTION DETECTION ASSY
RPZA	REDUCED PRESSURE BACKFLOW PREVENTION ZONE ASSY
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
S	SUPPLY AIR DIFFUSER OR GRILLE
SA	SOUND ATTENUATOR
SA	SUPPLY AIR
SAN	SANITARY WASTE
SAT	SUPPLY AIR TEMPERATURE
SECT	SECTION
SCCR	SHORT CIRCUIT CURRENT RATING
SF	SUPPLY FAN
SH	SHOWER
SK	SINK
SMR	SNOW MELT RETURN
SMS	SNOW MELT SUPPLY
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SQFT	SQUARE FOOT/SQUARE FEET
S/S	START/STOP
SS	SERVICE SINK
ST	STORM
STD	STANDARD
STK	STACK
STM	STEAM
STM(___#)	STEAM (SPECIFIC PSIG)
S/W	SUMMER/WINTER
SW	SWITCH
T	TRANSFER GRILLE
TC	TEMPERATURE CONTROL
TC	TEMPERING COIL
TCP	TEMPERATURE CONTROL PANEL
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TEMP	TEMPORARY
TH	TERMINAL HEATING
THA	TOTAL HEAT ABSORBED
THR	TERMINAL HEATING RETURN
THR	TOTAL HEAT REJECTED
THS	TERMINAL HEATING SUPPLY
TMR	TIMER SWITCH
TPD	TEPID WATER
TSP	TOTAL STATIC PRESSURE
TU	(AIR) TERMINAL UNIT
TV	TURNING VANES
TW	TEMPERED WATER
TYP	TYPICAL
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UON	UNLESS OTHERWISE NOTED
UR	URINAL
UV	UNIT VENTILATOR
V	VALVE
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VD	VOLUME DAMPER (MANUALLY ADJUSTABLE)
VOL	VOLUME
VFC	VARIABLE FREQUENCY CONTROLLER
VTR	VENT THROUGH ROOF
VTU	VENTURI TERMINAL UNIT
VUV	VERTICAL UNIT VENTILATOR
W	WASTE
W&V	WASTE AND VENT
WAGD	WASTE ANESTHETIC GAS DISPOSAL
WB	WET BULB
WC	WATER CLOSET
WC	WATER COLUMN
WG	WATER GAUGE
WH	WALL HYDRANT
WMSD	WASHING MACHINE SUPPLY AND DRAIN BOX
WPD	WATER PRESSURE DROP
WT	WEIGHT
XFMR	TRANSFORMER
ZVB	ZONE VALVE BOX

TEMPERATURE CONTROL - PARTIAL SYMBOLS LIST

SYMBOL	DESCRIPTION
CO2	CARBON DIOXIDE SENSOR
CO	CARBON MONOXIDE SENSOR
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
FM	FLOW METER
	GUARD FOR STAT OR SENSOR
H	HUMIDISTAT OR HUMIDITY SENSOR (AS DEFINED ON TC DRAWINGS)
OS	OCCUPANCY SENSOR
PT	PRESSURE TRANSMITTER
SP	STATIC PRESSURE SENSOR OR PROBE
	VALVE - 2 WAY CONTROL VALVE
	VALVE - 3 WAY CONTROL VALVE
T	THERMOSTAT OR TEMPERATURE SENSOR (AS DEFINED ON TC DRAWINGS)

NOTE: LIST OF ADDITIONAL SYMBOLS & ABBREVIATIONS ASSOCIATED WITH TEMPERATURE CONTROLS ARE IDENTIFIED ON TC DRAWINGS.

MECHANICAL SYMBOL LIST

PIPING SYMBOLS

SYMBOL	DESCRIPTION
AV / MV	AIR VENT - AUTOMATIC
	AIR VENT - MANUAL
BFP	BACKFLOW PREVENTER
	CATCH BASIN
	CIRCULATING PUMP
CO	CLEAN OUT - IN FLOOR
CO	CLEAN OUT - FLANGE
	DIRECTION OF FLOW
	DIRECTION OF PITCH - DOWN
	FINNED TUBE RADIATION
	FIRE PROTECTION - SIAMESE CONNECTION - FREE STANDING
	FIRE PROTECTION - SIAMESE CONNECTION - WALL MOUNTED
	FIRE PROTECTION - SPRINKLER HEAD, CONCEALED
	FIRE PROTECTION - SPRINKLER HEAD, PENDANT
	FIRE PROTECTION - SPRINKLER HEAD, UPRIGHT
	FIRE PROTECTION - SPRINKLER HEAD, SIDEWALL
	FLOOR DRAIN
	FLOOR DRAIN - ELEVATION
	FLOOR DRAIN - FUNNEL
	FLOOR DRAIN - FUNNEL, ELEVATION
	FLOW MEASURING DEVICE (FOR TEST AND BALANCING)
FS	FLOW SWITCH
FM	FLOW METER
HB	HOSE BIBB
MH	MANHOLE
	OPEN SITE DRAIN
	PIPE - ANCHOR
	PIPE - CAP OR PLUG
	PIPE - ELBOW DOWN
	PIPE - ELBOW UP
	PIPE - EXPANSION JOINT OR COMPENSATOR
	PIPE - FLANGE
	PIPE - HOSE AND BRAID FLEXIBLE CONNECTION
	PIPE - RUBBER FLEXIBLE CONNECTION
	PIPE - GUIDE
	PIPE - TEE DOWN
	PIPE - TEE UP
	PIPE - UNION
P/T	PRESSURE AND TEMPERATURE TEST PLUG
	PRESSURE GAUGE AND COCK
	REDUCER - CONCENTRIC
	REDUCER - ECCENTRIC
	ROOF/OVERFLOW DRAIN
	STEAM TRAP - FLOAT AND THERMOSTATIC
	STEAM TRAP - BUCKET
	STRAINER
	STRAINER WITH VALVE AND BLOW-OFF
	THERMOMETER
	TRAP
	VALVE - ANGLE
	VALVE - BALL
	VALVE - BUTTERFLY
0.5	VALVE - BALANCE (i.e. BALANCE VALVE TO 0.5 GPM)
0.5	VALVE - COMBINATION BALANCE & FLOW MEASURING (i.e. BALANCE VALVE TO 0.5 GPM)
	VALVE - CHECK
	VALVE - SPRING CHECK
	VALVE - GAS (MANUAL)
	VALVE - GLOBE
	VALVE - ISOLATION
	VALVE - NEEDLE
	VALVE - OS&Y
	VALVE - PLUG
	VALVE - PRESSURE REGULATING
	VALVE - PRESSURE REDUCING
	VALVE - PRESSURE RELIEF
	VALVE - PRESSURE & TEMPERATURE RELIEF
VTR	VENT THROUGH ROOF
WH	WALL HYDRANT
WM	WATER METER
GM	GAS METER

DOUBLE LINE PIPING SYMBOLS

SYMBOL	DESCRIPTION
	FLANGE
	FLEX CONNECTION
	STRAINER - BASKET
	STRAINER - Y TYPE
	VALVE - 2 WAY CONTROL
	VALVE - 3 WAY CONTROL
	VALVE - BUTTERFLY
	VALVE - CHECK
	VALVE - DETECTOR CHECK
	VALVE - OS&Y HORIZONTAL STEM
	VALVE - OS&Y VERTICAL STEM

DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
TU-101	AIR TERMINAL UNIT
TU-101	AIR TERMINAL UNIT WITH HEATING COIL
TU-101	VENTURI AIR TERMINAL UNIT
VTU-101	VENTURI AIR TERMINAL UNIT WITH HEATING COIL
	DAMPER - HORIZONTAL FIRE (EXISTING, NEW)
	DAMPER - HORIZONTAL FIRE / SMOKE (EXISTING, NEW)
	DAMPER - SMOKE (EXISTING, NEW)
	DAMPER - VERTICAL FIRE (EXISTING, NEW)
	DAMPER - VERTICAL FIRE / SMOKE (EXISTING, NEW)
BDD	DAMPER - BACK DRAFT
M	DAMPER - MOTORIZED
	DAMPER - VOLUME (MANUALLY ADJUSTABLE)
	DIFFUSER - BLANK OFF
	DIFFUSER - LINEAR SLOT
	DIFFUSER - SQUARE OR RECTANGULAR
	DUCT CROSS SECTION - SUPPLY
	DUCT CROSS SECTION - RETURN
	DUCT CROSS SECTION - EXHAUST
	DUCT - FLEXIBLE CONNECTION
	DUCT - FLEXIBLE DUCT
	DUCT TAKE-OFF - ROUND CONICAL
	DUCT TAKE-OFF - RECTANGULAR WITH SHOE TAP
	ELBOW - RECTANGULAR WITH TURNING VANES
	ELBOW - ROUND
	ELBOW - RECTANGULAR/ ROUND SMOOTH RADIUS
	ELBOW DOWN - RECTANGULAR
	ELBOW DOWN - ROUND
	ELBOW UP - RECTANGULAR
	ELBOW UP - ROUND
	FAN - AXIAL
	FAN - CENTRIFUGAL (ELEVATION)
	HEATING COIL
D	INCLINED DROP IN DIRECTION OF AIRFLOW
R	INCLINED RISE IN DIRECTION OF AIRFLOW
	INTAKE OR RELIEF HOOD
	REGISTER - RETURN OR EXHAUST
	REGISTER - RETURN WITH BOOT
	REGISTER - TRANSFER GRILLE
	ROOF EXHAUST FAN
	TRANSITION - CONCENTRIC
	TRANSITION - ECCENTRIC
	UNIT HEATER - HORIZONTAL THROW
	UNIT HEATER - VERTICAL THROW

DOUBLE LINE DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
	DUCT TAKE-OFF - RECTANGULAR WITH SHOE TAP
	DUCT TAKE-OFF - ROUND CONICAL
	ELBOW - RECTANGULAR WITH TURNING VANES
	ELBOW - RECTANGULAR SHORT RADIUS WITH SPLITTER VANES
	ELBOW - ROUND
	ELBOW - RECTANGULAR SMOOTH RADIUS
	ELBOW DOWN - RECTANGULAR
	ELBOW DOWN - ROUND
	ELBOW UP - RECTANGULAR
	ELBOW UP - ROUND
	HEATING COIL
D	INCLINED DROP IN DIRECTION OF AIRFLOW
R	INCLINED RISE IN DIRECTION OF AIRFLOW
	TRANSITION - CONCENTRIC
	TRANSITION - ECCENTRIC

MECHANICAL DRAWING INDEX

STANDARD METHODS OF NOTATION

S-1
10ø
350-4
SUPPLY DIFFUSER WITH SCHEDULE TAG "1",
10" DIAMETER NECK SIZE
350 CFM TYPICAL FOR 4

R-1
22x22
640-2
RETURN REGISTER WITH SCHEDULE TAG "1",
22"x 22" NECK SIZE
640 CFM TYPICAL FOR 2
EXHAUST REGISTER E DESIGNATION SIMILAR.

TU-101
AIR TERMINAL UNIT WITH HEATING COIL NO. 101
WITH SERVICE CLEARANCE SHOWN

VTU-101
VENTURI AIR TERMINAL WITH HEATING COIL NO. 101
WITH SERVICE CLEARANCE SHOWN

(2)WC-1
FD-1
PLUMBING FIXTURE UNIT IDENTIFICATION TAG
WATER CLOSET TYPE "1"
TYPICAL FOR 2

8
8
PIPE DIAMETER NOTATION
ALL SIZES IN INCHES

8ø
22x10
18x14ø
DUCT SIZE NOTATION
ALL SIZES IN INCHES

OVAL DUCT
RECTANGULAR DUCT

1
CONSTRUCTION KEY NOTE (NUMBER) OR
DEMOLITION KEY NOTE (LETTER)

EF 1
EQUIPMENT DESIGNATION,
(i.e. EXHAUST FAN NUMBER 1)

HW-1
PIPING RISER DESIGNATION
(i.e. HOT WATER RISER NUMBER 1)

NEW SYSTEM COMPONENT
EXISTING SYSTEM COMPONENT TO REMAIN
POINT OF NEW CONNECTION SYMBOL

SECTION OR PLAN NUMBER
M5.1
SHEET WHERE SECTION IS DRAWN

AREA OF ENLARGEMENT
PLAN NUMBER
M5.1
SHEET WHERE ENLARGED PLAN IS DRAWN

SECTION OR PLAN NUMBER
1
M5.1
SHEET WHERE SECTION IS CUT OR
ENLARGED PLAN IS REFERENCED

SECTION OR ENLARGED PLAN
SCALE: 1/8" - 1' - 0"

SHEET M1.0
SHEET M1.1
MATCH LINE

HEAVY LINE WEIGHT INDICATES NEW WORK
LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT OR REFERENCED INFORMATION
GRAY LINE INDICATES BACKGROUND INFORMATION
DASHED LINES INDICATE PIPING ROUTED BELOW SLAB OR GRADE
HATCH MARKS INDICATE EQUIPMENT OR MATERIALS TO BE DISCONNECTED AND REMOVED.

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PERFORMANCE, LAND AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gfrico.com

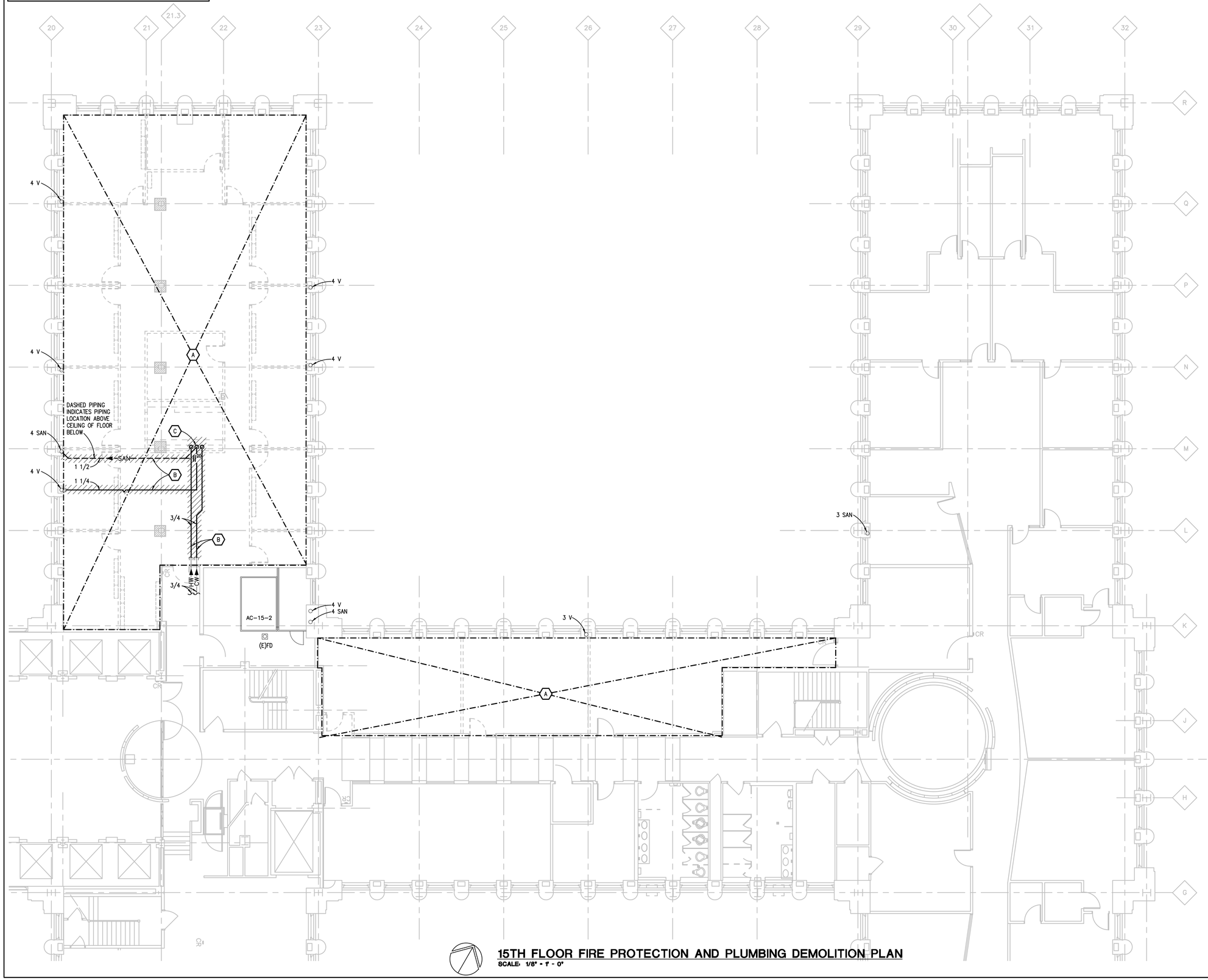
PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED	DATE	ISSUED FOR	IDENTIFICATION NUMBER	SHEET NUMBER	DRAWING TITLE	DRAWING NUMBER
DRAWN RLT CHECKED DC APPROVED DC	12/20/2024	100% CONSTRUCTION DOCUMENTS	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y230038 FILE NO. 950/223557	17 OF 35	MECHANICAL STANDARDS AND DRAWING INDEX	M 001

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20220393

THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE. 1"



MECHANICAL DEMOLITION GENERAL NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. ACTUAL ROUTING AND SIZES OF EXISTING PIPING AND DUCTWORK MIGHT DIFFER TO A LIMITED EXTENT FROM WHAT IS SHOWN. MAJOR DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

(#) DEMOLITION KEY NOTES:

A. REMOVE SPRINKLER HEADS AND BRANCH PIPING BACK TO MAIN.

B. REMOVE HOT WATER, COLD WATER, SANITARY, AND VENT PIPING, INSULATION, VALVES AND ASSOCIATED COMPONENTS.

C. REMOVE SINK, FAUCET, DISPOSAL AND ASSOCIATED COMPONENTS.

15TH FLOOR FIRE PROTECTION AND PLUMBING DEMOLITION PLAN

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

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
FACILITIES AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th St.
Royal Oak, MI 48067
248.542.7886/www.gridco.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED	
DRAWN	RLT
CHECKED	DC
APPROVED	DC
DATE	12/20/2024
ISSUED FOR	100% CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: 230308 FILE NO. 950/223357
SHEET NUMBER	18 OF 35
DRAWING TITLE	15TH FLOOR FIRE PROTECTION AND PLUMBING DEMOLITION PLAN
DRAWING NUMBER	MD 2 01

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20220393

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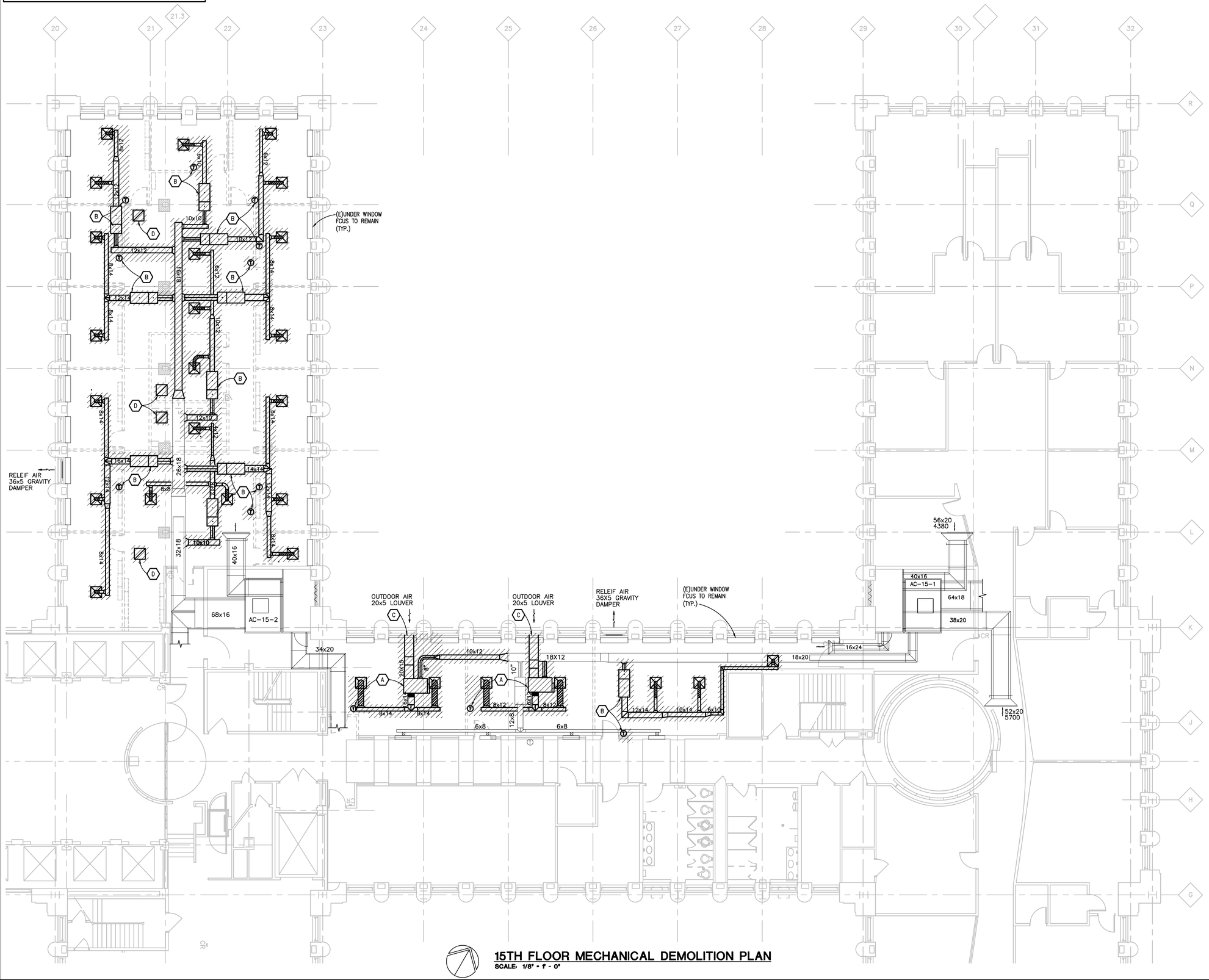

MECHANICAL DEMOLITION GENERAL NOTES:

1. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
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3. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
4. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE, INCLUDING ALL RELATED ITEMS SUCH AS HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.

(#) DEMOLITION KEY NOTES:

A. REMOVE FAN POWERED BOX, ELECTRICAL CONNECTION, TEMPERATURE CONTROLS, DUCTWORK, INSULATION, DAMPERS, AND ASSOCIATED COMPONENTS.

B. REMOVE TERMINAL UNIT, TEMPERATURE CONTROLS, DUCTWORK, INSULATION, DAMPERS, AND ASSOCIATED COMPONENTS.

C. CAP INTAKE LOUVER WITH WEATHER TIGHT, INSULATED PANEL. LOUVER TO REMAIN.

D. REMOVE RETURN GRILLE.

15TH FLOOR MECHANICAL DEMOLITION PLAN

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

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
FACILITIES AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.grfdo.com

PROJECT	DESIGNED	DATE	ISSUED FOR	IDENTIFICATION NUMBER	SHEET NUMBER	DRAWING TITLE	DRAWING NUMBER
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES	DRAWN RLT CHECKED DC APPROVED DC	12/20/2024	100% CONSTRUCTION DOCUMENTS	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223557	19 OF 35	15TH FLOOR MECHANICAL DEMOLITION PLAN	MD 4 01

DAVID ANTHONY CONRAD ENGINEER No. 6201055580 LICENSED PROFESSIONAL ENGINEER STATE OF MICHIGAN

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No.: 20220393

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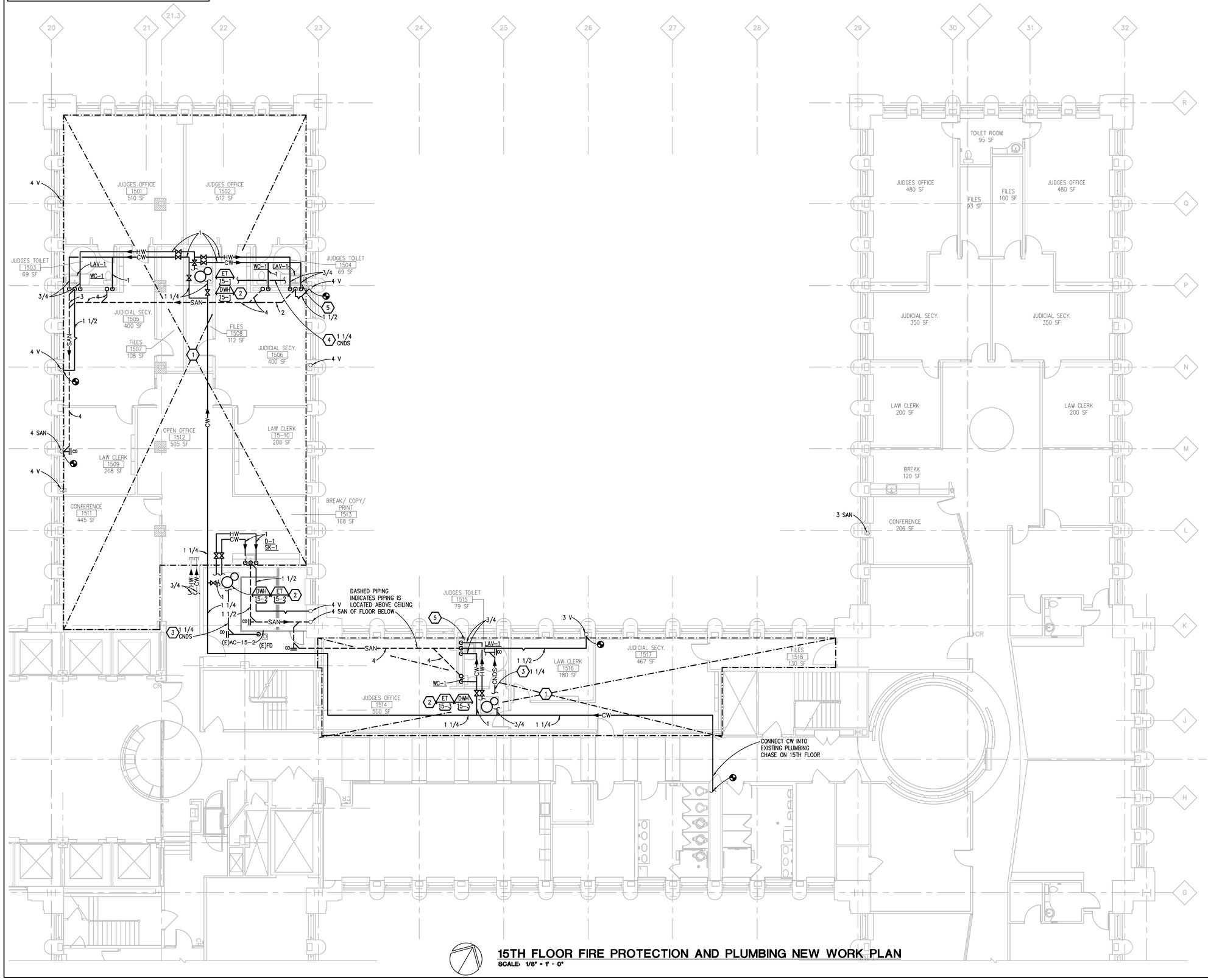

15TH FLOOR FIRE PROTECTION AND PLUMBING NEW WORK PLAN

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

FIRE PROTECTION GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. NO SPRINKLER PIPING SHALL BE ROUTED THROUGH ELECTRICAL EQUIPMENT ROOMS, TELECOMMUNICATION EQUIPMENT ROOMS, ELEVATOR EQUIPMENT ROOMS OR SIMILAR ROOMS. ONLY SPRINKLER PIPING SERVING SPRINKLERS HEADS IN THOSE ROOMS SHALL BE ALLOWED.
4. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
5. MINIMUM RUN-OUT PIPE SIZE TO SPRINKLER HEADS SHALL BE 1".
6. PROVIDE AN AUTOMATIC WET PIPE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13 LIGHT HAZARD CLASSIFICATION. HYDRAULIC CALCULATIONS SHALL BE BASED ON DENSITY OF 0.10 GPM/SQ FT. OVER THE MOST REMOTE 1500 SQ. FT.
7. CONTRACTOR SHALL MAKE HIS OWN PRESSURE AND FLOW TEST PRIOR TO SYSTEM DESIGN.

PLUMBING GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, SHEET METAL, OTHER PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONED LOCATIONS OF PLUMBING FIXTURES.
7. HOT AND COLD WATER PIPING RUN-OUTS TO LAVATORIES AND SINKS SHALL BE 1/2" UNLESS OTHERWISE NOTED.
8. PLUMBING VENT PIPING THROUGH ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF PARAPET.
9. PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.

CONSTRUCTION KEY NOTES:

1. PROVIDE WET PIPE SPRINKLER SYSTEM IN AREA INDICATED, SUPPLIED FROM WET PIPE FIRE RISER. FLEXIBLE SPRINKLER HEAD CONNECTIONS ARE NOT ALLOWED BY OWNER.
2. PROVIDE DRAIN PAN BELOW DWH AND ET, REFER TO DETAIL. APPROXIMATE SIZE IS 40"W x 30" L x 1 1/2" H. COORDINATE EXACT SIZE WITH EQUIPMENT DIMENSIONS.
3. ROUTE CONDENSATE FROM DRAIN PAN AND WATER HEATER TO EXISTING FLOOR DRAIN. TERMINATE WITH AIR GAP.
4. ROUTE CONDENSATE FROM DRAIN PAN AND WATER HEATER TO HUB OUTLET BELOW LAVATORY. TERMINATE WITH AIR GAP.
5. PROVIDE HUB OUTLET BELOW LAVATORY FOR CONDENSATE DRAINAGE.

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DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.grfco.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN RLT
CHECKED DC
APPROVED DC

DATE
12/20/2024

ISSUED FOR
100% CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/223357

SHEET NUMBER
20 OF 35

DRAWING TITLE
15TH FLOOR FIRE PROTECTION AND PLUMBING NEW WORK PLAN

DRAWING NUMBER
M 201

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20220393

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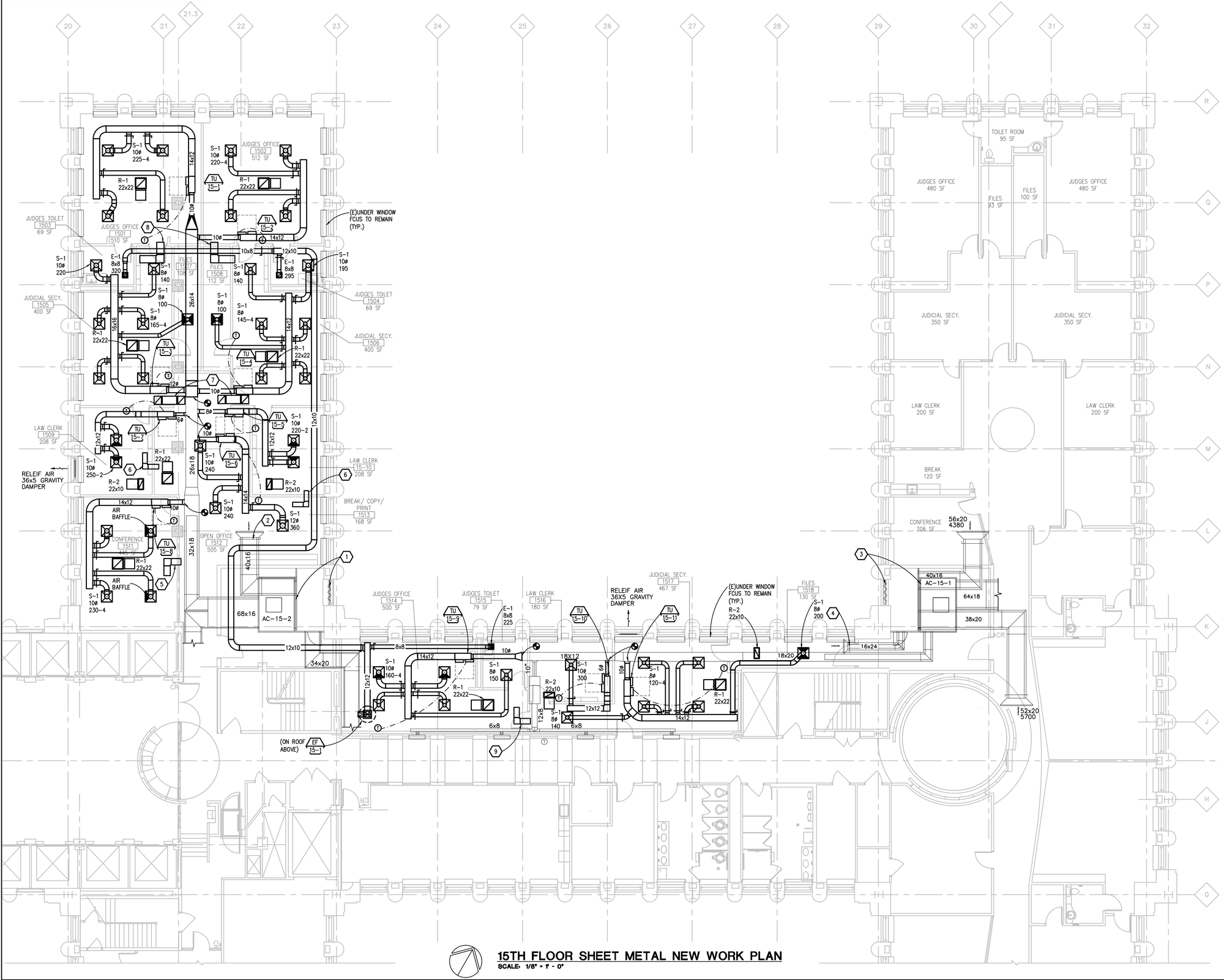

SHEET METAL GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC, AND REPRESENT THE GENERAL INTENT AND ARRANGEMENT OF SYSTEMS. THEY ARE NOT TO BE CONSIDERED FABRICATION/COORDINATION/SHOP DRAWINGS. COORDINATION WITH OTHER TRADES IS REQUIRED. PROVIDE THE ADDITIONAL FITTINGS AND OFFSETS THAT WILL BE REQUIRED TO COMPLETE EACH SYSTEM AND TO AVOID INTERFERENCES WITH ALL OTHER SYSTEMS INCLUDING THE STRUCTURE, PIPING SYSTEMS, ELECTRICAL CONDUITS, BUS DUCTS, CABLE TRAY, LIGHT FIXTURES, ETC. AND/OR OTHER SPACE CONSTRAINTS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PIPING AND DUCTWORK SHALL NOT BE INSTALLED ABOVE ELECTRICAL TRANSFORMERS, SWITCHBOARDS, PANELBOARDS OR MOTOR CONTROL CENTERS.
4. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
5. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
6. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONED LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
7. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES.

(#) CONSTRUCTION KEY NOTES:

1. REBALANCE AIR HANDLING UNIT TO 13895 CFM SUPPLY AIR, 4295 CFM OUTDOOR AIR.
2. BALANCE RETURN AIR DAMPER TO 3850 CFM.
3. REBALANCE AIR HANDLING UNIT TO 18040 CFM SUPPLY AIR, 5605 CFM OUTDOOR AIR.
4. BALANCE RETURN AIR DAMPER TO 2275 CFM.
5. 14x14 TRANSFER DUCT.
6. 10x10 TRANSFER DUCT.
7. 18x16 TRANSFER DUCT.
8. 16x12 TRANSFER DUCT.
9. 12x12 TRANSFER DUCT.

15TH FLOOR SHEET METAL NEW WORK PLAN

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

STATE OF MICHIGAN
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PROPERTY MANAGEMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

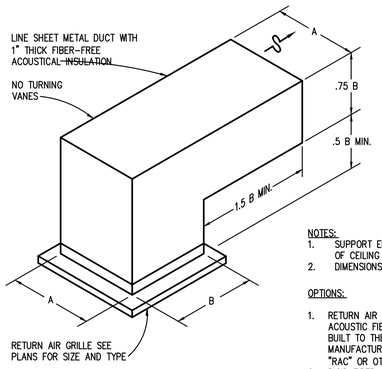
FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.grfco.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED	DATE	ISSUED FOR	IDENTIFICATION NUMBER	SHEET NUMBER	DRAWING TITLE	DRAWING NUMBER
DRAWN RLT CHECKED DC APPROVED DC	12/20/2024	100% CONSTRUCTION DOCUMENTS	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223357	21 OF 35	15TH FLOOR SHEET METAL NEW WORK PLAN	M 401

DAVID ANTHONY CONRAD ENGINEER No. 6201055589 LICENSED PROFESSIONAL ENGINEER STATE OF MICHIGAN

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 2022.0393



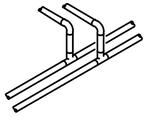
NOTES:
1. SUPPORT ELBOW INDEPENDENT OF CEILING GRID
2. DIMENSIONS ARE INSIDE CLEAR

OPTIONS:

1. RETURN AIR CANOPY. GALVANIZED STEEL WITH ACOUSTIC FIBER-FREE LINER. UNIT SHALL BE BUILT TO THE RETURN GRILLE SIZE, AS MANUFACTURED BY PRICE INDUSTRIES-MODEL "RAC" OR OTHER APPROVED.
2. RIGID FIBER-FREE BOARD IN LIEU OF LINED SHEET METAL DUCT.

CEILING GRILLE TO/FROM PLENUM

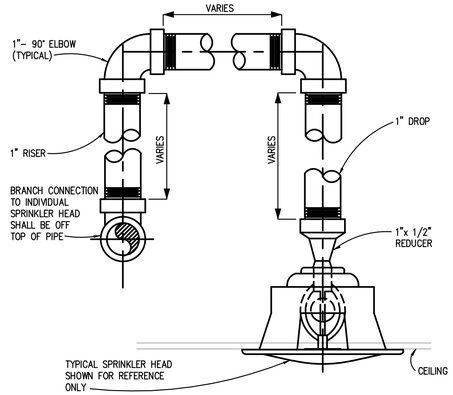
PLENUM RETURN AIR GRILLE DETAILS
NO SCALE



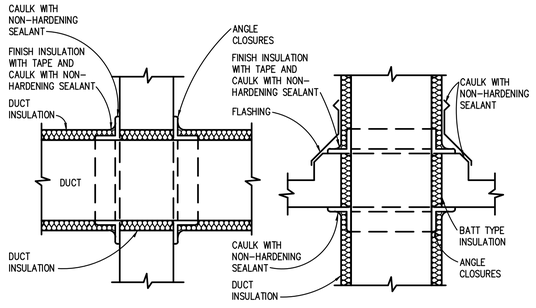
BRANCH CONNECTION OFF TOP

APPLIES TO THE FOLLOWING SYSTEMS:
DOMESTIC WATER

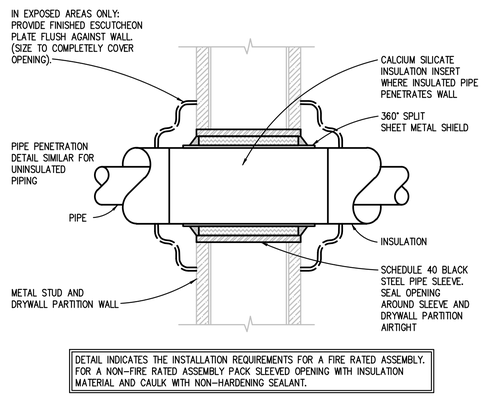
TYPICAL BRANCH TAKE-OFF CONNECTION PIPING DETAIL
NO SCALE



TYPICAL SPRINKLER PIPING DETAIL
NO SCALE

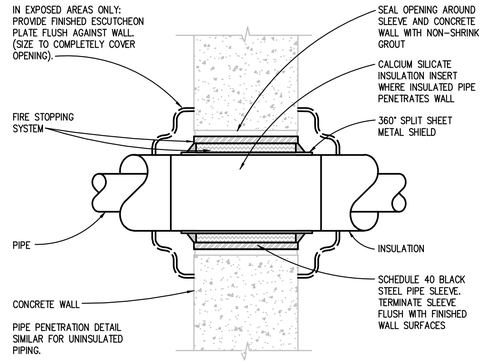


VERTICAL OR HORIZONTAL (NON FIRE RATED ASSEMBLY) DUCT PENETRATION DETAIL
NO SCALE



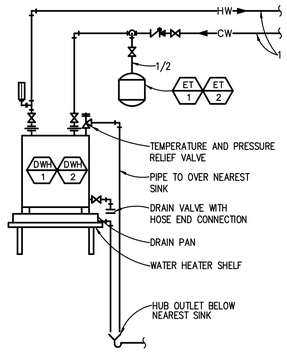
DETAIL INDICATES THE INSTALLATION REQUIREMENTS FOR A FIRE RATED ASSEMBLY. FOR A NON-FIRE RATED ASSEMBLY PACK SLEEVED OPENING WITH INSULATION MATERIAL AND CAULK WITH NON-HARDENING SEALANT.

FIRE RATED AND NON-FIRE RATED METAL STUD AND DRYWALL PARTITION WALL PIPE PENETRATION DETAIL
NO SCALE

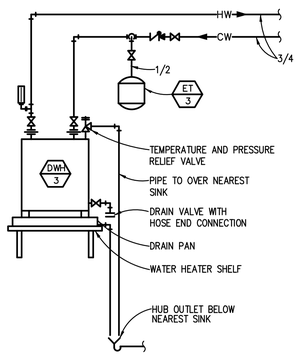


DETAIL INDICATES THE INSTALLATION REQUIREMENTS FOR A FIRE RATED ASSEMBLY. FOR A NON-FIRE RATED ASSEMBLY PACK SLEEVED OPENING WITH INSULATION MATERIAL AND CAULK WITH NON-HARDENING SEALANT.

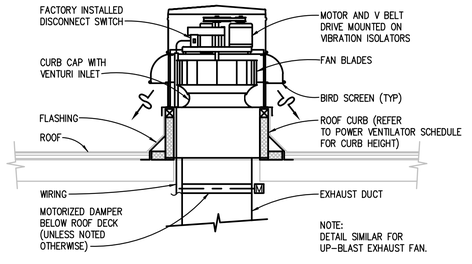
FIRE RATED AND NON-FIRE RATED POURED CONCRETE OR BLOCK WALL PIPE PENETRATION DETAIL
NO SCALE



ELECTRIC WATER HEATER PIPING DIAGRAM
NO SCALE



ELECTRIC WATER HEATER PIPING DIAGRAM
NO SCALE



ROOF MOUNTED POWER VENTILATOR EXHAUST FAN DETAIL
NO SCALE

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
FACILITIES AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

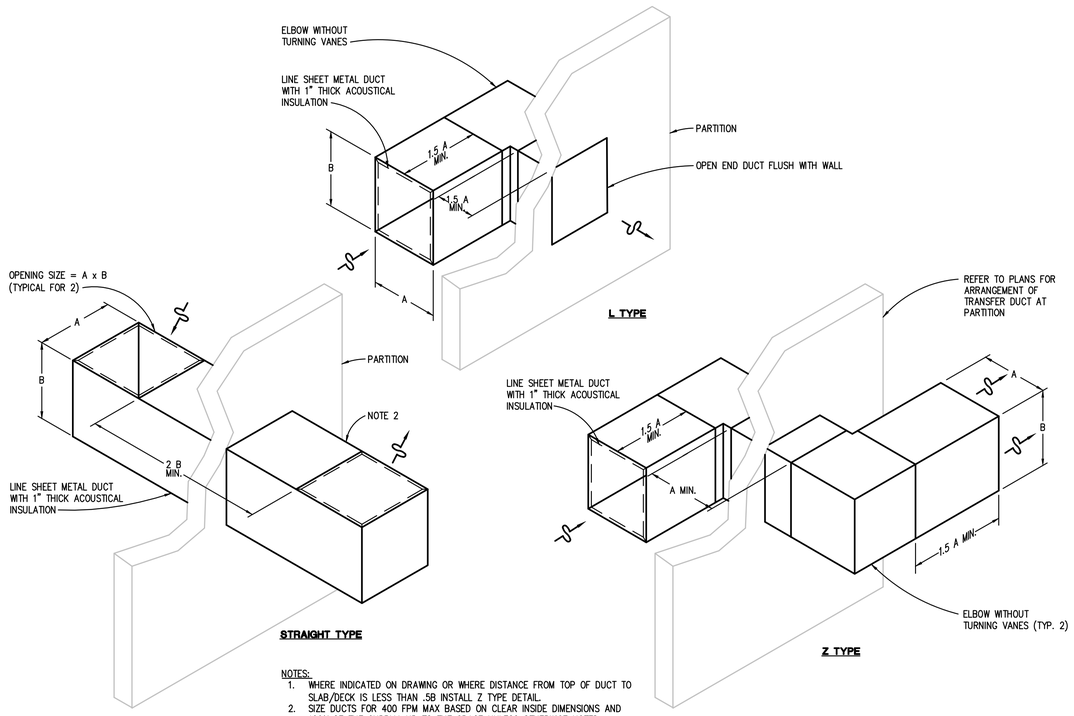
FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gfnoa.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED		
	DRAWN	RLT
	CHECKED	DC
	APPROVED	DC
DATE	12/20/2024	
ISSUED FOR	100% CONSTRUCTION DOCUMENTS	
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223557	
SHEET NUMBER	22 OF 35	
DRAWING TITLE	MECHANICAL DETAILS	
DRAWING NUMBER	M 601	

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

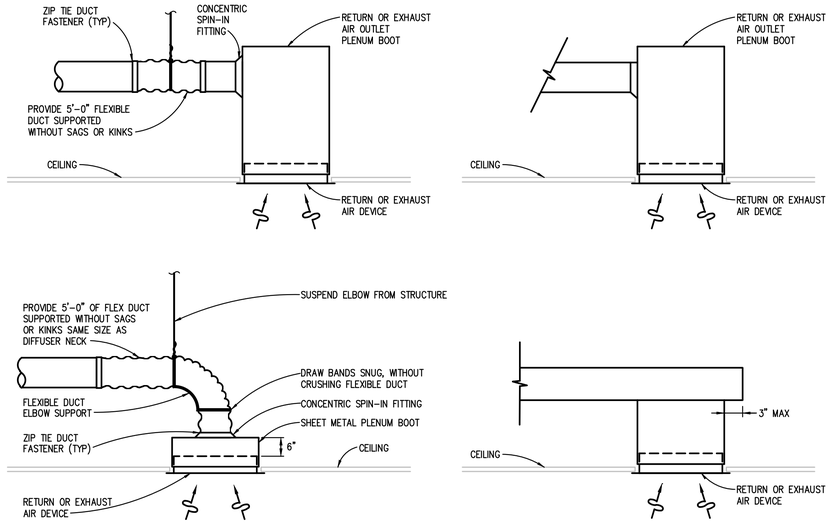
Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel# 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PSA Project No. 20220393



NOTES:
1. WHERE INDICATED ON DRAWING OR WHERE DISTANCE FROM TOP OF DUCT TO SLAB/DECK IS LESS THAN .5B INSTALL Z TYPE DETAIL.
2. SIZE DUCTS FOR 400 FPM MAX BASED ON CLEAR INSIDE DIMENSIONS AND 100% OF THE SUPPLY AIR TO THE SPACE UNLESS OTHERWISE NOTED.
3. ROTATE DETAILS 90° WHERE VERTICAL INSTALLATION IS INDICATED.
4. DIMENSIONS ARE INSIDE CLEAR.

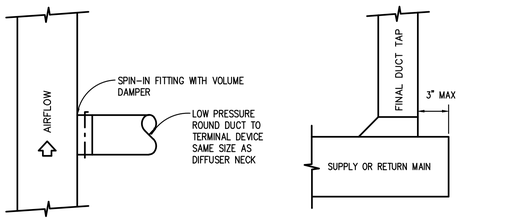
OPTIONS:
1. RIGID FIBER BOARD MAY BE USED IN LIEU OF LINED SHEET METAL DUCT.

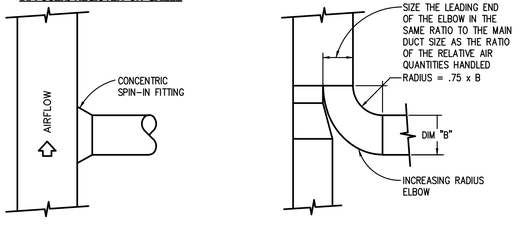
AIR TRANSFER DUCT DETAILS
NO SCALE

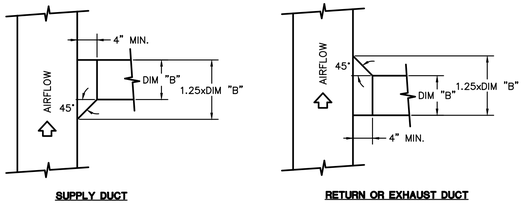


RETURN OR EXHAUST AIR DEVICE INSTALLATION DETAIL
NO SCALE

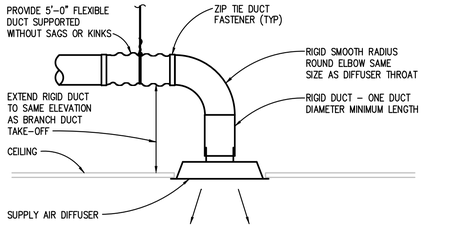
NOTE: PAINT INTERIOR SURFACE OF PLENUM BOX FLAT BLACK.



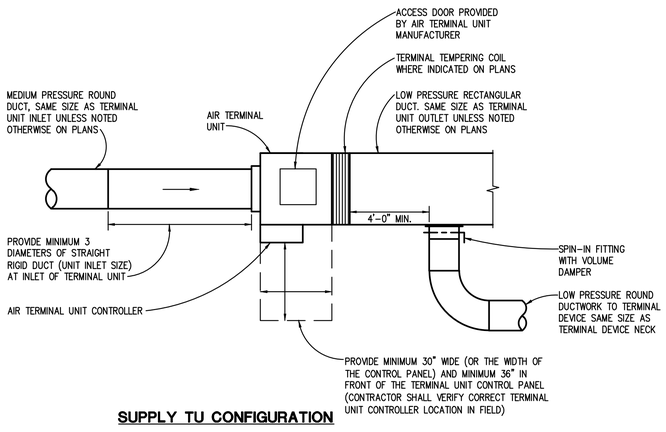




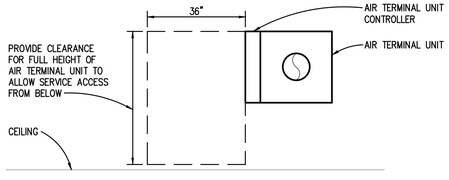
RECTANGULAR DUCT BRANCH TAKE-OFF DETAILS
NO SCALE



ROUND NECK SUPPLY AIR DIFFUSER DETAIL
NO SCALE



SUPPLY TU CONFIGURATION



TERMINAL UNIT SECTION

AIR TERMINAL UNIT (TU) DETAIL
NO SCALE

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055580
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No.: 2022.0393

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.grfco.com

PROJECT	CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES
DESIGNED	RLT
DRAWN	DC
CHECKED	DC
APPROVED	
DATE	12/20/2024
ISSUED FOR	100% CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223557
SHEET NUMBER	23 OF 35
DRAWING TITLE	MECHANICAL DETAILS
DRAWING NUMBER	M 602

DUCT SYSTEM INSULATION APPLICATION SCHEDULE

	INSULATION MATERIAL & THICKNESS (INCHES)						FIELD APPLIED JACKET MATERIAL		
	FIBERGLASS BLANKET 0.75 LB/CU FT	FIBERGLASS BLANKET 1.0 LB/CU FT	FIBERGLASS BOARD 2.25 LB/CU FT	FIBERGLASS BOARD 6.0 LB/CU FT	FLEXIBLE ELASTOMERIC	ASTM E2336 2-HOUR FIRE RATED BLANKET	2-HOUR FIRE RATED BLANKET	ALUMINUM	SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)	KEYED NOTES
DUCT SYSTEMS LOCATED INDOORS										
SUPPLY AIR, EXCEPT AS NOTED BELOW		1.5								A

PLENUMS, DUCTS, AND DUCT ACCESSORIES NOT REQUIRING INSULATION:
- FIBROUS-GLASS DUCTS
- DOUBLE-WALL METAL DUCTS WITH INSULATION OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1 – 2013
- METAL DUCTS WITH DUCT LINER OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1 – 2013
- FABRIC SUPPLY DUCTS
- FACTORY-INSULATED FLEXIBLE DUCTS
- FACTORY-INSULATED PLENUMS AND CASINGS
- FLEXIBLE CONNECTORS
- VIBRATION-CONTROL DEVICES
- FACTORY-INSULATED ACCESS PANELS AND DOORS

GENERAL NOTES

1. 'X' OR THICKNESS IN INCHES INDICATE ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A DUCT SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. REFER TO METAL DUCT SECTION OF SPECIFICATIONS FOR DUCT LINING AND DOUBLE-WALL INSULATED DUCT.
3. REFER TO HVAC CASINGS SECTION OF SPECIFICATIONS FOR DOUBLE-WALL INSULATED PLENUMS.

KEYED NOTES

A. INCLUDE INSULATION AROUND DUCT MOUNTED COILS AND AIR TERMINAL UNIT COILS.

DUCT SYSTEM APPLICATION SCHEDULE

	DUCT MATERIAL																		
AIR SYSTEMS	G90 GALV. SHEET METAL	DOUBLE-WALL LINED G90 GALV. SHEET METAL (SOLID INNER WALL)	DOUBLE-WALL LINED G90 GALV. SHEET METAL (PERF. INNER WALL)	G90 GALV. SHEET METAL W/ 1-INCH FIBER-FREE LINING	GALVANNEALED SHEET METAL	ALUMINUM	TYPE 304 STAINLESS STEEL	TYPE 316 STAINLESS STEEL	PVC COATED GALV. SHEET METAL (4X1)	PVC COATED GALV. SHEET METAL (1X4)	PVC COATED GALV. SHEET METAL (4X4)	16 GA. CARBON STEEL	ZERO-CLEARANCE PREFABRICATED RANGE HOOD EXHAUST DUCT	FABRIC	DESIGN PRESSURE CLASS (INCHES WG)	SEAL CLASS	MAX. ALLOWABLE LEAKAGE RATE (PERCENT)	KEYED NOTES
SUPPLY AIR UPSTREAM OF TERMINAL UNITS	X														+6	A	5	
SUPPLY AIR DOWNSTREAM OF TERMINAL UNITS	X														+2	A	5	
RETURN AIR WITHOUT TERMINAL UNITS	X														−2	A	5	
EXHAUST AIR WITHOUT TERMINAL UNITS	X														−2	A	5	
AIR TRANSFER DUCT				X											+2	A	5	

GENERAL NOTES

1. 'X' INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A DUCT SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.

PLUMBING PIPING & VALVE APPLICATION SCHEDULE

	MATERIAL																PRESSURE CONNECTIONS										GRAVITY DWV CONNECTIONS				ISOLATION VALVES						
PIPE SIZE (INCHES)	SOFT COPPER TYPE K	HARD COPPER TYPE L	HARD COPPER TYPE M	CARBON STEEL (SCHED. 40)	CARBON STEEL (STD.)	GALV. STEEL (SCHED. 40)	STAINLESS STEEL (SCHED. 10)	PEX	PE PIPE	FE SHEATHED CARBON STEEL PIPE	CSST	NO-HUB CISP	PVC TYPE DWV	PP DRAINAGE PIPE	COPPER TYPE DWV	DUCTILE IRON PIPE	SOLDERED	BRAZED	WELDED	THREADED	FLANGED	GROOVED	INSERT & CRIMP	FUSION	PRESSURE-SEAL	MECHANICALLY-FORMED TEE	MECHANICAL JOINT	PUSH-ON-JOINT	SOLVENT WELDED	SOLDERED	FUSION	CISP HUBLESS	HEAVY-DUTY HUBLESS	BALL	AGA BALL	GENERAL SERVICE BUTTERFLY	LUBRICATED PLUG	GATE	KEYED NOTES
ABOVEGROUND DOMESTIC WATER (POTABLE AND NON-POTABLE) ON DISTRIBUTION SIDE OF METER - MIN. WORKING PRESS. & TEMP., 125 PSIG AT 200 DEG F																																						
UP TO 4		X															X	X							X								X					
ABOVEGROUND SANITARY WASTE & VENT - MIN. WORKING PRESS., 10-FOOT HEAD OF WATER																																						
1-1/2 TO 15												X																				X						
ABOVEGROUND INDIRECT SANITARY WASTE - MIN. WORKING PRESS., 10-FOOT HEAD OF WATER																																						
UP TO 8			X													X														X								

GENERAL NOTES

1. 'X' INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A PIPING SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. DISSIMILAR-METAL PIPING JOINTS: CONSTRUCT JOINTS USING DIELECTRIC FITTINGS COMPATIBLE WITH BOTH PIPING MATERIALS.
   a. NPS 2 AND SMALLER: USE DIELECTRIC NIPPLE/WATERWAY.
   b. NPS 2-1/2 AND LARGER: USE DIELECTRIC FLANGE KITS.
3. USE UNIONS OR FLANGES AT VALVE AND EQUIPMENT CONNECTIONS.
4. PLUMBING EQUIPMENT DRAINS, VENTS, SAFETY VALVE PIPING, BLOWDOWN PIPING AND THE LIKE SHALL BE SAME PIPING MATERIAL AS ASSOCIATED PIPING SYSTEM.

HORIZONTAL PIPING AND SUPPORT APPLICATION SCHEDULE

	HANGER OR SUPPORT TYPE							SHIELD TYPE			
METAL PIPE TYPE & SIZE	MSS TYPE 1 OLEVIS HANGER	MSS TYPE 10 SWIVEL RING BAND HANGER	MSS TYPE 41 DOUBLE ROD PIPE ROLLER	MSS TYPE 43 SINGLE ROD ROLLER HANGER	MSS TYPE 44 PIPE ROLLER & STAND	MSS TYPE 46 ADJUSTABLE PIPE ROLL STAND	MSS TYPE 39 PROTECTION SADDLE	MSS TYPE 40 INSULATION PROTECTION SHIELD	THERMAL-HANGER SHIELD	KEYED NOTES
UNINSULATED SINGLE PIPE										
UP TO 2 INCH	X	X								
INSULATED SINGLE COLD PIPES										
UP TO 2 INCH	X	X						X	X	A
INSULATED SINGLE HOT PIPES										
UP TO 2 INCH	X	X						X	X	A, B

GENERAL NOTES

1. "X" INDICATES APPROVED HANGER OR SUPPORT ELEMENTS. IF MORE THAN ONE HANGER OR SUPPORT ELEMENT IS INDICATED, SELECTION FROM APPROVED ELEMENTS IS CONTRACTOR'S OPTION.
2. REFER TO HANGER AND SUPPORT SECTION FOR APPROVED MANUFACTURERS.
3. HANGERS AND SUPPORTS USED FOR FIRE PROTECTION SERVICES SHALL BE UL LISTED OR FMG APPROVED.
4. HANGER ELEMENTS IN CONTACT WITH BARE COPPER PIPE SHALL BE COPPER PLATED, PLASTIC COATED, FELT LINED, OR USE MANUFACTURED COPPER TUBE ISOLATORS.
5. REFER TO INDIVIDUAL PIPING SPECIFICATION SECTIONS FOR HANGER SPACING.
6. MULTIPLE PARALLEL COLD PIPES MAY BE TRAPEZE SUPPORTED FROM BELOW USING U-BOLTS OR STRUT CLAMPS AND THERMAL HANGER SHIELDS. REFER TO KEYED NOTE A.
7. MULTIPLE PARALLEL COLD PIPES MAY BE TRAPEZE SUPPORTED FROM ABOVE USING STANDARD HANGER ELEMENTS INDICATED FOR SINGLE COLD PIPES.
8. MULTIPLE PARALLEL HOT PIPES MAY BE TRAPEZE SUPPORTED FROM BELOW USING ROLLER ELEMENTS AND THERMAL HANGER SHIELD OR INSULATION PROTECTION SADDLE. REFER TO KEYED NOTES B AND C.
9. MULTIPLE PARALLEL HOT PIPES MAY BE TRAPEZE SUPPORTED FROM ABOVE USING STANDARD ROLLER HANGERS INDICATED AND THERMAL HANGER SHIELD OR INSULATION PROTECTION SADDLE. REFER TO KEY NOTES B AND C.
10. REFER TO INDIVIDUAL PIPING SPECIFICATION SECTIONS FOR ADDITIONAL SYSTEM SPECIFIC HANGER APPLICATIONS.

KEYED NOTES

A. USE THERMAL HANGER SHIELD ON TRAPEZE SUPPORTED INSULATED PIPE TO PREVENT CRUSHING OF INSULATION.
B. USE TYPE 39 PROTECTION SADDLES IF INSULATION WITHOUT VAPOR BARRIER IS INDICATED. FILL INTERIOR VOIDS WITH INSULATION MATCHING ADJOINING INSULATION.

ABOVEGROUND PLUMBING PIPE & ACCESSORY INSULATION APPLICATION SCHEDULE

	INSULATION MATERIAL & THICKNESS (INCHES)							FIELD-APPLIED JACKET MATERIAL					
	FLEXIBLE ELASTOMERIC	FIBERGLASS	MINERAL WOOL	POLYISOCYANURATE	PHENOLIC	CELLULAR GLASS	CALCIUM SILICATE	ALUMINUM	STAINLESS STEEL	PVC	SELF-ADHESIVE (FOR OUTDOOR APPLICATIONS)	PVDC (INDOOR)	PVDC (OUTDOOR)	KEYED NOTES
INDOOR PIPE SYSTEM AND SIZE (INCHES)														
DOMESTIC COLD WATER	1	1								X				A
DOMESTIC HOT WATER SUPPLY & RETURN 140 DEG F AND LESS:														
NPS 1-1/4 AND SMALLER	1	1								X				A
NPS 1-1/2 AND LARGER	1.5	1.5								X				A
CONDENSATE AND EQUIPMENT DRAIN PIPING BELOW 60 DEG F	0.75	1												

UNLESS OTHERWISE INDICATED OR SCHEDULED, DO NOT INSULATE THE FOLLOWING:
- FIRE SUPPRESSION PIPING
- UNDERGROUND PIPING
- LABORATORY GAS AND VACUUM PIPING
- MEDICAL GAS AND VACUUM PIPING
- FUEL GAS PIPING
- FUEL OIL PIPING

GENERAL NOTES

1. 'X' OR THICKNESS IN INCHES INDICATES ACCEPTABLE SELECTION. IF MORE THAN ONE SELECTION IS INDICATED FOR A SYSTEM, CONTRACTOR MAY SELECT FROM THOSE INDICATED SELECTIONS.
2. INSULATE PIPING WITHIN AIR HANDLING EQUIPMENT THE SAME AS INDOOR PIPING. PROVIDE ALUMINUM OR STAINLESS STEEL JACKET.

KEYED NOTES

A. PROVIDE FIELD APPLIED JACKET FOR PIPING EXPOSED IN EQUIPMENT ROOMS, STORAGE ROOMS, JANITORS CLOSETS, RECEIVING ROOMS, TEST AREAS, CIRCULATION AREAS AND SUCH AREAS SUBJECT TO DAMAGE, WITHIN 10 FEET (3 METERS) OF FINISHED FLOOR.

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DESIGN AND CONSTRUCTION DIVISION
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FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gmtco.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

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DATE
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100% CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: 123038
FILE NO. 950/223357

SHEET NUMBER
24 OF 35

DRAWING TITLE
MECHANICAL SCHEDULES

DRAWING NUMBER
M 7 01

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
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POWER VENTILATOR SCHEDULE

UNIT IDENTIFICATION	SYSTEM SERVED	TYPE	AIRFLOW CFM	E.S.P. IN. W.G.	TIP SPEED FPM	FAN RPM	MOTOR				CURB HEIGHT INCHES	MODULATION/ CONTROL TYPE	ELECTRICAL				UNIT INLET Lw BY OCTAVE BAND								MODEL NUMBER	KEYED NOTES
							BHP	HP	RPM	DRIVE TYPE			VOLTS	PHASE	SCCR KA (NOTE 3)	OPTIONS/ ACCESSORIES	63 HZ (DB)	125 HZ (DB)	250 HZ (DB)	500 HZ (DB)	1000 HZ (DB)	2000 HZ (DB)	4000 HZ (DB)	8000 HZ (DB)		
EF-15-1	TOILET ROOMS	ROOF MOUNTED, CENTRIFUGAL	840	0.5	4340	1483	0.16	1/4	1725	DIRECT	18	ECM	120	1	5	---	72	76	75	67	63	61	56	50	G-099-VG	

GENERAL NOTES:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE GREENHECK UNLESS OTHERWISE NOTED.
3. CONTROLLER (E.G. VARIABLE FREQUENCY CONTROLLER, MOTOR STARTER) FOR SPECIFIED EQUIPMENT SHALL BE MANUFACTURED AND MARKED PER NEC WITH A MINIMUM SHORT CIRCUIT CURRENT RATING AS INDICATED.

AIR TERMINAL TYPE

DUCT CONNECTIONS		DISCHARGE SOUND POWER/RADIATED SOUND POWER – dB						DIMENSIONS		MODEL NUMBER	KEYED NOTES
INLET SIZE INCHES	OUTLET SIZE INCHES	125 Hz	250 Hz	500 Hz	1000 Hz	2000 HZ	4000 HZ	LENGTH INCHES	HEIGHT INCHES		
6ø	12x8	73/66	69/63	62/52	56/42	53/40	49/36	40-3/8	8	SDV	1
8ø	12x10	72/68	70/59	66/53	63/47	57/46	53/46	40-3/8	10	SDV	2
10ø	14x12-1/2	78/71	70/61	65/56	61/50	58/47	53/45	40-3/8	12-1/2	SDV	3
12ø	16x15	76/72	73/63	69/59	65/53	61/48	57/46	40-3/8	15	SDV	4

GENERAL NOTES:
1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.
2. MAXIMUM SOUND POWER LEVEL BASED ON 2" PRESSURE DROP ACROSS UNIT WITH NO ALLOWANCE FOR EXTERNAL ATTENUATION.

KEYED NOTES:
1. BASED ON 350 CFM
2. BASED ON 650 CFM
3. BASED ON 900 CFM
4. BASED ON 1500 CFM

SCHEDULES GENERAL NOTES:

TYPICAL FOR ALL SCHEDULE SHEETS:

1. REFER TO ELECTRICAL STANDARD SCHEDULES, ONE LINE DIAGRAM AND PANEL SCHEDULES FOR ADDITIONAL ELECTRICAL INFORMATION

2. PROVIDE THE FOLLOWING FACTORY-WIRED ELECTRICAL OPTIONS/ACCESSORIES WHERE INDICATED IN SCHEDULE:

   A – NON-FUSED DISCONNECT SWITCH
   B – UNIT SHALL BE SINGLE POINT ELECTRICAL CONNECTION WITH FACTORY INSTALLED DISCONNECTING MEANS AND ALL REQUIRED STARTERS AND CONTROLS
   C – SERVICE RECEPTACLE
   D – FUSED DISCONNECT SWITCH
   E – COMBINATION STARTER
   F – UNIT SHALL HAVE (2) SINGLE POINT CONNECTIONS WITH FACTORY INSTALLED DISCONNECTING MEANS AND ALL REQUIRED STARTERS AND CONTROLS. (1) CONNECTION SHALL BE FOR CONDENSING SECTION AND (1) CONNECTION SHALL BE FOR THE REMAINDER OF THE UNIT.

3. FOR MODULATION/CONTROL TYPE COLUMN, "VFC" INDICATES VARIABLE FREQUENCY CONTROLLERS, "AUTO" INDICATES AUTOMATIC OPERATION (CONTROLLED BY TEMPERATURE CONTROLS OR SELF CONTAINED CONTROLS), "MANUAL" INDICATES HAND OPERATION.

4. IF VARIABLE FREQUENCY CONTROLLERS ARE INDICATED TO BE PROVIDED AND ARE NOT INSTALLED INTEGRAL TO THE UNIT, VARIABLE FREQUENCY CONTROLLERS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR (UNLESS OTHERWISE NOTED) AND INSTALLED BY THE ELECTRICAL CONTRACTOR INCLUDING THE LINE SIDE AND LOAD SIDE WIRING TO THE MOTOR AND INCLUDING MISCELLANEOUS STEEL REQUIRED FOR THE SUPPORT AND MOUNTING OF THE VFC. REFER TO FLOOR PLANS FOR LOCATION.

5. WHERE EQUIPMENT IS INDICATED TO HAVE A SINGLE POINT ELECTRICAL CONNECTION, THAT EQUIPMENT SHALL COME COMPLETE WITH FACTORY INSTALLED STARTERS, MOTOR OVERLOAD PROTECTION, CONTACTORS, FUSING AND ALL NECESSARY INTERNAL WIRING AND CONTROLS. PROVIDE A FACTORY MOUNTED UNIT DISCONNECTING MEANS WHERE THE ELECTRICAL CONTRACTOR SHALL MAKE SINGLE POINT CONNECTION. INSTALL PACKAGED EQUIPMENT SUCH THAT THE ELECTRICAL CONNECTION AND CONTROLS ARE ACCESSIBLE AND HAVE CLEARANCES MEETING THE NATIONAL ELECTRICAL CODE.

6. WHERE PACKAGED EQUIPMENT IS PROVIDED, NAMEPLATE MUST INDICATE MAXIMUM OVERCURRENT PROTECTION BY HACR RATED CIRCUIT BREAKERS OR FUSES. IF FUSE PROTECTION ONLY IS INDICATED, PROVIDE A FUSIBLE DISCONNECT AND FUSES WITH THE UNIT.

7. WHERE EQUIPMENT IS DESIGNATED BY MANUFACTURER AND MODEL NUMBER, THIS IS THE BASIS OF DESIGN. IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT BY OTHER SPECIFIED MANUFACTURERS OR PROPOSED ALTERNATE EQUIPMENT BY THE BASIS OF DESIGN MANUFACTURER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS TO ELECTRICAL REQUIREMENTS, STRUCTURAL LOADING, OR ARCHITECTURAL APPURTENANCES AND SHALL INCLUDE THE COST OF SUCH REVISIONS IN HIS BID.

8. WHERE EQUIPMENT IS SCHEDULED TO INCLUDE A SERVICE RECEPTACLE, PROVIDE A FACTORY MOUNTED SERVICE RECEPTACLE WITH APPROPRIATE FUSES AND TRANSFORMERS CONNECTED ON THE LINE SIDE OF THE UNIT DISCONNECT. PROVIDE A NAMEPLATE ON THE DISCONNECT SWITCH INDICATING THE PRESENCE OF LIVE POWER TO THE SERVICE RECEPTACLE WHEN THE UNIT DISCONNECT IS IN THE OFF POSITION.

9. SIZE ALL EQUIPMENT FEEDERS BASED ON THE LISTED MOP (MAXIMUM OVERCURRENT PROTECTION). REFER TO THE FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE ON THE ELECTRICAL STANDARD SCHEDULES SHEET.

AIR TERMINAL UNIT WITH ELECTRIC COIL SCHEDULE

UNIT IDENTIFICATION	INLET SIZE	UNIT SERVED FROM	AIR FLOW				HEATING COIL									KEYED NOTES
			COOLING MAXIMUM CFM	MINIMUM CFM	HEATING MAXIMUM CFM	MAXIMUM A.P.D. IN. W.G.	AIR		ELECTRIC							
							E.D.B. °F	L.D.B. °F	CAPACITY kW	CAPACITY MBH	NUMBER OF STAGES	VOLTS	PHASE	SCCR KA	OPTIONS/ ACCESSORIES	
TU-15-1	10	AC-15-2	900	230	270	0.25	55	90.1	3.0	10.2	SCR	480	3	5	B	
TU-15-2	10	AC-15-2	880	230	270	0.25	55	90.1	3.0	10.2	SCR	480	3	5	B	
TU-15-3	12	AC-15-2	1120	325	340	0.25	55	90.1	4.0	13.6	SCR	480	3	5	B	
TU-15-4	10	AC-15-2	1015	230	270	0.25	55	90.1	3.0	10.2	SCR	480	3	5	B	
TU-15-5	8	AC-15-2	440	145	200	0.25	55	86.6	2.0	6.8	SCR	277	1	5	B	
TU-15-6	10	AC-15-2	840	230	270	0.25	55	90.1	3.0	10.2	SCR	480	3	5	B	
TU-15-7	8	AC-15-2	500	145	185	0.25	55	89.2	2.0	3.4	SCR	277	1	5	B	
TU-15-8	10	AC-15-2	920	230	280	0.25	55	88.9	3.0	10.2	SCR	480	3	5	B	
TU-15-9	10	AC-15-1	790	230	270	0.25	55	90.1	3.0	10.2	SCR	480	3	5	B	
TU-15-10	6	AC-15-1	300	90	90	0.25	55	90.1	1.0	3.4	SCR	277	1	5	B	
TU-15-11	10	AC-15-1	820	230	270	0.25	55	90.1	3.0	10.2	SCR	480	3	5	B	

GENERAL NOTES:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.
3. COIL HEATING CAPACITY IS BASED ON HEATING CFM.
4. MAXIMUM AIR PRESSURE DROP IS BASED ON MAXIMUM CFM AND INCLUDES THE PRESSURE DROP OF THE ENTIRE ASSEMBLY INCLUDING HEATING COIL.

DOMESTIC WATER HEATER SCHEDULE (ELECTRIC)

UNIT IDENTIFICATION	STORAGE CAPACITY GALLONS	KW INPUT	RECOVERY GPH	E.W.T. °F	L.W.T. °F	MODULATION/ CONTROL TYPE	ELECTRICAL						MODEL NUMBER	KEYED NOTES
							VOLTS	PHASE	FLA	MOP	SCCR KA	OPTIONS/ ACCESSORIES		
DWH-15-1	10	1.7	7	40	140	AUTO	120	1	14	20	5	B	JER-10 SCD	1, 2
DWH-15-2	20	1.7	7	40	140	AUTO	120	1	14	20	5	B	JER-20 SCD	1, 2
DWH-15-3	6	1.7	7	40	140	AUTO	120	1	14	20	5	B	JER-06 SCD	1, 2

GENERAL NOTES:
1. REFER TO SCHEDULES GENERAL NOTES.
2. MODEL NUMBERS ARE LOCHINVAR UNLESS OTHERWISE NOTED.

KEYED NOTES:
1. PROVIDE WATER HEATER SUPPORT FROM STRUCTURE ABOVE.
2. PROVIDE DRAIN PAN WITH DRAIN OUTLET. ROUTE DRAIN PIPING TO HUB OUTLET BELOW NEAREST SINK/LAVATORY.

DOMESTIC HOT WATER SYSTEM EXPANSION TANK SCHEDULE

UNIT IDENTIFICATION	SYSTEM SERVED	ESTIMATED TOTAL SYSTEM VOLUME GALLONS	TYPE	OPERATING PRESSURES AT EXPANSION TANK			SYSTEM OPERATING TEMPERATURES		EXPANSION VOLUME GALLONS	ACCEPTANCE FACTOR	MINIMUM TANK VOLUME GALLONS	DIMENSIONS		MODEL NUMBER	KEYED NOTES
				INITIAL PSIG	PRE-CHARGE PSIG	MAX (OPERATING) PSIG	MINIMUM °F	MAXIMUM °F				DIAMETER INCHES	HEIGHT INCHES		
ET-15-1	DWH-15-1	18	DIAPHRAGM	40	35	72	40	140	0.2	0.37	0.7	8	12-5/8	PT-5	
ET-15-2	DWH-15-2	27	DIAPHRAGM	40	35	72	40	140	0.4	0.37	1.1	8	12-5/8	PT-5	
ET-15-3	DWH-15-3	15	DIAPHRAGM	40	35	72	40	140	0.2	0.37	0.6	8	12-5/8	PT-5	

GENERAL NOTES:
1. MODEL NUMBERS ARE BELL & GOSSETT UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL PRE-CHARGE THE TANK TO THE VALUE INDICATED IN THE SCHEDULE. FOR TANKS THAT ARE SUPPLIED PRE-CHARGED BY THE MANUFACTURER, THE CONTRACTOR SHALL CONFIRM THE PRESSURE AND MAKE ADJUSTMENTS AS REQUIRED.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

UNIT IDENTIFICATION	TYPE	FACE SIZE	NECK SIZE	FRAME TYPE	ACCESSORY	CONSTRUCTION	FINISH	MODEL NUMBER	KEYED NOTES
S-1	DIFFUSER	24x24	SEE PLANS	KEYED NOTE #1	---	STEEL	WHITE	SPD	
E-1	GRILLE	12x12	SEE PLANS	KEYED NOTE #1	---	STEEL	WHITE	80	
R-1	GRILLE	24x24	22x22	KEYED NOTE #1	---	STEEL	WHITE	80	
R-2	GRILLE	24x12	22x10	KEYED NOTE #1	---	STEEL	WHITE	80	

GENERAL NOTES:
1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.

KEYED NOTES:
1. CONTRACTOR SHALL COORDINATE FRAME TYPE WITH ARCHITECTURAL REFLECTED CEILING PLAN.

PLUMBING CONNECTION SCHEDULE

UNIT IDENTIFICATION	CW INCHES	HW INCHES	SAN INCHES	VENT INCHES	KEYED NOTES
WC-1	1	–	4	–	
LAV-1	1/2	1/2	1 1/2	1 1/2	
SK-1	3/4	3/4	1 1/2	1 1/2	

GENERAL NOTES:
1. INDIVIDUAL WATER LINE BRANCHES, WASTE LINES, VENTS, AND TRAPS FOR CONNECTION TO INDIVIDUAL FIXTURES, FIXTURE FITTINGS, AND SPECIALTIES SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE OR AS INDICATED ON DRAWINGS, WHICHEVER IS GREATER.

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-5276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 2022.0393

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT, REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.grfco.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED RLT
DRAWN DC
CHECKED DC
APPROVED DC

DATE 12/20/2024

ISSUED FOR 100% CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/223357

SHEET NUMBER 25 OF 35

DRAWING TITLE MECHANICAL SCHEDULES

DRAWING NUMBER M 702

TEMPERATURE CONTROL - SYMBOLS LIST

SCHEMATIC SYMBOLS

SYMBOL	DESCRIPTION
AFC	AIR FLOW CONTROLLER
AQ	AQUASTAT, STRAP ON BULB
CO2	CARBON DIOXIDE SENSOR – WALL MOUNTED
CO2	CARBON DIOXIDE SENSOR – DUCT MOUNTED
CO	CARBON MONOXIDE SENSOR – WALL MOUNTED
CO	CARBON MONOXIDE SENSOR – DUCT MOUNTED
CS	CURRENT SWITCH
CT	CURRENT TRANSMITTER
	DAMPER – OPPOSED BLADE
	DAMPER – PARALLEL BLADE
M	DAMPER MOTOR
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DPS	DIFFERENTIAL PRESSURE SWITCH
CM	FIRE ALARM SYSTEM, ADDRESSABLE CONTROL MODULE
IM	FIRE ALARM SYSTEM, ADDRESSABLE INTERFACE MODULE
FMS	FLOW MEASURING STATION
FM	FLOW METER
FS	FLOW SWITCH
FZ	FREEZESTAT
F/	GAUGE – FLOW
P/	GAUGE – PRESSURE
T/	GAUGE – TEMPERATURE
	GUARD FOR STAT OR SENSOR
	HUMIDIFIER
H	HUMIDISTAT OR HUMIDITY SENSOR (AS DEFINED ON TC DRAWINGS)
H	HUMIDITY SENSOR, DUCT MOUNTED
LVL	LEVEL SWITCH OR TRANSMITTER
LS	LIMIT SWITCH
	LINE – ELECTRIC
	LINE – INSTRUMENT AIR
M/S	MOTOR STARTER
OS	OCCUPANCY SENSOR
R	PILOT LIGHT OR BEACON R – RED LENS A – AMBER LENS B – BLUE LENS G – GREEN LENS
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER
R	RELAY, ELECTRIC
$\mathcal{S}_N$	SELECTOR SWITCH, (N=NUMBER OF POSITIONS)
AI	SIGNAL – DDC/BAS, ANALOG INPUT
AO	SIGNAL – DDC/BAS, ANALOG OUTPUT
DI	SIGNAL – DDC/BAS, DIGITAL INPUT
DO	SIGNAL – DDC/BAS, DIGITAL OUTPUT
AI	SIGNAL – PACKAGED EQUIPMENT, ANALOG INPUT
AO	SIGNAL – PACKAGED EQUIPMENT, ANALOG OUTPUT
DI	SIGNAL – PACKAGED EQUIPMENT, DIGITAL INPUT
DO	SIGNAL – PACKAGED EQUIPMENT, DIGITAL OUTPUT

SCHEMATIC SYMBOLS (CONT.)

SYMBOL	DESCRIPTION
DD	SMOKE DETECTOR – DUCT MOUNTED
SD	SMOKE DETECTOR – SPACE MOUNTED
S/S	START/STOP RELAY
SPT	STATIC PRESSURE TRANSMITTER
SP	STATIC PRESSURE SENSOR OR PROBE
SW	SWITCH
T	TEMPERATURE SENSOR – RIGID ELEMENT IN WELL
T	TEMPERATURE SENSOR – STRAP ON BULB
T	TEMPERATURE SENSOR – DUCT MOUNTED AVG ELEMENT
T	TEMPERATURE SENSOR – DUCT MOUNTED RIGID ELEMENT
T	THERMOSTAT OR TEMPERATURE SENSOR (AS DEFINED ON TC DRAWINGS)
T_N	THERMOSTAT FOR NIGHT SETBACK
TMR	TIMER SWITCH
XF	TRANSFORMER
	VALVE – 2 WAY CONTROL VALVE
	VALVE – 3 WAY CONTROL VALVE
VFC	VARIABLE FREQUENCY CONTROLLER
VS	VELOCITY SENSOR
VIB	VIBRATION SWITCH
V	VOLTAGE SENSOR

WIRING SYMBOLS

SYMBOL	DESCRIPTION
	AUDIBLE DEVICE (AS DEFINED ON TC DRAWINGS)
M/S	COIL – MOTOR STARTER CONTACTOR
R	COIL – RELAY
TDR	COIL – TIME DELAY RELAY
VFC	COIL – VARIABLE SPEED DRIVE CONTACTOR
	COIL – EP OR SOLENOID VALVE
	CONTACT – INSTANT OPERATING, NO
	CONTACT – INSTANT OPERATING, NC
	CONTACT – TIMED AFTER COIL IS ENERGIZED, NOTC
	CONTACT – TIMED AFTER COIL IS ENERGIZED, NCTO
	CONTACT – TIMED AFTER COIL IS DE-ENERGIZED, NOTO
	CONTACT – TIMED AFTER COIL IS DE-ENERGIZED, NCTC
	GROUND
	MOTOR, SINGLE PHASE
R	PILOT LIGHT OR BEACON R – RED LENSE A – AMBER LENS B – BLUE LENS G – GREEN LENS
R	PILOT LIGHT, WITH PUSH-TO-TEST
	PUSH BUTTON – MOMENTARY CONTACT, NO
	PUSH BUTTON – MOMENTARY CONTACT, NC
	PUSH BUTTON – MOMENTARY CONTACT, NO & NC
	PUSH BUTTON – MOMENTARY, NO (MUSHROOM HEAD)
	PUSH BUTTON – MOMENTARY, NC (MUSHROOM HEAD)

WIRING SYMBOLS (CONT.)

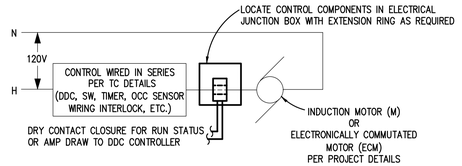
SYMBOL	DESCRIPTION
1 2	SWITCH – 2 POSITION SELECTOR
H O A	SWITCH – 3 POSITION SELECTOR HAND/OFF/AUTO
	SWITCH – FLOW (AIR, WATER, ETC.), NO
	SWITCH – FLOW (AIR, WATER, ETC.), NC
	SWITCH – LIMIT, NO
	SWITCH – LIMIT, NO, HELD CLOSED
	SWITCH – LIMIT, NC
	SWITCH – LIMIT, NC, HELD OPEN
	SWITCH – LIQUID LEVEL, NO
	SWITCH – LIQUID LEVEL, NC
	SWITCH – MANUAL SPST, NO
	SWITCH – MANUAL DPST, NO
	SWITCH – MANUAL SPST, NC
	SWITCH – MANUAL DPST, NC
	SWITCH – MANUAL SPDT
	SWITCH – MANUAL DPDT
	SWITCH – PRESSURE & VACUUM, NO
	SWITCH – PRESSURE & VACUUM, NC
	SWITCH – TEMPERATURE ACTUATED, NO
	SWITCH – TEMPERATURE ACTUATED, NC
	THERMAL OVERLOAD, SINGLE PHASE
OLs	THERMAL OVERLOAD CONTACTS – 3 PHASE
	TRANSFORMER
	WIRE TERMINATION AT DEVICE
	WIRE TO WIRE TERMINATION
	WIRING NOT CONNECTED

ABBREVIATIONS

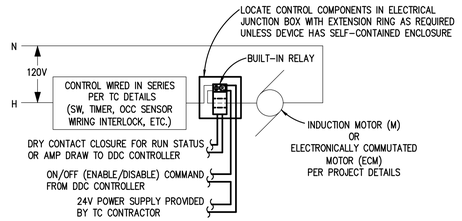
ABBREVIATION	DESCRIPTION
BAS	BUILDING AUTOMATION SYSTEM
DDC	DIRECT DIGITAL CONTROL
TC	TEMPERATURE CONTROLS
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NOTO	NORMALLY OPEN TIMED OPEN
NOTC	NORMALLY OPEN TIMED CLOSED
NCTO	NORMALLY CLOSED TIMED OPEN
NCTC	NORMALLY CLOSED TIMED CLOSED
SPST	SINGLE POLE SINGLE THROW
SPDT	SINGLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DPDT	DOUBLE POLE DOUBLE THROW

NOTES:

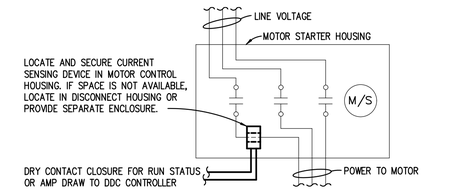
1. SOME SYMBOLS & ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.
2. REFER TO MECHANICAL STANDARDS ON DRAWING M-001 FOR ADDITIONAL SYMBOLS & ABBREVIATIONS THAT MAY BE USED ON TEMPERATURE CONTROL DRAWINGS.



1-PHASE POWER APPLICATION - DDC MONITORING



1-PHASE POWER APPLICATION - COMBO DDC MONITORING & CONTROL



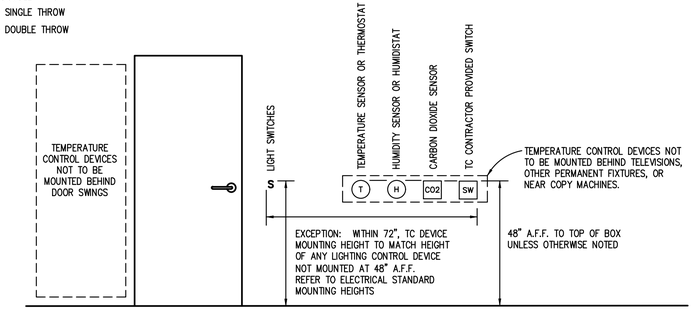
3-PHASE POWER APPLICATION - DDC MONITORING

CURRENT SWITCH INSTALLATION DETAILS

TYPICAL

NOTES:

1. CURRENT SWITCH (CS) OR CURRENT TRANSDUCER (CT) AMP MONITORING AS APPLICABLE PER CONTROL DETAILS SHALL BE INSTALLED FOR DDC SYSTEM STATUS INDICATION OF FAN OR PUMP OPERATION. APPROPRIATE TIME DELAY FOR STATUS FEEDBACK UPON DDC START AND STOP COMMANDS SHALL BE INCLUDED WITH THE DDC LOGIC TO AVOID NUISANCE OPERATIONAL ALARMS.
2. REVIEW EQUIPMENT SHOP DRAWINGS TO DETERMINE POTENTIAL AMPERAGE RANGE OF FAN OR PUMP OPERATION FOR AMPERAGE TRIP SETTING REQUIREMENTS PRIOR TO SELECTING APPROPRIATE CURRENT SWITCH (MINIMUM SPEED AMPERAGE FOR FPTU WITH ECM CAN BE VERY LOW).
3. FOR ECM CURRENT SWITCH APPLICATIONS: PROVIDE CURRENT SWITCH RATED FOR ECM OPERATION WITH AMPERAGE TRIP SETTING HIGHER THAN TRICKLE/IDLE/STANDBY AMPERAGE ASSOCIATED WITH ECM WHEN OFF AND AMPERAGE TRIP SETTING LOWER THAN THE MINIMUM SPEED OPERATION OF FAN OR PUMP AS SET BY THE TAB CONTRACTOR.
4. FOR INDUCTION MOTOR CURRENT SWITCH APPLICATIONS (AS APPLICABLE): AMPERAGE TRIP SETTING SHALL BE ADJUSTABLE TO ACCOMMODATE VFC MINIMUM SPEED SETTING, TO DETECT FAN BELT LOSS, OR TO DETECT PUMP COUPLING DETACHMENT.
5. WHEN FAN OR PUMP IS ON AND NOT IN ALARM, DDC SYSTEM SHALL TOTALIZE RUN TIME HOURS FOR OPERATOR INFORMATION FROM BUILDING AUTOMATION SYSTEM OPERATOR INTERFACE.

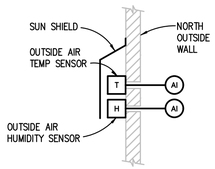


TC DEVICE STANDARD MOUNTING HEIGHTS DETAIL

NO SCALE

TC GENERAL NOTES

1. THESE GENERAL NOTES SHALL BE APPLICABLE FOR ALL TEMPERATURE CONTROL (TC) DRAWINGS.
2. "PROVIDE" IS DEFINED AS 'FURNISH AND INSTALL".
3. TEMPERATURE CONTROLS CONTRACTOR (TC CONTRACTOR) SHALL BE RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.
4. FOR TEMPERATURE CONTROL DRAWINGS ONLY: ALL DETAILED INFORMATION IDENTIFIED WITH HEAVY LINE WEIGHT SHALL BE PROVIDED BY TC CONTRACTOR. ALL OTHER INFORMATION IDENTIFIED WITH LIGHT LINE WEIGHT SHALL BE PROVIDED BY OTHER TRADES.
5. ALL CONTROL SCHEMATICS AND WIRING DIAGRAMS ARE FOR THE CLARIFICATION OF EQUIPMENT INTERLOCKING FUNCTIONS AND THE INTERFACE OF VARIOUS CONTRACTORS' WORK AND SHALL NOT BE MISTAKEN AS SHOP DRAWINGS FOR ACTUAL INSTALLATION.
6. TC CONTRACTOR SHALL PROVIDE DDC CONTROLLERS AS REQUIRED TO MEET INTENT OF DESIGN DOCUMENTS. REFER TO THE PLANS FOR THE DDC FUNCTIONS THAT APPLY TO EACH MECHANICAL SYSTEM.
7. ALL TC PROVIDED COMPONENTS AND ALL TC CONTRACTOR INSTALLED WIRING SHALL BE LABELED PER SPECIFICATIONS.
8. ALL WIRING AND SYSTEM CONTROL VOLTAGES SHALL BE IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATION AND THE ELECTRICAL SPECIFICATIONS.
9. VARIABLE FREQUENCY CONTROLLER, FAN AND PUMP MOTOR STARTERS, STARTER WIRING, CONTROL VOLTAGE TRANSFORMERS AND ASSOCIATED POWER WIRING SHALL BE PROVIDED BY OTHER TRADES.
10. DUCT SMOKE DETECTORS SHALL BE FURNISHED, INSTALLED AND WIRED TO THE FIRE ALARM SYSTEM BY THE ELECTRICAL CONTRACTOR. ELECTRICAL SHALL PROVIDE FIRE ALARM SYSTEM CONTROL MODULES FOR REQUIRED SAFETIES TO MOTOR STARTERS OR VFC'S AS INDICATED. CONTROL MODULES SHALL BE LOCATED NEAR RESPECTIVE MOTOR STARTERS OR VFCs. TC CONTRACTOR SHALL PROVIDE INTERLOCK WIRING FROM CONTROL MODULES TO MOTOR STARTERS OR VFCs.
11. ALL DDC AND CONTROL INTERLOCK WIRING SHALL BE BY TC CONTRACTOR UNLESS OTHERWISE NOTED. TC CONTRACTOR SHALL COORDINATE WITH VFC AND MOTOR STARTER SUPPLIERS TO DETERMINE EXACT WIRING REQUIREMENTS AND TERMINATION POINTS.
12. ALL DDC AND CONTROL INTERLOCK WIRING BETWEEN COMPONENTS SHALL BE INSTALLED WITHOUT INTERMEDIATE STOPS. WIRE SPLICING AT INTERMEDIATE TERMINAL STRIPS IS NOT ACCEPTABLE.
13. ALL ELECTRICAL WIRING AND RACEWAY SYSTEMS SHALL COMPLY WITH ELECTRICAL SPECIFICATION REQUIREMENTS. WHERE RACEWAY IS REQUIRED, TWO SEPARATE ELECTRICAL RACEWAY SYSTEMS SHALL BE PROVIDED: ONE FOR 120V WIRING AND THE OTHER FOR 24V WIRING.
14. TC CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER SUPPLIES REQUIRED FOR TC SYSTEM UNLESS OTHERWISE NOTED. REFER TO ELECTRICAL PANEL SCHEDULES FOR SPARE CIRCUITS OR CIRCUITS DEDICATED TO TEMPERATURE CONTROLS. COORDINATE CIRCUIT USE WITH ELECTRICAL CONTRACTOR.
15. TC CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL FIELD MOUNTED COMPONENTS.
16. REFER TO TEMPERATURE CONTROLS STANDARD MOUNTING HEIGHTS DETAIL FOR ELEVATIONS OF WALL MOUNTED TEMPERATURE CONTROL DEVICES. PROVIDE WALL MOUNTED DEVICE GUARDS WHERE INDICATED ON TC DETAILS OR AT SPECIFIC LOCATIONS INDICATED ON MECHANICAL FLOOR PLANS.
17. TC CONTRACTOR SHALL PROVIDE AUXILIARY PANELS FOR REQUIRED PANEL MOUNTED EQUIPMENT SUCH AS RELAYS, TRANSDUCERS, CONTROL TRANSFORMERS, ETC. AUXILIARY PANELS SHALL BE LOCATED NEXT TO ASSOCIATED DDC PANEL. DEPENDING ON WIRE QUANTITY OR COMPLEXITY, PROVIDE CONDUITS BETWEEN PANELS OR WIRING THROUGH WITH CONDUIT STUBS ABOVE ALL ASSOCIATED PANELS.
18. REMOTELY MOUNTED FIELD DEVICES SUCH AS RELAYS, CONTROL TRANSFORMERS, ETC., SHALL BE HOUSED IN AN ENCLOSURE PROVIDED BY THE TC CONTRACTOR.
19. CONTROL TRANSFORMERS WHEN REQUIRED SHALL BE SIZED FOR 150% OF ACTUAL LOAD.
20. FREEZESTATS SHALL BE MOUNTED ON UPSTREAM FACE OF COOLING COILS. FREEZESTAT QUANTITY SHALL BE ONE PER 20 SQ. FT OF CROSS SECTIONAL AREA.
21. CURRENT SWITCHES USED FOR OPERATIONAL STATUS SHALL HAVE CURRENT THRESHOLD SETPOINT ADJUSTED TO INDICATE BELT OR DRIVE FAILURE.
22. ALL CONTROL VALVES, CONTROL DAMPERS AND ASSOCIATED CONTROL ACTUATORS IDENTIFIED ON TC DRAWINGS SHALL BE FURNISHED BY TC CONTRACTOR UNLESS OTHERWISE NOTED. DAMPER SIZE AND LOCATIONS ARE INDICATED ON MECHANICAL FLOOR PLAN DRAWINGS.
23. ALL CONTROL VALVES AND DAMPERS FURNISHED BY THE TC CONTRACTOR SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR. ALL PIPE PENETRATIONS AND BASIC FITTINGS REQUIRED FOR SENSOR INSTALLATIONS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR.
24. DAMPER ACTUATORS SHALL BE INSTALLED BY TC CONTRACTOR WHEN FURNISHED BY TC CONTRACTOR.
25. ALL INSTRUMENTATION TUBING REQUIRED FOR DPS AND DPT COMPONENT INSTALLATIONS SHALL BE PROVIDED BY TC CONTRACTOR.
26. TC CONTRACTOR SHALL FIELD MOUNT ALL REQUIRED "SHIPPED LOOSE" PACKAGED CONTROL COMPONENTS FURNISHED BY EQUIPMENT SUPPLIERS WHERE INDICATED. ALL REQUIRED 24V AND 120V FIELD WIRING SHALL BE PROVIDED BY TC CONTRACTOR UNLESS NOTED OTHERWISE. TC CONTRACTOR SHALL COORDINATE SPECIFIC SYSTEM WIRING REQUIREMENTS WITH PACKAGED EQUIPMENT SUPPLIERS.



OA SENSOR INSTALLATION DETAIL

NO SCALE

NOTES:

1. TC CONTRACTOR SHALL REPLACE THE EXISTING OA TEMP AND HUMIDITY SENSORS FOR BUILDING.
2. CALCULATE OA ENTHALPY OR DEW POINT TEMPERATURE AS REQUIRED PER SEQUENCE OF OPERATION REQUIREMENTS.
3. BROADCAST OUTSIDE AIR TEMPERATURE, HUMIDITY, AND CALCULATED OA ENTHALPY OR DEW POINT TEMPERATURE, AS REQUIRED, THROUGH BAS COMMUNICATION NETWORK TO CONTROLLERS REQUIRING INFORMATION FOR DDC PROGRAMMING LOGIC.

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20220899

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PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

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FILE NO. 950/223557

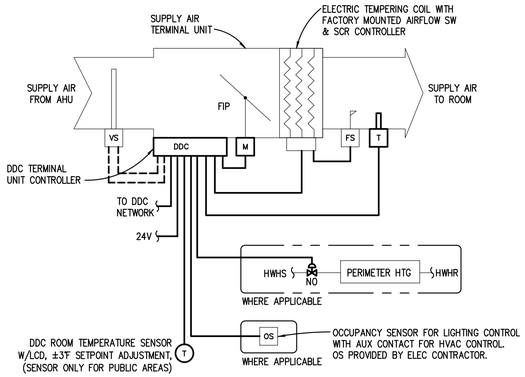
SHEET NUMBER 26 OF 35

DRAWING TITLE TEMPERATURE CONTROL STANDARDS AND GENERAL NOTES

DRAWING NUMBER M 801

TC GENERAL NOTES

TC GENERAL NOTES ON DRAWING M-801 APPLY TO THIS DRAWING.



VAV TU WITH PERIMETER HTG CONTROL

TYPICAL EXCEPT WHERE NOTED

NOTES:

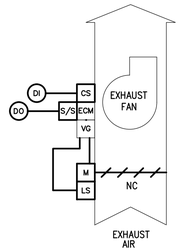
1. REFER TO PIPING & SHEET METAL PLANS FOR LOCATIONS AND QUANTITY OF UNITS AND LOCATIONS OF ROOM TEMP SENSORS.
2. WHERE INDICATED ON FLOOR PLANS, SPACE TEMPERATURE SHALL BE REFERENCED TO MULTIPLE AIR TERMINAL UNIT CONTROLLERS VIA DDC NETWORK.
3. PERIMETER HEATING CONTROL VALVE SHALL BE CONTROLLED FROM THE ASSOCIATED TERMINAL UNIT CONTROLLER AS SHOWN ON HVAC PIPING PLANS.
4. TC CONTRACTOR SHALL PROVIDE 24V POWER SUPPLY TO TERMINAL UNIT CONTROLLER.
5. TERMINAL UNIT MANUFACTURER SHALL PROVIDE DAMPER AND TC CONTRACTOR SHALL PROVIDE DAMPER ACTUATOR.
6. TERMINAL UNIT MANUFACTURER SHALL PROVIDE VELOCITY SENSOR FOR SYSTEM CONTROL. TC CONTRACTOR SHALL COORDINATE WITH TAB CONTRACTOR TO DETERMINE DAMPER CONTROL SETTINGS TO ACHIEVE SCHEDULED MINIMUM AND MAXIMUM CFMs.
7. TC CONTRACTOR SHALL FURNISH CONTROL VALVES FOR HEATING ELEMENTS PER THE MECHANICAL DETAILS. SELECT CONTROL VALVES TO ACHIEVE THE SCHEDULED FLOW RATES.
8. (WHERE APPLICABLE): TC CONTRACTOR SHALL WIRE TERMINAL UNIT CONTROLLER TO ROOM OCCUPANCY SENSOR(S) WITH AUXILIARY CONTACTS AS PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL LIGHTING FLOOR PLANS FOR OCCUPANCY SENSOR APPLICATIONS AND LOCATIONS AND REFER TO SHEET METAL FLOOR PLANS FOR ASSOCIATED AREAS SERVED BY COMMON TERMINAL UNITS. COORDINATE WIRING REQUIREMENTS WITH ELEC CONTRACTOR.

SEQUENCE OF OPERATION

SUPPLY AIR TERMINAL UNIT (TU):

NOTE: ALL SETPOINTS, RESET SETPOINTS, DEADBANDS, AND TIME DELAYS DESCRIBED IN THE SEQUENCE OF OPERATION SHALL BE ADJUSTABLE BY BUILDING AUTOMATION SYSTEM OPERATORS. APPROPRIATE DEADBANDS SHALL BE USED TO PREVENT SHORT CYCLING SITUATIONS.

1. ALL TU'S ASSOCIATED WITH A SINGLE ROOM TEMP SENSOR SHALL CONTROL IN UNISON.
2. TU VAV MINIMUM AND MAXIMUM AIRFLOW SETTINGS SHALL BE AS INDICATED ON THE MECHANICAL SCHEDULES. WHERE MINIMUM AND MAXIMUM AIRFLOW SETTINGS ARE THE SAME, TU CONTROLLER SHALL PERFORM CONSTANT AIR VOLUME CONTROL.
3. IN ALL MODES OF HEATING, TU DISCHARGE AIR TEMP (DAT) SENSOR SHALL PROVIDE HIGH LIMIT SETPOINT CONTROL AT 90°F DAT.
4. WHEN ROOM TEMP RISES ABOVE THE COOLING SETPOINT, THE TU CONTROLLER SHALL KEEP THE TEMPERING COIL CONTROL VALVE AND PERIMETER HEATING CONTROL VALVE (WHERE APPLICABLE) CLOSED AND MODULATE THE SUPPLY AIRFLOW BETWEEN ITS MINIMUM AND MAXIMUM SETTINGS.
5. FOR ROOMS WITHOUT PERIMETER HEATING: WHEN ROOM TEMP FALLS BELOW HEATING SETPOINT, THE TU CONTROLLER SHALL FIRST MODULATE TU DAMPER TOWARDS ITS MINIMUM AIRFLOW SETTING. WHEN AIRFLOW IS AT MINIMUM, CONTROLLER SHALL MODULATE TEMPERING COIL CONTROL VALVE TOWARDS OPEN. IF THE ROOM TEMP IS BELOW SETPOINT WITH TU DAT AT HIGH LIMIT SETPOINT, THE TU CONTROLLER SHALL MODULATE THE SUPPLY AIRFLOW BETWEEN ITS MINIMUM AND MAXIMUM SETTING TO MAINTAIN ROOM TEMPERATURE.
6. FOR ROOMS WITH PERIMETER HEATING: WHEN OA TEMP IS 60°F OR BELOW AND ROOM TEMPERATURE FALLS BELOW SETPOINT, THE TU CONTROLLER SHALL FIRST MODULATE TU DAMPER TOWARDS ITS MINIMUM AIRFLOW SETTING. WHEN AIRFLOW IS AT MINIMUM, TU CONTROLLER SHALL CYCLE ON/OFF THE PERIMETER HEATING CONTROL VALVE FOLLOWED BY MODULATING THE TEMPERING COIL CONTROL VALVE (WHEN PERIMETER HEATING CONTROL VALVE IS FULL OPEN) TO MAINTAIN THE ROOM TEMPERATURE SETPOINT. IF THE ROOM TEMP IS BELOW SETPOINT WITH TU DAT AT HIGH LIMIT SETPOINT, THE TU CONTROLLER SHALL MODULATE THE SUPPLY AIRFLOW BETWEEN ITS MINIMUM AND MAXIMUM SETTING TO MAINTAIN ROOM TEMPERATURE
7. FOR ROOMS WITH PERIMETER HEATING: WHEN OA TEMP IS ABOVE 60°F AND ROOM TEMPERATURE FALLS BELOW SETPOINT, THE TU CONTROLLER SHALL FIRST MODULATE TU DAMPER TOWARDS ITS MINIMUM AIRFLOW SETTING. WHEN AIRFLOW IS AT MINIMUM, TU CONTROLLER SHALL MODULATE TEMPERING COIL CONTROL VALVE TOWARDS OPEN. IF THE ROOM TEMP IS BELOW SETPOINT WITH TU DAT AT HIGH LIMIT SETPOINT, THE TU CONTROLLER SHALL MODULATE THE SUPPLY AIRFLOW BETWEEN ITS MINIMUM AND MAXIMUM SETTING TO MAINTAIN ROOM TEMPERATURE. PERIMETER HEATING CONTROL VALVE SHALL REMAIN CLOSED.
8. (WHERE APPLICABLE): WHEN ROOM IS UNOCCUPIED DURING SCHEDULED OCCUPIED MODE AS DETERMINED BY MONITORING THE LIGHTING OCCUPANCY SENSOR AUX CONTACTS, DDC SHALL OPERATE AIR TERMINAL UNIT IN A TEMPORARY UNOCCUPIED MODE
9. ROOM TEMPERATURE SETPOINTS SHALL BE AS FOLLOWS:
   - HEATING UNOCCUPIED SETPOINT = 62°F
   - HEATING TEMPORARY UNOCC SETPOINT = 68°F
   - HEATING OCCUPIED SETPOINT = 70°F
   - COOLING OCCUPIED SETPOINT = 74°F
   - COOLING TEMPORARY UNOCC SETPOINT = 76°F
   - COOLING UNOCCUPIED SETPOINT = 80°F
10. DURING BUILDING UNOCCUPANCY, RELATED AHU (RTU OR ERU) SHALL CYCLE AS REQUIRED TO MAINTAIN BUILDING SETBACK AND SETUP TEMP SETPOINTS.
11. WHEN RESPECTIVE AHU (RTU OR ERU) IS DEACTIVATED, THE TERMINAL UNIT TEMPERING COIL CONTROL VALVE SHALL REMAIN CLOSED. PERIMETER HEATING CONTROL VALVE (WHERE APPLICABLE) SHALL CYCLE ON/OFF TO MAINTAIN HEATING UNOCCUPIED ROOM TEMP SETPOINT.
12. WHEN RESPECTIVE AHU (RTU OR ERU) IS OPERATING IN WARM-UP OR PURGE MODES, THE TERMINAL UNIT SHALL MAINTAIN ITS MAXIMUM AIRFLOW SETTING UNTIL ROOM OCCUPIED TEMPERATURE SETPOINT IS ACHIEVED.
13. THE DDC TU CONTROLLER SHALL RECALIBRATE THE AIRFLOW SENSOR AND RESET FLOATING CONTROL DAMPER AND CONTROL VALVE ACTUATORS ONCE A WEEK MINIMUM. THE RECALIBRATION AND RESET PROCESS SHALL OCCUR WHEN RESPECTIVE AHU (RTU OR ERU) IS DEACTIVATED. IF RELATED AHU (RTU OR ERU) OPERATES CONTINUOUSLY, THE RECALIBRATION AND RESET PROCESS SHALL BE STAGGERED AMONGST THE TERMINAL UNITS SO THE DUCT STATIC PRESSURE DOES NOT EXCEED LIMITS.
14. CONTROL SIGNALS FOR AIR TERMINAL UNIT DAMPER AND HEATING CONTROL OUTPUTS SHALL BE DISPLAYED WITH SYSTEM GRAPHICS.
15. DISCHARGE AIR TEMP SHALL BE MONITORED FOR SYSTEM DIAGNOSTICS.

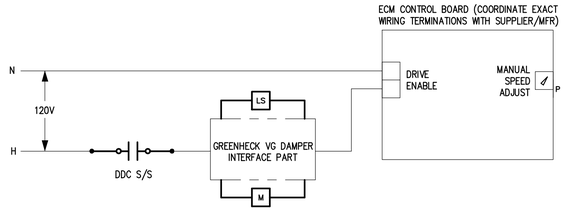


EXHAUST FAN CONTROL

EF-15-1

SEQUENCE OF OPERATION:

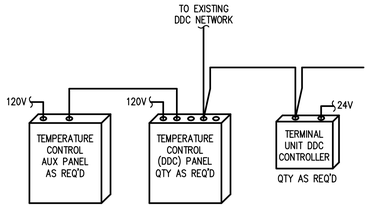
1. EXHAUST FAN SHALL BE STARTED AND STOPPED BY DDC BASED ON BAS TIME OF DAY BUILDING OCCUPANCY SCHEDULE. WIRING INTERLOCK SHALL OPEN DAMPERS ON FANS GREATER THAN 400 CFM, LIMIT SWITCH SHALL MAKE BEFORE FAN CAN START.
2. DDC SHALL MONITOR EF RUN STATUS THRU CURRENT SWITCH. ABNORMAL STATUS CONDITION SHALL ACTIVATE ALARM.
3. DDC SHALL TOTALIZE FAN MOTOR RUNTIME HOURS OF OPERATION.



GREENHECK VG ECM WIRING

NOTE:

1. WIRING DETAIL IDENTIFIES INTENT AND DOES NOT INDICATE ACTUAL WIRING REQUIREMENTS. CONSULT WITH ECM SUPPLIER FOR THE ACTUAL WIRING REQUIREMENTS.
2. MOUNT CURRENT SWITCH ON MOTOR LEADS.



DDC SYSTEM ARCHITECTURE

NO SCALE

NOTES:

1. THE EXISTING BUILDING AUTOMATION SYSTEM IS TRANE TRACER SUMMIT. NEW DDC SYSTEM COMPONENTS SHALL BE CONNECTED TO THE EXISTING TRANE DDC NETWORK.
2. IF NOT TRANE, THE TC CONTRACTOR SHALL PROVIDE A CONTRACT TO TRANE TO UPGRADE THE EXISTING FRONT-END BAS HARDWARE/SOFTWARE (IF NECESSARY) TO ACCOMMODATE NEW WORK AND PROVIDE SYSTEM INTEGRATION OF NEW WORK INTO THE BAS DATABASE. TOD SCHEDULES & SETPOINTS, TERMINAL UNIT CONTROLLER PROGRAMMING, DDC CONTROL PANEL PROGRAMMING, ALARMS, GRAPHICS, AND TRENDS.
3. REFER TO TEMPERATURE CONTROL SCHEMATICS FOR THE REQUIRED POINTS ASSOCIATED FOR EACH SYSTEM.
4. TC CONTRACTOR SHALL PROVIDE TRANE PRODUCTS FOR CONTROL OF THE NEW HVAC AND ASSOCIATED EQUIPMENT CONTROLLERS IN THIS PROJECT.
5. TC CONTRACTOR SHALL DETERMINE DDC PANEL QUANTITY BASED ON POINT DENSITIES AND AVAILABLE MOUNTING SPACE. UNLESS SPECIFICALLY NOTED IN DESIGN DRAWINGS, TC CONTRACTOR SHALL LOCATE DDC PANELS AND COORDINATE WITH OTHER TRADES.
6. TC CONTRACTOR SHALL PROVIDE REQUIRED POWER SUPPLIES FROM SPARE CIRCUITS WHERE IDENTIFIED ON ELECTRICAL PANEL SCHEDULES. COORDINATE WITH ELEC CONTRACTOR. REFER TO ELECTRICAL DRAWINGS FOR PANEL LOCATIONS.
7. TC CONTRACTOR SHALL PROVIDE 24V TRANSFORMERS REQUIRED FOR TERMINAL UNIT DDC CONTROLLERS AND SHALL BE LOCATED IN MECHANICAL OR ELECTRICAL ROOMS – COORDINATE LOCATIONS. MAXIMUM TRANSFORMER SIZE SHALL BE 100VA. PROVIDE ENCLOSURE(S) FOR TRANSFORMERS.
8. TC CONTRACTOR SHALL PROVIDE AUXILIARY PANEL FOR GAUGES, TRANSMITTERS, RELAYS, POWER TRANSFORMERS, ETC.

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ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.gfrico.com

PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED	
DRAWN	RLT
CHECKED	DC
APPROVED	DC
DATE	12/20/2024
ISSUED FOR	100% CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223357
SHEET NUMBER	27 OF 35
DRAWING TITLE	TEMPERATURE CONTROLS
DRAWING NUMBER	M 802

STATE OF MICHIGAN
DAVID ANTHONY CONRAD
ENGINEER
No. 6201055589
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 2022.0393

ELECTRICAL SYMBOL LIST

(NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT)

SYMBOL	DESCRIPTION
X (NL)	X DENOTES FIXTURE TYPE (NL INDICATES NIGHT LIGHT)
	LIGHTING FIXTURE
	DIRECT/INDIRECT LIGHTING FIXTURE
	FILL DENOTES EMERGENCY FIXTURE
	LIGHTING FIXTURE
	WALL MOUNTED LIGHTING FIXTURE
	LIGHTING FIXTURE
	DIRECTIONAL LIGHTING FIXTURE
	PENDANT LIGHTING FIXTURE
	WALL SCONCE
	LIGHTING TRACK
	TRACK LIGHTING FIXTURE
	POLE MOUNTED LIGHTING FIXTURE
	POLE MOUNTED LIGHTING FIXTURE – POST TOP
	BOLLARD LIGHTING FIXTURE
	EMERGENCY LIGHTING UNIT
	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE)
	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS (SHADED AREA INDICATES FACE)
	EXIT LIGHTING FIXTURE – WALL MOUNTED
	EXIT/EMERGENCY LIGHTING COMBO
BCELTS	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH
ALCR	AUTOMATIC LOAD CONTROL RELAY
LC	LIGHTING CONTROL DEVICE – REFER TO LIGHTING CONTROL SCHEDULE
XX	ROOM CONTROL DESIGNATION – REFER TO LIGHTING CONTROL SCHEDULE
S	SINGLE POLE TOGGLE SWITCH
S2	TWO POLE TOGGLE SWITCH
S3	3 WAY TOGGLE SWITCH
S4	4 WAY TOGGLE SWITCH
K	KEY OPERATED SWITCH
K3	3 WAY KEY OPERATED SWITCH
K4	4 WAY KEY OPERATED SWITCH
D	DIMMER SWITCH
D3	3 WAY DIMMER SWITCH
DO	DIMMER OCCUPANCY SENSOR SWITCH
DL	LOW VOLTAGE DIMMER SWITCH
SP	PILOT SWITCH

SYMBOL	DESCRIPTION
TWC	TWO–WAY COMMUNICATION SYSTEM CALL STATION
TWCD	TWO–WAY COMMUNICATION SYSTEM AUTO DIALER
TWCA	TWO–WAY COMMUNICATION SYSTEM ANNUNCIATOR & COMMUNICATION PANEL
TWCP	TWO–WAY COMMUNICATION SYSTEM POWER SUPPLY WITH BATTERY BACK–UP
TWCDP	TWO–WAY COMMUNICATION SYSTEM AUTO DIALER POWER SUPPLY WITH BATTERY BACK–UP
RGP	REMOTE GENERATOR ANNUCIATOR PANEL
ATS	AUTOMATIC TRANSFER SWITCH
UPS	UNINTERRUPTIBLE POWER SUPPLY
CSX	LOW VOLTAGE CONTROL STATION "X" INDICATES TYPE
"X"	SINGLE/DUPLEX RECEPTACLE OUTLET "X" INDICATES TYPE
	SINGLE/DUPLEX RECEPTACLE OUTLET CONTROLLED BY AUTOMATIC CONTROL DEVICE/SYSTEM
	QUAD RECEPTACLE OUTLET
	ABOVE COUNTER DUPLEX RECEPTACLE OUTLET (SIMILAR FOR TAMPER RESISTANT, QUADS, EMERGENCY, USB AND GFCI RECEPTACLE OUTLETS)
X	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE OUTLET
	DEAD FRONT GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX EMERGENCY RECEPTACLE OUTLET
	DUPLEX TAMPER RESISTANT RECEPTACLE OUTLET
	QUAD TAMPER RESISTANT RECEPTACLE OUTLET
X	ABOVE COUNTER DUPLEX TAMPER RESISTANT RECEPTACLE OUTLET
	DUPLEX UPS RECEPTACLE OUTLET
X	DUPLEX RECEPTACLE OUTLET WITH 2 USB PORTS
X	4 PORT USB CHARGING STATION
	CEILING MOUNTED DUPLEX/QUAD RECEPTACLE OUTLET
	POWER POLE
	WALL/CEILING MOUNTED SPECIAL RECEPTACLE OUTLET – REFER TO ELECTRICAL STANDARD SCHEDULES
	MULTI–OUTLET SURFACE RACEWAY
"X"	MULTI–SERVICE DROP SEE ELECTRICAL DETAILS AND DIAGRAMS SHEET "X" INDICATES TYPE
PTX	POKE–THROUGH ASSEMBLY "X" INDICATES TYPE
FBX	FLOOR SERVICE FITTING "X" INDICATES TYPE
AFX	ACCESS FLOOR SERVICE FITTING "X" INDICATES TYPE
RX	CORD REEL "X" INDICATES TYPE
S S	DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES
S3 S3	3–WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES
S4 S4	4–WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES
ST	DIGITAL TIME SWITCH
SI	ILLUMINATED TOGGLE SWITCH FOR CONTROL OF LIGHTING ON CRITICAL POWER–ILLUMINATED WHEN SWITCH IS IN "OFF" POSITION
SL	LOW VOLTAGE SWITCH
SO	OCCUPANCY SENSOR
SO2	OCCUPANCY SENSOR REFER TO ELECTRICAL STANDARD SCHEDULES
OS X	OCCUPANCY SENSOR "X" INDICATES TYPE

SYMBOL	DESCRIPTION
CP	CONTROL PANEL
MD	MOTION DETECTOR
VFC	VARIABLE FREQUENCY CONTROLLER.
K	SECURITY KEY SWITCH
DC	DOOR CONTACT
KP	KEY PAD
CR	CARD READER
DB	DURESS PUSH BUTTON STATION
DE	DELAYED EGRESS
REX	REQUEST TO EXIT STATION
PP	AUTOMATIC DOOR PUSH PAD OPERATOR
DO	DOOR OPERATOR
DA	DOOR ACTUATOR
AC	ACCESS CONTROL STATION
ACCP	ACCESS CONTROL CONTROL PANEL
ACPS	ACCESS CONTROL POWER SUPPLY
	CIRCUIT BREAKER
	DRAWOUT CIRCUIT BREAKER MANUALLY/ OPERATED
	DRAWOUT CIRCUIT BREAKER ELECTRICALLY/ OPERATED
	SWITCH
	AUTOMATIC OR MANUAL TRANSFER SWITCH
	FUSE
	TRANSFORMER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	LIGHTNING ARRESTOR
X	PANELBOARD "X" INDICATES PANELBOARD NAME
	GROUND
	STRESS CONE TERMINATION
K	SECURITY KEY INTERLOCK
G	ENGINE GENERATOR
M	UTILITY METER
EMU	ELECTRONIC METERING UNIT
A	AMMETER
V	VOLTMETER
AS	AMMETER SWITCH
VS	VOLTMETER SWITCH
SPD	SURGE PROTECTIVE DEVICE
CR	CONTROL RELAY
TDR	TIME DELAY RELAY
PRM	PHASE ROTATION MONITOR
	CAMLOK – MALE
	CAMLOK – FEMALE
EVSE	ELECTRICAL VEHICLE SUPPLY EQUIPMENT
DCFC	DC FAST CHARGER – STANDALONE
DCPM	DC FAST CHARGER – POWER MODULE
DCDP	DC FAST CHARGER – DISPENSER

REFER TO ELECTRICAL STANDARD SCHEDULES

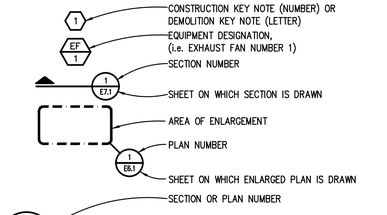
SYMBOL	DESCRIPTION
	SECURITY CAMERA
F	MANUAL FIRE ALARM BOX
SD	SMOKE DETECTOR
DD	DUCT SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
RT	REMOTE TEST STATION (FOR DUCT DETECTOR)
TD	THERMAL DETECTOR
BD	PROJECTED BEAM DETECTOR
F	FIRE ALARM BELL
F	FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE
XX	FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
XX	FIRE ALARM COMBINATION VISUAL/ AUDIBLE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
F XX	FIRE ALARM COMBINATION VISUAL/ AUDIBLE NOTIFICATION APPLIANCE– CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
XX	FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
F	FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE – CEILING MOUNTED
F	FIREFIGHTERS PHONE JACK
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
NAC	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL
IM	ADDRESSABLE MONITORING MODULE
CM	ADDRESSABLE CONTROL MODULE
TS	TAMPER SWITCH
FS	FLOW SWITCH
DR	MAGNETIC DOOR RELEASE
	THERMAL OVERLOAD RELAY
	NORMALLY OPEN CONTACTS
	NORMALLY CLOSED CONTACTS
	N.O. PUSH BUTTON SINGLE CIRCUIT
	N.C. PUSH BUTTON SINGLE CIRCUIT
X–X	CABLE VAULT "X–X" INDICATES TYPE
	BRANCH CIRCUIT PANELBOARD
	LOAD CENTER
	MOTOR CONTROL CENTER
T	TRANSFORMER
	DISTRIBUTION PANEL
GB	GROUND BUS
PB	PLUG IN BUSWAY
FB	FEEDER BUSWAY

ELECTRICAL DRAWING INDEX

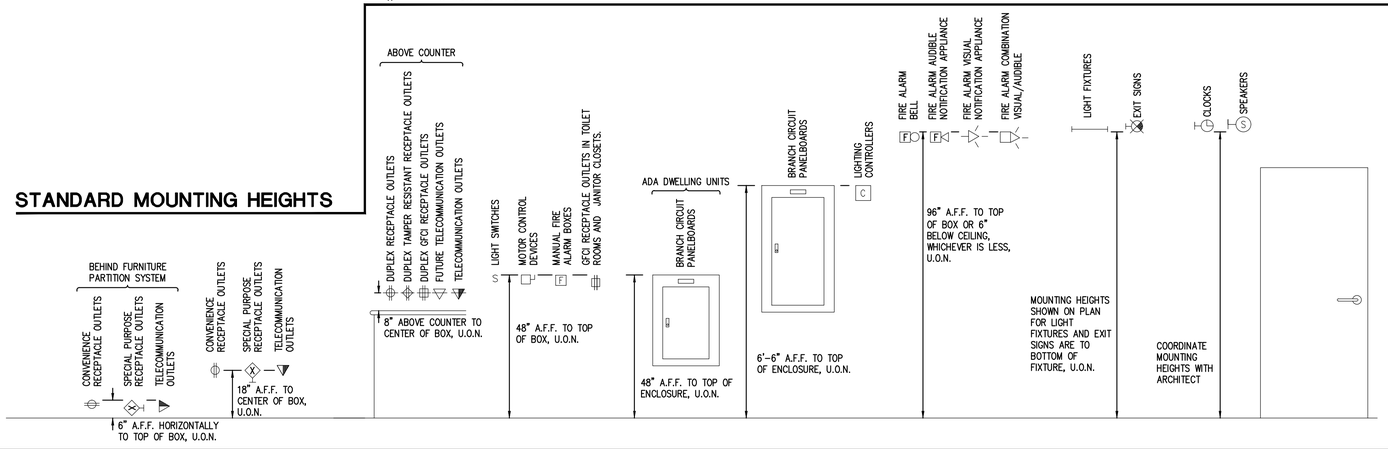
ELECTRICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
A	AMPERES
AER	ARC ENERGY REDUCTION
AF	AMPERES FRAME (BREAKER RATING)
AFCI	ARC FAULT CIRCUIT INTERRUPTER
A.F.F.	ABOVE FINISH FLOOR
AIC	AMPS INTERRUPTING CAPACITY
AL	AUDIENCE LEFT
ALCR	AUTOMATIC LOAD CONTROL RELAY
AR	AUDIENCE RIGHT
AT	AMPERES TRIP (BREAKER SETTING)
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
BCELTS	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH
BKR	BREAKER
BPS	BOLTED PRESSURE SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
DEMO	DEMOLITION
DIM	DIMENSION
DISC	DISCONNECT
DP	DISTRIBUTION PANEL
DS	DOWNSTAGE
DWG	DRAWING
EBU	EMERGENCY BATTERY UNIT
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EM/ EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EO	ELECTRICALLY OPERATED
EPO	EMERGENCY POWER OFF
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
FA	FIRE ALARM
FLA	FULL LOAD AMPS
FLR	FLOOR
FOH	FRONT OF HOUSE
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FU	FUSE
G/GRD/EG	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HOA	HAND–OFF–AUTO
HP	HORSEPOWER
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
KA	THOUSAND AMP
KV	KILOVOLT
KVA	KILOVOLT – AMPERES
KW	KILOWATT
KWH	KILOWATT – HOURS
LA	LIGHTNING ARRESTOR
LP	LIGHTING PANEL
LDP	LIGHTING DISTRIBUTION PANEL
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MIN	MINIMUM
MISC.	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
MTG	MOUNTING
MTR	MOTOR
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON–FUSIBLE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
P	POLE
PB	PUSHBUTTON STATION
PH	PHASE
PT	POTENTIAL TRANSFORMER
PDP	POWER DISTRIBUTION PANEL
RECEPT.	RECEPTACLE
RDP	RECEPTACLE DISTRIBUTION PANEL
RP	RECEPTACLE PANEL
RSC	RIGID STEEL CONDUIT
SCCR	SHORT CIRCUIT CURRENT RATING
SCHED	SCHEDULE
SPD	SURGE PROTECTION DEVICE
ST	SHUNT TRIP
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TB	TERMINAL BOX
TELECOM	TELECOMMUNICATIONS
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BACKBOARD
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
US	UPSTAGE
V	VOLTS
W	WIRE OR WATTS
WAP	WIRELESS ACCESS POINT
WG	WIRE GUARD
WP	WEATHERPROOF
WR	WEATHER RESISTANT
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
(E)	EXISTING
(R)	RELOCATED

STANDARD METHODS OF NOTATION



STANDARD MOUNTING HEIGHTS



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FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gfrco.com

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20220390

ERIC MICHAEL GRAETTINGER ENGINEER No. 6201052164 STATE OF MICHIGAN PROFESSIONAL ENGINEER

PROJECT	CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES
DESIGNED	DRAWN SMB CHECKED EMG APPROVED EMG
DATE	12/20/2024
ISSUED FOR	100% CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223357
SHEET NUMBER	28 OF 35
DRAWING TITLE	ELECTRICAL STANDARDS AND DRAWING INDEX
DRAWING NUMBER	E 001

FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE

OVERCURRENT DEVICE RATING (AMPERES)	COPPER CONDUCTORS						KEYED NOTES	ALUMINUM CONDUCTORS					
	WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE					WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE			
	PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH, 1N, 1G, 2PH, 1G)	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH, 1N, 1G)		PHASE & NEUTRAL	GROUND	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH, 1N, 1G)
15–20	12	12	3/4"	3/4"	3/4"	3/4"							
25–30	10	10	3/4"	3/4"	3/4"	3/4"							
35–40	8	10	3/4"	3/4"	3/4"	3/4"							
45–50	8 (6)	10	3/4"	3/4"	3/4"	3/4"	1	NOT ACCEPTABLE					
60	6 (4)	10	3/4" (1")	3/4" (1")	3/4" (1")	1" (1 1/4")	1						
70	4	8	1"	1 1/4"	1 1/4"	1 1/4"							
80	4 (3)	8	1"	1 1/4"	1 1/4"	1 1/4"	1						
90–100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1	1	6	1 1/2"	1 1/2"	1 1/2"	
110	2 (1)	6	–	1 1/4"	1 1/4"	1 1/4" (1 1/2")	1	1/0	4	1 1/2"	1 1/2"	2"	
125	1 (1/0)	6	–	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"	1	2/0	4	1 1/2"	1 1/2"	2"	
150	1/0	6	–	1 1/2"	1 1/2"	1 1/2"		3/0	4	2"	2"	2 1/2"	
175	2/0	6	–	2"	2"	2"		4/0	4	2"	2"	2 1/2"	
200	3/0	6	–	2"	2"	2 1/2"		250	4	2"	2"	3"	
225	4/0	4	–	2"	2"	2 1/2"		300	2	2 1/2"	2 1/2"	3"	
250	250	4	–	2 1/2"	2 1/2"	2 1/2"		350	2	2 1/2"	2 1/2"	3"	
300	350	4	–	2 1/2"	2 1/2"	3"		500	2	3"	3"	3 1/2"	
350	500	3	–	3"	3"	3"		2-4/0	2-1/0	2-2"	2-2"	2-2"	
400	500	3	–	3"	3"	3"		2-250	2-1/0	2-2 1/2"	2-2 1/2"	2-2 1/2"	

GENERAL NOTES:
1. CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
2. CONTRACTOR MAY COMBINE 20A CIRCUITS AS NOTED IN SPECIFICATION.
3. COPPER CONDUCTORS ARE BASED ON THHN/THWN UP TO AND INCLUDING #4/0. COPPER CONDUCTORS LARGER THAN #4/0 AND ALUMINUM CONDUCTORS ARE BASED ON XHHW-2.
4. CONDUIT SIZES ARE VALID FOR EMT OR RGS. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHER TYPES OF CONDUIT.
5. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE REQUIRED WIRE SIZES TO ACCOMMODATE MECHANICAL EQUIPMENT LUG SIZES.
6. SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
7. OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.
8. SPLICE FROM ALUMINUM TO COPPER PRIOR TO ENTERING EQUIPMENT LISTED FOR USE WITH COPPER CONDUCTORS ONLY OR USE COPPER CONDUCTORS FOR THE ENTIRE LENGTH OF FEEDER.

KEYED NOTES:
1. CONDUCTORS ARE BASED ON 90°C, 600V. INSULATED WIRE APPLIED AT 75°C FOR TERMINATION RATED 60/75°C OR 75°C. FOR TERMINATION RATED AT 60°C, USE CONDUCTORS AND CONDUIT SIZES INDICATED IN PARENTHESES.

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER(S)	WATTAGE	VOLTAGE	LIGHT CHARACTERISTICS	CONTROLS	REMARKS
L1	2X2 BASKET TROFFER, CURVED OPAL LENS	LITHONIA LIGHTING – STAK	24.1	MVOLT	LED, 3000LM, 3500K, 80CRI	0–10V DIMMING	
L2A	6" DOWNLIGHT, LSS TRIM, WHITE TRIM COLOR	LITHONIA LIGHTING – LDN6	8.9	MVOLT	LED, 750L, 3500K, 80CRI	0–10V DIMMING	
L2B	6" WALLWASH, LSS TRIM, WHITE TRIM COLOR	LITHONIA LIGHTING – LDN6	8.9	MVOLT	LED, 750L, 3500K, 80CRI	0–10V DIMMING	
L3	4FT PENDANT LINEAR, WHITE WOOD FINISH, WHITE END CAP, THUNDERSTORM FELT COLOR	LIGHTLY – GLOW DIRECT	31.2	MOVLT	LED, 7OOLM/FT, 3500K, 80CRI	0–10V DIMMING	
L4	48"DIAMETER FIXTURE, FENCE CONFIGURATION	HEALTHCARE LIGHTING – HPCS2	111	MVOLT	LED, 6000L, 35000K, 80CRI	0–10V DIMMING	
X	EXIT SIGNAGE, BRUSHED ALUMINUM, SINGLE FACE, RED ON CLEAR	LITHOINA LIGHTING – LRP	2.3	MOVLT	LED, AC ONLY	N/A	

GENERAL NOTES:
1. REFER TO SPECIFICATIONS FOR DETAILED LIGHT FIXTURE CUT SHEETS.
2. WATTAGE LISTED IS FROM THE BASIS OF DESIGN MANUFACTURER.
3. FINISH TO BE APPROVED BY INTERIOR DESIGNER, ARCHITECT OR CLIENT.
4. ALL LUMINAIRES TO BE AS SPECIFIED OR EQUAL APPROVED BY PBA AND/OR ILLUMINART.

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

BRANCH CIRCUIT VOLTAGE DROP WIRING SCHEDULE FOR SINGLE PHASE CIRCUITS

BRANCH CKT RATING (A)	WIRE SIZE (AWG)	MAXIMUM BRANCH CIRCUIT LENGTH (IN FEET)				
		120V	208V	240V	277V	480V
20A	12	83	143	165	191	331
	10	128	222	256	295	511
	8	201	348	402	464	804
	6	313	542	625	721	1250
30A	10	85	148	170	197	341
	8	134	232	268	309	536
	6	208	361	417	481	833
	4	313	542	625	721	1250

GENERAL NOTES:
1. THE ABOVE TABLE VALUES ARE BASED ON COPPER CONDUCTORS, IN STEEL CONDUIT, WITH A LOAD POWER FACTOR OF 0.85 PER NEC CHAPTER 9, TABLE 9.
2. PROVIDE BRANCH CIRCUIT CONDUCTORS AS INDICATED IN THE TABLE ABOVE FOR ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS. WHERE BRANCH CIRCUITS SERVE DEDICATED EQUIPMENT, THE CONTRACTOR MAY PERFORM VOLTAGE DROP CALCULATIONS BASED ON ACTUAL EQUIPMENT CONNECTED LOAD AND PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
3. CONDUCTOR SIZES ARE BASED ON MAXIMUM OF 9 CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
4. LIMITS FOR CONDUCTOR LENGTHS SHOWN ARE BASED ON A MAXIMUM BRANCH CIRCUIT LOADING OF 64% OF THE BRANCH BREAKER RATING AND A MAXIMUM OF 3 PERCENT VOLTAGE DROP. TO COMPLY WITH ASHRAE 90.1 AND THE NEC. FOR CIRCUITS LOADED GREATER THAN 64% OF BRANCH BREAKER RATING, THE CONTRACTOR SHALL PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO 3%.

TELECOMMUNICATIONS OUTLET SCHEDULE

TAG	DESCRIPTION	REMARKS
1	1 DATA/VOICE	

GENERAL NOTES:
1. REFER TO SPECIFICATIONS FOR TELECOMMUNICATION CABLE TYPE.

RACEWAY / CONDUCTOR / CABLE APPLICATION SCHEDULE

		WIRE			RACEWAY																	CABLE/ROD
		COPPER, TYPE THHN/THWN-2	COPPER, TYPE XHHW-2	ALUMINUM, TYPE XHHW-2 (100A AND ABOVE ONLY)	ELECTRICAL METALLIC TUBING (EMT)	INTERMEDIATE METAL CONDUIT (IMC)	RIGID STEEL CONDUIT (RSC)	PVC COATED RIGID STEEL CONDUIT	PVC COATED INTERMEDIATE METAL CONDUIT	ALUMINUM RIGID CONDUIT	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-40	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-80	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 40	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 80	REINFORCED THERMOSET RESIN CONDUIT (RTRC) TYPE XG	REINFORCED THERMOSET RESIN CONDUIT (RTRC) TYPE BG	FLEXIBLE METAL CONDUIT (FMC)	LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC)	SURFACE RACEWAY	METAL CLAD TYPE CABLE WITH INSULATED GROUND WIRE (TYPE MC)
FEEDERS – EXTERIOR	EXPOSED, SURFACE MOUNTED TO STRUCTURE		X	X		X	X	X							X						
	EXPOSED, WITH FREESTANDING SUPPORT		X	X		X	X	X							X						
	CONCEALED IN RETAINING WALL OR SIMILAR ELEMENT		X	X			X	X			X	X									
	BELOW PARKING LOTS AND ROADWAYS		X	X				X				X		X		X					
	BELOW GREEN SPACE		X	X				X			X		X			X					
	WITHIN 5' OF FOUNDATION WALL		X	X			X	X													
	ROOFTOPS (WHEN APPROVED BY ENGINEER)		X	X		X	X	X													
FEEDERS – INTERIOR	CONCEALED, ACCESSIBLE CEILINGS	X		X	X	X															
	CONCEALED, INACCESSIBLE CEILINGS	X		X	X	X															
	CONCEALED IN GYPSUM BOARD PARTITION WALLS	X		X	X	X															
	CONCEALED IN CMU WALLS	X		X	X	X															
	EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE	X		X		X	X	X													
	EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE	X		X	X	X															
	EXPOSED, ABOVE 10' AFF UNFINISHED SPACES	X		X	X	X															
	EXPOSED, FINISHED SPACES	X		X															X		
	BELOW SLAB ON GRADE	X		X			X	X			X	X									
	DAMP AND WET LOCATIONS	X		X		X	X	X			X										
BRANCH CIRCUITS – EXTERIOR	EXPOSED, SURFACE MOUNTED TO STRUCTURE		X			X	X	X				X									
	EXPOSED, WITH FREESTANDING SUPPORT		X			X	X	X													
	CONCEALED IN RETAINING WALL OR SIMILAR ELEMENT		X				X	X			X										
	BELOW PARKING LOTS AND ROADWAYS		X				X	X			X		X								
	BELOW GREEN SPACE		X								X										
	WITHIN 5' OF FOUNDATION WALL		X				X	X													
	ROOFTOPS (WHEN APPROVED BY ENGINEER)		X			X	X	X													
BRANCH CIRCUITS – INTERIOR	CONCEALED, ACCESSIBLE CEILINGS	X			X	X															X
	CONCEALED, INACCESSIBLE CEILINGS	X			X	X															
	CONCEALED IN GYPSUM BOARD PARTITION WALLS	X			X	X											X				X
	CONCEALED IN CMU WALLS	X			X	X															
	EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE	X				X	X	X													
	EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE	X			X	X													X		
	EXPOSED, ABOVE 10' AFF UNFINISHED SPACES	X			X	X															
	EXPOSED, FINISHED SPACES	X																	X		
	BELOW SLAB ON GRADE	X									X										
	EMBEDDED IN ELEVATED CONCRETE SLAB	X									X										
	DAMP AND WET LOCATIONS	X				X	X	X			X							X			

GENERAL NOTES:
1. TRANSITION FROM PVC/HDPE AND PROVIDE RIGID STEEL OR RTRC SWEEPS WHERE CONDUITS PENETRATE WALLS, CONCRETE SLABS, CONCRETE BASES, AND ASPHALT.
2. REFER TO SPECIFICATIONS FOR RESTRICTIONS ON MC/AC CABLE INSTALLATION.
3. EMT SHALL NOT BE USED ON THE EXTERIOR OF A BUILDING OR IN AREAS SUBJECT TO DAMAGE BELOW 10' AFF.
4. INSTALL SURFACE RACEWAYS ONLY WHERE INDICATED ON DRAWINGS.

ERIC MICHAEL GRAETTINGER ENGINEER No. 6201052164 STATE OF MICHIGAN LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20222093

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.grhco.com

PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN SMB
CHECKED EMG
APPROVED EMG

DATE 12/20/2024

ISSUED FOR 100% CONSTRUCTION DOCUMENTS

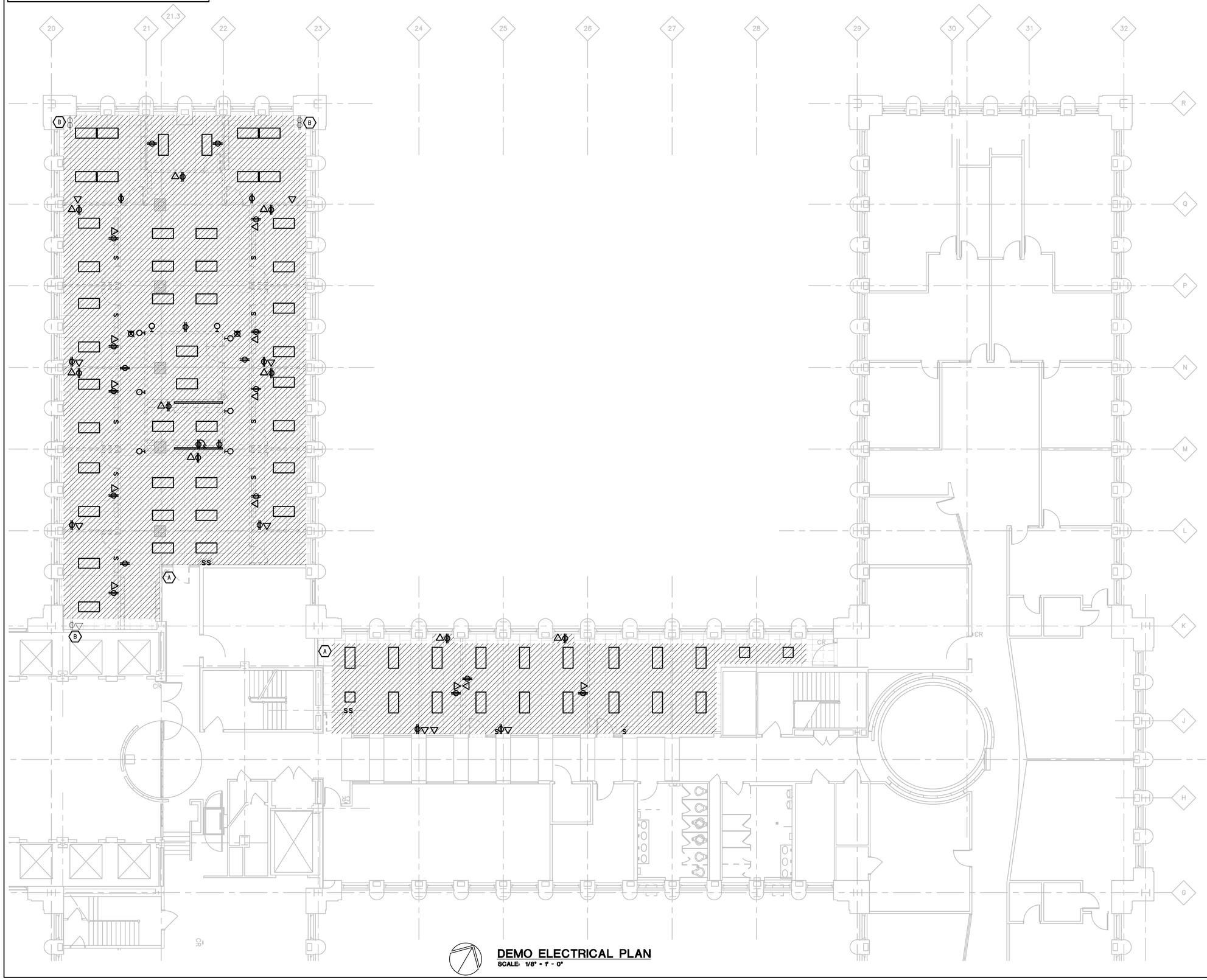
IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: 923038
FILE NO. 950/223357

SHEET NUMBER 29 OF 35

DRAWING TITLE ELECTRICAL STANDARD SCHEDULES

DRAWING NUMBER E 002

THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE. 1"



DEMO ELECTRICAL PLAN
SCALE: 1/8" = 1' - 0"

ELECTRICAL DEMOLITION GENERAL NOTES:

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES AND BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES, WHETHER OR NOT SPECIFICALLY INDICATED.
3. REMOVE EQUIPMENT OR MATERIALS AS INDICATED ON PLAN WITH CROSS HATCHING. DEMOLITION SHALL INCLUDE, BUT NOT BE LIMITED TO, THOSE COMPONENTS SHOWN.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE DIAGRAMS AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. PROVIDE PROPER SUPPORT FOR EXISTING TO REMAIN CONDUITS AND BOXES WHERE EXISTING SUPPORT IS TO BE REMOVED. RE-ROUTE BRANCH CIRCUIT CONDUITS AND RELOCATE JUNCTION BOXES AS REQUIRED TO FACILITATE INSTALLATION OF NEW EQUIPMENT AND SYSTEMS IN CEILING SPACES.
6. REMOVE ALL CONDUIT AND WIRE BACK TO THE SOURCE OR NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
7. MAINTAIN ELECTRICAL SERVICE TO ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT THAT ARE TO REMAIN. EXTEND CONDUIT AND WIRE AS REQUIRED WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM LOADS THAT ARE TO REMAIN.
8. DISPOSE OF ALL MATERIALS OFF SITE AND INCLUDE ALL COSTS FOR DISPOSAL IN BID. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, INCLUDING TCLP TESTING, PROPER DISPOSAL AND/OR RECYCLING OF FLUORESCENT LAMPS.
9. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED BUT EXISTING WALLS REMAIN INTACT.
10. RING OUT AND TAG ALL CIRCUITS AFFECTED BY THIS ALTERATION AT BOTH ENDS. MARK ALL UNUSED CIRCUIT BREAKERS "SPARE".
11. PROVIDE UPDATED TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS ALTERATION.
12. COORDINATE ANY SHUT DOWN OF EXISTING SERVICES AND EQUIPMENT THAT ARE REMAINING IN USE WITH THE OWNER'S REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COSTS TO PERFORM THIS WORK DURING WEEKENDS AND EVENINGS INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWNS MUST OCCUR FOR PERIODS LONGER THAN THESE HOURS. COORDINATE ELECTRICAL SHUT DOWNS WITH THE OWNER 72 HOURS PRIOR TO SHUT DOWN.

(#) DEMOLITION KEY NOTES:

A. DATA CABLING SHALL BE COILED AND PLACED ABOVE CEILINGS FOR FUTURE USE.

B. EXISTING INDICATED DEVICES TO BE REUSED IN NEW WORK.

ERIC MICHAEL GRAETTINGER ENGINEER No. 6201052164 LICENSED PROFESSIONAL ENGINEER STATE OF MICHIGAN

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20220393

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.gmbo.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED	DATE	ISSUED FOR	IDENTIFICATION NUMBER	SHEET NUMBER	DRAWING TITLE	DRAWING NUMBER
DRAWN SMB CHECKED EMG APPROVED EMG	12/20/2024	100% CONSTRUCTION DOCUMENTS	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223357	30 OF 35	DEMO ELECTRICAL PLAN	ED 1 01

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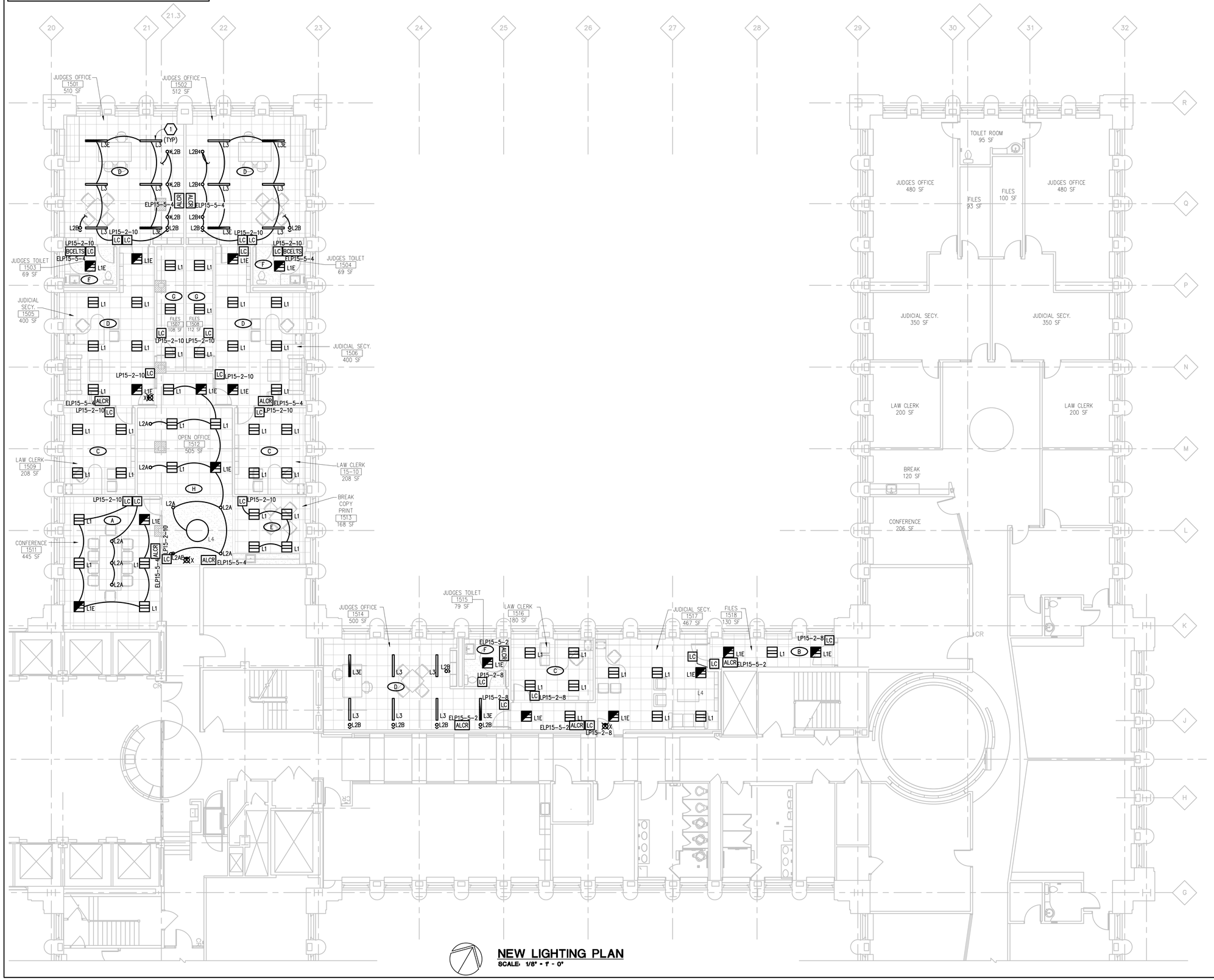

NEW LIGHTING PLAN
SCALE: 1/8" = 1' - 0"

ELECTRICAL GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
11. THE FIRE ALARM DEVICES SHOWN ON PLAN ARE A PARTIAL REPRESENTATION OF THE FIRE ALARM SYSTEM. PROVIDE THE DESIGN AND INSTALLATION OF A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, AND ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON-SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS.
12. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
13. CONNECT EXIT SIGNS TO EMERGENCY LIGHTING BRANCH CIRCUIT SERVCE THE AREA. CONNECT AHEAD OF ANY LIGHTING CONTROL DEVICE OR SYSTEM.

(#) CONSTRUCTION KEY NOTES:

1. MOUNT L3 TYPE FIXTURES AT 7'-6"AFF TO BOTTOM OF FIXTURE.

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DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.gfrico.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED	
DRAWN	SMB
CHECKED	EMG
APPROVED	EMG
DATE	12/20/2024
ISSUED FOR	100% CONSTRUCTION DOCUMENTS
IDENTIFICATION NUMBER	PROJECT: C.P. (3) JUDICIAL SUITES CONTRACT NUMBER: Y23038 FILE NO. 950/223357
SHEET NUMBER	31 OF 35
DRAWING TITLE	NEW LIGHTING PLAN
DRAWING NUMBER	E 201

STATE OF MICHIGAN
ERIC MICHAEL GRAETTINGER
ENGINEER
No. 6201052164
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 2022.0393

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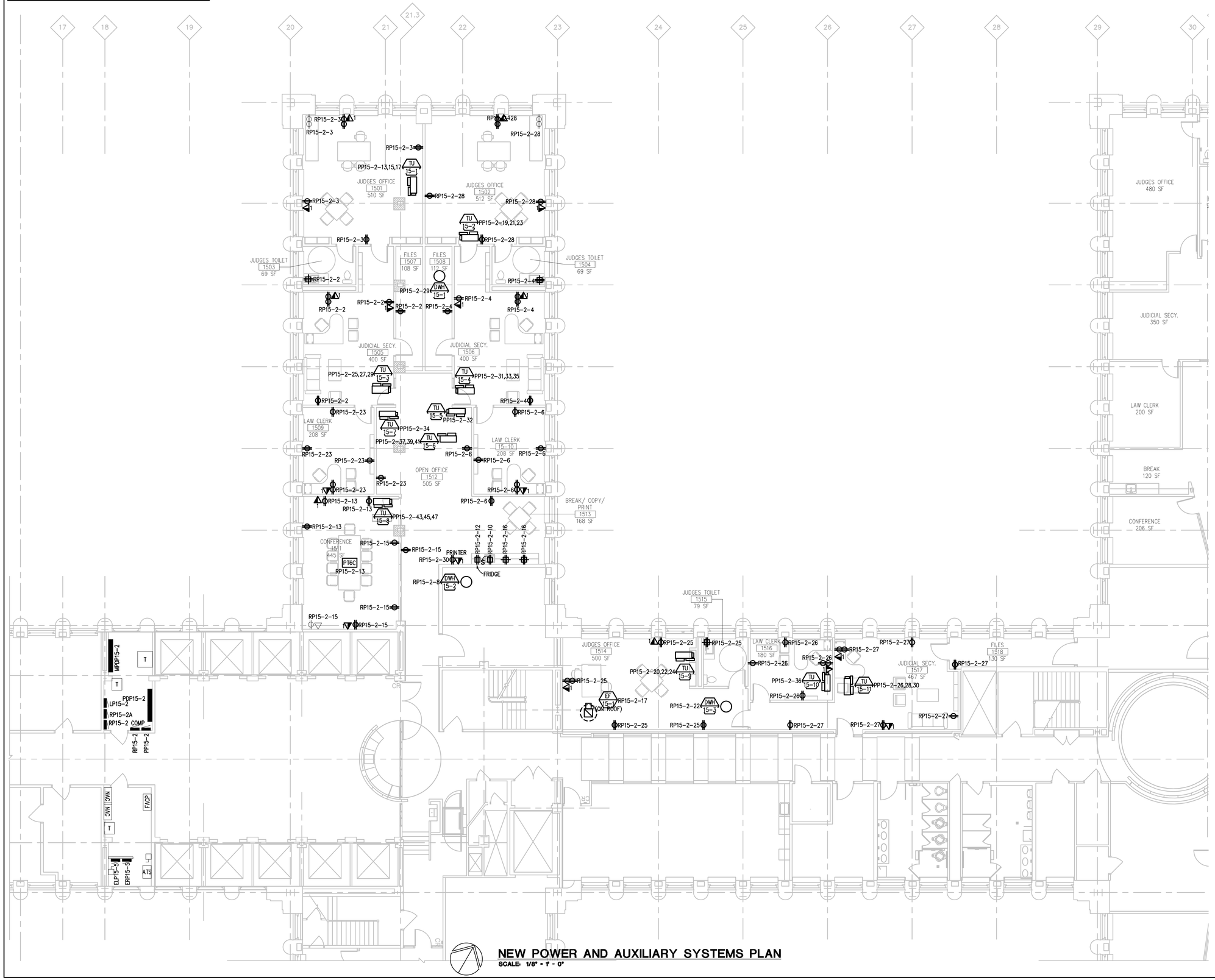


NEW POWER AND AUXILIARY SYSTEMS PLAN

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

ELECTRICAL GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
4. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
5. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH TRANSFORMER CIRCUIT SIZING SCHEDULE SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
6. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH MOTOR CIRCUIT SIZING SCHEDULES SHOWN ON "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS OTHERWISE NOTED.
7. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.
8. COORDINATE EXACT LOCATIONS OF ALL FLOOR SERVICE FITTINGS AND POKE-THROUGH ASSEMBLIES WITH FINAL FURNITURE LAYOUT DRAWINGS.
9. REFER TO MECHANICAL SCHEDULE SHEETS FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS REQUIRED BY SCHEDULES AND WHERE NOTED ELSEWHERE. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWINGS SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS. WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES, PROVIDE THE CIRCUIT OF HIGHER AMPACITY.
10. REFER TO TEMPERATURE CONTROLS SHEETS FOR REQUIRED FIRE ALARM CONTROL MODULES, DUCT SMOKE DETECTORS, AND MOTOR CONTROLLERS. PROVIDE ALL ACCESSORIES INDICATED.
11. THE FIRE ALARM DEVICES SHOWN ON PLAN ARE A PARTIAL REPRESENTATION OF THE FIRE ALARM SYSTEM. PROVIDE THE DESIGN AND INSTALLATION OF A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS, DRAWINGS, AND ALL APPLICABLE CODES. THE FIRE ALARM VENDOR SHALL PROVIDE LAYOUT DRAWINGS INDICATING THE REQUIRED QUANTITIES AND LOCATIONS OF MANUAL PULL STATIONS, NOTIFICATION APPLIANCES, SMOKE AND HEAT DETECTORS, CONTROL MODULES, INTERFACE MODULES, MODULES FOR SPRINKLER FLOW AND TAMPER SWITCHES, ALL CONTROL PANELS, POWER SUPPLIES, AND ADDITIONAL DEVICES AND EQUIPMENT REQUIRED. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL FINISHES AND REFLECTED CEILING PLANS, INCLUDING ADDITIONAL SMOKE AND HEAT DETECTORS REQUIRED FOR NON-SMOOTH CEILING APPLICATIONS. INCLUDE ALLOWANCES FOR ADJUSTMENT OF DEVICES BY THE ARCHITECT AT THE TIME OF SUBMITTAL TO COORDINATE WITH BUILDING FINISHES AND OTHER CEILING ELEMENTS.
12. REFER TO LIGHTING CONTROL SCHEDULE FOR ROOM CONTROL AND EMERGENCY LIGHTING CIRCUIT CONTROL REQUIREMENTS. DESIGNATION FOR ROOM IS INDICATED AS A LETTERED OVAL SYMBOL.
13. CONNECT EXIT SIGNS TO EMERGENCY LIGHTING BRANCH CIRCUIT SERVCE THE AREA. CONNECT AHEAD OF ANY LIGHTING CONTROL DEVICE OR SYSTEM.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
BUREAU OF REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.gfrico.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED	
DRAWN	SMB
CHECKED	EMG
APPROVED	EMG

DATE	ISSUED FOR
12/20/2024	100% CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 350/223357

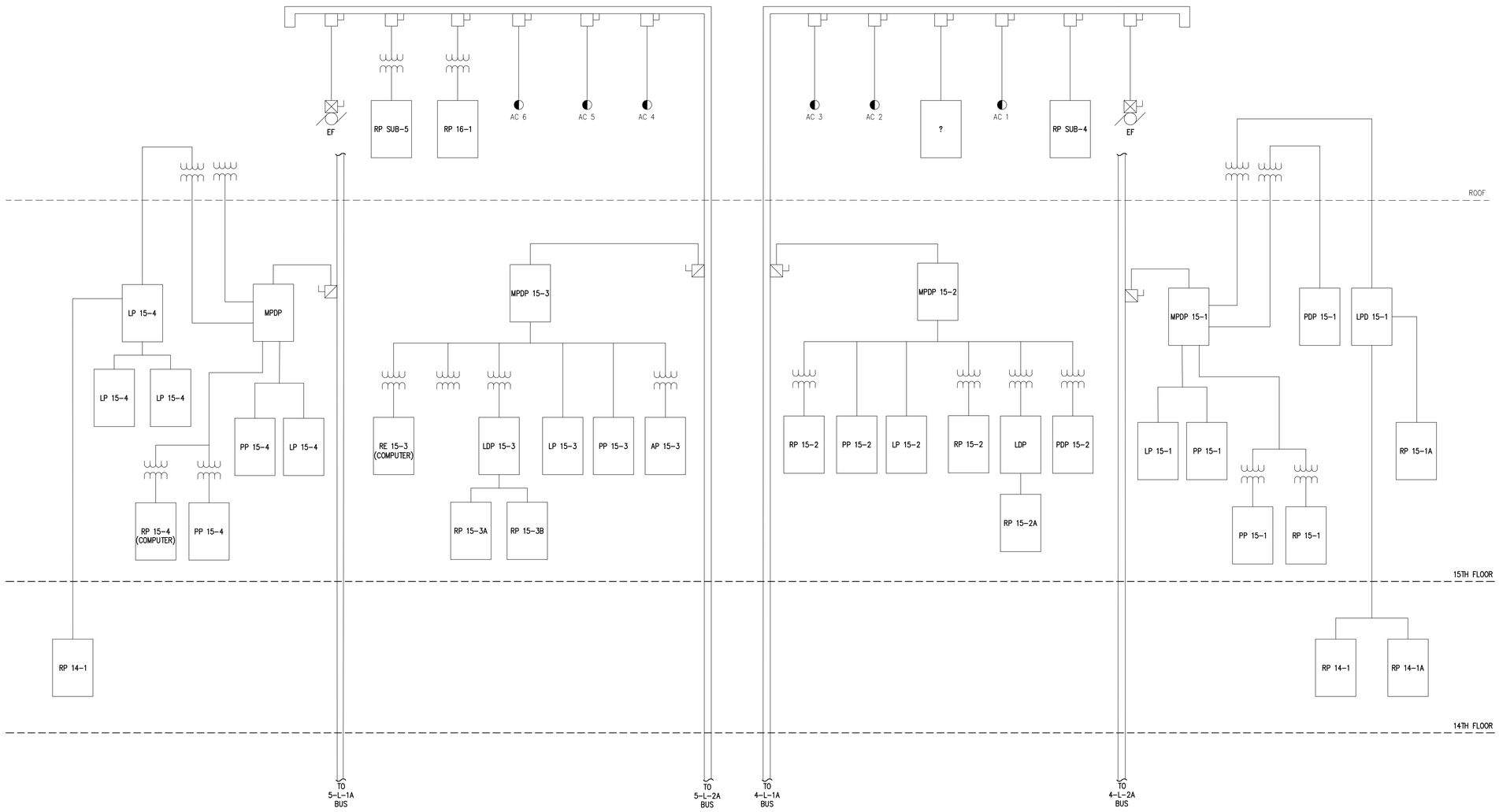
SHEET NUMBER
32 OF 35

DRAWING TITLE
NEW POWER AND AUXILIARY SYSTEMS PLAN

DRAWING NUMBER
E 301

STATE OF MICHIGAN
ERIC MICHAEL GRAETTINGER
ENGINEER
No. 6201052164
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20222093



ONE-LINE DIAGRAM (FOR RFERENCE ONLY)

NO SCALE

DIAGRAM GENERAL NOTES:

1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
2. FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE-GENERAL PURPOSE" ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
3. TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "TRANSFORMER CIRCUIT SIZING SCHEDULE-GENERAL PURPOSE" ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
4. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH THE MOTOR CIRCUIT SIZING SCHEDULES ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
5. BASIS OF DESIGN IS SQUARE D DISTRIBUTION EQUIPMENT AND ASCO TRANSFER SWITCHES. IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT FROM OTHER APPROVED MANUFACTURERS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE LAYOUT AND CLEARANCE REQUIREMENTS IN ALL SPACES CONTAINING ELECTRICAL EQUIPMENT AND PROVIDE EQUIPMENT MEETING THE SPECIFICATIONS AND ACHIEVING CODE REQUIRED CLEARANCES WITHIN THE SPACE PROVIDED.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.gfrico.com

PROJECT: CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED: DRAWN SMB; CHECKED EMG; APPROVED EMG

DATE: 12/20/2024 100% CONSTRUCTION DOCUMENTS; 11/29/2023 LARA REV.

ISSUED FOR

IDENTIFICATION NUMBER: PROJECT: C.P. (3) JUDICIAL SUITES; CONTRACT NUMBER: Y23038; FILE NO. 950/223357

SHEET NUMBER: 32 OF 34

DRAWING TITLE: ONE LINE DIAGRAM

DRAWING NUMBER: E 501

STATE OF MICHIGAN
ERIC MICHAEL GRAETTINGER
ENGINEER
No. 6201052184
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel# 248-879-5666
Fax: 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20222393

EXISTING PANELBOARD RP15-2

#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#
1	R	RCPT E WING	EXIST	20	1080	2160			1080	20	EXIST	RCPT - RMS 1503, 1505, 1507	R	2
3	R	RCPT - JUDGES OFFICE 1501	EXIST	20	1260		2340		1080	20	EXIST	RCPT - RMS 1504, 1506, 1508	R	4
5	R	RCPT E WING	EXIST	20	1080			2340	1260	20	EXIST	RCPT - LAW CLERK 1510/OPEN OFFICE 1512	R	6
7	R	RCPT E WING	EXIST	20	1080	2780			1700	20	EXIST	DWH-15-2	NC	8
9	R	RCPT E WING	EXIST	20	1080		2080		1000	20	EXIST	RCPT - BREAK/COPY/PRINT 1513	R	10
11	R	RCPT D WING LUNCH RM	EXIST	20	1080			2080	1000	20	EXIST	FRIDGE RCPT - BREAK/COPY/PRINT 1513	R	12
13	R	RCPT - CONFERENCE ROOM 1510	EXIST	20	900	1980			1080	20	EXIST	RCPT D WING LUNCH RM	R	14
15	R	RCPT - CONFERENCE ROOM 1511/ O.D. 1512	EXIST	20	1260		2760		1500	20	EXIST	RCPT - BREAK/COPY/PRINT 1513	R	16
17	MH	EF-15-1	EXIST	20	528			1578	1050	20	EXIST	ELECTRICAL ROOM EXHAUST FAN	MH	18
19	R	RCPT SECURITY DESK	EXIST	20	360	1410			1050		EXIST		MH	20
21	R	RCPT SECURITY DESK	EXIST	20	360		2060		1700	20	EXIST	DWH-15-3	NC	22
23	R	RCPT - LAW CLERK 1509/OPEN OFFICE 1512	EXIST	20	1080			2160	1080	20	EXIST	RCPT BREAK RM E WING	R	24
25	R	RCPT - JUDGES OFFICE 1514/1515	EXIST	20	1080	1980			900	20	EXIST	RCPT - LAW CLERK 1516/1517	R	26
27	R	RCPT - JUDICIAL SECY 1517	EXIST	20	1260		2520		1260	20	EXIST	RCPT - JUDGES OFFICE 1502	R	28
29	NC	DWH-15-1	EXIST	20	1700			2700	1000	20	EXIST	PRINTER	R	30
						10310	11760	10858						
						ØA	ØB	ØC						

PANELBOARD INFORMATION
VOLTAGE: 208Y/120
BUS AMPACITY: 100A
MAIN TYPE: 100A MCB
MINIMUM A.I.C.: 10,000
MOUNTING: SURFACE

☐ FEED-THROUGH LUGS
☐ DOUBLE LUGS
☐ INTEGRAL SPD

PANELBOARD LOCATION

BRANCH CIRCUIT CONNECTED LOAD		DEMAND FACTOR	CALCULATED LOAD	FEEDER AND OVERCURRENT SIZING	
CONTINUOUS LOAD (C)		100%		125%	
ELECTRIC HEAT (E)		100%		100%	
NON-CONTINUOUS LOAD(NC)	5100	100%	5100	100%	5100
KITCHEN LOAD (K)		100%		100%	
RECEPTACLE BASE LOAD (R)	10000	100%	10000	100%	10000
RECEPTACLE DEMAND LOAD (R)	15200	50%	7600	100%	7600
LIGHTING LOAD (L)		100%		125%	
ADDITIONAL TRACK LIGHTING LOAD				100%	
MOTORS, HIGHEST LOAD (MH)	2628	125%	3285	100%	3285
MOTORS, REMAINING LOAD (M)		100%		100%	
		TOTAL(KVA):	25.99		
		TOTAL (AMPS):	72	TOTAL (AMPS):	72

NOTE: DEMAND AND SIZING INFORMATION IS CALCULATED FROM CONNECTED LOAD

NOTES:

EXISTING PANELBOARD LP15-2

#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#
1	L	LIGHTS E WING	EXIST	20	3000	6000			3000	20	EXIST	LIGHTS D WING	L	2
3	L	LIGHTS E WING	EXIST	20	3000		6000		3000	20	EXIST	LIGHTS D WING	L	4
5	L	LIGHTS E WING	EXIST	20	3000			6000	3000	20	EXIST	LIGHTS D WING	L	6
7	L	LIGHTS E WING	EXIST	20	3000	3492			492	20	EXIST	LTG - RMS 1514-1518	L	8
9	L	LIGHTS E WING	EXIST	20	3000		4473		1473	20	EXIST	LTG - RMS 1501-1513	L	10
11		SPARE	EXIST	20						20	EXIST	SPARE		12
13		SPARE	EXIST	20						20	EXIST	SPARE		14
15		SPARE	EXIST	20						20	EXIST	SPARE		16
17		SPARE	EXIST	20						20	EXIST	SPARE		18
19		SPARE	EXIST	20						20	EXIST	SPARE		20
21		SPARE	EXIST	20						20	EXIST	SPARE		22
23		SPARE	EXIST	20						20	EXIST	SPARE		24
25		SPARE	EXIST	20						20	EXIST	SPARE		26
27		SPARE	EXIST	20						20	EXIST	SPARE		28
29		SPARE	EXIST	20				500	500	20	EXIST	ELECT RM LIGHTS	L	30
31		SPARE										SPARE		32
33		SPARE										SPARE		34
35		SPACE										SPARE		36
						9492	10473	6500						
						ØA	ØB	ØC						

PANELBOARD INFORMATION
VOLTAGE: 480Y/277
BUS AMPACITY: 225A
MAIN TYPE: MLO
MINIMUM A.I.C.: 35,000
MOUNTING: SURFACE

☐ FEED-THROUGH LUGS
☐ DOUBLE LUGS
☐ INTEGRAL SPD

PANELBOARD LOCATION

BRANCH CIRCUIT CONNECTED LOAD		DEMAND FACTOR	CALCULATED LOAD	FEEDER AND OVERCURRENT SIZING	
CONTINUOUS LOAD (C)		100%		125%	
ELECTRIC HEAT (E)		100%		100%	
NON-CONTINUOUS LOAD (NC)		100%		100%	
KITCHEN LOAD (K)		100%		100%	
RECEPTACLE BASE LOAD (R)		100%		100%	
RECEPTACLE DEMAND LOAD (R)		50%		100%	
LIGHTING LOAD (L)	26465	100%	26465	125%	33082
ADDITIONAL TRACK LIGHTING LOAD		100%		100%	
MOTORS, HIGHEST LOAD (MH)		125%		100%	
MOTORS, REMAINING LOAD (M)		100%		100%	
		TOTAL(KVA):	26.47		
		TOTAL (AMPS):	32	TOTAL (AMPS):	40

NOTE: DEMAND AND SIZING INFORMATION IS CALCULATED FROM CONNECTED LOAD

NOTES:
200A MAIN LUG AT MDP15-2

EXISTING PANELBOARD PP15-2

#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#
1		SPARE	EXIST	20		5800			5800		EXIST		M	2
3		SPARE	EXIST	20			5800		5800	30	EXIST	FAN POWER C WING	M	4
5		SPARE	EXIST	20				5800	5800		EXIST		M	6
7			EXIST			5800			5800		EXIST		M	8
9		SPARE	EXIST	50			5800		5800	30	EXIST	FAN POWER C WING	M	10
11			EXIST					5800	5800		EXIST		M	12
13	E		EXIST		1000	20300			19300		EXIST		MH	14
15	E	TU-15-1	EXIST	15	1000		20300		19300	100	EXIST	EF-37	MH	16
17	E		EXIST		1000			20300	19300		EXIST		MH	18
19	E		NEW		1000	2000			1000		NEW		E	20
21	E	TU-15-2	NEW	15	1000		2000		1000	15	NEW	TU-15-9	E	22
23	E		NEW		1000			2000	1000		NEW		E	24
25	E		NEW		1333	2333			1000		NEW		E	26
27	E	TU-15-3	NEW	15	1333		2333		1000	15	NEW	TU-15-11	E	28
29	E		NEW		1333			2333	1000		NEW		E	30
31	E		NEW		1000	3000			2000	15	NEW	TU-15-5	E	32
33	E	TU-15-4	NEW	15	1000		3000		2000	15	NEW	TU-15-7	E	34
35	E		NEW		1000			2000	1000	15	NEW	TU-15-10	E	36
37	E		NEW		1000	1000				20		SPARE		38
39	E	TU-15-6	NEW	15	1000		1000			20		SPARE		40
41	E		NEW		1000			1000		20		SPARE		42
43	E		NEW		1000	1000						SPACE		44
45	E	TU-15-8	NEW	15	1000		1000					SPACE		46
47	E		NEW		1000			1000				SPACE		48
						157033	137733	136733						
						ØA	ØB	ØC						

PANELBOARD INFORMATION
VOLTAGE: 480Y/277
BUS AMPACITY: 225A
MAIN TYPE: MLO
MINIMUM A.I.C.: 35,000
MOUNTING: SURFACE

☐ FEED-THROUGH LUGS
☐ DOUBLE LUGS
☐ INTEGRAL SPD

PANELBOARD LOCATION

BRANCH CIRCUIT CONNECTED LOAD		DEMAND FACTOR	CALCULATED LOAD	FEEDER AND OVERCURRENT SIZING	
CONTINUOUS LOAD (C)		100%		125%	
ELECTRIC HEAT (E)	29999	100%	29999	100%	29999
NON-CONTINUOUS LOAD (NC)		100%		100%	
KITCHEN LOAD (K)		100%		100%	
RECEPTACLE BASE LOAD (R)		100%		100%	
RECEPTACLE DEMAND LOAD (R)		50%		100%	
LIGHTING LOAD (L)		100%		125%	
ADDITIONAL TRACK LIGHTING LOAD				100%	
MOTORS, HIGHEST LOAD (MH)	57900	125%	72375	100%	72375
MOTORS, REMAINING LOAD (M)	34800	100%	34800	100%	34800
		TOTAL(KVA):	137.17		
		TOTAL (AMPS):	165	TOTAL (AMPS):	165

NOTE: DEMAND AND SIZING INFORMATION IS CALCULATED FROM CONNECTED LOAD

NOTES:
200A MAIN LUG AT MDP15-2

EXISTING PANELBOARD ELP15-5

#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#
1	C		EXIST		6640	6761			121	20	EXIST	LTG - RMS 1514-1515,1517-1518	L	2
3	C	ELP15-5	EXIST	60	2500		2875		375	20	EXIST	LTG - RMS 1505-1506, 1511-1513	L	4
5	C		EXIST		4700			4700		20	EXIST	SPARE		6
7	L	SUB-5 EM LTG WEST	EXIST	20	2000	2000				20	EXIST	SPARE		8
9	L	SUB-4 EM LTG EAST	EXIST	20	2000		2000			20	EXIST	SPARE		10
11		SPARE	EXIST	20						20	EXIST	SPARE		12
13		SPARE	EXIST	20						20	EXIST	SPARE		14
15		SPARE	EXIST	20						20	EXIST	SPARE		16
17		SPARE	EXIST	20						20	EXIST	SPARE		18
19		SPARE	EXIST	20						20	EXIST	SPARE		20
21		SPARE	EXIST	20			2000		2000	20	EXIST	15WEST EM LTG	L	22
23		SPARE	EXIST	20				2000	2000	20	EXIST	15EAST EM LTG	L	24
25		SPARE	EXIST	20		2000			2000	20	EXIST	14WEST EM LTG	L	26
27		SPARE	EXIST	20			2000		2000	20	EXIST	14EAST EM LTG	L	28
29		SPARE	EXIST	20						20	EXIST	SPARE		30
31		SPACE										SPACE		32
						10761	8875	6700						
						ØA	ØB	ØC						

PANELBOARD INFORMATION
VOLTAGE: 480Y/277
BUS AMPACITY: 100A
MAIN TYPE: MLO
MINIMUM A.I.C.: 22,000
MOUNTING: SURFACE

☐ FEED-THROUGH LUGS
☐ DOUBLE LUGS
☐ INTEGRAL SPD

PANELBOARD LOCATION

BRANCH CIRCUIT CONNECTED LOAD		DEMAND FACTOR	CALCULATED LOAD	FEEDER AND OVERCURRENT SIZING	
CONTINUOUS LOAD (C)	13840	100%	13840	125%	17300
ELECTRIC HEAT (E)		100%		100%	
NON-CONTINUOUS LOAD (NC)		100%		100%	
KITCHEN LOAD (K)		100%		100%	
RECEPTACLE BASE LOAD (R)		100%		100%	
RECEPTACLE DEMAND LOAD (R)		50%		100%	
LIGHTING LOAD (L)	12496	100%	12496	125%	15619
ADDITIONAL TRACK LIGHTING LOAD				100%	
MOTORS, HIGHEST LOAD (MH)		125%		100%	
MOTORS, REMAINING LOAD (M)		100%		100%	
		TOTAL(KVA):	26.34		
		TOTAL (AMPS):	32	TOTAL (AMPS):	40

NOTE: DEMAND AND SIZING INFORMATION IS CALCULATED FROM CONNECTED LOAD

NOTES:
100A DISCONNECT SWITCH
FEEDING PANEL ELP 15-5

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT, LEASING AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7866/www.grhca.com

PROJECT
CADILLAC PLACE 15TH FLOOR – BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN SMB
CHECKED EMC
APPROVED EMC

DATE
12/20/2024
11/29/2023 LARA REV.

ISSUED FOR
100% CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/223357

SHEET NUMBER
33 OF 34

DRAWING TITLE
PANEL SCHEDULES

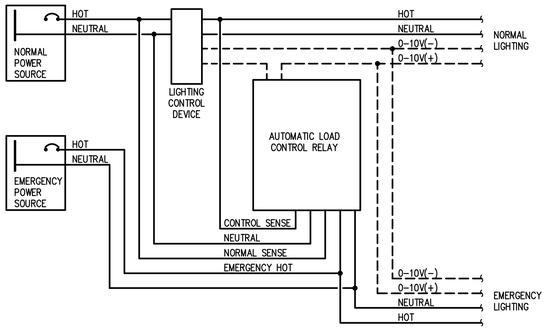
DRAWING NUMBER
E 502

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20222093

INTERIOR LIGHTING CONTROL SCHEDULE

PLAN REFERENCE	ROOM TYPE	LOCAL CONTROL		CONTROL ON / OFF	SENSOR TYPE	TURN ON LIGHTING TO %	BI-LEVEL CONTROL	NO DETECTION FULL OFF (MIN)	EMERGENCY LIGHTING CIRCUIT CONTROL	NOTES
		SWITCH TYPE	SWITCH CONTROL							
A	CONFERENCE/MEETING/MULTIPURPOSE ROOM	LOW VOLTAGE	ON-OFF-DIM	MANUAL ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	CONTINUOUS DIM	20	ALCR	
B	CORRIDOR (ALL OTHER CORRIDORS)	LOW VOLTAGE	ON-OFF	SENSOR ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	N/A	20	ALCR	
C	OFFICE (ENCLOSED AND ≤ 250 SQFT)	LOW VOLTAGE	ON-OFF-DIM	MANUAL ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	CONTINUOUS DIM	20	ALCR	
D	OFFICE (ENCLOSED AND >250 SQFT)	LOW VOLTAGE	ON-OFF-DIM	MANUAL ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	CONTINUOUS DIM	20	ALCR	
E	LOUNGE/BREAKROOM (ALL OTHER LOUNGES/BREAKROOMS)	LOW VOLTAGE	ON-OFF-DIM	MANUAL ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	CONTINUOUS DIM	20	N/A	
F	RESTROOM (ALL OTHER RESTROOMS)	LOW VOLTAGE	ON-OFF	SENSOR ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	N/A	20	ALCR	
G	STORAGE ROOM (≥ 50 FT2 AND ≤ 1000 SQFT)	LOW VOLTAGE	ON-OFF	SENSOR ON / SENSOR OFF	DUAL TECHNOLOGY	PARTIAL 50%	N/A	20	N/A	
H	LOBBY (ALL OTHER LOBBIES)	LOW VOLTAGE	ON-OFF-DIM	MANUAL ON / SENSOR OFF	DUAL TECHNOLOGY	FULL 100%	CONTINUOUS DIM	20	ALCR	

NOTE:
1. REFER TO PLANS FOR LOCATION OF LOCAL CONTROL.
2. REFER TO PLANS FOR SCENE CONTROL.
3. REFER TO PLANS FOR PRIMARY AND SECONDARY DAYLIGHT ZONES.
4. PROVIDE EMERGENCY LIGHTING CIRCUIT CONTROL (BCELTS OR ALCR) PER SWITCHING CIRCUIT AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE FLOOR PLAN INDICATING SENSOR AND EQUIPMENT LOCATIONS OF CHOSEN CONTROL SYSTEM.
6. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE CHARACTERISTICS.
7. LIGHTING SENSOR SHALL HAVE CONTACT FOR H/AC CONTROL WHEN A "YES" SELECTION IS MADE IN THE HVAC CONTROL COLUMN.
8. REFER TO TEMPERATURE CONTROL DRAWINGS AND DIAGRAMS FOR ADDITIONAL SENSOR REQUIREMENTS.
9. PROVIDE WIRING CONTROL DIAGRAM FOR APPLICABLE CONTROL SYSTEM(S).

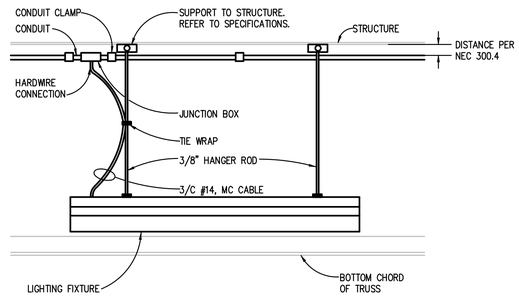


AUTOMATIC LOAD CONTROL RELAY FOR 0-10V DIMMING

NO SCALE

NOTES:

1. BASIS OF DESIGN IS LVS CONTROLS EPC-2-D. REFER TO SPECIFICATIONS FOR APPROVED MANUFACTURERS. ADJUST WIRING AS NECESSARY FOR OTHER APPROVED MANUFACTURERS.
2. PROVIDE ONE AUTOMATIC LOAD CONTROL RELAY FOR EACH CONTROL CIRCUIT.



DETAIL OF PENDANT MOUNTED LINEAR LIGHTING FIXTURE

NO SCALE

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

FORBES
816 E 4th ST.
Royal Oak, MI 48067
248.542.7886/www.gfnoa.com

PROJECT
CADILLAC PLACE 15TH FLOOR - BUILD (3) JUDICIAL SUITES

DESIGNED
DRAWN SMB
CHECKED EMG
APPROVED EMG

DATE
12/20/2024

ISSUED FOR
100% CONSTRUCTION DOCUMENTS

IDENTIFICATION NUMBER
PROJECT: C.P. (3) JUDICIAL SUITES
CONTRACT NUMBER: Y23038
FILE NO. 950/223S7

SHEET NUMBER
35 OF 35

DRAWING TITLE
ELECTRICAL DETAILS AND DIAGRAMS

DRAWING NUMBER
E 701

STATE OF MICHIGAN
ERIC MICHAEL GRAETTINGER
ENGINEER
No. 6201052164
LICENSED PROFESSIONAL ENGINEER

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel 248-879-5666
Fax 248-879-0007
www.PeterBassoAssociates.com
PBA Project No. 20222899